

DRAFT

DOWNEY VISION 2025

COMPREHENSIVE

GENERAL PLAN

UPDATE

ENVIRONMENTAL

IMPACT REPORT

SCH #2004031159



prepared for:

CITY OF DOWNEY

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**THE PLANNING
CENTER**

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Sr. Project Manager

JULY 28, 2004

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[1] the Technical Appendices to the Traffic Study has been bound separately because of its size and is available by calling Bob Rusby at The Planning Center at (714) 966-9220.

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1. Executive Summary

1.1 INTRODUCTION

This Draft Environmental Impact Report (DEIR) addresses the environmental effects associated with the implementation of the proposed City of Downey Vision 2025 Comprehensive General Plan Update. The California Environmental Quality Act (CEQA) requires that local government agencies, prior to taking action on projects over which they have discretionary approval authority, consider the environmental consequences of such projects. An Environmental Impact Report (EIR) is a public document designed to provide the public and local and State governmental agency decision-makers with an analysis of potential environmental consequences to support informed decision-making. This document focuses on those impacts determined to be potentially significant as discussed in the Initial Study completed for this project (see Appendix A).

This DEIR has been prepared as a Program EIR. A Program EIR addresses the scope of a series of actions and approvals that may be considered as one large project, and are related either geographically or as logical parts in the chain of contemplated actions. This Program EIR will be used to evaluate development of the City of Downey in accordance with the proposed General Plan Update. Use of a Program EIR provides the City (as Lead Agency) with the opportunity to consider broad policy alternatives and program-wide mitigation measures and provides the City with greater flexibility to address project-specific and cumulative environmental issues on a comprehensive basis.

This DEIR has been prepared pursuant to the requirements of CEQA, and the City of Downey's CEQA procedures. The City of Downey Planning Department, as the Lead Agency, has reviewed and revised as necessary all submitted drafts, technical studies, and reports to reflect its own independent judgment, including reliance on applicable City technical personnel from other departments and review of all technical subconsultant reports.

Data for this DEIR was obtained from on-site field observations, discussions with affected agencies, analysis of adopted plans and policies, review of available studies, reports, data and similar literature, and specialized environmental assessments (air quality, hazards, hydrology and water quality, noise, and traffic).

1.2 ENVIRONMENTAL PROCEDURES

This DEIR has been prepared pursuant to CEQA to assess the environmental effects associated with implementation of the proposed General Plan Update, as well as anticipated future discretionary actions and approvals. The six main objectives of this document as established by CEQA are listed below:

1. To disclose to decision-makers and the public the significant environmental effects of proposed activities.
2. To identify ways to avoid or reduce environmental damage.
3. To prevent environmental damage by requiring implementation of feasible alternatives or mitigation measures.
4. To disclose to the public reasons for agency approval of projects with significant environmental effects.
5. To foster interagency coordination in the review of projects.
6. To enhance public participation in the planning process.



1. Executive Summary

An EIR is the most comprehensive form of environmental documentation identified in CEQA and the CEQA Guidelines and provides the information needed to assess the environmental consequences of a proposed project, to the extent feasible. EIRs are intended to provide an objective, factually supported, full-disclosure analysis of the environmental consequences associated with a proposed project that has the potential to result in significant, adverse environmental impacts.

An EIR is also one of various decision-making tools used by a lead agency to consider the merits and disadvantages of a project that is subject to its discretionary authority. Prior to approving a proposed project, the lead agency must consider the information contained in the EIR, determine whether the EIR was properly prepared in accordance with CEQA and the CEQA Guidelines, determine that it reflects the independent judgment of the lead agency, adopt findings concerning the project's significant environmental impacts and alternatives, and must adopt a Statement of Overriding Considerations if the proposed project would result in significant impacts that cannot be avoided.

1.2.1 EIR Format

This Draft EIR (DEIR) has been formatted as described below.

Section 1. Executive Summary – This section summarizes the background and description of the proposed General Plan update and related actions, the format of the DEIR, project alternatives, and a summary of the potential environmental impacts and mitigation measures identified for the project.

Section 2. Introduction – This section describes the purpose of the DEIR; background on the project; the Notice of Preparation/Initial Study; a summary of impacts considered less than significant, potentially significant adverse impacts and unavoidable significant adverse impacts; the use of incorporation by reference; Final EIR certification; any critical issues remaining to be resolved; and a discussion of the project mitigation monitoring program.

Section 3. Project Description – This section provides a detailed description of the project; the objectives of the proposed General Plan Update; project characteristics including a description of the various chapters in the City's General Plan; intended use of the Draft EIR; and assumptions regarding cumulative impacts.

Section 4. Environmental Setting – The purpose of this section is to provide a description of the physical environmental conditions in the vicinity of the project, as they existed at the time the Notice of Preparation was published, from both a local and regional perspective. The environmental setting provides a set of baseline physical conditions from which the lead agency determines the significance of environmental impacts resulting from the proposed project.

Section 5. Environmental Impact Analysis – This section provides a description of the methodology used to identify and evaluate the potential impacts of the project; the existing environmental conditions; thresholds used to determine if a significant impact would occur; the potential adverse and beneficial effects of the project for each parameter analyzed and mitigation measures to offset these effects; and the cumulative impacts that will be created for each parameter analyzed.

Section 6. Alternatives to the Proposed Project – This section provides a description of the alternatives considered for the proposed General Plan Update project; alternatives considered and rejected during scoping and the planning process; the No Project/Existing General Plan Alternative, Less Intense Alternative and Mixed Use Alternative.

Section 7. Long-Term Implications – This section provides a discussion on the growth-inducing impacts of the General Plan Update; summary of cumulative impacts; significant, irreversible environmental changes; and significant, unavoidable adverse impacts of the proposed project.

1. Executive Summary

Section 8. Organizations and Persons Contacted – This section lists the organizations and people that were contacted during the preparation of the DEIR for the proposed project.

Section 9. List of EIR Preparers – This section lists the people who prepared the DEIR for the proposed project.

Section 10. References – This section lists the technical reports and other documentation used in the preparation of the DEIR for the proposed General Plan Update.

Appendices – The appendices in this document contain supporting documents and other material too detailed and voluminous to be included in the body of the DEIR. The following appendices are found at the end of this DEIR:

- Appendix A: List of Sample Goals, Plans and Programs From the Downey General Plan
- Appendix B: Traffic Study [1]

[1] the Technical Appendices to the Traffic Study has been bound separately because of its size and is available by calling Bob Rusby at The Planning Center at (714) 966-9220.

- Appendix C: Notice of Preparation and Initial Study
- Appendix D: Comments on Notice of Preparation, Initial Study
- Appendix E: Air Quality Data
- Appendix F: Hazards Data
- Appendix G: Hydrology and Water Quality Data
- Appendix H: Noise Data



1.2.2 Type and Purpose of this DEIR

This DEIR has been prepared in accordance with the California Environmental Quality Act (CEQA), the State CEQA Guidelines, and the City's Rules for the Implementation of CEQA. In accordance with Section 15121 (a) of the State CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3), the purpose of an EIR is to:

Inform public agency decision-makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.

This DEIR fulfills the requirements for a Program EIR. Although the legally required contents of a Program EIR are the same as those of a Project EIR, Program EIRs are typically more conceptual and may contain a more general discussion of impacts, alternatives, and mitigation measures than a Project EIR. As provided in Section 15168 of the State CEQA Guidelines, a Program EIR may be prepared on a series of actions that may be characterized as one large project. Use of a Program EIR provides the City (as Lead Agency) with the opportunity to consider broad policy alternatives and program-wide mitigation measures and provides the City with greater flexibility to address project-specific and cumulative environmental impacts on a comprehensive basis.

Agencies generally prepare Program EIRs for programs or a series of related actions that are linked geographically, are logical parts of a chain of contemplated events, rules, regulations, or plans that govern the conduct of a continuing program, or are individual activities carried out under the same authority and having generally similar environmental effects that can be mitigated in similar ways.

1. *Executive Summary*

Once a Program EIR has been prepared, subsequent activities within the program must be evaluated to determine whether an additional CEQA document needs to be prepared. However, if the Program EIR addresses the program's effects as specifically and comprehensively as possible, many subsequent activities could be found to be within the Program EIR scope and additional environmental documents may not be required (Guidelines Section 15168(c)). When a Program EIR is relied on for a subsequent activity, the Lead Agency must incorporate feasible mitigation measures and alternatives developed in the Program EIR into the subsequent activities (Guidelines Section 15168(c)(3)). If a subsequent activity would have effects not within the scope of the Program EIR, the Lead Agency must prepare a new Initial Study leading to a Negative Declaration, Mitigated Negative Declaration, or an EIR. In this case, the Program EIR still serves a valuable purpose as the first-tier environmental analysis. The CEQA Guidelines (Section 15168(h)) encourage the use of Program EIR's, citing five advantages:

- Provide a more exhaustive consideration of impacts and alternatives than would be practical in an individual EIR;
- Focus on cumulative impacts that might be slighted in a case-by-case analysis;
- Avoid continual reconsideration of recurring policy issues;
- Consider broad policy alternatives and programmatic mitigation measures at an early stage when the agency has greater flexibility to deal with them; and,
- Reduce paperwork by encouraging the reuse of data (through tiering).

In practice, this Program EIR would be utilized for subsequent activities implementing the goals and policies of the General Plan Update, provided the activities fall within the scope of this DEIR.

1.3 PROJECT LOCATION

Located in the southeastern part of Los Angeles County, the City of Downey lies approximately 12 miles southeast of downtown Los Angeles. The City is surrounded by the Cities of Pico Rivera to the north, Paramount and Bellflower to the south, Santa Fe Springs and Norwalk to the east, and Bell Gardens and South Gate to the west. The City encompasses over 8,192 acres of land. Regional access to and from Downey is provided by the Santa Ana (I-5) Freeway; Glen Anderson Freeway (I-105) Freeway; the San Gabriel River Freeway (I-605) Freeways; and the Long Beach Freeway (I-710); and MTA Green Line Light Rail passenger train services at the Lakewood Boulevard station.

1.4 PROJECT SUMMARY

The proposed project consists of a comprehensive update to the City's General Plan. The proposed General Plan Update reflect the City's vision for its development through buildout. The General Plan is divided into various topical Chapters, that address a wide range of subjects and provide goals and policies that will guide future development in the City. Programs to help implement the goals and policies of each chapter are also provided. The General Plan Update includes:

- Revisions to the existing Land Use, Circulation, Conservation; Noise, Open Space and Recreation; Design Chapter, and Economic Development Chapters; and
- Incorporation of the Hazardous Materials Chapter into a new Safety and Hazardous Materials Chapter.

In addition to the topics addressed in the existing General Plan Chapters, new goals, policies and programs are being developed for all of the General Plan Chapters being updated.

The proposed update of the General Plan also includes changes to the land use designations for 16 areas throughout the City. The proposed land use changes for these 16 areas are described below:

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List of Proposed Changes to the General Plan Land Use Diagram

| No. | Location | Existing Designation | Proposed Designation |
|------------|-------------------------|---|-----------------------------|
| 1 | Telegraph-Tweedy | Office | Medium Density Residential |
| 2 | Telegraph-Paramount | Medium Density Residential | Neighborhood Commercial |
| 3 | Telegraph-Stamps | Office | Neighborhood Commercial |
| 4 | Telegraph-Lakewood | Neighborhood Commercial | General Commercial |
| 5 | Unsworth School | Low Density Residential | School |
| 6 | Burns-Rives | Medium Density Residential | Low Density Residential |
| 7 | Downey-Florence | Office | Low Density Residential |
| 8 | Firestone-Woodruff | Neighborhood Commercial | General Commercial |
| 9 | Firestone-Newville | General Commercial | Medium Density Residential |
| 10 | Paramount-Conrad | Office | Neighborhood Commercial |
| 11 | Lakewood-Stewart & Gray | Office | General Commercial |
| 12 | Green Line T-O-D | Low Density Residential & Medium Density Residential & General Commercial | Mixed Use |
| 13 | Rosecrans-Deming | Neighborhood Commercial | General Commercial |
| 14 | Imperial-Clark | Mixed Use | Commercial Manufacturing |
| 15 | Imperial-Bellflower | Neighborhood Commercial | Commercial Manufacturing |
| 16 | Columbus High School | General Commercial | School |

It should be noted that many of the proposed changes in General Plan land use designations are being made to correct inconsistencies with the current land uses present on these sites.



1.5 SUMMARY OF PROJECT ALTERNATIVES

CEQA states that an Environmental Impact Report (EIR) must address “a range of reasonable alternatives to the project, or to the location of the project, which could feasibly attain the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives.” (14 Cal. Code of Reg. 15126.6(a).) As described in Section 6.0 of this DEIR, three project alternatives were identified during the scoping process and analyzed for relative impacts as compared to the proposed project:

- No-Project/Existing General Plan Alternative
- Reduced Intensity Alternative
- Mixed Use Alternative

1.5.1 No-Project/Existing General Plan Alternative

Section 15126.6(e) of the CEQA Guidelines requires that an EIR evaluate and analyze the impacts of the “No-Project” Alternative. When the project is the revision of an existing land use or regulatory plan, policy, or ongoing operation, the no-project alternative will be the continuation of the plan, policy, or operation into the future. Therefore, the No Project/Existing General Plan Alternative, as required by the CEQA Guidelines, analyzes the effects of continued implementation of the City’s existing General Plan. This alternative assumes the existing General Plan remains as the adopted long-range planning policy document for the City. Development would continue to occur within the City in accordance with the existing General Plan and specific plans. Buildout pursuant to the existing General Plan would allow current development patterns to remain. Continuation of the current General Plan would not result changes to the General Plan designations for the 16 areas identified as part of the General Plan Update. The No-Project/Existing General Plan Update Alternative would provide 2,905 fewer dwelling units,

1. *Executive Summary*

reduce population by 13,848 persons, and provide 4,900 fewer jobs within the City at buildout, as compared to the proposed General Plan Update.

1.5.2 *Reduced Intensity Alternative*

The Reduced Intensity Alternative would reduce the remaining growth potential associated with the proposed General Plan Update by 20%. The 20% reduction was based on the total remaining buildout potential of the proposed General Plan Update as compared to existing land uses and applied on a City-wide basis. This Alternative would reduce total dwelling units at buildout by 580 units, decrease population at buildout by 2,768 persons, and provide 980 fewer jobs at buildout, as compared to the proposed General Plan Update. Land use designations would remain the same, although allowable intensities would be reduced.

1.5.3 *Mixed Use Alternative*

This alternative proposes that two additional mixed use area be included in the City's General Plan. One of these areas is located on the west side of Lakewood Boulevard across the street from the Downey Landing site. This area is currently designated for office use in the City's General Plan. The other site is a triangular piece of land bounded by Clark Avenue on the east Imperial Highway on the south and Lakewood Boulevard on the west. This site is currently designated for General Commercial use in the General Plan. This alternative would allow for the development of a combination of commercial and residential uses in these mixed use areas. It is assumed at this time that up to 295,470 square feet of neighborhood commercial use and a maximum of 652 homes would be developed in these areas.

1.6 *SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION*

Table 1.2-1 (beginning on the following page) summarizes the conclusions of the environmental analysis contained in this DEIR. Impacts are identified as significant or less than significant and for all significant impacts mitigation measures are identified. The level of significance after imposition of the mitigation measures is also presented.

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**Table 1.2-1
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

| <i>Threshold Applied</i> | <i>Environmental Impact/ Level of Significance Before Mitigation</i> | <i>Project Design Features/Mitigation Measures</i> | <i>Level of Significance After Mitigation</i> |
|--|---|---|---|
| <p>5.1 AIR QUALITY</p> <p>Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?</p> | <p>Construction of individual projects under 10 acres in size that may be developed as a result of land use changes would not violate air quality standards. However, since the size and nature of development is unknown impact analysis would need to be determined on a case-by-case basis. Therefore the overall impact is considered to be significant. Operational impacts largely related to increases in traffic would not exceed air quality standards and the impact less-than-significant. Potentially significant.</p> | <p>Existing Regulations and Standard Conditions:</p> <ul style="list-style-type: none"> • Future development projects shall include suppression measures for fugitive dust and those associated with construction equipment in accordance with SCAQMD Rule 403 and other AQMD requirements. Prior to issuance of each grading or demolition permit, the project property owner/developer shall obtain the appropriate permits from the SCAQMD and submit them to the City. • Future development projects shall adhere to the requirements of SCAQMD Rule 1403 (Asbestos Emissions for Demolition/Renovation Activities) for projects where demolition is anticipated. <p>Mitigation Measures:</p> <p>MM 5.1-1 Water all active construction areas at least twice daily.</p> <p>MM5.1-2 Cover all haul trucks or maintain at least two feet of freeboard.</p> <p>MM 5.1-2 Pave or apply water four times daily to all unpaved parking or staging areas.</p> <p>Mm 5.1-3 Sweep or wash any site access points within 30 minutes of any visible dirt deposition on any public roadway.</p> <p>MM 5.1-4 Cover or water twice daily any on-site stockpiles of debris, dirt or other dusty material.</p> <p>MM 5.1-5 Suspend all operations on any unpaved surface if winds exceed 25 mph.</p> <p>MM 5.1-6 Hydroseed or otherwise stabilize any cleared area which is to remain inactive for more than 96 hours after clearing is completed.</p> <p>MM 5.1-7 Require 90-day low-NO_x tune-ups for off-road equipment.</p> <p>MM 5.1-8 Limit allowable idling to 10 minutes for trucks and heavy equipment.</p> <p>MM 5.1-9 Limit individual construction sites to less than 10acres for extended, continuous construction.</p> <p>MM 5.1-10 Encourage car pooling for construction workers.</p> <p>MM 5.1-11 Limit lanes closures to off-peak travel periods.</p> | <p>Potentially Significant</p> |

1. Executive Summary

**Table 1.2-1
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

| Threshold Applied | Environmental Impact/ Level of Significance Before Mitigation | Project Design Features/Mitigation Measures | Level of Significance After Mitigation |
|--|--|---|---|
| | | MM 5.1-12 Wet down or cover dirt hauled off-site. MM 5.1-13 Encourage receipt of materials during non-peak traffic hours. Although the mitigation measures listed above will reduce air quality impacts to the extent feasible, associated air quality impacts due to construction would remain a Significant Unavoidable Adverse Impact. | |
| Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | Air impacts by nature are cumulative and analysis of long term operational impacts related to mobile source (vehicle) emissions, which contribute the most to ozone precursors indicated that there would be a less than significant impact. Less Than Significant | No mitigation measures are required. | No significant impacts were identified and no mitigation measures are required. |
| Would the project expose sensitive receptors to substantial pollutant concentrations? | CO is the air pollutant likely to have the greatest impact to sensitive receptors over the long term. Analysis indicated that the level of service at local intersections would not contribute to significant concentrations of CO and therefore would have a less than significant impact on sensitive receptors. Less Than Significant | No mitigation measures are required. | No significant impacts were identified and no mitigation measures are required. |
| Would the project conflict with or obstruct implementation of the applicable air quality plan? | The General Plan Update would continue to be consistent with the jobs/housing goals of the SCAG Regional Growth plan and would not generate traffic in excess of projected growth for the region. Therefore the impact would be Less than significant. | No mitigation measures are required. | No significant impacts were identified and no mitigation measures are required. |

5.2 GEOLOGY AND SOILS

| | | | |
|--|--|---|------------------------|
| Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including | The potential for liquefaction, is considered high because the entire City is located in a liquefaction zone according to the Department of Conservation Seismic Hazards Maps. | Existing Regulations and Standard Conditions: Compliance with the Uniform Building Code (UBC) and applicable policies of the Safety Element of the General Plan would ensure that impacts would be less than significant. | Less than significant. |
|--|--|---|------------------------|

1. Executive Summary

**Table 1.2-1
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

| <i>Threshold Applied</i> | <i>Environmental Impact/ Level of Significance Before Mitigation</i> | <i>Project Design Features/Mitigation Measures</i> | <i>Level of Significance After Mitigation</i> |
|--|--|--|---|
| liquefaction. | Potentially Significant. | | |
| 5.3 HAZARDS AND HAZARDOUS MATERIALS | | | |
| Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | Future development proposals for the areas proposed for re-designation pursuant to the Downey Vision 2025 General Plan Update might include land uses that could potentially emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste. Potentially significant. | <p>MM 5.3-1 Prior to the approval of any specific proposed change in land use within 0.25 mile of any existing or proposed school, a Health Risk Assessment shall be conducted to determine the significance of any potential health risk associated with the proposed change in land use.</p> <p>MM5.3-2 Prior to the construction of any facility that may generate hazardous materials or waste, or that may use hazardous materials within 0.25 mile of an existing or proposed school, a Health Risk Assessment shall be conducted to ensure that the proposed facility would not significantly impact any existing or proposed schools.</p> <p>MM5.3-3 Prior to issuance of any discretionary permit for a current or former hazardous waste disposal site or solid waste disposal site, the project property owner/developer shall submit a Phase I Environmental Site Assessment to the City. If possible hazardous materials or wastes are identified during the site assessments, the appropriate response/remedial measures will be implemented in accordance with the requirements of the Los Angeles County Health Care Agency (LAHCA) and/or the Regional Water Quality Control Board (RWQCB), as appropriate.</p> <p>MM5.3-4 If, during construction of any future project, soil contamination is suspected, construction in the area shall stop, and appropriate health and safety procedures shall be implemented in accordance with the requirements of the Los Angeles County Health Care Agency (LAHCA) and/or the Regional Water Quality Control Board (RWQCB), as appropriate.</p> | Less Than Significant. |
| Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the | Future development proposals for the areas proposed for re-designation pursuant to the Downey Vision 2025 General Plan Update might include land uses that could potentially be impacted by pre-existing hazardous | MM 5.3-5 Prior to the approval of any specific proposed change in land use within the areas proposed for re-designation, or within 0.5 mile of the areas proposed for re-designation, a Health Risk Assessment shall be conducted to determine the significance of any potential health risk associated with the proposed change in land use. | |

1. Executive Summary

**Table 1.2-1
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

| Threshold Applied | Environmental Impact/ Level of Significance Before Mitigation | Project Design Features/Mitigation Measures | Level of Significance After Mitigation |
|--------------------------|---|---|---|
| environment? | materials or waste sites or by land uses that transport, store, handle or use these substances in the course of their operations. Potentially significant. | <p>MM5.3-6 Prior to the construction of any facility that may generate hazardous materials or waste, or that may use hazardous materials in its operations, a Health Risk Assessment shall be conducted to ensure that the proposed facility would not significantly and adversely impact any adjacent or surrounding land uses.</p> <p>MM5.3-7 Prior to issuance of any discretionary permit for a current or former hazardous waste disposal site or solid waste disposal site, the project property owner/developer shall submit a Phase I Environmental Site Assessment to the City. If possible hazardous materials or wastes are identified during the site assessments, the appropriate response/remedial measures will be implemented in accordance with the requirements of the Los Angeles County Health Care Agency (LAHCA) and/or the Regional Water Quality Control Board (RWQCB), as appropriate.</p> <p>MM5.3-8 If, during construction of any future project, soil contamination is suspected, construction in the area shall stop, and appropriate health and safety procedures shall be implemented in accordance with the requirements of the Los Angeles County Health Care Agency (LAHCA) and/or the Regional Water Quality Control Board (RWQCB), as appropriate.</p> | |

5.4 HYDROLOGY AND WATER QUALITY

| | | | |
|--|--|---|------------------------|
| Would the project violate any water quality standards or waste discharge requirements? | The proposed land use changes (16 sites) have the potential to violate water quality standards or waste discharge requirements. However, each project would be evaluated separately, as it is proposed, to determine such impacts. Less than significant. | As new and redevelopment projects are planned and designed, water quality standards such as Standard Urban Stormwater Mitigation Plans (SUSWMP) will be utilized. | Less than significant. |
| Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the | Groundwater recharge would be relatively unaffected by the proposed General Plan Update because the City is built-out and no groundwater replenishment areas are located within the City. However, the project could | MM5.4-1 The City will continue to monitor water usage in the City and will obtain additional water entitlements as necessary to provide for future growth for the City. | Less than significant. |

1. Executive Summary

**Table 1.2-1
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

| Threshold Applied | Environmental Impact/ Level of Significance Before Mitigation | Project Design Features/Mitigation Measures | Level of Significance After Mitigation |
|--|---|---|---|
| production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | use additional supplies of ground water if population increase were to occur as part of the project, including the redesignation in land use of 16 sites identified by the City. Potentially significant. | | |
| Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or off-site | The proposed land use changes (16 sites) have the potential to create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Potentially significant. | Existing Regulations and Standard Conditions: Future development projects within the 16 areas subject to changes in land use designation would have to provide detailed hydrology analyses to determine impacts to local drainage systems and provide project mitigation measures, if necessary, due to the potential increase in imperviousness to these areas provided by the changes to the land use designations. Future projects shall comply with all applicable State, Local, and Federal regulations relating to hydrology and water quality. | Less than significant. |
| Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | The General Plan Update and proposed land use changes (16 sites) have the potential to increase the amount of impervious surfaces within the City. Potentially significant. | Existing Regulations and Standard Conditions: Future projects shall comply with all applicable State, Local, and Federal regulations relating to hydrology and water quality. | Less than significant. |
| Would the project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff? | The proposed project and the proposed land use changes (16 sites) could potentially impact the quantity of runoff and other pollutant loadings to receiving waters. Potentially significant. | Existing Regulations and Standard Conditions: Future development projects within the 16 areas subject to changes in land use designation would have to provide detailed hydrology analyses to determine impacts to local drainage systems and provide project mitigation measures, if necessary, due to the potential increase in imperviousness to these areas provided by the changes to the land use designations. Future projects shall comply with all applicable State, Local, and Federal regulations relating to hydrology and water quality. | Less than significant. |

1. Executive Summary

**Table 1.2-1
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

| Threshold Applied | Environmental Impact/ Level of Significance Before Mitigation | Project Design Features/Mitigation Measures | Level of Significance After Mitigation |
|--|--|---|---|
| Would the project otherwise substantially degrade water quality? | Implementation of the General Plan Update and proposed land use changes (16 sites) could degrade water quality. Potentially significant. | Existing Regulations and Standard Conditions: Future projects shall comply with all applicable State, Local, and Federal regulations relating to hydrology and water quality. | Less than significant. |
| Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | The City is built out and any future development would likely be redevelopment and thus the threat of flooding due to new development is considered low. However, storm drain capacity will be evaluated as each development project is proposed. Potentially significant. | Existing Regulations and Standard Conditions: Should future development occur within any of the areas deficient in storm drain capacity, such issues would be addressed in their respective project-level hydrology studies as required by the City during the application and approval process. Existing and proposed City programs necessitate that these issues be resolved prior to project approval. Future projects shall comply with all applicable State, Local, and Federal regulations relating to hydrology and water quality. | Less than significant. |
| 5.5 LAND USE AND RELEVANT PLANNING | | | |
| Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | Some land uses permitted pursuant to the Downey Vision 2025 General Plan Update might be inconsistent with land use development pursuant to the Downey Landing Specific Plan. Potentially significant. | The goals, policies and programs in the General Plan serve to mitigate any potential impacts to land use and relevant planning. | Less than significant. |
| 5.6 NOISE | | | |
| Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | The proposed General Plan Update, in conjunction with future traffic growth, would result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, and applicable standards of other agencies. Potentially significant. | The goals, policies and programs in the General Plan would serve to reduce potential noise impacts; however, no mitigation would reduce these impacts to a level that would be less than significant. | Significant. |
| Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | The proposed General Plan Update would result in exposure of persons to or generation of excessive groundborne vibration or | The goals, policies and programs in the General Plan, and the mitigation measures included in the EIR, would serve to mitigate these impacts to a level that would be less than significant. | Less than significant. |

1. Executive Summary

**Table 1.2-1
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

| Threshold Applied | Environmental Impact/ Level of Significance Before Mitigation | Project Design Features/Mitigation Measures | Level of Significance After Mitigation |
|---|--|--|---|
| | groundborne noise levels. Potentially significant. | | |
| Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | The proposed General Plan Update, in conjunction with future traffic growth, would result in a substantial permanent increase in ambient noise levels in the project vicinity. Potentially significant. | The goals, policies and programs in the General Plan would serve to reduce potential noise impacts; however, no mitigation would reduce these impacts to a level that would be less than significant. | Significant. |
| Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | The proposed General Plan Update would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. Potentially significant. | The goals, policies and programs in the General Plan, and the mitigation measures included in the EIR, would serve to mitigate these impacts to a level that would be less than significant. | Less than significant. |
| 5.7 PUBLIC SERVICES AND UTILITIES | | | |
| Would the project increase demand for fire protection? | The proposed General Plan Update and the proposed land use changes (16 sites) would impact the provision of fire services in Downey. All new development would be required to pay any fees required by the fire department. Potentially significant. | The goals, policies and programs in the General Plan serve to mitigate any potential impacts to fire services. | Less than significant. |
| Would the project increase demand for police protection? | The proposed General Plan Update and the proposed land use changes (16 sites) would impact the provision of police protection services in Downey. All new development would be required to pay any fees required by the police department. Potentially significant. | The goals, policies and programs in the General Plan serve to mitigate any potential impacts to police protection services. | Less than significant. |
| Would the project increase demand for schools? | Any increases in population caused by the General Plan Update or the proposed changes in land use (16 sites) would impact school by generating more students. Potentially significant. | The goals, policies and programs in the General Plan serve to mitigate any potential impacts to schools. Project developers would have to pay appropriate school fees before the project can be developed. | Less than significant. |

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**Table 1.2-1
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

| Threshold Applied | Environmental Impact/ Level of Significance Before Mitigation | Project Design Features/Mitigation Measures | Level of Significance After Mitigation |
|---|--|---|---|
| Would the project increase demand for parks? | Impacts related to parks and recreation facilities are located in Section 5.8, <i>Recreation</i> . Potentially significant. | Existing regulations and standard conditions, as well as mitigation measures, related to parks and recreation are located in Section 5.8, <i>Recreation</i> . | Less than significant. |
| Would the project increase demand for other public facilities? | The proposed General Plan Update and the proposed land use changes (16 sites) would place an increased demand on and impact other public facilities, such as roads and government services and facilities. Potentially significant. | The goals, policies and programs in the General Plan serve to mitigate any potential impacts to other public facilities. | Less than significant. |
| 5.8 RECREATION | | | |
| Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | With development pursuant to the Downey Vision 2025 General Plan Update, the increase in residential development and population growth would, in general, be concentrated in certain areas of the City. Development pursuant to the Downey Vision 2025 General Plan Update would also result in the gradual phase-out of residential development in other areas of the City. Population growth in the City would increase use of existing neighborhood or community parks and adversely impact these facilities. In addition, altering current patterns of residential development in the City would in turn alter park and recreational facility use patterns and lead to increased use of those parks and recreation facilities in proximity to the areas of greater growth. Potentially significant. | 5.9-1 As future residential development applications are submitted, the City shall review each project and assess the feasibility of providing parkland on-site, rather than payment of in-lieu fees. At a minimum, redevelopment of sites larger than five acres would be considered appropriate for the provision of on-site parkland dedication. 5.9-2 The City shall review the feasibility of acquiring surplus school sites within the City for parks and recreation purposes, pursuant to California Education Code Section 17485, which requires school districts to offer surplus property for sale or lease to cities for community playgrounds, playfields, or outdoor recreation purposes. | Less Than Significant. |

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**Table 1.2-1
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

| Threshold Applied | Environmental Impact/ Level of Significance Before Mitigation | Project Design Features/Mitigation Measures | Level of Significance After Mitigation |
|--|---|--|---|
| 5.9 TRAFFIC AND CIRCULATION | | | |
| <p>Would the project cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?</p> | <p>The proposed project will cause an increase in traffic that will impact a number of intersections in the City, reducing the Level of Service at these intersections to an unacceptable LOS (LOS "F"). Potentially significant impact.</p> | <p>Add traffic Mitigation measures here 5.9.1 x MM 5.9-1 Old River School Rd. (NS) at Florence Avenue (EW):</p> <ul style="list-style-type: none"> • Construct one additional northbound approach lane (total of four approach lanes) and stripe the northbound approach to provide two left turn lanes, one through lane, and one right turn lane. • Construct one additional southbound approach lane (total of three approach lanes) and stripe the southbound approach to provide two left turn lanes one shared through-right lane. • Construct two additional eastbound approach lanes (total of six approach lanes) and stripe the eastbound approach to provide two left turn lanes, three through lanes, and one right turn lane. • Construct two additional westbound approach lanes (total of five approach lanes) and stripe the westbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane. <p>MM 5.9-2 Old River School Road (NS) at Imperial Highway (EW):</p> <ul style="list-style-type: none"> • Re-stripe the southbound approach to provide one left turn lane, one through lane, and one shared through-right lane. • Construct one additional eastbound approach lane (total of six approach lanes) and strip the eastbound approach to provide two left turn lanes, three through lanes, and one right turn lane with overlap phasing. <p>MM 5.9-3 Paramount Boulevard (NS) at Telegraph Road (EW):</p> <ul style="list-style-type: none"> • Construct one additional northbound approach lane (total of five approach lanes) and stripe the northbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane. • Construct two additional southbound approach lanes (total of five | <p>Significant</p> |

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**Table 1.2-1
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

| <i>Threshold Applied</i> | <i>Environmental Impact/ Level of Significance Before Mitigation</i> | <i>Project Design Features/Mitigation Measures</i> | <i>Level of Significance After Mitigation</i> |
|--------------------------|--|--|---|
| | | <p>approach lanes) and stripe the southbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane.</p> <ul style="list-style-type: none"> • Construct one additional eastbound approach lane (total of five approach lanes) and stripe the eastbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane. • Construct one additional westbound approach lane (total of five approach lanes) and stripe the westbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane. <p>MM 5.9-4 Paramount Boulevard (NS) at Florence Avenue (EW):</p> <ul style="list-style-type: none"> • Construct one additional northbound approach lane (total of five approach lanes) and stripe the northbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane. • Construct one additional southbound approach lane (total of five approach lanes) and stripe the southbound approach to provide two left turn lanes, two through lanes, and one right turn lane. • Construct two additional eastbound approach lanes (total of six approach lanes) and stripe the eastbound approach to provide two left turn lanes, three through lanes, and one right turn lane. • Construct one additional westbound approach lane (total of five approach lanes) and stripe the westbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane. <p>MM 5.9-5 Paramount Boulevard (NS) at Firestone Boulevard (EW):</p> <ul style="list-style-type: none"> • Construct one additional northbound approach lane (total of five approach lanes) and stripe the northbound approach to provide two left turn lanes, two through lanes, and one shared through- | |

1. Executive Summary

**Table 1.2-1
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

| <i>Threshold Applied</i> | <i>Environmental Impact/ Level of Significance Before Mitigation</i> | <i>Project Design Features/Mitigation Measures</i> | <i>Level of Significance After Mitigation</i> |
|--------------------------|--|---|---|
| | | <p>right lane.</p> <ul style="list-style-type: none"> • Construct one additional southbound approach lane (total of five approach lanes) and stripe the southbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane. • Construct one additional eastbound approach lane (total of five approach lanes) and stripe the eastbound approach to provide two left turn lanes, two through lanes, and one right turn lane. • Construct one additional westbound approach lane (total of five approach lanes) and stripe the westbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane. <p>MM 5.9-6 Paramount Boulevard (NS) at Stewart & Gray Road (EW):</p> <ul style="list-style-type: none"> • Construct two additional eastbound approach lanes (total of five approach lanes) and stripe the eastbound approach to provide two left turn lanes, two through lanes, and one right turn lane. • Construct one additional westbound approach lane (total of four approach lanes) and stripe the westbound approach to provide two left turn lanes, one through lane, and one shared through-right turn lane. • Re-stripe the eastbound approach to provide one left turn lane, two through lanes, and one shared through-right lane. • Re-stripe the westbound approach to provide one left turn lane, two through lanes, and one shared through-right lane. <p>MM 5.9-7 Paramount Boulevard (NS) at Imperial Highway (EW):</p> <ul style="list-style-type: none"> • Construct one additional northbound approach lane (total of five approach lanes) and stripe the northbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane. | |

1. Executive Summary

**Table 1.2-1
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

| Threshold Applied | Environmental Impact/ Level of Significance Before Mitigation | Project Design Features/Mitigation Measures | Level of Significance After Mitigation |
|--------------------------|--|--|---|
| | | <ul style="list-style-type: none"> • Construct one additional southbound approach lane (total of five approach lanes) and stripe the southbound approach to provide two left turn lanes, two through lanes, and one right turn lane. • Construct one additional eastbound approach lane (total of six approach lanes) and stripe the eastbound approach to provide two left turn lanes, three through lanes, and one right turn lane. • Construct two additional westbound approach lanes (total of six approach lanes) and stripe the westbound approach to provide two left turn lanes, three through lanes, and one right turn lane. <p>MM 5.9-8 Downey Avenue (NS) at Firestone Boulevard (EW):</p> <ul style="list-style-type: none"> • For the northbound approach, provide left turn protected and permitted phasing. • For the southbound approach, provide left turn protected and permitted phasing. • Construct one additional eastbound approach lane (total of five approach lanes) and stripe the eastbound approach to provide one left turn lane with protected and permitted phasing, three through lanes, and one right turn lane. • For the westbound approach, provide left turn protected and permitted phasing. <p>MM 5.9-10 Brookshire Avenue (NS) at Firestone Boulevard (EW):</p> <ul style="list-style-type: none"> • Construct two additional northbound approach lanes (total of five approach lanes) and stripe the northbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane. • Construct one additional southbound approach lane (total of five approach lanes) and stripe the southbound approach to provide two left turn lanes, two through lanes, and one right turn lane. • Construct two additional eastbound approach lanes (total of six approach lanes) and stripe the eastbound approach to provide two left turn lanes, three through lanes, and one right turn lane. | |

1. Executive Summary

**Table 1.2-1
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

| Threshold Applied | Environmental Impact/ Level of Significance Before Mitigation | Project Design Features/Mitigation Measures | Level of Significance After Mitigation |
|--------------------------|---|--|---|
| | <p>The City is planning on widening a portion of Lakewood Boulevard. Roadway improvements proposed as part of this project may include some of the improvements proposed as mitigation for the General Plan Update Project.</p> | <p>MM 5.9-11 Lakewood Boulevard (NS) at Telegraph Road (EW):</p> <ul style="list-style-type: none"> • Construct two additional westbound approach lanes (total of six approach lanes) and stripe the westbound approach to provide two left turn lanes, three through lanes, and one right turn lane. • Construct two additional northbound approach lanes (total of six approach lanes) and stripe the northbound approach to provide two left turn lanes, two through lanes, and two right turn lanes. • Construct one additional southbound approach lane (total of five approach lanes) and stripe the southbound approach to provide two left turn lanes, two through lanes, and one right turn lane. • Construct one additional eastbound approach lane (total of five approach lanes) and stripe the eastbound approach lane to provide two left turn lanes, two through lanes, and one shared through-right lane. • Construct one additional westbound approach lane (total of five approach lanes) and stripe the westbound approach lane to provide two left turn lanes, two through lanes, and one shared through-right lane. <p>MM 5.9-12 Lakewood Boulevard (NS) at Florence Avenue (EW):</p> <ul style="list-style-type: none"> • Construct one additional northbound approach lane (total of five approach lanes) and stripe the northbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane. • Construct one additional southbound approach lane (total of five approach lanes) and stripe the southbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane. • Construct one additional eastbound approach lane (total of five approach lanes) and stripe the eastbound approach to provide two left turn lanes, two through lanes, and one shared through- | |

1. Executive Summary

**Table 1.2-1
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

| <i>Threshold Applied</i> | <i>Environmental Impact/ Level of Significance Before Mitigation</i> | <i>Project Design Features/Mitigation Measures</i> | <i>Level of Significance After Mitigation</i> |
|--------------------------|--|--|---|
| | | <p>right lane.</p> <ul style="list-style-type: none"> • Construct one additional westbound approach lane (total of five approach lanes) and stripe the westbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane. <p>MM 5.9-13 Lakewood Boulevard (NS) at Firestone Boulevard (EW):</p> <ul style="list-style-type: none"> • Construct one additional northbound approach lane (total of five approach lanes) and stripe the northbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane. • Construct one additional southbound approach lane (total of five approach lanes) and stripe the southbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane. • Construct two additional eastbound approach lanes (total of six approach lanes) and stripe the eastbound approach to provide two left turn lanes, three through lanes, and one right turn lane. • Construct one additional westbound approach lane (total of six approach lanes) and stripe the westbound approach to provide two left turn lanes, three through lanes, and one right turn lane. <p>MM 5.9-14 Lakewood Boulevard (NS) at Stewart & Gray Road (EW):</p> <ul style="list-style-type: none"> • Construct two additional eastbound approach lanes (total of six approach lanes) and stripe the eastbound approach to provide two left turn lanes, three through lanes, and one right turn lane with overlap phasing. • Construct two additional westbound approach lanes (total of five approach lanes) and stripe the westbound approach to provide two left turn lanes, two through lanes, and one shared through- | |

1. Executive Summary

**Table 1.2-1
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

| <i>Threshold Applied</i> | <i>Environmental Impact/ Level of Significance Before Mitigation</i> | <i>Project Design Features/Mitigation Measures</i> | <i>Level of Significance After Mitigation</i> |
|--------------------------|--|--|---|
| | | <p>right lane.</p> <p>MM 5.9-15 Lakewood Boulevard (NS) at Imperial Highway (EW):</p> <ul style="list-style-type: none"> • Construct four additional northbound approach lanes (total of eight approach lanes) and stripe the northbound approach to provide three left turn lanes, three through lanes, and two right turn lanes. • Construct two additional southbound approach lanes (total of six approach lanes) and stripe the southbound approach to provide two left turn lanes, three through lanes, and one right turn lane. • Construct four additional eastbound approach lanes (total of eight approach lanes) and stripe the eastbound approach to provide two left turn lanes, four through lanes, and two right turn lanes. • Construct two additional westbound approach lanes (total of six approach lanes) and stripe the westbound approach to provide three left turn lanes, two through lanes, and one shared through-right lane. <p>MM 5.9-16 Lakewood Boulevard (NS) at Foster Road (EW):</p> <ul style="list-style-type: none"> • Construct two additional northbound approach lanes (total of six approach lanes) and stripe the northbound approach to provide two left turn lanes, three through lanes, and one right turn lane. • Construct four additional southbound approach lanes (total of seven approach lanes) and stripe the southbound approach to provide two left turn lanes, four through lanes, and one right turn lane. • Construct one additional eastbound approach lane (total of four approach lanes) and stripe the eastbound approach to provide two left turn lanes, one through lane, and one shared through-right lane. | |

1. Executive Summary

**Table 1.2-1
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

| <i>Threshold Applied</i> | <i>Environmental Impact/ Level of Significance Before Mitigation</i> | <i>Project Design Features/Mitigation Measures</i> | <i>Level of Significance After Mitigation</i> |
|--------------------------|--|--|---|
| | | <ul style="list-style-type: none"> • Construct one additional westbound approach lane (total of four approach lanes) and stripe the westbound approach to provide two left turn lanes, one through lane, and one shared through-right lane. <p>MM 5.9-17 Bellflower Boulevard (NS) at Imperial Highway (EW):</p> <ul style="list-style-type: none"> • Construct one additional northbound approach lane (total of four approach lanes) and stripe the northbound approach to provide two left turn lanes, one through lane, and one shared through-right lane. • Construct one additional southbound approach lane (total of four approach lanes) and stripe the southbound approach to provide two left turn lanes, one through lane, and one shared through-right lane. <p>MM 5.9-18 Woodruff Avenue (NS) at Stewart & Gray Road (EW):</p> <ul style="list-style-type: none"> • Construct one additional northbound approach lane (total of five approach lanes) and stripe the northbound approach to provide two left turn lanes, two through lanes, and one right turn lane. • Construct one additional southbound approach lane (total of five approach lanes) and stripe the southbound approach to provide two left turn lanes, two through lanes, and one right turn lane. • Construct one additional eastbound approach lane (total of five approach lanes) and stripe the eastbound approach to provide two left turn lanes, two through lanes, and one free right turn lane. • Construct two additional westbound approach lanes (total of five approach lanes) and stripe the westbound approach to provide two left turn lanes, two through lanes, and one right turn lane. | |

1. Executive Summary

**Table 1.2-1
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

| <i>Threshold Applied</i> | <i>Environmental Impact/ Level of Significance Before Mitigation</i> | <i>Project Design Features/Mitigation Measures</i> | <i>Level of Significance After Mitigation</i> |
|---|---|--|---|
| | | MM 5.9-19 Woodruff Avenue (NS) at Imperial Highway (EW): <ul style="list-style-type: none"> • Construct two additional northbound approach lanes (total of six approach lanes) and stripe the northbound approach to provide two left turn lanes, two through lanes, and two right turn lanes. • Construct one additional southbound approach lane (total of five approach lanes) and stripe the southbound approach to provide two left turn lanes, two through lanes, and one right turn lane. • Construct two additional eastbound approach lanes (total of six approach lanes) and stripe the eastbound approach to provide two left turn lanes, three through lanes, and one right turn lane. <ul style="list-style-type: none"> • Construct one additional westbound approach lane (total of five approach lanes) and stripe the westbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane. | |
| Would the project exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways? | It was determined that the only one intersection on the CMP is located in the City of Downey is located at Lakewood Boulevard and Firestone Boulevard. Growth in traffic created by the proposed project will not add enough trips to this intersection to require a CMP analysis. No impact | No Mitigation Measures are required. | Less Than Significant |
| 5.10 UTILITY AND SERVICE SYSTEMS | | | |
| Would the project exceed waste water treatment requirements of the applicable Regional Water Quality Control Board? | All development proposed within Downey as a result of the General Plan Update or the change in land use (16 sites) would be subject to compliance with the NPDES permitting process. Compliance with this process would reduce impacts to less than significant. Less than significant. | Connection and service fees charged by the County Sanitation Districts of Los Angeles County allow that agency meet wastewater treatment requirements of the Los Angeles Regional Water quality Control Board. | Less than significant. |

1. Executive Summary

**Table 1.2-1
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

| Threshold Applied | Environmental Impact/ Level of Significance Before Mitigation | Project Design Features/Mitigation Measures | Level of Significance After Mitigation |
|--|--|--|---|
| Would the project require or result in the construction of new water or waste water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | The City of Downey gets 100% of its water from the Central Basin, an adjudicated basin. Any increase in population that results from the General Plan Update or the proposed land use changes (16 sites) would require the City to purchase additional water rights and/or water supplies, if available. Likewise, any increase in population would also result in the production of additional amounts of wastewater in the City. Potentially significant. | Existing Regulations and Standard Conditions: Payment of a sewage system connection fee will be required for all new development within the City prior to receiving a permit to connect to the sewer system is issued. The city will purchase additional water rights as additional land uses are developed within the City. | Less than significant. |
| Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | Impacts related to storm water drainage facilities can be found in Section 5.4, <i>Hydrology and Water Quality</i> . Potentially significant. | Existing regulations and standard conditions, as well as mitigation measures, related to stormwater drainage facilities are located in Section 5.4, <i>Hydrology and Water Quality</i> . | Less than significant. |
| Would the project have sufficient water supplies available to serve the project from existing entitlements and resources or are new or expanded entitlements needed? | As indicated above, the City of Downey gets 100% of its water from the Central Basin, an adjudicated basin. Any increase in population that results from the General Plan Update or the proposed land use changes (16 sites) would require the City to purchase additional water rights and/or water supplies, if available. However, the City does not anticipate a water supply shortage. Potentially significant. | Existing Regulations and Standard Conditions: Any proposed developments falling under the parameters of SB 610 or 221 must complete Water Supply Assessments. The City will ensure that sufficient water supplies are available for use as additional land uses are developed in the City by monitoring water use and water available for use in the City. | Less than significant. |
| Would the project result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | As indicated above, the payment of a sewerage connection fee to the County Sanitation Districts for any new development proposed as a result of the General Plan Update or change in land use (16 sites) would mitigate any potential impacts to the sewer | Existing Regulations and Standard Conditions: Payment of a sewage system connection fee will be required for all new development within the City prior to receiving a permit to connect to the sewer system is issued. | Less than significant. |

1. Executive Summary

**Table 1.2-1
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation**

| <i>Threshold Applied</i> | <i>Environmental Impact/ Level of Significance Before Mitigation</i> | <i>Project Design Features/Mitigation Measures</i> | <i>Level of Significance After Mitigation</i> |
|---|---|--|---|
| | system. Potentially significant. | | |
| Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | Any increase in population that results from the General Plan Update or the proposed land use changes (16 sites) would result in an increased amount of solid waste produced. Potentially significant. | Existing Regulations and Standard Conditions: The city will continue to implement solid waste reduction programs in compliance with AB 939. In accordance with the California Solid Waste Reuse and Recycling Access Act of 1991, each development project shall be required by the City to provide an adequate storage area for collection and removal of recyclable materials. | Less than significant. |
| Would the project comply with federal, state, and local statutes and regulations related to solid waste? | The City is required to divert 50% of its solid waste per AB 939. In 2002, Downey had a diversion rate of 44%. Potentially significant. | Existing Regulations and Standard Conditions: The city will continue to implement solid waste reduction programs in compliance with AB 939. In accordance with the California Solid Waste Reuse and Recycling Access Act of 1991, each development project shall be required by the City to provide an adequate storage area for collection and removal of recyclable materials. | Less than significant. |

1. *Executive Summary*

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2. Introduction

2.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

The California Environmental Quality Act requires that all State and local governmental agencies consider the environmental consequences of projects over which they have discretionary authority prior to taking action on those projects. This DEIR has been prepared to satisfy CEQA, as set forth in the Public Resources Code Section 21000, et seq. and the State CEQA Guidelines, Chapter 14 of the California Code of Regulations, Section 15000, et seq.

Pursuant to CEQA Section 21067, the Lead Agency means “the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment.” The City of Downey has the principal responsibility for approval and implementation of the proposed General Plan Update EIR project. For this reason, the City of Downey is the CEQA Lead Agency.

The intent of the EIR is to provide sufficient information on the potential environmental impacts of the proposed General Plan Update to allow the City to make an informed decision regarding approval of the project. Specific discretionary actions to be reviewed by the City are described later in Section 3.4, *Intended Uses of this DEIR*.

The overall purpose of this DEIR is to inform the lead agency, responsible agencies, decision makers and the general public of the environmental effects associated with implementation of the proposed General Plan Update. This DEIR addresses the potential environmental effects of the project, including effects that may be significant and adverse, evaluates alternatives to the project and identifies mitigation measures to reduce or avoid adverse effects.

2.2 NOTICE OF PREPARATION AND INITIAL STUDY

The City of Downey determined that an EIR would be required for this project and issued a Notice of Preparation (NOP) and Initial Study of Environmental Impact on March 26, 2004 (See Appendix C). Comments received during the public review period, which extended from March 26, 2004 to April 27, 2004 are contained in Appendix D.

The NOP process is used to help determine the scope of the environmental issues to be addressed in the DEIR. Based on this process and the Initial Study for the project, certain environmental categories were identified as having the potential to result in significant impacts. Issues considered “potentially significant” are addressed in this DEIR. Issues identified as “less than significant” or “no impact” are not addressed beyond the discussion contained in the Initial Study. Readers may refer to the Initial Study in Appendix A for a discussion on the basis for these initial determinations.

2.3 SCOPE OF THIS DEIR

Based upon the Initial Study and Environmental Checklist Form, the City of Downey staff determined that an EIR should be prepared for the proposed project. The scope of the Draft Environmental Impact Report (DEIR) was determined based upon the City’s Initial Study and comments received in response to the NOP. The City held a scoping meeting on April 15, 2004 in the City Council Chambers, but no members of the public attended this meeting. Pursuant to Sections 15126.2 and 15126.4 of the State CEQA Guidelines, the EIR should identify any potentially significant adverse impacts and recommend mitigation that would reduce or eliminate these impacts to levels of insignificance.

The information contained in the Project Description establishes the basis for analyzing future project-related environmental impacts. However, further environmental review by the City may be required as more detailed information and plans, are submitted on a project-by-project basis.



2. Introduction

This DEIR has been prepared to evaluate potentially significant impacts associated with implementation of the proposed General Plan Update. General Plan Goals and Policies, and Mitigation Measures have been identified to either reduce or eliminate potentially significant impacts. For purposes of environmental analysis in this DEIR, the focus of the environmental impact analysis is on those areas in which physical changes to the existing environment are proposed that may result in environmental impacts, (i.e., areas where land use changes are proposed), and development and improvement activities consistent with General Plan Update. In addition, the DEIR describes a range of reasonable alternatives to the project that could feasibly attain the basic objectives of the project, while substantially avoiding or lessening any of the significant impacts of the proposed project, and evaluates the comparative merits of the alternatives and the proposed project.

2.3.1 Impacts Considered Less Than Significant

Six environmental impact category are identified here as not being significantly affected by, or affecting the proposed project and as such are not discussed in detail in this DEIR. This determination was made by the City of Downey Planning Department in its preparation of the Initial Study. The following topical issues are not addressed in the DEIR:

- Aesthetics
- Agricultural Resources
- Biological Resources
- Cultural Resources
- Mineral Resources
- Population and Housing

2.3.2 Potentially Significant Adverse Impacts

Ten environmental factors have been identified as potentially significant impacts if the proposed project is implemented. These factors are:

- Air Quality
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Relevant Planning
- Noise
- Public Services
- Recreation
- Traffic and Circulation
- Utilities and Services Systems

2.3.3 Unavoidable Significant Adverse Impacts (Revise when Unavoidable Impacts are Known)

This DEIR identifies three unavoidable adverse impacts, as defined by CEQA, that would result from implementation of the proposed project. Unavoidable adverse impacts may be considered significant on a project-specific basis, cumulatively significant, and/or potentially significant. Potentially significant impacts are those that fall within the responsibility of another agency and implementation of the mitigation measures cannot feasibly be assured by the City. If the City, as the Lead Agency, determines that unavoidable significant adverse impacts will result from the project, the City must prepare a "Statement of Overriding Considerations" before it can approve the project. A Statement of Overriding

2. Introduction

Considerations states that the decision-making body has balanced the benefits of the proposed project against its unavoidable significant environmental effects and has determined that the benefits of the project outweigh the adverse effects and, therefore, the adverse effects are considered to be acceptable. The impacts that were found in the DEIR to be significant and unavoidable are:

- Air Quality
- Noise
- Traffic and Circulation

2.4 INCORPORATION BY REFERENCE

Per Section 15150 of the State CEQA Guidelines, an EIR may incorporate by reference all or portions of another document which is a matter of public record or is generally available to the public. Four previously prepared documents are either generally related to the proposed project or for projects located in the City of Downey were relied upon or consulted in the preparation of this DEIR. These documents are:

- City of Downey, adopted Vision 2010 General Plan And EIR, October 1992.
- City of Downey, 2000-2005 Housing Element, December 2000.
- City of Downey, Downtown Plan for Downey's Historic Downtown District, October 24, 2000.
- Downey Landing Specific Plan EIR, February 2002

This DEIR also relies upon previously adopted regional and statewide plans and programs, agency standards, and background studies in its analysis, such as the City's Municipal Code, the South Coast Air Quality Management District's (SCAQMD) Air Quality Management Plan, and the SCAQMD's CEQA Air Quality Handbook. Whenever existing environmental documentation or previously prepared documents and studies are used in the preparation of this DEIR, the information is summarized for the convenience of the reader and incorporated by reference. In addition, each section that relies upon previously adopted plans, programs, environmental documentation, and background studies notes how it specifically relates to the proposed project and that the information has been reconfirmed. These documents and other referenced source material in this DEIR will be made available to the public for inspection at the City upon request.



2.5 FINAL EIR CERTIFICATION

This DEIR is being circulated for public review for a period of 45 days. Interested agencies and members of the public are invited to provide written comments on the DEIR to the City at the address shown on the title page of this document.

The DEIR is available to the general public for review at the following locations:

- City of Downey Planning Department
- Downey Public Library
- Web page, <http://www.downeyca.org>.

Upon completion of the 45-day review period, the City of Downey will review all written comments received and prepare a written response for each comment. A Final EIR will then be prepared incorporating all of the comments received, responses to the comments and any changes to the DEIR that result from the comments received. The Final EIR will then be presented to the City Planning Commission for review and approval and then will be sent to the City Council for potential certification as the environmental document for the project. All persons who commented on the DEIR will be notified of

2. Introduction

the availability of the Final EIR and the date of the public hearing before the City Planning Commission and City Council.

2.6 ISSUES TO BE RESOLVED

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR contain issues to be resolved including the choice among alternatives and whether or how to mitigate significant impacts. With regard to the proposed project, the major issues to be resolved include decisions by the Lead Agency as to the following:

1. Whether this DEIR adequately describes the environmental impacts of the project.
2. Whether the benefits of the project override those environmental impacts that cannot be feasibly avoided or mitigated to a level of insignificance.
3. Whether the proposed land use changes are compatible with the character of the existing area.
4. Whether the identified goals, policies, or mitigation measures should be adopted or modified.
5. Whether there are other mitigation measures that should be applied to the project besides the Mitigation Measures identified in the DEIR.
6. Whether there are any alternatives to the project that would substantially lessen any of the significant impacts of the proposed project and achieve most of the basic project objectives.

2.7 AREAS OF CONCERN

Prior to and during the preparation of the DEIR, five community workshops were held with the City's General Plan Committee (GPC), and public meetings were held with the Planning Commission and City Council to review various work products and project milestones. The community workshops provided an opportunity for the public to provide comments on the General Plan Update, beyond the opportunities provided through other outreach avenues. A public EIR scoping meeting was held on April 15, 2004 to determine the concerns of responsible and trustee agencies and the community regarding the proposed project. No responsible or trustee agencies attended this meeting. Issues raised during the workshops, public meetings, and in comments to the NOP include compatibility of the proposed land use designations with existing land uses, environmental effects related to air quality, geology and soils, land use, and utilities and service systems. These and other environmental issues are fully addressed in Sections 5.0 of this DEIR. No other areas of controversy are known to the Lead Agency.

2.8 MITIGATION MONITORING

Public Resources Code Section 21081.6 requires that agencies adopt a monitoring or reporting program for any project for which it has made findings pursuant to Public Resources Code 21081 or adopted a Negative Declaration pursuant to 21080(c). Such a program is intended to ensure the implementation of all mitigation measures adopted through the preparation of an EIR or Negative Declaration. The Mitigation Monitoring Program for the proposed General Plan Update EIR will be completed as part of the Final EIR prior to consideration of the project by the City Council.

3. *Project Description*

3.1 PROJECT LOCATION

Located in the southeastern part of Los Angeles County, the City of Downey lies approximately 12 miles southeast of downtown Los Angeles. The City is surrounded by the Cities of Pico Rivera to the north, Paramount and Bellflower to the south, Santa Fe Springs and Norwalk to the east, and Bell Gardens and South Gate to the west. The City encompasses over 8,192 acres of land. Regional access to and from Downey is provided by the Santa Ana (I-5) Freeway; Glen Anderson Freeway (I-105) Freeway; the San Gabriel River Freeway (I-605) Freeways; and the Long Beach Freeway (I-710); and MTA Green Line Light Rail passenger train services at the Lakewood Boulevard station. Figure 3.1-1 shows the location of Downey within Los Angeles County.

3.2 STATEMENT OF OBJECTIVES

The following objectives have been established for the proposed comprehensive update of the City's General Plan and will aid decision makers in the review of the project and associated environmental impacts.

- Provide a comprehensive update of the City's General Plan to more effectively deal with contemporary issues facing the City of Downey.
- Preserve and enhance Downey's position as the quality premier City in the southeast area of Los Angeles.
- Preserve the single-family character of residential areas in the City.
- Promote land uses that address the needs of residents, workers and visitors to the City.
- Promote managed and reasonable growth.
- Develop a network of streets, pedestrian paths, and bikeways, which promote the safe and efficient movement of people and goods.
- Concentrate and enhance commercial uses in strategic locations, primarily at the City's major intersections.
- Intensify the development potential of the area around Downey Landing.
- Create a pedestrian friendly, active Downtown that reflects the character of the City.
- Create and maintain a public system of park and recreational facilities.
- Preserve and enhance Downey as a premier community by developing policies and programs that promote positive design characteristics and a strong visual image for the community.
- Change the General Plan land use designations for 16 areas throughout the City consistent with the goals and policies contained in the updated General Plan.

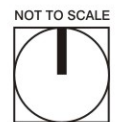
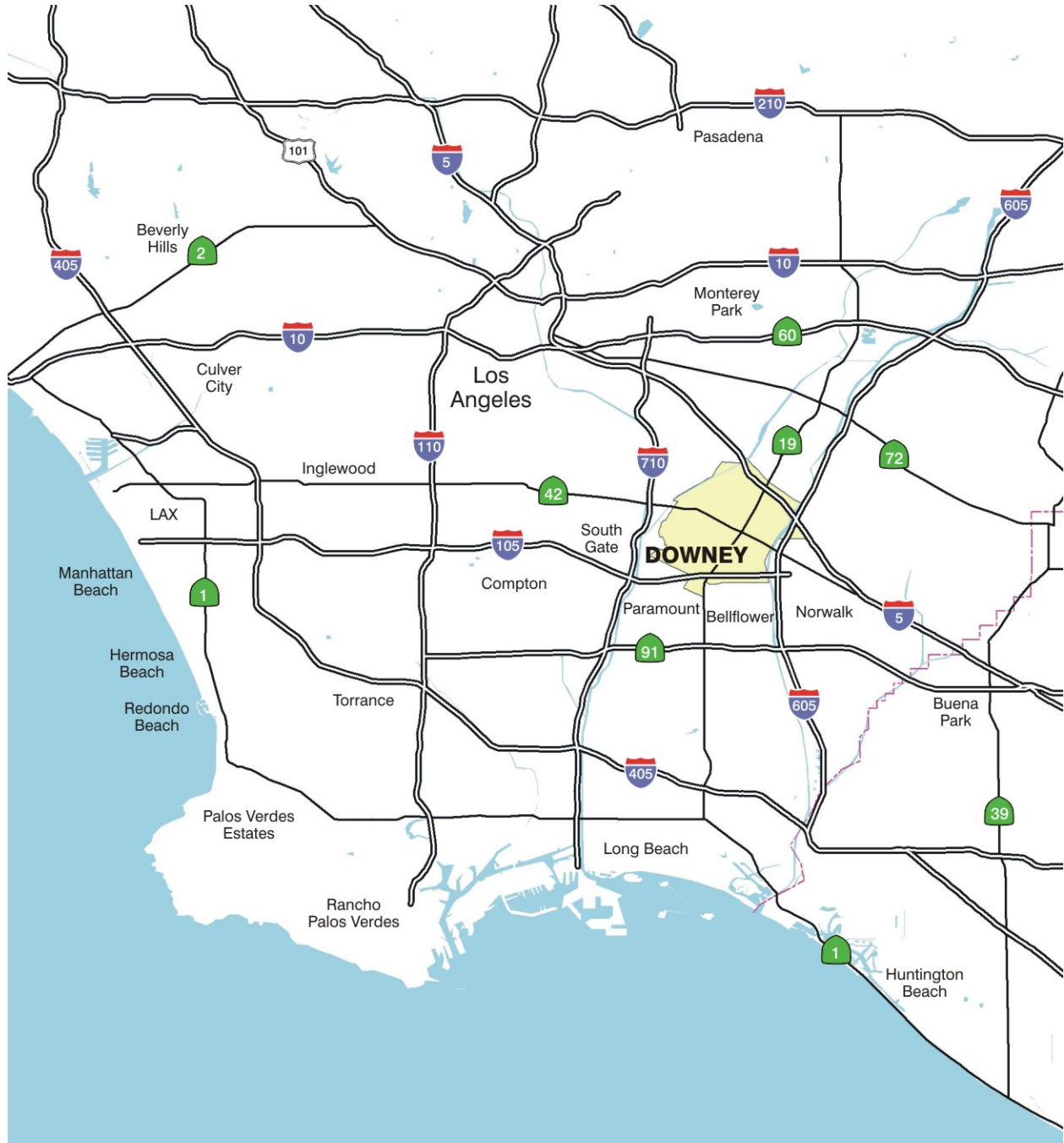


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3. Project Description

Regional Location



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3. *Project Description*

3.3 **PROJECT CHARACTERISTICS**

3.3.1 **Project Background**

Downey's General Plan was initially adopted in 1963 and has been amended two times since then. General Plan 1990 was adopted in 1973. Downey Vision 2010 was then adopted in August 1992 and October 1992. Various Chapters of the General Plan have been updated at differing times, meaning that while some portions provide useful guidance, other portions could be strengthened to deal more effectively with contemporary issues. As a result, the City began a comprehensive update of its General Plan in 2003 that is being called Downey Vision 2025.

One of the driving forces behind the Downey General Plan Update was the active involvement of Downey's stakeholders, including its residents, employees, business owners, and decision makers in a comprehensive outreach program. The City Council appointed a citizen's General Plan Committee (GPC) to work with City staff on the proposed changes to the General Plan as part of this effort. Also, The City conducted a series of community workshops that were held throughout the City during the preparation of Downey Vision 2025, including:

- A meeting in District 1 on May 27, 2004 at Ward Elementary School
- A meeting in District 2 on June 3, 2004 at the West Middle School
- A meeting in District 3 on June 7, 2004 at the Furman Park Activity Room
- A meeting in District 4 on June 15, 2004 at the East Middle School
- A meeting in District 5 on June 17, 2004 at the Downey City Hall Council Chambers

These community workshops included a discussion on the purpose of the General Plan, its history, and how the General Plan Committee worked on the update of the General Plan. The environmental review process and schedule that was followed for the update of the General Plan was also described. A presentation was also made on the purpose of each mandatory Chapter of the General Plan (Land Use, Circulation, Safety, Noise, Conservation, Open Space) and on the optional Chapters of the General Plan (Design, and Economic Development). The General Plan Land Use Diagram was also discussed, including the areas where changes in existing land use designations were being considered by the City. The City also held community group presentations, meetings with the Chamber of Commerce, meetings with the City's decision makers and commissioners; and endorsement by the Planning Commission and City Council.

Various changes to the Land Use Diagram were considered by the City during the preparation of Downey Vision 2025, with a number of areas considered for change. However the City is only recommending that 16 areas have their land use designations changed as part of this update to the General Plan. The 16 areas are further described under Section 3.3.4 of the project description (Physical Development Under the Proposed General Plan).

After the recommended changes to the Land Use Diagram were developed they were presented to the General Plan Committee, Planning Commission and City Council for their review. City staff then began preparation of the plans, goals and policies that make up each of the General Plan Chapters.



3. *Project Description*

3.3.2 Project Components

“Project,” as defined by the CEQA Guidelines, means “the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and that is any of the following: . . . (1)... the adoption and amendment of local General Plans or elements thereof pursuant to Government Code Sections 65100-65700.” (14 Cal. Code of Reg. 15378(a).)

The proposed project consists of a comprehensive update to the City’s General Plan. The proposed General Plan Update reflects the City’s vision for its development through buildout of the City. The General Plan is divided into various topical sections, or Chapters, that address a wide range of subjects and provide goals and policies that will guide future development in the City. As an example, the updated Land Use Chapter proposes goals and policies that will help ensure a balance of land uses throughout the City, enhance and protect residential areas, provide for pro-active code enforcement, and promote home ownership. The General Plan update also provides for the following:

- Revisions to the existing Land Use Chapter including the change to some land use goals, revision to the wording of some issues, policies and programs to carry out policies that are currently included in the Chapter. Also, new issues, policies and programs have been added to the Chapter to reflect more contemporary land use issues being faced by the City. Some policies currently included in this Chapter were moved to the Design and Noise Chapters of the General Plan
- Revisions to the Circulation Chapter were made, with some issues currently in the Chapter being reworded. An issue concerning the age and capacity of Downey’s Infrastructure was added to the Chapter. A number of policies and programs in the Circulation Chapter have also been removed or had their language of the policy revised. A number of policies were moved to the Safety, Open Space and Design Chapters of the General Plan. A number of programs to implement circulation policies have been reworded, and new programs have been added to the Chapter to aide in implementing these policies. Some programs have also been removed from the Chapter and moved to other existing programs in the Chapter.
- Revisions to the Conservation Chapter were made included the rewording of Chapter goals and issues. The language of some of the policies and programs supporting them were reworded, and some programs supporting Conservation Chapter policies were reworded, eliminated or moved to other existing programs within the Chapter;
- Revisions to the Safety Chapter were made to include adding hazardous materials to the title of the Chapter and considering these materials in this Chapter. This Chapter is now called the Safety and Hazardous Materials Chapter. Some of the Goals of this revised Chapter were removed and new issues were added to the Chapter, including disaster response, air traffic and hazardous waste. Policies and programs to support these new issues were added to this Chapter. The policies and programs to many of the existing issues in the Chapter were also reworded, removed entirely or added to other existing policies within the Chapter. One issue on a land fill site was moved to an existing policy within the Chapter;
- Revisions to the Noise Chapter were made, including the rewording of the Chapter goals. Some of the issues covered in the Chapter were revised as were the policies and programs used to support Chapter policies. One policy was moved to the Design Chapter. One program was also moved to the Circulation Chapter. A table showing acceptable noise levels for land uses was added to the Chapter;

3. *Project Description*

- Revisions to the Open Space /Recreation Chapter were made, including removal of one of the Chapter goals and rewording of two other goals. The language of some issues in the Chapter was revised. One issue was removed and two new issues were added to the Chapter. Various policies and programs in the Chapter had their language revised, or removed. Some policies were also moved to existing programs in the Chapter. A number of new programs were added to support the policies in the Chapter. One program was moved to the Conservation Chapter;
- Revisions to the Design Chapter, including the elimination of three issues and the addition of three new issues. Some Chapter policies were removed, the language of some were revised, and some new policies were added. Some programs to support Design Chapter policies were removed, or were moved to other programs in the Chapter. Many new programs were also added to support Chapter policies;
- Revisions to the Economic Development Chapter, including revisions to Chapter goals. Two Chapter issues were eliminated and the wording of the remaining issues were revised. Some policies in the Chapter were moved to other policies in the Chapter. Many new policies were added to the Chapter to strengthen the Chapter. Many of the existing programs within the Chapter were revised, with some being moved to other programs within the Chapter. New programs were also added to the Chapter to help support Chapter policies.
- The Hazardous Materials Chapter has been eliminated and this issue is now covered by the Safety and Hazardous Material Chapter.

The full text of the proposed General Plan Update is available at the City of Downey Planning Department, at the City library, and on the City's website (www.downeyca.org).



Issues to be addressed through the proposed General Plan Update include: maintaining clean and safe neighborhoods; maintaining the quality of the City's Police and Fire Departments; provision of more sit down restaurants and shopping areas in the City; appearance of residential areas including the design and scale of residents; street tree preservation/replanting; impact of parking restrictions on City residents, traffic congestion; the impact of crime/gangs/graffiti on the City; and the appearance of commercial streets in the City.

The major components and discretionary actions to be considered as part of the General Plan Update by the City include:

- Reclassification of land use designations to reflect the changes to these land use designations in the proposed General Plan Update;
- Amendments to the Circulation Element to maintain acceptable levels of service at buildout and address land use changes associated with the proposed General Plan;

3.3.3 General Plan Chapters

The General Plan is divided into various topical sections, or Chapters that address a wide range of subjects and provide goals and policies that will guide future development in the City. The updated General Plan is organized in the following manner:

Introduction: The General Plan Introduction describes the background of the City's General Plan, how the General Plan was updated, when the various Chapters of the General Plan were adopted, information on the public survey that was conducted as part of the General Plan, information on the General Plan Citizens Advisory Committee, the public meetings that were held on the update of the General Plan, discussion on the definition of a General Plan and the City's policy on the review of the General Plan.

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Information is also provided on the persons and agencies that were contacted during the preparation of the update to the General Plan.

Land Use Chapter: The Land Use Chapter is a guide, or “blueprint,” for Downey’s future development. It designates the distribution and general location of land uses, such as residential, commercial, manufacturing, open space, schools, public land uses, mixed land uses and major roadways within the City. The Land Use Chapter also addresses the land use issues and opportunities in Downey, and the goals, issues, policies and programs that will guide the development of land uses within the City. The Chapter also discusses the land use opportunities and constraints within the City. It also includes the Land Use Diagram that shows the location of the above land use designations and defines each land use. The Chapter also contains standards for building density/intensity within the City. Information on Downey’s unique character is also provided. The regional location of Downey is also described in the Chapter.

Circulation Chapter: The Circulation Chapter includes a discussion on circulation issues in the City of Downey. The goals, policies and programs that have been developed to address circulation issues in the City are included in this Chapter. The major thoroughfares and transportation routes in the City are described in the Chapter, as are the roadway development standards for each roadway type found in the City. The Chapter includes an exhibit that shows the Master Plan of Streets and Highways for the City that includes the location of the freeways, major arterials, secondary highways, collector streets and railroad in the City. An exhibit is also provided on the impact of the Glenn Anderson Freeway on the City’s road network. The existing condition of the major street system in the City is described based on the traffic analysis conducted for the latest update of the General Plan. An evaluation of the condition of the intersections studied during the update of the General Plan is also provided in the Chapter. Changes to the roadway system due to the update of the General Plan are described and the impacts it will have on the roadway network in the City. Information is also provided on public transit and paratransit services in the City, including an exhibit that shows the current RTD routes within the City. Non-Motorized Circulation is also described, including facilities for pedestrians and bicycles in the City. Finally, the Chapter describes the utility infrastructure that supports the City.

Conservation Chapter: The Conservation Chapter describes the state and regional conservation issues that most impact the City of Downey. The Chapter includes a discussion of conservation issues facing the City. It includes the goals, issues, policies and programs that have been developed to address conservation issues in the City of Downey. Information is provided in the Chapter on water and energy resources, biological resources and solid waste disposal issues.

Safety and Hazardous Materials Chapter: This Chapter establishes goals, issues, policies and programs to address hazards impacting the City. They include seismic safety, flooding, fire and police protection, an abandoned landfill, air and train traffic, streetlights and sidewalks and hazardous materials. The Downey emergency plan is also described. These safety issues are discussed in the Chapter along with the goals, issues, policies and programs that are proposed to be used to keep the City safe.

Noise Chapter: This Chapter identifies and appraises potential noise issues facing the City and includes goals, issues, policies and programs to protect the City from excessive noise. Noise sources impacting the City are described. Current noise contours are also included in the Chapter. The future noise environment is described in the Chapter along with noise control programs that can be used to reduce noise impacts on City residents.

Open Space and Recreation Chapter: The purpose of this Chapter is to provide for existing and future open space and recreational needs within the City of Downey. The Chapter provides a discussion of open space and recreation issues of importance to the City along with the goals, issue, policies and

3. *Project Description*

programs that will guide the development of these resources in the years to come. The Chapter describes existing parks and recreational facilities in the City, park maintenance, the financing of park maintenance and renovation, school facilities available for use and opportunities for park and recreational use in the downtown Downey area. Historic resources in the City are also described in the Chapter.

Design Chapter: This Chapter contains goals, issues, policies and programs that can be used to strengthen community appearance and identity. The Chapter discusses design links, design guidelines, entryway statements, property maintenance and the design of downtown Downey. The role of the City's Design Review Board in improving the design of new development is also discussed in this Chapter.

Economic Development Chapter: The purpose of the Economic Development Chapter is to discuss how business activity in Downey may be enhanced. It also identifies key areas where efforts to promote new business should be focused to serve the City's best interest. Economic development issues are described in this Chapter along with the goals, issues, policies and programs that are to be used to guide development in the City. The importance of active economic planning, the role of specific plans and redevelopment in the financial well being of the City are discussed in the Chapter. Corridor development and strip commercial centers are also discussed and the role they play in the economics of the City. The role assessment districts play in providing funding for the City is also described in this Chapter.

Housing Chapter: This Chapter assesses current and projected housing needs, and sets out policies and proposals for the improvement of housing and the provision of adequate sites for housing to meet the needs of all economic segments of the City. This Chapter is a stand-alone document that was prepared prior to and separately from the rest of the General Plan Chapters. The Chapter was certified by the State in 2001 and an update of the Chapter is not required by the State until 2006. It is important to note that the other General Plan Chapters were prepared consistent with the goals and policies of the Housing Chapter. The Housing Chapter is not being updated at this time and is not part of Downey Vision 2025.



3.3.4 Physical Development Under the Proposed General Plan

The Recommended Land-Use Diagram for Downey Vision 2025, illustrated in Figure 3.3-2 through Figure 3.3-2e, represents the land use designations throughout the City, which will guide future development of the City and is a key component of the proposed General Plan Update. As shown on Figure 3.3-2 through Figure 3.3-2e, the Recommended Land Use Diagram will allow development within the City consistent with SCAG regional projections, including approximately 2,905 additional dwelling units, an increase of 13,848 residents, and 4,900 additional jobs. For purposes of environmental analysis, this DEIR compares the 2025 buildout potential under the proposed General Plan Update with the existing baseline condition (i.e., existing land use). Table 3.3-1 also shows the projected growth in housing, population and employment based on the update of the City's General Plan.

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**Table 3.3-1
Housing/Population/Employment Projections
Downey Vision 2025
June 2004**

| <i>Year</i> | <i>Housing Unit Change ¹</i> | <i>Total Housing Units ¹</i> | <i>Population Change</i> | <i>Total Population</i> | <i>Employment</i> |
|------------------------|---|---|--------------------------|-------------------------|-------------------|
| 2000 | - | 34,010 | - | 107,823 | 55,500 |
| 2005 | 482 | 34,492 | - | - | |
| 2010 | 412 | 34,904 | 2,894 | 110,118 | 56,900 |
| 2015 | 530 | 35,434 | 2,903 | 113,012 | |
| 2020 | 549 | 35,983 | 2,869 | 115,881 | |
| 2025 | 440 | 36,423 | 2,671 | 118,552 | |
| Total 2000-2025 | 2,413 | - | 11,337 | - | |
| 2030 | 492 | 36,915 | 2,511 | 121,063 | 60,400 |
| Total 2000-2030 | 2,905 | - | 13,848 | - | 4,900 |

SCAG denotes figures as households, meaning occupied housing units
 Source: SCAG tentative projections, except for Year 2000 (US Census) and Housing Unit Change for 2005 (derived from Housing Element, Certified December 2001).

Table 3.3.2 shows the existing General Plan designations for the City of Downey. These land use designations are described below. No changes to the existing General Plan land use categories are being proposed as part of this General Plan Update.

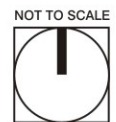
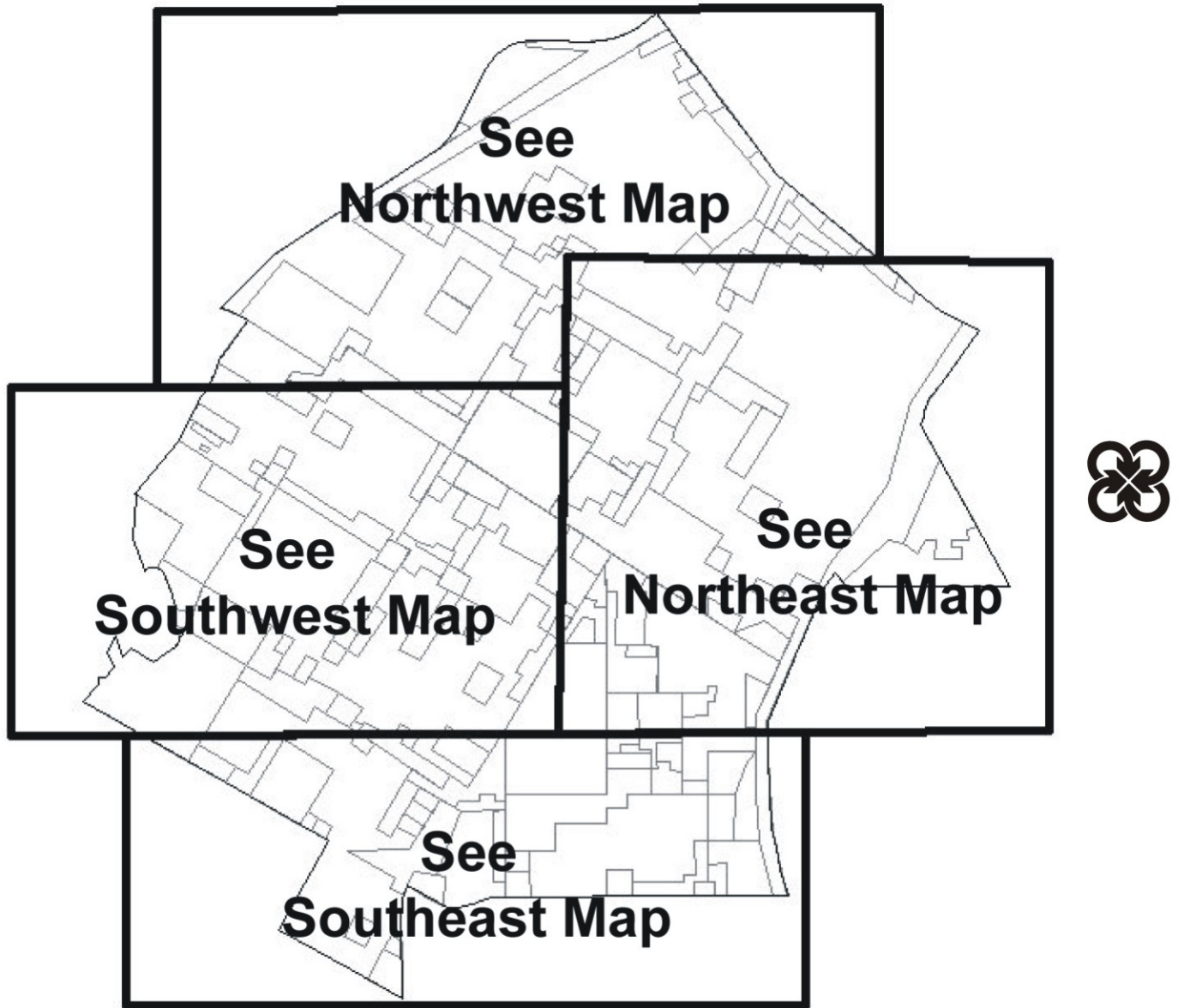
**Table 3.3-2
City of Downey
Existing General Plan Designations
June 2004**

| | |
|------|--------------------------------|
| LDR | Low Density Residential |
| LMDR | Low Medium Density Residential |
| MDR | Medium Density Residential |
| O | Office |
| NC | Neighborhood Commercial |
| GC | General Commercial |
| CM | Commercial Manufacturing |
| GM | General Manufacturing |
| MU | Mixed Use |
| P | Public |
| OS | Open Space |
| S | School |
| SPR | School Private |

Low Density Residential: This category corresponds with the R-1/Single Family Residential zone in the Downey Zoning Code. Residents in this category are single-family detached houses with private yards. The density is 1-8.7 units per net acres. Using the U.S. Bureau of Census estimated the year 2000 average for Downey of 3.11 persons per family. The population density for the land use is approximately 27 persons per acre.

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*Recommended Land Use Diagram
for Downey Vision 2025
Index Map*

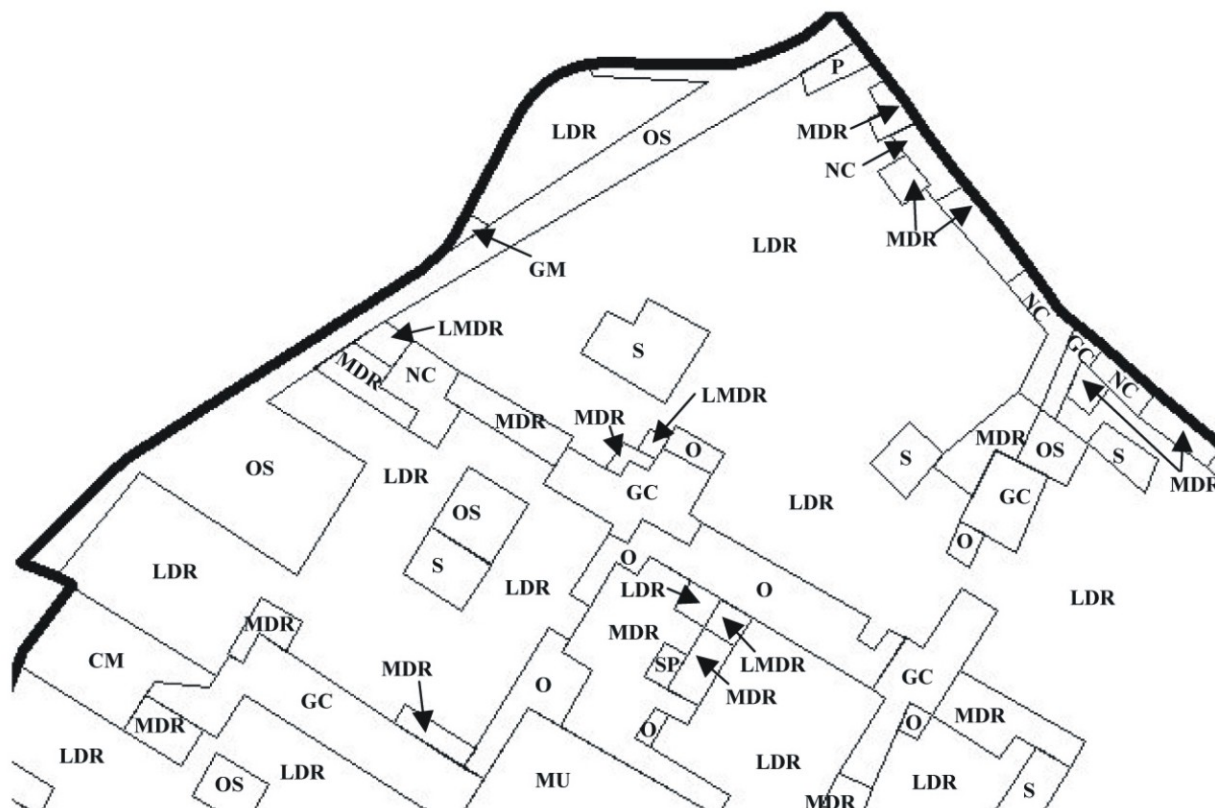


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3. Project Description

Recommended Land Use Diagram for Downey Vision 2025 Northwest Area



| LEGEND: | | | |
|---------|--------------------------------|----|-----------------|
| LDR | Low Density Residential | OS | Open Space |
| LMDR | Low Medium Density Residential | O | Office |
| MDR | Medium Density Residential | P | Public |
| NC | Neighborhood Commercial | MU | Mixed Use |
| GC | General Commercial | S | School |
| CM | Commercial Manufacturing | SP | School -Private |
| GM | General Manufacturing | | |

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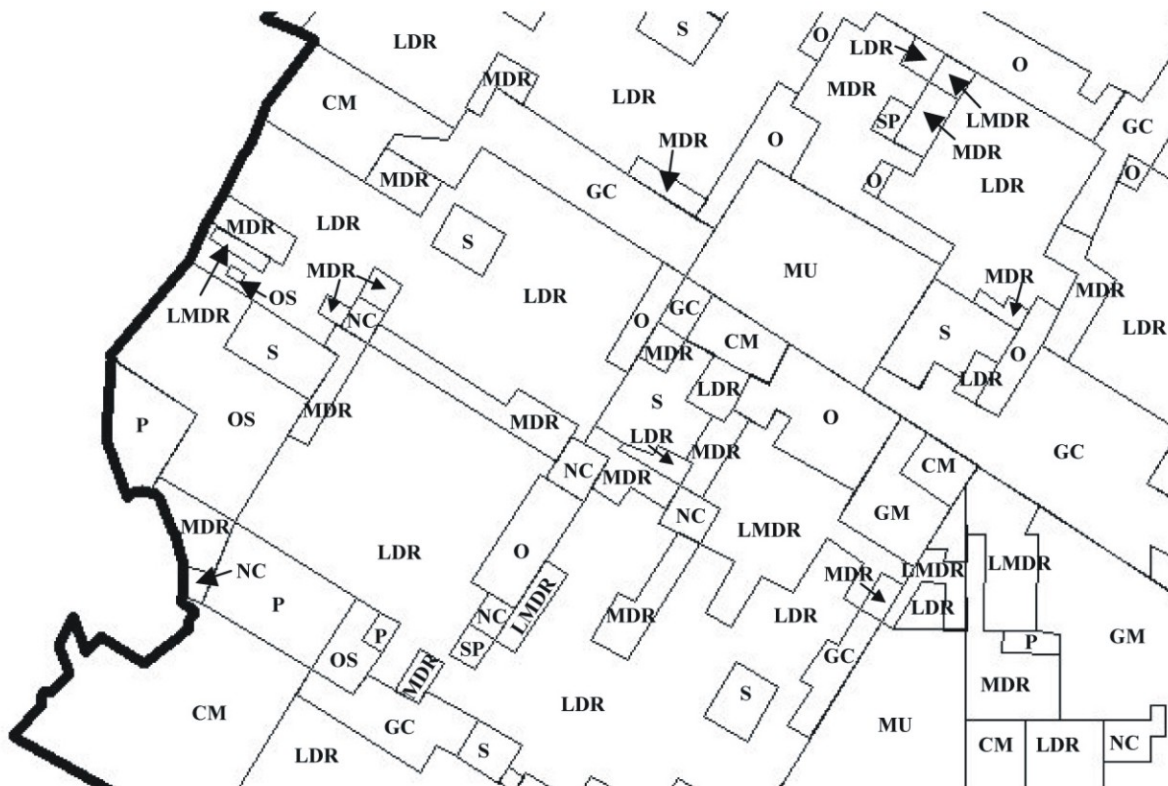


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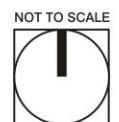
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3. Project Description

Recommended Land Use Diagram for Downey Vision 2025 Southwest Area



| LEGEND: | | | |
|---------|--------------------------------|----|-----------------|
| LDR | Low Density Residential | OS | Open Space |
| LMDR | Low Medium Density Residential | O | Office |
| MDR | Medium Density Residential | P | Public |
| NC | Neighborhood Commercial | MU | Mixed Use |
| GC | General Commercial | S | School |
| CM | Commercial Manufacturing | SP | School -Private |
| GM | General Manufacturing | | |

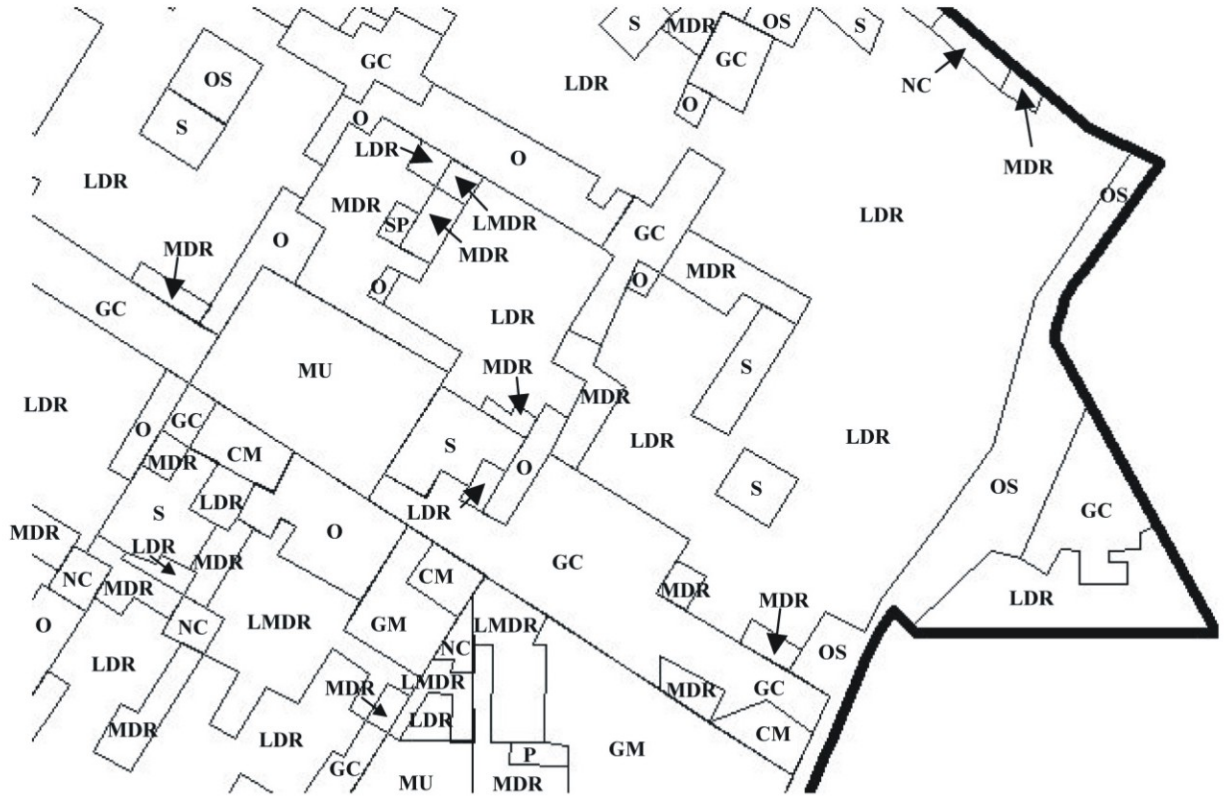


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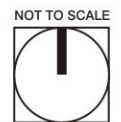
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3. Project Description

Recommended Land Use Diagram for Downey Vision 2025 Northeast Area



| LEGEND: | | | |
|---------|--------------------------------|----|-----------------|
| LDR | Low Density Residential | OS | Open Space |
| LMDR | Low Medium Density Residential | O | Office |
| MDR | Medium Density Residential | P | Public |
| NC | Neighborhood Commercial | MU | Mixed Use |
| GC | General Commercial | S | School |
| CM | Commercial Manufacturing | SP | School -Private |
| GM | General Manufacturing | | |

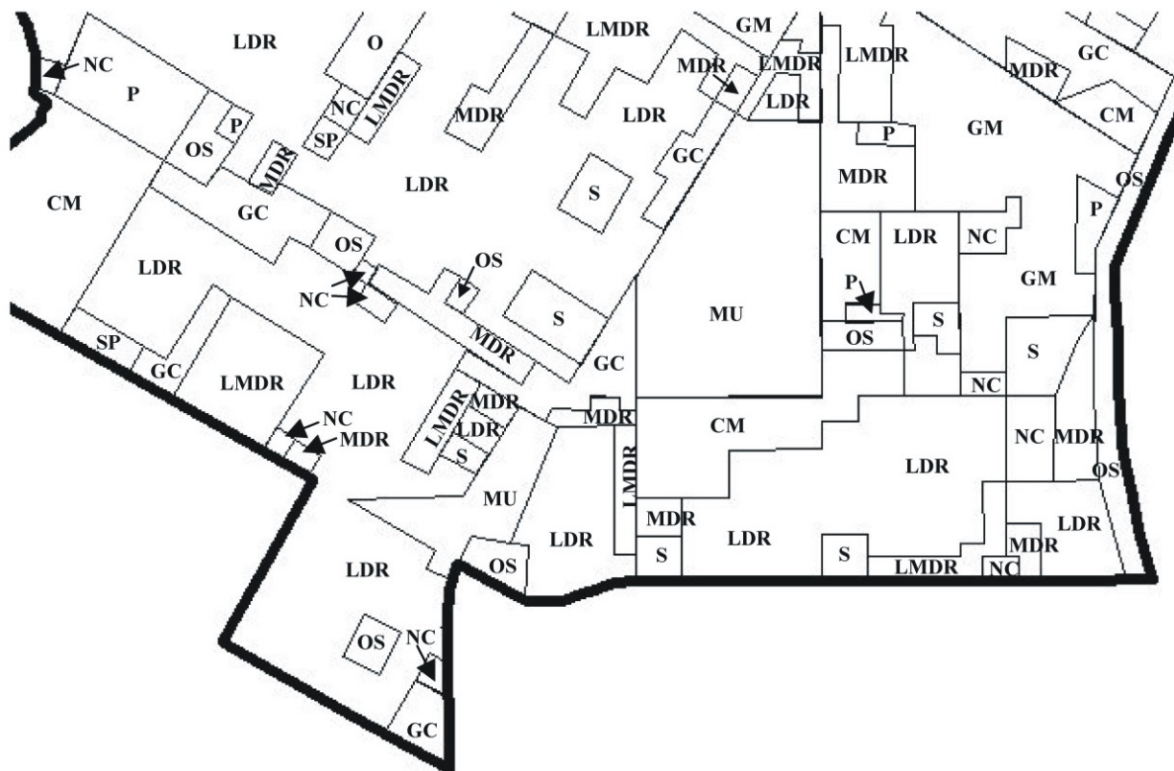


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3. Project Description

Recommended Land Use Diagram for Downey Vision 2025 Southeast Area



| LEGEND: | | | |
|---------|--------------------------------|----|-----------------|
| LDR | Low Density Residential | OS | Open Space |
| LMDR | Low Medium Density Residential | O | Office |
| MDR | Medium Density Residential | P | Public |
| NC | Neighborhood Commercial | MU | Mixed Use |
| GC | General Commercial | S | School |
| CM | Commercial Manufacturing | SP | School -Private |
| GM | General Manufacturing | | |

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Low Medium Density Residential: This category corresponds with the R-2 Two Family Residential Zone. These contain usable open space and can be either attached or detached. Permitted density is 9-17 units per net acre. The population density for the land use is approximately 46 persons per acre.

Medium Density Residential: This category corresponds with the R-3/Multiple Family Residential zone. Permitted density is 18-24 units per net acre. Residences in this category are usually apartment or condominium complexes. The population density for the land use is 65 persons per acre.

Office: This category corresponds with the C-P/Commercial Professional zone. Land uses are intended to be compatible with residential uses. Some of the uses permitted in the category were offices, including medical and dental, financial institutions including banks, small restaurants, coffee shops, flower shops, beauty and barber shops. Anticipated office developments range from low rise, garden offices to medical towers near Downey Community Hospital. The floor area ration (FAR) range is 0.5 to 5/1.

Neighborhood Commercial: This category corresponds with the C-1/Neighborhood Commercial zone. Uses are intended to serve adjacent neighborhoods and are intended to be located in “neighborhood nodes.” Uses include offices, shops such as camera, book, dry cleaners, delicatessen counters, drugstores, electrical appliance stores, and grocery stores. The floor area ratio is 0.25.

General Commercial: This category corresponds with the C-2/General Commercial zone. Uses are intended to provide a wide variety of goods and services for the entire community. Uses include offices and large-scale retail projects. The floor-area ration range is 0.25 to 4/1.

Commercial Manufacturing: This category includes commercial and manufacturing uses and is intended to accommodate both, such as a business park. The floor area ration range is 0.5 to 0.6.

General Manufacturing: This category includes the M1 and M2/Light Manufacturing and General Manufacturing zones. Uses are restricted to certain industrial operations that are not considered environmentally detrimental to the general public. The floor area ration is 0.6.

Mixed Use: This category includes residential/commercial uses and commercial/manufacturing uses.

Public: This category includes public uses such as the Civic Center, the City yards, Seacca, Los Padrinos, Rancho Los Amigos Hospital, Los Padrinos Juvenile Hall and the MTA yard on Telegraph.

Open Space: This category includes open spaces such as utility easements, riverbeds, parks, cemetery and golf courses.

School: This category includes public schools.

Private School: This category includes private schools.

The proposed update of the General Plan also includes the change of land use designations for 16 areas throughout the City. The proposed land use changes for these 16 areas are described on Table 3.3-3. Figure 3.3-3 shows the general locations of the 16 areas. This Figure also shows the existing land use designation for each area and the land use designation being proposed for these areas. See the discussion under Section 5.5, *Land Use*, which discusses the impacts of the changes in the General Plan land use designations for these areas in more detail. It is noted that many of the proposed change in General Plan land use designations are being made to reflect land uses that currently exists on some of these sites.



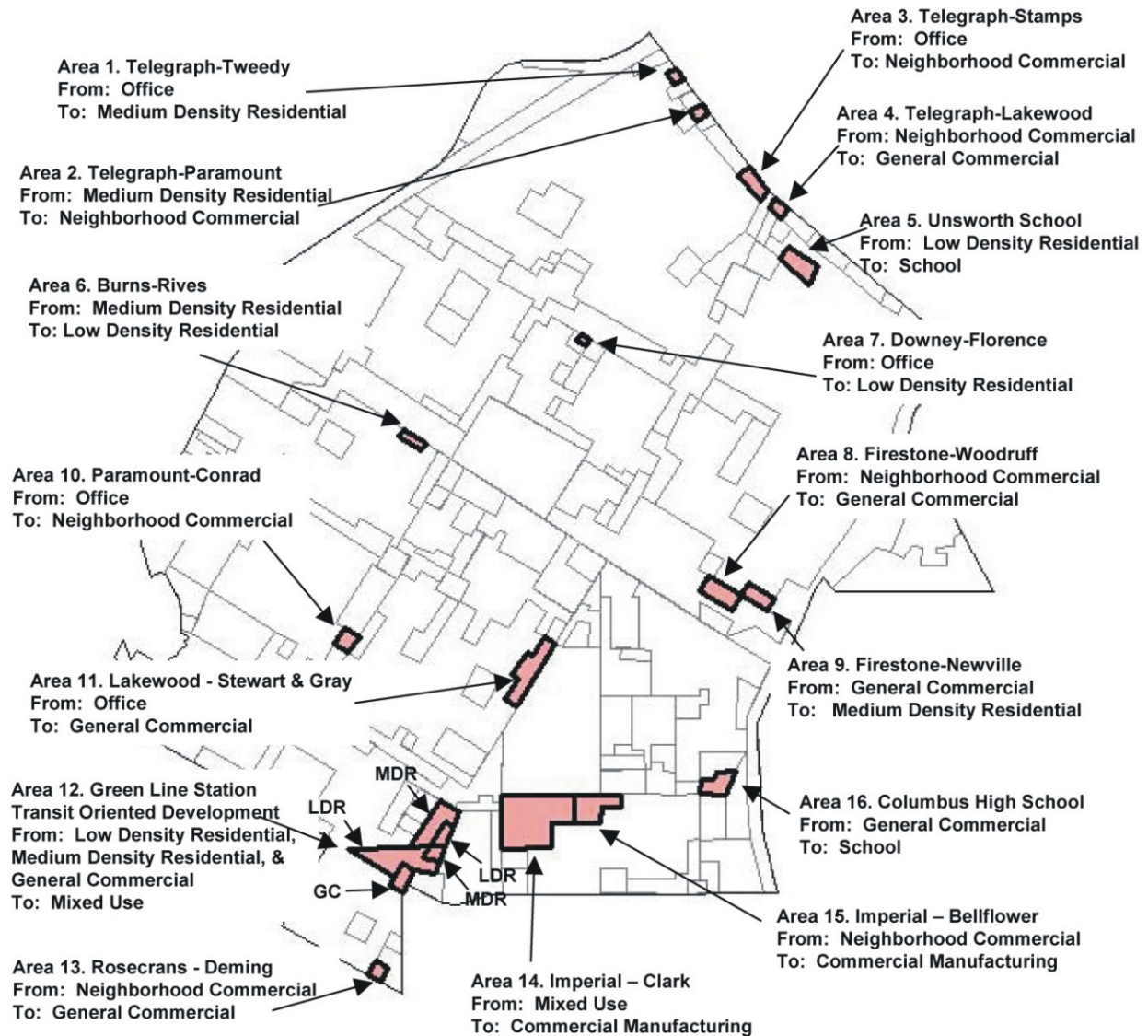
3. Project Description

Table 3.3-3
List of Proposed Changes to the General Plan Land Use Diagram

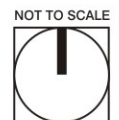
| No. | Location | Existing Designation | Proposed Designation |
|------------|-------------------------|---|-----------------------------|
| 1 | Telegraph-Tweedy | Office | Medium Density Residential |
| 2 | Telegraph-Paramount | Medium Density Residential | Neighborhood Commercial |
| 3 | Telegraph-Stamps | Office | Neighborhood Commercial |
| 4 | Telegraph-Lakewood | Neighborhood Commercial | General Commercial |
| 5 | Unsworth School | Low Density Residential | School |
| 6 | Burns-Rives | Medium Density Residential | Low Density Residential |
| 7 | Downey-Florence | Office | Low Density Residential |
| 8 | Firestone-Woodruff | Neighborhood Commercial | General Commercial |
| 9 | Firestone-Newville | General Commercial | Medium Density Residential |
| 10 | Paramount-Conrad | Office | Neighborhood Commercial |
| 11 | Lakewood-Stewart & Gray | Office | General Commercial |
| 12 | Green Line T-O-D | Low Density Residential & Medium Density Residential & General Commercial | Mixed Use |
| 13 | Rosecrans-Deming | Neighborhood Commercial | General Commercial |
| 14 | Imperial-Clark | Mixed Use | Commercial Manufacturing |
| 15 | Imperial-Bellflower | Neighborhood Commercial | Commercial Manufacturing |
| 16 | Columbus High School | General Commercial | School |

3. Project Description

Location of Properties Where Changes to Land Use are Proposed



| LEGEND: | | | |
|---------|--------------------------------|----|-----------------|
| LDR | Low Density Residential | OS | Open Space |
| LMDR | Low Medium Density Residential | O | Office |
| MDR | Medium Density Residential | P | Public |
| NC | Neighborhood Commercial | MU | Mixed Use |
| GC | General Commercial | S | School |
| CM | Commercial Manufacturing | SP | School -Private |
| GM | General Manufacturing | | |



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3. Project Description

3.4 INTENDED USES OF THIS DRAFT EIR

This EIR is a Program EIR that examines the environmental impacts of the proposed General Plan. This DEIR is also being prepared to address various actions by the City and others to adopt and implement the General Plan. It is the intent of this DEIR to enable the City of Downey, other responsible agencies, and interested parties to evaluate the environmental impacts of the proposed project, thereby enabling them to make informed decisions with respect to the requested entitlements. The anticipated approvals required for this project are as follows:

**Table 3.3-4
Intended Use of the Project EIR**

| Lead Agency | Action |
|--|--|
| Downey City Council | Adoption of the General Plan |
| | Adoption of any ordinances, guidelines, programs, or other mechanisms that implement General Plan policy |
| Downey Planning Commission | Recommendation to City Council to adopt the General Plan |
| | Recommendation to City Council to adopt any ordinances, guidelines, programs, or other mechanisms that implement General Plan policy |
| Other City Boards and Commissions | Review of ordinances, guidelines, programs, or other actions that implement the General Plan |
| City Departments | Adoption of programs or other actions that implement the General Plan and General Plan policies |
| Responsible Agency | |
| Southern California Association of Governments (SCAG) | Revision of regional models related to growth and development projections |
| Los Angeles County Metropolitan Transportation Authority | Approval of the Circulation Element of the General Plan |



3.5 ASSUMPTIONS REGARDING CUMULATIVE IMPACTS

Section 15130 of the CEQA Guidelines states that cumulative impacts shall be discussed where they are significant. It further states that this discussion shall reflect the level and severity of the impact and the likelihood of occurrence, but not in as great a levels of detail as that necessary for the project alone. Section 15355 of the Guidelines defines cumulative impacts to be "...two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." Cumulative impacts represent the change caused by the incremental impact of a project when added to other proposed or committed projects in the vicinity.

The CEQA Guidelines (Section 15130 (b)(1)) state that the information utilized in an analysis of cumulative impacts should come from one of two sources, either:

- 1) A list of past, present and probable future projects producing related cumulative impacts, including, if necessary, those projects outside the control of the agency; or
- 2) A summary of projections contained in an adopted general plan or related planning document designed to evaluate regional or area-wide conditions.

The cumulative impact analyses contained in the DEIR used method 2, as described above. The Southern California Association of Governments (SCAG) has adopted growth forecasts for each Subregion within the SCAG region, including Los Angeles, Orange, San Bernardino, Riverside, Ventura and Imperial Counties through the year 2030. The City of Downey is located in the Los Angeles County

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Council of Governments Subregion. Therefore, the following cumulative impact analysis utilizes the regional growth projections contained in the *Destination 2030 Final Draft 2004 Regional Transportation Plan*, February 2004 for the Los Angeles County Council of Governments Subregion.

As shown on Table 3.3-5, the adopted SCAG Growth Forecasts for the Los Angeles County Council of Governments Subregion project a total increase in population of 1,823,830 people between 2000 and 2030. A total of 541,879 additional housing units are project by 2030. Employment is expected to grow by approximately 866,737 employees. Of the total projected County-wide growth, the City of Downey General Plan Update would accommodate 1.3% of the population growth, 0.18% of the growth in housing units, and 0.17% of employment growth.

**Table 3.3-5
City of Downey and SCAG Growth Forecasts**

| | <i>City of Downey Year 2000 Actuals</i> | <i>City of Downey Projected Growth Through Buildout¹</i> | <i>Total Increase</i> | <i>Los Angeles County Subregion Year 2000 Actuals</i> | <i>SCAG Growth Forecasts Los Angeles County Subregion² 2000-2030</i> |
|---------------|---|---|---------------------------|---|---|
| Population | 107,821 ³ | 13,848 | 121,669 | 7,447,210 | 9,271,040 |
| Housing Units | 34,008 | 2,905 | 36,913 | 2,302,387 | 2,844,266 |
| Employment | 55,499 | 4,900 | 60,399 | 3,353,958 | 4,220,695 |

Source:

¹ Southern California Association of Governments (SCAG), 2004 Regional Transportation Plan.

³ City of Downey Vision 2025 Draft General Plan, June 2004.

² SCAG "Destination 2030 Final Draft 2004 Regional Transportation Plan," February 2004.

The project is a comprehensive update of the City of Downey General Plan that will guide future growth within the City as a whole. Thus, cumulative citywide impacts have been addressed in each environmental parameter discussed in Section 5.0 of the DEIR, *Environmental Impact Analysis*, and summarized in Section 7.2, *Summary of Cumulative Impacts* in the DEIR.

4. Environmental Setting

4.1 INTRODUCTION

The purpose of this section is to provide, pursuant to provisions of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines, a “description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, from both a local and a regional perspective.” The environmental setting provides a set of baseline physical conditions that serve as a tool from which the lead agency will determine the significance of environmental impacts resulting from the proposed project.

4.2 REGIONAL ENVIRONMENTAL SETTING

Physical Features

The City of Downey is located in southeastern Los Angeles County, in an urbanized community located about 12 miles southeast of downtown Los Angeles (see Figure 4.2-1, *Downey Regional Location Map*). Los Angeles County is bordered by Kern County on the north, the Pacific Ocean to the south, San Bernardino County to the northeast, Riverside County to the east and Orange County to the southeast. Ventura County is located to the west. Los Angeles County consists of approximately 4,083 square miles of land.

The natural setting of Los Angeles County provides a combination of mountains, hills, flatlands, and shorelines. Los Angeles County lies predominantly on an alluvial plain, which is generally less than 300 feet in elevation in the west and central section. The western portion of the County is made up of a series of broad sloping plains (Downey Plain) formed from alluvium transported from the mountains by the San Gabriel River, Rio Hondo River, Los Angeles River and other local streams. Several low-lying mesas interrupt the plain along the southern coast. Los Angeles County is semi-enclosed by the Tehachapi Mountains to the north, the San Gabriel Mountains to the east and the Simi Hills/San Emigdio Mountains to the west. To the east and southeast of the plain are the Santa Ana Mountains, which have a peak height of 5,691 feet.

The climate of Los Angeles County is typified by warm temperatures and light winds. The average monthly temperatures range from about 57° Fahrenheit (F) in the coastal areas in January, to 89° F in the inland areas of the coastal plain in August. The average rainfall across the County is 16.5 inches, typically occurring in the winter months. The County’s rainfall also exhibits characteristically wide variations annually, from a low of 0.02 inches to a high of 24.2 inches. (Worldclimate.com)

Regional Urban Characteristics

According to the Southern California Association of Governments (SCAG), in January 2000, Los Angeles County had a total population of 7,447,210 million residents and was comprised of 88 cities.

Los Angeles County’s has approximately 81 miles of shoreline, over 461 miles of bikeways and over 344 miles of riding and hiking trails. Regional attractions include China Town, Olvera Street in downtown Los Angeles, Magic Mountain, Universal Studios, the Hollywood area, the Getty Center, (source: County of Los Angeles website).

Local Environmental Setting

The City of Downey is located in the southeastern part of Los Angeles County, about 12 miles southeast of downtown Los Angeles. The City is surrounded by Telegraph Road on the north; Gardendale Street and Foster Road on the south, the San Gabriel River on the east; and the Rio Hondo River on the west. The Cities bordering Downey include Pico Rivera on the north, Santa Fe Springs on the northeast,



4. Environmental Setting

Norwalk on the east, Bellflower and Paramount on the south, South Gate on the west and the City of Commerce on the northwest. There is no unincorporated County land within the City and the City has no Sphere-of-Influence outside its City boundaries. Regional access to and from Downey is provided by I-5 on the north, I-105 on the south, I-605 on the east and I-710 to the west. MTA Green Line light-rail train services are available at the Lakewood Boulevard station located next to the I-105 Freeway.

Downey is currently home to over 107,800 people. Over the next 20 years, the population is expected to grow to over 121,000. The City includes approximately 12.8 square miles of land.

The City is proposing to change the General Plan land use designations for 16 sites throughout the City. Previously shown Figure 3.3-3 shows the location of these sites. The following is a description of the existing land uses on these sites.

Site No. 1 – This 2-acre site is located at the corner of Telegraph Road and Tweedy Lane. The following land uses currently exist on this site: multi-family residential; public utility; and parking.

Site No. 2 – This slightly less than an acre site is located to the west of Telegraph Road and Paramount Boulevard. The following land uses currently exist on this site: adult day care; and a restaurant.

Site No. 3 – This 2-acre site is located just to the east of the intersection of Telegraph Road and Stamps Road. The following land uses currently exist on this site: multi-family residential, commercial, auto sales, public utility. Multi-family residential uses are all located on the back of this site.

Site No. 4 – This 4-acre site is located on the east side of the intersection of Telegraph Road and Lakewood Boulevard. The following land uses exist on this site: gas station; restaurant, office-medical, commercial; auto service, auto sales, public, vacant lot.

Site No. 5 – This 10-acre site is located north of the I-5 Freeway at Lindsey Avenue. The Usworth School exists on this site.

Site No. 6 – This 3-acre site is located just to the east of Burns Avenue and Rives Avenue. The following land uses exist on this site: single and multi-family residential.

Site No. 7 – This less than half an acre site is located to the southwest of the intersection of Florence Avenue and Downey Avenue. The following land uses exist on this site: single-family residential.

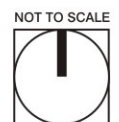
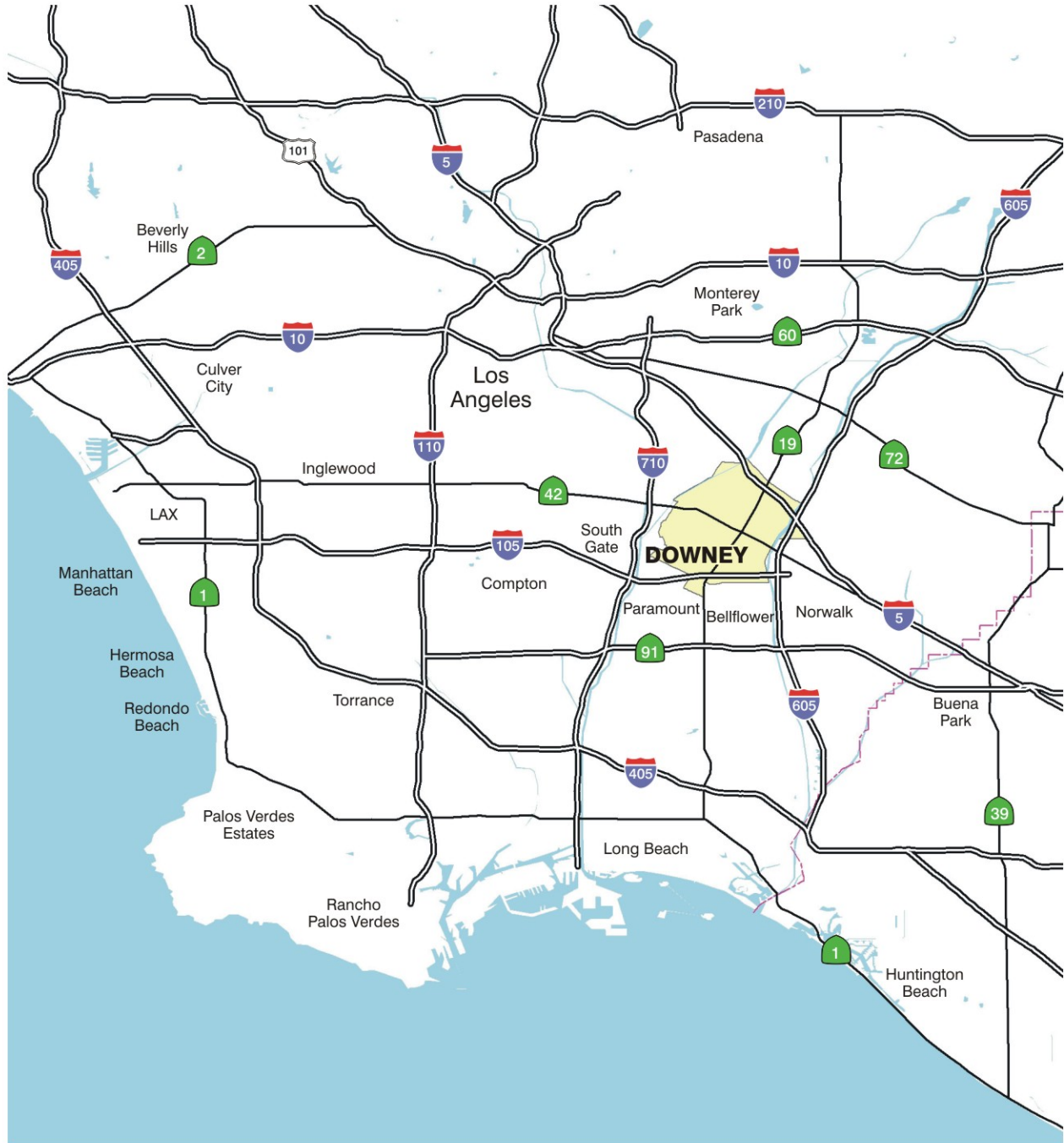
Site No. 8 – This 5-acre site is located to the north of the intersection of Firestone Boulevard and Woodruff Avenue. The following land uses exist on this site: restaurants; hotels; commercial; and child day care.

Site No. 9 – This 9-acre site is located on the east and west sides of the intersection of Firestone Boulevard and Neville Street. The following land uses exist on this site: retail; single- and multi-family residential (primarily multi-family residential).

Site No. 10 – This 15-acre site is located east of the intersection of Paramount Boulevard and Conrad Street. The following land uses exist on this site: commercial; restaurants, offices-general; single- and multi-family residential, child day care, public use.

4. Environmental Setting

Regional Location



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4. Environmental Setting

Site No. 11 – This 11-acre site is located southwest of the intersection of Lakewood Boulevard and Stewart and Gray Road. The following land uses exist on this site: commercial; single-and multi-family residential; offices-medical; medical care and assisted living uses; auto sales; auto service; and church.

Site No. 12 – This 21-acre site is located in the vicinity of the MTA rail station at the intersection of Lakewood Boulevard and the I-105 Freeway. The following land uses exist in this area: primarily single-and multi-family residential; plus office-medical; office-general; auto service; and commercial.

Site No. 13 – This 2-acre site is located on either side of the intersection of Rosecrans Avenue and Deming Avenue. The following land use exists at this site: multi-family residential.

Site No. 14 – This 42-acre site is located at the southeast corner of intersection of Imperial Highway and Clark Avenue. The following land uses exist on this site: restaurant; and offices-general. A number of Los Angeles County offices are also found on the site.

Site No. 15 – This 14-acre site is located on the southeast and southwest sides of the intersection of Imperial Highway and Bellflower Boulevard. The following land uses exist on these sites: commercial; offices-medical; auto service; and restaurant.

Site No. 16 – This 23-acre site is located at the intersection of Imperial Highway and Woodruff Avenue. The Columbus High School exists on this site.

4.3 ADOPTED GENERAL PLAN (OCTOBER 1992)

The City’s existing General Plan, adopted in October 1992 by the Downey City Council, and subsequently amended, includes various Chapters as described below. The existing General Plan Land Use Map consists of various land use designations, as shown on Figure 4.3-1, *Existing Downey General Plan Land Use Map*. These designations are grouped into broad categories such as Residential, Commercial, Manufacturing, Open Space, Schools, Public, and Mixed Use. Table 4.3-1 illustrates most of the designated land use by acreage and percentage as included in the 1990 land use inventory conducted by the City.



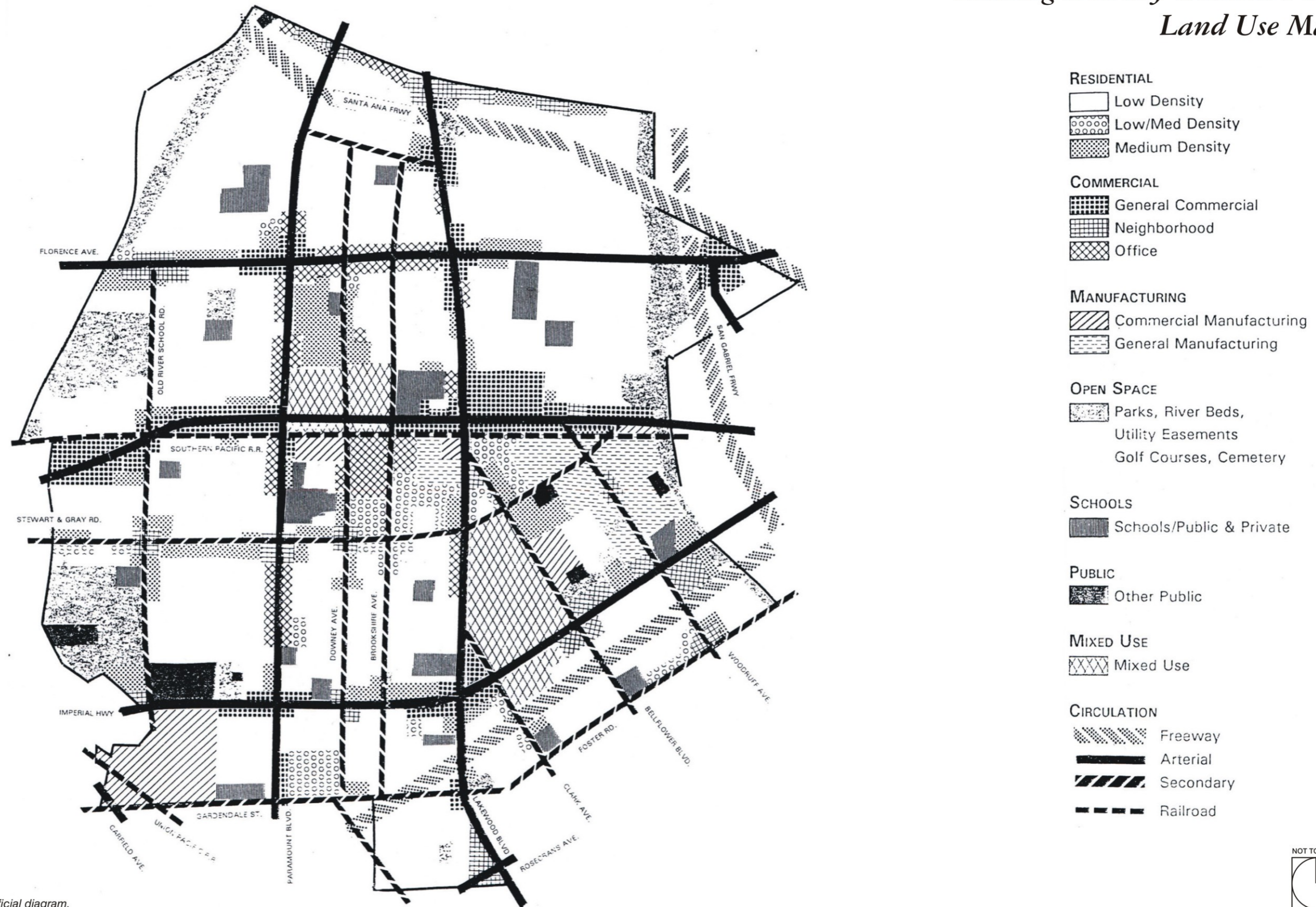
**Table 4.3-1
1990 Land Use Inventory**

| <i>Land Use Category</i> | <i># of Acres</i> | <i>% of Total</i> |
|--------------------------|-------------------|-------------------|
| Residential | 3,798 | 63% |
| Single-Family | 3,256 | 54% |
| Two-Family | 112 | 2% |
| Multiple-Family | 430 | 7% |
| Commercial | 574 | 9% |
| Office | 118 | 2% |
| Retail | 456 | 7% |
| Industrial | 529 | 9% |
| Manufacturing | 529 | 9% |
| Open Space | 568 | 9% |
| Schools | 308 | 5% |
| Public | 184 | 3% |
| Other (inc. vacant) | 110 | 2% |
| Total # Acres | 6,071 | 100% |

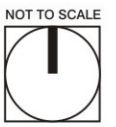
4. *Environmental Setting*

- **Land Use Chapter:** The Land Use Chapter is a guide, or “blueprint,” for Downey’s future development. It designates the distribution and general location of land uses, such as residential, commercial, manufacturing, open space, schools, public land uses, mixed land uses and major roadways within the City. The Land Use Chapter also addresses the land use issues and opportunities in Downey, and the goals, issues, policies and programs that will guide the development of land uses within the City. The Chapter also discusses the land use opportunities and constraints within the City. It also includes the Land Use Diagram that shows the location of the above land use designations and defines each land use. The Chapter also contains standards for building density/intensity within the City. Information on Downey’s unique character is also provided. The regional location of Downey is also described in the Chapter.
- **Circulation Chapter:** The Circulation Chapter includes a discussion on circulation issues in the City of Downey. The goals, policies and programs that have been developed to address circulation issues in the City are included in this Chapter. The major thoroughfares and transportation routes in the City are described in the Chapter, as are the roadway development standards for each roadway type found in the City. The Chapter includes an exhibit that shows the Master Plan of Streets and Highways for the City that includes the location of the freeways, major arterials, secondary highways, collector streets and railroad in the City. An exhibit is also provided on the impact of the Glenn Anderson Freeway on the City’s road network. The existing condition of the major street system in the City is described based on the traffic analysis conducted for the latest update of the General Plan. An evaluation of the condition of the intersections studied during the update of the General Plan is also provided in the Chapter. Changes to the roadway system due to the update of the General Plan are described and the impacts it will have on the roadway network in the City. Information is also provided on public transit and paratransit services in the City, including an exhibit that shows the current RTD routes within the City. Non-Motorized Circulation is also described, including facilities for pedestrians and bicycles in the City. Finally, the Chapter describes the utility infrastructure that supports the City.
- **Conservation Chapter:** The Conservation Chapter describes the state and regional conservation issues that most impact the City of Downey. The Chapter includes a discussion of conservation issues facing the City. It includes the goals, issues, policies and programs that have been developed to address conservation issues in the City of Downey. Information is provided in the Chapter on water and energy resources, biological resources and solid waste disposal issues.
- **Safety Chapter:** This Chapter establishes goals, issues, policies and programs to address hazards impacting the City. They include seismic safety, flooding, fire and police protection, an abandoned landfill, air and train traffic, streetlights and sidewalks and hazardous materials. The Downey emergency plan is also described. These safety issues are discussed in the Chapter along with the goals, issues, policies and programs that are proposed to be used to keep the City safe.

Existing Downey General Plan
Land Use Map



Source: City of Downey
Note: This is a reasonable facsimile of the official diagram.



4. *Environmental Setting*

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4. *Environmental Setting*

- **Noise Chapter:** This Chapter identifies and appraises potential noise issues facing the City and includes goals, issues, policies and programs to protect the City from excessive noise. Noise sources impacting the City are described. Current noise contours are also included in the Chapter. The future noise environment is described in the Chapter along with noise control programs that can be used to reduce noise impacts on City residents.
- **Open Space and Recreation Chapter:** The purpose of this Chapter is to provide for existing and future open space and recreational needs within the City of Downey. The Chapter provides a discussion of open space and recreation issues of importance to the City along with the goals, issue, policies and programs that will guide the development of these resources in the years to come. The Chapter describes existing parks and recreational facilities in the City, park maintenance, the financing of park maintenance and renovation, school facilities available for use and opportunities for park and recreational use in the downtown Downey area. Historic resources in the City also described in the Chapter.
- **Design Chapter:** This Chapter contains goals, issues, policies and programs that can be used to strengthen community appearance and identity. The Chapter discusses design links, design guidelines, entryway statements, property maintenance and the design of downtown Downey. The role of the City's Design Review Board in improving the design of new development is also discussed in this Chapter.
- **Economic Development Chapter:** The purpose of the Economic Development Chapter is to discuss how business activity in Downey may be enhanced. It also identifies key areas where efforts to promote new business should be focused to serve the City's best interest. Economic development issues are described in this Chapter along with the goals, issues, policies and programs that are to be used to guide development in the City. The importance of active economic planning, the role of specific plans and redevelopment in the financial well being of the City are discussed in the Chapter. Corridor development and strip commercial centers are also discussed and the role they play in the economics of the City. The role assessment districts play in providing funding for the City is also described in this Chapter.
- **Housing Chapter:** This Chapter assesses current and projected housing needs, and sets out policies and proposals for the improvement of housing and the provision of adequate sites for housing to meet the needs of all economic segments of the City. This Chapter is a stand-alone document that was prepared prior to and separately from the rest of the General Plan Chapters. The Chapter was certified by the State in 2001 and an update of the Chapter is not required by the State until 2006. It is important to note that the other General Plan Chapters were prepared consistent with the goals and policies of the Housing Chapter. The Housing Chapter is not being updated at this time and is not part of Downey Vision 2025.
- **Hazardous Waste Management Chapter:** This Chapter incorporates the Los Angeles County Hazardous Waste Management Plan, with some modifications. The goals, issues, policies and programs included in the Chapter guide the development of off-site and on-site hazardous waste management facilities, projects and programs in an orderly fashion. The Chapter also describes small quantity generators of hazardous materials, residential hazardous waste, the transportation of hazardous materials through the City, contaminated sites, and siting criteria for on-site facilities. Jurisdictional boundaries on who is responsible for hazardous wastes is also discussed.



4. Environmental Setting

4.3.1 Existing Zoning

The Downey Municipal Code, Article IX – Land Use Chapter 1, Zoning, contains the zoning regulations that govern land use development in the City. General Plan land use designations are consistent with zoning designations as required by California Planning Law. Zoning designations that are included in the Municipal Code are outlined below.

R-1 – Single-Family Residential: The R-1 Zone is intended to provide for the development of single-family residential areas and to designate appropriately located areas for family living at designated population densities. The provisions of this zone are intended to insure that the residential character of such areas will be stabilized and maintained. They are further intended to provide a basis for the planning of related amenities, such as parks, schools, public utilities, streets and highways, and other community facilities.

The following uses are permitted in the R-1 Zone, and land shall be used and buildings and structures shall hereinafter be erected, altered, enlarged, or otherwise modified for the following uses only: one single-family dwelling of a permanent character placed in a permanent location which shall have covered parking spaces as set forth in Section 910 of the this chapter of the Municipal Code; additional residences on land under one ownership may be permitted by the City's Planning Commission in conformance with Section 9158 of the Municipal Code. A number of accessory uses are permitted in the R-1 Zone as outlined in this chapter of the Code. Additional land uses may be permitted in the R-1 Zone subject to the approval of a conditional use permit as provided by this chapter of the Municipal Code.

R-2 – Two-Family Residential: The R-2 Zone is intended to provide for the development of two (2) family residential lots and to designate appropriately located areas for two (2) family living at designated population densities. The provisions of this zone are intended to insure that the residential character of such areas will be stabilized and maintained. They are further intended to provide a basis for the planning of related amenities, such as parks, schools, public utilities, streets and highways, and other community facilities.

The accessory uses permitted in the R-2 Zone are the same as permitted in the R-1 zone. There are a number of other uses permitted in the R-2 Zone subject to the approval of a conditional use permit. These uses are the same uses permitted by a conditional use permit in the R-1 Zone.

R-3 – Medium Density Multiple-Family Residential: The R-3 Zone is intended to provide for the development of medium density multiple-family residential living areas compatible with the neighborhood environment and outdoor recreation potential of the community. Such areas are envisioned as being located and designed as to be complementary to adjacent activities and at the same time provided suitable space for those who prefer and/or need multiple-family living quarters.

A number of accessory uses are permitted in the R-3 Zone as outlined in this chapter of the Municipal Code. They include all accessory uses as permitted in the R-2 Zone, except for a limit on the number of permitted garage sales. Other land uses may be permitted in the R-3 Zone subject to the approval of a conditional use permit and include the uses permitted by a conditional use permit in the R-2 Zone and other land uses as outlined in this chapter of the Municipal Code.

R-3-O – Medium Density Multiple-Family Residential-Ownership: The R-3 Zone is intended to provide for the development of medium density multiple-family ownership type housing in selected areas compatible with the neighborhood environment. Such areas are envisioned as being located and designed to be complementary to adjacent uses and providing sufficient opportunities for those who prefer and/or need medium density multiple-family housing of ownership type.

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Accessory uses are permitted in the R-3-O Zone and include accessory uses as permitted in the R-3 Zones subject to all applicable regulation. Other land uses may be permitted in the R-3-O Zone subject to the approval of a conditional use permit. They include all the uses that are permitted by a conditional use permit in the R-3 Zone.

C-1 – Neighborhood Commercial: The C-1 Zone is intended to provide for the development of limited neighborhood shopping areas situated adjacent to, or surrounded by, residential neighborhoods. These shopping areas are intended to serve only the limited need for convenience goods and services in their immediate locality and should fit easily into a residential environment without detriment to the character of the area. A wide variety of land uses are permitted in the C-1 Zone as outlined in this chapter of the Municipal Code.

A variety of other commercial uses may also be permitted in the C-1 Zone subject to the approval of a conditional use permit, as provided in Section 9166 of the Municipal Code.

C-2 – General Commercial: The C-2 Zone is intended to provide for and encourage the orderly development of general commercial uses, with a wide variety of goods and services, for the residents of the entire City, with provisions designed to insure that such commerce will be efficient, functionally related, and compatible with adjacent noncommercial development.

A wide variety of commercial uses are permitted in the C-2 Zoned and include all those uses permitted in the C-1 Zone and the other commercial uses included in this chapter of the Municipal Code. Additional commercial uses may be permitted in the C-2 zone subject to the approval of a conditional use permit, as provided by Section 9166 of this chapter of the Municipal Code.

C-3 – Central Business District: The C-3 Zone is intended to provide for the development of intense commercial and service uses in the City in order to serve the broadest community and regional needs. This area will provide a wide variety of goods and services in establishments whose operating characteristics attract them to a central location in the City and which require good exposure in a readily identifiable and accessible setting. The provision of this zone are designed to insure that such activities will be compatible with abutting noncommercial development and to minimize any effects of older development, heavy traffic, or other operating characteristics.

A wide variety of commercial uses are permitted in the C-3 Zone, and land shall be used and the buildings and structures shall be erected, altered, enlarged, or otherwise modified for those uses permitted in the C-2 Zone. Additional commercial uses may be permitted in the C-3 Zone subject to the approval of a conditional use permit, as provided by Section 9166 of this chapter of the Municipal Code. Those uses include uses requiring a conditional use permit approval in the C-2 Zone and other uses as outlined in this chapter of the Municipal Code.

C-M – Commercial Manufacturing: The C-M Zone is intended to provide a flexible range of commercial, wholesale and light manufacturing uses that can be operated in harmony with each other and in a clean and orderly manner. The areas designated for the commercial and manufacturing zone are suitable for both types of uses in combination with each other or individually. The limitations imposed upon such uses are intended to control the intensity of use and effect upon surrounding areas.

Building, structures and land in the C-M Zone shall be used and buildings and structures shall be erected, altered, or enlarged only for the retail uses/commercial services and manufacturing activities as outlined in this chapter of the Municipal Code. Additional commercial manufacturing uses may be permitted in the C-M Zone with a conditional use permit for a number of other uses as outlined in the Code.



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C-P – Professional Office: The C-P Zone is intended to provide for the development of integrated office and professional areas wherein related types of uses and facilities may also be located. The provisions of this zone are intended to encourage the most desirable relationship of permitted uses and to provide a transition between more intensive commercial activities and residential areas.

A number of professional office uses are permitted in the C-P Zone as outlined in this chapter of the Municipal Code. Additional office uses may be permitted in the C-P zone subject to the approval of a conditional use permit, as provided in Section 9166 of the Municipal Code.

H-M – Hospital-Medical Arts: The H-M Zone is intended to permit the orderly and transitional development of property in accordance with the needs and purpose of the area and to be compatible with related uses permitted within the zone. A number of medical uses and support facilities are allowed in the H-M Zone as outlined in this chapter of the Municipal Code.

A number of accessory land uses are also permitted in the H-M Zone when clearly accessory and incidental to a permitted primary use and located on the same lot to serve the occupants of existing buildings in this zone. These uses are described in this chapter of the Municipal Code. Additional uses may be permitted in the H-M Zone subject to the approval of a conditional use permit as outlined in the Municipal Code.

M-1 – Light Manufacturing: The M-1 Zone is intended to provide an orderly development and grouping together of light manufacturing uses in harmony with each other and the rest of the community. The provisions of this zone are designed to insure that such uses will be protected from inharmonious uses and to minimize the undesirable effects of heavy traffic or other operation characteristics. The manufacturing, services, processing, finished products, wholesaling/warehousing/storage and miscellaneous uses allowed in this zone are outlined in this chapter of the Municipal Code.

This chapter of the Municipal Code lists a number of other uses that may be permitted in the M-1 zone when located not closer than 200 feet to a residential zone. Other commercial uses may be permitted in the M-1 Zone when they are intended to serve the industrial area subject to the approval of a conditional use permit. These uses are also outlined in this chapter of the Municipal Code.

M-2 – General Manufacturing: The M-2 Zone is intended to provide an orderly development of general manufacturing, research and development, wholesale and distribution warehousing, and other compatible uses within the community. The provisions of this zone are designed to insure that industrial development will be protected from intrusion by inharmonious uses, that it will be provided with adequate space and accessory facilities, and that abutting non-industrial areas will be protected from potential conflicts with industrial developments.

This chapter of the Municipal Code lists the manufacturing uses that are permitted in this zone. Additional manufacturing uses are also permitted in the M-2 Zone when located not closer than 200 feet to a residential zone. Additional commercial uses may be permitted in the M-2 Zone when they are intended to serve the industrial area subject to the approval of a conditional use permit. These uses are also outlined in this chapter of the Municipal Code.

O-S – Open Space: The Open Space Zone is intended to include watercourse and flood control areas, school sites, public and private park lands, public utility easements, natural resource lands, institutional uses, with an open space character, circulation corridors, recreational lands, and scenic and open space areas. It is also the intent of this zone to provide for permanent open space in the community by limiting development in areas which are so located, or having a configuration, or possessed of such geologic features that the residential or other structural use of the land might endanger the health, safety, and welfare of residents from possible flood, fire, subsidence, or erosion.

4. Environmental Setting

The following uses are permitted in the OS Zone, and land shall be used and buildings and structures shall hereafter be erected, altered, enlarged, or otherwise modified for the following uses only: all agricultural uses; publicly-owned parks, playgrounds, recreational areas, and open spaces; and public golf courses and driving ranges. Other land uses may be permitted in the OS Zone subject to the approval of a conditional use permit.

P-B – Parking Buffer: The P-B Zone is intended to provide for the development of landscaping and accessory parking facilities as exclusive uses. This zone is further intended to act as a buffer area between the principal uses of the parcel of which it is a part and adjoining streets and less intense zones. The use allowed in this zone is outlined in this chapter of the Municipal Code. Additional land uses may be permitted by a conditional use permit and include accessory buildings when in conjunction with property zoned otherwise and under the same ownership; service stations in conformance with the standards set forth in Section 9146 of this chapter of the Municipal Code; and structures for the enclosure and/or support of parking facilities.

PUD – Planned Unit Development Overlay: The Planned Unit Development process is intended to provide a more flexible method whereby appropriately located land areas can be developed, employing more innovative and imaginative land planning concepts than would be possible through the strict application of conventional zoning and subdivision regulations. It is intended that planned residential developments will meet the broader objectives of the General Plan and this chapter of the Municipal Code and will exhibit excellence in design, site arrangements, integration of uses and structures, and protection to the intercity of surrounding developments, although such developments may deviate in certain respects from the zoning maps, zone regulations, or subdivision regulations. A planned unit development may include a combination of different dwelling types and a variety of land uses which complement each other and harmonize with the existing and proposed land uses in the vicinity, providing it is determined by the City that all the regulations and objectives of this section have been met.

The uses permitted in a Planned Unit Development Overlay Zone are outlined in Downey Municipal Code Section 9132.10.

D-P – Downtown Plan Overlay: This overlay zone covers the area covered by the City's Downtown Plan. The boundaries of the Downtown Plan area include certain properties within the following area: Fifth Street to the north; Brookshire Avenue to the east; the Southern Pacific Railroad to the south; and Paramount Boulevard to the west. The Plan covers the permitted uses by right or by a Conditional Use Permit, development and parking standards, signing requirements, and standards for outdoor dining, vending machines and newspaper racks.

S-P – Specific Plan: Section 65450 of the California Government enables local governments to adopt Specific Plans for the systematic implementation of their General Plans. Specific Plan provides greater General Plan implementation than conventional zoning. Many cities' Municipal Codes do not have adequate use or development standards that address contemporary issues that arise with the development of non-traditional land uses on project sites. In the preparation of a Specific Plan, the development concerns for a particular property can be incorporated into the Specific Plan. The Specific Plan can thus replace conventional zoning, and go beyond it in addressing concerns relative to individual project sites. Thus, the Specific Plan becomes the governing ordinance establishing the land use controls for the development on a site covered by a Specific Plan. A number of Specific Plans have been approved by City of Downey and include the following Specific Plans:

- **Downey Landing Specific Plan (SP-01-01)** covers a 160-acre site located in the southern portion of the City of Downey. Lakewood Boulevard, Stewart and Gray Road, Bellflower Boulevard, Imperial Highway and Clark Avenue bound the site. The site is accessed from all of these streets. The site



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was used for aircraft manufacturing and assembly; testing and operation of the first low-level nuclear reactor in California; invention, testing, and patenting of chemical milling processes, research, production, and assembly of early American rockets and missiles, design, production, assembly and testing of equipment associated with space and moon landing programs; and support for the Space Shuttle program. A portion of the site is currently used for television and film production.

The northern portion of the site is planned as a retail center that will orient to Lakewood Boulevard and Stewart and Gray Road. The southern portion of the project is planned as a major hospital and medical office complex. The western portion of the project is planned as a television and movie production facility that may incorporate existing structures. Alternatively, the middle portion of this site is also permitted for business park uses, should television and film production prove infeasible. The eastern portion is planned as a business park.

The Downey Landing Specific Plan is a comprehensive guide describing the appearance, scale, and quality of development on the site. The Specific Plan sets forth permitted uses and describes measures that ensure that future development is acceptable to and compatible with surrounding uses. The Development Plans section of the Specific Plan addresses how the property will be developed, at what intensity, and in which areas. The Specific Plan Development Standards and Design Guidelines provide detailed direction for future development on the site. The Standards and Guidelines implement the planning and design concepts provided in the Specific Plan.

- **The Lakewood/Firestone Specific Plan (SP 91-2)** serves as the planning and development regulations for approximately 36.5 acres along Firestone Boulevard, Lakewood Boulevard, and Woodruff Avenue near the commercial heart of Downey. It is the intent and purpose of the Specific Plan to provide a comprehensive set of land uses, building envelopes, development regulations, design guidelines, and implementation programs to ensure quality development consistent with the goals, policies, and objectives of the Downey General Plan.

The Specific Plan includes regulations and standards that coordinate and visually unify future architectural, circulation, landscaping, and utility improvements into a comprehensive development program. The text and graphics in the Specific Plan serve as the ongoing zoning code for the Specific Plan area and to achieve the Specific Plan goals.

- **The Florence Avenue/I-5 Specific Plan (SP-90-1)** serves as the planning and development regulations for future improvements to an area of approximately 39 acres adjacent to the Santa Ana and San Gabriel River Freeways. This Specific Plan provides for the development of a center oriented toward the sales and service of new vehicles. High-intensity general commercial or medium-intensity commercial uses are alternative land uses that could be developed in the Specific Plan area. The Specific Plan provides a comprehensive set of land uses, development plans, development regulations, design guidelines and implementation programs to ensure quality development consistent with the Land Use Plan and the goals, policies, and objectives of the Downey General Plan.
- **The Stonewood Shopping Center Specific Plan (SP 89-1)** serves as the planning and development regulations for the expansion of the Stonewood Shopping Center (Center) which is located on approximately 63 acres at the northeast corner of Firestone Boulevard and Lakewood Boulevard. The Specific Plan outlines the proposed development plan which called for the enclosure of the Center and the addition of a fourth retail tenant in the Center. The Specific Plan provides regulations and standards that unify the planned mall expansion, circulation system, landscaping and utility improvements into a comprehensive development program. The Specific Plan text and graphics serve as the ongoing development code for the Center.

4. Environmental Setting

- **The Rancho Los Amigos Business Center Specific Plan (SP-88-1)** guides the planning and development of a parcel of land owned and operated by the County of Los Angeles for hospital and administration use. The County's property involves land both north and south of Imperial Highway for a total of 212 acres. The Specific Plan addresses 120.9 acres of the hospital facility located generally south of Amigos Avenue. A prior Specific Plan, SP 85-1, covered a 14.9-acre parcel located on the southwest corner of Imperial Highway and Rives Avenue.

Los Angeles County will lease the entire 120.9 acres south of Imperial Highway for private development. Under this scenario, private investors will lease and construct buildings, while the land remains under County ownership. The City of Downey will receive a portion of possessory interest taxes. Additional revenue will come from sales and use taxes.

The Rancho Los Amigos Business Center was the largest planned business park in the City of Downey at the time the Specific Plan was developed. The Specific Plan provides the development framework for the first phase of the development, a 28.8-acre parcel, within the context of the entire project. The Specific Plan supplements provisions of the General Plan and City's Municipal Code, providing a comprehensive framework for future development of this light industrial, business park. Implementation of the Specific Plan requires subsequent studies, public hearings and amendments of the Specific Plan to allow for the development of future phases of the Business Center.

- **Specific Plan 88-1A** guides the development of an extension to Phase II of the Rancho Business Center. This extension is bounded by Flores Street on the north, the railroad on the west, and medical center uses on the south and east and occupies 6.937 acres of land. A printing/ mailing center was proposed to be developed as part of this phase of development. The Specific Plan included the following: established standards for the development of Phase IIA improvements; provided a comprehensive framework to continue the orderly development of the Business Center; ensured the integrity of the nearby residential neighborhoods through master planning and development regulations; and ensured that adequate utilities and services were provided to serve this phase of development of the Business Center.
- **Specific Plan 85-1** was initiated by the Downey City Council at the request of the County of Los Angeles. The Specific Plan covers approximately 14 acres of land to the southwest of Imperial Highway and Rives Avenue on the Rancho Los Amigos property owned by the County. This 14 acre site was the first phase in the eventual redevelopment of the entire 212 acres of property that the County used for hospital and administration use. A new hospital facility concentrated on a smaller site was proposed for development at the time the Specific Plan was adopted. This would leave surplus land available for lease to private developers as guided by a subsequent Specific Plans 88-1 and 88-1A. The Specific Plan included the following: standards for the development of this first phase of the Rancho Business Center improvements; and provided a framework for the orderly development of the Business Center.

The City is in the process of preparing a comprehensive update of the City's zoning code that regulates the land uses that can be developed within a zone. However, the update of the zoning code is not part of Downey Vision 2025. The zoning code update will be prepared consistent with any changes in the General Plan land uses approved as part of Downey Vision 2025.

Figure 4.3-2 on the page after next shows the existing Zoning in the City of Downey. A full size version of this map is available at the city's Planning Department. This map was too large to be included in the DEIR.

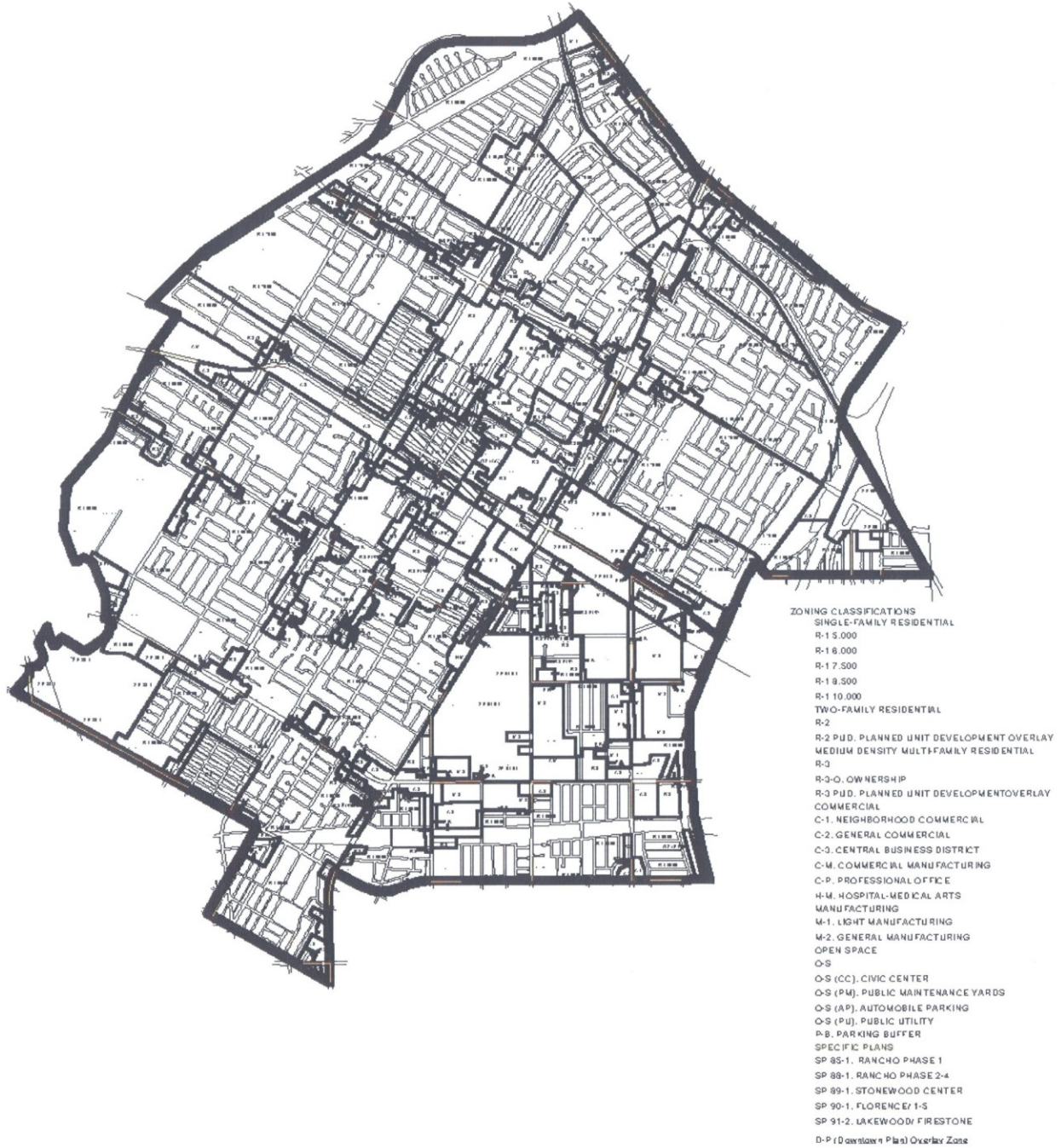


4. *Environmental Setting*

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4. Project Description

Existing City Zoning



NOT TO SCALE



4. *Environmental Setting*

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5. Environmental Analysis

5.1 AIR QUALITY

5.1.1 Methodology

This air quality evaluation was prepared in accordance with the requirements of the California Environmental Quality Act (CEQA) to determine if significant air quality impacts are likely to occur in conjunction with the type and scale of development envisioned through the City of Downey General Plan Update. The study is based on the methodology and criteria provided in the South Coast Air Quality Management District's (SCAQMD) *CEQA Air Quality Handbook (Handbook)* and makes use of the URBEMIS2002 computer model distributed by the SCAQMD as well as the EMFAC2002 and CALINE4 computer models distributed by the California Air Resources Board (CARB). The evaluation is found in Appendix E.

5.1.2 Existing Conditions

Regional Climate

The North Pacific high-pressure cell is the dominant climatic influence over the eastern North Pacific Ocean, particularly during the summer. This semi-permanent high-pressure cell produces a predominantly northwesterly flow of maritime air over the coastal waters of California. During winter, the Pacific High weakens and moves south, resulting in weaker and less persistent northwesterly winds along the California coast than in the warmer half of the year.

As the air mass approaches the coast of California, this large-scale circulation pattern is modified by local influences. The differential heating between the desert and the adjacent Pacific Ocean modifies the prevailing winds, enhancing the winds during the warmer half of the year and weakening them during the colder portion. On a localized and sub-regional basis, the airflow in California is channeled by the mountain ranges and valleys. The coastal mountain ranges limit the flow of maritime air into the interior of California. This transition from a cool and damp marine environment to a dry and warm continental climate therefore occurs over a fairly short distance.



South Coast Air Basin

The South Coast Air Basin (SCAB) is a 6,600 square mile coastal plain bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The SCAB includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. Basin-wide conditions are characterized as warm summers, mild winters, infrequent rainfall, moderate onshore daytime breezes, and moderate humidity.

All seasons generally exhibit onshore flows during the day and offshore flows at night, after the land cools below the temperature of the ocean. The likelihood of strong offshore flows, including Santa Ana winds, is greater during winter than during summer (California Air Resources Board 1984).

The topography and climate of Southern California combine to produce unhealthful air quality in the South Coast Air Basin. Low temperature inversion, light winds, shallow vertical mixing, and extensive sunlight, in conjunction with topographical features such as adjacent mountain ranges that hinder dispersion of air pollutants, combine to create degraded quality, especially in inland valleys of the basin.

5. *Environmental Analysis*

Local Meteorology

Temperature and Precipitation

Temperatures in Downey average a very comfortable 63 degrees year-round. Summer afternoons are typically in the middle 80s, and winter mornings may drop to the low- to mid-40s. Significant extremes of temperature are rare. Rainfall in Downey averages 14 inches of rain during a normal year. Almost all the rainfall comes from the fringes of mid-latitude storms from late November to early April with summers often completely dry.

Winds

Winds in the Downey area blow primarily from southwest to northeast by day and from northeast to the southwest at night in response to the regional pattern of onshore flow by day and offshore flow at night. Average wind speeds are 5 mph, reaching 8 to 10 mph in the afternoon, but dropping to near-calm conditions at night. In the late afternoon, the winds from the southwest are replaced by a marine air "push" from the South Bay around the northern side of the Palos Verdes Peninsula. Strongest onshore flow across Downey in the late afternoon is, therefore, more from west-northwest.

Air Quality Standards

Air quality is determined primarily by the type and amount of contaminants emitted into the atmosphere, the size and topography of the basin, and its meteorological conditions. During several times of the year, the South Coast Air Basin experiences poor atmospheric mixing conditions and light winds which are conducive to the accumulation of air pollutants and thus poor air quality.

Air quality is measured by comparing contaminant levels in ambient air samples to national and state standards. These standards are set by the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) at levels determined to be protective of public health and welfare with an adequate margin of safety. The Federal Clean Air Act of 1970 first authorized national ambient air quality standards. California ambient air quality standards were authorized by the State legislature in 1967. The California Ambient Air Quality Standards (CAAQS) describe adverse conditions; that is, pollution levels must be below these standards before a Basin can attain the standard. National Ambient Air Quality Standards (NAAQS) describe acceptable conditions. Air quality is considered in "attainment" if pollutant levels are below or equal to the standards continuously and exceed them on an average of no more than once each year (NAAQS). California standards are generally more stringent than the national standards.

National AAQS were established in 1971 for six pollution species, with states retaining the option to add other pollutants, require more stringent compliance, or to include different exposure periods. The initial attainment deadline of 1977 was extended to 1987 for national AAQS, and has now been further extended in air quality problem areas like Southern California until the year 2010. Because California had established AAQS several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between state and national clean air standards. Those standards currently in effect in California are shown in Table 5.1-1.

The Federal Clean Air Act Amendments (CAAA) of 1990 required that the EPA review all national AAQS in light of currently known health effects. EPA was charged with modifying existing AAQS or promulgating new ones where appropriate. EPA subsequently developed standards for chronic ozone exposure (8+ hours per day) and for very small diameter particulate matter (called "PM_{2.5}"). These national AAQS were adopted on July 17, 1997.

5. Environmental Analysis

**Table 5.1-1
Ambient Air Quality Standards for Criteria Pollutants**

| Pollutant | Averaging Time | California Standard | Federal Primary Standard | Major Pollutant Sources |
|---|------------------------|----------------------------|---------------------------------|---|
| Ozone (O ₃) | 1 hour | 0.09 ppm | 0.12 ppm | Motor vehicles. |
| | 8 hours | * | 0.08 ppm | |
| Carbon Monoxide (CO) | 1 hour | 20 ppm | 35 ppm | Internal combustion engines, primarily gasoline-powered motor vehicles. |
| | 8 hours | 9.0 ppm | 9 ppm | |
| Nitrogen Dioxide (NO ₂) | Annual Average | * | 0.05 ppm | Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads. |
| | 1 hour | 0.25 ppm | * | |
| Sulfur Dioxide (SO ₂) | Annual Average | * | 0.03 ppm | Fuel combustion, chemical plants, sulfur recovery plants, and metal processing. |
| | 1 hour | 0.25 ppm | * | |
| | 24 hours | 0.04 ppm | 0.14 ppm | |
| Suspended Particulate Matter (PM ₁₀) | Annual Arithmetic Mean | 20 µg/m ³ | 50 µg/m ³ | Dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g. wind-raised dust and ocean sprays). |
| | 24 hours | 50 µg/m ³ | 150 µg/m ³ | |
| Suspended Particulate Matter (PM _{2.5}) | Annual Arithmetic Mean | 12 µg/m ³ | 15 µg/m ³ | Dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g. wind-raised dust and ocean sprays). |
| | 24 hours | * | 65 µg/m ³ | |
| Lead (Pb) | Monthly | 1.5 µg/m ³ | * | Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline. |
| | Quarterly | * | 1.5 µg/m ³ | |
| Sulfates (SO ₄) | 24 hours | 25 µg/m ³ | * | Industrial processes. |

ppm: parts per million; µg/m³: micrograms per cubic meter

* = standard has not been established for this pollutant/duration by this entity.



Planning and enforcement of the new federal standards for PM_{2.5} and for ozone (8-hour) were challenged by trucking and manufacturing organizations. In a unanimous decision published at the end of February 2001, the U.S. Supreme Court ruled that EPA did not require specific congressional authorization to adopt national clean air standards. The Court also ruled that health-based standards did not require preparation of a cost-benefit analysis. The Court did find, however, that there was some inconsistency between existing and "new" standards in their respective attainment schedules. These attainment planning schedule inconsistencies centered mainly on the 8-hour ozone standard. In November 2002,

5. Environmental Analysis

EPA agreed to downgrade the attainment designation for a large number of communities to “non-attainment” for the 8-hour ozone standard. Because the South Coast Air Basin is far from attaining the 1-hour federal standard, the recent 8-hour ozone non-attainment designation will not substantially alter the attainment planning process, except that the compliance deadline for the 8-hour ozone standard will likely be extended to 2021.

Evaluation of the most current data on the health effects of inhalation of fine particulate matter prompted the California Air Resources Board to recommend adoption of the statewide PM 2.5 standard that is more stringent than the federal standard. This standard was adopted on June 20, 2002. The State PM 2.5 standard is more of a goal in that it does not have specific attainment planning requirements like a federal clean air standard. The State standard became enforceable in 2003 when it was incorporated into the California Health and Safety Code.

Of the standards shown in Table 5.1-1, those for ozone (O₃), carbon monoxide (CO), and particulate matter (PM₁₀) are exceeded at times in the South Coast Air Basin. They are called “non-attainment pollutants.” Because of variations in both regional meteorology and in area-wide differences in levels of air pollution emissions, patterns of non-attainment have strong spatial and temporal differences.

Baseline Air Quality

Existing levels of ambient air quality and historical trends and projections in the City of Downey are best documented from measurements made by the SCAQMD. The SCAQMD operates various air quality monitoring stations which monitor regional air pollutants such as ozone, carbon monoxide (CO), and nitrogen oxides (NO_x). The air quality monitoring station nearest to Downey is located in Pico Rivera. There are no respirable particulate air pollution (PM₁₀) monitoring stations near Downey, but the local PM₁₀ concentrations can be inferred from regional patterns. Table 5.1-2 summarizes the last seven years of published data from the Pico Rivera air monitoring station. From this data the following conclusions can be drawn:

- a) Photochemical smog (ozone) levels continue to occasionally exceed standards. The one-hour federal was not exceeded for the first time on record near Downey in 1999. Since then federal one-hour standards have been exceeded an average of once per year.
- b) Levels of primary automotive (unreacted) exhaust such as carbon monoxide very infrequently exceed their clean air standards. Violations of CO standards have noticeably diminished. The one-hour state CO standard and the 8-hour state and/or federal CO standard have not been exceeded near Downey since 1994.
- c) PM₁₀ levels are not monitored at any SCAQMD monitoring station near Downey. Given, however, the regionally pervasive problem of small diameter respirable particulate matter, violations of PM₁₀ standards are expected in the project vicinity with routine frequency. Monitoring data for PM_{2.5} is available from 1999 onward. An average of 2 percent of PM_{2.5} readings have exceeded the federal 24-hour PM_{2.5} ambient standard. Such a frequency of violations is somewhat lower than in inland valleys in western Riverside or San Bernardino Counties where the regional PM_{2.5} “hot spot” is normally found.

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**Table 5.1-2
Air Quality Monitoring Summary
(Number of Days Standards Were Exceeded and Maximum Levels During Such Violations)**

| Pollutant/Standard | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 |
|---------------------------------------|------|------|-------|-------|------|-------|------|
| Ozone | | | | | | | |
| 1-Hour > 0.09 ppm | 14 | 24 | 6 | 11 | 7 | 3 | 18 |
| 1-Hour > 0.12 ppm | 4 | 8 | 0 | 2 | 1 | 0 | 1 |
| 8-Hour \geq 0.08 ppm | 5 | 8 | 1 | 4 | 2 | 0 | 2 |
| Max 1-Hour Conc. (ppm) | 0.13 | 0.18 | 0.12 | 0.14 | 0.13 | 0.11 | 0.13 |
| Carbon Monoxide | | | | | | | |
| 1-Hour > 20. ppm | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8-Hour > 9. ppm | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Max 1-Hour Conc. (ppm) | 10 | 11 | 9 | 11 | 6 | 5 | - |
| Max 8-Hour Conc. (ppm) | 6.1 | 6.1 | 5.4 | 5.3 | 4.0 | 4.0 | 3.9 |
| Nitrogen Dioxide | | | | | | | |
| 1-Hour > 0.25 ppm | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Max 1-Hour Conc. (ppm) | 0.15 | 0.14 | 0.16 | 0.13 | 0.14 | 0.12 | 0.14 |
| PM_{2.5} | | | | | | | |
| 24-Hour > 65 $\mu\text{g}/\text{m}^3$ | - | - | 2/111 | 4/116 | 3/93 | 0/118 | 1/- |
| Max. 24-Hour Conc. | - | - | 85.6 | 89.5 | 77.3 | 61.0 | 90.3 |

Note: There are no representative measurements of PM₁₀ particulate air pollution made near Downey.

- = No data available.

Source: California Air Resources Board, summaries of Air Quality Data, Pico Rivera AQMD air monitoring station.



Air Quality Management Planning

The Federal Clean Air Act (1977 Amendments) required that designated agencies in any area of the nation not meeting national clean air standards must prepare a plan demonstrating the steps needed to bring the area into compliance with all national standards by December 31, 1987. The South Coast Air Basin (SCAB) could not meet the deadline for ozone, nitrogen dioxide, carbon monoxide, or PM₁₀. In the SCAB, the agencies designated by the State to develop regional air quality plans are the SCAQMD and the Southern California Association of Governments (SCAG). The two agencies first adopted an Air Quality Management Plan (AQMP) in 1979 and revised it several times subsequently as earlier attainment forecasts were shown to be overly optimistic.

In 1988, because of considerable uncertainty in federal Clean Air Act reauthorization, the California Legislature enacted the California Clean Air Act (CCAA). The CCAA requires that regional emissions be reduced by 5 percent per year until attainment can be demonstrated. In July 1991, the SCAQMD adopted a revised AQMP that was designed to meet the CCAA requirements. The 1991 AQMP deferred the attainment date to 2010, consistent with the 1990 federal Clean Air Act.

The 1990 Federal Clean Air Act Amendments (CAAA) required that all states with air basins with "serious" or worse ozone problems submit a revision to the State Implementation Plan (SIP). The 1991 AQMP was modified/adapted and submitted as the SCAB portion of the SIP. The 1991 SIP submittal estimated that an 85% basin-wide reduction in volatile organic compound (VOC) emissions and a 59% reduction in oxides of nitrogen (NO_x) between 1990 to 2010 would be needed to meet federal clean air standards. About 40% of these reductions were to come from existing pollution control programs. The rest would come from new rules, technologies or other reduction programs.

In 1996, EPA approved the 1994 submittal of the SCAB portion of the SIP. The plan was finally approved after considerable debate on the contingency measures that should be implemented if progress is not as

5. Environmental Analysis

rapid as anticipated in the 1994 SIP. The CAAA required that an updated plan be submitted by February 8, 1997 that included attainment plans for all pollutants exceeding federal standards. The CCAA requires an update of the state-mandated clean air plan every three years. The last update was completed December 31, 2003.

An updated 1997 AQMP to meet federal requirements was locally adopted. The California Air Resources Board (ARB) forwarded this plan on to EPA for its consideration and recommended approval. The 1997 AQMP was designed to meet both federal (EPA) and state (ARB) air quality planning guidelines. Components of the 1997 plan update included:

- Demonstration of attainment for ozone, CO, and PM₁₀.
- Updated emissions inventories (1993 base year) of VOC, NO_x, CO, SO_x and PM₁₀.
- Emissions budgets for future years of the inventoried compounds.
- An updated pollution control strategy.
- Contingency measures if the plan as presently proposed fails to meet stated timetables.

Additional research and photochemical computer modeling, as well as improved emissions estimates, now suggest that formerly predicted emissions reductions required to meet standards need not be quite as severe as thought earlier. Table 5.1-3 summarizes the currently proposed regional attainment planning for ozone (VOC and NO_x) and for carbon monoxide (CO). Emissions reductions of around 62 percent for VOC, 56 percent for NO_x and 66 percent for CO are anticipated from the currently proposed AQMP update. Within the plan, some measures considered "long-term reductions" require additional technological development whose development schedule is uncertain. There is therefore no clear scientific consensus that the 1997 AQMP update will be able to achieve its mandatory clean air objectives by the end of 2010.

The Draft 1997 AQMP was challenged by several environmental organizations as not being consistent with the 1990 CAAA on rates of progress toward attaining the ozone standard. The Ninth Circuit Court found in favor for these organizations. A 1999 Amendment to the proposed SIP Revisions was developed that accelerates the schedule for a number of new SCAQMD rules and regulations. The 1999 SIP Amendment complies with the court-ordered acceleration of the development of new rules and regulations designed to bring the air basin into compliance. The 1999 SIP Amendment was approved by EPA in 2000 as the currently adopted clean air plan for the basin.

A new clean air plan has been approved locally (SCAQMD/SCAG) and at the state level (ARB). It was forwarded to EPA and has recently become the adopted SIP Revision. The plan continues most emissions reductions programs, but also points out that some emissions have been undercounted and incorrectly reported, and that additional control measures must be implemented if the federal attainment deadlines for clean air standards are to be met. The recent ozone trend toward increased numbers of violations of standards and higher absolute maxima than at the turn of this decade is particularly worrisome. A flattening of the improvement trend was anticipated, but the trend reversal suggests that a backsliding process is in motion. The likely failure to meet further near-term improvement targets may require invoking contingency measures that had been hoped as not necessary.

With the conversion of the Federal 1-hour ozone standard to an 8-hour standard, a new attainment timeline will likely be adopted. EPA's proposed attainment scheduled for the South Coast Air Basin is 17 years to 2021. The progress mile-posts would be spread out over a longer period than for the current 2010 attainment deadline for the 1-hour standard.

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**Table 5.1-3
South Coast Air Basin Attainment Plan
(Emissions in tons/day)**

| | VOC* | NO _x * | CO** |
|--------------------------------------|------------|-------------------|--------------|
| Current Inventory^a | | | |
| Stationary + Area-wide | 337 | 147 | 236 |
| On-Road Mobile | 346 | 659 | 3,483 |
| Off-Road Mobile | 143 | 300 | 891 |
| TOTAL | 826 | 1,106 | 4,610 |
| 2010 Forecast^b | | | |
| Stationary + Area-wide | 531 | 98 | 337 |
| On-Road Mobile | 163 | 360 | 1,913 |
| Off-Road Mobile | 144 | 269 | 1,643 |
| TOTAL | 838 | 727 | 3,893 |
| Short-term + Intermediate Reductions | <221> | <120> | <1,468> |
| Long-term Reductions | <204> | <77> | <0> |
| 2010 Remaining ^c | 413 | 530 | 2,425 |

^a2002 Base Year.

^bWith current emissions reduction programs and adopted growth forecasts.

^cLevels at which all federal air quality standards will be met.

*Summer ozone precursors

**Winter CO "hot spot" precursors.

Source: California Air Resources Board, The 2003 California Almanac of Emission & Air Quality, and SCAQMD, Draft Final 1997 AQMP (October 1996).



A General Plan Update, which includes land use designation changes, such as that proposed in the City of Downey, relates to the AQMP through the land use and growth assumptions used to forecast automotive air pollution emissions. The SCAB AQMP is based upon the existing designated land uses contained in the currently adopted General Plan. To the extent that the land use designation changes for the proposed General Plan Update do not deviate substantially from the currently adopted General Plan, they are, by inference also consistent with the AQMP. Such consistency implies that the project would not create any anticipated regional air quality impacts because such impacts have already been incorporated within the framework of the regional air quality planning process. If, however, adoption of the new land use designations allows for a substantially greater intensity of development than currently anticipated, such growth inducement could create air quality planning inconsistency.

5.1.3 Thresholds of Significance

The criteria used to determine the significance of impacts on air quality are taken from City-approved Thresholds of Significance based on the City's Initial Study and the model Initial Study checklist in Appendix G of the State CEQA Guidelines. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. The project would typically result in a significant impact to air quality if it would:

- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Conflict with or obstruct implementation of the applicable air quality plan;
- Expose sensitive receptors to substantial pollutant concentrations;

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- Create objectionable odors affecting a substantial number of people;

The project is deemed to have a significant impact on regional air quality if emissions (specified in either pounds of pollution emitted per day or per quarter) of specific pollutants related to either project construction or operation exceed the significance thresholds established by SCAQMD, as listed on Table 5.1-4.

| Compound | Project Construction Pounds/Day | Post-Construction Project Operation Pounds/Day |
|------------------------|--|---|
| Carbon Monoxide | 550 | 550 |
| Nitrogen Oxides | 100 | 55 |
| Reactive Organic Gases | 75 | 55 |
| Particulate Matter | 150 | 150 |
| Sulfur Oxides | 150 | 150 |

Source: South Coast Air Quality Management District, CEQA Air Quality Handbook, 1993.

The Initial Study (IS) prepared for the proposed General Plan update (see Appendix A) screened for the above threshold criteria and determined that the proposed General Plan update could generate potentially significant impacts relative to all criteria except for one as follows. Therefore, this issue will not be addressed further in this EIR.

- Create objectionable odors affecting a substantial number of people;

5.1.4 Environmental Impacts and Mitigation Measures

IMPACT: *Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

Impact Analysis:

Construction Impacts

Construction activities associated with individual development projects in accordance with the proposed General Plan Update could potentially exceed AQMD significance thresholds. Construction activity that would occur over the next 20 years in accordance with the proposed General Plan Update would cause temporary, short-term emissions of various air pollutants. NO_x and CO would be emitted by the operation of construction equipment, while fugitive dust (PM₁₀) would be emitted by activities that disturb the soil, such as grading and excavation, road construction and building demolition and construction. Information regarding specific development projects, soil types, and the locations of receptors would be needed in order to quantify the level of impact associated with construction activity. Actual significance would be determined on a project-by-project basis as future development applications are submitted. However, the discussion that follows provides a general range of impacts that could be expected in specific areas designated for changes.

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Dust would be created during clearing, grading and building assembly of various projects within the sixteen areas of modified land use designation in the City of Downey. Much of this dust is comprised of large diameter material that rapidly settles back out of the air. A smaller portion of such dust is comprised of 10-micron or less particulate matter (PM₁₀), which remains suspended in the air semi-indefinitely. Such dust is comprised of chemically inert soil particulates with very little of the material in the ultra-small diameter (2.5 microns or less, called PM_{2.5}) size range.

The main impact from construction dust is the soiling nuisance from off-site deposition of larger particles, and visibility effects of smaller particles. EPA indicates that the primary impact distance from large diameter construction dust is less than 100 feet. Most dust soiling effects during construction will remain within each construction site. The individual land use re-designation areas in the City of Downey vary in acreage from less than 0.5 acres to 42.1 acres, with at least thirteen of the sixteen sites being less than, or equal to, 15 acres. Typically, large project sites are not under simultaneous disturbance. Because the air basin is non-attainment status, restrictions on grading disturbance areas are often imposed to keep dust emissions under the significance thresholds.

The South Coast AQMD CEQA Handbook suggests a dust emission rate of 26.4 pounds per acre under disturbance on any given day. This factor is based upon dust control in effect in 1993 when the CEQA Handbook was prepared. Compliance with subsequent revisions to SCAQMD Rule 403 (Fugitive Dust) have reduced PM₁₀ emissions to around 10.2 pounds per acre per day with the required use of best available control methods (BACMs) for fugitive dust. For purposes of analysis, various disturbance "footprints" would produce estimated daily PM₁₀ emissions as noted in Table 5.1-5:

**Table 5.1-5
Typical Estimated PM₁₀ Emissions**

| Disturbance Footprint (acres) | Standard Dust Control (pounds per day) | Enhanced Dust Control (BACM) (pounds per day) |
|----------------------------------|---|--|
| 2 | 53 | 20 |
| 5 | 132 | 51 |
| 6 | 158* | 61 |
| 7 | 185* | 71 |
| 10 | 264* | 102 |
| 14 | 370* | 143 |
| 15 | 396* | 153* |

*Exceeds significance thresholds of 150 pounds per day.



With usage of required BACMs, daily footprint areas of 14 acres or less may be under simultaneous disturbance without exceeding the significance thresholds. PM₁₀ impacts from implementation would be less-than-significant with these restrictions.

Facilities construction would require heavy equipment operations to prepare the ground, excavate for utilities and services, and perform building erection. The average commercial project in California requires 250,000 brake horsepower hours (BHP-HR) of equipment operations. For a 5-or 10-acre per year disturbance area, and 200 days of construction per individual project, the average daily construction equipment emissions, relative to the SCAQMD Handbook daily significance thresholds, are shown in Table 5.1-6 as (pounds/day).

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**Table 5.1-6
Average Daily Construction Equipment Emissions**

| Pollutant | Daily Emissions | | SCAQMD Threshold | Percent of Threshold | |
|------------------|-----------------|-----------------|------------------|----------------------|-----------------|
| | 5-Acre Project | 10-Acre Project | | 5-Acre Project | 10-Acre Project |
| CO | 11.8 | 23.6 | 550 | 2.1 | 4.2 |
| ROG | 3.6 | 7.2 | 75 | 4.8 | 9.6 |
| NO _x | 53.6 | 107.2* | 100 | 53.6 | 107.2* |
| SO _x | 3.8 | 7.6 | 150 | 2.5 | 5.1 |
| PM ₁₀ | 1.8 | 3.6 | 150 | 1.2 | 2.4 |

*Exceeds significance thresholds, but can be mitigated to less-than-significant.

Source: SCAQMD CEQA Handbook (1993); Table A9-3-A 6,250 BHP-HR/day average equipment utilization.

Daily equipment exhaust emissions are all well below significance threshold levels with the exception of the NO_x emissions for a 10-acre parcel. The emissions would exceed significance thresholds by approximately 7 percent. With regular tune-ups for off-road heavy equipment, NO_x emissions can be mitigated to up to 10 percent. Therefore, the NO_x emissions impacts can be mitigated to less-than-significant. Any parcel greater than 10 acres could experience significant, but temporary, NO_x emissions impacts. As with the dust emissions, the non-attainment status of the airshed plus the possible proximity of adjacent residential uses to many individual development projects requires that best available control measures (BACMs) be implemented even if significance thresholds are not exceeded.

If any existing structures to be demolished or renovated were built when hazardous compounds were routinely used as building products, they may have asbestos containing materials (ACMs), lead based paint (LBP), or other harmful building materials within their structures. Any demolition or renovation requires a pre-construction hazards assessment. If such materials are present, particularly asbestos, a number of strictly regulated remediation procedures must be implemented. Such mandatory measures are required to protect both remediation workers and the general public. Remediation impacts are therefore less-than-significant through required compliance with existing SCAQMD hazards control regulations (Rule 1403, Asbestos Emissions for Demolition/Renovation Activities)

Construction activities use diesel-fueled equipment that emits diesel particulate matter (DPM) in its exhaust. DPM is a known carcinogen. Individual cancer risk at any off-site receptor is calculated by assuming that a person sits continuously outside of their home for the next 70 years while breathing exhaust pollutants. The excess cancer risk from construction projects due to DPM is typically less-than-significant because:

1. Construction projects last only a few months out of the 70-year risk "window."
2. Many people are gone during the daytime when equipment is operating, and do not remain outside their home to continuously when they are home.
3. Emissions standards for new construction equipment require soot filters that will make the equipment fleet for future major projects much cleaner than the current fleet.

DPM exposure is of concern in the City of Downey because many residences are located near freeways that have a high percentage of trucks traveling through the City. Residents living near freeways may have double the cancer risk due to DPM than the public at large (a cancer risk of 0.002 near the freeway versus 0.001 for Downey residents at large). Short-term diesel exhaust from construction projects, however, would not substantially exacerbate that risk.

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Operational Emissions

Minor amounts of "direct" air pollution emissions would be associated with individual projects within the General Plan Update land use change areas. Asphalt paving emissions for parking lot maintenance, or landscape utility equipment or pesticides/herbicides used in landscape maintenance are examples of direct emissions. They represent a very minor fraction of the total project burden.

The bulk of project-related operational impacts would derive from trips generated by any land use intensification within areas where the land use designation would be changed. The proposed General Plan Update has a duration of approximately 20 years, with an anticipated build out by year 2025. As shown in Table 5.1-7 below, a total of 16 areas have been proposed for land use designation changes in the General Plan Update. Many of these areas are being proposed for land use re-designation to become consistent with the existing land uses within the area, therefore no change in daily-generated traffic trips is anticipated within these areas. In other areas, the change in land use is not expected to substantially alter the generated trips because the updated designation is similar (see Section 5.9, Traffic and Circulation). There are, however, four areas (1, 3, 9, 13), which are predicted to increase and to generate substantially different traffic trips as a result of the land use reclassification.

**Table 5.1-7
Proposed Land Use Changes by Area**

| Area | Existing Land Use | Currently Adopted Land Use | Proposed Land Use | Potential Traffic Change? |
|------|--|--|--------------------------|---------------------------|
| 1 | Med Density Residential/Vacant/Utility | Office | Med Density Residential | Yes |
| 2 | Commercial | Med Density Residential | Neighborhood Commercial | No |
| 3 | Commercial (65%)/ Residential (35%) | Office | Neighborhood Commercial | Yes |
| 4 | Commercial | Neighborhood Commercial | General Commercial | No |
| 5 | School | Low Density Residential | School | No |
| 6 | Commercial Restaurant | Office | Neighborhood Commercial | No |
| 7 | Commercial | Neighborhood Commercial | General Commercial | No |
| 8 | Residential (75%)/ Commercial (25%) | General Commercial | Med Density Residential | No |
| 9 | Commercial (85%)/ Residential (15%) | Office | General Commercial | Yes |
| 10 | General Office | Mixed Use | Commercial Manufacturing | No |
| 11 | Medical Office (65%)/ Commercial (35%) | Neighborhood Commercial | Commercial Manufacturing | No |
| 12 | SFDR/Commercial/Rail Station = "Mixed Use" | Low/Med Residential and General Commercial | Mixed Use | No |
| 13 | Residential Apartments | Neighborhood Commercial | General Commercial | Yes |
| 14 | School | General Commercial | School | No |
| 15 | Low Density Residential | Office | Low Density Residential | No |
| 16 | Low Density Residential | Med Density Residential | Low Density Residential | No |

The project traffic study estimates a daily trip increase of 6,481 average daily traffic (ADT) by 2025 build-out. The mobile source emissions associated with the increase of trips generated by the land use changes in the General Plan Update were calculated using the California Air Resources Board URBEMIS2002 Computer Model with a build-out year of 2025. Results of this calculation are shown in Table 5.1-8. Daily emissions from anticipated growth for every emissions category are below the SCAQMD thresholds with a wide margin of safety. Regional air quality impacts are therefore less-than-significant.



5. Environmental Analysis

**Table 5.1-8
Project-Related Operational Emissions
(pounds per day)**

| Year 2025 | Emissions (lb/day) | | | | |
|---|--------------------|-----------------|--------------|------------------|-----------------|
| | ROG | NO _x | CO | PM ₁₀ | SO ₂ |
| Area Source Emissions | 2.9 | 1.1 | 2.8 | 0.01 | 0.02 |
| Operational Source Emissions (Vehicle) | 16.6 | 18.9 | 213.7 | 55.6 | 0.4 |
| TOTAL | 19.5 | 20.0 | 216.5 | 55.6 | 0.4 |
| SCAQMD Threshold | 55 | 55 | 550 | 150 | 150 |
| Percent of Threshold | 35 | 36 | 39 | 37 | <1. |

Source: URBEMIS2002; Output in Appendix.

Goals, Policies and Programs Related to Air Quality

The Downey Vision 2025 General Plan Update contains a number of policies and programs that reduce potential impacts associated with the General Plan. Please refer to Appendix A for a listing of all quality related goals, policies and programs in the General Plan.

Existing Regulations and Standard Conditions

- Future development projects shall include suppression measures for fugitive dust and those associated with construction equipment in accordance with SCAQMD Rule 403 and other AQMD requirements. Prior to issuance of each grading or demolition permit, the project property owner/developer shall obtain the appropriate permits from the SCAQMD and submit them to the City.
- Future development projects shall adhere to the requirements of SCAQMD Rule 1403 (Asbestos Emissions for Demolition/Renovation Activities) for projects where demolition is anticipated.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: As described above, the proposed project is expected to generate emissions (depending on the size of project area) that exceed the AQMD threshold criteria for CO, ROG, NO_x, and PM₁₀ in the SCAB, which is classified as a non-attainment area. Construction activity impacts from smaller-scale projects would not exceed significance thresholds requiring mitigation to achieve a less-than-significant impact. Large-scale single projects such as the Boeing site redevelopment could cause a temporary violation of SCAQMD significance thresholds. Goals and Policies that are included in the General Plan will facilitate continued City cooperation with the SCAQMD and SCAG to achieve regional air quality improvement goals, promotion of energy conservation design and development techniques, encouragement of alternative transportation modes, and implementation of transportation demand management strategies. In addition to these policies, the following mitigation measures for individual project sites will be required to reduce air quality impacts:

- MM 5.1-1 Water all active construction areas at least twice daily.
- MM 5.1-2 Cover all haul trucks or maintain at least two feet of freeboard.
- MM 5.1-2 Pave or apply water four times daily to all unpaved parking or staging areas.
- MM 5.1-3 Sweep or wash any site access points within 30 minutes of any visible dirt deposition on any public roadway.

5. Environmental Analysis

- MM 5.1-4 Cover or water twice daily any on-site stockpiles of debris, dirt or other dusty material.
- MM 5.1-5 Suspend all operations on any unpaved surface if winds exceed 25 mph.
- MM 5.1-6 Hydroseed or otherwise stabilize any cleared area which is to remain inactive for more than 96 hours after clearing is completed.
- MM 5.1-7 Require 90-day low-NO_x tune-ups for off-road equipment.
- MM 5.1-8 Limit allowable idling to 10 minutes for trucks and heavy equipment.
- MM 5.1-9 Limit individual construction sites to less than 10 acres for extended, continuous construction.
- MM 5.1-10 Encourage car pooling for construction workers.
- MM 5.1-11 Limit lanes closures to off-peak travel periods.
- MM 5.1-12 Wet down or cover dirt hauled off-site.
- MM 5.1-13 Encourage receipt of materials during non-peak traffic hours.

Level of Significance After Mitigation: Although the mitigation measures listed above will reduce air quality impacts to the extent feasible, associated air quality impacts remain a Significant Unavoidable Adverse Impact.

IMPACT: *Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?*



Impact Analysis: An impact is potentially significant if emissions levels exceed the State or Federal Ambient Air Quality Standards. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to the Ambient Air Quality Standards is typically demonstrated through an analysis of localized CO concentrations. Most mobile source pollutants have regional impacts after conversion of precursor emissions to their most unhealthful forms. Carbon monoxide (CO) is the one pollutant emitted in its already most unhealthful form. Congested intersection and links within downtown "street canyons" have often been found to be areas of highly localized violations of CO standards. These violations are called "hot spots." Increased traffic on City of Downey streets from internal growth and from pass-through traffic will increase congestion at major intersections. The greater congestion will increase the numbers of idling vehicles and associated air pollution. Long vehicle delays could cause localized violations of air quality standards, particularly for carbon monoxide (CO), often called "hot spots." Hot spot potential will be somewhat offset by a continually cleaner vehicle fleet from the retirement of older cars. There are therefore two concurrent CO exposure trends that could result in either worsening or improving air quality.

A micro-scale air quality impact analysis was therefore performed for those intersections where existing levels of service are "E" or "F," or at those intersections where improvements beyond allowable limits would be necessary to achieve LOS=D or better. For the traffic volumes and delay times associated with LOS=D or better intersections, in the City of Downey, CO levels are not sufficiently elevated as to create any "hot spot" potential.

5. Environmental Analysis

A CO screening model based on the Caltrans Air Quality Technical Analysis Notes (AQTAN, 1988) use of the CALINE4 model was used to evaluate the localized air quality within 25 feet of fourteen (14) intersections where congestion exceeds performance goals, or where reasonably available mitigation is not feasible under the currently adopted or the proposed General Plan. Table 5.1-9 shows the maximum local 1-hour CO concentration. The maximum 1-hour CO exposure at the Pico Rivera SCAQMD monitoring station (closest station to Downey) in 2002 was 5.0 ppm. It would require a local contribution of 15.0 ppm to equal the most stringent 1-hour standard of 20 ppm. Even with substantial traffic stagnation and assumed worst-case meteorological conditions (nearly calm winds and a strong low-level temperature inversion), there are no existing “hot spots.” The rate of emissions improvements is forecast to occur faster than any worsening of traffic conditions. Future build-out air quality is forecast to meet clean air standards for CO with an even greater margin of safety.

Implementation of the proposed General Plan versus the currently approved plan has no significant micro-scale air quality implications. Both alternatives have an almost identical number of intersections where LOS=D mitigation is not reasonably available. The inability to readily mitigate, however, creates no air quality impediment in that local impacts are less-than-significant under either alternative.

**Table 5.1-9
Proposed General Plan Intersection LOS (With Mitigation)**

| Location | AM | PM |
|------------------------------|----|---------|
| Old River School Road | | |
| at Florence Ave. | D | D |
| at Firestone Blvd. | C | D |
| Imperial Hwy. | D | D |
| Paramount Blvd | | |
| at Telegraph Road | D | D |
| at Florence Ave. | D | D [I] |
| at Firestone Blvd. | C | D |
| at Stewart and Gray Road | D | D |
| at Imperial Hwy. | D | D |
| Downey Avenue | | |
| at Firestone Blvd. | C | D |
| Brookshire Ave. | | |
| at Firestone Blvd. | D | D [I] |
| Lakewood Blvd | | |
| at Telegraph Road | D | D |
| at Florence Ave. | D | D [I] |
| at Firestone Blvd. | D | D |
| at Stewart and Gray Road | D | D |
| at Imperial Hwy. | C | D [I] |
| at Foster Road | D | D |
| Bellflower Blvd. | | |
| Imperial Hwy. | D | D [I] |
| Woodruff Ave. | | |
| at Stewart and Gray Road | B | D |
| at Imperial Hwy. | D | D |

[I] Indicates that LOS “E” will be acceptable at these intersections if extraordinary traffic improvements are necessary to bring the LOS to LOS “D” at these intersections.

5. Environmental Analysis

**Table 5.1-10
Micro-scale Air Quality Impact Analysis
(1-hour CO concentration in ppm above non-local background)**

| <i>Roadway/Segment</i> | <i>Existing (2004)</i> | <i>Adopted General Plan</i> | <i>Proposed General Plan</i> |
|--|----------------------------|---------------------------------|----------------------------------|
| Old River School Rd. at Florence Ave. | 10.9 | * | * |
| Paramount Blvd. at Telegraph Rd. | 8.3 | * | * |
| at Florence Ave. | 12.8 | 4.7 | 6.2 |
| at Firestone Blvd. | 11.5 | * | * |
| at Imperial Hwy. | 9.5 | * | * |
| Brookshire Ave. at Firestone Blvd. | * | 4.2 | * |
| Lakewood Blvd. at Telegraph Rd. | 11.0 | * | * |
| at Florence Ave. | 12.5 | * | 4.5 |
| at Firestone Blvd. | 10.4 | 5.9 | * |
| at Imperial Hwy. | * | 7.4 | 8.7 |
| at Foster Rd. | * | 5.2 | 7.2 |
| Bellflower Blvd. at Imperial Hwy. | 11.1 | * | 4.1 |
| Woodruff Ave. at Stewart Gray Rd. | * | 2.3 | * |
| at Imperial Hwy. | 10.1 | * | * |

*Intersection operates at LOS=D or better with reasonable mitigation.

Source: AQTAN screening procedures based on CALINE4 model.



Goals, Policies and Programs Related to Air Quality

See relevant goals and policies listed in Appendix A.

Level of Significance Before Mitigation: Less Than Significant.

Mitigation Measures: No mitigation measures would be required.

Level of Significance After Mitigation: No significant impacts have been identified and no mitigation measures are required.

IMPACT: **Would the project expose sensitive receptors to substantial pollutant concentrations?**

Impact Analysis: An impact is potentially significant if emission levels exceed the State or Federal Ambient Air Quality Standards thereby exposing receptors to substantial pollutant concentrations. Because CO is produced in the greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is typically demonstrated through an analysis of localized CO concentrations. As described in the previous impact threshold section (Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard) a CO “hot spot” analysis was not required because the traffic analysis indicated that all intersections could be mitigated to an acceptable level of service, LOS “D” or “E”, which is the primary indicator of air emissions. No long-term significant CO impacts are anticipated.

5. Environmental Analysis

Goals, Policies and Programs Related to Air Quality

See relevant goals and policies in Appendix A.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures would be required.

Level of Significance After Mitigation: No significant impacts have been identified and no mitigation measures are required.

IMPACT: *Would the project conflict with or obstruct implementation of the applicable air quality plan?*

Impact Analysis: The basin air quality management plan contains a number of land use measures and goals that are considered air quality positive. These include intensification of land uses near points of multiple transportation system access, mixed land uses to encourage non-vehicular mobility between homes, jobs and goods/services, and economic revitalization of depressed and blighted urban core areas. The General Plan Update meets these objectives by helping to achieve a balance of land uses throughout the City.

The air quality plan also encourages a better jobs/housing balance as a means of reducing vehicle trips (VT) and vehicle miles traveled (VMT). The City of Downey is jobs rich and housing poor. A jobs to housing ratio of 1.62 compared to the basin-wide average of 1.29. A conversion of commercial space to housing opportunities thus is consistent with air quality planning objectives. The General Plan Update is housing oriented, and therefore the plan is consistent with jobs/housing goals of VT/VMT reduction. SCAG's Regional Comprehensive Plan forecasts area growth of almost 13,500 residents and 4,200 jobs within the City of Downey by year 2025. The General Plan Update accommodates a very small part of that forecast growth. The proposed General Plan Update therefore would not conflict with applicable air quality planning on a city-wide or regional scale.

Goals, Policies and Programs Related to Air Quality

See relevant goals and policies in Appendix A.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures would be required.

Level of Significance After Mitigation: No significant impacts have been identified and no mitigation measures are required.

5.1.5 Cumulative Impacts

Impacts relating to air quality are generally considered in cumulative terms. The proposed General Plan Update contains goals and policies that address air quality and mitigation measures suggested here would have the benefit of reducing air quality impacts to less than significant for certain projects. However, large-scale projects (in excess of 10 acres) would have temporary air impacts due to construction that exceed thresholds. As such, the project's contribution to cumulative impacts related to air would remain cumulatively significant.

5. *Environmental Analysis*

5.1.6 Significant unavoidable adverse impacts

The General Plan goals and policies and mitigation measures identified above would reduce potential impacts associated with air quality to a level of insignificance.



5. Environmental Analysis

5.2 GEOLOGY AND SOILS

5.2.1 Methodology

United States Geological Service (USGS) online maps and data related to the Seismic Hazards Mapping Program were used to determine potential seismic and geologic impacts within the City of Downey.

5.2.2 Existing Conditions

Geologic Setting

The City of Downey is located in the Los Angeles Basin, generally between the Los Angeles and San Gabriel Rivers. Alluvial materials associated with the Los Angeles and San Gabriel Rivers likely underlie the City.

Geologic Hazards

The following sections describe potential geologic hazards in the project area, including faulting and seismicity, landsliding, and liquefaction.

Regulatory Background

The State regulates development within California to reduce to mitigate potential hazards from earthquakes or other geologic hazards. Development in potentially seismically active areas is also governed by the Alquist-Priolo Earthquake Fault Zoning Act and the Seismic Hazard Mapping Act.

Chapter 16A, Division IV of the California Building Code (CBC), titled “Earthquake Design,” states that “The purpose of the earthquake provisions here in is primarily to safeguard against major structural failures or loss of life.” The CBC and the Uniform Building Code (UBC) regulates the design and construction of excavations, foundations, building frames, retaining walls, and other building elements to mitigate the effects of seismic shaking and adverse soil conditions. The procedures and limitations for the design of structures are based on site characteristics, occupancy type, configuration, structural system height, and seismic zoning. Seismic zones are mapped areas that are based on proximity to known active faults and the potential for future earthquakes and intensity of seismic shaking. Seismic zones range from 0 to 4, with areas mapped as Zone 4 being potentially subject to the highest accelerations due to seismic shaking and the shortest recurrence intervals.

The purpose of the Alquist-Priolo Earthquake Fault Zoning Act of 1972 (renamed in 1994) is “to regulate development near active faults so as to mitigate the hazard of surface fault rupture.” The State Geologist (Chief of the Division of Mines and Geology) is required to delineate Earthquake Fault Zones (formerly known as “Special Studies Zones”) along known active faults. As defined by the California Division of Mines and Geology (DMG), an active fault is one that has had surface displacement within Holocene time (roughly the last 11,000 years) and/or has an instrumental record of seismic activity. Potentially active faults are those that show evidence of surface displacement during Quaternary time (roughly the last 2 million years), but for which evidence of Holocene movement has not been established. The DMG evaluates faults on an individual basis to determine if a fault will be classified as an Alquist-Priolo Earthquake Fault Zone. In general, faults must meet certain DMG criteria, including seismic activity, historic rupture, and geologic evidence to be zoned as a Earthquake Fault Zone. Cities and counties affected by the zones must regulate certain development within the zones. They must withhold development permits for sites within the zones until geologic investigations demonstrate that the sites are not threatened by surface displacement from future faulting. Typically, structures for human occupancy are not allowed within 50 feet of the trace of an active fault.

5. Environmental Analysis

The Seismic Hazard Mapping Act was adopted in 1990 for the purpose of protecting public safety from the effects of strong ground shaking, liquefaction, landslides, or other ground failure caused by earthquakes. The Seismic Hazard Mapping Act requires that the State Geologist delineate the various seismic hazard zones. Cities, counties, or other permitting authorities are required to regulate certain development projects within the zones. They must withhold development permits for a site within a zone until the geologic conditions are investigated and appropriate mitigation measures, if any, are incorporated into the development plans. In addition, sellers (and their agents) of real property within a mapped hazard zone must disclose that the property lies within such a zone at the time of sale.

Faulting and Seismicity

The City of Downey is located in an area considered to be seismically active, as is most of Southern California. Major active fault zones are located southwest and northeast of the City. Based on review of the referenced geologic and seismic literature, there are no known Alquist-Priolo Earthquake Fault Zones within the City limits. Active and potentially active faults are located close to Downey. According to the 1997 UBC and 1998 CBC, the City of Downey is within Seismic Zone 4.

Although the City does not have any earthquake faults or fault traces traversing it, it is located in a seismically active area. Existing nearby faults are depicted in Figure 5.2-1, *Major Regional Fault Zones*. A number of faults are located in the vicinity of the City, including the Newport-Inglewood Fault, the Compton-Los Alamitos Fault, the Whittier-Elsinore Fault, the Elysian Park Seismic Zone, the Palos Verdes Hills Fault, and the San Andreas Fault. The two faults with the greatest potential to impact the City of Downey are the Newport-Inglewood Fault and the Compton-Los Alamitos Fault, located approximately six and ten miles southwest of the City, respectively. The Newport-Inglewood Fault is capable of a maximum credible magnitude of 7.10 and the Compton-Los Alamitos Fault is capable of a maximum credible magnitude of 7.20.

Fault Rupture

The potential for ground fault rupture due to fault movement is generally considered related to the seismic activity of known fault zones. Recognized active fault zones are located outside the City of Downey. Faults such as the Norwalk fault could conceivably cause ground rupture within the City. However, compared with the more active recognized fault zones, the potential for ground rupture due to seismic activity in the City is considered low.

Earthquake Induced Liquefaction Potential

Soil liquefaction is a seismically induced form of ground failure, which has been a major cause of earthquake damage in southern California. During the 1971 San Fernando and the 1994 Northridge earthquakes, significant damage to roads, utility pipelines, buildings, and other structures in the Los Angeles County area were caused by liquefaction. Research and historical data indicate that loose, granular materials situated at depths of less than 50 feet with fine (silt and clay) contents less than 30%, which are saturated by a relatively shallow groundwater table, are most susceptible to liquefaction. These geological and groundwater conditions exist in parts of southern California and Downey, typically in valley regions and alleviated floodplains.

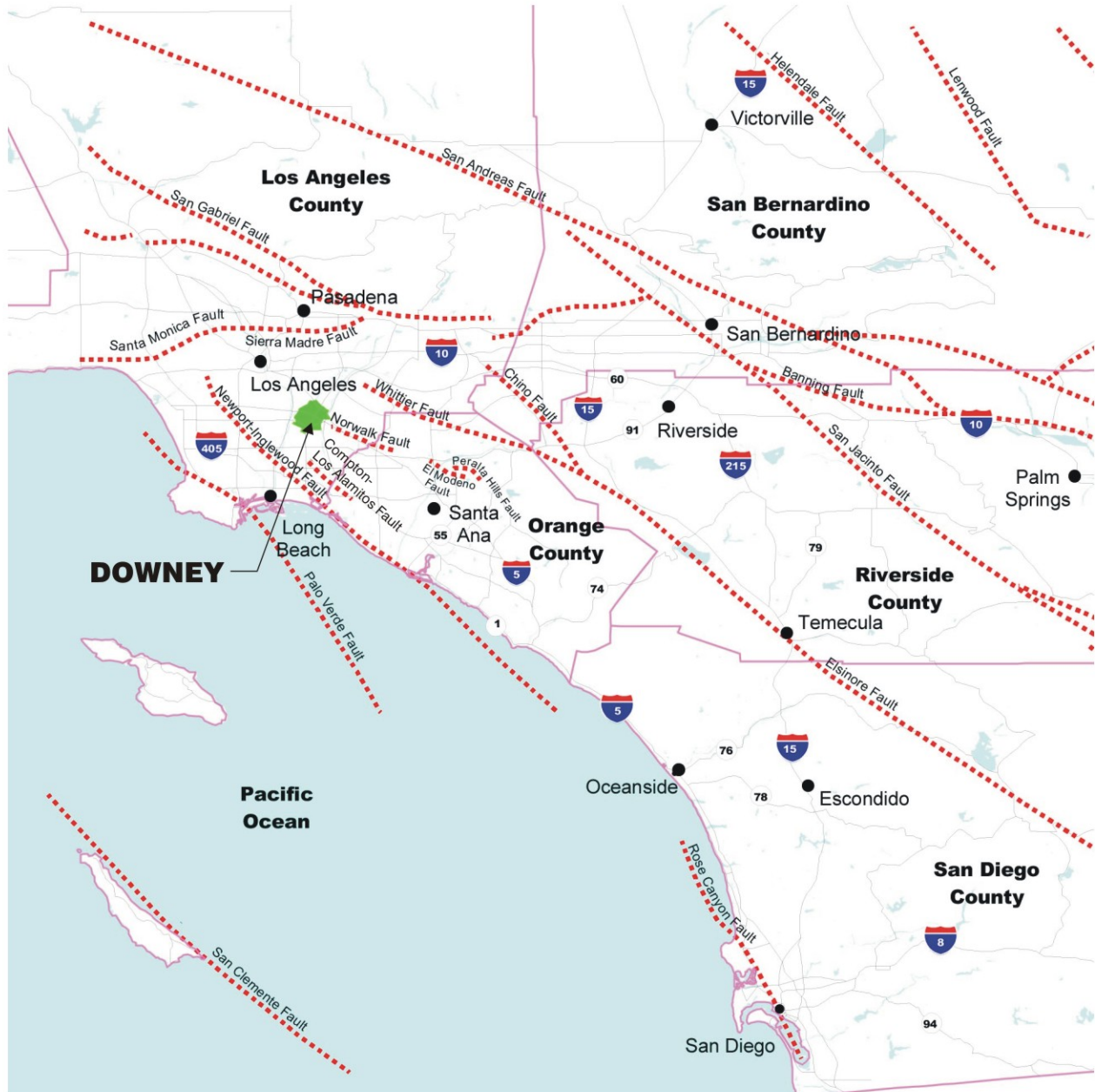


5. *Environmental Analysis*

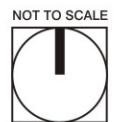
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5. Environmental Analysis

Major Regional Fault Zones



Source: Modified from California Department of Mines and Geology, Preliminary fault activity map of California, dated 1994.
Note: All fault locations and dimensions are approximate and not all fault locations are shown.



5. *Environmental Analysis*

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5. Environmental Analysis

According to the USGS Seismic Hazard Zones Maps (South Gate and Whittier Quadrangles), the entire City of Downey lies within a liquefaction zone, as depicted in Figure 5.2-2, *Liquefaction Zone*.

5.2.3 Thresholds of Significance

The criteria used to determine the significance of impacts on hazards and hazardous materials are taken from City-approved Thresholds of Significance based on the City's Initial Study and the model Initial Study checklist in Appendix G of the State CEQA Guidelines.

- Would the project expose people or structures to seismic-related ground failure, including liquefaction?

The following impacts were not identified as being potentially significant in the Initial Study:

- Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.
- Would the project expose people or structures to strong seismic ground shaking?
- Would the project expose people or structures to landslides?
- Would the project result in substantial soil erosion or the loss of topsoil?
- Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?
- Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?
- Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?



5.2.4 Environmental Impacts and Mitigation Measures

IMPACT: *Would the project expose people or structures to seismic-related ground failure, including liquefaction?*

Impact Analysis: The Safety Element of the General Plan establishes the City's approach to ensure a safe environment for its residents, visitors, and businesses. The Safety Element establishes goals, policies and implementation programs to guide and direct local government decision-making in safety-related matters for the City of Downey. This section of the DEIR addresses the potential for adverse geologic and seismic hazard impacts associated with the General Plan Update and change in land use of the 16 identified sites.

According to the Department of Conservation, Division of Mines and Geology Seismic Hazards Zone Maps, the City of Downey is located in the Whittier and South Gate Quadrangles. According to these maps, the entire City is located within a liquefaction zone, as shown on Figure 5.2-2.

5. *Environmental Analysis*

Additional population growth within the City would result in an increased number of people being subject to potential liquefaction impacts in the event of seismic activity. In addition, growth within the City would have the potential to create a greater demand on the water table, thus potentially lowering it. However, this basin is adjudicated, which limits the amount of groundwater that can be withdrawn by each entity. In addition, as mentioned above, the Water Replenishment District has a program whereby they inject groundwater into the ground.

To determine the potential for liquefaction, site-specific geologic studies are required on a case by case basis, as development is proposed on the 16 areas as part of the update of the General Plan and by other development projects proposed in the future in the City. In addition, all future construction would be required to abide by standards contained in the UBC. Current structural engineering methods for foundation design, in areas prone to liquefaction, may not be sufficient to prevent a building's foundation from failing in a larger earthquake resulting in stronger and longer ground shaking. Structural engineers would be required to design foundations to withstand seismically induced liquefaction. Compliance with the General Plan Goals and Policies as well as with existing codes and regulations will ensure that potential impacts from liquefaction will be less than significant.

Relevant Goals and Policies

Downey Vision 2025 General Plan contains policies and programs related to exposure of people or structures to seismic-related ground failure, including liquefaction. These policies and programs are listed in Appendix A.

Existing Regulations and Standard Conditions

- Compliance with the Uniform Building Code (UBC) and applicable policies of the Safety Element of the General Plan would ensure that impacts would be less than significant.

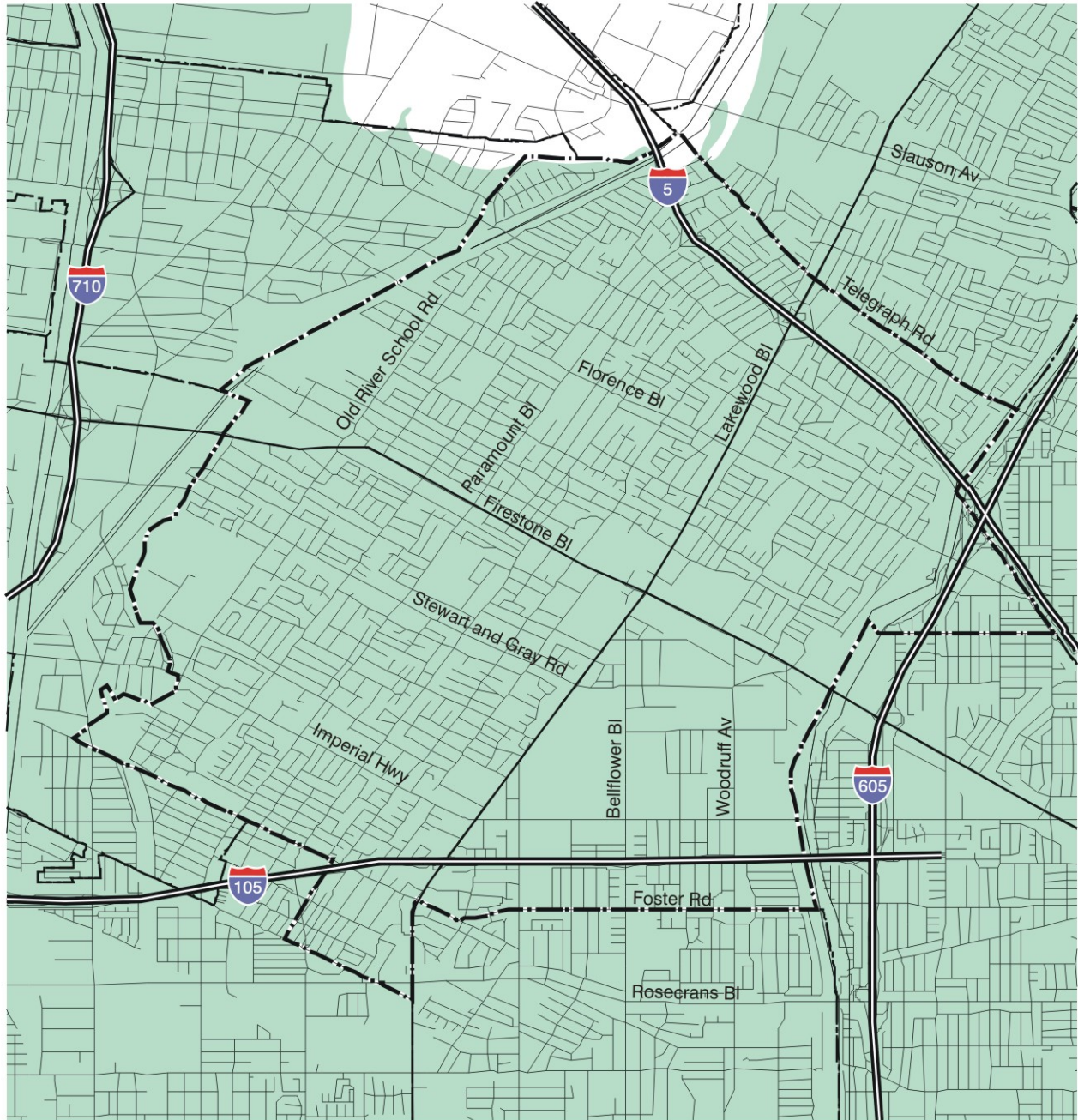
Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are necessary.

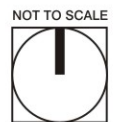
Level of Significance After Mitigation: No significant impacts were identified and no mitigation measures are necessary.

5. Environmental Analysis

Liquefaction Zone



 Liquefaction Zone



5. *Environmental Analysis*

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5. *Environmental Analysis*

5.2.5 Cumulative Impacts

Impacts relating to geology and soils are site specific and generally cannot be considered in cumulative terms. A possible exception would be earthquake hazards. Mitigation of geologic, seismicity and soil impacts of development projects would be specific to each site. The proposed General Plan Update contains goals and policies that address potential impacts due to soils and geology. As such, the project's contribution to cumulative impacts related to soils and geology is less than considerable and therefore, less than cumulatively significant.

5.2.6 Significant Unavoidable Adverse Impacts

The General Plan Goals and Policies, and mitigation measures identified above would reduce potential impacts associated with geology and soils to a level of insignificance.



5. *Environmental Analysis*

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5. Environmental Analysis

5.3 HAZARDS AND HAZARDOUS MATERIALS

5.3.1 Methodology

This section examines whether implementation of the Downey Vision 2025 General Plan Update would result in the emission of hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. This section also examines whether any portion of the sites proposed for re-designation pursuant to the Downey Vision 2025 General Plan Update would be included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, thereby potentially creating a significant hazard to the public or the environment.

The analysis in the Project Initial Study indicated that implementation of the proposed Downey Vision 2025 General Plan Update would not impact fire safety, airport flight paths or emergency response plans.

5.3.2 Existing Conditions

Hazardous Waste

Hazardous waste is generated by a multitude of uses, including manufacturing and service industries, small businesses, agriculture, hospitals, schools and households. A material is hazardous when it exhibits corrosive, poisonous, flammable and/or reactive properties and has the potential to harm human health and/or the environment. Hazardous materials are generally used to produce products that enable our society to enjoy a higher standard of living. Hazardous materials are used in products (household cleaners, industrial solvents, paint, etc.) and in the manufacturing of products (e.g., television sets, newspapers, plastic products and computers).

Hazardous wastes are the chemical remains of hazardous materials that have no further intended use and which need treatment and/or disposal. Storage, transport and disposal of these materials require careful and sound management practices.

There are many regulatory requirements governing hazardous waste management, and they are constantly changing. Federal and State statutes as well as local ordinances and plans control the future course of hazardous waste management.

Hazardous Waste Storage and Leakage Sites

State laws relating to the storage of hazardous materials in underground storage tanks include permitting, monitoring, closure, and cleanup requirements. Regulations set forth construction and monitoring standards, monitoring standards for existing tanks, release reporting requirements, and closure requirements. All new tanks must be double-walled, with an interstitial monitoring device to detect leaks. Soil and groundwater contamination from leaking underground storage tanks must be investigated and corrective action completed to ensure protection of human health, safety and the environment. The City of Downey Fire Department is the local agency designated to permit and inspect underground storage tanks and to implement related regulations.

Hazardous Waste Management

State law requires planning by businesses to ensure that hazardous materials are properly handled, used, stored, and disposed of and to prevent or mitigate injury to human health or the environment in the event that such materials are accidentally released. State law requires that any business that handles hazardous materials prepare a business plan, which must include details, including floor plans of the



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facility and business conducted at the site; an inventory of hazardous materials that are handled or stored on-site; an emergency response plan; and, a safety and emergency response training program for new employees with annual refresher courses.

The U.S. Department of Transportation (DOT) regulations govern all means of hazardous materials transportation, except for those packages shipped by mail, which are covered by US Postal Service regulations. Under the Resource Conservation and Recovery Act (RCRA), the EPA sets standards for transporters of hazardous waste and the State of California regulates the transportation of hazardous waste in California, originating in the State, and passing through the State. In addition, the California Highway Patrol and the California Department of Transportation (Caltrans) have primary responsibility for enforcing Federal and State regulations and responding to hazardous materials transportation emergencies.

Hazardous Waste Handling

Hazardous waste regulations, such as the Resource Conservation and Recovery Act of 1976 (RCRA) and the Hazardous and Solid Waste Act, establish criteria for identifying, packaging and labeling hazardous wastes; prescribe management of hazardous wastes; establish permit requirements for hazardous waste treatment, storage, disposal, and transportation; and, identify hazardous wastes that cannot be disposed of in California landfills. Hazardous waste manifests list a description of the waste, its intended destination, and regulatory information about the waste.

Hazardous Materials Emergency Response

Pursuant to the Emergency Services Act, California has developed an Emergency Response Plan to coordinate emergency services provided by Federal, State and local governmental agencies and private persons. Response to hazardous materials incidents is one part of the plan. In addition, local agencies are required to develop area plans for response to releases of hazardous materials and wastes. These emergency response plans depend largely on the business plans submitted by persons who handle hazardous materials. An area plan must include pre-emergency planning and procedures for emergency response, notification, and coordination of affected governmental agencies and responsible parties, training and follow-up.

Local Policies

On the local level, Los Angeles County has a Los Angeles County Integrated Waste Management Plan and Hazardous Waste Management Plan, which provides direction for proper management of all waste generated within the County. State legislation enacted in 1986 required the development of a Hazardous Waste Management Plan containing all of the required elements (per California Health and Safety Code, Section 25135.1(d)) to serve as the primary planning document for hazardous waste management in the County. The Plan is intended to protect the health and welfare of the community while preserving the economic vitality of Los Angeles County and provides policy direction and action programs to address current and future hazardous waste management issues requiring local (City and County) responsibility and involvement.

The City of Downey is now in the process of creating a comprehensive Emergency Response Plan. Per State Law, all cities in California must adopt an Emergency Response Plan by November 2004. The Downey Fire Department coordinates hazardous material and disaster preparedness planning and appropriate response efforts with City departments. The Fire Department is responsible for conducting compliance inspections for regulated facilities in the City. These facilities handle hazardous material, generate or treat hazardous waste and/or operate an underground storage tank. The Downey Fire Department observes the 2001 version of the Uniform Fire Code for usage, storage, handling and transportation requirements for hazardous materials.

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A list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 by Environmental Data Resources, Inc. (EDR) for the Downey Vision 2025 General Plan Update is provided below. In order to provide an additional margin of safety, the EDR report contains the names and addresses of all listed sites within 0.5 mile of the 16 areas proposed for re-designation by the City of Downey (the search area). It is important to note, however, that similar sites exist throughout the City of Downey, not only within 0.5 mile of the 16 areas proposed for re-designation. For the purposes of this report, the EDR report revealed 167 listed hazardous waste sites within 0.5 mile of these 16 sites. Each of the 167 hazardous materials or hazardous waste sites in the EDR report is assigned a number. This number serves as a locator number to the subsequent page in the report on which the site is described in greater detail. The locator number also serves to identify the location of each listed site on the EDR Areas Study Data Map, which is included below as Figure 5.3-1, *Map of Listed Sites Within One-Half Mile of Areas Proposed for Re-Designation*. The full text of the EDR report, which is available under separate cover at the City of Downey, includes information such as the type, permit number and status of each listed facility.

The Executive Summary of the EDR report provides a complete listing of all sites determined to lie within 0.5 mile of each of the 16 sites proposed for re-designation. The Executive Summary has been included in this EIR as Appendix D. The following information was taken from the Executive Summary of the EDR report.

Small and Large Quantity Generators

Downey contains many industrial uses and other facilities permitted to store, transport and handle hazardous materials and waste. "Small quantity generators" are businesses that usually handle and generate small quantities of hazardous waste, such as dry cleaners, auto repair shops, medical facilities and photo processing centers. Small quantity generators are defined as facilities that generate 100-1,000 kg/month of non-acutely hazardous waste. There were approximately 167 of these small quantity generators within the search area as of March 9, 2004. Larger businesses, primarily in industrial locations, can generate large quantities of hazardous waste. Large quantity generators are defined as facilities that generate 1,000 kg/month of non-acutely hazardous waste or 1 kg/month of acutely hazardous waste. There were approximately twelve large quantity generators within the search area as of March 9, 2004.



Superfund Sites Located within One-Half Mile of the Areas Proposed for Re-Designation:

CERCLIS: Two sites in the search area were appropriately identified in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) as actual or potential National Priorities List (Superfund) sites under the Federal Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) as of February 26, 2004. They include the Southern California Gas Company (SCGC), located at 8101 South Rosemead Boulevard and a red phosphorous spill site, located at 11810 Lakewood Boulevard. These sites are numbered 14 and 85, respectively, on Figure 5.3-1. Clean up efforts at the red phosphorous spill site at 11810 Lakewood Boulevard were completed according to Federal and State standards at the time of the spill, so this site should not appear on future CERCLIS listings. A third site, the "USPS Anaheim Holiday Station," is not located in the City of Downey, and its inclusion in the CERCLIS database as a site in Downey is an error.

The Southern California Gas Company property also appears on the CORRACTS database, a list of sites with Corrective Action Activity. This database describes the nationally defined corrective actions that have occurred on the site. Finally, the SCGC site also appears on the RCRIS (Resource Conservation and Recovery Information System) database, which includes information about sites that generate, transport, store treat and/or dispose of hazardous wastes as defined by the Resource Conservation and Recovery Act (RCRA).

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Non-Superfund Sites Located within One-Half Mile of the Areas Proposed for Re-Designation:

Other non-Superfund sites are scattered throughout the search area. Archive status indicates that, to the best of EPA's knowledge, no immediate or long-term risks to human health or to the environment are associated with these sites. These sites are known to release toxic chemicals into the air, soil or water; however, the EPA closely monitors the emissions to ensure that annual limits are not exceeded. Many of the sites listed in the Executive Summary, from which the following database listings are drawn, are found in several databases. Please refer to the Executive Summary for additional information on each of the sites found on the following databases. Again, please note that a single site may be listed in more than one database, and that similar sites exist throughout the City of Downey.

ERNS: A review of the Emergency Response Notification System (ERNS) indicated that there were 73 sites reporting releases of oil and/or other hazardous substances within the search area as of December 31, 2003.

CHMIRS: The California Hazardous Material Incident Report System contains information on reported hazardous material incidents, i.e., accidental releases or spills. A review of the CHMIRS revealed that there were 54 CHMIRS sites within the search area as of December 31, 2002.

CORTESE: This database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with underground storage tanks having a reportable release and all solid waste disposal facilities from which there is known migration. The source is the California Environmental Protection Agency/Office of Emergency Information. A review of the CORTESE database indicated that there are 69 CORTESE sites within the searched area.

NOTIFY 65: Notify 65 records contain facility notifications about any release that could impact drinking water. The data come from the State Water Resources Control Board's Proposition 65 database. A search of these records indicated that there are two Notify 65 sites within the searched area.

SWF/LF: The Solid Waste Facilities/Landfill sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Integrated Waste Management Board's Solid Waste Information System (SWIS) database. A review of this database indicated that there are five SWF.LF sites within the searched area.

WMUDS/SWAT: The Waste Management Unit Database System is used for program tracking and inventory of waste management units. The source is the State Water Resources Control board. A review of this database indicated that there are five WMUDS/SWAT sites within the searched area.

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tanks. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System. A review of this database indicated that there were 77 LUST cases within the search area as of March 4, 2004.

UST: The Underground Storage Tank database contains registered underground storage tanks. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control board's Hazardous Substance Storage Container Database. A review of this database indicated that there were 37 UST sites within the searched area as of March 4, 2004.

CA FID: The Facility Inventory Database of Underground Storage Tanks contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board. A review of the CA FID UST list revealed that there are 45 CA FID UST sites within the searched area.

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HIST UST: A review of the Historical Underground Storage Tank list indicated that there were 135 HIST UST sites within the searched area as of October 15, 1990.

FINDS: The Facility Index System contains both facility information and an index of other databases that contain additional details about listed sites. A review of the FINDS list indicated that there were 192 FINDS sites within the searched area as of February 9, 2004.

HMIRS: The Hazardous Materials Incident Report System contains records of hazardous material spill incidents reported to the Department of Transportation. The source of this database is the U.S. EPA. A review of this database indicated that there were 24 HMIRS sites within the searched area as of December 18, 2003.

MLTS: The Material Licensing Tracking System is maintained by the Nuclear Regulatory Commission and contains a list of sites that possess or use radioactive materials and are subject to NRC licensing requirements. A review of the MLTS list revealed that there were two MLTS sites within the searched area as of January 15, 2004.

TRIS: The Toxic Chemical Release Inventory System identifies facilities that release toxic chemicals to the air water and land in quantities reportable under the Superfund Amendments and Reauthorization Act (SARA) Title III, Section 313. The source of this database is the U.S. EPA. A review of this database indicated that there were three TRIS sites within the searched area as of December 31, 2001.

TSCA: The Toxic Substances Control Act identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. A review of the TSCA list indicated that there were three TSCA sites within the searched area as of December 31, 2002.

SSTS: (Section 7 Tracking System) The Federal Insecticide, Fungicide and Rodenticide Act requires all registered pesticide-producing establishments to submit a report to the U.S. EPA by March 1st of each year. The information is compiled under the Section 7 Tracking System (SSTS). A review of the SSTS list revealed that there were three SSTS sites within the searched area as of December 31, 2001.

FTTS: This database tracks administrative cases and pesticide enforcement actions and compliance activities. A review of the FTTS database revealed that there were 11 FTTS sites within the searched area as of January 21, 2004.

AST: The Aboveground Storage Tank database contains registers ASTs. The data come from the State Water Resources Control Board. A review of the AST list revealed that there were three AST sites within the searched area of December 31, 2003.

DRY CLEANERS: A review of this database indicated that there were 24 dry cleaner sites within the searched area as of March 9, 2004.

WDS: A review of the California Water Resources Control Board's Waste Discharge System database indicated that there were 28 WDS sites within the searched area as of December 15, 2003.

SCH: This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. A review of the SCH list revealed that there were four SCH sites within the searched area as of March 2, 2004: Griffiths Middle School, Warren High School, Sussman Middle School and Albert Baxter Elementary School.

EMI: The Emissions Inventory Data list contains data about toxics and criteria pollutant emissions collected by the Air Resources Control Board and local air pollution agencies. A review of this database revealed that there were 26 EMI sites within the searched area as of December 31, 2004.



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NFE: The Near Field Environment list contains properties that are suspected of being contaminated and that need further assessment. A review of the NFE list revealed that there was one NFE site within the searched area as of March 2, 2004.

CA SLIC: The California Spills, Leaks, Investigations and Cleanups Database is provided by the California Regional Water Quality Control Board. A review of the CA SLIC list revealed that there are 13 CA SLIC sites within the search area.

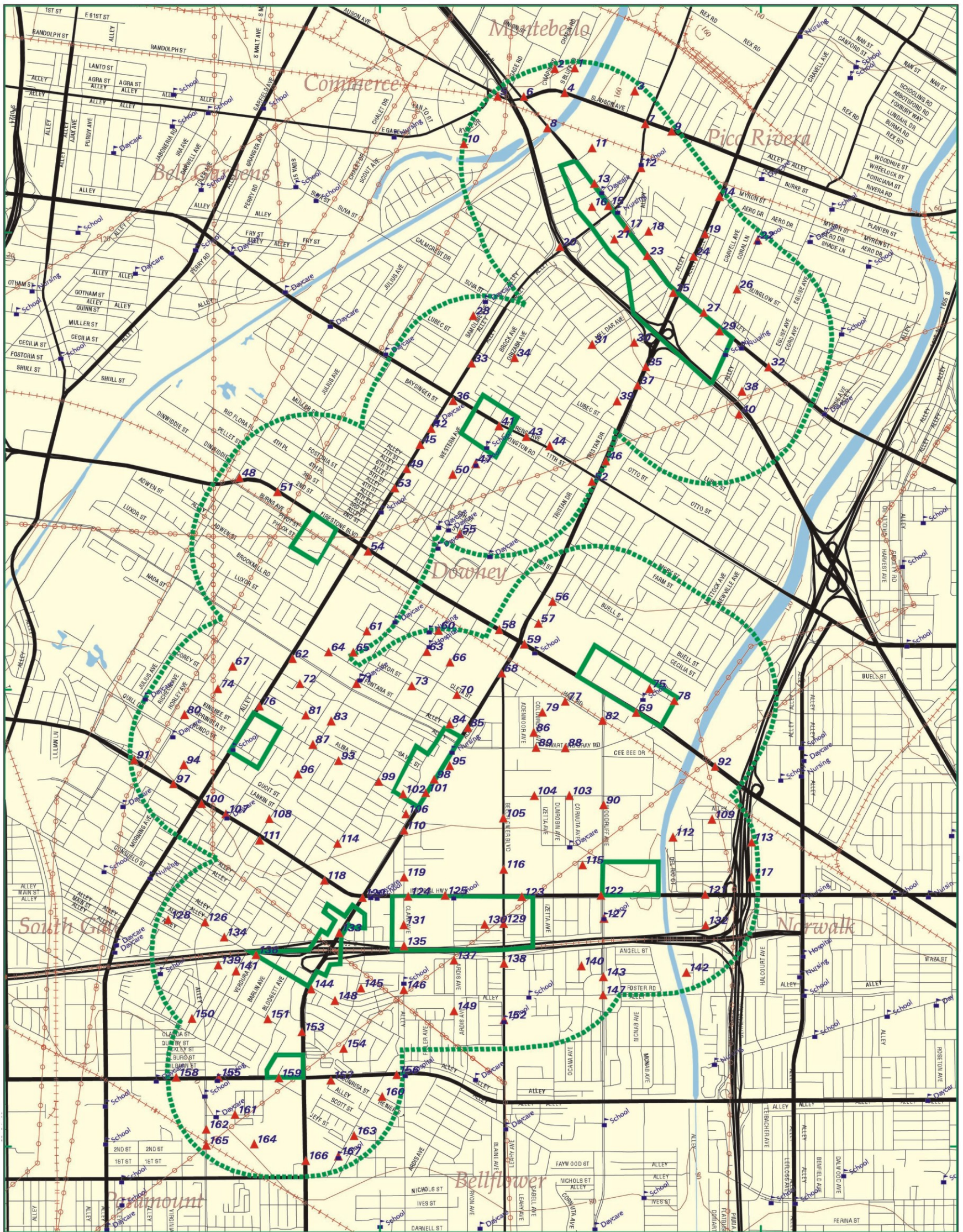
HAZNET: This database is compiled from the copies of hazardous waste manifests received annually by the Department of Toxic Substances Control. A review of the HAZNET database revealed that there are 498 HAZNET sites within the searched area.

HMS: Los Angeles County's Hazardous Materials System database provides information on industrial waste and underground storage tank sites in LA County. A review of the database revealed that there are 521 HMS sites within the searched area.

VCP: The Voluntary Cleanup Program database contains low threat-level properties with either confirmed or unconfirmed releases, where the Department of Toxic Substances Control has been requested to provide cleanup oversight. A review of the VCP list indicated that there are two VCP sites within the searched area.

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Map of Listed Sites Within One-Half Mile of Areas Proposed for Re-Designation



- | | | | |
|--|---------------|-------------|-------------------------|
| Listed Sites | Major Roads | Pipelines | Superfund Sites |
| Earthquake Epicenters (Richter 5 or greater) | Waterways | Powerlines | Federal DOD Sites |
| Search Boundary | Railroads | Fault Lines | Indian Reservations BIA |
| Roads | Contour Lines | Water | |

0 1/4 1/2 Mi.



Source: EDR, Environmental Data Resources, Inc.

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5.3.3 Thresholds of Significance

The criteria used to determine the significance of impacts on hazards and hazardous materials are taken from City-approved Thresholds of Significance based on the City's Initial Study and the model Initial Study checklist in Appendix G of the State CEQA Guidelines.

- Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
- Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

The following impacts were found to be less than significant in the Initial Study and will not be analyzed in this EIR:

- Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- Would the project create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?
- Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
- Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?



5.3.4 Environmental Impacts and Mitigation Measures

The following section presents an analysis of the impacts found to be potentially significant in the Initial Study prepared for the proposed Downey Vision 2025 General Plan Update.

IMPACT: *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

Impact Analysis: Sites that emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste materials in their operations may create a significant hazard if they are located within 0.25 mile of an existing or proposed school. There are sixteen school sites located within 0.25 mile of the areas proposed for re-designation pursuant to the Downey Vision 2025 General Plan Update. Fourteen of these schools are located in the City of Downey, one is located in the City of Pico Rivera and one is located in the City of Paramount. Table 5.3-1 provides a listing of these schools with

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their addresses. It also shows which of the 16 areas proposed for re-designation under the Downey Vision 2025 General Plan Update the schools are located near.

**Table 5.3-1
Schools Located Within One-Quarter Mile of
Areas Proposed for Redesignation**

| <i>Name of School</i> | <i>Street Address</i> | <i>City</i> | <i>Within ¼ Mile of Re-Designation Area</i> |
|--|-----------------------|-------------|---|
| Selby Grove Elementary | 8110 Paramount Blvd | Pico Rivera | 2 |
| Unsworth Elementary | 9001 Lindsey Ave. | Downey | 5 |
| St Marks (Private Elementary) | 10354 Downey Ave. | Downey | 7 |
| Our Lady of Perpetual Help (Private Elementary) | 10441 Downey Ave. | Downey | 7 |
| Kirkwood Educational Center (Private Elementary) | 11115 Pangborn Ave. | Downey | 8 and 9 |
| St Raymond (Private Elementary) | 12320 Paramount Blvd. | Downey | 10 |
| Alameda Elementary | 8613 Alameda St. | Downey | 11 |
| Sussman Middle School | 12500 Birchdale Ave. | Downey | 12 |
| Ward Elementary School | 8851 Adoree St. | Downey | 12 |
| Wirtz Elementary | 8535 Contreras St. | Paramount | 13 |
| Carpenter Elementary | 9439 Foster Rd. | Downey | 14 |
| Good Shepherd Lutheran (Private Elementary) | 13200 Clark Ave | Downey | 14 |
| Calvary Chapel Christian (Private High School) | 12808 Woodruff Ave. | Downey | 16 |
| Calvary Chapel Christian (Private Elementary) | 12808 Woodruff Ave. | Downey | 16 |
| Columbus High School | 12330 Woodruff Ave. | Downey | 16 |
| Gauldin Elementary School | 9724 Spry St. | Downey | 16 |

According to the EDR report, nearly all of the areas proposed for re-designation contain individual parcels that currently have hazardous materials listing associated with them. Many of the sites listed in the EDR report are “Small Quantity Generators,” which use small amounts of hazardous materials such as paints, solvents or degreasers in the course of normal operations. Dry cleaners, gas stations or auto repair shops are examples of land uses that may fall into this category. Re-designating the areas in which these schools or land uses are located would have no immediate impact on existing conditions; therefore, implementation of the Downey Vision 2025 General Plan Update would have no significant beneficial or adverse impact on any of the schools listed above.

Existing Codes and Regulations

Future projects proposed for siting in the areas proposed for re-designation pursuant to the Downey Vision 2025 General Plan Update, and in the City of Downey in general, would have to comply with all Federal, State and local policies related to hazards and hazardous materials.

Relevant Goals, Policies and Programs

In addition to the existing regulatory safeguards related to hazardous materials and wastes, the Downey Vision 2025 General Plan Update contains goals, policies and programs that would serve to reduce the risk of significant hazardous materials- or hazardous waste-related impacts to the public or the environment in all areas of the City. See Appendix A for a lists of these goals and policies.

The hazards and hazardous material goals, policies and programs listed in *Appendix A* provide a high degree of protection at school sites throughout the City of Downey. However, the Downey Vision 2025 General Plan Update is a program-level document that cannot provide detailed descriptions of specific future land uses. Therefore, it is not possible to state with certainty that the goals, policies and programs listed above would reduce all hazardous materials- or hazardous waste-related impacts to schools that

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might result from future land uses in the re-designated areas to a level that would be considered less than significant.

It is possible that future development proposals for the areas proposed for re-designation pursuant to the Downey Vision 2025 General Plan Update might include land uses that could potentially emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste. However, all future development applications in the 16 areas proposed for re-designation would be required to undergo an environmental review process in which potential impacts to schools located within 0.25 mile of the proposed land uses would be analyzed. This would ensure that no hazardous materials- or hazardous waste-related impacts to schools would occur. It is also possible that future schools may be proposed for location within 0.25 mile of a pre-existing land use wherein hazardous substances or wastes are manufactured, used, stored, or transported. However, any new school proposals must also undergo a stringent environmental review process to ensure that the school's development would not result in any significant environmental or health risks at the school site. Therefore, existing codes, guidelines and statutes would ensure that no pre-existing or future school would be sited within 0.25 mile of any facility that would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste. Mitigation measures mandating environmental assessments for all future land use proposals in the City of Downey are included in "Mitigation Measures," below. These mitigation measures apply equally throughout the City of Downey, not just in the 16 areas proposed for re-designation under the Downey Vision 2025 General Plan Update.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: Implementation of the following mitigation measures would ensure that hazardous materials or hazardous waste-related impacts to schools, pursuant to the Downey Vision 2025 General Plan Update are less than significant:

- 5.3-1 Prior to the construction of any facility that may generate hazardous materials or waste, or that may use hazardous materials within 0.25 mile of an existing or proposed school, a Health Risk Assessment shall be conducted to ensure that the proposed facility would not significantly impact any existing or proposed schools.
- 5.3-2 Prior to issuance of any discretionary permit for a current or former hazardous waste disposal site or solid waste disposal site, the project property owner/developer shall submit a Phase I Environmental Site Assessment to the City. If possible hazardous materials or wastes are identified during the site assessments, the appropriate response/remedial measures will be implemented in accordance with the requirements of the Los Angeles County Department of Health Services and/or the Regional Water Quality Control Board (RWQCB), as appropriate.

Level of Significance After Mitigation: Less than significant.

IMPACT: *Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

Impact Analysis: Various sites within the areas of Downey proposed for re-designation, or located within 0.5 mile of the areas proposed for re-designation, are included on one or more Federal or State lists of hazardous material sites. Sites that use hazardous materials in their operations, that produce hazardous wastes or that are located on a site contaminated by hazardous materials may create a significant hazard to the public.



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Although implementation of the proposed Downey Vision 2025 General Plan Update would change existing land use designations, it would have no immediate impact on existing conditions. Some changes in land use designations pursuant to the Downey Vision 2025 General Plan Update could result in the future siting of additional land uses that transport, handle, manufacture or dispose of hazardous materials or wastes in areas where these land uses already exist. These changes in land use designations could also result in the future siting of land uses that transport, handle manufacture or dispose of hazardous materials or wastes in areas where these land uses were not previously permitted. This could result in potentially significant hazardous materials or hazardous waste-related impacts to surrounding land uses.

Relevant Goals, Policies and Programs

See relevant goals, policies and programs for hazard and hazardous materials in Appendix A.

The goals, policies and programs listed in Appendix A would provide a high degree of guidance and protection for future land use development in Downey. However, as noted above, the Downey Vision 2025 General Plan Update is a program-level document. As such, it cannot provide detailed descriptions of specific future land uses. For this reason it is not possible to state with certainty that the goals, policies and programs listed in Appendix A would reduce all hazardous materials- or hazardous waste-related impacts to a level that would be considered less than significant.

It is possible that future development proposals for the areas proposed for re-designation and other areas that will be developed in the future pursuant to the Downey Vision 2025 General Plan Update might include land uses that could potentially be impacted by pre-existing hazardous materials or waste sites or by land uses that transport, store, handle or use these substances in the course of their operations. However, mitigation measures mandating environmental assessments for all future land use proposals are included in “Mitigation Measures,” below. Implementation of the following mitigation measures would ensure that any impacts related to hazards, hazardous materials or hazardous wastes that might result from implementation of the proposed Downey Vision 2025 General Plan Update would be less than significant. These mitigation measures apply equally throughout the City of Downey, not just in the 16 areas proposed for re-designation under the Downey Vision 2025 General Plan Update.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures:

- 5.3-3 Prior to the construction of any facility that may generate hazardous materials or waste, or that may use hazardous materials in its operations, a Health Risk Assessment shall be conducted to ensure that the proposed facility would not significantly and adversely impact any adjacent or surrounding land uses.

- 5.3-4 Prior to issuance of any discretionary permit for a current or former hazardous waste disposal site or solid waste disposal site, the project property owner/developer shall submit a Phase I Environmental Site Assessment to the City. If possible hazardous materials or wastes are identified during the site assessments, the appropriate response/remedial measures will be implemented in accordance with the requirements of the Los Angeles County Department of Health Services and/or the Regional Water Quality Control Board (RWQCB), as appropriate.

Level of Significance After Mitigation: Less than significant.

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5.3.5 Cumulative Impacts

The analysis above indicates that, with mitigation, implementation of the proposed Downey Vision 2025 General Plan Update would not result in any significant impacts related to hazards, hazardous materials or hazardous wastes. Therefore, implementation of the proposed Downey Vision 2025 General Plan Update would not result in any cumulatively considerable impacts related to hazards, hazardous materials or hazardous wastes.

5.3.6 Significant Unavoidable Adverse Impacts

The General Plan Goals, Policies and Programs and mitigation measures identified above would endure potential impacts associated with hazards and hazardous materials to a level of insignificance.



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5.4 HYDROLOGY AND WATER QUALITY

5.4.1 Methodology

A Hydrology and Water Quality Assessment was prepared by Fuscoe Engineering, Inc. to assess the potential impacts of the proposed project with regard to surface water hydrology and water quality. Hydrology deals with the distribution and circulation of water, both on land and underground. Water quality deals with the quality of surface and groundwater. Surface water is water on the surface of the land and includes lakes, rivers, streams, and creeks. Groundwater is water below the surface of the earth. The Assessment is found in Appendix G to the Draft EIR

Implementation of projects as set forth in the General Plan Update has the potential to affect water systems with respect to natural and manmade hydrology, the use and quality of, or demand for water resources. The character and quality of the natural water systems affect other major components of the environment. Water is managed within the City of Downey for a variety of purposes. It is managed for human use and consumption; as a potential hazard; as a source of recreation; and a resource supporting natural habitats.

This section discusses the existing characteristics, and the potential effects of the proposed project on groundwater and surface water. This section also discusses the importance of water as a fundamental component of the environment, beginning with physical characteristics of the hydrological water systems as they currently exist.

Surface Water Hydrology

The surface water hydrology analysis relied upon the Los Angeles County Hydrology Manual (December 1990) and the Caltrans Highway Design Manual (July 1995) for impervious cover estimates; in particular Appendix E-1 and Table 5-2.2, respectively. These references provide typical proportion of impervious values or runoff coefficients associated with a variety of land uses ranging from residential properties to industrial facilities. These values were applied to the specific land uses designated within each of the 16 General Plan areas of interest. Correspondingly, this same procedure was applied to the proposed land use designations of the Downey Vision 2025 General Plan Update. The difference in impervious value was then compared, within each area and overall, to measure the influence the proposed General Plan may have on the City's storm water drainage system. These values do not accommodate SUSMP or regional runoff mitigation measures that accompany development.

The ensure that the impervious cover values provided in the Los Angeles County Hydrology Manual and the Caltrans Highway design Manual were representative of land uses within the City of Downey, particularly with land uses of lower impervious cover, such as single-family residential lots, a GIS-based survey was performed. This survey targeted Areas 6 and 11 for investigation. Through GIS, the various land uses found within these areas were measured for the proportion of impervious surfaces observed, and compared with the values provided by the publications. To illustrate, an existing single-family residential lot within area 11 measured as 0.416 impervious, while the corresponding reference value in the Hydrology Manual was 0.418. Overall, the values provided in the published documents were indeed representative of the City's land uses. Table 5.4-1 provides a breakdown of the impervious factor values associated with each of the land use designations found in the proposed General Plan Update.



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**Table 5.4-1
Land Use Designations and Associated Percentage Impervious**

| General Plan Land Use Designation | Percent Impervious (%) | LA County Hydrology Manual Basis |
|--|-------------------------------|---|
| Low Density Residential | 41.8 | 1-2 unit residential |
| Low Medium Density Residential | 68.2 | 3 unit residential |
| Medium Density Residential | 85.5 | 5 unit residential |
| Office | 90.9 | Commercial Office Buildings |
| Neighborhood Commercial | 95.8 | Commercial Shopping Centers (neighborhood) |
| General Commercial | 94.6 | Commercial Shopping Centers (Regional) |
| Commercial Manufacturing | 90.9 | Commercial Manufacturing Outlets |
| General Manufacturing | 90.9 | Industrial Manufacturing |
| Mixed Use | Varies | -- |
| Public | Varies | -- |
| Open Space | 30.0 | Unimproved Areas (Caltrans Highway Design Manual, 1995) |
| School | 81.9 | Institutional Property, Schools |
| Adult Day Care | 68.2 | Institutional Property, Homes for the Aged |
| Auto Sales | 94.6 | Commercial Auto Equipment |
| Auto Service | 94.6 | Commercial Service Shops |
| Auto Gas Station | 95.8 | Commercial Service stations |
| Carpet Store | 90.9 | Commercial Stores |
| Child Day Care | 81.9 | Institutional Property, Schools |
| Church | 81.9 | Institutional Property, Churches |
| Commercial | 90.9 | Commercial Stores |
| Hotel | 95.8 | Commercial Hotel |
| Medical Care | 74.4 | Institutional Property, Hospitals |
| Office-General | 90.9 | Commercial Office Buildings |
| Office-Medical | 95.8 | Commercial Professional Buildings |
| Restaurant | 94.6 | Commercial Restaurants |
| Vacant | 30.0 | Unimproved Areas (Caltrans Highway Design Manual, 1995) |

Source: Fuscoe Engineering, Inc., 2004

Water Quality

Since the General Plan Update does not physically alter the existing conditions with land use changes, the potential water quality impacts can only be assessed conceptually. A more in depth evaluation of water quality impacts will be prepared as projects are proposed to the City. At this time, water quality implications will be assessed and more specific mitigation measures will be provided for consideration in the hydrology studies prepared for future projects.

5.4.2 Existing Conditions

Hydrology and Drainage

The City of Downey covers an area of approximately 12.7 square miles. The City can be divided into three drainage areas with respect to the three receiving water bodies that border the City. Roughly half of the City, east of Downey Avenue, drains to the San Gabriel River. The northwest quadrant of the City, north of Firestone Boulevard and west of Downey Avenue, generally drains towards the Rio Hondo River.

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The remaining southwest portion of the City, south of Firestone Boulevard and west of Downey Avenue, drains to the Los Angeles River.

Downey is largely developed with few undeveloped infill areas. Moreover, the areas that are subject to change under the proposed General Plan Update are located within fully developed urban settings. In Downey, flood control is provided by a network of box culverts, underground storm drain pipes, and open channels operated and maintained by the Los Angeles County Department of Public Works. These storm drain facilities, by and large, have the capacity to convey surface runoff from a 10-year flood return frequency event.

Existing Conditions Related to Groundwater

Groundwater is water that is found below the surface in water bearing formations called aquifers. An aquifer is a geologic formation that is sufficiently permeable to conduct groundwater, and to yield significant quantities of water to wells and springs. Perched groundwater is a body of water located above a permanent groundwater zone and separated from it by a soil or bedrock zone of low permeability.

From 1993 to 2003, Downey has relied upon groundwater from the Central Basin for approximately 96 percent of its total annual water production, with recycled water comprising approximately three percent, and purchased water connections contributing less than one percent¹. This production serves a population of roughly 107,323. By 2025, it is anticipated that the population would increase by 13,848 persons.

In the Central Basin Judgment of 1964 (Judgment), the Superior Court fixed allowable withdrawals from the Central Basin at 217,000 acre-ft. per year. The adjudication allocated the portion of the 217,000 acre-ft per year each pumper could extract on an annual basis. There are a total of 167 parties within the Basin that have water rights; 44 of which are water purveyors. The limit to the amount of groundwater that each pumper is allowed to extract from the Basin on an annual basis is referred to as the “allowed pumping allocation” (APA), which corresponds to 80-percent of the party’s total water rights. The judgment contains provisions for exceeding the APA in certain situations. The City has a current APA of 16,554 acre-ft per year. Currently, the APA is less than the City’s present annual water requirements. As such, the City presently leases water rights on an annual basis to make up the difference.”



The purchase of additional water rights and/or water supply depends on availability and price at time of need. Connections with MWD and adjacent water agencies are maintained for drought, fire, and other emergency purposes. Because MWD and adjacent agencies disinfect and treat their water and the City of Downey does not, this source of water is not currently compatible with the City’s water system. This does not mean that the City might not pursue the purchase of imported water in the future, however. The City currently prefers the purchase of water rights due to the high costs and uncertain availability of imported water.

Water Quality Regulations

Regulatory Setting

Controlling pollution to the nation’s receiving water bodies has been a major environmental concern for more than three decades. Growing public awareness of the impacts of water pollution in the United States culminated in the establishment of the Clean Water Act² (CWA) in 1972, which provided the regulatory framework for surface water quality protection. Up until 1987, efforts were focused on

¹ City of Downey Urban Water Management Plan, 2000.

² Also referred to as the Federal Water Pollution Control Act of 1972.

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regulating point source pollution, such as discharges (through pipes) from sewage treatment plants and industrial facilities, and with great success. However, little attention was paid to pollution from non-point sources, such as runoff from streets, construction sites, and agricultural point sources, such as runoff from streets, construction sites, and agricultural land. As a result, non-point source pollution (polluted runoff) has emerged as one of the leading water quality problems in many states, including California.

Unlike point source discharges, which originate from a single identifiable source, non-point sources are diffuse in nature and are difficult to pinpoint as originating from a distinct facility and its effluent (e.g., sewage treatment plants and industrial process wastewaters). Hence, polluted runoff is minimized by controlling the broad categories of land uses and activities that generate it (e.g., manufacturing, landfills, transportation facilities, construction activities, and residences). To accomplish this, the United States Congress amended the CWA³ in 1987 to specifically regulate non-point source pollution prevention programs. Rather than setting numeric effluent limitations as in point source regulation, non-point source regulation calls for the implementation of Best Management Practices (BMPs) to reduce or prevent the discharge of pollutants from these activities to the Maximum Extent Practicable (MEP)⁴. As a result, non-point source pollution regulations have been implemented at the federal, state and local levels.

California Toxics Rule

The California Toxics Rule (CTR) is a federal regulation issued by the federal EPA providing water quality criteria for potentially toxic constituents in receiving waters with human health or aquatic life designated uses in the State of California. CTR criteria are applicable to the receiving water body and therefore must be calculated based upon the probably hardness values of the receiving waters for evaluation of acute (and chronic) toxicity criteria. At higher hardness values for the receiving water, copper, lead, and zinc are more likely to be complexed (bound with) components in the water column. This in turn reduces the bioavailability and resulting potential toxicity of these metals.

United States Environmental Protection Agency

In 1990, the United States EPA initiated the National Pollutant Discharge Elimination System (NPDES) Storm Water Program, in accordance with Section 402(p) of the CWA, to control polluted runoff from sources that had the greatest potential to negatively impact water quality to the waters of the United States. As a result, this permitting program requires operators of municipal separate storm sewer systems (MS4s), industrial facilities, and construction sites to obtain coverage for the storm water discharges generated from these operations. These NPDES permits thus provide a mechanism for monitoring and regulating the discharge of pollutants from these non-point sources. In essence, the NPDES permits effectively prohibits non-storm water discharges from MS4s, industrial activities, and construction activities, unless otherwise permitted under a separate NPDES permit.

The implementation of the NPDES Storm Water Program was carried out in two phases. Phase I, which began in 1990, required NPDES permit coverage from large and medium MS4s serving populations of 100,000 or more (i.e., cities and counties). Eleven categories of industrial activities were also required to have NPDES permit coverage⁵. One of those eleven activities included construction activities disturbing five acres or more of soil. Phase II of the NPDES storm Water Program, implemented in 1999, tightened non-point source regulations by adding small MS4s (those serving less than 100,000 population), public

³ Section 402(p)

⁴ California SWRCB justified this approach by stating that “the substantial variability of storm events and pollutant constituents and concentrations in storm water runoff makes it extremely difficult to formulate numeric effluent limitations bearing a reasonable relationship to established water quality standards.” (San Francisco BayKeeper vs. SWRCB).

⁵ (i) Facilities with effluent limitations, (ii) Manufacturing, (iii) Mineral, Metal, Oil and Gas, (iv) Hazardous Waste, Treatment or Disposal Facilities, (v) Landfills, (vi) Recycling Facilities, (vii) Steam Electric Plants, (viii) Transportation Facilities, (ix) Treatment Works, (x) Construction Activity, (xi) Light Industrial Activity.

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facilities (i.e., military basis, school districts, hospitals, etc.), as well as construction activities disturbing between one and five acres of land, to the regulated community.

State Water Resources Control Board

In the State of California, the SWRCB and local RWQCBs have assumed the responsibility of implementing US EPA's NPDES Storm Water Program. Under the State's water quality control law, better known as the Porter-Cologne Water Quality Act (Water Code Sections 13000 et seq.), the SWRCB is granted control over California's water rights and water quality policy. As a result, the SWRCB issues NPDES Storm Water permits in the form of Waste Discharge Requirements (WDRs) to Phase I and II permittees in California. The regulating authority for industrial and construction activities in the SWRCB, where as local RWQCBs issue and enforce MS4 storm water permits.

More specifically, the General Industrial Activity Storm Water Permit (GIASP), WDRs Order 97-03-DWQ (NPDES Permit No. CAS000001), regulates storm water discharges from ten categories of industrial activities. Construction activities are regulated under a separate permit issued by the SWRCB. Industrial facilities that qualify must submit a Notice of Intent (NOI) to file for permit coverage or otherwise be in violation of the CWA.

“The GIASP requires the implementation of Best Management Practices (BMPs) that will achieve the performance standard of best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT). The GIASP also requires the development of a Storm Water Pollution Prevention Plan (SWPPP) and a monitoring plan. Through the SWPPP, sources of pollutants are to be identified and the means to manage the sources to reduce storm water pollution are described⁶.”

The Los Angeles Regional Water Quality Control Board (LARWQCB), under the guidance of the SWRCB, administers and oversees the GIASP program within the San Gabriel River Watershed, where the project resides. In addition to the GIASP, certain construction sites are required to obtain coverage by way of a General Construction Activity Storm Water Permit (GCAP). According to the US EPA, construction sites without proper sediment and erosion controls can discharge ten to twenty times the sediment load than agricultural lands and 1,000 to 2,000 times the rate from forest lands⁷. The General Construction Activity Storm Water Permit, WDRs Order 99-08-DWQ, NPDES Permit No. CAS000002, regulates storm water discharges associated with construction activities disturbing one acre or greater of soil. Construction sites that quality must submit a Notice of Intent (NOI) to file for permit coverage or otherwise be in violation of the CWA.

The General Construction Permit (GCAP) “requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP should contain a site map that shows the construction site perimeter, existing and proposed buildings, lots, roadways, storm water collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP must list Best Management Practices (BMPs) the discharger will use to protect storm water runoff and placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for ‘non-visible’ pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.”

In the Los Angeles Region, the SWRCB is the permitting authority, while the LARWQCB, EPA, City or private contractors provides local oversight and enforcement of the GCAP. All developments within the City that disturb one acre or more of soil will be subject to the GCAP.

⁶ Website: <http://www.swrcb.ca.gov/stormwtr/industrial.html>.

⁷ Storm Water Phase II Proposed Rule Fact Sheet Series, Fact Sheet 3.0 (EPA, April 1999).



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Los Angeles Regional Water Quality Control Board

The LARWQCB issued an MS4 Storm water permit, WDR Order No. 01-182, NPDES Permit No. CAS004001, to the County of Los Angeles and its 84 co-permittees within the Los Angeles Region, which includes the City of Downey.

Whereas the GIASP and GCASP are issued statewide, MS4 permits are issued by local Regional Boards in order to provide the permits with the means to address storm water quality issues specific to the local water shed or region. As a result, MS4 permits are a more prescriptive level of regulation, requiring permittees to develop and implement a storm water management program with the goal of reducing the discharge of pollutants to the maximum extend practicable (MEP). The MEP standard is a more stringent performance standard than BCT/BAT established for both the GIASP and GCAP. The Storm Water Quality Management Program (SWQMP), as it is referred to in the Los Angeles Region, requires the implementation of the most effective combination of BMPs for storm water/urban runoff pollution control⁸.

Local Agencies

As permittees under the Los Angeles County MS4 Permit, the County of Los Angeles and the City of Downey were required to develop and implement programs for storm water management within their municipality. Hence, six Model Programs were developed in 2002 by LA County permittees as guidance documents for implementing storm water management programs. The Model Programs include, among other programs, guidelines for “new development and redevelopment.” One specific requirement from the Development Planning Model Program is to develop a Standard Urban Storm Water Mitigation Plan (SUSMP). The SUSMP serves as a model guidance document for use by builders, land developers, engineers, planners, and others in selecting post-construction BMPs and in obtaining municipal approval for the urban storm water runoff mitigation plan for a designated project prior to the issuing of building and grading permits by the City of Downey.⁹ The MS4 permit also requires the LARWQCB to review this EIR.

Water Quality Standards

The ultimate goal of the Clean Water Act is to protect the physical, chemical, and biological integrity of the waters of the United States. Along with regulatory programs for storm water and non-storm water discharges generated from pollutant sources (mentioned above), the CWA also required states to adopt water quality standards for receiving waterways and water bodies to achieve this goal. Water quality standards are based on a water body’s designated beneficial uses, along with its water quality criteria based upon these uses. To further elaborate, 22 beneficial uses of water bodies describe the appropriate or proposed uses of a particular water body based on current and historical use of it, such as contact recreation or drinking water uses. Its associated water quality criteria are expressed either as numeric concentrations, levels of constituents, or as narrative summaries that represent the quality of water that support the designated beneficial use.

303(d) List of Limited Water Quality Segments

Under Section 303(d) of the CWA, States are required to list water bodies that do not meet their water quality standards. Once a water body has been listed as impaired, a Total Maximum Daily Load (TMDL) for the constituent of concern (pollutant) must be developed for that water body. A TMDL is an estimate of the daily load of pollutants that a water body may receive from point sources, non-point sources, and natural background conditions (including an appropriate margin of safety), without exceeding its

⁸ http://www.swrcb.ca.gov/rwqcb4/html/programs/stormwater/la_ms4_final/FinalPermit.pdf

⁹ <http://ladpw.org/WMD/npdes/>

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assimilative capacity. Those facilities and activities that are discharging into the water body, collectively, must not exceed the TMDL.

As opposed to the NPDES programs, which focus on reducing or eliminating non-storm water discharges and reducing the discharge of pollutants to the maximum extent practicable, TMDLs provide an analytical basis for planning and implementing pollution controls, land management practices, and restoration projects needed to protect water quality. According to the 2002 CWA Section 303(d) List of Water Quality Limited Segments, there are three impaired receiving water bodies (two separate reaches of the San Gabriel River) that the proposed project could potentially impact: Rio Hondo Reach 1, Los Angeles River Reach 2, and San Gabriel River Reaches 1 and 2. These impaired water bodies are listed in Table 5.4-2. Surface water runoff from the City ultimately discharge into one of these three watercourses that border the City.

**Table 5.4-2
Impaired Water Bodies**

| <i>Water Body</i> | <i>Pollutant/Stressor</i> | <i>TMDL</i> |
|---------------------------|---|--|
| Rio Hondo Reach 1 | <ul style="list-style-type: none"> • pH, NH3 • Coliform • Cu,Zn | <ul style="list-style-type: none"> • Nitrogen¹ • Coliform bacteria • Metals |
| Los Angeles River Reach 2 | <ul style="list-style-type: none"> • NH3, odors, scum • Coliform bacteria • Trash • Pb • Oil | <ul style="list-style-type: none"> • Nitrogen¹ • Coliform • Trash • Metals • Oil |
| San Gabriel River Reach 1 | <ul style="list-style-type: none"> • NH3, algae, toxicity • Abnormal fish histology • Coliform | <ul style="list-style-type: none"> • Nitrogen¹ • Further Assessment Needed • Coliform |
| San Gabriel River Reach 2 | <ul style="list-style-type: none"> • NH3 • Pb • Coliform | <ul style="list-style-type: none"> • Nitrogen¹ • Metals • Coliform |

¹Nutrient related pollutants generally due to POTWS and the TMDL has been shifted to enforceable programs listed while Nitrogen /Nitrogen treatment installed at points are evaluated.

Source: Fuscoe Engineering, 2004.



Water Quality Objectives

In 1994, the LARWQCB approved its Water Quality Control Plan Los Angeles Region (Basin Plan), which establishes water quality objectives for surface and ground waters in the Coastal Watersheds of Los Angeles and Ventura Counties.

The designated beneficial uses of the three receiving water bodies for the proposed project are listed in Table 5.4-3, below. Also listed are the specific water quality objectives for each receiving water body to maintain its beneficial uses.

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**Table 5.4-3
Water Quality Objectives**

| <i>Water Body</i> | <i>Beneficial Use(s)</i> | <i>Water Quality Objectives (mg/L)</i> |
|---------------------------|---|--|
| Rio Hondo Reach 1 | MUN GWR REC1 REC2 WARM WILD RARE | TDS: 1,500 Sulfate: 350 Chloride: 150 Nitrogen: 8 |
| Los Angeles River Reach 2 | MUN IND GWR REC1 REC2 WARM WILD | TDS: 1,500 Sulfate: 350 Chloride: 150 Nitrogen: 8 |
| San Gabriel River Reach 1 | MUN IND PROC GWR REC1 REC2 WARM WILD RARE | TDS: 750 Sulfate: 300 Chloride: 150 Boron: 1 Nitrogen: 8 |

Source: Fuscoe Engineering, 2004.

In addition to surface waters, groundwater is a valuable water resource in inland areas of the Los Angeles Region. The City of Downey's principal source of water is groundwater consumption from the Central Basin, which underlies the City. Due to their significance as a water resource, water quality objectives were established by the LARWQCB in its Basin Plan for the region's groundwater basins and sub-basins, the Central Basin among them. Table 5.4-4 describes the beneficial uses designated for the Central Basin and the corresponding water quality objectives necessary to maintain its uses.

**Table 5.4-4
Central Basin Water Quality Objectives**

| <i>Water Body</i> | <i>Beneficial Use(s)</i> | <i>Water Quality Objectives (mg/L)</i> |
|-------------------|---------------------------|---|
| Central Basin | MUN IND PROC AGR | TDS: 700 Sulfate: 250 Chloride: 150 Boron: 1 |

Source: Fuscoe Engineering, 2004.

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5.4.3 Thresholds of Significance

The criteria used to determine the significance of impacts on hazards and hazardous materials are taken from City-approved Thresholds of Significance based on the City's Initial Study and the model Initial Study checklist in Appendix G of the State CEQA Guidelines.

- Would the project violate any water quality standards or waste discharge requirements?
- Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?
- Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or off-site?
- Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?
- Would the project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?
- Would the project otherwise substantially degrade water quality?
- Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

The following criteria normally included in the CEQA list noted above were not analyzed as they were eliminated as concerns in the Initial Study:

- Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?
- Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?
- Would the project inundation by seiche, tsunami, or mudflow?



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5.4.4 Environmental Impacts and Mitigation Measures

IMPACT: *Would the project violate any water quality standards or waste discharge requirements?*

Impact Analysis:

General Plan Update

Both point sources, such as direct drainage sources, and nonpoint sources of water pollution, such as urban runoff, are usually discharged via separate storm drains to “waters of the United States” and are therefore regulated under the Federal Clean Water Act (CWA). The City of Downey must therefore comply with Federal water quality, waste discharge, and total maximum daily load standards defined in the CWA. Implementation of the General Plan Update would potentially impact the quantity of runoff and other pollutant loadings to receiving waters. Impacts may be significantly greater during the region’s rainy season, which is generally defined as October through May. Goals, policies and programs included in the General Plan Update would ensure compliance with Federal standards by ensuring adequate storm drainage, and maintaining adequate water and waste distribution capacity. These goals, policies and programs are located below.

Redesignation in Land Use of 16 Sites

The proposed land use changes in the General Plan Update have the potential to violate water quality standards or waste discharge requirements outlined in this section. However, it should be noted that, the proposed changes to the land use designations in these 16 areas would not directly result in any construction or development activity within the City. The project alters the types of potential water quality violations that may occur in the future, but does not directly cause the potential for water quality violations in the City. Both residential and commercial manufacturing development is equally likely to cause water quality violations, if improperly designed. An apartment site is more likely to generate concerns for pollutants such as bacteria and viruses if source control BMPs are not implemented, whereas an auto repair shop is more likely to produce heavy metals as a storm water runoff contaminant. As indicated above, policies included in the General Plan Update would ensure compliance with Federal standards by ensuring adequate storm drainage, and maintaining adequate water and waste distribution capacity.

Goals, Policies and Programs Related to Hydrology and Water Quality

The Downey Vision 2025 General Plan contains a goal related to complying with water quality standards or waste discharge requirements. This goal is included in Appendix A.

The Downey Vision 2025 General Plan Update also contains policies and programs related to complying with water quality standards and waste discharge requirements. These policies and programs are also included in Appendix A.

Existing Regulations and Standard Conditions

- Future development within the City could potentially generate storm water runoff and non-storm water discharges that would enter into the City’s MS4 and ultimately discharge into receiving water bodies during the construction and post-construction phases of development. Project approval by the City would require development exceeding one acre in size to obtain coverage under the SWRCB issued GCASP, which requires the project to develop a SWPPP to minimize potential construction-related impacts on storm water runoff. Where applicable, a SUSMP must be prepared

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and submitted for City review and approval to address the potential long-term (post-construction) impacts of the project.

- During construction of future development, compliance with the General Construction Permit through the use of the SWPPP and on-site BMPs would result in less-than-significant impacts on water quality during the short-term phases of the project. Implementation of the post-construction mitigation measures as identified by the site design, source control and SUSMP measures would ensure the proposed project's water quality impacts remain less than significant.
- Future projects shall comply with all applicable local, State, and federal regulations relating hydrology and water quality.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: MM 5.4-1 The City will continue to monitor water usage in the City and will obtain additional water entitlements as necessary to provide water for future growth in the City. Compliance with Existing Regulations and Standard Conditions, as well as the Goals, Policies and Programs listed in Appendix A would serve to mitigate any potential impacts related to hydrology and water quality pursuant to the proposed Downey Vision 2025 General Plan Update.

Level of Significance After Mitigation: Less than significant.

IMPACT: *Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?*



Impact Analysis:

General Plan Update

Groundwater recharge would not be impacted by the proposed project. Downey is located in a highly urbanized setting and is mostly built out. There is little opportunity for natural replenishment of groundwater within the City and the proposed project does not replace such opportunities. Groundwater recharge for the Central Basin is accomplished through importing of purchased water from the Metropolitan Water District and recycled water from Whittier and San Jose Treatment Plants to the Rio Hondo and San Gabriel River Spreading Grounds upstream of the City. In addition, the General Plan Update contains a number of Goals, Policies and Programs related to the protection of groundwater.

Redesignation in Land Use of 16 Sites

The proposed project has the potential to substantially deplete groundwater supplies through the subsequent increase in population in the City. Implementation of the General Plan Update, including the redesignation of 16 sites within the City, could result in the construction of 2,906 housing units, 13,848 residents and 4,900 jobs. As population increases, water use and consumption increases proportionally. The City can purchase additional water at significantly higher costs or force additional water conservation and reclaimed use of water to accommodate any population growth without depleting groundwater supplies or interfering with groundwater recharge. In addition, as stated above, the General Plan Update contains a number of goals, policies and programs related to the protection of groundwater.

Goals, Policies and Programs Related to Hydrology and Water Quality

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Existing Regulations and Standard Conditions

No specific existing regulations or standard conditions related to hydrology and water quality apply to this impact analysis.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: As new and redevelopment projects are planned and designed water quality standards such as Standard Urban Stormwater Mitigation Plans (SUSMP) will be utilized. Compliance with Existing Regulations and Standard Conditions, as well as the Goals, Policies and Programs listed above would also serve to mitigate any potential impacts related to hydrology and water quality pursuant to the proposed Downey Vision 2025 General Plan Update.

Level of Significance After Mitigation: Less than significant.

IMPACT: *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or off-site?*

Impact Analysis:

General Plan

Drainage runoff from parcels is dependent on the percent impervious factor assigned to the particular parcel. Increased development throughout Downey will increase the amount of impervious surfaces, thereby increasing the amount and speed of runoff, which is quantified in the following section. Increased runoff volumes and speeds have the potential to create erosion or siltation in areas without adequate drainage facilities. However, the majority of the City is built out and therefore runoff volumes are not expected to increase significantly. In addition, siltation is mitigated at the time of project development through retention and infiltration on the site, where necessary.

The policies and goals contained in the General Plan direct the City to increase permeable areas and employ site preparation and gradation techniques that control erosion, prevent sedimentation and contamination of waterways, and minimize flood risks, thus serving to mitigate any potential impacts to existing drainage facilities. In addition, the SUSMP has been incorporated into the planning process.

Redesignation in Land Use of 16 Sites

The proposed land use changes in the General Plan Update have the potential to create or contribute additional runoff water which would exceed the capacity of the existing storm water drainage systems or provide substantial additional sources of runoff and constituents. Future development or redevelopment within the 16 areas subjected to changes in land use could significantly increase the proportion of impervious surface from what is allowed for current land use designations. This, in turn, would generate an increased volume or flow of surface runoff that could contribute to deficiencies in of the City's existing storm drainage facilities capacity.

Based on the impervious values assigned to each land use designation used by Downey, the predicted changes in impervious proportions in each of the 16 areas with proposed land use changes are summarized in Table 5.4-5, below.

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**Table 5.4-5
Projected Change in Impervious Proportions for
Proposed Land Use Designation Changes**

| Area | Number of Lots | Size (Acres) | Existing Impervious Factor | Proposed Potential Impervious | Change in Imperviousness |
|---------------|-----------------------|---------------------|-----------------------------------|--------------------------------------|---------------------------------|
| 1 | 4 | 2.17 | 0.924 | 0.855 | -0.069 |
| 2 | 3 | 0.91 | 0.780 | 0.958 | 0.178 |
| 3 | 10 | 2.82 | 0.895 | 0.958 | 0.063 |
| 4 | 19 | 4.37 | 0.769 | 0.843 | 0.074 |
| 5 | 1 | 10.56 | 0.819 | 0.819 | 0.000 |
| 6 | 7 | 3.24 | 0.785 | 0.418 | -0.367 |
| 7 | 1 | 0.41 | 0.418 | 0.418 | 0.000 |
| 8 | 11 | 5.25 | 0.921 | 0.946 | 0.025 |
| 9 | 26 | 9.40 | 0.849 | 0.922 | 0.073 |
| 10 | 42 | 15.00 | 0.893 | 0.919 | 0.026 |
| 11 | 17 | 11.40 | 0.872 | 0.946 | 0.074 |
| 12 | 93 | 21.50 | 0.618 | 0.618 | 0.000 |
| 13 | 4 | 2.04 | 0.855 | 0.946 | 0.091 |
| 14 | 5 | 42.10 | 0.909 | 0.909 | 0.000 |
| 15 | 6 | 14.40 | 0.950 | 0.909 | -0.041 |
| 16 | 1 | 23.50 | 0.819 | 0.819 | 0.000 |
| Totals | 250 | 169.07 | 0.817 | 0.825 | .127 |

Source: Fuscoe Engineering, Inc., 2004



As illustrated in Table 5.4-5, eight of the 16 areas would increase in imperviousness as a result of the proposed changes in land use designation. Increases in imperviousness are indicative of an increase in storm water runoff. Overall, the impervious factor from the 16 areas, combined, increased from 0.817 to 0.825, a net increase of one percent. This proves that the change in imperviousness between existing and proposed land use designations would not substantially alter the drainage characteristics of the 16 areas. This was the expected result, due to the fact that Downey is largely built out with relatively few undeveloped infill areas. Therefore, the increase in impervious surfaces through the change in proposed land use designations would not significantly affect the City as a whole.

It is not possible to calculate a volume of water related to the change in imperviousness at this time, due to the size and scope of the General Plan Update, as well as the uncertainty of the exact changes that would occur within the City, as well as the absence of assigning a storm event. These values would be calculated as each development project is proposed.

As indicated above, the policies and goals contained in the General Plan direct the City to increase permeable areas, use natural drainage facilities, and employ site preparation and gradation techniques that control erosion, prevent sedimentation and contamination of waterways, and minimize flood risks, thus serving to mitigate any potential impacts to existing drainage facilities.

Existing Regulations and Standard Conditions

Future development projects within the 16 areas subject to changes in land use designation would have to provide detailed hydrology analyses to determine impacts to local drainage systems and provide

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project mitigation measures, if necessary, due to the potential increase in imperviousness to these areas provided by the changes to the land use designations.

Goals, Policies and Programs Related to Hydrology and Water Quality

See relevant goals and policies listed in Appendix A concerning the violation of any water quality standards or waste discharge requirements and depletion of groundwater supplies or interfere substantially with groundwater recharge or lowering of the local groundwater table level.

Existing Regulations and Standard Conditions

Future projects shall comply with applicable local, State, and federal regulations relating hydrology and water quality. Each development would be responsible for additional costs due to these changes.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: Compliance with Existing Regulations and Standard Conditions, as well as the Goals, Policies and Programs listed above would serve to mitigate any potential impacts related to hydrology and water quality pursuant to the proposed Downey Vision 2025 General Plan Update.

Level of Significance After Mitigation: Less than significant.

IMPACT: *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?*

Impact Analysis: As indicated above, the General Plan Update, including the redesignation of 16 sites throughout the City, has the potential to increase the amount of impervious surfaces within the City, which could result in flooding on-or off-site. However, the increase in impervious surfaces is anticipated to be very small, due to the built-out nature of the City.

The policies and goals contained in the General Plan direct the City to increase permeable areas, use natural drainage facilities, and employ site preparation and gradation techniques that control erosion, prevent sedimentation and contamination of waterways, and minimize flood risks, thus serving to mitigate any potential impacts to existing drainage facilities.

Goals, Policies and Programs Related to Hydrology and Water Quality

See relevant goals and policies listed in Appendix A concerning a violation of any water quality standards or waste discharge requirements and depletion of groundwater supplies or groundwater recharge.

Existing Regulations and Standard Conditions

Future projects shall comply with applicable local, State, and federal regulations relating hydrology and water quality. Each development would be responsible for additional costs due to these changes.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: Compliance with Existing Regulations and Standard Conditions, as well as the Goals, Policies and Programs listed above would serve to mitigate any potential impacts related to hydrology and water quality pursuant to the proposed Downey Vision 2025 General Plan Update.

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Level of Significance After Mitigation: Less than significant.

IMPACT: *Would the project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?*

Impact Analysis:

General Plan Update

Downey is generally built out and the majority of future development activities would be redevelopment of a paved site. Using SUSMP and other imperviousness reduction strategies, it has been demonstrated that no substantial net increase in impervious surfaces would result from the proposed project, therefore there would not be any unanticipated flooding potential from future development.

However, the existing General Plan (Safety Chapter, V-19) has identified several storm drain deficiencies that have yet to be further analyzed or resolved that may expose people or structures to significant risk of loss. These include:

- Rives Avenue north of Quill Drive
- De Palma Street east of Gurley Avenue
- Firestone Boulevard west of La Reina and east of Myrtle
- Downey Sanford Bridge Road north of Florence Avenue
- Rives Avenue south of Farm Street to Firestone



None of the 16 areas designated for a change in land use overlap with the five storm drain deficient areas. Therefore, no significant impact are anticipated. In addition, all development and/or redevelopment projects, including any development that occurs as a result of the change in land use of 16 sites within the City, would adhere to applicable Federal, State and local water quality regulations/permits in order to prevent the violation of water quality standards and waste discharge requirements. In addition, should potential development within the City potentially cause or contribute to the overcapacity of the existing or planned storm drain facilities in these areas, project-level hydrology analyses would be completed, as required by City code.

Goals, Policies and Programs Related to Hydrology and Water Quality

See relevant goals and policies listed in Appendix A related to depletion of a violation of any water quality standards or waste discharge requirements and depletion of groundwater supplies groundwater recharge.

Existing Regulations and Standard Conditions

- Future development projects within the 16 areas subject to changes in land use designation would have to provide detailed hydrology analyses to determine impacts to local drainage systems and provide project mitigation measures, if necessary, due to the potential increase in imperviousness to these areas provided by the changes to the land use designations.

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- Future projects shall comply with all applicable local, State, and federal regulations relating hydrology and water quality.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: Compliance with Existing Regulations and Standard Conditions, as well as the Goals, Policies and Programs listed above would serve to mitigate any potential impacts related to hydrology and water quality pursuant to the proposed Downey Vision 2025 General Plan Update.

Level of Significance After Mitigation: Less than significant.

IMPACT: *Would the project otherwise substantially degrade water quality?*

Impact Analysis: The continued growth and prosperity of Downey depends on a reliable and clean water supply. The City has responsibilities to maintain the quality of groundwater and address the issues associated with storm water and urban runoff pollution. As mentioned in the preceding sections, implementation of the General Plan Update has the potential to increase levels of water pollution and urban runoff. The General Plan Update, including the redesignation in land use of 16 sites within the City, seeks to protect water quality by requiring residents and businesses to engage in water quality management practices and pollution control measures. The General Plan's Goals and Policies also direct the City to monitor water quality and provide water service that meets or exceeds health standards.

Goals, Policies and Programs Related to Hydrology and Water Quality

See relevant goals and policies listed above in Appendix A related to a violation of any water quality standards or waste discharge requirements and depletion of groundwater supplies groundwater recharge.

Existing Regulations and Standard Conditions

Future projects shall comply with all applicable local, State, and federal regulations relating hydrology and water quality.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: Compliance with Existing Regulations and Standard Conditions, as well as the Goals, Policies and Programs listed above would serve to mitigate any potential impacts related to hydrology and water quality pursuant to the proposed Downey Vision 2025 General Plan Update.

Level of Significance After Mitigation: Less than significant.

IMPACT: *Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?*

Impact Analysis:

General Plan

According to the *Design Memorandum for Rio Hondo Channel Improvements* (October 1997) produced by the US Army Corps of Engineers, the Rio Hondo has a 133-year design discharge capacity of approximately 50,300 cfs. Furthermore, the channel's minimum top of walls and levees were essentially

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designed to contain 500-year flood return frequency events. From this information, there does not seem to be evidence from the information available indicating that people or structures will be exposed to potential levee failures along the Rio Hondo River.

For the San Gabriel River, the 100-year flood is completely contained within the channel without exceeding channel capacity downstream to the Pacific Ocean. Its design capacity for the reach of the river adjacent to the City is 19,500 cfs, based on the *Los Angeles County Drainage Area* (December 1991) study prepared by the US Army Corps of Engineers. Based on channel design, there does not seem to be any significant risk to people or structures from potential levee failures along the San Gabriel River.

Flooding resulting from levee failure has not been identified as a potential issue in relation to the General Plan Update, including the change in land use of the 16 sites identified by the City, since the proposed project would not create new flood hazards. There are no planned flood control facilities improvements associated with the proposed project and there have not been previously identified, unresolved risks due to levee failure noted in previous studies of the City's two adjacent flood control channels, the Rio Hondo and San Gabriel River. In addition, no other dam/levees in the vicinity of the City (i.e., Whittier Narrows) present a potential for failure or impact to the City due to the General Plan Update, including the redesignation of the 16 sites identified by the City.

In addition, during recent construction of the 105 Freeway, groundwater was encountered, which in turn lead to some flooding on the Freeway. The City currently has in place a program to pump ground water to lower groundwater levels in certain areas of the City to prevent future occurrences of flooding due to high groundwater levels. This issues is discussed further in Section 5.2, *Geology and Soils*, of this EIR.

Goals, Policies and Programs Related to Hydrology and Water Quality

See relevant goals and policies listed in Appendix A related to a violation of water quality standards or waste discharge requirements and depletion of groundwater supplies or interfere substantially with groundwater recharge.

Existing Regulations and Standard Conditions

- Should future development occur within any of the areas deficient in storm drain capacity, such issues would be addressed in their respective project-level hydrology studies as required by the City during the application and approval process. Existing and proposed City programs necessitate that these issues be resolved prior to project approval.
- Future projects shall comply with all applicable local, State, and federal regulations relating hydrology and water quality.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: Compliance with Existing Regulations and Standard Conditions, as well as the Goals, Policies and Programs listed above would serve to mitigate any potential impacts related to hydrology and water quality pursuant to the proposed Downey Vision 2025 General Plan Update.

Level of Significance After Mitigation: No significant impacts were identified and no mitigation measures are necessary.



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5.4.5 Cumulative Impacts

Cumulative impacts are the result of the additive and synergistic impacts combined with other past, present, and reasonably foreseeable future actions. The cumulative impacts associated with the project's incremental effect and the effects of other similar projects are not considered significant. The proposed General Plan Update and other projects of this nature do not physically alter the hydrology within the City, as with a project proposing site-specific development and redevelopment. Similarly for water quality, the potential to create additional pollutant sources does not occur until site-specific development is proposed. Therefore, the proposed project would not contribute to any cumulatively significant impacts on the physical environment.

If and when site-specific development/redevelopment is proposed in the future, on-site and off-site hydrologic impacts would be addressed at that time. Future project proposals within the 16 subject areas would be required to demonstrate that the potential to create or contribute runoff water, which would exceed the capacity of existing or planned storm water drainage systems, would be effectively mitigated and meet City approval. For water quality, future development projects would be required to demonstrate compliance with all applicable Federal, State, and local water quality regulations through the design and implementation of construction and post-construction BMPs to effectively mitigate potential pollutants in storm water and non-storm water discharges.

All future development would be subject to existing regulations, which would reduce any potential project impacts to a less of less than significant. Consequently, the project's contribution to cumulative impacts is less than considerable and, therefore, not cumulatively significant.

5.4.6 Significant Unavoidable Adverse Impacts

The General Plan Goals and Policies, and mitigation measures identified above would reduce potential impacts associated with hydrology and water quality to a level of insignificance.

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5.5 LAND USE AND PLANNING

5.5.1 Methodology

This section of the EIR examines the primary or direct land use impacts associated with the long-term implementation of the Downey Vision 2025 General Plan Update. Per State law, zoning ordinances, redevelopment plans and specific plans must be consistent with the General Plan. Indirect land use impacts, such as air quality, noise, or traffic circulation, are addressed in other chapters of this EIR.

The policies and programs of the proposed update to the General Plan will advocate changes to the Zoning Code and other City policies in accordance with the Housing Element updated in December 2002. However, these policies and programs may conflict with existing plans, policies, and regulations adopted for the purpose of mitigating an environmental effect. This EIR addresses changes in the City's General Plan, zoning code and other policies proposed as a result of the proposed update of the General Plan.

5.5.2 Existing Conditions

Downey is a full-service city located in southeastern Los Angeles County. The City is approximately 12.8 square miles in size, its topography is relatively flat, and its land use patterns are well established. According to the Year 2000 Census, the City has a population of approximately 107,823. Downey is located approximately 12 miles from the Los Angeles Civic Center, and is near the ports of Los Angeles and Long Beach. Freeways that offer easy access and visibility surround Downey; however, the freeways also create a physical barrier and contribute to poor air quality and noise levels throughout the City. Many regional forces, such as demographic changes, traffic increases, the cost of land and proximity to ports and other locations in Los Angeles and Orange Counties have an impact on land uses in Downey.

Downey has experienced substantial population growth subsequent to the development of the Vision 2010 Downey General Plan. The City is a mature community that needs to address changes in land use and zoning trends. Potential land use conflicts may arise where incompatible land uses are located in proximity to one another in the City. The City desires to protect and enhance the high-quality character of residential neighborhoods within its borders, and to preserve and promote a balance of land uses. In response to these issues, the City of Downey has proposed the Downey Vision 2025 General Plan Update.

5.5.3 Thresholds of Significance

The criteria used to determine the significance of impacts on hazards and hazardous materials are taken from City-approved Thresholds of Significance based on the City's Initial Study and the model Initial Study checklist in Appendix G of the State CEQA Guidelines.

- Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

The following impacts were found to be less than significant in the Initial Study and were not analyzed in this EIR:

- Would the project physically divide an established community?

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- Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

5.5.4 Environmental Impacts and Mitigation Measures

The following section presents an analysis of the environmental impact determined to be potentially significant in the initial study prepared for the project.

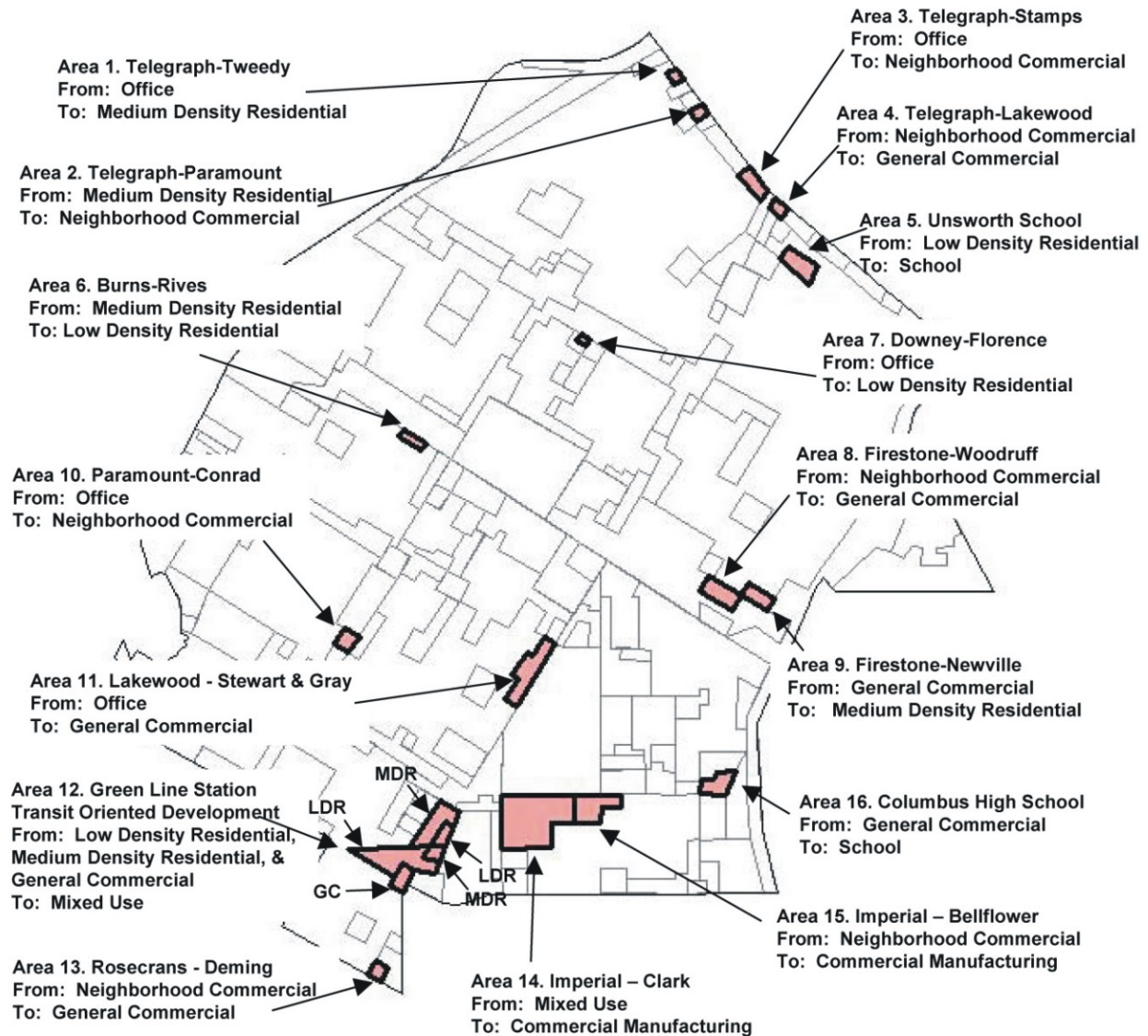
IMPACT: *Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?*

Impact Analysis: The City of Downey is not located in a coastal zone and is not covered by any local coastal program or zoning ordinance; therefore, the proposed Downey Vision 2025 General Plan Update is not inconsistent with any local coastal programs adopted for the purpose of avoiding or mitigating an environmental effect.

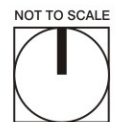
The issues of concern are the potential for the Downey Vision 2025 General Plan Update to conflict with existing development guidelines set forth in the existing City's general plan, the *Downey Vision 2010 General Plan*, with the *Downey Landing Specific Plan* or with the *Southern California Association of Governments Regional Comprehensive Plan*. Although there are a number of other Specific Plans that cover the City, none of the 16 areas where the General Plan land use designations would be changed are covered by these Specific Plans. Figure 5.5-1 shows the location of the properties where changes to land use are proposed. Please refer to the discussion in Section 3.0 "Project Description" for a discussion of other Specific Plans that cover portions of the City. The City of Downey is not subject to any habitat or natural community conservation plans, and therefore is not inconsistent with any such plan.

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Location of Properties Where Changes to Land Use are Proposed



| LEGEND: | | | |
|---------|--------------------------------|----|-----------------|
| LDR | Low Density Residential | OS | Open Space |
| LMDR | Low Medium Density Residential | O | Office |
| MDR | Medium Density Residential | P | Public |
| NC | Neighborhood Commercial | MU | Mixed Use |
| GC | General Commercial | S | School |
| CM | Commercial Manufacturing | SP | School -Private |
| GM | General Manufacturing | | |



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City of Downey General Plan

The *Downey Vision 2010 General Plan* establishes the following twelve land use designations to serve as a guide for the siting of land uses in Downey. These designations define the type, density and intensity¹⁰ of development permitted throughout the City. Land use designations within the City of Downey are shown in Table 5.5-1.

**Table 5.5-1
Land Use Designations in the City of Downey**

| <i>Land Use Designation</i> | <i>Description of Land Use</i> |
|--------------------------------|--|
| Low Density Residential | This category corresponds with the R-1/Single-Family Residential zone in the Downey Zoning Code. Residences in this category are single-family, detached houses with private yards. The density is 1-8.7 units per net acre. |
| Low/Medium Density Residential | This category corresponds with the R-2/Two Family Residential zone. These contain usable open space and can be either attached or detached. Permitted density is 9-17 units per net acre. |
| Medium Density Residential | This category corresponds with the R-3/Multiple Family Residential zone. Permitted density is 18-24 units per net acre. Residences in this category are usually apartment or condominium complexes. |
| Office | This category corresponds with the C-P/Commercial Professional zone. Land uses are intended to be compatible with residential uses. Some of the uses permitted in the category are offices, including medical and dental, financial institutions including banks, small restaurants, coffee shops, flower shops, beauty and barber shops. Office developments range from low-rise to towers. The floor area ratio is .5 to 5/1 |
| Neighborhood Commercial | This category corresponds with the C-1/Neighborhood Commercial zone. Uses are intended to serve adjacent neighborhoods and are intended to be located in "neighborhood nodes." Uses include offices, shops such as camera, book, dry cleaners, delicatessen counters, drugstores, electrical appliance stores, and grocery stores. The floor area ratio is .25 |
| General Commercial | This category corresponds with the C-2/General Commercial zone. Uses are intended to provide a wide variety of goods and services for the entire community. Uses include offices and large-scale retail projects. The floor area ratio range is .25 to 4/1. |
| Commercial/Manufacturing | This category includes commercial and manufacturing uses and is intended to accommodate both, such as a business park. The floor area ratio range is .5 to .6. |
| Manufacturing | This category includes the M1 and M2/Light Manufacturing and General Manufacturing zones. Uses are restricted to certain industrial operations that are not considered environmentally detrimental to the general public. The floor area ratio is .6. |
| Public | This category includes public uses such as the Civic Center, the city yards, Seacca, Los Padrinos, Rancho Los Amigos Hospital and the RTD yard on Telegraph. |
| Open Space | This category includes open spaces such as utility easements, river beds, parks, cemetery and golf courses. |
| Schools | This category includes public and private schools. |
| Mixed Use | This category includes residential/commercial uses and commercial/manufacturing uses. |

Table 5.5-2 shows the changes in land use designations proposed under the Downey Vision 2025 General Plan Update, listing them according to the numbers shown on Figure 5.5-1, location of properties where changes to land use are proposed. Table 5.5-2 also shows the acreages of the affected areas, existing zoning of the various parcels within the areas proposed for re-designation, current land uses in the areas proposed for re-designation and current land uses adjacent to the areas proposed for re-designation (surrounding land uses).

¹⁰ The General Plan is required to contain standards for building intensity. These standards should define the most intensive building concentration for the land use designation. Building intensity is used to identify building concentration, potential traffic problems, housing policies and effects on sewer utility, storm drain and landfill systems. Downey has adopted Floor-Area Ratios (FARs), the ratio of building floor area to the total building site, as a useful method for commercial and industrial land use designations. A FAR of 2/1 means that the total building square footage permitted is twice the square footage of the lot. For example, a 10,000 square foot building could be constructed on a 5,000 square foot lot.

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**Table 5.5-2
Proposed Land Use Pursuant to the
Downey Vision 2025 General Plan Update,
March 17, 2004**

| Area | Acreage | Location | Existing Land Use Designation | Existing Zoning | Existing Land Use | Considered Designation | Surrounding Land Uses |
|-------------|----------------|---------------------------|---|--|---|-------------------------------|--|
| 1 | 2 acres | Telegraph – Tweedy | Office | R-3, C-2/P-B | Multi-Family Residential, Public Utility, Parking | Medium Density Residential | Multi-family residential, Manufacturing, Offices, Commercial |
| 2 | 1 acre | Telegraph – Paramount | Medium Density Residential | C-2/P-B | Adult Day Care, Restaurant | Neighborhood Commercial | Office-Commercial, Single- and Multi-Family Residential, Gas Station, Manufacturing, Commercial |
| 3 | 3 acres | Telegraph – Stamps | Office | C-2, C-2/P-B, R-1 5000/C-2 | Multi-Family Residential, Commercial, Auto Sales, Public Utility | Neighborhood Commercial | Single- and Multi-Family Residential, Commercial, Restaurant |
| 4 | 4 acres | Telegraph - Lakewood | Neighborhood Commercial | C-2, C-1/C-2/P-B | Gas Station, Restaurant, Office-Medical, Auto Sales, | General Commercial | Public Utility, Commercial, Gas Station, Offices- General, restaurants, Auto Sales, Multi-Family Residential, Vacant Lot |
| 5 | 10 acres | Unsworth School | Low Density Residential | R-1 5000 | Unsworth Elementary School | School | Single- and Multi-Family Residential, Golden State (I-5) Freeway |
| 6 | 3 acres | Burns – Rives | Medium Density Residential | R-1 5000 | Single- and Multi-Family Residential | Low Density Residential | Railroad, Single-Family Residential, Commercial |
| 7 | 0.5 acre | Downey-Florence | Office | CP | Low Density Residential (Single Family) | Low Density Residential | Single- and Multi-Family Residential, Commercial |
| 8 | 5 acres | Firestone – Woodruff | Neighborhood Commercial | R1-6000/C-1/P C-1/P-B, C-1 | Restaurants, Hotels, Commercial, Child Day Care | General Commercial | Offices-Medical and General, Single- and Multi-Family Residential, Hotel, Commercial |
| 9 | 9 acres | Firestone – Newville | General Commercial | C-1/P-B, C-1, P-B, | Single- and Multi-Family Residential | Medium Density Residential | Hotel, Commercial, Educational Center, Public Park, Vacant Lot |
| 10 | 15 acres | Paramount – Conrad | Office | C-2, R-2/C-2, C-1, C-1/C-2 R-1 5,000/C-1, | Commercial, Restaurant | Neighborhood Commercial | Church, Commercial, Single- and Multi-Family Residential |
| 11 | 11 acres | Lakewood – Stewart & Gray | Office | C-1/P-B, H-M, C-2 | Commercial, Single-and Multi-Family Residential, Offices-Medical, Medical Care, Auto Sales, Auto Service, Church | General Commercial | Primarily Single-Family Residential, Boeing Space Systems |
| 12 | 21 acres | Green Line TOD | Low Density Residential & Medium Density Residential & General Commercial | R-SF, R-2U, R-3U, R-4U, R-5U+, O-M, C-G, A-Service, Vacant, R-OU | Primarily Single-and Multi-Family Residential, Hotel, Office-Medical, Office-General, Auto Service, Commercial, Vacant Lots | Mixed Use | Ward Elementary School, Single-Family Residential, Hotel, Restaurant, Glenn Anderson or Century (I-105) Freeway |
| 13 | 2 acres | Rosecrans – Deming | Neighborhood Commercial | R-3 | Multi-Family Residential | General Commercial | Commercial, Restaurants, Single-Family Residential, Offices-Medical |
| 14 | 42 acres | Imperial – Clark | Mixed Use | C-2/P-B, C-2, M-2, M-2/P-B | Restaurant, Offices-General | Commercial Manufacturing | Single- and Multi-Family Residential, Manufacturing, Restaurant, Gas Station, Parking Lot, Glenn Anderson or Century (I-105) Freeway |
| 15 | 14 acres | Imperial – Bellflower | Neighborhood Commercial | C-2/M-2/P-B, C-2, M-2/P-B, C-2/M-2 | Commercial, Offices-Medical, Offices-Commercial, Auto Service, Restaurant, Child Daycare | Commercial Manufacturing | Single-Family Residential, Offices-Medical, Restaurants, Offices-General, Gas Station, Parking Lot |
| 16 | 23 acres | Columbus High School | General Commercial | R-1 5,000/C-2 | Columbus High School | School | Single- and Multi-Family Residential, Offices-Medical, Gas Station, |

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Policies And Programs Related To Land Use

The *Downey Vision 2025 General Plan* contains a number of land-use related policies and programs that will serve to mitigate potential land use related impacts. These policies and programs are listed in Appendix A.

Southern California Association of Governments (SCAG) Regional Comprehensive Plan

The City of Downey is located within Southern California; therefore, land use decisions in Downey must also be in accord with the goals and policies established by the Southern California Association of Governments (SCAG) in the SCAG Regional Comprehensive Plan. The DEIR presents information establishing that the proposed project is consistent with ten core RCPG policies relevant to the proposed project. Therefore, the project is consistent with regional plans and policies. Further, the DEIR establishes that the project meets or is consistent with the intent of the majority of SCAG ancillary/advisory policies. The consistency of the proposed General Plan and Zoning Code Update with each of the applicable regional policies is described in Table 5.5-3.

**Table 5.5-3
Consistency with SCAG Regional Policies**

| SCAG Policy | Compliance with Policy | Sample Related Goal or Policy |
|---|---|---|
| Consistency with Regional Comprehensive Plan and Guide Policies | | |
| Policy 3.01: The population, housing and jobs forecasts, which are adopted by SCAG's Regional Council and that reflect local plans and policies, shall be used by SCAG in all phases of implementation and review. | SCAG's population, housing and jobs forecasts were used throughout the preparation of the Downey Vision 2025 General Plan Update. | The Downey Vision 2025 General Plan Update is consistent with SCAG's Regional Comprehensive Plan and Guide Policies. No General Plan policies are applicable. |
| Policy 3.03: The timing, financing, and location of public facilities, utility systems, and transportation systems shall be used by SCAG to implement the region's growth policies. | The Downey Vision 2025 General Plan Update includes a Circulation Chapter. One of the purposes of this chapter is to assure that capital facilities planning will meet the circulation needs of current future residents of Downey and the region. | The Downey Vision 2025 General Plan Update is consistent with SCAG's Regional Comprehensive Plan and Guide Policies. No General Plan policies are applicable. |
| GMC Policies Related to the RPG Goal to Improve the Regional Standard of Living | | |
| Policy 3.05: Encourage patterns of urban development and land use, which reduce costs on infrastructure construction and make better use of existing facilities. | Under the provisions of Measure M, Downey is considered a developed community. The Downey Vision 2025 General Plan Update includes a Land Use Chapter, a Housing Chapter and a Design Chapter. The purpose of these elements is to assure that capital facilities planning will meet the needs of current future residents of Downey and the region, including addressing infrastructure construction and existing services and facilities. | Policy 1.3.2 of the Land Use Chapter: Focus on establishing certain land uses onto areas most appropriate for those areas. Program 1.3.2.2: Concentrate neighborhood-oriented commercial uses to areas designated as "neighborhood nodes." Program 1.3.2.4: Promote housing projects and mixed use projects that include housing within areas designated for the downtown area, transit-oriented developments, and areas in the vicinity of the Downey Landing project. |
| Policy 3.09: Support local jurisdictions' efforts to minimize the cost of infrastructure and public service delivery, and efforts to seek new sources of funding for development and the provision of services. | Under the provisions of Measure M, Downey is considered a developed community. The Downey Vision 2025 General Plan Update includes a Circulation Chapter. One of the purposes of this chapter is to assure that infrastructure and | Policy 2.7.1 of the Circulation Chapter: The City's multiple-year Capital Improvements Program should address the following improvements, as necessary: Street systems |

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**Table 5.5-3
Consistency with SCAG Regional Policies**

| SCAG Policy | Compliance with Policy | Sample Related Goal or Policy |
|---|---|--|
| | public services are maintained at an adequate level through existing and/or new sources of funding. | Sewer facilities Water supply Drainage facilities Sidewalk Parkway landscaping Street lights Transportation System Management (TSM) Other major capital investments necessary to sustain the City's growth and operation. Program 2.7.1.3: Require future development to contribute its fair share on mitigating its impact on public infrastructure. |
| Policy 3.10: Support local jurisdictions' actions to minimize red tape and expedite the permitting process to maintain economic vitality and competitiveness. | The General Plan and Zoning Code Update includes policies for streamlining its permitting processes. | Economic Development Chapter Policy 9.2.2: The City shall continue to streamline the development review process and improve customer service. |
| GMC Policies Related to the RCPG Goal to Improve the Regional Quality of Life | | |
| Policy 3.12: Encourage existing or proposed local jurisdiction's programs aimed at designing land uses which encourage the use of transit and thus reduce the need for roadway expansion, reduce the number of auto trips and vehicle miles traveled, and create opportunities for residents to walk and bike. | The Land Use and Circulation Chapters of the Downey Vision 2025 General Plan Update provide a number of policies designed to encourage the use of transit either through land use designations or use of alternative modes of transportation by intensifying land uses along transit corridors and providing mixed-use and residential opportunities in employment centers. | Policy 1.3.2 of the Land Use Chapter: Focus on establishing certain land uses onto areas most appropriate for those areas. Program 1.3.2.3: Promote the establishment of transit-oriented development (TOD) within walking distance of the Green Line Station at Lakewood Boulevard & I-105 Freeway. |
| Policy 3.13: Encourage local jurisdictions' plans that maximize the use of existing urbanized areas accessible to transit through infill and redevelopment. | The Land Use and Design Chapters provide guidance for revitalizing and enhancing development along Downey's arterial corridors and identify mixed-use designations adjacent to the Green Line station at Lakewood Blvd/I-105 Freeway. | Program 1.3.2.3 of the Land Use Chapter: Promote the establishment of transit-oriented development (TOD) within walking distance of the Green Line Station at Lakewood Boulevard & I-105 Freeway. |
| Policy 3.16: Encourage developments in and around activity centers, transportation corridors, underutilized infrastructure systems, and areas needing recycling and redevelopment. | The Land Use Chapter provides guidance for development in and around activity centers, transportation corridors, underutilized infrastructure system, and areas needing recycling and redevelopment. | Program 1.3.2.4 of the Land Use Chapter: Promote housing projects and mixed use projects that include housing within areas designated for the downtown area, transit-oriented developments, and areas in the vicinity of the Downey Landing project. |
| Policy 3.23: Encourage mitigation measures that reduce noise in certain locations, measures aimed at preservation of biological and ecological resources, measures that would reduce exposure to seismic hazards, minimize earthquake damage, and to develop emergency response and recovery plans. | The Noise, Conservation, and Safety Chapters provide policy direction and guidance regarding noise reduction, exposure to seismic hazards, earthquake damage and emergency response and recovery plans. | Safety Chapter Program 5.1.1.1: Maintain a multi-hazard function emergency preparedness plan to include, but not be limited to, the following threats: 1) major earthquakes, 2) hazardous materials incidents, 3) imminent of actual flooding, 4) imminent or actual dam failure, 5) mass casualty incidents, 6) aircraft accident, 7) terrorism, 8) civil unrest, and 9) war. |

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**Table 5.5-3
Consistency with SCAG Regional Policies**

| SCAG Policy | Compliance with Policy | Sample Related Goal or Policy |
|--|--|---|
| GMC Policies Related to the RCPG Goal to Provide Social, Political, and Cultural Equity | | |
| <p>Policy 3.24: Encourage efforts of local jurisdictions in the implementation of programs that increase the supply and quality of housing and provide affordable housing as evaluated in the Regional Housing Needs Assessment.</p> | <p>The Land Use Chapter provides guidance through its goals and policies regarding provision of housing within the City. In addition, the Housing Chapter addresses the supply and quality of housing in the City.</p> | <p>Land Use Chapter Program 1.1.1.2: Promote zones which permit ownership-based housing, such as condominiums, townhouses, and planned unit developments. Program 1.1.2.1: Promote apartment and rental housing with the same amenities found in comparable ownership-based developments.</p> |
| <p>Policy 3.27: Support local jurisdictions and other service providers in their efforts to develop sustainable communities and provide, equally to all members of society, accessible and effective services such as: public education, housing, health care, social services, recreational facilities, law enforcement, and fire protection.</p> | <p>The Land Use, Housing, Open Space and Safety Chapters provide goals and policies regarding the provision of public services and facilities to all residents of the City.</p> | <p>Land Use Chapter Program 1.2.2.4: Identify areas to absorb population growth and support additional housing. Open space Chapter Program 7.3.1.2: Adopt a Master Plan and Capital Improvement Program for replacement of playground equipment, installation of lighting at playing fields and remodeling and maintenance of park structures.</p> |
| Regional Transportation Plan | | |
| <p>Policy 4.01: Transportation investments shall be based on SCAG’s adopted Regional Performance indicators: Mobility – Transportation Systems should meet the public need for improved access, and for safe, comfortable, convenient, faster and economical movements of people and goods.</p> <ul style="list-style-type: none"> • Average work Trip Travel Time in Minutes – 25 Minutes (auto) • PM Peak Freeway Travel Speed – 45 miles (Transit) • PM Peak Non-Freeway Travel Speed • Percent of PM Peak Travel in Delay (Freeway) • Percent of PM Peak Travel in Delay (Non-Freeway). <p>Accessibility – Transportation system should ensure the ease with which opportunities are reached. Transportation and land use measures should be employed to ensure minimal time and cost.</p> <ul style="list-style-type: none"> • Work Opportunities within 45 minutes door to door travel time (Mode Neutral) • Average transit access time Environment <p>– Transportation system should sustain development and preservation of the existing system and the environment (All Trips).</p> <ul style="list-style-type: none"> • CO, ROG, NO_x, PM₁₀, PM_{2.5} – Meet the applicable SIP Emission Budget and the Transportation Conformity requirements. <p>Reliability – Transportation system should</p> | <p>The Circulation and Land Use Chapters provide guidance through their goals and policies regarding traffic, circulation, parking and land use within the City. SCAG policies, including the Regional Transportation Plan, were taken into consideration in the creation of the Circulation Chapter and the Land Use Chapter.</p> | <p>Circulation Chapter Goal 1: Develop a network of streets, pedestrian paths, and bikeways, which promote the safer and efficient movement of people and goods. Land Use Chapter Program 1.6.1.1: The City shall comply with and incorporate the applicable requirements of the Air Quality and Congestion Management Plan. Land Use Chapter Program 1.6.1.2: The City shall examine and promote land uses that encourage telecommuting, thus reducing VMT (Vehicle Miles Traveled) as required by the Air Quality Plan.</p> |

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**Table 5.5-3
Consistency with SCAG Regional Policies**

| SCAG Policy | Compliance with Policy | Sample Related Goal or Policy |
|--|---|--|
| <p>have responsible and dependable levels of service by mode (All Trips).</p> <ul style="list-style-type: none"> • Transit – 63% • Highway – 76% <p>Safety – Transportation systems should provide minimal accident, death and injury (All Trips).</p> <ul style="list-style-type: none"> • Fatalities Per Million Passenger Miles – 0 • Injury Accidents – 0 <p>Equity/Environmental Justice – The benefits of transportation investments should be equitably distributed among all ethnic, age and income groups (All Trips).</p> <ul style="list-style-type: none"> • By Income Groups Share of Net Benefits – Equitable Distribution of Benefits among all income groups <p>Cost-Effectiveness – Maximize return on transportation investment (All Trips). Air Quality, Mobility, Accessibility and Safety.</p> | | |
| <p>Policy 4.02: Transportation investments shall mitigate environmental impacts to an acceptable level.</p> | <p>The Circulation Chapter provides guidance through its goals and policies regarding traffic, circulation and parking within the City. In addition, transportation project impacts will be mitigated as part of the environmental documentation prepared as these projects are proposed for development.</p> | <p>Circulation Chapter Program 2.1.2.2: Require development projects to mitigate off-site traffic impacts to the maximum extent feasible, including install or upgrade traffic signals at intersections or contribute its fair-share toward mitigating impacts.</p> |
| <p>Policy 4.04: Transportation Control Measures shall be a priority</p> | <p>The Circulation Chapter provides guidance through its goals and policies regarding traffic, circulation and parking within the City.</p> | <p>Circulation Chapter Program 2.1.1.3: Develop a signal system master plan to promote state-of-the-art intelligent transportation system (ITS) improvements to better service on-going traffic conditions.</p> <p>Circulation Chapter Policy 2.2.1: The City shall coordinate with regional agencies, including Caltrans, MTA, SCAG, Gateway Cities COG, and I-5 Joint Powers Authority to promote multi-modal improvement strategies to improve traffic.</p> |
| Air Quality Chapter Core Actions | | |
| <p>Policy 5.07: Determine specific programs and associated actions needed (e.g., indirect source rules, enhanced use of telecommunications, provision of demand management based programs, or vehicle-miles-traveled/emission fees) so that options to command and control regulations can be assessed.</p> | <p>The Circulation Chapter provides guidance on air quality issues through its goals and policies regarding traffic-related air quality impacts.</p> | <p>Circulation Chapter Program 2.1.1.3: Develop a signal system master plan to promote state-of-the-art intelligent transportation system (ITS) improvements to better service on-going traffic conditions.</p> |
| <p>Policy 5.11: Through the environmental document review process, ensure that plans at all levels of government (regional, air basin, county, subregional and local) consider air quality, land use, transpor-</p> | <p>The Land Use and Circulation Chapters provide guidance on air quality issues through goals and policies regarding air quality, including the principals of sound land use planning to reduce air emissions.</p> | <p>Circulation Chapter Program 2.1.2.2: Require development projects to mitigate off-site traffic impacts to the maximum extent feasible, including install or upgrade traffic signals at intersections or</p> |

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**Table 5.5-3
Consistency with SCAG Regional Policies**

| SCAG Policy | Compliance with Policy | Sample Related Goal or Policy |
|---|--|--|
| tation and economic relationships to ensure consistency and minimize conflicts. | | contribute its fair-share toward mitigating impacts. |
| Open Space Chapter and Ancillary Goals | | |
| Policy 9.01: Provide adequate land resources to meet the outdoor recreation needs of the present and future residents in the region and to promote tourism in the region. | The Open Space Chapter provides guidance through its goals and policies regarding open space and recreation. | Open Space Chapter Goal 1: Develop plans for the preservation and rational increased use of open space. Design Chapter Program 9.1.2.8: Capitalize on the City's location within the region with an entertainment-related economic base. |
| Policy 9.02: Increase the accessibility to open space lands for outdoor recreation. | The Open Space Chapter provides guidance through its goals and policies regarding open space and recreation. | Open Space Chapter Policy 7.2.1: The City shall develop new parks and recreational facilities in the areas of greatest need. |
| Water Quality Chapter Recommendations and Policy Options | | |
| Policy 11.02: Encourage "watershed management" programs and strategies, recognizing the primary role of local governments in such efforts. | The Conservation Chapter provides guidance regarding water policies within the City. | Conservation Chapter Policy 4.1: The City will continue to encourage the conservation of water through a tiered billing process. Program 4.1.1.3: Continue to offer financial incentives to those who conserve water, such as requiring higher rates for those who do not conserve water. |
| Policy 11.07: Encourage water reclamation throughout the region where it is cost-effective, feasible, and appropriate to reduce reliance on imported water and wastewater discharges. Current administrative impediments to increased use of wastewater should be addressed. | The Conservation Chapter provides guidance regarding water policies within the City, including water conservation. | Conservation Chapter Program 4.1.2.2: Participate with the Water Replenishment District to implement policies that assure groundwater quality in the Central Basin. |

Note: A minimum of one Downey Vision 2025 General Plan Update policy has been listed as an example of compliance with each SCAG policy.
Source: SCAG

Specific Plans

A specific plan can be prepared for any defined geographic area that might benefit from special land use regulations and development standards. Specific plans provide more defined specification of the types of land uses permitted, of development standards such as setbacks, structure heights, landscaping or architecture, and of circulation and infrastructure improvements. Specific plans may be used to ensure that multiple property owners and developers adhere to a single common development plan for a specific area, and to provide flexibility in development standards beyond those contained in zoning in order to attain superior design.

Downey Landing Specific Plan

The City of Downey has adopted the Downey Landing Specific Plan to implement the Goals, Objectives, and Policies of the City of Downey's General Plan. It contains a vision, land use concepts, infrastructure and service plans, design guidelines, and development regulations for the property. This Specific Plan provides for the development of a mix of uses including commercial, media, medical, business,

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technical, and open space within a distinct district in the City of Downey. The district is bordered on the north by Stewart and Gray Road, on the west by Lakewood Boulevard and Clark Avenue, on the south by Imperial Highway and on the east by Bellflower Boulevard.

The *Downey Landing Specific Plan* includes in following details relevant to the proposed Downey Vision 2025 General Plan Update:

- The north end commercial development provides region-wide shopping opportunities and additional tax revenue to the City. Buildings will be designed and sited to create visual interest and to facilitate pedestrian movement.
- The middle of the site will be retained, at least in the short term, to accommodate television and film production drawn by large enclosed spaces and ample outdoor room for sets. In the longer term, the middle zone may transition to business park uses.
- A business center will be created on the east side of the Plan Area and will provide a distinctive business address for the region.
- Kaiser Permanente will develop a new hospital and medical office buildings on the south end of Downey Landing.
- A museum dedicated to aerospace exploration and a learning center for the community's benefit are proposed for the site.
- A public park/school site has also been identified on the west side of the site.

The proposed Downey Vision 2025 General Plan Update includes the re-designation of three areas – Areas 11, 14 and 15 – that are located in close proximity to the site of the Downey Landing Specific Plan. Area 11, which is located across Lakewood Boulevard to the west of Downey Landing near the northern end of the Downey Landing site, is proposed for re-designation as “General Commercial.” This portion of the Downey Landing site is designated for commercial development with region-wide shopping opportunities in a pedestrian-friendly environment. Therefore, the proposed Downey Vision 2025 General Plan Update would be consistent with the land uses proposed in the Downey Landing Specific Plan.

The southern end of the Downey Landing site is proposed for development with a Kaiser Permanente hospital and medical office buildings. Under the Downey Vision 2025 General Plan Update, Areas 14 and 15, which are located across Imperial Highway from Downey Landing on the southern end of the Downey Landing site, are proposed for re-designation as “Commercial Manufacturing.” There is a potential that some land uses permitted under this designation might be inconsistent with land use development pursuant to the Downey Landing Specific Plan. This is a potentially significant impact.

Level of Significance Before Mitigation: Less Than Significant Impact.

Mitigation Measures: The Goals and Policies listed in Appendix A, would serve to mitigate any potential impacts related to land use development pursuant to the proposed Downey Vision 2025 General Plan Update.

Level of Significance After Mitigation: No significant impacts were identified and no mitigation measures are necessary.

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5.5.5 Cumulative Impacts

The development of land use in the City of Downey pursuant to the Downey Vision 2025 General Plan Update would not result in any inconsistencies with adopted plans and policies that could not be mitigated to a level that is less than significant. Therefore, The Downey Vision 2025 General Plan Update would not result in cumulatively considerable impacts related to land use.

5.5.6 Significant Unavoidable Adverse Impacts

The General Plan Goals and Policies related to land use identified in Appendix A would reduce potential impacts associated with land use to a level of insignificance.

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5.6 **NOISE**

5.6.1 **Methodology**

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air. Noise is commonly defined as unwanted sound. Sound can be characterized by a variety of parameters that describe the rate of oscillation of sound waves, the distance between successive troughs or crests, the speed of propagation, and the pressure level or energy content of a given sound wave. In particular, the sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound level. The unit of sound pressure in ratio to an assumed zero sound level is called a decibel (dB).

Because sound or noise can vary in intensity by over one million times within the range of human hearing, a logarithmic loudness scale similar to the Richter Scale is used to keep sound intensity numbers at a convenient and manageable level. Since the human ear is not equally sensitive to all sound frequencies within the entire spectrum, noise levels at maximum human sensitivity are factored more heavily into sound descriptions in a process called "A-weighting", written as dBA. Any further reference to decibels in this discussion written as "dB" should be understood to be A-weighted.

Time variations in noise exposure are typically expressed in terms of a steady-state energy level equal to the energy content of the time varying period (called Leq), or, alternately, as a statistical description of the sound level that is exceeded over some fraction of a given observation period. Finally, because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, state law requires that, for planning purposes, an artificial dB increment be added to quiet time noise levels in a 24-hour noise descriptor called the Community Noise Equivalent Level (CNEL).

Two characteristic noise sources are typically identified with land use changes from urban development. Construction activities, especially heavy equipment operations, will create short-term noise increases near various individual project sites. Upon completion, vehicular traffic on streets around any individual development areas may create a higher noise exposure in an area of already-elevated traffic noise. Because project implementation is forecast to create only a minimum level of average daily traffic (ADT) on any individual roadway segment, future traffic noise will be similar to existing levels. Any potentially significant noise increases would be confined to a small number of roadways.

Traffic noise not only may create an impact upon the environment due to a project, but noise-sensitive uses may be constrained by the acoustic environment. This is particularly true in siting new residential land uses in an area of already elevated noise. The noise impact analysis thus needs to consider both the effects of project implementation upon the environment, as well as the limitations imposed by ambient noise conditions upon the project.

In order to better define current baseline noise characteristics, a noise monitoring study was conducted on June 11 and June 28, 2004. A sound level meter, the Larson-Davis Labs Model 700 Dosimeter, Serial No.3203, was placed at fifteen different noise-sensitive receptor sites throughout the City of Downey. Measurements at the first ten sites were made on June 11, 2004. The sites were chosen to correspond, as closely as possible, to the ten sites monitored in 1986 for the Downey General Plan Vision 2010, Exhibit VI-5 in the Noise Element. The Noise Study is found in Appendix H to the Draft EIR.

Noise monitoring was conducted for 15 minutes at each location using the digital sound level meter. Monitoring experience shows that 24-hour CNEL are approximately 2dB higher than daytime measured Leq levels. The addition of +2dB to the measured short-term Leq data in Tables 5.6-1 is therefore considered a reasonably accurate representation of the CNEL exposure at each monitoring location.

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The traffic noise impact analysis was based upon the traffic volumes for three scenarios (existing, adopted general plan and proposed general plan), the average Southern California travel mix, and traffic speed data shown in the project traffic study. The traffic input data is included in the appendix. The factors were combined in the federal highway traffic noise prediction model (FHWA-RD-77-108) to calculate the reference Leq for an average traffic condition. The average hour was converted to a weighted 24-hour CNEL by assuming a day/evening/night traffic mix of 76 percent, 12 percent and 12 percent, respectively.

The distances to the various noise contours from the roadway centerline were calculated assuming acoustically "hard" surfaces (paved and smooth) consistent with the currently adopted Noise Element (2010). Because the City of Downey is substantially built out, there are structures in close proximity to most arterial roadways, and landscaping is a design feature of most existing development. Structures thus intercept roadway noise, and underlying surfaces are not acoustically hard. Use of a "hard site" assumption with an undisturbed line-of-sight represents theoretical maximum impact conditions.

5.6.2 Existing Conditions

Figure 5.6-1 shows the noise/land use compatibility guideline for City of Downey land uses. For low-density residences, an exterior CNEL of 60dBA CNEL would be considered optimum, and 65dBA CNEL is acceptable in any usable exterior areas (patios, outdoor eating/seating, etc.). For less noise-sensitive uses, noise levels up to 75 dB CNEL are considered "normally acceptable."

The results of the current monitoring of existing noise levels in the City of Downey are shown in Table 5.6-1 and in Table 5.6-2. Figure 5.6-2 maps the 15 various noise-monitored sites and Table 5.6-3 is the map key for the monitored locations.



Table 5.6-1
Short-Term Noise Readings
City of Downey, Sites Numbered 1-15
(June 11, 2004)

| Site | Time | Leq | Lmax | Lmin | L ₁₀ | L ₃₃ | L ₅₀ | L ₉₀ |
|------|-------------|------|------|------|-----------------|-----------------|-----------------|-----------------|
| 1 | 12:25-12:40 | 62.0 | 82.0 | 51.5 | 62.5 | 59.5 | 58.5 | 55.5 |
| 2 | 12:50-13:05 | 54.3 | 72.5 | 43.5 | 57.0 | 52.0 | 49.0 | 44.5 |
| 3 | 13:20-13:35 | 60.1 | 70.5 | 52.5 | 64.5 | 58.5 | 56.5 | 54.0 |
| 4 | 14:04-14:19 | 61.8 | 70.0 | 53.0 | 65.0 | 61.5 | 60.0 | 56.5 |
| 5 | 14:25-14:40 | 63.2 | 73.0 | 54.5 | 66.0 | 63.0 | 62.0 | 58.0 |
| 6 | 14:50-15:05 | 55.8 | 67.5 | 46.0 | 59.5 | 54.0 | 52.0 | 48.5 |
| 7 | 15:20-15:35 | 53.7 | 63.5 | 44.5 | 56.0 | 53.5 | 52.0 | 48.5 |
| 8 | 15:45-16:00 | 63.1 | 80.0 | 49.5 | 64.5 | 59.0 | 56.0 | 52.0 |
| 9 | 16:05-16:20 | 56.0 | 74.5 | 49.0 | 57.5 | 53.5 | 52.0 | 50.0 |
| 10 | 16:30-16:45 | 55.8 | 66.0 | 50.0 | 58.0 | 54.0 | 53.5 | 52.0 |

Table 5.6-2
Short-Term Noise Readings
City of Downey: Site Nos. 11-15
(June 28, 2004)

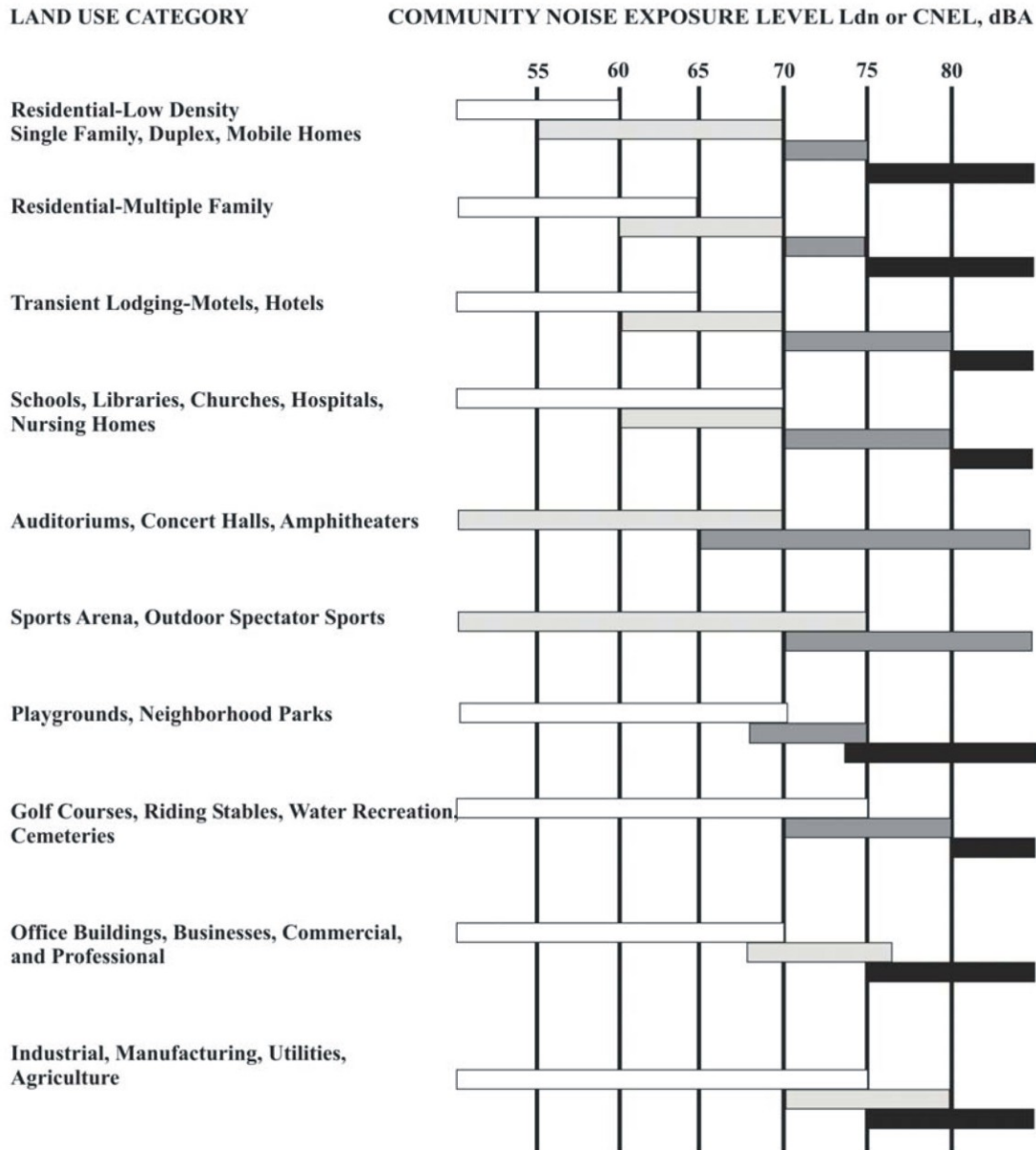
| Site | Time | Leq | Lmax | Lmin | L ₁₀ | L ₃₃ | L ₅₀ | L ₉₀ |
|------|-----------|------|------|------|-----------------|-----------------|-----------------|-----------------|
| 11 | 1410-1425 | 68.9 | 78.5 | 52.0 | 72.0 | 68.5 | 66.5 | 58.5 |
| 12 | 1445-1500 | 62.9 | 79.0 | 49.5 | 66.5 | 61.5 | 58.5 | 54.0 |
| 13 | 1510-1525 | 59.6 | 66.0 | 55.0 | 61.5 | 59.5 | 59.0 | 57.0 |
| 14 | 1535-1550 | 68.2 | 81.0 | 64.0 | 70.0 | 67.0 | 66.5 | 65.0 |
| 15 | 1600-1615 | 61.7 | 74.0 | 51.5 | 64.5 | 60.5 | 59.0 | 55.0 |

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Land Use Compatibility for Community Noise Environments



Normally Acceptable:
Specified land use is satisfactory based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable:
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice. Outdoor environment will seem noisy..

Normally Unacceptable:
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made with needed noise insulation features included in the design. Outdoor areas must be shielded.

Clearly Unacceptable:
New construction or development should generally not be undertaken. Construction costs to make the indoor environment acceptable would be prohibitive and the outdoor environment would not be usable.

Source: California Office of Noise Control



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**Table 5.6-3
Noise Monitoring Locations Map Key**

| Site Number | Site Location |
|-------------|--|
| 1 | Downey Civic Center Pedestrian Plaza, Between City Hall and Library |
| 2 | Residential, Southwest Corner of Amorita and Hasty |
| 3 | Residential, Northeast Corner of Sideview and Cedartree |
| 4 | Gallatin Elementary (Gallatin and Brookshire), Southwest Corner of Kindergarten Pickup Area |
| 5 | Price Elementary (Suva and Tweedy), Southwest Corner of Kindergarten Pickup Area |
| 6 | Fuhrman Park/Rives Ave. (Irwingrove and Muller), Geographical Center of Park |
| 7 | West Middle School (Nada and Laura), Front of School on Old School Rd. |
| 8 | Los Amigos Medical Center, Near Front Entrance |
| 9 | Sussman Middle School (Birchdale Rd. between Donovan and Meadow), Front of School |
| 10 | Residential, Southwest Corner of Eastbrook and Cheddar |
| 11 | Los Amigos Medical Center, Near Intersection Old River School and Quill, Re-test of Previous Site 8 |
| 12 | Residential (5 th and Brookshire), Church Parking Entrance – Approx. 100 yards West of Intersection |
| 13 | Dennis the Menace Park, Closest Residence to Park |
| 14 | Residential, Northeast Corner of Lefbacher and Cecellia |
| 15 | Carpenter Elementary (Foster and Clark), Between Parking Lot and Front Buildings |

5.6.3 Thresholds of Significance

The criteria used to determine the significance of impacts on hazards and hazardous materials are taken from City-approved Thresholds of Significance, based on the City's Initial Study and the model Initial Study checklist in Appendix G of the State CEQA Guidelines. Noise impacts will be considered significant if they cause any noise ordinance levels to be violated, or if they cause noise level increases equal to or greater than +3dBA CNEL.

- Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?
- Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?
- Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

The following impacts were not identified as being potentially significant in the Initial Study:

- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?
- For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?



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5.6.4 Environmental Impacts and Mitigation Measures

A "substantial increase" for the purpose of noise analysis is generally a +3dB increase, because humans are not able to readily discern noise level differences of less than 3dB under ambient conditions. However, a +3dB increase requires a doubling of traffic volumes because of the logarithmic nature of the decibel scale. Few projects individually cause a doubling of traffic volumes on an already noisy roadway. Significant traffic noise impacts are therefore usually a cumulative effect.

IMPACT: *Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Impact Analysis: Existing noise levels around the City of Downey derive mainly from vehicular sources on the roadways in the area. The results of the noise readings on June 11, 2004, are as shown above in Table 5.6-1. Five out of the ten monitored sites are below 60dBA CNEL, and the other five sites are in the low- to mid-60dBA CNEL range. None of the sites substantially exceeds the City of Downey exterior noise standards for noise-sensitive land uses.

Only a very general comparison can be made between the noise levels obtained for the Downey Vision 2010 General Plan and the current readings, because exact locations, equipment type, and weather conditions are unknown and are imperative for a complete and accurate comparison analysis. It does appear, however, that background noise typical of the steady "hum" from either freeway traffic or busy roadways has increased near monitored locations No.1, 3 and 4.

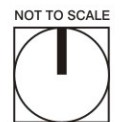
The noise levels of the five sites monitored on June 28, 2004, are as shown above in Table 5.6-2. Three of the sites are in the low- to mid-60dBA CNEL range, and two of the sites are 70 and 71dBA CNEL. Site 11, the Los Amigos Medical Center, has a noise level of 71dBA CNEL. This is above the "normally" and "conditionally acceptable" noise environment levels for hospitals. There are however, no hospital outdoor uses in close proximity to the monitoring site. The nearest residences may have an excessive noise exposure. Site 13, a residential area near I-605, has an existing noise level of 70dBA CNEL. This is barely within the City's "conditionally acceptable" noise environment per the Downey General Plan Vision 2010. However, City policy is to limit residential noise environments to a maximum of 65dBA CNEL whenever possible. Although there are noise walls on the freeway, they may not be tall enough to protect some of the closest homes.

Noise exposures throughout the City of Downey are elevated in areas nearest freeways and major thoroughfares. Non-freeway sites, and those away from heavily traveled streets, have acceptable noise levels. All monitored sites, except for Sites 11 and 13 (the Los Amigos Medical Center and residential near the 605 Freeway), experience CNELs of 65dBA or less. These areas with CNELs of 65dBA or less are acceptable locations for residential uses and also are minimally traffic noise-impacted. The residential uses that experience noise levels of 65+ dBA CNEL are noise-impacted and future additional residential uses in these areas would be strongly contra-indicated because placement of usable outdoor space in strongly noise-constrained areas is difficult.

An interior CNEL of 45dBA is mandated for multiple family dwellings in Title 24 of the California Code of Regulations, and is considered a desirable noise exposure for single-family dwelling units as well. Since typical noise attenuation within residential structures is about 15-20dB, an exterior noise exposure of 60-65dBA CNEL is generally the noise/ land use compatibility guideline for new residential dwellings in California.

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Noise Monitoring Locations



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In the Noise Element of the City of Downey’s General Plan, a 60dBA CNEL exposure is considered the most desirable target for the exterior of noise sensitive land uses such as homes. It is also recognized that such a level may not always be possible in areas of substantial traffic noise intrusion and therefore 65dBA is considered “normally acceptable.” Exposure up to 70dBA for noise-sensitive uses are considered conditionally acceptable if all measures to reduce such exposure have been taken. Noise levels above 70dBA CNEL are normally unacceptable except in unusual circumstances.

New noise-sensitive land uses are generally not approved for noise environments exceeding 65dBA CNEL unless the noise exposure of any usable exterior space can be mitigated to below this standard. Without mitigation, noise exposures at levels greater than 65dBA CNEL render exterior space “unusable.” In many older residential areas, especially near freeways, noise levels in excess of 65dBA CNEL are common.

For less noise-sensitive land uses, such as industrial developments, retail, office or other commercial development within the various project sites, exterior standards are less stringent because most activities occur inside, and require only a limited amount of noise protection. While a 45dBA CNEL interior noise level is desirable for residences to allow sleep and other quiet activities, the interior levels of retail, commercial or industrial uses are not similarly constrained. Interior levels of such uses of 55dBA CNEL can typically be accommodated. Noise attenuation in air-conditioned commercial structures with closed doors and closed windows is 25-30dB. Exterior levels of 75-80dBA CNEL can be readily attenuated to still meet the interior goals of 55dBA with a wide margin of safety.

The calculated traffic noise (dB CNEL) at a 50-foot reference distance from the roadway centerline is shown in Table 5.6-4. As shown in this table, noise levels along nearly all of the surveyed roadway segments currently exceed 65dBA CNEL. However, implementation of the proposed General Plan Update, in combination with future traffic growth unrelated to the General Plan Update, would result in noise levels equal to or greater than 65dBA CNEL at some of the surveyed sites at which existing noise levels are lower than 65dBA CNEL. These adverse noise impacts would occur along the following roadway segments:

- Gardendale Street: Lakewood – Clark, Clark – Bellflower and Bellflower – Woodruff;
- Downey Avenue: Gallatin – Florence and Florence – Firestone;
- Brookshire Avenue: Gallatin – Florence and Imperial – Gardendale;
- Gallatin Road: Paramount – Downey.



**Table 5.6-4
Traffic Noise Impact Analysis
CNEL on dBA at 50 Feet to Centerline**

| Roadway | Segment | Existing | Adopted General Plan | Proposed General Plan |
|----------------|------------------------------|-----------------|---------------------------------|----------------------------------|
| Telegraph Rd | WCL – Paramount | 71.8 | 72.5 | 72.6 |
| | Paramount – Lakewood | 72.4 | 73.1 | 73.2 |
| | Lakewood – I-605 | 72.6 | 73.1 | 73.1 |
| Florence Ave | Garfield – Old River School | 72.8 | 73.8 | 73.8 |
| | Old River School – Paramount | 73.3 | 74.2 | 74.2 |
| | Paramount – Downey | 72.4 | 73.6 | 73.6 |
| | Downey – Brookshire | 72.1 | 72.9 | 72.9 |
| | Brookshire – Lakewood | 72.5 | 73.3 | 73.3 |
| | Lakewood – I-605 | 73.1 | 73.7 | 73.7 |
| Firestone Blvd | Garfield – Old River School | 72.0 | 72.6 | 72.4 |
| | Old River School – Paramount | 71.0 | 71.7 | 71.7 |
| | Paramount – Downey | 71.0 | 71.8 | 71.8 |
| | Downey – Brookshire | 71.0 | 71.9 | 71.9 |

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Table 5.6-4
Traffic Noise Impact Analysis
CNEL on dBA at 50 Feet to Centerline

| <i>Roadway</i> | <i>Segment</i> | <i>Existing</i> | <i>Adopted General Plan</i> | <i>Proposed General Plan</i> |
|---------------------|-------------------------------|-----------------|---------------------------------|----------------------------------|
| | Brookshire – Lakewood | 72.0 | 72.9 | 72.9 |
| | Lakewood – Woodruff (S) | 72.2 | 73.0 | 73.0 |
| | Woodruff (s) – Stewart & Gray | 72.3 | 72.9 | 72.9 |
| | Stewart & Gray - ECL | 73.0 | 74.0 | 74.0 |
| Stewart & Gray Rd | Garfield – Old River School | 72.3 | 73.3 | 73.3 |
| | Old River School – Paramount | 72.1 | 73.2 | 73.3 |
| | Paramount – Downey | 72.0 | 73.3 | 73.3 |
| | Downey – Brookshire | 71.9 | 72.9 | 72.9 |
| | Brookshire – Lakewood | 71.9 | 73.3 | 73.3 |
| | Lakewood – Bellflower | 72.7 | 74.8 | 74.8 |
| | Bellflower – Woodruff | 72.5 | 73.5 | 73.5 |
| | Woodruff - Firestone | 72.7 | 73.6 | 73.6 |
| | | 72.3 | 73.2 | 73.2 |
| Imperial Hwy | Garfield – Old River School | 72.3 | 73.3 | 73.3 |
| | Old River School – Paramount | 72.1 | 73.2 | 73.3 |
| | Paramount – Downey | 72.0 | 73.3 | 73.3 |
| | Downey – Brookshire | 71.9 | 72.9 | 72.9 |
| | Brookshire – Lakewood | 71.9 | 73.3 | 73.3 |
| | Lakewood – Clark | 72.7 | 74.8 | 74.8 |
| | Clark – Bellflower | 72.5 | 73.5 | 73.5 |
| | Bellflower – Woodruff | 72.7 | 73.6 | 73.6 |
| | Woodruff - ECL | 72.3 | 73.2 | 73.2 |
| Gardendale St | Garfield – Paramount | 65.6 | 66.0 | 66.0 |
| | Paramount – Downey | 65.4 | 65.9 | 65.9 |
| | Downey – Brookshire | 65.4 | 66.6 | 66.6 |
| | Brookshire – Lakewood | 66.3 | 67.5 | 67.5 |
| | Lakewood – Clark | 64.7 | 66.1 | 66.1 |
| | Clark – Bellflower | 64.9 | 66.4 | 66.4 |
| | Bellflower – Woodruff | 64.9 | 66.3 | 66.4 |
| | Woodruff - ECL | 60.6 | 62.0 | 62.1 |
| Paramount Blvd | Telegraph – I-5 | 72.6 | 73.5 | 73.5 |
| | I-5 – Gallatin | 72.7 | 73.4 | 73.4 |
| | Gallatin – Suva | 72.9 | 73.5 | 73.6 |
| | Suva – Florence | 72.6 | 73.1 | 73.1 |
| | Florence – Firestone | 72.8 | 73.5 | 73.5 |
| | Firestone – Stewart & Gray | 71.3 | 72.5 | 72.5 |
| | Stewart & Gray – Imperial | 71.2 | 72.6 | 72.6 |
| | Imperial – Gardendale | 71.2 | 72.6 | 72.7 |
| Old River School Rd | Florence - Firestone | 68.8 | 69.9 | 69.9 |
| | Firestone – Stewart & Gray | 76.7 | 69.5 | 69.5 |
| | Stewart & Gray - Imperial | 66.7 | 67.7 | 67.7 |
| Downey Ave | Gallatin – Florence | 64.7 | 65.5 | 65.5 |
| | Florence – Firestone | 64.9 | 65.8 | 65.8 |
| | Firestone – Stewart & Gray | 66.2 | 67.3 | 67.3 |
| | Stewart & Gray – Imperial | 66.2 | 67.9 | 68.0 |
| | Imperial – Gardendale | 65.9 | 66.9 | 66.9 |
| Brookshire Ave | Gallatin – Florence | 63.4 | 65.2 | 65.2 |
| | Florence – Firestone | 65.0 | 68.0 | 68.0 |
| | Firestone – Stewart & Gray | 68.0 | 70.7 | 70.7 |
| | Stewart & Gray – Imperial | 66.5 | 68.2 | 68.2 |

5. Environmental Analysis

**Table 5.6-4
Traffic Noise Impact Analysis
CNEL on dBA at 50 Feet to Centerline**

| <i>Roadway</i> | <i>Segment</i> | <i>Existing</i> | <i>Adopted General Plan</i> | <i>Proposed General Plan</i> |
|-----------------------|-----------------------------|---------------------|---------------------------------|----------------------------------|
| | Imperial – Gardendale | 63.7 | 65.8 | 65.8 |
| Lakewood Blvd | Telegraph – I-5 | 72.2 | 72.7 | 72.8 |
| | I-5 – Gallatin | 72.4 | 73.0 | 73.1 |
| | Gallatin – Florence | 72.0 | 72.5 | 72.6 |
| | Florence – Firestone | 72.9 | 73.8 | 73.8 |
| | Firestone – Stewart & Gray | 71.7 | 73.2 | 73.2 |
| | Stewart & Gray – Imperial | 71.6 | 73.6 | 73.6 |
| | Imperial – Gardendale | 71.8 | 75.7 | 75.8 |
| | Clark Ave | Lakewood – Imperial | 66.7 | 67.6 |
| Imperial – Gardendale | | 68.3 | 69.3 | 69.3 |
| Bellflower Blvd | Lakewood – Stewart & Gray | 69.9 | 70.8 | 70.8 |
| | Stewart & Gray – Imperial | 69.9 | 72.0 | 72.0 |
| | Imperial – I-105 WB Ramps | 72.0 | 72.9 | 72.9 |
| | I-105 EB Ramps – Gardendale | 72.1 | 73.0 | 73.0 |
| Woodruff Ave | Firestone – Stewart & Gray | 70.4 | 72.2 | 72.2 |
| | Stewart & Gray – Imperial | 69.8 | 71.6 | 71.6 |
| | Imperial – Gardendale | 69.8 | 71.6 | 71.6 |
| Gallatin Rd | Paramount – Downey | 64.5 | 65.4 | 65.4 |
| | Downey – Brookshire | 65.5 | 66.4 | 66.4 |

Future growth and pass-through traffic will produce traffic noise increases that represent a significant change from existing conditions. This increase in traffic is not a result of the proposed project. A portion of Stewart and Gray Road and Lakewood Blvd. will have future noise levels that are more than 3.0dB above existing levels. A section of Brookshire Avenue will experience a +3.0dB CNEL increase, which is right at the significance threshold. Any project contribution to these changes of 0.1dB or less is negligible.

Noise was estimated to decrease with distance at a rate of 3.0dB per doubling of distance as a worst-case condition. With underlying vegetated or irregular surfaces, the theoretical drop-off rate is faster (4.5dB per doubling). With intervening buildings, walls or other barriers, the rate is faster yet. The worst-case condition was used to estimate the distance penetration of traffic noise into the surrounding community. Distances to the 60dBA CNEL (optimum for noise-sensitive uses), 65dBA CNEL (acceptable for noise-sensitive uses), and 70dBA CNEL (marginally acceptable) were calculated for all roadway segments. The resulting data were used to create a noise contour map,¹¹ which is shown herein as Figure 5.6-3.

¹¹ The data tables are included as an appendix in the noise study that was conducted for the proposed Downey Vision 2025 General Plan Update. The Noise Study is included in this EIR as Appendix F.



5. *Environmental Analysis*

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5. Environmental Analysis

As noted above, these worst-case estimates will not be reached in almost all instances because of surface effects or obstructions to line-of-sight propagation. A substantial worsening of the noise environment is presumed to exist if noise levels increase by +3.0dB. The calculated traffic noise (dB CNEL) at a 50-foot reference distance from the roadway centerline is shown in Table 5.6-4. The City of Downey is sufficiently built-out, such that there will be few future traffic noise increases that are significantly worse than existing (2004) conditions. The maximum traffic noise increase along the 14 major analyzed roadways (79 separate segments) is summarized in Table 5.6-5. As shown in the table, implementation of the proposed General Plan Update, in combination with future traffic growth unrelated to the General Plan Update, would result in the exposure of people to noise levels in excess of those established in the local general plan or noise ordinance, and in the applicable standards of other agencies.

**Table 5.6-5
Traffic Noise Increases Over Existing Levels**

| <i>Roadway/Segment</i> | <i>Noise Level Increases (dBA CNEL)</i> | | |
|---|---|------------------------------|--------------|
| | <i>Adopted General Plan</i> | <i>Proposed General Plan</i> | <i>Delta</i> |
| Telegraph (Paramount – Lakewood) | +0.7 | +0.8 | +0.1 |
| Florence (Paramount – Downey) | +1.2 | +1.2 | 0.0 |
| Firestone (Downey – Brookshire) | +0.9 | +0.9 | 0.0 |
| Stewart & Gray (Lakewood – Bellflower) | +3.3 | +3.3 | 0.0 |
| Imperial (Lakewood – Clark) | +2.1 | +2.1 | 0.0 |
| Gardendale (Clark – E. City Limit) | +1.4 | +1.5 | +0.1 |
| Old River School (Firestone – Stewart & Gray) | +1.8 | +1.8 | 0.0 |
| Paramount (Imperial – Gardendale) | +1.4 | +1.5 | +0.1 |
| Downey (Stewart & Gray – Imperial) | +1.7 | +1.8 | +0.1 |
| Brookshire (Florence – Firestone) | +3.0 | +3.0 | 0.0 |
| Lakewood (Imperial – Gardendale) | +3.9 | +4.0 | +0.1 |
| Clark (Imperial – Gardendale) | +1.0 | +1.0 | 0.0 |
| Bellflower (Stewart & Gray – Imperial) | +2.1 | +2.1 | 0.0 |
| Woodruff (Firestone – Stewart & Gray) | +1.8 | +1.8 | 0.0 |
| Gallatin (Paramount – Brookshire) | +0.9 | +0.9 | 0.0 |



Changes in designated land uses as proposed by the General Plan Update and changes in the Circulation Element will only minimally increase the traffic levels and traffic noise impacts because the City is substantially built-out. Changes in noise levels in the City will primarily derive from future traffic growth in the City, and not from implementation of the Downey Vision General Plan Update. However, these increases in noise levels will be significant. While the mitigation measures included below will help to reduce noise impacts, these impacts cannot be mitigated to a level that would be considered less than significant. Therefore, this is a significant and unavoidable impact.

Goals, Policies and Programs Related to Noise

The Downey Vision 2025 General Plan Update contains policies and programs related to noise, which would help to reduce future project noise impacts. These policies and programs are listed in Appendix A.

5. Environmental Analysis

Existing Codes and Regulations:

Future projects proposed for siting in the areas proposed for re-designation pursuant to the Downey Vision 2025 General Plan Update, and in the City of Downey in general, would have to comply with all Federal, State and local policies related to noise.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: Implementation of the following mitigation measures would ensure that the proposed project's noise-related impacts are mitigated to the maximum feasible extent.

MM 5.6-1 All future residential development near freeways and heavily-traveled thoroughfares shall be considered potentially noise-impacted. A site-specific noise mitigation analysis shall be performed for all new residential uses within these areas to confirm that usable outdoor space does not exceed 65dBA CNEL, and that all habitable rooms will experience an acceptable 45dBA CNEL interior exposure.

MM 5.6-2 Short-term construction noise intrusion will be limited by conditions on building permits in compliance with City ordinances to limit activities to hours with least noise sensitivity. These same permits should specify access routing to minimize construction truck traffic past existing residential or other noise sensitive uses.

Level of Significance After Mitigation: Significant.

IMPACT: ***Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?***

Impact Analysis: Groundborne vibration and groundborne noise generally occur during the construction phases of development projects. Temporary construction noise impacts vary markedly because the noise strength of construction equipment ranges widely as a function of the specific types of equipment used and its activity level. Short-term construction noise impacts tend to occur in discrete phases, dominated initially by demolition of existing structures and by large earth-moving equipment, then by the foundation and parking facility construction, and finally for finish construction. The demolition and earth-moving sources are the noisiest with equipment noise typically ranging from 75 to 90dBA at 50 feet from the source. Pile drivers, if needed, may have equipment noise levels in excess of 100dBA at 50 feet from the source.

Figure 5.6-4 shows the range of construction noise emissions from various pieces of construction equipment. Point sources of noise generation are attenuated by a factor of 6dB per doubling of distance through geometrical (spherical) spreading of sound waves. The quieter construction noise sources will thus drop to a 65dBA exterior/45dBA interior level by about 200 feet from the source. Loudest sources may require over 1,000 feet from the source to reduce the 90+ dBA source strength to an acceptable level. With multiple existing structures within the various development areas, interference with line-of-sight propagation will reduce the potential construction activity "noise envelope" in most instances to well below its theoretical maximum extent.

Construction noise sources are not strictly related to a community noise standard because they occur only during selected times and the source strength varies sharply with time. The penalty associated with noise disturbance during quiet hours, and the nuisance factor accompanying such disturbance, leads to time limits imposed upon construction activities as conditions on construction permits.

5. Environmental Analysis

Construction activities are specifically regulated by the City of Downey. Section 4606.5 of the Downey Municipal Code indicates that no construction or repair work shall be performed between the hours of 9:00 p.m. and 7:00 a.m. of the following day, since such activities would generate loud noises and disturb persons occupying sleeping quarters in any adjacent dwelling hotel or apartment or other place of residence. No repair or remodeling shall exceed 85dBA across any property boundary at any time during the course of a twenty-four-hour (24-hour) day (Added by Ordinance 508, adopted 6.22.76).

An inability to reduce construction equipment noise exposure to 85dBA or less at any off-site, noise-sensitive use would be considered a significant, but temporary, noise impact.

Because the exact pattern of future land use within any development parcel within the next 20 years is not precisely known, source/receiver distances as a basis for determining significance potential are not known. If adverse impact potential clearly exists, projects are generally conditioned to provide noise protection to nearby noise-sensitive uses as a matter of City policy.

Goals, Policies and Programs Relating to Noise

The Downey Vision 2025 General Plan Update contains policies and programs related to noise. These policies and programs are included in Appendix A.

Existing Codes and Regulations:

Future projects proposed for siting in the areas proposed for re-designation pursuant to the Downey Vision 2025 General Plan Update, and in the City of Downey in general, would have to comply with all Federal, State and local policies related to noise.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: Please refer to Mitigation Measures 5.6-1 and 5.6-2 above.

Level of Significance After Mitigation: Less than significant.

IMPACT: *Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*

Impact Analysis: The City of Downey is built-out to the extent that there will be few future traffic noise increases that are significantly worse than existing (2004) conditions. The maximum traffic noise increase along the 14 major roadways (79 separate segments) that were analyzed are summarized in Table 5.6-5. Significant increases in existing noise levels as a result of implementation of the adopted General Plan and the proposed General Plan Update are listed in bold text.

Based on the analysis in table 5.6-5, traffic from any land use change from the adoption of the General Plan Update will create significant noise increases along three City roadways. Most roadways will not experience significant increases, but may have exposures along their rights of way in excess of the City of Downey guidelines for noise-sensitive land uses. The same mitigation measures listed above would help to reduce project-related noise impacts; however, mitigation cannot reduce all noise impacts to a level that would be considered less than significant.



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5. Environmental Analysis

Goals, Policies and Programs Relating to Noise

The Downey Vision 2025 General Plan Update contains policies and programs related to noise, which will help to reduce noise-related impacts. These policies and programs are also included in Appendix A.

Existing Codes and Regulations:

Future projects proposed for siting in the areas proposed for re-designation pursuant to the Downey Vision 2025 General Plan Update, and in the City of Downey in general, would have to comply with all Federal, State and local policies related to noise.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: Please refer to Mitigation Measures 5.6-1 and 5.6-2 above.

Level of Significance After Mitigation: Significant.

IMPACT: *Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?*

Impact Analysis: Noise is regulated by numerous codes and ordinances across Federal, State, and local agencies. The City regulates noise-generating activities through the Municipal Code. Specifically, noise generated during construction activities or the operations of aircraft have the potential to violate the City's Noise Ordinance and policies contained in the General Plan.

Construction Noise Impacts

The City recognizes that construction noise is difficult to control and restricts allowable hours for this intrusion. Compliance with these provisions is mandatory and as such, does not constitute mitigation under CEQA. Still, construction, even when restricted to within these hours, presents a nuisance value when conducted in proximity to sensitive receptors and the impact is considered as potentially significant.

Short-term noise impacts are impacts associated with demolition, site preparation, grading and construction of the proposed land uses. Two types of short-term noise impacts could occur during construction. First, the transport of workers and movement of materials to and from the site could incrementally increase noise levels along local access roads. The second type of short-term noise impact is related to noise generated at the job site during demolition, site preparation, grading and/or physical construction. Construction is performed in distinct steps, each of which has its own mix of equipment, and, consequently, its own noise characteristics. However, despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Figure 5.6-4 (above) showed the range of noise emissions associated with various types of construction equipment.

Composite construction noise is best characterized by Bolt, Beranek and Newman (EPA December 31, 1971). In their study, construction noise for commercial and industrial development is presented as 89 dBA L_{eq} when measured at a distance of 50 feet from the construction effort. Residential development is slightly quieter with a composite noise level of about 88 dBA L_{eq} , again when measured at a distance of 50 feet from the construction effort. These values take into account both the number of pieces and spacing of the heavy equipment used in the construction effort. In later phases during building assembly, noise levels are typically reduced from these values and the physical structures further break up line-of-sight noise propagation.



5. *Environmental Analysis*

Based on the 89 dBA L_{eq} value, and assuming that construction were to occur for 8 hours a day, the CNEL is calculated at 84 dBA at 50 feet (83 dBA CNEL for residential construction). The 65 dBA CNEL contour would fall at a distance of about 446 feet (397 feet for residential construction). Mitigation of these impacts to a level that is less than significant would be conducted both at the project level through the enforcement of the Downey Municipal Code and in a broader sense through the policies of the General Plan Noise Element.

Goals, Policies and Programs Relating to Noise

The Downey Vision 2025 General Plan Update contains policies and programs related to noise, which would help to reduce temporary and periodic increases in ambient noise levels. These policies and programs are included in Appendix A.

Existing Codes and Regulations:

Future projects proposed for siting in the areas proposed for re-designation pursuant to the Downey Vision 2025 General Plan Update, and in the City of Downey in general, would have to comply with all Federal, State and local policies related to noise. In addition to the following mitigation measure, compliance with the City of Downey Noise Ordinance would ensure that temporary or periodic increases in noise levels would be considered less than significant.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: Please refer to Mitigation Measure 5.6-2 above.

Level of Significance After Mitigation: Less than significant.

5.6.5 Cumulative Impacts

Cumulative growth and pass-through traffic will produce traffic noise increases that represent a significant change from existing conditions. This increase in traffic is not a result of the proposed project. While cumulative noise impacts from adoption of the proposed General Plan Update are negligible, cumulative noise impacts are considered significant along several roadway segments.

5.6.6 Significant Unavoidable Adverse Impacts

Implementation of the proposed Downey Vision 2015 General Plan Update, in combination with future traffic growth that is not related to the proposed General Plan Update, would result in significant noise impacts that cannot be entirely mitigated. This represents a Significant and Unavoidable Adverse Impact.

5. Environmental Analysis

5.7 PUBLIC SERVICES

5.7.1 Methodology

Public services in Downey include the fire protection and emergency services, police protection, public schools, parks and libraries. The potential for adverse impacts on public services and facilities was evaluated based on information provided by service providers concerning current service levels and the ability of the service providers to accommodate the increased demand created by the proposed project. The public services correspondence can be found in Appendix B of this DEIR.

5.7.2 Existing Conditions

Fire Protection

The City of Downey is served by the City of Downey Fire Department (DFD) through four stations in the City of Downey. Fire station locations are shown in Figure 5.7-1. The stations in Downey house four engines, one ladder truck, two paramedic rescue squads, one civilian ambulance squad, and one Urban Search and Rescue (USAR) vehicle.

Department suppression and rescue training is facilitated by a centrally-located, in-city training tower, as well as a closed cable television network, which allows classes, meetings, or training films to be broadcast into any fire station within the City. The DFD focuses its resource pool and training in six budgeted programs: administration, fire suppression, emergency medical response and basic life support, joint fire communications, fire prevention/arson, and emergency preparedness.

The cities of Montebello, Santa Fe Springs and Compton are partners with Downey in a “Joint Powers Communications Center” (JPCC), which is housed at Downey Fire Headquarters (Fire station 1). Together, the four cities participate in an “area automatic aid strategy as well as numerous automatic and mutual aid agreements with Los Angeles County and Vernon Fire Departments. Under the pre-arranged response plans the “closest” fire resource to a fire incident is dispatched, regardless of the political boundaries. The pre-arranged response plans are built to cover all resource requests through a “fifth alarm.” Beyond this point, Downey would request additional resources through the “Region I Fire/Rescue Emergency Command Center (ECC)” maintained by the Los Angeles County Fire Department. Through “Region I” Downey has access to all the regional, state and federal system assets.

The DFD is a full service fire department. The department’s operations side provides fire suppression, paramedic service, USAR/Swiftwater/Flood Rescue service and Hazardous materials “First Responder – Operational Level.” All DFD personnel are “Haz Mat first responder” certified, specially trained to handle toxic, flammable, or other hazardous materials. The Fire Prevention Bureau is staffed with a Fire Marshal, a Deputy Fire Marshal, and two Fire Inspectors with a secretary. The bureau provides plan check service, inspection services, manages the department’s HazMat disclosure as a provider agency to the Los Angeles County Certified Unified Program Agency (CUPA) and conducts cause-origin fire investigations. The department has a Public Fire Education Specialist who manages the city’s “CERT” Program and is active in the Disaster Preparedness Community. Staffing and equipment for each of the stations is shown in Table 5.7-1.

DFD is currently conducting a major technology upgrade in terms of records management, Computer Aided Dispatch, and Geographic Information Systems capability. One objective of the project is to enable the management team to identify institutional “structural” and “performance” deficits. DFD is currently examining response data and resource locations to determine if current facility locations, resource placement and deployment strategies are the “best choices” for service delivery systems.



5. Environmental Analysis

Depending on the conclusions drawn from these efforts, the relocation of one facility and/or apparatus may be recommended.

**Table 5.7-1
Fire Station Equipment and Staffing**




| Station | Location | Equipment | Staffing |
|----------------|--------------------------|--|---|
| Station No. 1 | 1222 Paramount Boulevard | Engine 61 Truck 611 Rescue 611 Paramedic Squad 641 Battalion 604 | 1 Captain; 1 Engineer and 1 Firefighter (plus 1 auxiliary Firefighter when available) 1 Captain; 1 Engineer; 2 Firefighters (plus 1 auxiliary Firefighter when available) Manned with the above listed personnel 2 Firefighter/Paramedics 1 Battalion Chief |
| Station No. 62 | 9556 Imperial Highway | Engine 62 | 1 Captain; 1 Engineer and 1 Firefighter (plus 1 auxiliary Firefighter when available) |
| Station No. 63 | 9900 Paramount Boulevard | Engine 63 BLS Ambulance 644 | 1 Captain; 1 Engineer and 1 Firefighter (plus 1 auxiliary Firefighter when available) Owned by the City by manned by two private sector EMT-1's |
| Station No. 64 | 9340 Florence Avenue | Engine 64 Paramedic Squad 642 | 1 Captain; 1 Engineer and 1 Firefighter (plus 1 auxiliary Firefighter when available) 2 Firefighter/Paramedics |

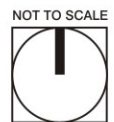
Source: City of Downey Fire Department

5. Environmental Analysis

Fire Station & Fire District Locations



-  Fire District Boundary
-  Fire Department Headquarters
-  Fire Stations



5. *Environmental Analysis*

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5. Environmental Analysis

Police Protection

Police services in Downey are provided by the City Police Department, except for properties owned by the County of Los Angeles in the southwest part of the City, which are patrolled by the County Sheriff Department, based in Lynwood. The Downey Police Department (DPD) is located at 10911 Brookshire Avenue. The DPD is comprised of 166 total employees, including 114 sworn officers. Of these are three Captains, seven Lieutenants, 14 Sergeants, 23 Detectives, eight motorcycle officers, and three administrative officers, with the remainder assigned to patrol. While predetermined patrol routes do not exist, the DPD officers patrol the entire City that are accessible to them. To provide balanced enforcement, the City has been divided into six quadrants, and at least one officer is assigned to each area. In addition DPD patrol officers are supplemented by traffic enforcement officers and detective personnel.

School Services

The City of Downey is served by the Downey Unified School District (DUSD). The District houses approximately 21,323 students in grades kindergarten through twelve within 15 elementary, four junior high, and two comprehensive high schools. In addition, the District operates a continuation high school/adult school and several specialized facilities for students with special needs. Figure 5.7-2 shows the locations of schools within Downey and the enrollment and capacity breakdown by school is illustrated in Table 5.7-2, below.

**Table 5.7-2
DUSD Enrollment and Capacity**

| <i>School</i> | <i>Grades Served</i> | <i>Enrollment 2003-2004</i> | <i>Capacity</i> |
|--------------------|----------------------|-----------------------------|-----------------|
| Elementary | | | |
| Alameda | K-3 | 715 | 900 |
| Carpenter | 4-5 | 805 | 1,020 |
| Gallatin | K-5 | 673 | 747 |
| Gauldin | K-5 | 858 | 957 |
| Imperial | K-3 | 570 | 640 |
| Lewis | K-5 | 703 | 747 |
| Pace | K-3 | 320 | 360 |
| Price | K-5 | 653 | 863 |
| Old River | 4-5 | 836 | 840 |
| Rio Hondo | K-5 | 883 | 957 |
| Rio San Gabriel | K-5 | 708 | 817 |
| Unsworth | K-5 | 605 | 817 |
| Ward | K-3 | 503 | 620 |
| Williams | K-3 | 691 | 800 |
| Total | | 9,523 | 11,083 |
| Middle | | | |
| East | 6-8 | 1,271 | 1,404 |
| Griffiths | 6-8 | 1,307 | 1,512 |
| Sussman | 6-8 | 1,473 | 1,809 |
| West | 6-8 | 1,353 | 1,512 |
| Total | | 5,404 | 6,237 |
| High School | | | |
| Downey | 9-12 | 3,361 | 4,023 |
| Warren | 9-12 | 3,035 | 4,023 |
| Total | | 6,396 | 8,046 |

Source: *Facilities Master Plan*, Downey Unified School District



5. *Environmental Analysis*

The Facilities Master Plan prepared by the District addresses two important concerns of the District: modernization and growth. The rate of growth has leveled off at the elementary school level in recent years. This has allowed the District to complete a number of modernization programs at this level, with the preponderance of funds being expended at the high school level, to help meet the needs of growth at this level. At this time, the District does not anticipate the need for new school construction within the District.

The District has used portable classrooms to meet its growth needs over the last decade. One of the District's main objectives is to replace all of the relocatable classrooms with permanent teaching stations. The District intends to complete this goal through modernization programs and new construction at its school sites, which would include the replacement of portable classrooms with permanent classroom structures.

Facilities Funding

Revenue for facilities construction comes from both State and local sources. State funding is divided into two categories: modernization and growth, with the amounts being adjusted annually to reflect increases in the cost of school construction. In addition, DUSD has several local funding sources available, including developer fees and a general obligation bond based on the passage of Proposition 39.

Other Districts

Other school districts provide school services to the areas that are not covered under the Downey Unified School District boundaries. Montebello Unified School District provides school services to the areas west of the Rio Hondo River; this includes the areas to the east of Rivergrove Drive. A portion of the City, to the northwest of Firestone Boulevard is within Los Angeles Unified School District-District J boundaries. However, the portion consists of non-residential property and Crawford Park. Therefore, no students are generated from this area. Whittier Union High School District, Santa Fe High School provides high school services to the City. Areas to the east of San Gabriel River are within Santa Fe's attendance boundary. Elementary and middle school services within this area are provided by Littlelake City School District. Studebaker Elementary and Lakeside Middle School in Norwalk accept students from the City of Downey with a permit authorized by the principals of the respected schools.

Parks

The potential impacts to parks and recreation facilities are analyzed in Section 5.8, *Recreation*, of this Draft EIR.

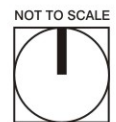
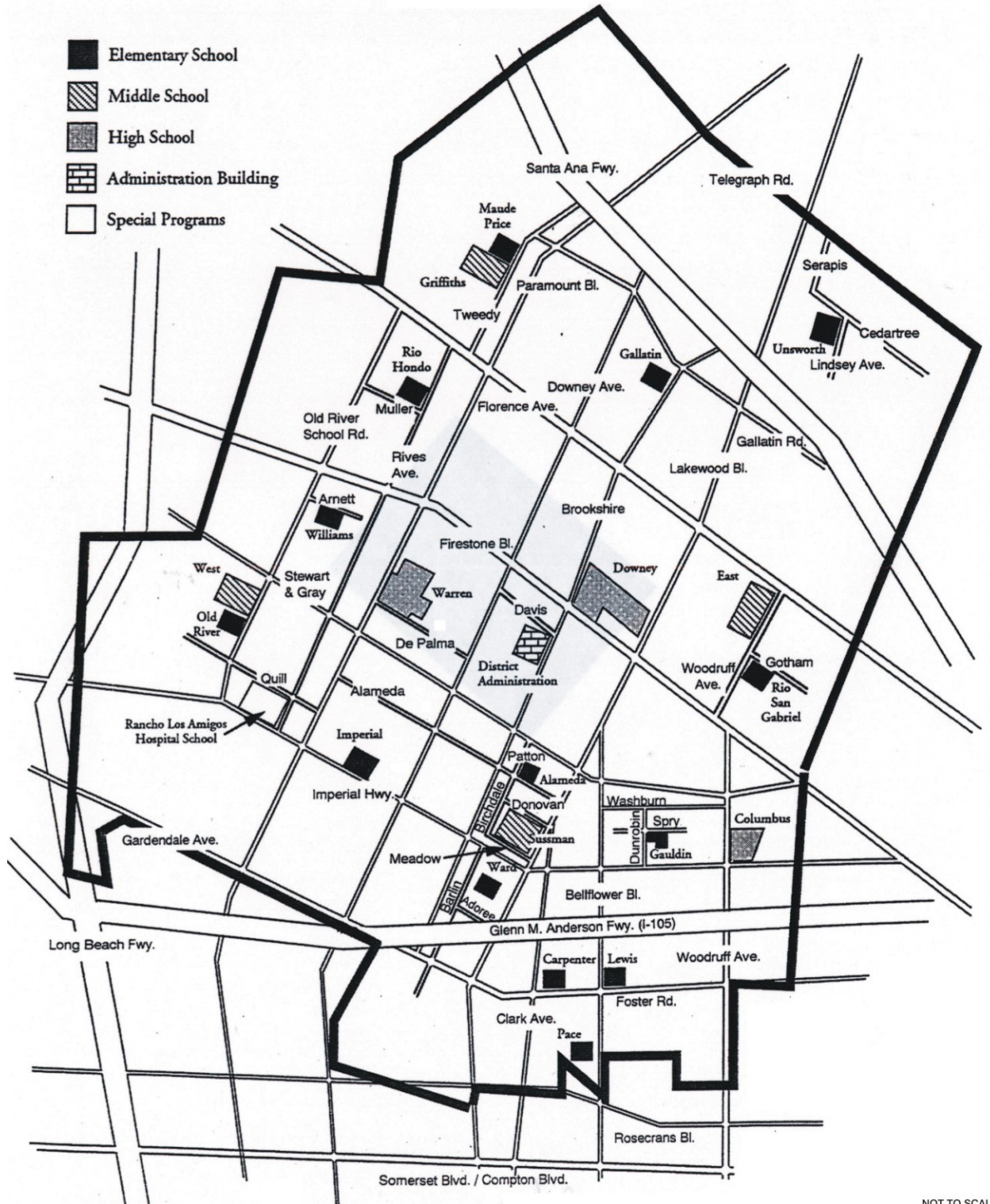
Libraries

The Downey City Library is located at 11121 Brookshire Avenue, next to City Hall. The library was constructed in 1958 and renovated in 1982 to meet the growing needs of the community.

The library holds a vast collection including over 150,000 adult, teen and children's books, 300 magazine subscriptions, 3,000 feature and nonfiction videos, 2,000 fiction and non-fiction books on cassette, 1,000 music compact discs, plus electronic resources, such as CD-Rom products, online databases, and Internet resources. The Mail Library holds the majority of the collections in the City of Downey Library System. Additional programs offered by the library include Books on Wheels and an Adult Literacy Program.

5. Environmental Analysis

Existing School Locations



5. *Environmental Analysis*

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5. Environmental Analysis

5.7.3 Thresholds of Significance

The criteria used to determine the significance of impacts on hazards and hazardous materials are taken from City-approved Thresholds of Significance based on the City's Initial Study and the model Initial Study checklist in Appendix G of the State CEQA Guidelines.

- Would the project increase demand for fire protection?
- Would the project increase demand for police protection?
- Would the project increase demand for schools?
- Would the project increase demand for parks?
- Would the project increase demand for other public facilities?

5.7.4 Environmental Impacts and Mitigation Measures

IMPACT: *Would the project increase demand for fire protection?*

Impact Analysis: The implementation of the General Plan Update would result in an increased demand on fire protection services within the City. Downey consists mostly of “typical urban” fire risk. Downey is primarily a “bedroom” community, with most of the City consisting of single-family residences and multi-unit housing projects. There are the usual clusters of commercial occupancies and a sizeable industrial area located in the southeastern portion of the City. A large shopping Center (Stonewood Mall) is the largest single commercial venue in Downey. The Downey Landing Project will bring several unique fire risks to the DFD as it is developed. In addition, the Downey Studios project would involve the development of large sound stages with rapidly changing fire loads, a “back lot” operation with production companies utilizing special effects techniques to produce simulated fires and explosions for their films. This unique business would necessitate assigning Fire Safety Officers to enforce the State Fire Marshal’s Title 19 oversight via Agency Having Jurisdiction authority. Finally, the Kaiser Hospital project would consist of over one million square feet of mixed-use buildings including a six-story hospital tower, two medical office buildings and support infrastructure.



The General Plan Update, including the redesignation in land use of 16 sites within the City would allow for the development of approximately 2,906 dwelling units, an increase of 13,848 in population, and an increase of 4,900 jobs within the City. Implementation of the General Plan Update could necessitate an incremental increase in service delivery assets, including personnel. These increases will be driven by assessments of response data, observed performance of fire suppression assets at key incidents, increased requests for service from the bureau and the relative effectiveness of enhanced building standards.

However, the General Plan Update, including the redesignation of 16 sites, would not directly result in growth in population, employment or housing. Any such development that occurs would be evaluated for impacts at the time it is proposed and any applicable fees would be paid by the developer to the fire department.

Relevant Policies and Programs

The Downey Vision 2025 General Plan contains policies and programs related to the provision of fire protection services. These policies and programs are listed in Appendix A.

Existing Regulations and Standard Conditions

No specific existing regulations or standard conditions related to the provision of fire services apply to this impact analysis.

5. Environmental Analysis

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: The Policies and Programs listed above would serve to mitigate any potential impacts related to public services pursuant to the proposed Downey Vision 2025 General Plan Update.

Level of Significance After Mitigation: Less than significant.

IMPACT: *Would the project increase demand for police protection?*

Impact Analysis: Implementation of the General Plan Update, including the redesignation in land use of the 16 sites identified by the City would result in an increased demand on police protection services within the City. Future growth in accordance with the General Plan Update is expected increase demand on police services such as 24-hour patrol, traffic enforcement, and municipal code enforcement. In progress emergency calls are a priority and generally a response time of less than three minutes is desirable. For other non-emergency calls, including report calls, a response time of ten to twenty minutes is desirable. Increased demand on police services could lead to slower response times within the City.

The General Plan Update, including the redesignation in land use of 16 sites within the City would allow for the development of approximately 2,906 new dwelling units, an increase of 13,848 in population, and an increase of 4,900 jobs within the City. However, the additional personnel and materials costs may be offset through the increased revenue, and fees, generated by future development within the 16 identified sites. In addition, future projects will be reviewed by the City of Downey on an individual basis and will be required comply with police requirements in effect at the time building permits are issued, or if an initial study is prepared and the City determines the impacts to be significant, then the project will be required to comply with appropriate mitigation measures.

Relevant Policies and Programs

Downey Vision 2025 General Plan contains policies and programs related to the provision of police protection services. These policies and programs are listed in Appendix A.

Existing Regulations and Standard Conditions

No specific existing regulations or standard conditions related to the provision of police services apply to this impact analysis.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: The Policies and Programs listed above would serve to mitigate any potential impacts related to public services pursuant to the proposed Downey Vision 2025 General Plan Update.

Level of Significance After Mitigation: Less than significant.

IMPACT: *Would the project increase demand for schools?*

5. Environmental Analysis

Impact Analysis: Implementation of the General Plan Update, including the redesignation in land use of the 16 sites identified by the City, would allow for the development of approximately 2,906 new dwelling units, an increase of 13,848 in population, and an increase of 4,900 jobs within the City. This increased population will result in increased student generation, as shown in Table 5.7-3.

**Table 5.7-3
Student Generation**

| <i>Residential Units</i> | <i>Elementary Students</i> | | <i>Jr. High Students</i> | | <i>High School Students</i> | |
|--------------------------|------------------------------------|-----------------|------------------------------------|-----------------|------------------------------------|-----------------|
| | <i>Generation Rate¹</i> | <i>Students</i> | <i>Generation Rate¹</i> | <i>Students</i> | <i>Generation Rate¹</i> | <i>Students</i> |
| 2,904 | 0.27 | 784 | 0.107 | 311 | 0.147 | 427 |

¹Downey Unified School District does not have adopted student generation rates. These rates are based on other similar urban school districts.
Source: Downey Unified School District

The Downey Unified School District does not have an adopted set of student generation rates. This is due, in part, to the fact that the District is built-out and large numbers of future students are not anticipated. Instead, growth projections within the District are based on a Modified Cohort Survival Method for projecting future enrollment. This approach uses the weighted average of the change in enrollment over the last four years between grade levels to predict the change in enrollment for subsequent years. The most recent changes are given the greatest weight and the oldest changes given the least.

Since the peak levels are currently measurable at the elementary level, it is possible to estimate what the ultimate peak enrollment will be in the District at the high school level. It is also possible to observe the fact that the peak will probably occur in the next seven years and then remain steady for some time into the future.

Ultimate seating capacity within the Downey Unified School District is reported to be 25,366 students. Based on the current enrollment rates, the District is under this ultimate seating capacity by 7,217 students. According to these statistics, DUSD should have enough available seating capacity to accommodate any additional growth within the District.

Senate Bill 50 (SB 50, also known as Proposition 1A, codified in Government Code Section 65995) was enacted in 1988 to address how schools are financed and how development projects may be assessed for associated school impacts. SB 50 provides three ways to determine funding levels for school districts. The default method allows school districts to levy development fees to support school construction necessitated by that development and receive a 50% match from State bond money.

While the City acknowledges that future growth will result in increased need for school facilities, the City is precluded per SB 50 to consider this a significant impact for the purposes of CEQA. The payment of development fees will offset the costs to each District of providing educational facilities to these students. In addition, the General Plan Policies and Programs listed below will further reduce potential impacts.

Relevant Policies and Programs

The Downey Vision 2025 General Plan contains policies and programs related to schools. These policies and programs are listed in Appendix A.

Existing Regulations and Standard Conditions

No specific existing regulations or standard conditions related to schools apply to this impact analysis.



5. Environmental Analysis

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: The Policies and Programs listed above would serve to mitigate any potential impacts related to public services pursuant to the proposed Downey Vision 2025 General Plan Update.

Level of Significance After Mitigation: Less than significant.

IMPACT: Would the project increase demand for parks?

Impact Analysis: Impacts related to the increased demand for parks and recreational facilities can be found under recreation in Appendix A.

Relevant Goals and Policies

The goals, policies and programs related to the increased demand for parks and recreational services can be found in Appendix A, *Recreation*, of this Draft EIR.

Existing Regulations and Standard Conditions

Existing Regulations and Standard Conditions related to the increased demand for parks and recreational facilities can be found in Section 5.8, *Recreation*, of this Draft EIR.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: The Goals and Policies listed under recreation in Appendix A of this Draft EIR would serve to mitigate any potential impacts related to public services pursuant to the proposed Downey Vision 2025 General Plan Update.

Level of Significance After Mitigation: Less than significant.

IMPACT: Would the project increase demand for library services?

Impact Analysis: The proposed General Plan Update, including the redesignation in land use of the 16 identified sites, would result in an increased demand for library materials, circulation, computer access, and other library services. As stated previously in this section, implementation of the General Plan Update, including the redesignation in land use of the 16 sites identified by the City, would allow for the development of approximately 2,906 dwelling units, an increase of 13,848 in population, and an increase of 4,900 jobs within the City.

Any increase in the population or employee population within Downey is anticipated to have an impact on library services. According to the City of Downey, the library system is inadequate to meet the existing community's needs in that the library system has fewer outlets, staff and materials when compared to similar libraries in Southern California. The level of need for library facilities in the area has increased in recent years due to the public demand for Internet access, electronic resources, business needs, children's programs and homework guidance. Current sources of revenue for the library system's operations include the City's General Fund, the Public Library Fund, the Public Library Foundation Program Fund, Federal/State grant funds, and Friends of the Downey Public Library Fund.

However, the implementation of the General Plan Update, including the redesignation in land use of the 16 sites identified by the City, would not directly result in growth in population or employment. Any such development that occurs would be evaluated for impacts at the time it is proposed and any applicable fees would be paid by the developer.

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Relevant Policies and Programs

The General Plan Update does not include any applicable goals, policies or programs related to library services.

Existing Regulations and Standard Conditions

No existing codes or regulations related to library services apply to the proposed General Plan Update.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are necessary.

Level of Significance After Mitigation: Less than significant.

IMPACT: *Would the project increase demand for other public facilities?*

Impact Analysis: Any development that occurs as a result of the General Plan Update, including the redesignation in land use of the 16 sites identified by the City, would be served by existing infrastructure, including public roads, and government services or facilities. However, the General Plan Update and redesignation in land use of 16 parcels within the City will directly result in physical development. Any such development that is proposed would be evaluated for impacts to other public facilities at the time it is proposed, and any applicable fees and/or improvements would be made at that time.

Relevant Policies and Programs

No existing codes or regulations related to public services apply to the proposed General Plan Update.

Existing Regulations and Standard Conditions

No existing codes or regulations related to other public facilities apply to the proposed General Plan Update.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are necessary.

Level of Significance After Mitigation: Less than significant.

5.7.5 Cumulative Impacts

Cumulative growth would result in increased demand for public services. Generally, the growth in need for these services are incorporated into the adopted General Plan and the long range planning programs. Standard measures such as the payment of fees and incorporation of needed facilities were addressed in each cumulative project as determined appropriate in individual project analyses.

This section has analyzed the potential impacts to fire and police services, schools, libraries, parks, and other public facilities associated with the implementation of the proposed General Plan Update and concluded that no significant impacts would occur. As such, the project's contribution of cumulative impacts related to public services is less than considerable and, therefore, less than cumulatively significant.

5.7.6 Significant Unavoidable Adverse Impacts

There are no significant unavoidable adverse impacts related to public services.



5. *Environmental Analysis*

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5. Environmental Analysis

5.8 RECREATION AND OPEN SPACE

5.8.1 Methodology

This EIR section analyzes the potential for adverse impacts on existing recreational facilities and opportunities and the expansion of recreational facilities resulting from implementation of the proposed project. The Initial Study (Appendix A) identified the potential for impacts associated with increased demands on existing recreational facilities located within the City. The methodology utilized to establish potential impacts to recreation began with establishing the existing condition of recreational activities and facilities and the amount of parkland currently provided. This information was then compared to the amount of parkland that would be required to maintain existing service levels based on the projected population increases associated with the project. Data used to prepare this section came from the City's General Plan Parks and Recreation Element, from the U.S. Bureau of the Census (Census 2000), from the Southern California Association of Governments (SCAG) population projections, from telephone conversations with the City of Downey Planning Department and Parks and Recreation Department and from the Los Angeles County Parks Department website.

5.8.2 Existing Conditions

Open space provides a multitude of functions that are beneficial to the community; including park and recreation areas, recreational trails, conservation of natural and significant resources, buffers between land uses, and the preservation of scenic views. Since the City of Downey is primarily built-out; open space opportunities within the City are limited to community and neighborhood parks, schools, golf courses, a cemetery, riverbeds and utility easements. Downey's existing parks, recreational areas and playgrounds offer a variety of active and passive recreation activities. Both the City and private organizations sponsor recreation programs in Downey for residents of all ages.

There is a need for additional parks and recreational facilities in Downey. The City's goal is to provide 1.5 acres of parkland for every 1,000 residents. Downey currently has a population of 107,823,¹² which means that approximately 161 acres of parkland are needed to achieve this goal. At present, the City has approximately 106 acres of parkland per 1,000 residents, which means that approximately 60 additional acres of parkland are needed to meet the City's goal. However, there are no major remaining open space opportunities in the City. The City is examining the use of existing utility rights-of-way for the creation of additional recreational land.

Downey's parks are 40-50 years old, and maintenance and upgrading of existing parks and recreation facilities is necessary. Maintenance of recreation programs is also necessary. The City's Community Services Department manages the parks and recreation facilities, which are maintained by the Department of Public Works. Most Downey parks are staffed year round to meet the needs of the numerous community groups, reservations, athletic organizations and individuals using the parks. Park programs include special interest classes, athletic leagues, concerts in the parks, year round and summer recreation programs and special events.

Active versus Passive Open Space

Open space areas are, by design, either active or passive. Active recreation areas typically include facilities such as tailored playing surfaces, buildings, parking areas and similar modifications to a natural site. Passive recreation areas accommodate less structured recreational pursuits and typically include minor modifications such as trails, service vehicle access improvements, enhanced landscape materials and similar non-intrusive changes to the site.

¹² U.S. Bureau of the Census, Census 2000.



5. Environmental Analysis

Public Recreation and Open Space

The City of Downey has different types of public recreational open space areas, including special use parks, neighborhood parks; and community parks. The City operates all parks and several recreation facilities within the City. Approximately 106 acres in the City are devoted to 11 neighborhood, pocket and community parks, including fishing lakes at Wilderness Park, the Independence Park Tennis Center, and fitness courses at Furman and Apollo parks. The City also manages the 18-hole, 101-acre Rio Hondo Golf Course. The County of Los Angeles runs the 18-hole, 127-acre Los Amigos Golf Course, which is located within Downey city limits. Including parklands and golf courses, 329 acres of public open space exist in the City of Downey. Since the population of Downey is approximately 107,823, this equates to roughly 3.05 acres of public recreation and open space per every 1,000 residents in the City of Downey.

Neighborhood Parks and Pocket Parks

Neighborhood parks are parks to which people walk or bike, that are located within the neighborhood they serve. They are typically 5 to 15 acres in size and have a service radius of one-half mile. Neighborhood parks are located on separate properties and provide amenities determined through public participation, often including picnic areas, unlighted athletic fields, tot lots, court games, passive green space, restrooms, recreation and neighborhood center buildings and off-street parking. Pocket parks are small local parks that offer play areas for children. Table 5.8-1 lists the Neighborhood Parks and Pocket Parks currently serving the City of Downey.

**Table 5.8-1
Neighborhood and Pocket Parks Located
within the City of Downey**

| Name of Park | Size of Park (In Acres) | Location |
|-----------------------------------|--------------------------------|------------------|
| Apollo Park | 14.7 | Southwest Downey |
| Brookshire Children's Pocket Park | 1.6 | South Downey |
| Crawford Pocket Park | 2.2 | Northwest Downey |
| Dennis the Menace Park | 6.9 | Northeast Downey |
| Furman Park | 14.8 | Northwest Downey |
| Golden Park | 7.4 | South Downey |
| Independence Park | 12.5 | Southeast Downey |
| Temple Pocket Park | 0.5 | Southwest Downey |
| Treasure Island Park | 4.0 | Northwest Downey |
| Total Acreage | 64.6 | |

Community Parks

Community parks serve several neighborhoods and have a service radius of one to two miles. Their size ranges from 15 to 30 acres and they provide amenities similar to and larger than a neighborhood park. These amenities generally include lighted ball fields, tennis courts, and community centers or recreation buildings. Community parks are also designed for vehicular as well as pedestrian access. Table 5.8-2 shows the Community Parks located within the City of Downey.

5. Environmental Analysis

Table 5.8-2
Community Parks Located within the City of Downey

| Name of Park | Size of Park (In Acres) | Location |
|----------------------|--------------------------------|-----------------|
| Rio San Gabriel Park | 16 | East Downey |
| Wilderness Park | 26 | East Downey |
| Total Acreage | 42 | |

Additional Recreation

The City benefits from having the following additional recreational facilities:

Golf Courses: There are two 18-hole golf courses in the City. These are the Rio Hondo Golf Club, which is owned and operated by the City of Downey and the Los Amigos County Golf Course, owned by the County of Los Angeles and run by the City of Downey. Both golf courses also offer driving ranges. Both courses are located in East Downey adjacent to the Rio Hondo River.

Tennis Center: The City of Downey operates a tennis center at Independence Park, located in southeast Downey

Senior Center: The City of Downey's Senior Center is located at Apollo Park in southwest Downey.

Public Gymnasium: The City of Downey also operates a public gymnasium at Apollo Park.

Recreational Trails

The City of Downey offers walking trails in its public parks. In addition, there are County bike trails on both the San Gabriel and Rio Hondo riverbeds. The riding and hiking trail located along the San Gabriel Riverbed links residents to parks and community facilities in and adjacent to the City, including Wilderness Park and Rio San Gabriel Park in Downey and Santa Fe Springs Park in Santa Fe Springs. However, use of trail in the riverbed is limited by seasonal flooding. In addition, the City has identified a need to create a bike trail linking to the two riverbed trails. The City's existing General Plan suggests that the Southern Pacific Railroad right-of-way, which parallels Firestone Boulevard and runs east and west, could be developed for a connector bike trail.

Joint Use Agreements

School sites that are owned by the Downey Unified School District (the District) provide outdoor space to Downey residents during after-school hours on weekdays and all day on weekends. Although the District has first priority concerning the use of school grounds, the City has access rights to all gymnasiums, athletic fields and swimming pools when these facilities are not in use by the District.

To supplement its own recreational facilities, the City also enters into joint-use agreements with the Downey Unified School District for use of various school facilities for public recreation. These agreements include an agreement to use the swimming pool at Downey High School for swimming in the summer, and an agreement with the District to use the playing fields at various schools for baseball and softball. The majority of school open space and recreation facilities are typically limited in use to after school hours, weekends, and summer programs.



5. Environmental Analysis

Regional Parks

Seven regional parks, with a combined total of 13,455 acres, are located within the County of Los Angeles and are available for use by City residents.¹³ Table 5.8-3 shows these regional parklands.

| Name of Regional Facility | Acreage |
|--|----------------|
| Castaic Lake Recreation Area | 8,800 |
| Frank G. Bonelli Regional Park | 1,980 |
| Kenneth Hahn Recreation Area | 370 |
| Santa Fe Dam Recreation Area | 836 |
| Schabarum Regional Park | 640 |
| Whittier Narrows Recreation Area | 1,400 |
| William S. Hart Regional Park | 265 |
| Total Combined Regional Parklands | 13,455 |

Source: <http://parks.co.la.ca.us/regionaparks.html>

Castaic Lake Recreation Area is located in the City of Castaic, approximately 53 miles from the City of Downey. The Recreation Area contains two lakes. The upper lake is for sailing, power boating, water and jet skiing, fishing, boat rentals. The lower lake is for non-power boating, canoeing and swimming. Recreational activities in the Recreation Area include: hiking, biking trails, picnic areas, playgrounds, and recreational vehicle and tent camping. Group picnic areas are available for up to 600 persons.

Frank G. Bonelli Regional Park is located in the City of San Dimas, approximately 30 miles from the City of Downey. This park has a 250-acre lake for swimming, water skiing, wind surfing, sailing and fishing. Raging Waters, a water theme park, is located at the south end of the lake. There are boat rentals, hot tubs, an equestrian center and a wedding chapel available for rental. Other recreational amenities include: recreational vehicle camp sites, trails for hiking, biking and horseback riding, play equipment, gazebos, group rental picnic areas and food and beverage concessions.

Kenneth Hahn Recreation Area is located in the City of Los Angeles, approximately 21 miles from the City of Downey. Activities include hiking, fishing, and group and family picnicking. Other amenities include children's play areas, community center, and a man-made lake.

Santa Fe Dam Recreation Area is located in the City of Irwindale, approximately 19 miles from the City of Downey, and offers a 70-acre lake for sailing, swimming and fishing. Other features of the park include a children's water play area (open during summer), picnic areas, trails for biking and hiking, and campsites (for youth groups). Electric boats, rowboats and paddleboats are available to rent. A tackle and bait shop is also located in the park.

Schabarum Regional Park is located in the City of Rowland Heights, approximately 18 miles from the City of Downey. This wilderness park is comprised of open space and natural areas and contains picturesque canyons and rolling hills for hiking, biking and horseback riding. The park contains coastal sage scrub vegetation that provides a variety of plants and wildlife to observe. There is also an eighteen-station fitness trail. Other park features include: an equestrian center, picnic areas, soccer fields, and playgrounds.

¹³ Information on regional parks in Los Angeles County is provided by the Los Angeles County Parks Department at <http://parks.co.la.ca.us/regionaparks.html>.

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Whittier Narrows Recreation Area is located in the City of South El Monte, approximately 14 miles from the City of Downey. The park provides fishing lakes, picnic areas, playgrounds, a nature center, an equestrian facility, trails, a multipurpose athletic complex, a military museum, soccer fields, volleyball and tennis courts, and archery, skeet, pistol and trap ranges. Special events include carnivals, festivals and dog shows.

William S. Hart Regional Park is located in the City of Newhall, approximately 45 miles from the City of Downey. The park features a western art museum, barnyard animals, wild buffalo, and picnic facilities. The facility is also available for weddings and special events.

5.8.3 Thresholds of Significance

The criteria used to determine the significance of impacts on hazards and hazardous materials are taken from City-approved Thresholds of Significance based on the City's Initial Study and the model Initial Study checklist in Appendix G of the State CEQA Guidelines.

- Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
- Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

The following impact was found to be less than significant in the Initial Study prepared for the project and will not be analyzed in this EIR:

- Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?



5.8.4 Environmental Impacts and Mitigation Measures

Downey has many acres of open space, such as utility easements, cemetery, riverbeds, golf courses, parks and schools. However, certain areas of Downey are deficient in parks, creating a need for additional parks and recreational facilities, especially in the south. In addition, many of Downey's parks are 50 years old, making maintenance and upgrading of existing parks and facilities necessary.

IMPACT: *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

Impact Analysis: As of year 2000, Downey had a population of 107,823, a figure that is expected to increase to 121,063 by year 2030. This is an increase of approximately 13,484 people, or approximately 0.89 percent of the current population. The Whittier Narrows Recreation Area, Schabarum Regional Park and Santa Fe Dam Recreation Area are the regional parks located closest to Downey. Impacts of population growth in the City would be likely to impact these parks to a greater extent than it would regional parks located at a greater distance from the City. However, these impacts are not anticipated to be significant, since the increase in population that is anticipated to occur in sections of Downey as a result of implementation of the Downey Vision 2025 General Plan Update is very small in relationship to the overall population in the County of Los Angeles.

Downey has a current total of 106 acres dedicated to parks and recreational facilities. This equates to approximately 0.94 acre of parkland for every 1, 000 residents, based on year 2000 population data. As noted above, the population of Downey is expected to increase by 13,484 people to 121,063 by year

5. *Environmental Analysis*

2030,¹⁴ an increase of approximately 0.89 percent. If the population reaches this total and no new parkland are constructed, there would be approximately 0.83 acre of parkland for every 1,000 residents in the City. However, a new 13-acre community park is planned for a portion of the Downey Landing site formerly occupied by Boeing Space Systems. Construction of this park would bring the parkland acreage in the City to an approximate total of 114 acres, which would equate to 1.06 acres of parkland per 1,000 residents using current population data and to 0.94 acre of parkland per 1,000 residents using 2030 population estimates. The City of Downey does not currently have park design standards that specify a minimum or an optimal amount of parkland or open space per population. Comparing existing conditions with projected conditions in 2030, and assuming no additional parkland is created in the City, there would be no net loss or gain in the ratio of parkland to population due to implementation of the Downey Vision 2025 General Plan Update.

Because Downey is primarily built-out, the City does not have park dedication standards that require parkland will be developed as a condition of proposed residential development. Instead, under City of Downey Ordinance 624, adopted in 1989, the City charges an “In Lieu” fee, which is adjusted according to the Consumer Price Index. Currently, the Park In-Lieu fee is \$1,062.87 for each single-family unit and \$808.61 for each unit in a multi-family dwelling. These fees may be used to operate and maintain existing parks and recreation facilities.

In the past, the Downey Unified School District has sold off school sites to raise revenue and to dispose of underutilized schools. The Naylor Act, Education Code § 39391 and 39393, allows a public agency to purchase up to 30 percent of the total surplus school acreage. Under the Act, a school district must offer the surplus school acreage to the City in which the land is situated. The city must accept the offer within 60 days at a minimum sales price of 25 percent of the property’s fair market value. The City of Downey could use In-Lieu fees to purchase additional parks and recreation lands by acquiring surplus school acreage.

With development pursuant to the Downey Vision 2025 General Plan Update, the increase in residential development and population growth would, in general, be concentrated in certain areas of the City. Development pursuant to the Downey Vision 2025 General Plan Update would also result in the gradual phase-out of residential development in other areas of the City. Population growth in the City would increase use of existing neighborhood or community parks and adversely impact these facilities. In addition, altering current patterns of residential development in the City would in turn alter park and recreational facility use patterns and lead to increased use of those parks and recreation facilities in proximity to the areas of greater growth. This increased use would result in significant adverse impacts to these neighborhood or community parks and recreation areas.

However, the City wishes to improve the ratio of parkland to population by providing additional parkland and recreation opportunities for its residents and is actively attempting to do so, as reflected in the goals and policies set forth in the Downey Vision 2025 General Plan Update.

Goals, Policies and Programs Related to Parks and Recreation

The Downey Vision 2025 General Plan Update contains goals related to providing and maintaining an adequate amount of parks and recreational facilities in the City of Downey. These goals are included in Appendix A.

The Downey Vision 2025 General Plan Update also contains policies and programs related to providing and maintaining an adequate amount of parks and recreational facilities in the City of Downey. These policies and programs are included in Appendix A.

¹⁴ Downey Vision 2025 General Plan Update (based on SCAG projections).

5. Environmental Analysis

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures:

- MM 5.9-1 As future residential development applications are submitted, the City shall review each project and assess the feasibility of providing parkland on-site, rather than payment of in-lieu fees. At a minimum, redevelopment of sites larger than five acres would be considered appropriate for the provision of on-site parkland dedication.
- MM 5.9-2 The City shall review the feasibility of acquiring surplus school sites within the City for park and recreation purposes, pursuant to California Education Code Section 17485, which requires school districts to offer surplus property for sale or lease to cities for community playgrounds, playfields, or outdoor recreation purposes.

Level of Significance After Mitigation: Less than significant.

5.8.5 Cumulative Impacts

This cumulative impact analysis considers the impact of future development within the City pursuant to the proposed General Plan Update. Future population would generate a higher demand for recreational facilities and programs, and reduce the number of existing parkland per resident. An additional 13-acre park is proposed within the Downey Landing project, which will allow the City to maintain its current parkland percentage of 0.94 acre per 1,000 population. In addition, parkland In-lieu fees are required for new residential developments. As new residential projects are proposed, payment of in-lieu fees will allow the City to fund maintenance of existing recreational facilities and to provide new facilities at their existing parks. As a result, cumulative recreation impacts associated with implementation of the General Plan Update would be less than significant.



5.8.6 Unavoidable Adverse Impacts

There are no significant unavoidable adverse impacts related to recreation and open space.

5. *Environmental Analysis*

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5. *Environmental Analysis*

5.9 TRAFFIC AND CIRCULATION

5.9.1 Methodology

A traffic study was prepared by Urban Crossroads to determine the traffic related impacts that would be created by the proposed update of the Downey General Plan. The results of the Traffic Study are summarized below. The traffic study is included in this EIR as Appendix B.

5.9.2 Existing Conditions

The City of Downey is located in southeastern Los Angeles County. Figure 5.9-1 depicts the peak hour analysis locations and arterial roadway segments selected for analysis in coordination with City staff. Regional access to the City of Downey is provided by the I-5, I-605, and I-105 freeways, along with the following existing roadways:

- Old River School Road
- Paramount Boulevard
- Downey Avenue
- Brookshire Avenue
- Lakewood Boulevard
- Clark Avenue
- Bellflower Boulevard
- Woodruff Avenue
- Studebaker Road
- Telegraph Road
- Florence Avenue
- Firestone Boulevard
- Stewart & Gray Road
- Imperial Highway
- Gardendale/Foster Street
- Rosecrans Avenue
- Garfield Avenue

Regional Transportation System

Several transportation plans prepared by the City and other regional agencies focus on the regional transportation system. Plans and programs related to the General Plan include the following:

- City of Downey Master Plan of Streets and Highways - The City of Downey Master Plan of Streets and Highways comprises the currently adopted City of Downey General Plan circulation system. Designating roadways with specific arterial functional classifications, the City of Downey Master Plan of Streets and Highways serves to define the intended roadway system for the City. Surrounding cities are expected to achieve consistency with the regional plans in individual General Plan circulation elements.
- County of Los Angeles Congestion Management Program - Urbanized areas within the state of California such as Los Angeles County are required to adopt a Congestion Management Program (CMP). The goals of the CMP are to reduce traffic congestion and to provide a mechanism for coordinating land use development and transportation improvement decisions. Los Angeles County compiles the data and submits the results to the Southern California Association of

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Governments (SCAG) for a finding of regional consistency. The I-5, I-605 and I-105 freeways and SR-19 are roadway components of the Congestion Management Plan system.

- Regional Transportation Plan - The Regional Transportation Plan (RTP) is a component of the Regional Comprehensive Plan and Guide prepared by SCAG to address regional issues, goals, objectives, and policies for the Southern California region into the early part of the 21st century. The RTP, which SCAG periodically updates to address changing conditions in the Southland, has been developed with active participation from local agencies throughout the region, elected officials, the business community, community groups, private institutions, and private citizens. The RTP sets broad goals for the region and provides strategies to reduce problems related to congestion and mobility.

Existing Roadway Characteristics

Urban Crossroads, Inc. staff performed an extensive inventory to determine the City of Downey roadways existing conditions. Figure 5.9-2 presents the existing number of lanes on the arterial system. Figure 5.9-2 also illustrates the intersection controls. Figure 5.9-3 shows the existing intersection lane configurations at analysis locations selected by City staff. Existing roadway speed limits are shown on Figure 5.9-4. Truck routes within the City are shown on Figure 5.9-5.

The currently adopted Master Plan of Streets and Highways is shown on Figure 5.9-6. The City of Downey General Plan roadway cross-sections are shown on Figure 5.9-7. These sections represent desirable standards, but variation in right-of-way width and specific road improvements will occur in certain cases due to physical constraints and/or right-of-way limitations.

In particular, the median width of Major Arterials will vary according to the area being served, right-of-way constraints and turn lane requirements. Any of the arterial classifications may deviate from the standards where physical constraints exist or where preservation of community character dictates special treatment. Bikeways and sidewalks also affect the specific standards applied to various facilities. Parking restrictions allow wider usable roadway width during periods when the restriction is in place. Parking restrictions on study area arterial roadways vary throughout the city. Many on-street parking restrictions vary on a block-by-block basis or even within individual blocks. In general parking restrictions increase roadway capacity, with the maximum benefit occurring when parking is prohibited altogether. The overriding circulation goal is that all roadways carry the design volumes of traffic at the desired level of service.

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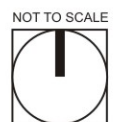
Location Map



Source: Urban Crossroads

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Existing Through Lanes & Intersection Controls



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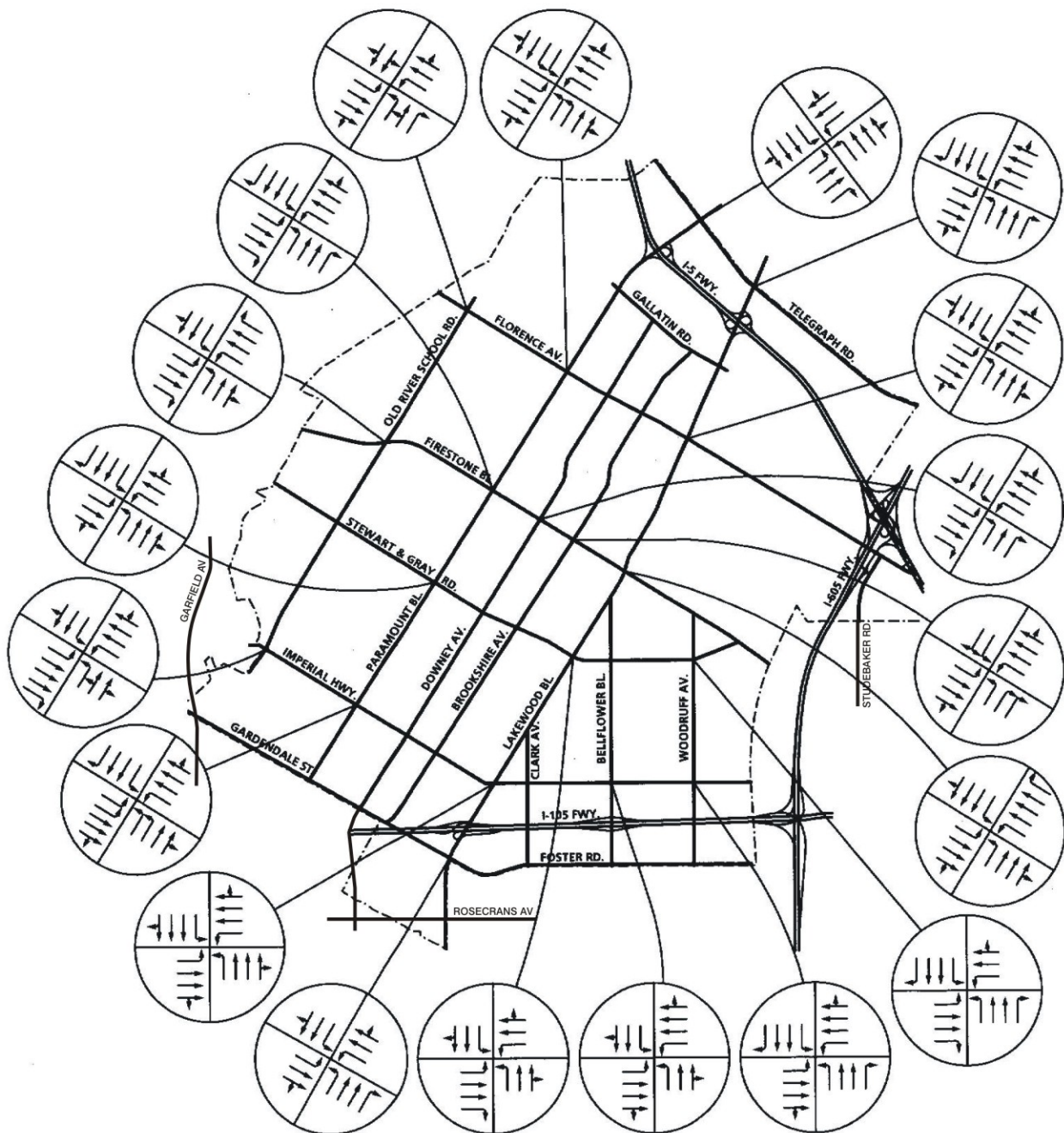


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Existing Intersection Lane Configurations



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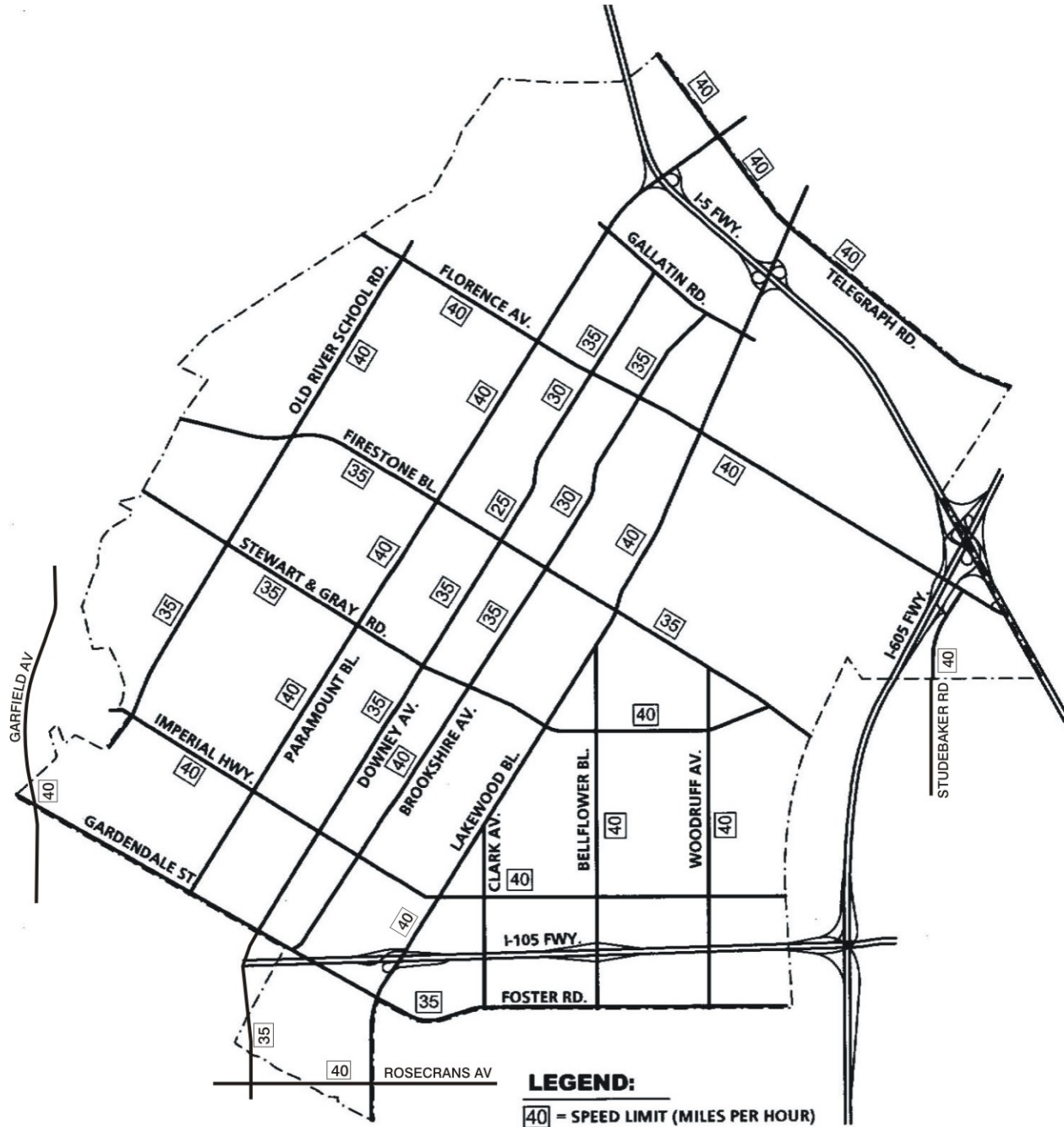


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Existing Roadway Speed Limits



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Source: Urban Crossroads

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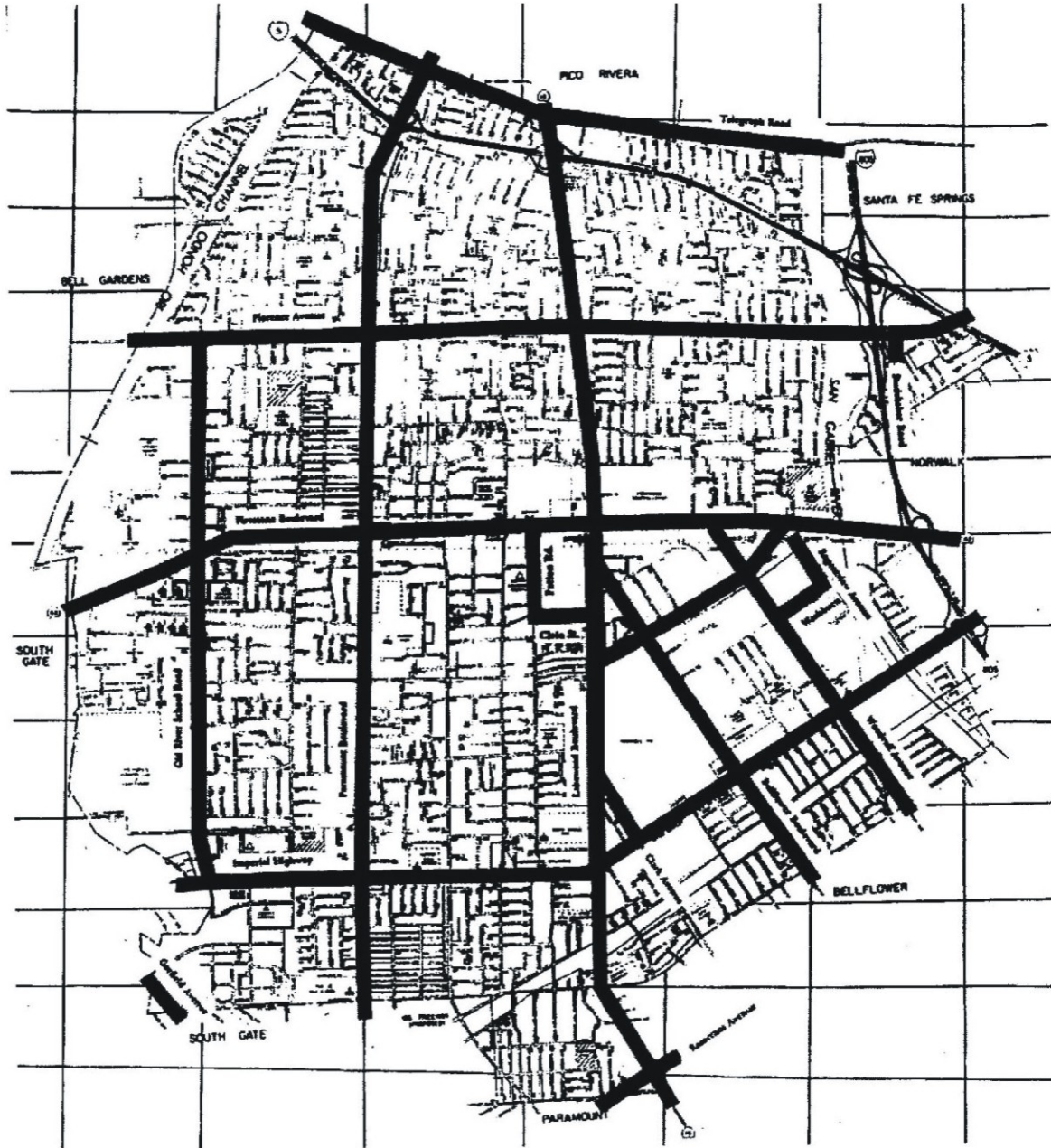
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City of Downey Existing Truck Routes



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 = Existing Truck Routes

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Source: Urban Crossroads

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City of Downey Currently Adopted Master Plan of Streets & Highways



Source: Urban Crossroads

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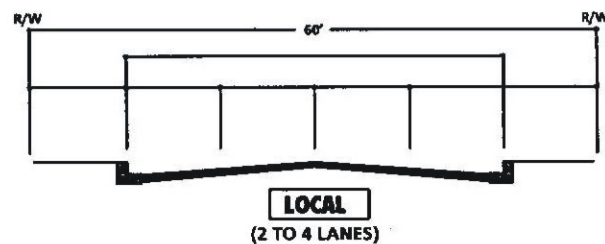
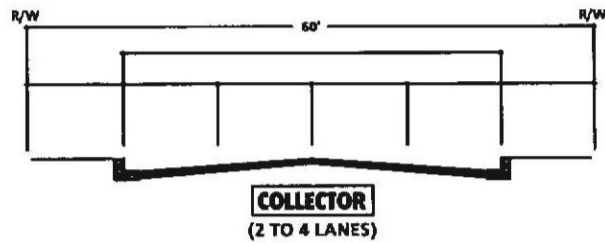
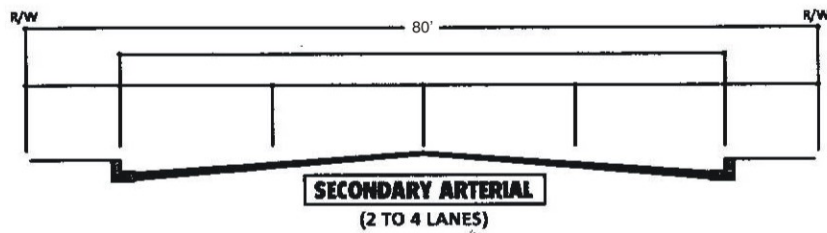
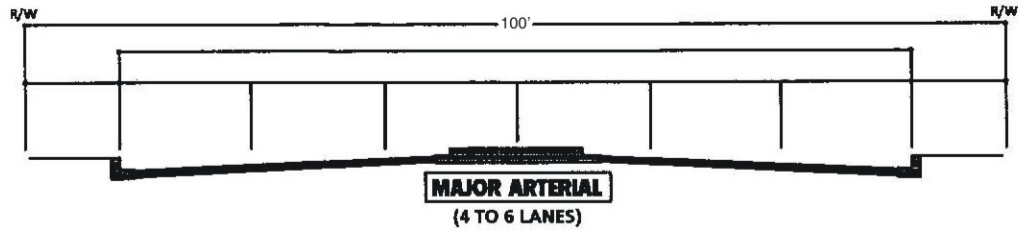
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City of Downey General Plan Roadway Cross Sections



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Performance Criteria

For this General Plan update study, the technical evaluation of the City of Downey roadway system has been conducted using volume-to-capacity (V/C) ratios for roadway segments. V/C ratios are calculated based on existing or future average daily traffic (ADT) volumes and daily capacity values for the various types of arterials. A level of service (LOS) scale is used to evaluate roadway performance based on V/C ratios. The levels range from "A" to "F" with LOS "A" representing free flow conditions and LOS "F" representing severe traffic congestion.

Various LOS policy standards have been established for evaluating observed traffic conditions, future development plans, and circulation system modifications. At the regional planning level, the statewide Congestion Management Plan (CMP) specifies LOS "E" (V/C ratio less than or equal to 1.00) as the operating standard for roadways on the CMP highway system. Based on direction from City staff, the City of Downey strives to maintain LOS "D" on the roadway system. However, under extraordinary circumstances (e.g., intersection configuration beyond typical engineering practice of dual-left turn and one-right turn lane). LOS "E" could be considered acceptable. This traffic study evaluates the improvements necessary to provide LOS "E" and LOS "D" service levels and identifies locations where the improvements required to provide LOS "D/E" exceeds the typical engineering practice previously described. The above LOS standards have been used to evaluate City arterial roadways.

Table 5.9-1 shows roadway capacity values for the different roadway classifications. A roadway is considered to be a divided roadway if a median area is present. The median can either be painted or delineated by a raised island, interrupted by left turn pockets where necessary. The daily capacity values are used for calculating roadway V/C ratios. Due to the generalized nature of ADT capacities, the values are typically viewed as general rather than absolute guides for estimating levels of service and sizing the future roadway system. Table 5.9-1 includes a second set of capacities reflecting the increase in roadway capacity that can be expected when Transportation Systems Management (TSM) measures are implemented. TSM measures include various strategies, such as signal interconnect, intersection widening, and access management (e.g., raised medians, eliminating/restricting on-street parking, deceleration lanes at major centers, joint property access, etc.). The 7% increase in capacity/reduction in delays shown on Table 5.9-1 is consistent with research results regarding the effectiveness of TSM measures. In addition, roadway segment capacity is also increased when augmented lanes are provided as necessary at key intersections. Capacity increases can vary from 5 to 20%, depending on the roadway segments' individual traffic patterns and the spot improvements (augmented intersection lanes) implemented.

**Table 5.9-1
Roadway Link Capacity ¹**

| Roadway Geometry Classification | Capacity (LOS "E") | Capacity with TSM ² Measures |
|--|---------------------------|--|
| Two Lanes Undivided (2U) | 12,500 Vehicles Per Day | 13,400 |
| Four Lanes Undivided (4U) | 25,000 Vehicles Per Day | 26,800 |
| Four Lanes Divided (4D) | 37,500 Vehicles Per Day | 40,100 |
| Six Lanes Divided (6D) | 56,300 Vehicles Per Day | 60,200 |
| Eight Lanes Divided (8D) | 75,000 Vehicles Per Day | 80,300 |

¹ These roadway capacities are approximate figures only, and are used at the General Plan level. They are affected by such factors as intersections (numbers & configuration), degrees of access control, roadway grades, design geometrics (horizontal & vertical alignment) and traffic variation on a temporal basis.

² Transportation System Management (TSM) measures consist of operational enhancements, including (but not limited to) traffic signal interconnections, traffic signal timing optimization, parking restrictions, incident management, and intersection widening, and access management (e.g., raised medians, deceleration lanes at major centers, joint property access, etc.)

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Table 5.9-2 shows the V/C ranges associated with each LOS.

| <i>LOS</i> | <i>Roadway Segment Volume to Capacity (V/C) Ratio</i> | | |
|------------|---|---|-------|
| A | 0 | - | 0.6 |
| B | 0.61 | - | 0.7 |
| C | 0.71 | - | 0.8 |
| D | 0.81 | - | 0.9 |
| E | 0.91 | - | 1.00 |
| F | | | >1.00 |

Source: ITE Manual

The operation of major roadways will be monitored. As the V/C ratio exceeds the LOS standards, roadway capacity will be expanded by restricting on-street parking, improving signal timing, widening intersections, and adding through and turn lanes. Where the City determines that proposed development projects will cause LOS standards to be exceeded, appropriate mitigation can be required to improve roadways to meet LOS standards.

Existing traffic count data for the study area were assembled by Urban Crossroads, Inc. staff. Traffic count data is included in Appendix A to the project traffic study. Existing Average Daily Traffic (ADT) volumes are shown on Figures 5.9-8. The data is expressed in terms of passenger car equivalents (PCEs) to account for the presence of heavy vehicles (large trucks, etc.) in the traffic stream. A PCE factor of 3.0 has been used in the traffic study. A brief description of each roadway follows.

Arterial Roadways

Telegraph Road is classified as a Major Arterial on the Master Plan of Streets and Highways. It is currently a four lane divided roadway in the study area. Telegraph Road carries approximately 33,300 and 39,900 vehicles per day (VPD) between Paramount Boulevard and Lakewood Boulevard.

Florence Avenue is classified as a Major Arterial on the Master Plan of Streets and Highways. It is currently a six lane divided roadway through the study area. This stretch carries between 31,000 and 46,500 VPD.

Firestone Boulevard is classified as a Major Arterial on the Master Plan of Streets and Highways. It is a four to six lane divided roadway through the study area. This stretch carries from 37,700 to 60,600 VPD.

Stewart and Gray Road is classified as a Secondary Highway. It is a four lane divided roadway that varies between a divided and undivided cross-section. It carries between 12,700 and 22,500 VPD in the existing conditions.

Imperial Highway is classified as a Major Arterial. It is constructed as a six lane divided highway under existing conditions. It carries between 33,800 and 41,100 VPD.

Gardendale/Foster Road is classified as a Secondary Highway. It is constructed as a four lane undivided roadway. It carries between 3,500 and 12,800 VPD.

Old River School Road is classified as a Secondary Highway. It is generally a four (4) lane undivided roadway (with some divided sections) and carries from 13,000 to 16,600 VPD in the study area.

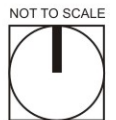
Paramount Boulevard is a four lane divided Major Arterial. It carries 28,800 to 43,000 VPD in the study area.

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Existing Average Daily Traffic (ADT)



Source: Urban Crossroads



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Downey Avenue is generally a four lane undivided Secondary Highway with variations in cross-sections from two lane undivided to four lane divided. Downey Avenue is currently carrying 8,900 to 12,600 VPD.

Brookshire Avenue is also generally a four lane undivided Secondary Highway with variations in cross-section from a two lane undivided roadway to a four lane divided roadway. Brookshire Avenue is currently carrying 5,100 to 19,200 VPD.

Rosemead Bl./Lakewood Bl. is classified as a Major Arterial. It is constructed as a four lane divided roadway with a short stretch in the vicinity of the I-5 Freeway constructed as a six lane divided facility. It carries 31,500 to 42,400 VPD. The City is currently planning on widening a portion of Lakewood Boulevard. The City has prepared a negative declaration to cover this widening project and will prepared additional environmental documentation to cover all project environmental impacts.

Clark Avenue is a four lane undivided Secondary Highway carrying 10,200 to 14,800 VPD.

Bellflower Boulevard is classified as a four lane undivided Secondary Highway carrying 21,300 to 35,200 VPD.

Woodruff Avenue is classified as a four lane undivided Major Arterial carrying 21,000 to 24,000 VPD.

Roadway Segment Daily Capacity Analysis

Roadway system performance is generally described in terms of LOS. Daily roadway segment analysis requires calculating the daily traffic volume divided by the roadway capacity (shown in Table 5.9-1). The resulting V/C ratio may then be compared to the LOS ranges expressed in terms of the letter grades LOS "A" through LOS "F". Much like a report card, LOS "A" represents the highest or best LOS, while LOS "F" represents the lowest or worst LOS. During peak hours, LOS "A" to "D" are acceptable (at a minimum). Each LOS can be summarized as follows:

LOS A -LOS "A" conditions are characterized by free flow operations. Vehicles are unimpeded in their ability to maneuver within the traffic stream, and stopped delay at intersections is minimal.

LOS B -LOS "B" conditions are characterized by travel speeds which are within 70% of free flow operational speeds. Vehicles are slightly restricted in their ability to maneuver within the traffic stream, and stopped delay at intersections is not bothersome to most drivers.

LOS C -LOS "C" conditions are characterized as stable operations. The ability to maneuver and change lanes may be somewhat restricted, and travel speeds may drop to 50% of free flow speeds. Some queuing typically occurs at signalized intersections, however all vehicles clear the intersection on all or nearly all cycles.

LOS D -LOS "D" conditions are characterized by high density traffic flows. Travel speeds may range as low as 40% of free flow operational speeds. Vehicles are restricted in their ability to maneuver within the traffic stream, and one or more vehicles may not clear the intersection within a single signal cycle on a regular basis.

LOS E -LOS "E" conditions are characterized as operations at or near capacity. There is little or no freedom to maneuver within the traffic stream. Comfort and convenience levels are low, and driver frustration is generally high. Operations at this level are generally unstable, with even minor disturbances or disruptions resulting in the breakdown of operations and substantially increased delays. The failure of vehicles to clear an intersection in a single cycle is a regular occurrence.

LOS F -LOS "F" conditions represent forced or breakdown flow. The traffic volume approaching location exceeds the capacity of the system at that location. Intersections often become the focal point for roadway

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system failure. Operations are characterized by extensive queues and long delays. Some or all vehicles fail to clear the intersection during every signal cycle.

The daily capacity of a roadway correlates to a number of widely varying factors, including traffic peaking characteristics, traffic turning volumes, and the volume of traffic on crossing streets. The daily capacities are therefore most appropriately used for long range General Plan analysis, or as a screening tool to determine the need for more detailed peak hour analysis.

Roadway link capacity analysis has been performed at locations where existing count data was available. Table 5.9-3 contains the results of this analysis. Several study area roadways have volume/capacity ratios greater than 0.90, confirming the need for more detailed peak hour analysis. Roadways with one or more segments carrying volumes exceeding a V/C ratio of 0.90 include:

- Telegraph Road
- Firestone Boulevard
- Paramount Boulevard
- Downey Avenue
- Brookshire Avenue
- Lakewood Boulevard
- Bellflower Boulevard

Intersection analysis locations are shown on Figure 5.9-9. Whereas the City of Downey has many critical intersections, nineteen intersections were selected for the purpose of analogizing bottleneck areas. These included nearly all intersections of major (to major) arterial as well as many other key intersections. Existing AM and PM peak hour intersection volumes are shown on Figures 5.9-10 and 5.9-11, respectively. Count data sheets appear in Appendix A of the project Traffic Study. Existing Intersection Operations Analysis has been performed, and is included in Appendix B of the project Traffic Study. Table 5.9-4 summarizes the results of this analysis. As shown on Table 5.9-4, five intersections during the AM peak hours and ten intersections during the PM peak hours are operating at a deficient (LOS "E" or "F") level of service. Table 5.9-5 summarizes the intersection LOS by LOS level. Many, but not all, of the deficient intersections are located along roadways where a daily deficiency was identified.

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**Table 5.9-3
Existing Roadway Segment Volume to Capacity Analysis**

| Street | Road Segment | Roadway Classification | Roadway Capacity | Existing ADT | Volume to Capacity Ratio (V/C) |
|---------------------------|--|-------------------------------|-------------------------|---------------------|---------------------------------------|
| Telegraph Rd. | WCL - Paramount | 4U | 25,000 | 33,347 | 1.33 |
| | Paramount-Lakewood | 4D | 37,500 | 37,752 | 1.01 |
| | Lakewood-I605 | 4D | 37,500 | 39,896 | 1.06 |
| Gallatin Rd. | Paramount Blvd.-Downey Ave. | 4U | 25,000 | 8,500 | 0.34 |
| | Downey Ave.-Brookshire Ave. | 4U | 25,000 | 10,700 | 0.43 |
| Florence Ave. | Garfield Ave.- Old River School Rd. | 6D | 56,300 | 41,235 | 0.73 |
| | Old River School Rd.-Paramount Blvd. | 6D | 56,300 | 46,529 | 0.83 |
| | Paramount Blvd.-Downey Ave. | 6D | 56,300 | 37,767 | 0.67 |
| | Downey Ave.-Brookshire Ave. | 6D | 56,300 | 35,745 | 0.63 |
| | Brookshire Ave.-Lakewood Blvd. | 6D | 56,300 | 38,960 | 0.69 |
| | Lakewood Blvd.-I605 | 6D | 56,300 | 44,750 | 0.79 |
| Firestone Blvd. | Garfield Ave.- Old River School Rd. | 4D | 37,500 | 48,121 | 1.28 |
| | Old River School Rd.-Paramount Blvd. | 4D | 37,500 | 37,961 | 1.01 |
| | Paramount Blvd.-Downey Ave. | 6D | 56,300 | 38,061 | 0.68 |
| | Downey Ave.-Brookshire Ave. | 6D | 56,300 | 37,682 | 0.67 |
| | Brookshire Ave.-Lakewood Blvd. | 6D | 56,300 | 48,240 | 0.86 |
| | Lakewood Blvd.-Woodruff Ave. (South) | 6D | 56,300 | 50,037 | 0.89 |
| | Woodruff Ave. (South)-Stewart & Gray Rd. | 6D | 56,300 | 51,767 | 0.92 |
| | Stewart & Gray Rd - ECL | 6D | 56,300 | 60,589 | 1.08 |
| Stewart and Gray Rd. | Garfield Ave.-Old River School Rd. | 4D | 37,500 | 12,710 | 0.34 |
| | Old River School Rd.-Paramount Blvd. | 4U | 25,000 | 21,668 | 0.87 |
| | Paramount Blvd.-Downey Ave. | 4U | 25,000 | 22,468 | 0.90 |
| | Downey Ave.-Brookshire Ave. | 4D | 37,500 | 19,868 | 0.53 |
| | Brookshire Ave.-Lakewood Blvd. | 4D | 37,500 | 19,327 | 0.52 |
| | Lakewood Blvd.-Bellflower Blvd. | 4D | 37,500 | 16,517 | 0.44 |
| | Bellflower Blvd.-Woodruff Ave. | 4D | 37,500 | 16,130 | 0.43 |
| | Woodruff Ave.-Firestone Blvd. | 4D | 37,500 | 13,750 | 0.37 |
| Imperial Hwy. | Garfield Ave.-Old River School Rd. | 6D | 56,300 | 37,384 | 0.66 |
| | Old River School Rd.-Paramount Blvd. | 6D | 56,300 | 35,268 | 0.63 |
| | Paramount Blvd.-Downey Ave. | 6D | 56,300 | 34,391 | 0.61 |
| | Downey Ave.-Brookshire Ave. | 6D | 56,300 | 33,837 | 0.60 |
| | Brookshire Ave.-Lakewood Blvd. | 6D | 56,300 | 34,096 | 0.61 |
| | Lakewood Blvd.-Clark Ave. | 6D | 56,300 | 40,851 | 0.73 |
| | Clark Ave.-Bellflower Blvd. | 6D | 56,300 | 38,540 | 0.68 |
| | Bellflower Blvd.-Woodruff Ave. | 6D | 56,300 | 41,149 | 0.73 |
| | Woodruff Ave. -- ECL | 6D | 56,300 | 37,092 | 0.66 |
| Gardendale St./Foster Rd. | Garfield Ave.-Paramount Blvd. | 4U | 25,000 | 10,900 | 0.44 |
| | Paramount Blvd.-Downey Ave. | 4D | 37,500 | 10,410 | 0.28 |
| | Downey Ave.-Brookshire Ave. | 4D | 37,500 | 10,406 | 0.28 |
| | Brookshire Ave.-Lakewood Blvd. | 4D | 37,500 | 12,806 | 0.34 |
| | Lakewood Blvd.-Clark Ave. | 4U | 25,000 | 8,884 | 0.36 |
| | Clark Ave.-Bellflower Blvd. | 4U | 25,000 | 9,284 | 0.37 |
| | Bellflower Blvd.-Woodruff Ave. | 4U | 25,000 | 9,358 | 0.37 |
| Old River School Rd. | Woodruff Ave. - ECL | 4D | 37,500 | 3,472 | 0.09 |
| | Florence Ave.-Firestone Blvd. | 4U | 25,000 | 16,630 | 0.67 |
| | Firestone Blvd.-Stewart & Gray Rd. | 4U | 25,000 | 12,984 | 0.52 |
| | Stewart & Gray Rd.-Imperial Hwy. | 4U | 25,000 | 14,168 | 0.57 |

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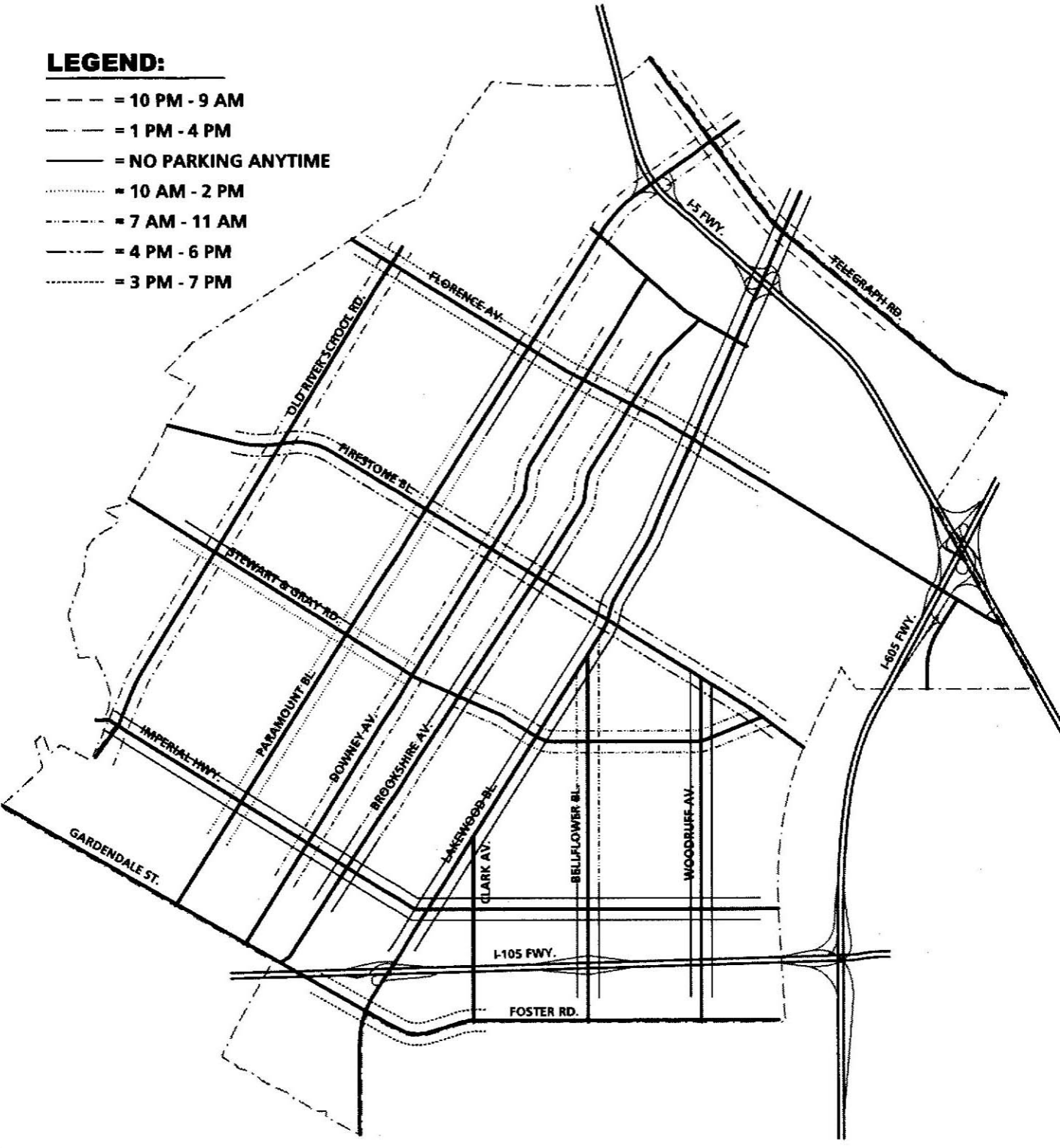
**Table 5.9-3
Existing Roadway Segment Volume to Capacity Analysis**

| Street | Road Segment | Roadway Classification | Roadway Capacity | Existing ADT | Volume to Capacity Ratio (V/C) |
|------------------|--|-------------------------------|-------------------------|---------------------|---------------------------------------|
| Paramount Blvd. | Telegraph Rd.- I-5 Fwy. | 4D | 37,500 | 39,412 | 1.05 |
| | I-5 Fwy. - Gallatin Rd. | 4D | 37,500 | 40,726 | 1.09 |
| | Gallatin Rd.-Suva St. | 4D | 37,500 | 43,025 | 1.15 |
| | Suva St.-Florence Ave. | 4D | 37,500 | 39,869 | 1.06 |
| | Florence Ave.-Firestone Blvd. | 4D | 37,500 | 41,684 | 1.11 |
| | Firestone Blvd.-Stewart & Gray Rd. | 4D | 37,500 | 29,411 | 0.78 |
| | Stewart & Gray Rd.-Imperial Hwy. | 4D | 37,500 | 28,811 | 0.77 |
| | Imperial Hwy-Gardendale St./Foster Rd. | 4D | 37,500 | 28,864 | 0.77 |
| Downey Ave. | Gallatin Rd.-Florence Ave. | 4U | 25,000 | 8,913 | 0.36 |
| | Florence Ave.-Firestone Blvd. | 2U | 13,400 | 12,210 | 0.91 |
| | Firestone Blvd.-Stewart & Gray Rd. | 4U | 25,000 | 12,610 | 0.50 |
| | Stewart & Gray Rd.-Imperial Hwy. | 4U | 25,000 | 12,553 | 0.50 |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 4U | 25,000 | 11,800 | 0.47 |
| Brookshire Ave. | Gallatin Rd.-Florence Ave. | 4U | 25,000 | 6,600 | 0.26 |
| | Florence Ave.-Firestone Blvd. | 2U | 13,400 | 12,670 | 0.95 |
| | Firestone Blvd.-Stewart & Gray Rd. | 4U | 25,000 | 19,200 | 0.77 |
| | Stewart & Gray Rd.-Imperial Hwy. | 4U | 25,000 | 9,800 | 0.39 |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 4U | 25,000 | 5,100 | 0.20 |
| Lakewood Blvd | Telegraph Rd.-I-5 | 4D | 37,500 | 36,434 | 0.97 |
| | I-5 -Gallatin Rd. | 6D | 56,300 | 38,262 | 0.68 |
| | Gallatin Rd.-Florence Ave. | 4D | 37,500 | 34,492 | 0.61 |
| | Florence Ave.-Firestone Blvd. | 4D | 37,500 | 42,380 | 0.75 |
| | Firestone Blvd.-Stewart & Gray Rd. | 4D | 37,500 | 32,461 | 0.87 |
| | Stewart & Gray Rd.-Imperial Hwy. | 4D | 37,500 | 31,468 | 0.84 |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 4D | 37,500 | 32,792 | 0.87 |
| Clark Ave. | Lakewood Blvd.-Imperial Hwy. | 4D | 37,500 | 10,155 | 0.27 |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 4U | 25,000 | 14,837 | 0.59 |
| Bellflower Blvd. | Lakewood Blvd.-Stewart & Gray Rd. | 4D | 37,500 | 21,298 | 0.57 |
| | Stewart and Gray Rd.-Imperial Hwy. | 4D | 37,500 | 21,458 | 0.57 |
| | Imperial Hwy.-I-105 WB Ramps | 4D | 37,500 | 34,691 | 0.93 |
| | I-105 EB Ramps-Gardendale St./Foster Rd. | 4D | 37,500 | 35,196 | 0.94 |
| Woodruff Ave. | Firestone Blvd.-Stewart & Gray Rd. | 4U | 37,500 | 23,955 | 0.64 |
| | Stewart & Gray Rd.-Imperial Hwy. | 4U | 37,500 | 20,968 | 0.56 |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 4U | 37,500 | 20,920 | 0.56 |

Source: Urban Crossroads.

LEGEND:

- - - - = 10 PM - 9 AM
- · - · = 1 PM - 4 PM
- = NO PARKING ANYTIME
- = 10 AM - 2 PM
- · - · - · = 7 AM - 11 AM
- = 4 PM - 6 PM
- · - · - · = 3 PM - 7 PM



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5. Environmental Analysis

Existing AM Peak Hour Intersection Volumes



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Source: Urban Crossroads

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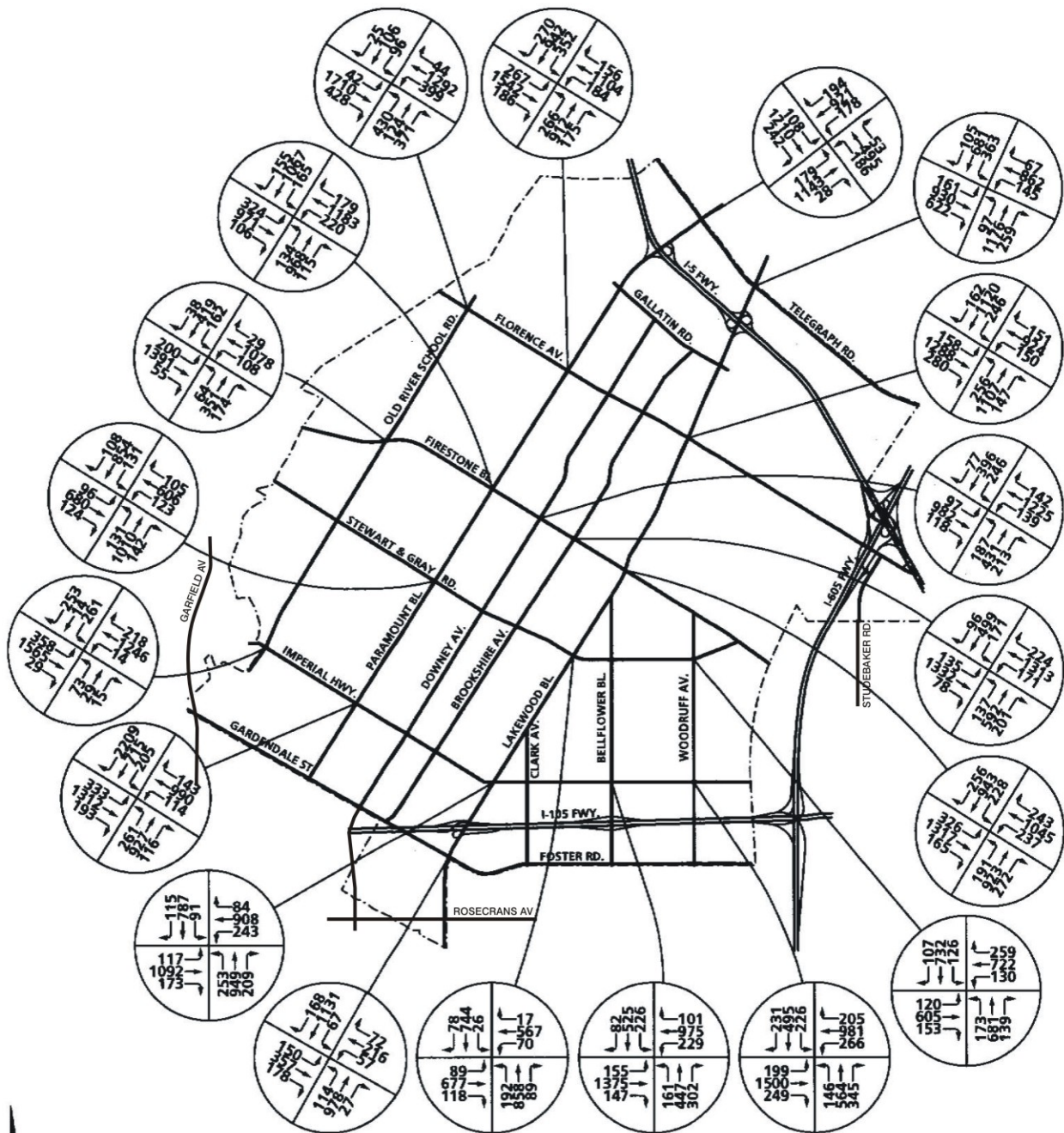
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5. Environmental Analysis

Existing PM Peak Hour Intersection Volumes



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Source: Urban Crossroads

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**Table 5.9-4
Intersection Analysis Summary For Existing Conditions**

| Intersection | Traffic Control ³ | Intersection Approach Lanes ¹ | | | | | | | | | | | | Delay ² (Secs.) | | Level of Service | | |
|-------------------------------|------------------------------|--|-----|---|-------------|-----|---|------------|---|---|------------|---|---|----------------------------|-----------------|------------------|----|--|
| | | North-Bound | | | South-Bound | | | East-Bound | | | West-Bound | | | AM | PM | AM | PM | |
| | | L | T | R | L | T | R | L | T | R | L | T | R | | | | | |
| Old River School Rd. (NS) at: | | | | | | | | | | | | | | | | | | |
| • Florence Av. (EW) | TS | 1.5 | 0.5 | 1 | 0.5 | 1.5 | 0 | 1 | 3 | 0 | 1 | 2 | 0 | 50.9 | -- ⁴ | D | F | |
| • Firestone Bl. (EW) | TS | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 1 | 1 | 2 | 1 | 32.9 | 47.1 | C | D | |
| • Imperial Hw. (EW) | TS | 1.5 | 1.5 | 0 | 1.5 | 1.5 | 0 | 1 | 3 | 1 | 1 | 3 | 0 | 40.1 | 35.1 | D | D | |
| Paramount Bl. (NS) at: | | | | | | | | | | | | | | | | | | |
| • Telegraph Rd. (EW) | TS | 1 | 2 | 1 | 1 | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | 69.9 | F | E | |
| • Florence Av. (EW) | TS | 2 | 2 | 0 | 2 | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F | |
| • Firestone Bl. (EW) | TS | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 0 | 48.7 | -- ⁴ | D | F | |
| • Stewart & Gray Rd. (EW) | TS | 1 | 3 | 0 | 1 | 2 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | 36.4 | 33.2 | D | C | |
| • Imperial Hw. (EW) | TS | 2 | 2 | 0 | 1 | 2 | 1 | 2 | 3 | 0 | 1 | 3 | 0 | 36.6 | -- ⁴ | D | F | |
| Downey Av. (NS) at: | | | | | | | | | | | | | | | | | | |
| • Firestone Bl. (EW) | TS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 3 | 0 | 25.0 | 32.6 | C | C | |
| Brookshire Av. (NS) at: | | | | | | | | | | | | | | | | | | |
| • Firestone Bl. (EW) | TS | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 23.1 | 34.8 | C | C | |
| Lakewood Bl. | | | | | | | | | | | | | | | | | | |
| • Telegraph Rd. (EW) | TS | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 0 | 1 | 3 | 0 | 69.1 | -- ⁴ | E | F | |
| • Florence Av. (EW) | TS | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 57.9 | -- ⁴ | E | F | |
| • Firestone Bl. (EW) | TS | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 1 | 55.8 | 61.2 | E | E | |
| • Stewart & Gray Rd. (EW) | TS | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 1 | 1 | 2 | 0 | 35.4 | 34.1 | D | D | |
| • Imperial Hw. (EW) | TS | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 39.4 | 48.3 | D | D | |
| • Foster Rd. (EW) | TS | 1 | 2 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 31.7 | 36.5 | C | D | |
| Bellflower Bl. (NS) at: | | | | | | | | | | | | | | | | | | |
| • Imperial Hw. (EW) | TS | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 40.4 | -- ⁴ | D | F | |
| Woodruff Av. (NS) at: | | | | | | | | | | | | | | | | | | |
| • Stewart & Gray Rd. (EW) | TS | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 0 | 13.1 | 29.3 | B | C | |
| • Imperial Hw. (EW) | TS | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 0 | 1 | 3 | 0 | 40.2 | -- ⁴ | D | F | |

¹ When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right

² Delay and level of service calculated using Synchro analysis software. Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic, traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown.

³ TS = Traffic Signal

⁴ -- = Delay High, Intersection Unstable, Level of Service "F".

Source: Urban Crossroads

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**Table 5.9-5
Existing Conditions Level of Service Summary**

| <i>Intersection</i> | <i>LOS "A"</i> | | <i>LOS "B"</i> | | <i>LOS "C"</i> | | <i>LOS "D"</i> | | <i>LOS "E"</i> | | <i>LOS "F"</i> | |
|--|----------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|------------------|
| | <i>AM</i> | <i>PM</i> | <i>AM</i> | <i>PM</i> | <i>AM</i> | <i>PM</i> | <i>AM</i> | <i>PM</i> | <i>AM</i> | <i>PM</i> | <i>AM</i> | <i>PM</i> |
| Old River School Rd. (NS) at: • Florence Av. (EW) • Firestone Bl. (EW) • Imperial Hw. (EW) | | | | | X | | X | X | | | | X |
| Paramount Bl. (NS) at: • Telegraph Rd. (EW) • Florence Av. (EW) • Firestone Bl. (EW) • Stewart & Gray Rd. (EW) • Imperial Hw. (EW) | | | | | | X | X | X | | X | | X X X X |
| Downey Av. (NS) at: • Firestone Bl. (EW) | | | | | X | X | | | | | | |
| Brookshire Av. (NS) at: • Firestone Bl. (EW) | | | | | X | X | | | | | | |
| Lakewood Bl. • Telegraph Rd. (EW) • Florence Av. (EW) • Firestone Bl. (EW) • Stewart & Gray Rd. (EW) • Imperial Hw. (EW) • Foster Rd. (EW) | | | | | | | | X X | X X | X X | | X X |
| Bellflower Bl. (NS) at: • Imperial Hw. (EW) | | | | | | | X | | | | | X |
| Woodruff Av. (NS) at: • Stewart & Gray Rd. (EW) • Imperial Hw. (EW) | | | X | | X | | X | | | | | X |
| TOTAL | | | 1 | | 4 | 4 | 9 | 5 | 3 | 2 | 2 | 8 |

Source: Urban Crossroads

Alternative Travel Modes

Public transportation and alternative modes of travel, such as bicycling and walking, are an important component of a comprehensive circulation system. Public and alternative modes of transportation offer an alternative to the use of automobiles and help reduce air pollution and road congestion. To promote the increased usage of these modes of transportation, adequate facilities must be provided.

Trail System

Los Angeles County has established bikeways in various locations throughout the County. No comprehensive summary is available. A Class I bikeway (off-road) provides a completely separated right-of-way designated for the exclusive use of bicycles and pedestrians. Crossflows with motorized

5. Environmental Analysis

vehicles are minimized. Very few opportunities for Class I bikeways are available in the City of Downey. However, Class I bikeways are currently provided along the San Gabriel River and Rio Hondo Flood Control Channels in the City of Downey.

A Class II bikeway (on-road) provides a restricted right-of-way on a roadway's shoulder designated for the exclusive or semi-exclusive use of bicycles. Through travel by motor vehicles or pedestrians is prohibited. Crossflows by pedestrians and motorists are permitted. Vehicle parking is prohibited. Opportunities for Class II bikeways may exist on some of the less heavily utilized arterial roadways in the City of Downey.

MTA (the Los Angeles County public transportation agency) is working to encourage bike use in conjunction with bus riding. According to the agency website www.mta.net, many rail stations have bike parking (lockers and racks). An inventory of bike parking is conducted quarterly to determine if additional lockers/racks are needed and to keep available amenities in operating order. Lockers and racks can also be found at Metrolink stations, schools, and colleges. Currently, bicycle racks have also been installed on many MTA buses and all Metro Rapid buses.

Figure 5.9-12 shows design cross-sections for bikeways, per the Caltrans Highway Design Manual, 5th Edition. According to the Manual on Uniform Traffic Control Devices, 2003 Edition (US Department of Transportation, 2003), bicycle signs shall be standard in shape, legend, and color. All signs shall be retroreflectorized for use on bikeways, including shared-use paths and bicycle lane facilities. One shared-use paths, lateral sign clearance shall be a minimum of 0.9 m (3 ft) and a maximum of 1.8 m (6 ft.) from the near edge of the sign to the near edge of the path. Mounting height for ground-mounted signs on shared-use paths shall be a minimum of 1.2 m (4 ft) and a maximum of 1.5 m (5 ft), measured from the bottom edge of the sign to the near edge of the path surface. When overhead signs are used on shared-use paths, the clearance from the bottom edge of the sign to the path surface directly under the sign shall be a minimum of 2.4 m (8 ft).

The City will continue to coordinate with Los Angeles County agencies to enhance the bikeway system. The goal is to link residential areas, schools, parks and commercial centers so that residents can travel within the community without driving. New development projects will be required to include safe and attractive sidewalks, walkways, and bike lanes, and homeowners associations will be encouraged to construct links to adjacent areas and communities where appropriate.

Bus Facilities

Public bus service in the City of Downey is provided by MTA. An established network of bus routes provides access to employment centers, shopping and recreational areas within the City. Figure 5.9-13 shows bus routes throughout the City of Downey.

The City of Downey is committed to ensuring that public transportation remains a viable alternative to the automobile for residents. To achieve this objective, the City will coordinate with MTA in developing future scheduling and route alignments to serve Downey as necessary. The City will also participate in efforts to develop/maintain important transit support facilities, including park-and-ride lots, bus stops and shelters. To serve the needs of seniors and youth, the City will continue to collaborate with MTA, neighboring cities and other providers to ensure that adequate public transit access is provided to pivotal youth and senior centers. Also, public improvements in the City will be designed to promote the use of public transportation as an alternative to the automobile.

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5.9.3 *Thresholds of Significance*

The criteria used to determine the significance of impacts on hazards and hazardous materials are taken from City-approved Thresholds of Significance based on the City's Initial Study and the model Initial Study checklist in Appendix G of the State CEQA Guidelines.

- Would the project cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?
- Would the project exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

The following impacts were found to be less than significant in the Initial Study and will not be analyzed in this EIR.

- Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?
- Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- Would the project result in inadequate emergency access?
- Would the project result in inadequate parking capacity?
- Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

5.9.4 *Environmental Impacts and Mitigation Measures*

The following impact analysis evaluates the impacts that would be created by the proposed update of the Downey General Plan. Mitigation measures are included to reduce project impacts to the extent possible.

IMPACT: ***Would the project cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?***

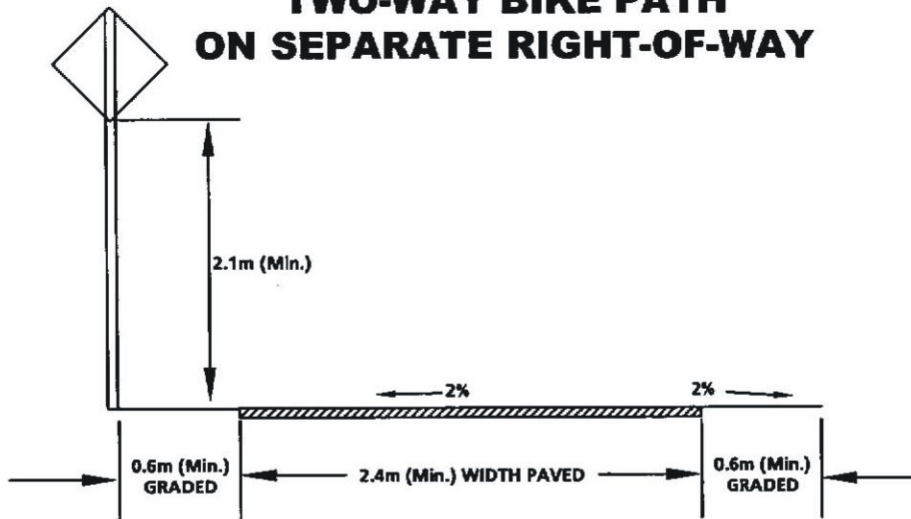
Impact Analysis:

Future Conditions

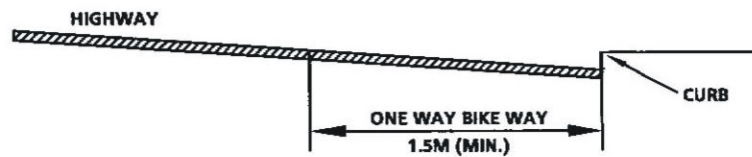
Future traffic volume forecasts were developed to evaluate the utilization of Downey area roadways. Currently Adopted General Plan volumes were developed based on regional model data, combined with information related to the Downey Landing Specific Plan project. Proposed General Plan traffic volume forecasts were then developed by overlaying the potential traffic changes related to the various proposed land use designation change areas on the Currently Adopted General Plan volumes as described hereafter.

Standard Bike Path Cross-Sections

**CLASS I
TWO-WAY BIKE PATH
ON SEPARATE RIGHT-OF-WAY**



**CLASS II
TYPICAL CROSS-SECTION
OF BIKE WAY ALONG HIGHWAY**

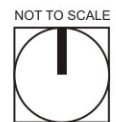
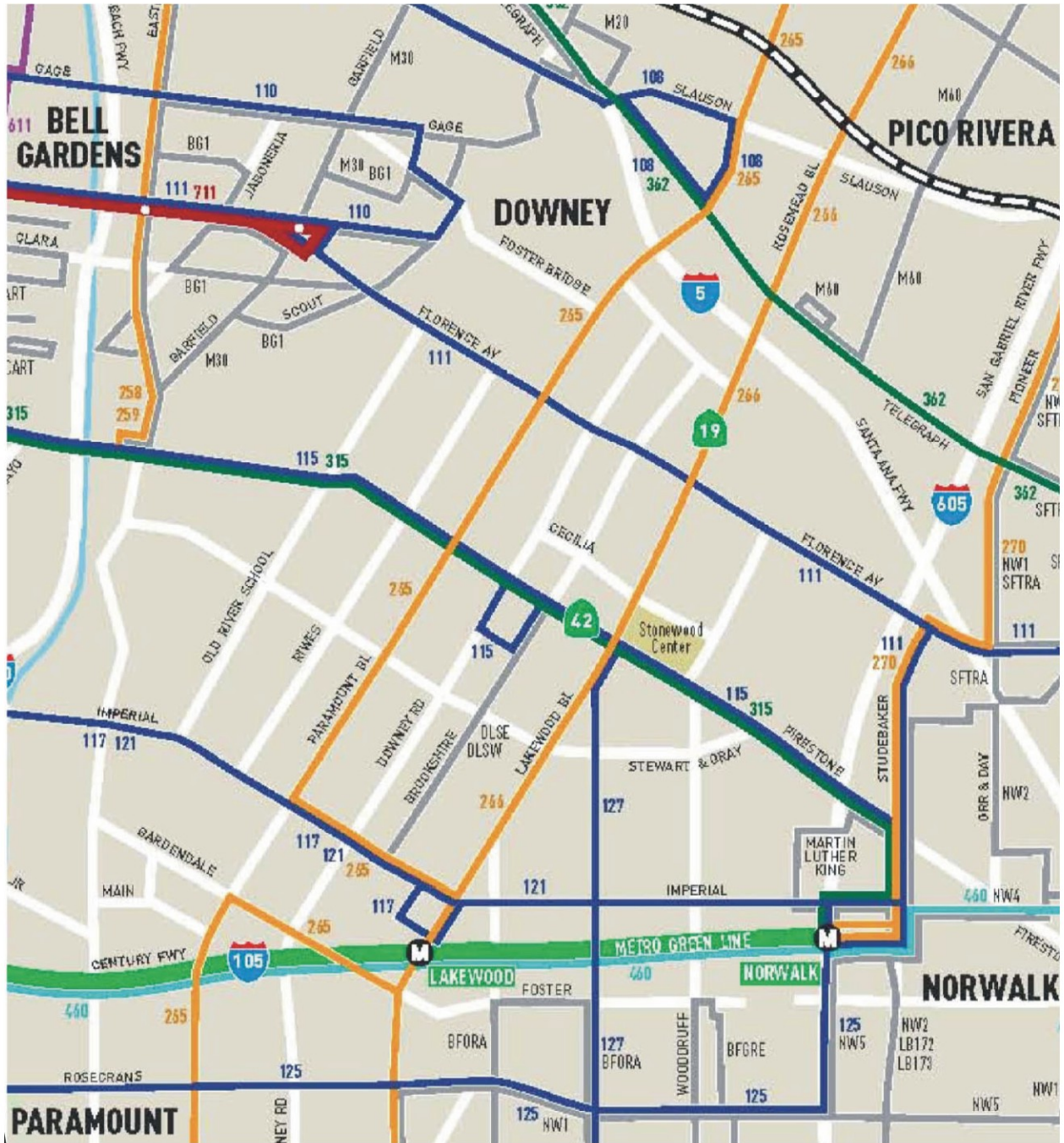


5. *Environmental Analysis*

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City of Downey Current Public Transportation Route Structure



Source: Urban Crossroads

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Currently Adopted General Plan Traffic Volume

Appendix “C” in the project traffic study includes the regional model data used to develop the Currently Adopted General Plan traffic volumes. Data related to existing and future passenger car traffic and heavy truck traffic volumes have been used to develop the Currently Adopted General Plan traffic volumes. A passenger car equivalent (PCE) value of three passenger cars for each heavy truck has again been applied, consistent with the existing conditions analysis. Urban Crossroads, Inc. staff derived future Average Daily Traffic (ADT) volumes by using the regional modeling data provided (see Appendix “C” for model forecasts reasonableness review) and then adding volumes generated from the adopted Downey Landing project traffic analysis.

The data included in Appendix “C” indicates that the overall baseline (prior to Downey Landing) growth in traffic within the City of Downey is approximately 23%. Table 5.9-6 summarizes the anticipated growth in housing, population and employment within the City of Downey from 2000 to 2020. As shown on Table 5.9-6, the growth in these socioeconomic variables ranges from 5.68% to 7.46%. Table 5.9-7 presents a similar summary of anticipated growth within the City of Downey from 2000 to 2030, with growth ranging from 8.54% (housing) to 12.28% (population). The growth in traffic within the City of Downey is much greater than the growth in socioeconomic activity, suggesting a substantial through traffic contribution to the overall traffic growth. The data contained in Appendix “C” also suggests that heavy truck activity will be even more prevalent under future conditions. It will be necessary to ensure that the roadway geometric design parameters, particularly lane widths, accommodate such vehicles.

**Table 5.9-6
2020 Socioeconomic Data Growth Summary**

| Variable | Year | | Growth | % Growth |
|---------------------|---------|---------------------|--------|----------|
| | 2000 | 2020 | | |
| Total Housing Units | 34,010 | 35,983 | 1,973 | 5.80% |
| Total Population | 107,823 | 115,881 | 8,058 | 7.47% |
| Employment | 55,500 | 58,650 ¹ | 3,150 | 5.68% |

¹ Interpolated from 2010 and 2030 data.

**Table 5.9-7
2030 Socioeconomic Data Growth Summary**

| Variable | Year | | Growth | % Growth |
|---------------------|---------|-------------------|--------|----------|
| | 2000 | 2030 ² | | |
| Total Housing Units | 34,010 | 36,915 | 2,905 | 8.54% |
| Total Population | 107,823 | 121,063 | 13,240 | 12.28% |
| Employment | 55,500 | 60,400 | 4,900 | 8.83% |

² Interpolated from 2000 and 2030 data.

Growth related to the Downey Landing Specific Plan has been assumed to occur in addition to the growth attributable to increases accounted for in the regional travel demand model. Table 5.9-8 summarizes the trip generation characteristics of Option 1 (adopted) from the Downey Landing environmental analysis. Figure 5.9-14 depicts the Downey Landing trip distribution assumptions used in this traffic study. The trip distribution is based upon the data included in the Downey Landing EIR, however the data has been expanded to encompass the entire study area for the General Plan update traffic study.

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Figure 5.9-15 summarizes the resulting Currently Adopted General Plan average daily traffic (ADT) volumes, while Table 5.9-9 summarizes the growth compared to existing conditions. All ADT volumes are expressed in passenger car equivalents (PCEs). The overall increase in traffic on the arterial system averages just above 30%, with the greatest percentage increases occurring in the vicinity of the Downey Landing Specific Plan. The highest absolute traffic volumes are anticipated on Firestone Boulevard, near the eastern City limit, where a daily traffic volume of 81,500 vehicles per day (VPD) is projected. Figure 5.9-16 and Figure 5.9-17 show the Currently Adopted General Plan AM and PM peak hour traffic volumes, respectively.

**Table 5.9-8
Downey Landing Trip Generation Summary**

| <i>Land Use</i> | <i>Peak Hour</i> | | | | <i>Daily</i> |
|----------------------------|------------------|------------|--------------|--------------|---------------|
| | <i>AM</i> | | <i>PM</i> | | |
| | <i>In</i> | <i>Out</i> | <i>In</i> | <i>Out</i> | |
| Option 1 | | | | | |
| Retail | 226 | 144 | 765 | 828 | 16,890 |
| -With 25% Passby Reduction | 170 | 108 | 574 | 621 | 12,670 |
| Studio/Production | 396 | 75 | 128 | 455 | 6,700 |
| Museum/Community Center | 44 | 22 | 30 | 58 | 1,140 |
| Park/Open Space | 20 | 10 | 20 | 30 | 400 |
| Office | 607 | 83 | 112 | 546 | 4,680 |
| Subtotal | 1,463 | 442 | 1,629 | 2,538 | 42,480 |
| Kaiser Development | | | | | |
| Hospital | 201 | 185 | 156 | 495 | 11,870 |
| Medical Office Building | 569 | 142 | 289 | 782 | 10,580 |
| Subtotal | 770 | 327 | 445 | 1,277 | 22,450 |
| Total | 2,233 | 769 | 2,074 | 3,815 | 64,930 |

Source: Urban Crossroads

Proposed General Plan Traffic Volume

A total of 16 areas have been proposed for land use designation changes as part of the General Plan update effort. Many of these areas are proposed for changes in land use designations that are consistent with existing land use within the areas (for example, two existing school sites are proposed to be designated as school land uses). In some other areas, the change in designated land use is not expected to substantially alter the types of allowable land use from a traffic analysis perspective (for instance, from one type of commercial land use designation to another).

Table 5.9-10 summarizes the existing, currently adopted, and proposed land uses for the 16 areas recommended for consideration by City staff. A number of other areas have been considered and discarded as part of the land use designation process that has already occurred. As shown on Table 5.9-10, only Areas 1, 3, 9, and 13 are expected to generate substantially different traffic as a result in the change of land use designation. This finding is based either on the similarity of the already existing land uses compared to the proposed land use designation, or else because the currently adopted and proposed land use designations are not expected to result in a substantial change in area trip generation. For instance, area 12 (proposed Mixed Use) already includes a mixture of uses (residential, commercial, MTA Rail System Station) consistent with the uses allowed for in the Mixed Use designation.

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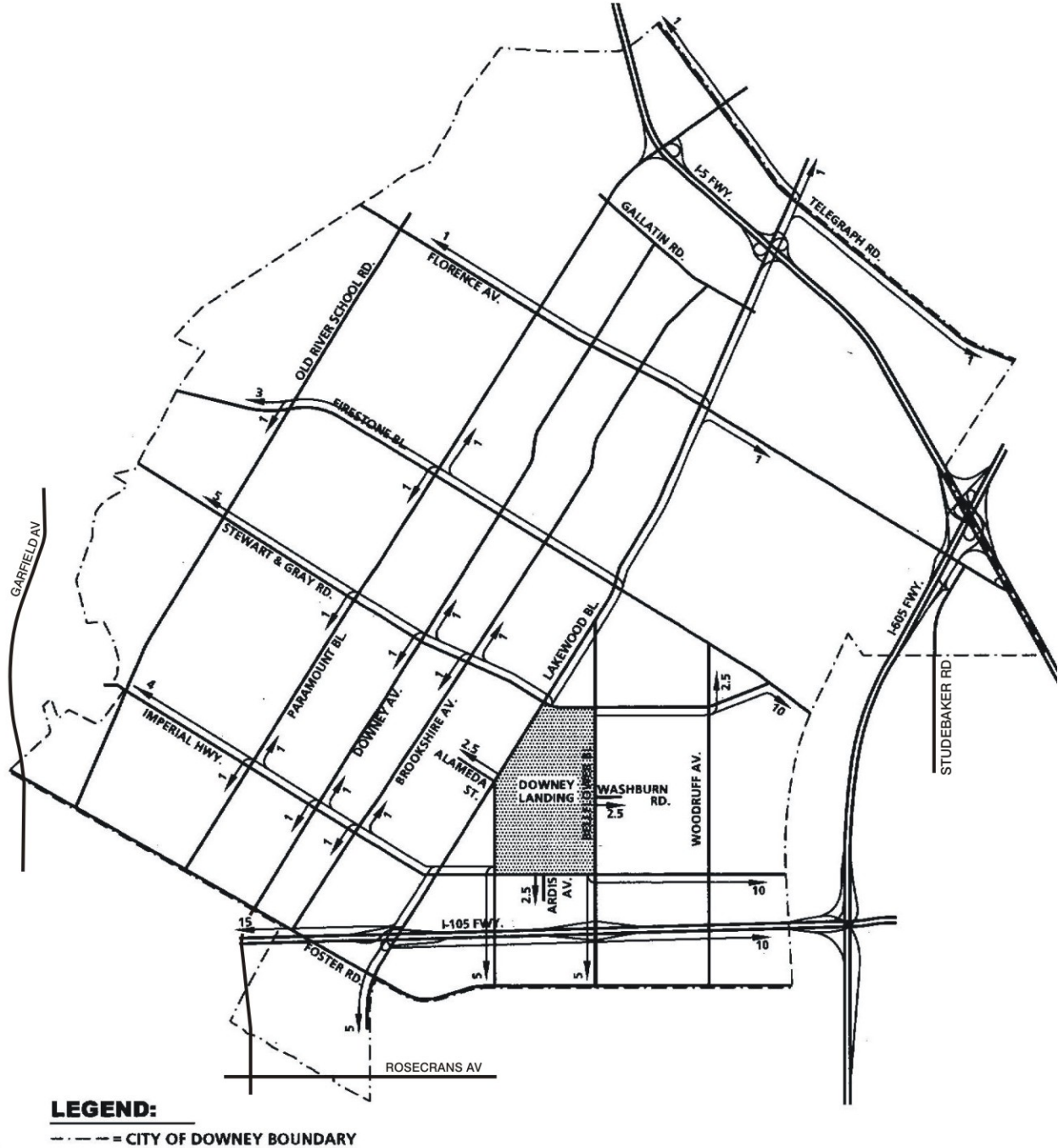
It was also assumed that there would be a split between commercial and residential uses with the proposed mixed uses in Area 12, with commercial uses comprising of 20% to 50% of the land uses to be developed in this area. Medium density housing could also comprise of 50% to 80% of the development. Market conditions would determine the configuration of the projects that would actually be developed within this area. Neighborhood commercial uses to be developed in this Area would support the residential uses within the Area. Since the commercial uses would support residential, it was assumed that a 10% to 20% internal capture rate would be applies. Also, uses in this area would be transit oriented, further reducing auto trips.

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*Downey Landing Trip Distribution
(Based on Previous Study)*

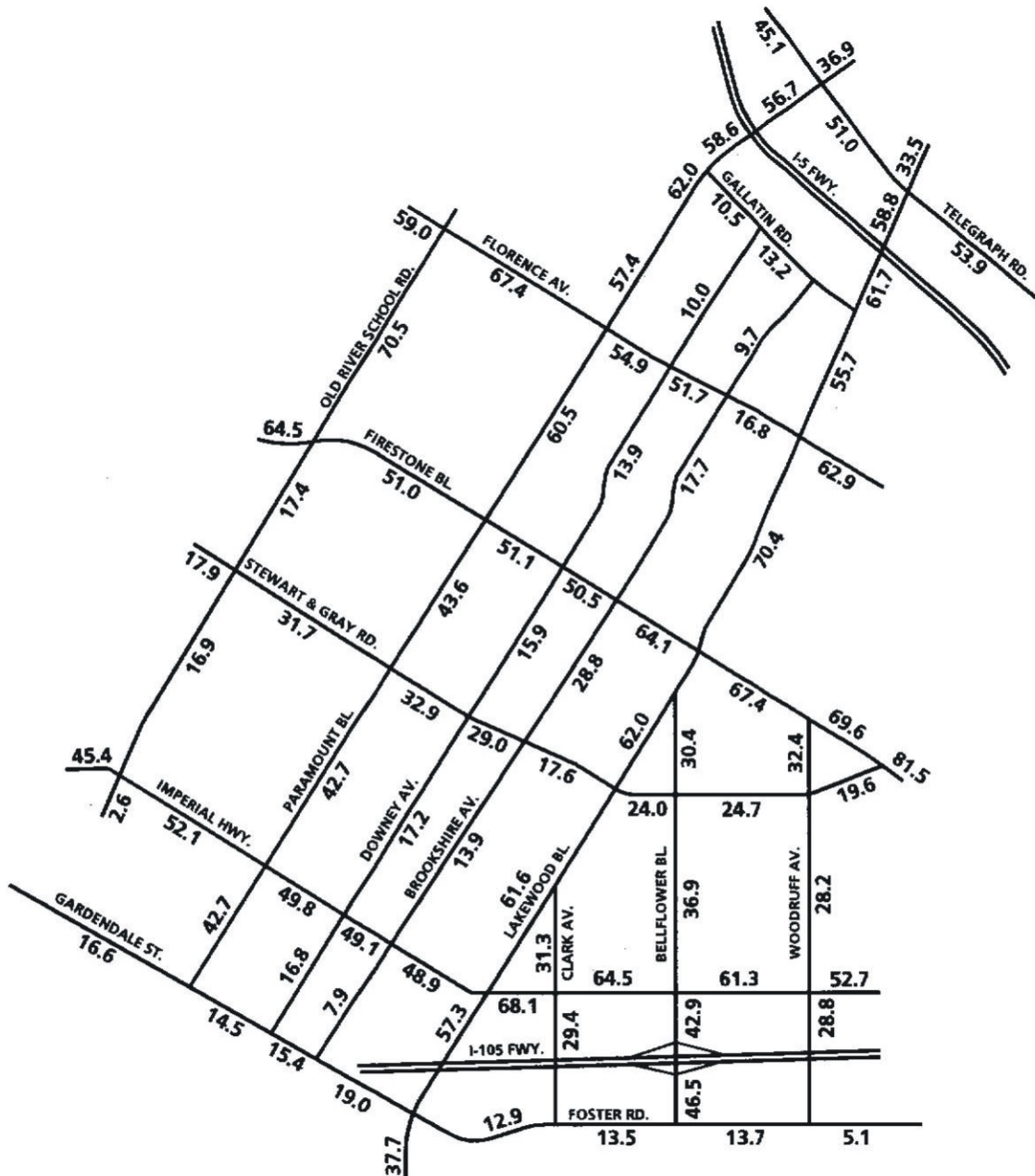


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Currently Adopted General Plan Average Daily Traffic (ADT)



LEGEND:

10.0 = VEHICLES PER DAY (1000'S)

NOT TO SCALE



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**Table 5.9-9
Currently Adopted General Plan Projected Daily Volume Growth**

| Street | Road Segment | Existing | Currently Adopted General Plan¹ | Growth² | Growth (%) |
|---------------------------|--|-----------------|---|---------------------------|-----------------------|
| Telegraph Rd. | WCL - Paramount | 33,347 | 39,205 | 5,858 | 17.57% |
| | Paramount-Lakewood | 37,752 | 44,695 | 6,943 | 18.39% |
| | Lakewood-I605 | 39,896 | 44,339 | 4,443 | 11.14% |
| Gallatin Rd. | Paramount Blvd.-Downey Ave. | 8,500 | 10,455 | 1,955 | 23.00% |
| | Downey Ave.-Brookshire Ave. | 10,700 | 13,161 | 2,461 | 23.00% |
| Florence Ave. | Garfield Ave.- Old River School Rd. | 41,235 | 52,524 | 11,289 | 27.38% |
| | Old River School Rd.-Paramount Blvd. | 46,529 | 58,080 | 11,551 | 24.83% |
| | Paramount Blvd.-Downey Ave. | 37,767 | 49,809 | 12,042 | 31.88% |
| | Downey Ave.-Brookshire Ave. | 35,745 | 42,586 | 6,841 | 19.14% |
| | Brookshire Ave.-Lakewood Blvd. | 38,960 | 46,425 | 7,465 | 19.16% |
| | Lakewood Blvd.-I605 | 44,750 | 51,490 | 6,740 | 15.06% |
| Firestone Blvd. | Garfield Ave.- Old River School Rd. | 48,121 | 55,209 | 7,088 | 14.73% |
| | Old River School Rd.-Paramount Blvd. | 37,961 | 44,853 | 6,892 | 18.16% |
| | Paramount Blvd.-Downey Ave. | 38,061 | 45,281 | 7,220 | 18.97% |
| | Downey Ave.-Brookshire Ave. | 37,682 | 46,882 | 9,200 | 24.41% |
| | Brookshire Ave.-Lakewood Blvd. | 48,240 | 58,643 | 10,403 | 21.57% |
| | Lakewood Blvd.-Woodruff Ave. (South) | 50,037 | 59,740 | 9,703 | 19.39% |
| | Woodruff Ave. (South)-Stewart & Gray Rd. | 51,767 | 59,239 | 7,472 | 14.43% |
| | Stewart & Gray Rd - ECL | 60,589 | 76,472 | 15,883 | 26.21% |
| Stewart and Gray Rd. | Garfield Ave.-Old River School Rd. | 12,710 | 16,972 | 4,262 | 33.53% |
| | Old River School Rd.-Paramount Blvd. | 21,668 | 30,199 | 8,531 | 39.37% |
| | Paramount Blvd.-Downey Ave. | 22,468 | 31,399 | 8,931 | 39.75% |
| | Downey Ave.-Brookshire Ave. | 19,868 | 21,855 | 1,987 | 10.00% |
| | Brookshire Ave.-Lakewood Blvd. | 19,327 | 27,754 | 8,427 | 43.60% |
| | Lakewood Blvd.-Bellflower Blvd. | 16,517 | 35,577 | 19,060 | 115.40% |
| | Bellflower Blvd.-Woodruff Ave. | 16,130 | 28,416 | 12,286 | 76.17% |
| | Woodruff Ave.-Firestone Blvd. | 13,750 | 22,798 | 9,048 | 65.80% |
| Imperial Hwy. | Garfield Ave.-Old River School Rd. | 37,384 | 47,023 | 9,639 | 25.78% |
| | Old River School Rd.-Paramount Blvd. | 35,268 | 46,231 | 10,963 | 31.08% |
| | Paramount Blvd.-Downey Ave. | 34,391 | 46,415 | 12,024 | 34.96% |
| | Downey Ave.-Brookshire Ave. | 33,837 | 42,269 | 8,432 | 24.92% |
| | Brookshire Ave.-Lakewood Blvd. | 34,096 | 46,350 | 12,254 | 35.94% |
| | Lakewood Blvd.-Clark Ave. | 40,851 | 66,261 | 25,410 | 62.20% |
| | Clark Ave.-Bellflower Blvd. | 38,540 | 48,792 | 10,252 | 26.60% |
| | Bellflower Blvd.-Woodruff Ave. | 41,149 | 49,813 | 8,664 | 21.06% |
| | Woodruff Ave. -- ECL | 37,092 | 45,348 | 8,256 | 22.26% |
| Gardendale St./Foster Rd. | Garfield Ave.-Paramount Blvd. | 10,900 | 11,990 | 1,090 | 10.00% |
| | Paramount Blvd.-Downey Ave. | 10,410 | 11,668 | 1,258 | 12.08% |
| | Downey Ave.-Brookshire Ave. | 10,406 | 13,741 | 3,335 | 32.05% |
| | Brookshire Ave.-Lakewood Blvd. | 12,806 | 16,889 | 4,083 | 31.88% |
| | Lakewood Blvd.-Clark Ave. | 8,884 | 12,265 | 3,381 | 38.06% |
| | Clark Ave.-Bellflower Blvd. | 9,284 | 13,099 | 3,815 | 41.09% |
| | Bellflower Blvd.-Woodruff Ave. | 9,358 | 12,946 | 3,588 | 38.34% |
| | Woodruff Ave. - ECL | 3,472 | 4,789 | 1,317 | 37.93% |
| Old River School Rd. | Florence Ave.-Firestone Blvd. | 16,630 | 21,498 | 4,868 | 29.27% |
| | Firestone Blvd.-Stewart & Gray Rd. | 12,984 | 19,391 | 6,407 | 49.35% |
| | Stewart & Gray Rd.-Imperial Hwy. | 14,168 | 17,972 | 3,804 | 26.85% |

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**Table 5.9-9
Currently Adopted General Plan Projected Daily Volume Growth**

| <i>Street</i> | <i>Road Segment</i> | <i>Existing</i> | <i>Currently Adopted General Plan¹</i> | <i>Growth²</i> | <i>Growth (%)</i> |
|------------------|--|------------------|---|---------------------------|-----------------------|
| Paramount Blvd. | Telegraph Rd.- I-5 Fwy. | 39,412 | 48,788 | 9,376 | 23.79% |
| | I-5 Fwy. - Gallatin Rd. | 40,726 | 47,987 | 7,261 | 17.83% |
| | Gallatin Rd.-Suva St. | 43,025 | 49,413 | 6,388 | 14.85% |
| | Suva St.-Florence Ave. | 39,869 | 44,585 | 4,716 | 11.83% |
| | Florence Ave.-Firestone Blvd. | 41,684 | 49,289 | 7,605 | 18.24% |
| | Firestone Blvd.-Stewart & Gray Rd. | 29,411 | 39,183 | 9,772 | 33.23% |
| | Stewart & Gray Rd.-Imperial Hwy. | 28,811 | 39,975 | 11,164 | 38.75% |
| Downey Ave. | Imperial Hwy.-Gardendale St./Foster Rd. | 28,864 | 40,585 | 11,721 | 40.61% |
| | Gallatin Rd.-Florence Ave. | 8,913 | 10,733 | 1,820 | 20.42% |
| | Florence Ave.-Firestone Blvd. | 12,210 | 14,991 | 2,781 | 22.78% |
| | Firestone Blvd.-Stewart & Gray Rd. | 12,610 | 16,172 | 3,562 | 28.25% |
| | Stewart & Gray Rd.-Imperial Hwy. | 12,553 | 18,794 | 6,241 | 49.72% |
| Brookshire Ave. | Imperial Hwy.-Gardendale St./Foster Rd. | 11,800 | 14,753 | 2,953 | 25.03% |
| | Gallatin Rd.-Florence Ave. | 6,600 | 10,100 | 3,500 | 53.03% |
| | Florence Ave.-Firestone Blvd. | 12,670 | 24,921 | 12,251 | 96.69% |
| | Firestone Blvd.-Stewart & Gray Rd. | 19,200 | 35,657 | 16,457 | 85.71% |
| Lakewood Blvd | Stewart & Gray Rd.-Imperial Hwy. | 9,800 | 14,373 | 4,573 | 46.66% |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 5,100 | 8,300 | 3,200 | 62.75% |
| | Telegraph Rd.-I-5 | 36,434 | 40,532 | 4,098 | 11.25% |
| | I-5 -Gallatin Rd. | 38,262 | 43,452 | 5,190 | 13.56% |
| | Gallatin Rd.-Florence Ave. | 34,492 | 39,304 | 4,812 | 13.95% |
| | Florence Ave.-Firestone Blvd. | 42,380 | 52,597 | 10,217 | 24.11% |
| Clark Ave. | Firestone Blvd.-Stewart & Gray Rd. | 32,461 | 45,595 | 13,134 | 40.46% |
| | Stewart & Gray Rd.-Imperial Hwy. | 31,468 | 49,642 | 18,174 | 57.75% |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 32,792 | 81,985 | 49,193 | 150.02% |
| | Lakewood Blvd.-Imperial Hwy. | 10,155 | 12,732 | 2,577 | 25.38% |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 14,837 | 18,660 | 3,823 | 25.77% |
| Bellflower Blvd. | Lakewood Blvd.-Stewart & Gray Rd. | 21,298 | 26,184 | 4,886 | 22.94% |
| | Stewart and Gray Rd.-Imperial Hwy. | 21,458 | 34,503 | 13,045 | 60.79% |
| | Imperial Hwy.-I-105 WB Ramps | 34,691 | 42,853 | 8,162 | 23.53% |
| | I-105 EB Ramps-Gardendale St./Foster Rd. | 35,196 | 43,587 | 8,391 | 23.84% |
| Woodruff Ave. | Firestone Blvd.-Stewart & Gray Rd. | 23,955 | 36,128 | 12,173 | 50.82% |
| | Stewart & Gray Rd.-Imperial Hwy. | 20,968 | 31,663 | 10,695 | 51.01% |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 20,920 | 31,838 | 10,918 | 52.19% |
| TOTAL | | 2,197,012 | 2,868,662 | 671,650 | 30.57% |

¹ Growth rate has been increased to reflect 10% minimum growth rate.

² Indicates Incremental Growth approach.

Source: Urban Crossroads

5. Environmental Analysis

Currently Adopted General Plan AM Peak Hour Intersection Volumes



NOT TO SCALE



Source: Urban Crossroads

Downey Vision 2025 General Plan Update EIR

The Planning Center • Figure 5.9-16


5. *Environmental Analysis*

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5. Environmental Analysis

Currently Adopted General Plan PM Peak Hour Intersection Volumes



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5. *Environmental Analysis*

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5. Environmental Analysis

**Table 5.9-10
Existing, Currently Adopted, and Proposed Land Use Comparison**

| Area | Existing LU | Currently Adopted LU | Proposed LU | TG Potential Traffic Change? |
|-------------|---|---|--------------------------|---|
| 1 | Med Density Residential/Vacant/Utility | Office | Med Density Residential | X YES |
| 2 | Commercial | Med Density Residential | Neighborhood Commercial | NO |
| 3 | Commercial (65%)/Residential(35%) | Office | Neighborhood Commercial | X YES |
| 4 | Commercial | Neighborhood Commercial | General Commercial | NO |
| 5 | School | Low Density Residential | School | NO |
| 6 | Commercial Restaurant | Office | Neighborhood Commercial | NO |
| 7 | Commercial | Neighborhood Commercial | General Commercial | NO |
| 8 | Residential (75%)/Commercial (25%) | General Commercial | Med Density Residential | NO |
| 9 | Commercial (85%)/Residential (15%) | Office | General Commercial | X YES |
| 10 | General Office | Mixed Use | Commercial Manufacturing | NO |
| 11 | Medical Office (65%) /Commercial (35%) | Neighborhood Commercial | Commercial Manufacturing | NO |
| 12 | SFDR/Commercial/Rail Station = "Mixed Use" | Low/Med Residential & General Commercial | Mixed Use | NO |
| 13 | Residential Apartments | Neighborhood Commercial | General Commercial | X YES |
| 14 | School | General Commercial | School | NO |
| 15 | Low Density Residential | Office | Low Density Residential | NO |
| 16 | Low Density Residential | Med Density Residential | Low Density Residential | NO |

Source: City of Downey

5. *Environmental Analysis*

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5. Environmental Analysis

Table 5.9-11 presents the trip generation rates for the areas where land use changes are expected to change future traffic conditions within the City of Downey. Table 5.9-12 summarizes the actual changes in trip generation expected. As shown on Table 5.9-12, an increase in daily trip generation of 6,481 trips per day is expected as a result of the proposed land use changes.

**Table 5.9-11
Trip Generation Rates¹**

| <i>Land Use</i> | <i>ITE Code</i> | <i>Units²</i> | <i>Peak Hour</i> | | | | <i>Daily</i> |
|--|------------------|--------------------------|------------------|------------|-----------|------------|--------------|
| | | | <i>AM</i> | | <i>PM</i> | | |
| | | | <i>In</i> | <i>Out</i> | <i>In</i> | <i>Out</i> | |
| Residential | 210 | DU | 0.19 | 0.56 | 0.64 | 0.37 | 9.57 |
| Neighborhood Commercial - 9.48 TSF | 820 ³ | TSF | 2.45 | 1.57 | 6.7 | 7.25 | 154.91 |
| General Commercial (Area 9) - 16.41 TSF | 820 ³ | TSF | 1.97 | 1.26 | 5.56 | 6.02 | 127.84 |
| General Commercial (Area 13) - 20.53 TSF | 820 ³ | TSF | 1.8 | 1.15 | 5.15 | 5.58 | 118.2 |

1 Source: ITE (Institute of Transportation Engineers) Trip Generation Manual, 7th Edition, 2003.

2 DU = Dwelling Units

TSF = Thousand Square Feet

3 Commercial land use trip rates based on regression equations (dependent variable is size of retail center/use).

Source: Urban Crossroads

**Table 5.9-12
Proposed General Plan Land Use Change Trip Generation Summary**

| <i>Area</i> | <i>Land Use</i> | <i>Quantity</i> | <i>Units¹</i> | <i>Peak Hour</i> | | | | <i>Daily</i> |
|--------------|-------------------------|-----------------|--------------------------|------------------|------------|-----------|------------|--------------|
| | | | | <i>AM</i> | | <i>PM</i> | | |
| | | | | <i>IN</i> | <i>OUT</i> | <i>IN</i> | <i>OUT</i> | |
| 1 | Residential | 51 | DU | 10 | 29 | 33 | 19 | 488 |
| 3 | Neighborhood Commercial | 9.48 | TSF | 23 | 15 | 64 | 69 | 1,469 |
| 9 | General Commercial | 16.41 | TSF | 32 | 21 | 91 | 99 | 2,098 |
| 13 | General Commercial | 20.53 | TSF | 37 | 24 | 106 | 115 | 2,427 |
| Total | | | | 102 | 88 | 293 | 301 | 6,481 |

1 DU = Dwelling Units

2 TSF = Thousand Square Feet

Source: Urban Crossroads

Figure 5.9-18 through Figure 5.9-21 depict the distribution of traffic assumed for each of the land use change areas requiring explicit analysis. Figure 5.9-22 presents the resulting Proposed General Plan daily traffic volumes that are anticipated when the traffic attributable to the land use change areas is added to the Currently Adopted General Plan daily traffic volumes. Figure 5.9-23 and Figure 5.9-24 show the anticipated Proposed General Plan AM and PM peak hour traffic volumes, respectively.

Future Traffic Operations Analysis

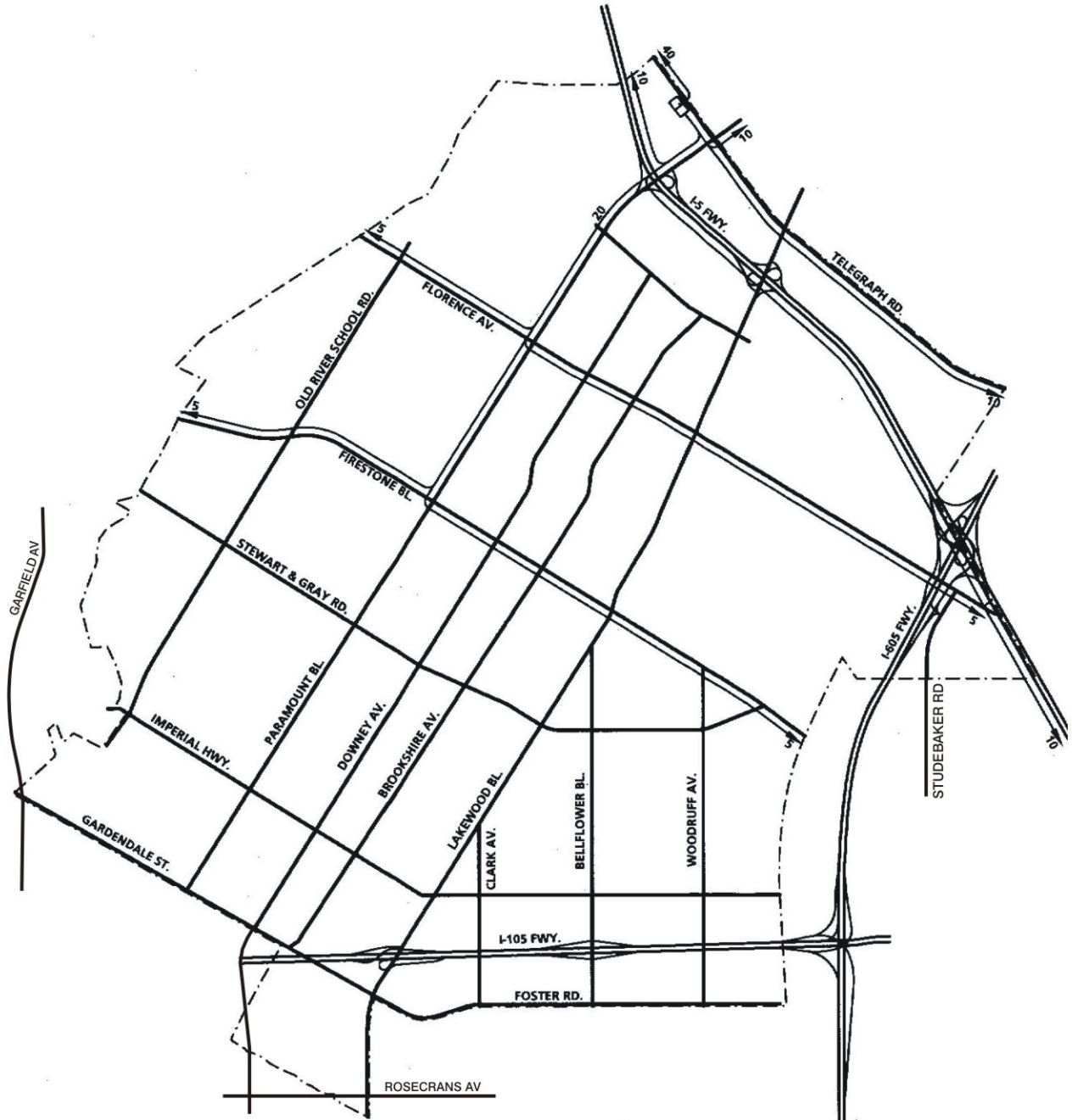
For General Plan buildout conditions both Currently Adopted General Plan and proposed General Plan Conditions have been evaluated. Traffic Operations both with and without transportation system management (TSM) measures have been evaluated for each of these sets of future traffic volume forecasts. Furthermore, for each scenario, two sets of improvements were developed to provide either LOS "E" or LOS "D" operations.

5. *Environmental Analysis*

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5. Environmental Analysis

Area 1 Trip Distribution



NOT TO SCALE



Source: Urban Crossroads

Downey Vision 2025 General Plan Update EIR

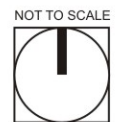
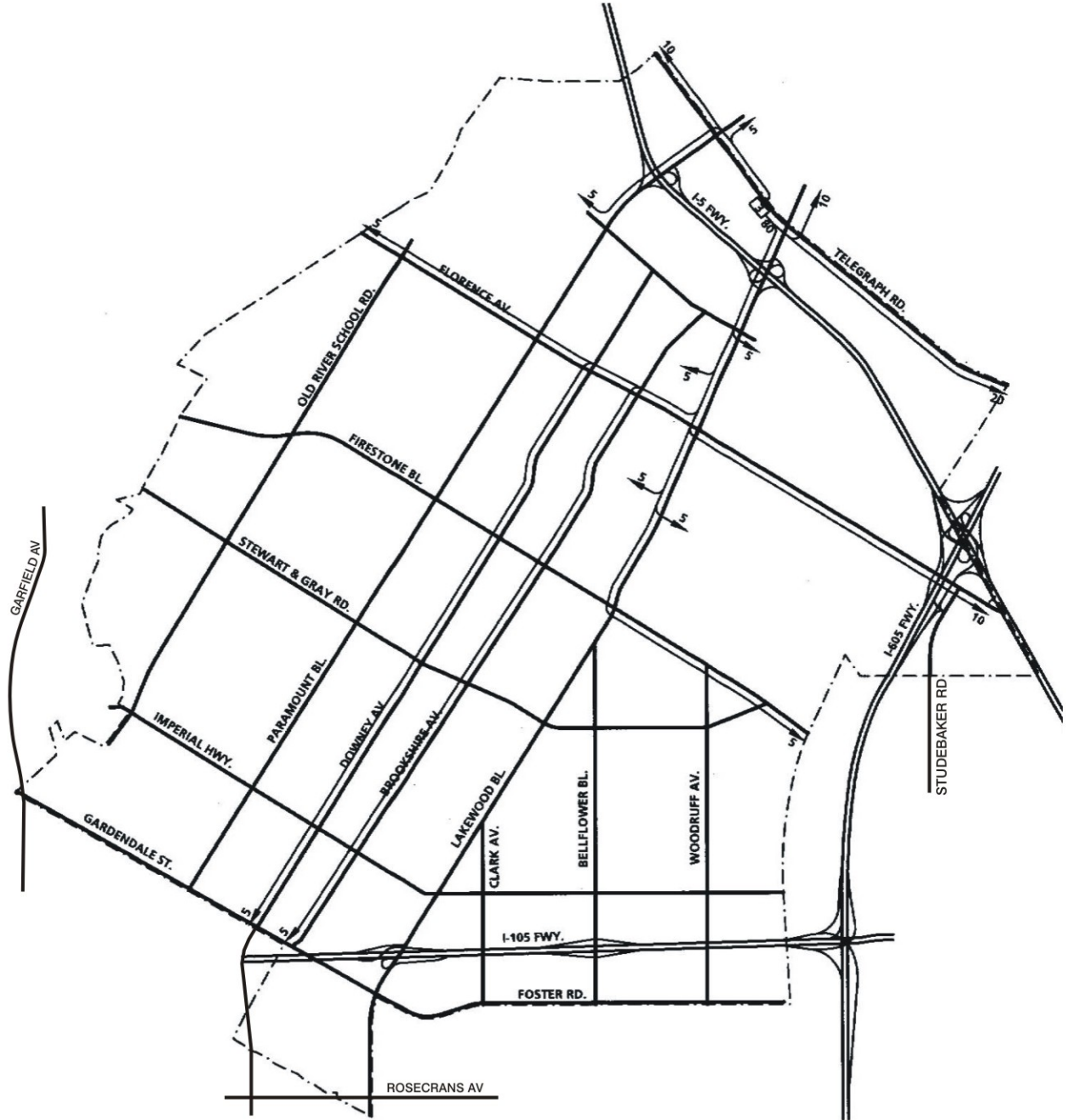
The Planning Center • **Figure 5.9-18**

5. *Environmental Analysis*

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5. Environmental Analysis

Area 3 Trip Distribution

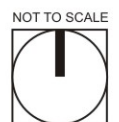
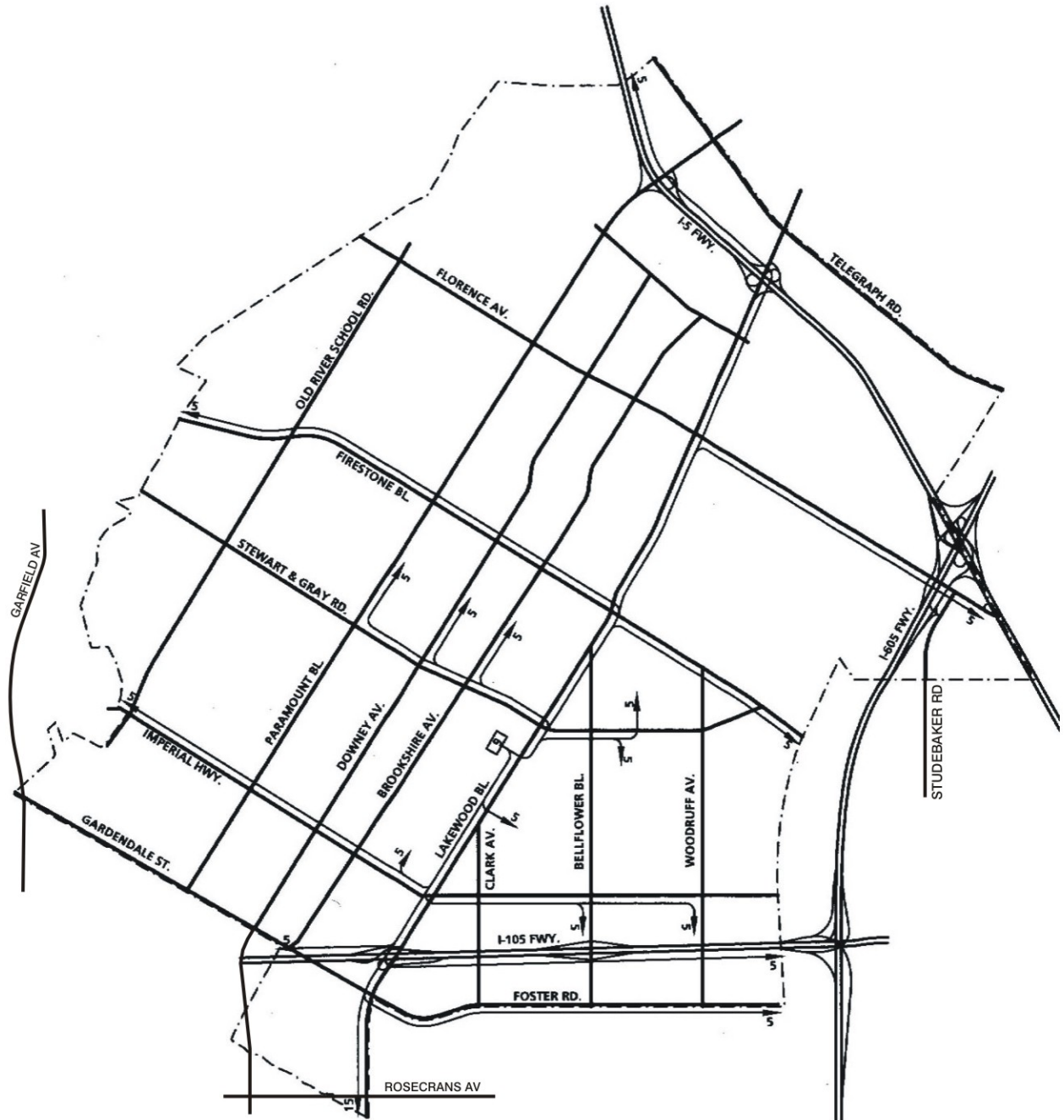


5. *Environmental Analysis*

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5. Environmental Analysis

Area 9 Trip Distribution



Source: Urban Crossroads

Downey Vision 2025 General Plan Update EIR

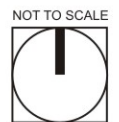
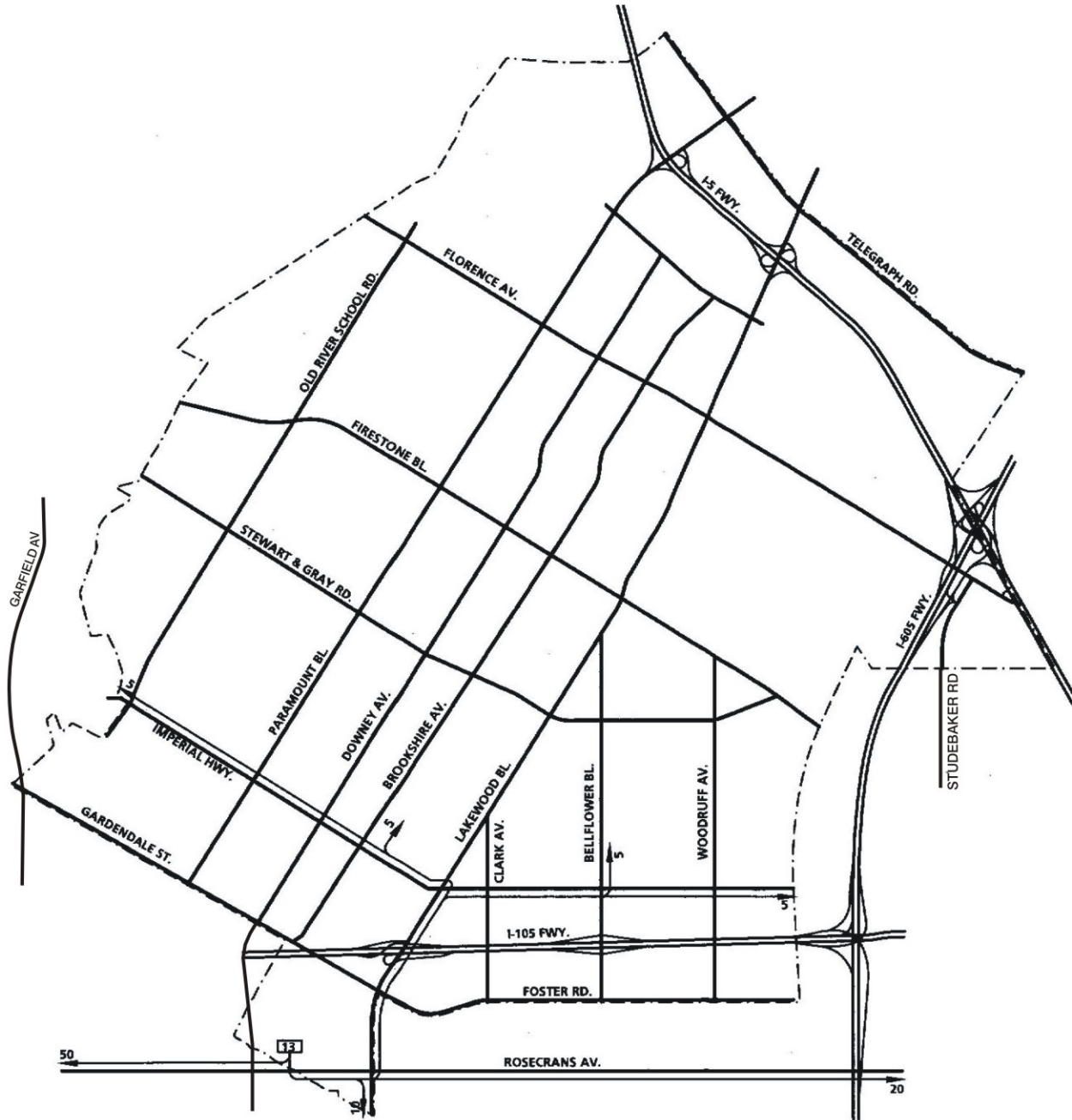
The Planning Center • Figure 5.9-20

5. *Environmental Analysis*

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5. Environmental Analysis

Area 13 Trip Distribution



Source: Urban Crossroads

Downey Vision 2025 General Plan Update EIR

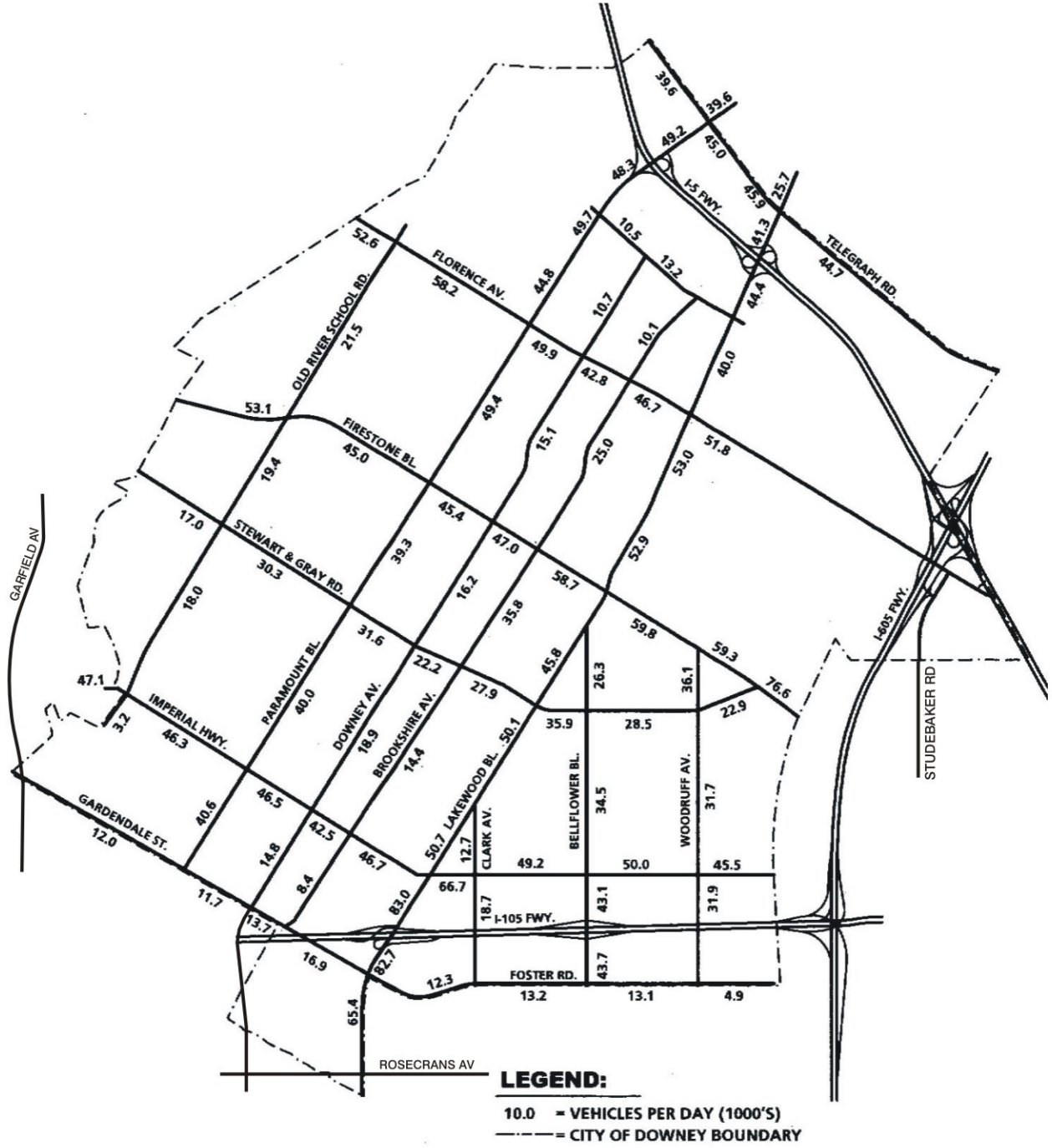
The Planning Center • **Figure 5.9-21**

5. *Environmental Analysis*

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5. Environmental Analysis

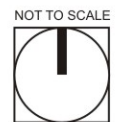
*Proposed General Plan
Average Daily Traffic (ADT)*



Source: Urban Crossroads

Downey Vision 2025 General Plan Update EIR

The Planning Center • **Figure 5.9-22**



5. *Environmental Analysis*

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5. Environmental Analysis

Proposed General Plan AM Peak Hour Intersection Volumes



NOT TO SCALE

Source: Urban Crossroads

Downey Vision 2025 General Plan Update EIR

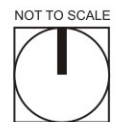
The Planning Center • Figure 5.9-23

5. *Environmental Analysis*

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5. Environmental Analysis

Proposed General Plan PM Peak Hour Intersection Volumes



Source: Urban Crossroads

Downey Vision 2025 General Plan Update EIR

The Planning Center • Figure 5.9-24

5. *Environmental Analysis*

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5. Environmental Analysis

Currently Adopted General Plan Traffic Operations

Roadway segment operations for currently adopted General Plan conditions have been evaluated on both a daily basis and also for peak hour conditions where necessary to determine that the City of Downey desired levels of service can be achieved.

Currently Adopted General Plan Roadway Segment Operations Analysis

Daily traffic planning level traffic operations along the various arterial roadways within the City of Downey are summarized on Table 5.9-13. Where necessary, additional through travel lanes, consistent with the currently adopted Circulation Element Master Plan of Streets and Highways, have been assumed to be implemented. In general, most roadways must be widened to their ultimate number of through lanes to accommodate projected traffic volumes. Even so, some segments of the following roadways (a total of 17 segments altogether) are projected to experience daily planning level deficiencies without the implementation of further measures:

- Florence Avenue
- Firestone Boulevard
- Stewart and Gray Road
- Imperial Highway
- Brookshire Avenue
- Lakewood Boulevard
- Bellflower Boulevard
- Woodruff Avenue

The initial mitigation measure considered in this analysis is the implementation of transportation systems management improvements as described previously. Table 5.9-14 summarizes the resulting daily levels of service for currently adopted General Plan with TSM implementation. With the implementation of TSM, only 10 segments along the following roadways are projected to experience daily planning level capacity deficiencies (LOS “E” or “F”):

- Florence Avenue
- Firestone Boulevard
- Imperial Highway
- Lakewood Boulevard
- Bellflower Boulevard

As indicated by this analysis, TSM implementation will reduce potential future daily deficiencies, but will not eliminate the deficiencies entirely. Further peak hour roadway segment analysis has been completed for those roadway segments where LOS “D” or better operations are not provided through the combination of additional through lanes consistent with the currently adopted Master Plan of Streets and Highways or TSM implementation. Table 5.9-15 summarizes the peak hour analysis. As shown on Table 5.9-15, acceptable peak hour roadway segment operations can be expected for currently adopted General Plan conditions.

5. *Environmental Analysis*

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5. Environmental Analysis

**Table 5.9-13
Currently Adopted General Plan Roadway Segment Volume To Capacity Analysis**

| Street | Road Segment | Existing | Roadway Classification | Roadway Capacity | 2025 W/O Downey Landing | Downey Landing Only | Currently Adopted General Plan | Proposed General Plan | Growth | Growth (%) | Volume To Capacity Ratio | LOS |
|----------------------|--|-----------------|-------------------------------|-------------------------|--------------------------------|----------------------------|---------------------------------------|------------------------------|---------------|-------------------|---------------------------------|------------|
| Telegraph Rd. | WCL - Paramount | 33,347 | 6D ¹ | 56,300 | 38,751 | 454 | 39,205 | 39,645 | 5,858 | 17.57% | 0.70 | B |
| | Paramount-Lakewood | 37,752 | 6D ¹ | 56,300 | 44,241 | 454 | 44,695 | 45,928 | 6,943 | 18.39% | 0.79 | C |
| | Lakewood-I605 | 39,896 | 6D ¹ | 56,300 | 43,885 | 454 | 44,339 | 44,681 | 4,443 | 11.14% | 0.79 | C |
| Gallatin Rd. | Paramount Blvd.-Downey Ave. | 8,500 | 4U | 25,000 | | | 10,455 | 10,455 | | | 0.42 | A |
| | Downey Ave.-Brookshire Ave. | 10,700 | 4U | 25,000 | | | 13,161 | 13,161 | | | 0.53 | A |
| Florence Ave. | Garfield Ave.- Old River School Rd. | 41,235 | 6D | 56300 | 50,704 | 1820 | 52,524 | 52,622 | 11,289 | 27.38% | 0.93 | E |
| | Old River School Rd.-Paramount Blvd. | 46,529 | 6D | 56300 | 56,260 | 1820 | 58,080 | 58,178 | 11,551 | 24.83% | 1.03 | F |
| | Paramount Blvd.-Downey Ave. | 37,767 | 6D | 56300 | 47,989 | 1820 | 49,809 | 49,907 | 12,042 | 31.88% | 0.88 | D |
| | Downey Ave.-Brookshire Ave. | 35,745 | 6D | 56300 | 40,766 | 1820 | 42,586 | 42,757 | 6,841 | 19.14% | 0.76 | C |
| | Brookshire Ave.-Lakewood Blvd. | 38,960 | 6D | 56300 | 44,605 | 1820 | 46,425 | 46,669 | 7,465 | 19.16% | 0.82 | D |
| | Lakewood Blvd.-I605 | 44,750 | 6D | 56300 | 50,126 | 1364 | 51,490 | 51,766 | 6,740 | 15.06% | 0.91 | E |
| Firestone Blvd. | Garfield Ave.- Old River School Rd. | 48,121 | 6D ¹ | 56,300 | 52,935 | 2274 | 52,935 | 53,063 | 4,814 | 10.00% | 0.94 | E |
| | Old River School Rd.-Paramount Blvd. | 37,961 | 6D ¹ | 56,300 | 42,579 | 2274 | 44,853 | 44,981 | 6,892 | 18.16% | 0.80 | C |
| | Paramount Blvd.-Downey Ave. | 38,061 | 6D ¹ | 56,300 | 43,007 | 2274 | 45,281 | 45,409 | 7,220 | 18.97% | 0.80 | C |
| | Downey Ave.-Brookshire Ave. | 37,682 | 6D ¹ | 56,300 | 44,608 | 2274 | 46,882 | 47,010 | 9,200 | 24.41% | 0.83 | D |
| | Brookshire Ave.-Lakewood Blvd. | 48,240 | 6D ¹ | 56,300 | 56,369 | 2274 | 58,643 | 58,667 | 10,403 | 21.57% | 1.04 | F |
| | Lakewood Blvd.-Woodruff Ave. (South) | 50,037 | 6D ¹ | 56,300 | 57,466 | 2274 | 59,740 | 59,838 | 9,703 | 19.39% | 1.06 | F |
| | Woodruff Ave. (South)-Stewart & Gray Rd. | 51,767 | 6D ¹ | 56,300 | 59,239 | | 59,239 | 59,337 | 7,472 | 14.43% | 1.05 | F |
| | Stewart & Gray Rd - ECL | 60,589 | 6D ¹ | 56,300 | 76,472 | | 76,472 | 76,570 | 15,883 | 26.21% | 1.36 | F |
| Stewart and Gray Rd. | Garfield Ave.-Old River School Rd. | 12,710 | 4U | 25000 | 16,972 | | 16,972 | 17,045 | 4,262 | 33.53% | 0.68 | B |
| | Old River School Rd.-Paramount Blvd. | 21,668 | 4D ¹ | 37,500 | 25,651 | 4548 | 30,199 | 30,303 | 8,531 | 39.37% | 0.81 | D |
| | Paramount Blvd.-Downey Ave. | 22,468 | 4D ¹ | 37,500 | 26,851 | 4548 | 31,399 | 31,607 | 8,931 | 39.75% | 0.84 | D |
| | Downey Ave.-Brookshire Ave. | 19,868 | 4U | 25000 | 21,855 | | 21,855 | 22,170 | 1,987 | 10.00% | 0.87 | D |
| | Brookshire Ave.-Lakewood Blvd. | 19,327 | 4D ¹ | 37,500 | 23,206 | 4548 | 27,754 | 27,858 | 8,427 | 43.60% | 0.74 | C |

5. Environmental Analysis

**Table 5.9-13
Currently Adopted General Plan Roadway Segment Volume To Capacity Analysis**

| Street | Road Segment | Existing | Roadway Classification | Roadway Capacity | 2025 W/O Downey Landing | Downey Landing Only | Currently Adopted General Plan | Proposed General Plan | Growth | Growth (%) | Volume To Capacity Ratio | LOS |
|---------------------------|--------------------------------------|-----------------|-------------------------------|-------------------------|--------------------------------|----------------------------|---------------------------------------|------------------------------|---------------|-------------------|---------------------------------|------------|
| | Lakewood Blvd.-Bellflower Blvd. | 16,517 | 4D ¹ | 37,500 | 25,117 | 10460 | 35,577 | 35,891 | 19,060 | 115.40% | 0.95 | E |
| | Bellflower Blvd.-Woodruff Ave. | 16,130 | 4D ¹ | 37,500 | 22,730 | 5686 | 28,416 | 28,520 | 12,286 | 76.17% | 0.76 | C |
| | Woodruff Ave.-Firestone Blvd. | 13,750 | 4U | 25000 | 18,250 | 4548 | 22,798 | 22,902 | 9,048 | 65.80% | 0.91 | E |
| Imperial Hwy. | Garfield Ave.-Old River School Rd. | 37,384 | 6D | 56300 | 43,839 | 3184 | 47,023 | 47,127 | 9,639 | 25.78% | 0.84 | D |
| | Old River School Rd.-Paramount Blvd. | 35,268 | 6D | 56300 | 43,047 | 3184 | 46,231 | 46,335 | 10,963 | 31.08% | 0.82 | D |
| | Paramount Blvd.-Downey Ave. | 34,391 | 6D | 56300 | 42,777 | 3638 | 46,415 | 46,519 | 12,024 | 34.96% | 0.82 | D |
| | Downey Ave.-Brookshire Ave. | 33,837 | 6D | 56300 | 42,269 | | 42,269 | 42,495 | 8,432 | 24.92% | 0.75 | C |
| | Brookshire Ave.-Lakewood Blvd. | 34,096 | 6D | 56300 | 41,802 | 4548 | 46,350 | 46,682 | 12,254 | 35.94% | 0.82 | D |
| | Lakewood Blvd.-Clark Ave. | 40,851 | 6D | 56300 | 52,617 | 13644 | 66,261 | 66,713 | 25,410 | 62.20% | 1.18 | F |
| | Clark Ave.-Bellflower Blvd. | 38,540 | 6D | 56300 | 46,518 | 2274 | 48,792 | 49,244 | 10,252 | 26.60% | 0.87 | D |
| | Bellflower Blvd.-Woodruff Ave. | 41,149 | 6D | 56300 | 45,265 | 4548 | 49,813 | 50,039 | 8,664 | 21.06% | 0.88 | D |
| | Woodruff Ave. -- ECL | 37,092 | 6D | 56300 | 40,800 | 4548 | 45,348 | 45,470 | 8,256 | 22.26% | 0.81 | D |
| Gardendale St./Foster Rd. | Garfield Ave.-Paramount Blvd. | 10,900 | 4U | 25000 | 11,990 | | 11,990 | 11,990 | 1,090 | 10.00% | 0.48 | A |
| | Paramount Blvd.-Downey Ave. | 10,410 | 4U | 25000 | 11,668 | | 11,668 | 11,668 | 1,258 | 12.08% | 0.47 | A |
| | Downey Ave.-Brookshire Ave. | 10,406 | 4U | 25000 | 13,741 | | 13,741 | 13,741 | 3,335 | 32.05% | 0.55 | A |
| | Brookshire Ave.-Lakewood Blvd. | 12,806 | 4U | 25000 | 16,889 | | 16,889 | 16,889 | 4,083 | 31.88% | 0.68 | B |
| | Lakewood Blvd.-Clark Ave. | 8,884 | 4U | 25000 | 12,265 | | 12,265 | 12,265 | 3,381 | 38.06% | 0.49 | A |
| | Clark Ave.-Bellflower Blvd. | 9,284 | 4U | 25000 | 13,099 | | 13,099 | 13,204 | 3,815 | 41.09% | 0.52 | A |
| | Bellflower Blvd.-Woodruff Ave. | 9,358 | 4U | 25000 | 12,946 | | 12,946 | 13,051 | 3,588 | 38.34% | 0.52 | A |
| | Woodruff Ave. - ECL | 3,472 | 4U | 25000 | 4,789 | | 4,789 | 4,894 | 1,317 | 37.93% | 0.19 | A |
| Old River School Rd. | Florence Ave.-Firestone Blvd. | 16,630 | 4U | 25000 | 21,498 | | 21,498 | 21,498 | 4,868 | 29.27% | 0.86 | D |
| | Firestone Blvd.-Stewart & Gray Rd. | 12,984 | 4U | 25000 | 19,391 | | 19,391 | 19,391 | 6,407 | 49.35% | 0.78 | C |
| | Stewart & Gray Rd.-Imperial Hwy. | 14,168 | 4U | 25000 | 17,972 | | 17,972 | 17,972 | 3,804 | 26.85% | 0.72 | C |

5. Environmental Analysis

**Table 5.9-13
Currently Adopted General Plan Roadway Segment Volume To Capacity Analysis**

| Street | Road Segment | Existing | Roadway Classification | Roadway Capacity | 2025 W/O Downey Landing | Downey Landing Only | Currently Adopted General Plan | Proposed General Plan | Growth | Growth (%) | Volume To Capacity Ratio | LOS |
|-----------------|---|-----------------|-------------------------------|-------------------------|--------------------------------|----------------------------|---------------------------------------|------------------------------|---------------|-------------------|---------------------------------|------------|
| Paramount Blvd. | Telegraph Rd.- I-5 Fwy. | 39,412 | 6D ¹ | 56300 | 48,788 | | 48,788 | 49,162 | 9,376 | 23.79% | 0.87 | D |
| | I-5 Fwy. - Gallatin Rd. | 40,726 | 6D ¹ | 56300 | 47,987 | | 47,987 | 48,263 | 7,261 | 17.83% | 0.85 | D |
| | Gallatin Rd.-Suva St. | 43,025 | 6D ¹ | 56300 | 49,413 | | 49,413 | 49,689 | 6,388 | 14.85% | 0.88 | D |
| | Suva St.-Florence Ave. | 39,869 | 6D ¹ | 56300 | 44,585 | | 44,585 | 44,785 | 4,716 | 11.83% | 0.79 | C |
| | Florence Ave.-Firestone Blvd. | 41,684 | 6D ¹ | 56300 | 49,289 | | 49,289 | 49,441 | 7,605 | 18.24% | 0.88 | D |
| | Firestone Blvd.-Stewart & Gray Rd. | 29,411 | 6D ¹ | 56300 | 39,183 | | 39,183 | 39,287 | 9,772 | 33.23% | 0.70 | B |
| | Stewart & Gray Rd.-Imperial Hwy. | 28,811 | 6D ¹ | 56300 | 39,975 | | 39,975 | 39,975 | 11,164 | 38.75% | 0.71 | C |
| | Imperial Hwy-Gardendale St./Foster Rd. | 28,864 | 6D ¹ | 56300 | 40,131 | 454 | 40,585 | 40,585 | 11,721 | 40.61% | 0.72 | C |
| Downey Ave. | Gallatin Rd.-Florence Ave. | 8,913 | 4U | 25000 | 10,733 | | 10,733 | 10,733 | 1,820 | 20.42% | 0.43 | A |
| | Florence Ave.-Firestone Blvd. | 12,210 | 4U | 25000 | 14,991 | | 14,991 | 15,065 | 2,781 | 22.78% | 0.60 | A |
| | Firestone Blvd.-Stewart & Gray Rd. | 12,610 | 4U | 25000 | 16,172 | | 16,172 | 16,246 | 3,562 | 28.25% | 0.65 | B |
| | Stewart & Gray Rd.-Imperial Hwy. | 12,553 | 4U | 25000 | 18,794 | | 18,794 | 18,867 | 6,241 | 49.72% | 0.75 | C |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 11,800 | 4U | 25000 | 14,753 | | 14,753 | 14,826 | 2,953 | 25.03% | 0.59 | A |
| Brookshire Ave. | Gallatin Rd.-Florence Ave. | 6,600 | 4U | 25000 | 10,100 | | 10,100 | 10,100 | 3,500 | 53.03% | 0.40 | A |
| | Florence Ave.-Firestone Blvd. | 12,670 | 4D ¹ | 37,500 | 24,921 | | 24,921 | 24,995 | 12,251 | 96.69% | 0.66 | B |
| | Firestone Blvd.-Stewart & Gray Rd. | 19,200 | 4D ¹ | 37,500 | 35,657 | | 35,657 | 35,835 | 16,457 | 85.71% | 0.95 | E |
| | Stewart & Gray Rd.-Imperial Hwy. | 9,800 | 4U | 25000 | 14,373 | | 14,373 | 14,446 | 4,573 | 46.66% | 0.57 | A |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 5,100 | 4U | 25000 | 8,300 | | 8,300 | 8,373 | 3,200 | 62.75% | 0.33 | A |
| Lakewood Blvd | Telegraph Rd.-I-5 | 36,434 | 6D | 56300 | 40,078 | 454 | 40,532 | 41,268 | 4,098 | 11.25% | 0.72 | C |
| | I-5 -Gallatin Rd. | 38,262 | 6D | 56300 | 42,090 | 1362 | 43,452 | 44,396 | 5,190 | 13.56% | 0.77 | C |
| | Gallatin Rd.-Florence Ave. | 34,492 | 6D | 56300 | 37,940 | 1364 | 39,304 | 39,996 | 4,812 | 13.95% | 0.70 | B |
| | Florence Ave.-Firestone Blvd. | 42,380 | 6D | 56300 | 48,049 | 4548 | 52,597 | 52,881 | 10,217 | 24.11% | 0.93 | E |
| | Firestone Blvd.-Stewart & Gray Rd. | 32,461 | 6D ¹ | 56300 | 38,773 | 6822 | 45,595 | 45,805 | 13,134 | 40.46% | 0.81 | D |

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**Table 5.9-13
Currently Adopted General Plan Roadway Segment Volume To Capacity Analysis**

| Street | Road Segment | Existing | Roadway Classification | Roadway Capacity | 2025 W/O Downey Landing | Downey Landing Only | Currently Adopted General Plan | Proposed General Plan | Growth | Growth (%) | Volume To Capacity Ratio | LOS |
|------------------|--|-----------------|-------------------------------|-------------------------|--------------------------------|----------------------------|---------------------------------------|------------------------------|---------------|-------------------|---------------------------------|------------|
| | Stewart & Gray Rd.-Imperial Hwy. | 31,468 | 6D ¹ | 56300 | 47,368 | 2274 | 49,642 | 50,692 | 18,174 | 57.75% | 0.88 | D |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 32,792 | 6D ¹ | 56300 | 68,341 | 13644 | 81,985 | 82,979 | 49,193 | 150.02% | 1.46 | F |
| Clark Ave. | Lakewood Blvd.-Imperial Hwy. | 10,155 | 4U | 25000 | 12,732 | | 12,732 | 12,732 | 2,577 | 25.38% | 0.51 | A |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 14,837 | 4U | 25000 | 18,660 | | 18,660 | 18,660 | 3,823 | 25.77% | 0.75 | C |
| Bellflower Blvd. | Lakewood Blvd.-Stewart & Gray Rd. | 21,298 | 4D | 37500 | 26,184 | | 26,184 | 26,305 | 4,886 | 22.94% | 0.70 | B |
| | Stewart and Gray Rd.-Imperial Hwy. | 21,458 | 4D | 37500 | 27,681 | 6822 | 34,503 | 34,503 | 13,045 | 60.79% | 0.92 | E |
| | Imperial Hwy.-I-105 WB Ramps | 34,691 | 4D | 37500 | 42,853 | 0 | 42,853 | 43,079 | 8,162 | 23.53% | 1.14 | F |
| | I-105 EB Ramps-Gardendale St./Foster Rd. | 35,196 | 4D | 37500 | 43,587 | | 43,587 | 43,692 | 8,391 | 23.84% | 1.16 | F |
| Woodruff Ave. | Firestone Blvd.-Stewart & Gray Rd. | 23,955 | 4D | 37500 | 36,128 | | 36,128 | 36,128 | 12,173 | 50.82% | 0.96 | E |
| | Stewart & Gray Rd.-Imperial Hwy. | 20,968 | 4D | 37500 | 31,663 | | 31,663 | 31,663 | 10,695 | 51.01% | 0.84 | D |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 20,920 | 4D | 37500 | 31,838 | | 31,838 | 31,942 | 10,918 | 52.19% | 0.85 | D |

¹ Growth rate has been increased to reflect 10% minimum growth rate.

² Indicates Incremental Growth approach.

¹ Based on traffic volumes, roadway augmented to General Plan Circulation Element designations

Source: Urban Crossroads

5. Environmental Analysis

**Table 5.9-14
Currently Adopted General Plan With TSM Roadway Segment Volume To Capacity Analysis**

| Street | Road Segment | Existing | Roadway Classification | Roadway Capacity | 2025 W/O Downey Landing | Downey Landing Only | Currently Adopted General Plan | Proposed General Plan | Growth | Growth (%) | Volume To Capacity Ratio | LOS |
|----------------------|--|-----------------|-------------------------------|-------------------------|--------------------------------|----------------------------|---------------------------------------|------------------------------|---------------|-------------------|---------------------------------|------------|
| Telegraph Rd. | WCL - Paramount | 33,347 | 6D ¹ | 60,200 | 38,751 | 454 | 39,205 | 39,645 | 5,858 | 17.57% | 0.65 | B |
| | Paramount-Lakewood | 37,752 | 6D ¹ | 60,200 | 44,241 | 454 | 44,695 | 45,928 | 6,943 | 18.39% | 0.74 | C |
| | Lakewood-I605 | 39,896 | 6D ¹ | 60,200 | 43,885 | 454 | 44,339 | 44,681 | 4,443 | 11.14% | 0.74 | C |
| Gallatin Rd. | Paramount Blvd.-Downey Ave. | 8,500 | 4U | 26,800 | | | 10,455 | 10,455 | | | 0.39 | A |
| | Downey Ave.-Brookshire Ave. | 10,700 | 4U | 26,800 | | | 13,161 | 13,161 | | | 0.49 | A |
| Florence Ave. | Garfield Ave.- Old River School Rd. | 41,235 | 6D | 60,200 | 50,704 | 1820 | 52,524 | 52,622 | 11,289 | 27.38% | 0.87 | D |
| | Old River School Rd.-Paramount Blvd. | 46,529 | 6D | 60,200 | 56,260 | 1820 | 58,080 | 58,178 | 11,551 | 24.83% | 0.96 | E |
| | Paramount Blvd.-Downey Ave. | 37,767 | 6D | 60,200 | 47,989 | 1820 | 49,809 | 49,907 | 12,042 | 31.88% | 0.83 | D |
| | Downey Ave.-Brookshire Ave. | 35,745 | 6D | 60,200 | 40,766 | 1820 | 42,586 | 42,757 | 6,841 | 19.14% | 0.71 | C |
| | Brookshire Ave.-Lakewood Blvd. | 38,960 | 6D | 60,200 | 44,605 | 1820 | 46,425 | 46,669 | 7,465 | 19.16% | 0.77 | C |
| | Lakewood Blvd.-I605 | 44,750 | 6D | 60,200 | 50,126 | 1364 | 51,490 | 51,766 | 6,740 | 15.06% | 0.86 | D |
| Firestone Blvd. | Garfield Ave.- Old River School Rd. | 48,121 | 6D ¹ | 60,200 | 52,935 | 2274 | 52,935 | 53,063 | 4,814 | 10.00% | 0.88 | D |
| | Old River School Rd.-Paramount Blvd. | 37,961 | 6D ¹ | 60,200 | 42,579 | 2274 | 44,853 | 44,981 | 6,892 | 18.16% | 0.75 | C |
| | Paramount Blvd.-Downey Ave. | 38,061 | 6D ¹ | 60,200 | 43,007 | 2274 | 45,281 | 45,409 | 7,220 | 18.97% | 0.75 | C |
| | Downey Ave.-Brookshire Ave. | 37,682 | 6D ¹ | 60,200 | 44,608 | 2274 | 46,882 | 47,010 | 9,200 | 24.41% | 0.78 | C |
| | Brookshire Ave.-Lakewood Blvd. | 48,240 | 6D ¹ | 60,200 | 56,369 | 2274 | 58,643 | 58,667 | 10,403 | 21.57% | 0.97 | E |
| | Lakewood Blvd.-Woodruff Ave. (South) | 50,037 | 6D ¹ | 60,200 | 57,466 | 2274 | 59,740 | 59,838 | 9,703 | 19.39% | 0.99 | E |
| | Woodruff Ave. (South)-Stewart & Gray Rd. | 51,767 | 6D ¹ | 60,200 | 59,239 | | 59,239 | 59,337 | 7,472 | 14.43% | 0.98 | E |
| | Stewart & Gray Rd - ECL | 60,589 | 6D ¹ | 60,200 | 76,472 | | 76,472 | 76,570 | 15,883 | 26.21% | 1.27 | F |
| Stewart and Gray Rd. | Garfield Ave.-Old River School Rd. | 12,710 | 4U | 26,800 | 16,972 | | 16,972 | 17,045 | 4,262 | 33.53% | 0.63 | B |
| | Old River School Rd.-Paramount Blvd. | 21,668 | 4D ¹ | 40,100 | 25,651 | 4548 | 30,199 | 30,303 | 8,531 | 39.37% | 0.75 | C |
| | Paramount Blvd.-Downey Ave. | 22,468 | 4D ¹ | 40,100 | 26,851 | 4548 | 31,399 | 31,607 | 8,931 | 39.75% | 0.78 | C |
| | Downey Ave.-Brookshire Ave. | 19,868 | 4U | 26,800 | 21,855 | | 21,855 | 22,170 | 1,987 | 10.00% | 0.82 | D |
| | Brookshire Ave.-Lakewood Blvd. | 19,327 | 4D ¹ | 40,100 | 23,206 | 4548 | 27,754 | 27,858 | 8,427 | 43.60% | 0.69 | B |

5. Environmental Analysis

**Table 5.9-14
Currently Adopted General Plan With TSM Roadway Segment Volume To Capacity Analysis**

| Street | Road Segment | Existing | Roadway Classification | Roadway Capacity | 2025 W/O Downey Landing | Downey Landing Only | Currently Adopted General Plan | Proposed General Plan | Growth | Growth (%) | Volume To Capacity Ratio | LOS |
|---------------------------|--------------------------------------|---------------------|------------------------|------------------|-------------------------|---------------------|--------------------------------|-----------------------|--------|------------|--------------------------|------|
| | Lakewood Blvd.-Bellflower Blvd. | 16,517 | 4D ¹ | 40,100 | 25,117 | 10460 | 35,577 | 35,891 | 19,060 | 115.40% | 0.89 | D |
| | Bellflower Blvd.-Woodruff Ave. | 16,130 | 4D ¹ | 40,100 | 22,730 | 5686 | 28,416 | 28,520 | 12,286 | 76.17% | 0.71 | C |
| | Woodruff Ave.-Firestone Blvd. | 13,750 | 4U | 26,800 | 18,250 | 4548 | 22,798 | 22,902 | 9,048 | 65.80% | 0.85 | D |
| Imperial Hwy. | Garfield Ave.-Old River School Rd. | 37,384 | 6D | 60,200 | 43,839 | 3184 | 47,023 | 47,127 | 9,639 | 25.78% | 0.78 | C |
| | Old River School Rd.-Paramount Blvd. | 35,268 | 6D | 60,200 | 43,047 | 3184 | 46,231 | 46,335 | 10,963 | 31.08% | 0.77 | C |
| | Paramount Blvd.-Downey Ave. | 34,391 | 6D | 60,200 | 42,777 | 3638 | 46,415 | 46,519 | 12,024 | 34.96% | 0.77 | C |
| | Downey Ave.-Brookshire Ave. | 33,837 | 6D | 60,200 | 42,269 | | 42,269 | 42,495 | 8,432 | 24.92% | 0.70 | B |
| | Brookshire Ave.-Lakewood Blvd. | 34,096 | 6D | 60,200 | 41,802 | 4548 | 46,350 | 46,682 | 12,254 | 35.94% | 0.77 | C |
| | Lakewood Blvd.-Clark Ave. | 40,851 | 6D | 60,200 | 52,617 | 13644 | 66,261 | 66,713 | 25,410 | 62.20% | 1.10 | F |
| | Clark Ave.-Bellflower Blvd. | 38,540 | 6D | 60,200 | 46,518 | 2274 | 48,792 | 49,244 | 10,252 | 26.60% | 0.81 | D |
| | Bellflower Blvd.-Woodruff Ave. | 41,149 | 6D | 60,200 | 45,265 | 4548 | 49,813 | 50,039 | 8,664 | 21.06% | 0.83 | D |
| | Woodruff Ave. -- ECL | 37,092 | 6D | 60,200 | 40,800 | 4548 | 45,348 | 45,470 | 8,256 | 22.26% | 0.75 | C |
| Gardendale St./Foster Rd. | Garfield Ave.-Paramount Blvd. | 10,900 | 4U | 26,800 | 11,990 | | 11,990 | 11,990 | 1,090 | 10.00% | 0.45 | A |
| | Paramount Blvd.-Downey Ave. | 10,410 | 4U | 26,800 | 11,668 | | 11,668 | 11,668 | 1,258 | 12.08% | 0.44 | A |
| | Downey Ave.-Brookshire Ave. | 10,406 | 4U | 26,800 | 13,741 | | 13,741 | 13,741 | 3,335 | 32.05% | 0.51 | A |
| | Brookshire Ave.-Lakewood Blvd. | 12,806 | 4U | 26,800 | 16,889 | | 16,889 | 16,889 | 4,083 | 31.88% | 0.63 | B |
| | Lakewood Blvd.-Clark Ave. | 8,884 | 4U | 26,800 | 12,265 | | 12,265 | 12,265 | 3,381 | 38.06% | 0.46 | A |
| | Clark Ave.-Bellflower Blvd. | 9,284 | 4U | 26,800 | 13,099 | | 13,099 | 13,204 | 3,815 | 41.09% | 0.49 | A |
| | Bellflower Blvd.-Woodruff Ave. | 9,358 | 4U | 26,800 | 12,946 | | 12,946 | 13,051 | 3,588 | 38.34% | 0.48 | A |
| | | Woodruff Ave. - ECL | 3,472 | 4U | 26,800 | 4,789 | | 4,789 | 4,894 | 1,317 | 37.93% | 0.18 |
| Old River School Rd. | Florence Ave.-Firestone Blvd. | 16,630 | 4U | 26,800 | 21,498 | | 21,498 | 21,498 | 4,868 | 29.27% | 0.80 | C |
| | Firestone Blvd.-Stewart & Gray Rd. | 12,984 | 4U | 26,800 | 19,391 | | 19,391 | 19,391 | 6,407 | 49.35% | 0.72 | C |
| | Stewart & Gray Rd.-Imperial Hwy. | 14,168 | 4U | 26,800 | 17,972 | | 17,972 | 17,972 | 3,804 | 26.85% | 0.67 | B |
| Paramount Blvd. | Telegraph Rd.- I-5 Fwy. | 39,412 | 6D ¹ | 60,200 | 48,788 | | 48,788 | 49,162 | 9,376 | 23.79% | 0.81 | D |
| | I-5 Fwy. - Gallatin Rd. | 40,726 | 6D ¹ | 60,200 | 47,987 | | 47,987 | 48,263 | 7,261 | 17.83% | 0.80 | C |

5. Environmental Analysis

**Table 5.9-14
Currently Adopted General Plan With TSM Roadway Segment Volume To Capacity Analysis**

| Street | Road Segment | Existing | Roadway Classification | Roadway Capacity | 2025 W/O Downey Landing | Downey Landing Only | Currently Adopted General Plan | Proposed General Plan | Growth | Growth (%) | Volume To Capacity Ratio | LOS |
|-----------------|---|-----------------|-------------------------------|-------------------------|--------------------------------|----------------------------|---------------------------------------|------------------------------|---------------|-------------------|---------------------------------|------------|
| | Gallatin Rd.-Suva St. | 43,025 | 6D ¹ | 60,200 | 49,413 | | 49,413 | 49,689 | 6,388 | 14.85% | 0.82 | D |
| | Suva St.-Florence Ave. | 39,869 | 6D ¹ | 60,200 | 44,585 | | 44,585 | 44,785 | 4,716 | 11.83% | 0.74 | C |
| | Florence Ave.-Firestone Blvd. | 41,684 | 6D ¹ | 60,200 | 49,289 | | 49,289 | 49,441 | 7,605 | 18.24% | 0.82 | D |
| | Firestone Blvd.-Stewart & Gray Rd. | 29,411 | 6D ¹ | 60,200 | 39,183 | | 39,183 | 39,287 | 9,772 | 33.23% | 0.65 | B |
| | Stewart & Gray Rd.-Imperial Hwy. | 28,811 | 6D ¹ | 60,200 | 39,975 | | 39,975 | 39,975 | 11,164 | 38.75% | 0.66 | B |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 28,864 | 6D ¹ | 60,200 | 40,131 | 454 | 40,585 | 40,585 | 11,721 | 40.61% | 0.67 | B |
| Downey Ave. | Gallatin Rd.-Florence Ave. | 8,913 | 4U | 26,800 | 10,733 | | 10,733 | 10,733 | 1,820 | 20.42% | 0.40 | A |
| | Florence Ave.-Firestone Blvd. | 12,210 | 4U | 26,800 | 14,991 | | 14,991 | 15,065 | 2,781 | 22.78% | 0.56 | A |
| | Firestone Blvd.-Stewart & Gray Rd. | 12,610 | 4U | 26,800 | 16,172 | | 16,172 | 16,246 | 3,562 | 28.25% | 0.60 | A |
| | Stewart & Gray Rd.-Imperial Hwy. | 12,553 | 4U | 26,800 | 18,794 | | 18,794 | 18,867 | 6,241 | 49.72% | 0.70 | B |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 11,800 | 4U | 26,800 | 14,753 | | 14,753 | 14,826 | 2,953 | 25.03% | 0.55 | A |
| Brookshire Ave. | Gallatin Rd.-Florence Ave. | 6,600 | 4U | 26,800 | 10,100 | | 10,100 | 10,100 | 3,500 | 53.03% | 0.38 | A |
| | Florence Ave.-Firestone Blvd. | 12,670 | 4D ¹ | 40,100 | 24,921 | | 24,921 | 24,995 | 12,251 | 96.69% | 0.62 | B |
| | Firestone Blvd.-Stewart & Gray Rd. | 19,200 | 4D ¹ | 40,100 | 35,657 | | 35,657 | 35,835 | 16,457 | 85.71% | 0.89 | D |
| | Stewart & Gray Rd.-Imperial Hwy. | 9,800 | 4U | 26,800 | 14,373 | | 14,373 | 14,446 | 4,573 | 46.66% | 0.54 | A |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 5,100 | 4U | 26,800 | 8,300 | | 8,300 | 8,373 | 3,200 | 62.75% | 0.31 | A |
| Lakewood Blvd | Telegraph Rd.-I-5 | 36,434 | 6D | 60,200 | 40,078 | 454 | 40,532 | 41,268 | 4,098 | 11.25% | 0.67 | B |
| | I-5 -Gallatin Rd. | 38,262 | 6D | 60,200 | 42,090 | 1362 | 43,452 | 44,396 | 5,190 | 13.56% | 0.72 | C |
| | Gallatin Rd.-Florence Ave. | 34,492 | 6D | 60,200 | 37,940 | 1364 | 39,304 | 39,996 | 4,812 | 13.95% | 0.65 | B |
| | Florence Ave.-Firestone Blvd. | 42,380 | 6D | 60,200 | 48,049 | 4548 | 52,597 | 52,881 | 10,217 | 24.11% | 0.87 | D |
| | Firestone Blvd.-Stewart & Gray Rd. | 32,461 | 6D ¹ | 60,200 | 38,773 | 6822 | 45,595 | 45,805 | 13,134 | 40.46% | 0.76 | C |
| | Stewart & Gray Rd.-Imperial Hwy. | 31,468 | 6D ¹ | 60,200 | 47,368 | 2274 | 49,642 | 50,692 | 18,174 | 57.75% | 0.82 | D |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 32,792 | 6D ¹ | 60,200 | 68,341 | 13644 | 81,985 | 82,979 | 49,193 | 150.02% | 1.36 | F |
| Clark Ave. | Lakewood Blvd.-Imperial Hwy. | 10,155 | 4U | 26,800 | 12,732 | | 12,732 | 12,732 | 2,577 | 25.38% | 0.48 | A |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 14,837 | 4U | 26,800 | 18,660 | | 18,660 | 18,660 | 3,823 | 25.77% | 0.70 | B |

5. Environmental Analysis

**Table 5.9-14
Currently Adopted General Plan With TSM Roadway Segment Volume To Capacity Analysis**

| Street | Road Segment | Existing | Roadway Classification | Roadway Capacity | 2025 W/O Downey Landing | Downey Landing Only | Currently Adopted General Plan | Proposed General Plan | Growth | Growth (%) | Volume To Capacity Ratio | LOS |
|------------------|--|-----------------|-------------------------------|-------------------------|--------------------------------|----------------------------|---------------------------------------|------------------------------|---------------|-------------------|---------------------------------|------------|
| Bellflower Blvd. | Lakewood Blvd.-Stewart & Gray Rd. | 21,298 | 4D | 40,100 | 26,184 | | 26,184 | 26,305 | 4,886 | 22.94% | 0.65 | B |
| | Stewart and Gray Rd.-Imperial Hwy. | 21,458 | 4D | 40,100 | 27,681 | 6822 | 34,503 | 34,503 | 13,045 | 60.79% | 0.86 | D |
| | Imperial Hwy.-I-105 WB Ramps | 34,691 | 4D | 40,100 | 42,853 | 0 | 42,853 | 43,079 | 8,162 | 23.53% | 1.07 | F |
| | I-105 EB Ramps-Gardendale St./Foster Rd. | 35,196 | 4D | 40,100 | 43,587 | | 43,587 | 43,692 | 8,391 | 23.84% | 1.09 | F |
| Woodruff Ave. | Firestone Blvd.-Stewart & Gray Rd. | 23,955 | 4D | 40,100 | 36,128 | | 36,128 | 36,128 | 12,173 | 50.82% | 0.90 | D |
| | Stewart & Gray Rd.-Imperial Hwy. | 20,968 | 4D | 40,100 | 31,663 | | 31,663 | 31,663 | 10,695 | 51.01% | 0.79 | C |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 20,920 | 4D | 40,100 | 31,838 | | 31,838 | 31,942 | 10,918 | 52.19% | 0.79 | C |
| TOTAL | | | | | | | | | | | | |

¹ Growth rate has been increased to reflect 10% minimum growth rate.

² Indicates Incremental Growth approach.

¹ Based on traffic volumes, roadway augmented to General Plan Circulation Element designations

Source: Urban Crossroads

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5. Environmental Analysis

**Table 5.9-15
Currently Adopted General Plan With TSM Peak Hour Roadway Link Capacity Analysis**

| Roadway Segment | From | To | Lanes | ADT | Peak Hour capacity | Highest Peak Volume | V/C | LOS |
|------------------------|----------------------|----------------------|--------------|------------|---------------------------|----------------------------|------------|----------------|
| Florence Ave | Old River School Rd. | Paramount Bl. | 3 | 58,080 | 4,800 | 2,727 | 0.57 | A |
| Firestone Bl. | Garfield Av. | Old River School Rd. | 3 | 55,209 | 4,800 | 1,767 | 0.37 | A |
| Firestone Bl. | Brookshire Av. | Lakewood Bl. | 3 | 58,643 | 4,800 | 2,355 | 0.49 | A |
| Firestone Bl. | Lakewood Bl. | Woodruff Av. | 3 | 59,740 | 4,800 | 2,173 | 0.45 | A |
| Firestone Bl. | Woodruff Av. | Stewart & Gray Rd. | 3 | 59,539 | 4,800 | N/A | 0.45 | A ¹ |
| Firestone Bl. | Stewart & Gray Rd. | East City Limit | 3 | 76,472 | 4,800 | N/A | 0.68 | B ² |
| Imperial Hwy. | Lakewood Bl. | Clark Av. | 3 | 66,261 | 4,800 | 2,303 | 0.48 | A |
| Lakewood Bl. | Imperial Hwy. | Foster Rd. | 3 | 81,985 | 4,800 | 3,494 | 0.73 | C |
| Bellflower Bl. | Imperial Hwy. | I-105 WB Ramps | 2 | 42,853 | 3,200 | 1,474 | 0.46 | A |
| Bellflower Bl. | I-105 EB Ramps | Foster Rd. | 2 | 43,587 | 3,200 | N/A | 0.47 | A ³ |

¹ Peak Hour Level of Service estimated based on results for Firestone Bl. Between Lakewood Bl. And Woodruff Av.

² Peak Hour Level of Service estimated based on results for Lakewood Bl. Between Imperial Hwy. And Foster Rd.

³ Peak Hour Level of Service estimated based on results for Bellflower Bl. Between Imperial Hwy. And I-105 WB Ramps

Source: Urban Crossroads

5. Environmental Analysis

Currently Adopted General Plan Peak Hour Intersection Operations Analysis

Table 5.9-16 summarizes future peak hour inter-section operations for Currently Adopted General Plan Conditions. For Currently Adopted General Plan conditions, with existing lanes, all of the 19 intersection analysis locations will experience unacceptable peak hour operations LOS "E" or worse. Table 5.9-16 shows the necessary improvements required to improve all deficient intersections to LOS "D" or LOS "E". To achieve LOS "E" traffic operations, three of the intersections would require improvements beyond typical for roadway sizes in the City of Downey Currently Adopted Master Plan of Streets and Highways.

**Table 5.9-16
Currently Adopted General Plan Intersection Analysis Summary**

| Intersection | Traffic ³ Control | Intersection Approach Lanes ¹ | | | | | | | | | | | | Delay ² (Secs.) | | Level of Service | |
|---|------------------------------|--|----------|-------------|-----------------------|----------|----------|-----------------------|----------|----------|-----------------------|----------|-----------------------|----------------------------|-----------------|------------------|----|
| | | North-Bound | | | South-Bound | | | East-Bound | | | West-Bound | | | AM | PM | AM | PM |
| | | L | T | R | L | T | R | L | T | R | L | T | R | | | | |
| Old River School Rd. (NS) at: • Florence Av. (EW) -with LOS "D/E" | TS | 1.5 | 0.5 | 1 | 0.5 | 1.5 | 0 | 1 | 3 | 0 | 1 | 2 | 0 | -- ⁴ | -- ⁴ | F | F |
| improvements | TS | <u>2</u> | <u>2</u> | <u>1</u> >> | <u>2</u> | <u>2</u> | 0 | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | 0 | 36.5 | 51.1 | D | D |
| • Firestone Bl. (EW) -with LOS "E" improvements | TS | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 1>> | 1 | 2 | 1>> | 51.9 | -- ⁴ | D | F |
| -with LOS "D" improvements | TS | 1 | 2 | 0 | 1 | 2 | 0 | 1 | <u>3</u> | 0 | 1 | <u>3</u> | 0 | 38.9 | 57.3 | D | E |
| • Imperial Hw. (EW) -with LOS "D" improvements | TS | 1 | 2 | <u>1</u> | 1 | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 38.6 | 47.3 | D | D |
| • Imperial Hw. (EW) -with LOS "D" improvements | TS | 1.5 | 1.5 | 0 | 1 | 2 | 0 | 1 | 3 | 1> | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D" improvements | TS | 1.5 | 1.5 | 0 | 1 | 2 | 0 | <u>2</u> ⁷ | 3 | 1> | <u>2</u> | 3 | <u>1</u> | 41.3 | 38.2 | D | D |
| Paramount Bl. (NS) at: • Telegraph Rd. (EW) -with LOS "D/E" | TS | 1 | 2 | 1> | 1 | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| improvements | TS | <u>2</u> | 3 | 1 | <u>2</u> | <u>3</u> | 0 | <u>2</u> | 3 | 0 | <u>2</u> | 3 | 0 | 53.9 | 49.4 | D | D |
| • Florence Av. (EW) -with LOS "E" improvements ⁵ | TS | 2 | 2 | 0 | 2 | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D" improvements ⁵ | TS | 2 | <u>3</u> | <u>1</u> | 2 | <u>3</u> | <u>1</u> | <u>2</u> ⁷ | 3 | <u>1</u> | <u>2</u> ⁷ | 3 | <u>1</u> | 36.6 | 58.6 | D | E |
| -with LOS "D" improvements ⁶ | TS | 2 | 3 | 1 | 2 | 3 | 1 | 2 | <u>4</u> | 1 | 2 | 3 | 1 | 36.1 | 43.9 | D | D |
| • Firestone Bl. (EW) -with LOS "E" improvements | TS | 1 | 2 | 1> | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D" improvements | TS | <u>2</u> ⁷ | <u>3</u> | 1 | <u>2</u> ⁷ | 3 | 1 | <u>2</u> | 2 | 1 | <u>2</u> | 2 | <u>1</u> ⁷ | 40.8 | 61.8 | D | E |
| -with LOS "D" improvements | TS | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 2 | 1 | 2 | <u>3</u> | 0 | 34.5 | 50.3 | C | D |
| • Stewart & Gray Rd. (EW) -with LOS "D/E" | TS | 1 | 3 | 0 | 1 | 2 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | -- ⁴ | -- ⁴ | F | F |
| improvements | TS | 1 | 3 | 0 | 1 | 2 | 1 | <u>2</u> | 2 | <u>1</u> | <u>2</u> | 2 | <u>1</u> | 50.3 | 51.8 | D | D |
| • Imperial Hw. (EW) -with LOS "D/E" | TS | 2 | 2 | 0 | 1 | 2 | 1> | 2 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| improvements | TS | 2 | <u>3</u> | 0 | <u>2</u> | <u>3</u> | 1 | 2 | 3 | <u>1</u> | <u>2</u> | 3 | <u>1</u> | 45.1 | 54.9 | D | D |
| Downey Av. (NS) at: • Firestone Bl. (EW) -with LOS "D/E" | TS | 1< | 1 | 1 | 1< | 1 | 1 | 1< | 2 | 1 | 1< | 3 | 0 | 40.0 | -- ⁴ | D | F |
| improvements | TS | <u>2</u> | <u>2</u> | 1 | <u>2</u> | <u>2</u> | 0 | 1 | 2 | 1 | 1< | 3 | 0 | 30.6 | 38.0 | C | D |
| Brookshire Av. (NS) at: • Firestone Bl. (EW) -with LOS "E" improvements | TS | 1< | 2 | 0 | 1< | 2 | 0 | 1< | 3 | 0 | 1< | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D" improvements ⁶ | TS | <u>2</u> | <u>3</u> | <u>1</u> | <u>2</u> | 2 | <u>1</u> | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | <u>1</u> | 39.0 | 60.0 | D | E |
| -with LOS "D" improvements ⁶ | TS | 2 | 3 | 1 | 2 | 2 | 1 | 2 | <u>4</u> | 1 | 2 | <u>4</u> | 1 | 34.5 | 47.3 | C | D |
| Lakewood Bl. • Telegraph Rd. (EW) -with LOS "E" improvements | TS | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D" improvements | TS | <u>2</u> | 2 | <u>2</u> | <u>2</u> | 2 | 1 | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | <u>1</u> | 56.8 | 47.0 | E | D |
| -with LOS "D" improvements | TS | 1 | <u>3</u> | 2 | 1 | <u>3</u> | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 48.3 | 45.6 | D | D |

5. Environmental Analysis

**Table 5.9-16
Currently Adopted General Plan Intersection Analysis Summary**

| Intersection | Traffic ³ Control | Intersection Approach Lanes ¹ | | | | | | | | | | | | Delay ² (Secs.) | | Level of Service | |
|---|---------------------------------|--|----------|----------|-----------------------|----------|----------|-----------------------|----------|-------------|-----------------------|----------|----------|-------------------------------|-----------------|---------------------|----|
| | | North- Bound | | | South- Bound | | | East- Bound | | | West- Bound | | | AM | PM | AM | PM |
| | | L | T | R | L | T | R | L | T | R | L | T | R | | | | |
| • Florence Av. (EW) | TS | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "E" improvements | TS | <u>2</u> ⁷ | 3 | 0 | <u>2</u> ⁷ | 3 | <u>1</u> | <u>2</u> ⁷ | 3 | <u>1</u> | <u>2</u> ⁷ | 3 | 0 | 63.8 | 48.6 | E | D |
| -with LOS "D" improvements | TS | <u>2</u> | 3 | 0 | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | <u>1</u> | 49.2 | 47.9 | D | D |
| • Firestone Bl. (EW) | TS | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 1 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "E" improvements | TS | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | 0 | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | 1 | 77.5 | 59.3 | E | E |
| -with LOS "D" improvements ⁶ | TS | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | <u>1</u> | <u>2</u> | <u>4</u> | 1 | 49.4 | 48.8 | D | D |
| • Stewart & Gray Rd. (EW) | TS | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 1 | 1 | 2 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "E" improvements | TS | 1 | <u>3</u> | <u>1</u> | 1 | <u>3</u> | 0 | <u>2</u> | 2 | <u>1</u> > | <u>2</u> | 2 | <u>1</u> | 62.4 | 55.1 | E | E |
| -with LOS "D" improvements | TS | 1 | 3 | 1 | 1 | 3 | 0 | 2 | <u>3</u> | 1> | 2 | 2 | 1 | 45.4 | 41.9 | D | D |
| • Imperial Hw. (EW) | TS | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D/E" improvements ⁶ | TS | <u>3</u> | 3 | <u>2</u> | <u>2</u> | <u>4</u> | <u>1</u> | <u>2</u> | <u>4</u> | <u>1</u> >> | <u>3</u> | 3 | <u>1</u> | 39.1 | 52.6 | D | D |
| • Foster Rd. (EW) | TS | 1 | 2 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D/E" improvements ⁶ | | <u>2</u> | <u>3</u> | 1 | <u>2</u> | <u>4</u> | <u>1</u> | <u>2</u> | 2 | <u>1</u> | <u>2</u> | 2 | 0 | 46.6 | 47.5 | D | D |
| Bellflower Bl. (NS) at: | | | | | | | | | | | | | | | | | |
| • Imperial Hw. (EW) | TS | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "E" improvements | TS | <u>2</u> | 2 | <u>1</u> | <u>2</u> | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 58.0 | 67.5 | E | E |
| -with LOS "D" improvements | TS | 2 | 2 | 1 | 2 | 2 | 0 | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | <u>1</u> | 37.5 | 47.2 | D | D |
| Woodruff Av. (NS) at: | | | | | | | | | | | | | | | | | |
| • Stewart & Gray Rd. (EW) | TS | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1>> | 1 | 2 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "E" improvements | TS | <u>2</u> | 2 | 1 | <u>2</u> | 2 | 1 | <u>2</u> | 2 | 1>> | <u>2</u> | 2 | 1 | 15.9 | 57.9 | B | E |
| -with LOS "D" improvements ⁶ | TS | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1>> | 2 | <u>3</u> | 1 | 15.9 | 46.9 | B | D |
| • Imperial Hw. (EW) | TS | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D/E" improvements | TS | <u>2</u> | <u>3</u> | <u>2</u> | <u>2</u> | 2 | 1 | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | 0 | 50.9 | 46.6 | D | D |

¹ When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; < = Protected and permitted; >> = Free right; > = Right turn overlap; 1 = improvement

² Delay and level of service calculated using the following analysis software: Traffix, Version 7.6 (2003). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic, traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown.

³ TS = Traffic Signal

⁴ = Delay High, Intersection Unstable, Level of Service "F".

⁵ = Intersection is at a satisfactory Level of Service, but the Volume over Capacity Ratio is greater than 1.00.

⁶ = Improvements beyond allowable limits were necessary to Improve intersection to satisfactory Level of Service

⁷ = Improvement consistent with Downey Vision 2010

Source: Urban Crossroads

5. Environmental Analysis

If a Traffic System Management (TSM) is implemented, a capacity increase of 7% could be obtained. Operations analyses were also conducted on the intersections using existing plus adopted lanes with TSM geometries. As shown in Table 5.9-17, the number of deficient intersections has not been reduced. Table 5.9-17 also shows the necessary improvements required to bring all intersections to LOS "E" or LOS "D". The same three intersections would require improvements beyond the conditions in the Master Plan of Streets and Highways to obtain LOS "E", although fewer spot improvements (turn lanes) would be required.

Proposed General Plan Traffic Operations

Roadway segment operations for proposed General Plan conditions have also been evaluated on both a daily basis and also for peak hour conditions where necessary to determine that the City of Downey desired levels of service can be achieved.

**Table 5.9-17
Currently Adopted General Plan with TSM Intersection Analysis Summary**

| Intersection | Traffic Control ⁸ | Intersection Approach Lanes ¹ | | | | | | | | | | | | Delay ² (Secs.) | | Level of Service | |
|---|------------------------------|--|----------|----------|-----------------------|----------|----------|-----------------------|----------|----------|-----------------------|----------|----------|----------------------------|-----------------|------------------|----|
| | | North-Bound | | | South-Bound | | | East-Bound | | | West-Bound | | | AM | PM | AM | PM |
| | | L | T | R | L | T | R | L | T | R | L | T | R | | | | |
| Old River School Rd. (NS) at: | | | | | | | | | | | | | | | | | |
| • Florence Av. (EW) | TS | 1.5 | 0.5 | 1 | 0.5 | 1.5 | 0 | 1 | 3 | 0 | 1 | 2 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D/E" improvements | TS | <u>2</u> | <u>1</u> | 1 | <u>2</u> | 1 | 0 | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | 0 | 38.9 | 47.3 | D | D |
| • Firestone Bl. (EW) | TS | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 1>> | 1 | 2 | 1>> | 43.4 | -- ⁴ | D | F |
| -with LOS "E" improvements | TS | <u>2</u> | 2 | 0 | <u>2</u> | 2 | 0 | 1 | 2 | 1>> | 1 | 2 | 1>> | 32.9 | 57.7 | C | E |
| -with LOS "D" improvements | TS | 2 | 2 | 0 | 2 | 2 | 0 | <u>2</u> | 2 | 1>> | <u>2</u> | 2 | 1>> | 29.1 | 47.7 | C | D |
| • Imperial Hw. (EW) | TS | 1.5 | 1.5 | 0 | 1 | 2 | 0 | 1 | 3 | 1> | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D/E" improvements | TS | 1.5 | 1.5 | 0 | 1 | 2 | 0 | <u>2</u> ⁷ | 3 | 1> | 1 | 3 | 0 | 45.7 | 38.3 | D | D |
| Paramount Bl. (NS) at: | | | | | | | | | | | | | | | | | |
| • Telegraph Rd. (EW) | TS | 1 | 2 | 1> | 1 | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D/E" improvements | TS | <u>2</u> | <u>3</u> | 0 | <u>2</u> | <u>3</u> | 0 | <u>2</u> | 3 | 0 | <u>2</u> | 3 | 0 | 53.4 | 47.5 | D | D |
| • Florence Av. (EW) | TS | 2 | 2 | 0 | 2 | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "E" improvements | TS | 2 | <u>3</u> | 0 | 2 | 2 | <u>1</u> | <u>2</u> ⁷ | 3 | <u>1</u> | <u>2</u> ⁷ | 3 | 0 | 44.7 | 64.7 | D | E |
| -with LOS "D" improvements | TS | 2 | 3 | <u>1</u> | 2 | <u>3</u> | 0 | 2 | 3 | 1 | 2 | 3 | <u>1</u> | 36.7 | 53.8 | D | D |
| • Firestone Bl. (EW) | TS | 1 | 2 | 1> | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D/E" improvements | TS | <u>2</u> ⁷ | <u>3</u> | 0 | <u>2</u> ⁷ | <u>3</u> | 0 | <u>2</u> | 2 | 1 | <u>2</u> | <u>3</u> | 0 | 33.0 | 48.3 | C | C |
| • Stewart & Gray Rd. (EW) | TS | 1 | 3 | 0 | 1 | 2 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D/E" improvements | TS | 1 | 3 | 0 | 1 | 2 | 1 | <u>2</u> | 2 | <u>1</u> | <u>2</u> | 2 | 0 | 47.8 | 19.8 | D | D |
| • Imperial Hw. (EW) | TS | 2 | 2 | 0 | 1 | 2 | 1> | 2 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D/E" improvements | TS | 2 | <u>3</u> | 0 | <u>2</u> | 2 | 1 | 2 | 3 | <u>1</u> | <u>2</u> | 3 | <u>1</u> | 45.9 | 49.5 | D | D |
| Downey Av. (NS) at: | | | | | | | | | | | | | | | | | |
| • Firestone Bl. (EW) | TS | 1< | 1 | 1 | 1< | 1 | 1 | 1< | 2 | 1 | 1< | 3 | 0 | 33.6 | -- ⁴ | C | F |
| -with LOS "D/E" improvements | TS | 1< | <u>2</u> | 1 | 1< | <u>2</u> | 1 | 1< | <u>3</u> | 1 | 1< | 3 | 0 | 28.8 | 31.9 | C | C |
| Brookshire Av. (NS) at: | | | | | | | | | | | | | | | | | |
| • Firestone Bl. (EW) | TS | 1< | 2 | 0 | 1< | 2 | 0 | 1< | 3 | 0 | 1< | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "E" improvements | TS | <u>2</u> | 2 | <u>1</u> | <u>2</u> | 2 | <u>1</u> | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | <u>1</u> | 41.3 | 69.4 | D | E |
| -with LOS "D" improvements ⁶ | TS | 2 | <u>3</u> | 1 | 2 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 32.7 | 48.2 | C | D |
| Lakewood Bl. | | | | | | | | | | | | | | | | | |
| • Telegraph Rd. (EW) | TS | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D/E" improvements | TS | <u>2</u> | 2 | <u>2</u> | <u>2</u> | 2 | 1 | <u>2</u> | 3 | 0 | <u>2</u> | 3 | 0 | 52.6 | 51.0 | D | D |
| • Florence Av. (EW) | TS | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 73.9 | -- ⁴ | E | F |

5. Environmental Analysis

Table 5.9-17
Currently Adopted General Plan with TSM Intersection Analysis Summary

| <i>Intersection</i> | <i>Traffic Control³</i> | <i>Intersection Approach Lanes¹</i> | | | | | | | | | | | | <i>Delay² (Secs.)</i> | | <i>Level of Service</i> | |
|---|------------------------------------|--|----------|----------|-----------------------|----------|----------|-----------------------|----------|-------------|-----------------------|----------|----------|----------------------------------|-----------------|-------------------------|-----------|
| | | <i>North-Bound</i> | | | <i>South-Bound</i> | | | <i>East-Bound</i> | | | <i>West-Bound</i> | | | <i>AM</i> | <i>PM</i> | <i>AM</i> | <i>PM</i> |
| | | <i>L</i> | <i>T</i> | <i>R</i> | <i>L</i> | <i>T</i> | <i>R</i> | <i>L</i> | <i>T</i> | <i>R</i> | <i>L</i> | <i>T</i> | <i>R</i> | <i>AM</i> | <i>PM</i> | <i>AM</i> | <i>PM</i> |
| -with LOS "E" improvements | TS | <u>2</u> ⁷ | 3 | 0 | <u>2</u> ⁷ | 3 | 0 | <u>2</u> ⁷ | 3 | 0 | <u>2</u> ⁷ | 3 | 0 | 54.2 | 55.6 | D | E |
| -with LOS "D" improvements | TS | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 3 | <u>1</u> | 2 | 3 | 0 | 53.1 | 43.2 | D | D |
| • Firestone Bl. (EW) | TS | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 1 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "E" improvements | TS | <u>2</u> | 3 | 0 | <u>2</u> | 3 | 0 | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | 1 | 65.5 | 51.9 | E | D |
| -with LOS "D" improvements | TS | 2 | 3 | <u>1</u> | 2 | 3 | <u>1</u> | 2 | 3 | 1 | 2 | 3 | 1 | 54.2 | 54.7 | D | D |
| • Stewart & Gray Rd. (EW) | TS | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 1 | 1 | 2 | 0 | -- ⁴ | -- ⁴ | F | F |
| --with LOS "D/E" improvements | TS | 2 | 3 | 1 | 2 | 3 | 1 | <u>2</u> | <u>2</u> | <u>1</u> | <u>2</u> | <u>2</u> | 1 | 31.4 | 45.9 | D | D |
| • Imperial Hw. (EW) | TS | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "E" improvements ⁶ | TS | <u>3</u> | 3 | <u>2</u> | <u>2</u> | 3 | <u>1</u> | <u>2</u> | <u>4</u> | <u>2</u> | <u>3</u> | 3 | 0 | 41.2 | 57.4 | D | E |
| -with LOS "D" improvements ⁶ | TS | 3 | 3 | 2 | 2 | 3 | 1 | 2 | 4 | <u>1</u> >> | 3 | 3 | 0 | 36.8 | 53.7 | D | D |
| • Foster Rd. (EW) | TS | 1 | 2 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D/E" improvements ⁶ | TS | <u>2</u> | <u>3</u> | 1 | <u>2</u> | <u>4</u> | <u>1</u> | <u>2</u> | 2 | 0 | <u>2</u> | 2 | 0 | 40.7 | 46.7 | D | D |
| Bellflower Bl. (NS) at: | | | | | | | | | | | | | | | | | |
| • Imperial Hw. (EW) | TS | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "E" improvements | TS | <u>2</u> | 2 | 0 | <u>2</u> | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 57.8 | 67.1 | E | E |
| -with LOS "D" improvements | TS | 2 | 2 | 0 | 2 | 2 | 0 | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | <u>1</u> | 38.8 | 46.6 | D | D |
| Woodruff Av. (NS) at: | | | | | | | | | | | | | | | | | |
| • Stewart & Gray Rd. (EW) | TS | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1>> | 1 | 2 | 0 | 26.1 | -- ⁴ | C | F |
| -with LOS "D/E" improvements | TS | <u>2</u> | 2 | 1 | <u>2</u> | 2 | 1 | <u>2</u> | 2 | 1>> | <u>2</u> | 2 | <u>1</u> | 22.4 | 46.7 | C | D |
| • Imperial Hw. (EW) | TS | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D/E" improvements | TS | <u>2</u> | 2 | <u>2</u> | <u>2</u> | 2 | 1 | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | 0 | 39.4 | 45.9 | D | D |

¹ When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; < = Protected and permitted; >> = Free right; > = Right turn overlap; 1 = improvement

² Delay and level of service calculated using the following analysis software: Traffix, Version 7.6 (2003). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic, traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown.

³ TS = Traffic Signal

⁴ = Delay High, Intersection Unstable, Level of Service "F".

⁵ = Intersection is at a satisfactory Level of Service, but the Volume over Capacity Ratio is greater than 1.00.

⁶ = Improvements beyond allowable limits were necessary to Improve intersection to satisfactory Level of Service

⁷ = Improvement consistent with Downey Vision 2010

Source: Urban Crossroads

Proposed General Plan Roadway Segment Operations Analysis

Daily traffic planning level traffic operations along the various arterial roadways within the City of Downey under proposed General Plan conditions are summarized on Table 5.9-18. Where necessary, additional through travel lanes, consistent with the currently adopted Circulation Element Master Plan of Streets and Highways, have again been assumed to be implemented. As before, most roadways must be widened to their ultimate number of through lanes to accommodate projected traffic volumes. Even so, 18 segments of the following roadways are projected to experience daily planning level deficiencies without the implementation of further measures:

- Florence Avenue

5. *Environmental Analysis*

- Firestone Boulevard
- Stewart and Gray Road
- Imperial Highway
- Brookshire Avenue
- Lakewood Boulevard
- Bellflower Boulevard
- Woodruff Avenue

Consistent with the currently adopted General Plan analysis included in this study, the initial mitigation measure considered in this analysis is the implementation of transportation systems management improvements. Table 5.9-19 summarizes the resulting daily levels of service for proposed General Plan with TSM implementation. With the implementation of TSM, only 9 segments along the following roadways are projected to experience daily planning level capacity deficiencies (LOS “E” or “F”):

- Florence Avenue
- Firestone Boulevard
- Imperial Highway
- Lakewood Boulevard
- Bellflower Boulevard

As indicated by this analysis, TSM implementation will reduce potential future daily deficiencies, but will not eliminate the deficiencies entirely. Further peak hour roadway segment analysis has been completed for those roadway segments where LOS “D” or better operations are not provided through the combination of additional through lanes consistent with the currently adopted Master Plan of Streets and Highways or TSM implementation. Table 5.9-20 summarizes the peak hour analysis. As shown on Table 5.9-20, acceptable peak hour roadway segment operations can be expected for proposed General Plan Land Use Element.

Table 5.9-21 summarizes the results of the intersection operation analysis for the Proposed General Plan Condition. The peak hour forecasts have been reviewed for reasonableness in the context of the existing turn movement counts and the future daily traffic volume forecasts. Worksheets summarizing this review are included in Appendix J of the traffic report. Analysis results using traffic volumes from the proposed General Plan with existing intersection configurations show that all intersections experience deficient operations in the absence of further inter-section improvements. The required improvements to attain Level of Service “E” or Level of Service “D” for all intersections are shown on Table 5.9-21. The same three intersections identified previously require improvements beyond those in the Currently Adopted Master Plan of Streets and Highways to reach LOS “E”. For operation at LOS “D” or better, four intersections require improvements greater than typical in the Master Plan of Streets and Highways require improvements greater than typical engineering practice.

Results of the analysis of the Proposed General Plan using TSM to increase capacity are shown in Table 5.9-22. Under existing conditions, all of the 19 intersections analyzed, experience deficient operations.

5. Environmental Analysis

**Table 5.9-18
Proposed General Plan Roadway Segment Volume To Capacity Analysis**

| Street | Road Segment | Existing | Roadway Classification | Roadway Capacity | 2025 W/O Downey Landing | Downey Landing Only | Currently Adopted General Plan | Proposed General Plan | Growth | Growth (%) | Volume To Capacity Ratio | LOS |
|----------------------|--|----------|------------------------|------------------|-------------------------|---------------------|--------------------------------|-----------------------|--------|------------|--------------------------|-----|
| Telegraph Rd. | WCL - Paramount | 33,347 | 6D ¹ | 56,300 | 38,751 | 454 | 39,205 | 39,645 | 5,858 | 17.57% | 0.70 | B |
| | Paramount-Lakewood | 37,752 | 6D ¹ | 56,300 | 44,241 | 454 | 44,695 | 45,928 | 6,943 | 18.39% | 0.82 | D |
| | Lakewood-I605 | 39,896 | 6D ¹ | 56,300 | 43,885 | 454 | 44,339 | 44,681 | 4,443 | 11.14% | 0.79 | C |
| Gallatin Rd. | Paramount Blvd.-Downey Ave. | 8,500 | 4U | 25,000 | | | 10,455 | 10,455 | | | 0.42 | A |
| | Downey Ave.-Brookshire Ave. | 10,700 | 4U | 25,000 | | | 13,161 | 13,161 | | | 0.53 | A |
| Florence Ave. | Garfield Ave.- Old River School Rd. | 41,235 | 6D | 56,300 | 50,704 | 1820 | 52,524 | 52,622 | 11,289 | 27.38% | 0.93 | E |
| | Old River School Rd.-Paramount Blvd. | 46,529 | 6D | 56,300 | 56,260 | 1820 | 58,080 | 58,178 | 11,551 | 24.83% | 1.03 | F |
| | Paramount Blvd.-Downey Ave. | 37,767 | 6D | 56,300 | 47,989 | 1820 | 49,809 | 49,907 | 12,042 | 31.88% | 0.89 | D |
| | Downey Ave.-Brookshire Ave. | 35,745 | 6D | 56,300 | 40,766 | 1820 | 42,586 | 42,757 | 6,841 | 19.14% | 0.76 | C |
| | Brookshire Ave.-Lakewood Blvd. | 38,960 | 6D | 56,300 | 44,605 | 1820 | 46,425 | 46,669 | 7,465 | 19.16% | 0.83 | D |
| | Lakewood Blvd.-I605 | 44,750 | 6D | 56,300 | 50,126 | 1364 | 51,490 | 51,766 | 6,740 | 15.06% | 0.92 | E |
| Firestone Blvd. | Garfield Ave.- Old River School Rd. | 48,121 | 6D ¹ | 56,300 | 52,935 | 2274 | 55,209 | 53,063 | 7,088 | 14.73% | 0.94 | E |
| | Old River School Rd.-Paramount Blvd. | 37,961 | 6D ¹ | 56,300 | 42,579 | 2274 | 44,853 | 44,981 | 6,892 | 18.16% | 0.80 | C |
| | Paramount Blvd.-Downey Ave. | 38,061 | 6D ¹ | 56,300 | 43,007 | 2274 | 45,281 | 45,409 | 7,220 | 18.97% | 0.81 | D |
| | Downey Ave.-Brookshire Ave. | 37,682 | 6D ¹ | 56,300 | 44,608 | 2274 | 46,882 | 47,010 | 9,200 | 24.41% | 0.83 | D |
| | Brookshire Ave.-Lakewood Blvd. | 48,240 | 6D ¹ | 56,300 | 56,369 | 2274 | 58,643 | 58,667 | 10,403 | 21.57% | 1.04 | F |
| | Lakewood Blvd.-Woodruff Ave. (South) | 50,037 | 6D ¹ | 56,300 | 57,466 | 2274 | 59,740 | 59,838 | 9,703 | 19.39% | 1.06 | F |
| | Woodruff Ave. (South)-Stewart & Gray Rd. | 51,767 | 6D ¹ | 56,300 | 59,239 | | 59,239 | 59,337 | 7,472 | 14.43% | 1.05 | F |
| | Stewart & Gray Rd - ECL | 60,589 | 6D ¹ | 56,300 | 76,472 | | 76,472 | 76,570 | 15,883 | 26.21% | 1.36 | F |
| Stewart and Gray Rd. | Garfield Ave.-Old River School Rd. | 12,710 | 4U | 25,000 | 16,972 | | 16,972 | 17,045 | 4,262 | 33.53% | 0.68 | B |
| | Old River School Rd.-Paramount Blvd. | 21,668 | 4D ¹ | 37,500 | 25,651 | 4548 | 30,199 | 30,303 | 8,531 | 39.37% | 0.81 | D |
| | Paramount Blvd.-Downey Ave. | 22,468 | 4D ¹ | 37,500 | 26,851 | 4548 | 31,399 | 31,607 | 8,931 | 39.75% | 0.84 | D |
| | Downey Ave.-Brookshire Ave. | 19,868 | 4U | 25,000 | 21,855 | | 21,855 | 22,170 | 1,987 | 10.00% | 0.89 | D |
| | Brookshire Ave.-Lakewood Blvd. | 19,327 | 4D ¹ | 37,500 | 23,206 | 4548 | 27,754 | 27,858 | 8,427 | 43.60% | 0.74 | C |

5. Environmental Analysis

**Table 5.9-18
Proposed General Plan Roadway Segment Volume To Capacity Analysis**

| Street | Road Segment | Existing | Roadway Classification | Roadway Capacity | 2025 W/O Downey Landing | Downey Landing Only | Currently Adopted General Plan | Proposed General Plan | Growth | Growth (%) | Volume To Capacity Ratio | LOS |
|---------------------------|--------------------------------------|----------|------------------------|------------------|-------------------------|---------------------|--------------------------------|-----------------------|--------|------------|--------------------------|-----|
| | Lakewood Blvd.-Bellflower Blvd. | 16,517 | 4D ¹ | 37,500 | 25,117 | 10460 | 35,577 | 35,891 | 19,060 | 115.40% | 0.96 | E |
| | Bellflower Blvd.-Woodruff Ave. | 16,130 | 4D ¹ | 37,500 | 22,730 | 5686 | 28,416 | 28,520 | 12,286 | 76.17% | 0.76 | C |
| | Woodruff Ave.-Firestone Blvd. | 13,750 | 4U | 25,000 | 18,250 | 4548 | 22,798 | 22,902 | 9,048 | 65.80% | 0.92 | E |
| Imperial Hwy. | Garfield Ave.-Old River School Rd. | 37,384 | 6D | 56,300 | 43,839 | 3184 | 47,023 | 47,127 | 9,639 | 25.78% | 0.84 | D |
| | Old River School Rd.-Paramount Blvd. | 35,268 | 6D | 56,300 | 43,047 | 3184 | 46,231 | 46,335 | 10,963 | 31.08% | 0.82 | D |
| | Paramount Blvd.-Downey Ave. | 34,391 | 6D | 56,300 | 42,777 | 3638 | 46,415 | 46,519 | 12,024 | 34.96% | 0.83 | D |
| | Downey Ave.-Brookshire Ave. | 33,837 | 6D | 56,300 | 42,269 | | 42,269 | 42,495 | 8,432 | 24.92% | 0.75 | C |
| | Brookshire Ave.-Lakewood Blvd. | 34,096 | 6D | 56,300 | 41,802 | 4548 | 46,350 | 46,682 | 12,254 | 35.94% | 0.83 | D |
| | Lakewood Blvd.-Clark Ave. | 40,851 | 6D | 56,300 | 52,617 | 13644 | 66,261 | 66,713 | 25,410 | 62.20% | 1.18 | F |
| | Clark Ave.-Bellflower Blvd. | 38,540 | 6D | 56,300 | 46,518 | 2274 | 48,792 | 49,244 | 10,252 | 26.60% | 0.87 | D |
| | Bellflower Blvd.-Woodruff Ave. | 41,149 | 6D | 56,300 | 45,265 | 4548 | 49,813 | 50,039 | 8,664 | 21.06% | 0.89 | D |
| | Woodruff Ave. -- ECL | 37,092 | 6D | 56,300 | 40,800 | 4548 | 45,348 | 45,470 | 8,256 | 22.26% | 0.81 | D |
| Gardendale St./Foster Rd. | Garfield Ave.-Paramount Blvd. | 10,900 | 4U | 25,000 | 11,990 | | 11,990 | 11,990 | 1,090 | 10.00% | 0.48 | A |
| | Paramount Blvd.-Downey Ave. | 10,410 | 4U | 25,000 | 11,668 | | 11,668 | 11,668 | 1,258 | 12.08% | 0.47 | A |
| | Downey Ave.-Brookshire Ave. | 10,406 | 4U | 25,000 | 13,741 | | 13,741 | 13,741 | 3,335 | 32.05% | 0.55 | A |
| | Brookshire Ave.-Lakewood Blvd. | 12,806 | 4U | 25,000 | 16,889 | | 16,889 | 16,889 | 4,083 | 31.88% | 0.68 | B |
| | Lakewood Blvd.-Clark Ave. | 8,884 | 4U | 25,000 | 12,265 | | 12,265 | 12,265 | 3,381 | 38.06% | 0.49 | A |
| | Clark Ave.-Bellflower Blvd. | 9,284 | 4U | 25,000 | 13,099 | | 13,099 | 13,204 | 3,815 | 41.09% | 0.53 | A |
| | Bellflower Blvd.-Woodruff Ave. | 9,358 | 4U | 25,000 | 12,946 | | 12,946 | 13,051 | 3,588 | 38.34% | 0.52 | A |
| | Woodruff Ave. - ECL | 3,472 | 4U | 25,000 | 4,789 | | 4,789 | 4,894 | 1,317 | 37.93% | 0.20 | A |
| Old River School Rd. | Florence Ave.-Firestone Blvd. | 16,630 | 4U | 25,000 | 21,498 | | 21,498 | 21,498 | 4,868 | 29.27% | 0.86 | D |
| | Firestone Blvd.-Stewart & Gray Rd. | 12,984 | 4U | 25,000 | 19,391 | | 19,391 | 19,391 | 6,407 | 49.35% | 0.78 | C |
| | Stewart & Gray Rd.-Imperial Hwy. | 14,168 | 4U | 25,000 | 17,972 | | 17,972 | 17,972 | 3,804 | 26.85% | 0.72 | C |
| Paramount Blvd. | Telegraph Rd.- I-5 Fwy. | 39,412 | 6D ¹ | 56,300 | 48,788 | | 48,788 | 49,162 | 9,376 | 23.79% | 0.87 | D |
| | I-5 Fwy. - Gallatin Rd. | 40,726 | 6D ¹ | 56,300 | 47,987 | | 47,987 | 48,263 | 7,261 | 17.83% | 0.86 | D |

5. Environmental Analysis

**Table 5.9-18
Proposed General Plan Roadway Segment Volume To Capacity Analysis**

| Street | Road Segment | Existing | Roadway Classification | Roadway Capacity | 2025 W/O Downey Landing | Downey Landing Only | Currently Adopted General Plan | Proposed General Plan | Growth | Growth (%) | Volume To Capacity Ratio | LOS |
|-----------------|---|----------|------------------------|------------------|-------------------------|---------------------|--------------------------------|-----------------------|--------|------------|--------------------------|-----|
| | Gallatin Rd.-Suva St. | 43,025 | 6D ¹ | 56,300 | 49,413 | | 49,413 | 49,689 | 6,388 | 14.85% | 0.88 | D |
| | Suva St.-Florence Ave. | 39,869 | 6D ¹ | 56,300 | 44,585 | | 44,585 | 44,785 | 4,716 | 11.83% | 0.80 | C |
| | Florence Ave.-Firestone Blvd. | 41,684 | 6D ¹ | 56,300 | 49,289 | | 49,289 | 49,441 | 7,605 | 18.24% | 0.88 | D |
| | Firestone Blvd.-Stewart & Gray Rd. | 29,411 | 6D ¹ | 56,300 | 39,183 | | 39,183 | 39,287 | 9,772 | 33.23% | 0.70 | B |
| | Stewart & Gray Rd.-Imperial Hwy. | 28,811 | 6D ¹ | 56,300 | 39,975 | | 39,975 | 39,975 | 11,164 | 38.75% | 0.71 | C |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 28,864 | 6D ¹ | 56,300 | 40,131 | 454 | 40,585 | 40,585 | 11,721 | 40.61% | 0.72 | C |
| Downey Ave. | Gallatin Rd.-Florence Ave. | 8,913 | 4U | 25,000 | 10,733 | | 10,733 | 10,733 | 1,820 | 20.42% | 0.43 | A |
| | Florence Ave.-Firestone Blvd. | 12,210 | 4U | 25,000 | 14,991 | | 14,991 | 15,065 | 2,781 | 22.78% | 0.60 | A |
| | Firestone Blvd.-Stewart & Gray Rd. | 12,610 | 4U | 25,000 | 16,172 | | 16,172 | 16,246 | 3,562 | 28.25% | 0.65 | B |
| | Stewart & Gray Rd.-Imperial Hwy. | 12,553 | 4U | 25,000 | 18,794 | | 18,794 | 18,867 | 6,241 | 49.72% | 0.75 | C |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 11,800 | 4U | 25,000 | 14,753 | | 14,753 | 14,826 | 2,953 | 25.03% | 0.59 | A |
| Brookshire Ave. | Gallatin Rd.-Florence Ave. | 6,600 | 4U | 25,000 | 10,100 | | 10,100 | 10,100 | 3,500 | 53.03% | 0.40 | A |
| | Florence Ave.-Firestone Blvd. | 12,670 | 4D ¹ | 37,500 | 24,921 | | 24,921 | 24,995 | 12,251 | 96.69% | 0.67 | B |
| | Firestone Blvd.-Stewart & Gray Rd. | 19,200 | 4D ¹ | 37,500 | 35,657 | | 35,657 | 35,835 | 16,457 | 85.71% | 0.96 | E |
| | Stewart & Gray Rd.-Imperial Hwy. | 9,800 | 4U | 25,000 | 14,373 | | 14,373 | 14,446 | 4,573 | 46.66% | 0.58 | A |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 5,100 | 4U | 25,000 | 8,300 | | 8,300 | 8,373 | 3,200 | 62.75% | 0.33 | A |
| Lakewood Blvd | Telegraph Rd.-I-5 | 36,434 | 6D | 56,300 | 40,078 | 454 | 40,532 | 41,268 | 4,098 | 11.25% | 0.73 | C |
| | I-5 -Gallatin Rd. | 38,262 | 6D | 56,300 | 42,090 | 1362 | 43,452 | 44,396 | 5,190 | 13.56% | 0.79 | C |
| | Gallatin Rd.-Florence Ave. | 34,492 | 6D | 56,300 | 37,940 | 1364 | 39,304 | 39,996 | 4,812 | 13.95% | 0.71 | C |
| | Florence Ave.-Firestone Blvd. | 42,380 | 6D | 56,300 | 48,049 | 4548 | 52,597 | 52,881 | 10,217 | 24.11% | 0.94 | E |
| | Firestone Blvd.-Stewart & Gray Rd. | 32,461 | 6D ¹ | 56,300 | 38,773 | 6822 | 45,595 | 45,805 | 13,134 | 40.46% | 0.81 | D |
| | Stewart & Gray Rd.-Imperial Hwy. | 31,468 | 6D ¹ | 56,300 | 47,368 | 2274 | 49,642 | 50,692 | 18,174 | 57.75% | 0.90 | D |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 32,792 | 6D ¹ | 56,300 | 68,341 | 13644 | 81,985 | 82,979 | 49,193 | 150.02% | 1.47 | F |
| Clark Ave. | Lakewood Blvd.-Imperial Hwy. | 10,155 | 4U | 25,000 | 12,732 | | 12,732 | 12,732 | 2,577 | 25.38% | 0.51 | A |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 14,837 | 4U | 25,000 | 18,660 | | 18,660 | 18,660 | 3,823 | 25.77% | 0.75 | C |

5. Environmental Analysis

**Table 5.9-18
Proposed General Plan Roadway Segment Volume To Capacity Analysis**

| <i>Street</i> | <i>Road Segment</i> | <i>Existing</i> | <i>Roadway Classification</i> | <i>Roadway Capacity</i> | <i>2025 W/O Downey Landing</i> | <i>Downey Landing Only</i> | <i>Currently Adopted General Plan</i> | <i>Proposed General Plan</i> | <i>Growth</i> | <i>Growth (%)</i> | <i>Volume To Capacity Ratio</i> | <i>LOS</i> |
|------------------|--|-----------------|-------------------------------|-------------------------|--------------------------------|----------------------------|---------------------------------------|------------------------------|---------------|-------------------|---------------------------------|------------|
| Bellflower Blvd. | Lakewood Blvd.-Stewart & Gray Rd. | 21,298 | 4D | 37,500 | 26,184 | | 26,184 | 26,305 | 4,886 | 22.94% | 0.70 | B |
| | Stewart and Gray Rd.-Imperial Hwy. | 21,458 | 4D | 37,500 | 27,681 | 6822 | 34,503 | 34,503 | 13,045 | 60.79% | 0.92 | E |
| | Imperial Hwy.-I-105 WB Ramps | 34,691 | 4D | 37,500 | 42,853 | 0 | 42,853 | 43,079 | 8,162 | 23.53% | 1.15 | F |
| | I-105 EB Ramps-Gardendale St./Foster Rd. | 35,196 | 4D | 37,500 | 43,587 | | 43,587 | 43,692 | 8,391 | 23.84% | 1.17 | F |
| Woodruff Ave. | Firestone Blvd.-Stewart & Gray Rd. | 23,955 | 4D | 37,500 | 36,128 | | 36,128 | 36,128 | 12,173 | 50.82% | 0.96 | E |
| | Stewart & Gray Rd.-Imperial Hwy. | 20,968 | 4D | 37,500 | 31,663 | | 31,663 | 31,663 | 10,695 | 51.01% | 0.84 | D |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 20,920 | 4D | 37,500 | 31,838 | | 31,838 | 31,942 | 10,918 | 52.19% | 0.85 | D |

¹ Growth rate has been increased to reflect 10% minimum growth rate.

² Indicates Incremental Growth approach.

¹ Based on traffic volumes, roadway augmented to General Plan Circulation Element designations

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Source: Urban Crossroads

5. Environmental Analysis

**Table 5.9-19
Proposed General Plan With TSM Roadway Segment Volume To Capacity Analysis**

| Street | Road Segment | Existing | Roadway Classification | Roadway Capacity | 2025 W/O Downey Landing | Downey Landing Only | Currently Adopted General Plan | Proposed General Plan | Growth | Growth (%) | Volume To Capacity Ratio | LOS |
|----------------------|--|-----------------|-------------------------------|-------------------------|--------------------------------|----------------------------|---------------------------------------|------------------------------|---------------|-------------------|---------------------------------|------------|
| Telegraph Rd. | WCL - Paramount | 33,347 | 6D ¹ | 60,200 | 38,751 | 454 | 39,205 | 39,645 | 5,858 | 17.57% | 0.66 | B |
| | Paramount-Lakewood | 37,752 | 6D ¹ | 60,200 | 44,241 | 454 | 44,695 | 45,928 | 6,943 | 18.39% | 0.76 | C |
| | Lakewood-I605 | 39,896 | 6D ¹ | 60,200 | 43,885 | 454 | 44,339 | 44,681 | 4,443 | 11.14% | 0.74 | C |
| Gallatin Rd. | Paramount Blvd.-Downey Ave. | 8,500 | 4U | 26,800 | | | 10,455 | 10,455 | | | 0.39 | A |
| | Downey Ave.-Brookshire Ave. | 10,700 | 4U | 26,800 | | | 13,161 | 13,161 | | | 0.49 | A |
| Florence Ave. | Garfield Ave.- Old River School Rd. | 41,235 | 6D | 60,200 | 50,704 | 1820 | 52,524 | 52,622 | 11,289 | 27.38% | 0.87 | D |
| | Old River School Rd.-Paramount Blvd. | 46,529 | 6D | 60,200 | 56,260 | 1820 | 58,080 | 58,178 | 11,551 | 24.83% | 0.97 | E |
| | Paramount Blvd.-Downey Ave. | 37,767 | 6D | 60,200 | 47,989 | 1820 | 49,809 | 49,907 | 12,042 | 31.88% | 0.83 | D |
| | Downey Ave.-Brookshire Ave. | 35,745 | 6D | 60,200 | 40,766 | 1820 | 42,586 | 42,757 | 6,841 | 19.14% | 0.71 | C |
| | Brookshire Ave.-Lakewood Blvd. | 38,960 | 6D | 60,200 | 44,605 | 1820 | 46,425 | 46,669 | 7,465 | 19.16% | 0.78 | C |
| | Lakewood Blvd.-I605 | 44,750 | 6D | 60,200 | 50,126 | 1364 | 51,490 | 51,766 | 6,740 | 15.06% | 0.86 | D |
| Firestone Blvd. | Garfield Ave.- Old River School Rd. | 48,121 | 6D ¹ | 60,200 | 52,935 | 2274 | 55,209 | 53,063 | 7,088 | 14.73% | 0.88 | D |
| | Old River School Rd.-Paramount Blvd. | 37,961 | 6D ¹ | 60,200 | 42,579 | 2274 | 44,853 | 44,981 | 6,892 | 18.16% | 0.75 | C |
| | Paramount Blvd.-Downey Ave. | 38,061 | 6D ¹ | 60,200 | 43,007 | 2274 | 45,281 | 45,409 | 7,220 | 18.97% | 0.75 | C |
| | Downey Ave.-Brookshire Ave. | 37,682 | 6D ¹ | 60,200 | 44,608 | 2274 | 46,882 | 47,010 | 9,200 | 24.41% | 0.78 | C |
| | Brookshire Ave.-Lakewood Blvd. | 48,240 | 6D ¹ | 60,200 | 56,369 | 2274 | 58,643 | 58,667 | 10,403 | 21.57% | 0.97 | E |
| | Lakewood Blvd.-Woodruff Ave. (South) | 50,037 | 6D ¹ | 60,200 | 57,466 | 2274 | 59,740 | 59,838 | 9,703 | 19.39% | 0.99 | E |
| | Woodruff Ave. (South)-Stewart & Gray Rd. | 51,767 | 6D ¹ | 60,200 | 59,239 | | 59,239 | 59,337 | 7,472 | 14.43% | 0.99 | E |
| | Stewart & Gray Rd - ECL | 60,589 | 6D ¹ | 60,200 | 76,472 | | 76,472 | 76,570 | 15,883 | 26.21% | 1.27 | F |
| Stewart and Gray Rd. | Garfield Ave.-Old River School Rd. | 12,710 | 4U | 26,800 | 16,972 | | 16,972 | 17,045 | 4,262 | 33.53% | 0.64 | B |
| | Old River School Rd.-Paramount Blvd. | 21,668 | 4D ¹ | 40,100 | 25,651 | 4548 | 30,199 | 30,303 | 8,531 | 39.37% | 0.76 | C |
| | Paramount Blvd.-Downey Ave. | 22,468 | 4D ¹ | 40,100 | 26,851 | 4548 | 31,399 | 31,607 | 8,931 | 39.75% | 0.79 | C |

5. Environmental Analysis

**Table 5.9-19
Proposed General Plan With TSM Roadway Segment Volume To Capacity Analysis**

| Street | Road Segment | Existing | Roadway Classification | Roadway Capacity | 2025 W/O Downey Landing | Downey Landing Only | Currently Adopted General Plan | Proposed General Plan | Growth | Growth (%) | Volume To Capacity Ratio | LOS |
|---------------------------|--------------------------------------|----------|------------------------|------------------|-------------------------|---------------------|--------------------------------|-----------------------|--------|------------|--------------------------|-----|
| | Downey Ave.-Brookshire Ave. | 19,868 | 4U | 26,800 | 21,855 | | 21,855 | 22,170 | 1,987 | 10.00% | 0.83 | D |
| | Brookshire Ave.-Lakewood Blvd. | 19,327 | 4D ¹ | 40,100 | 23,206 | 4548 | 27,754 | 27,858 | 8,427 | 43.60% | 0.69 | B |
| | Lakewood Blvd.-Bellflower Blvd. | 16,517 | 4D ¹ | 40,100 | 25,117 | 10460 | 35,577 | 35,891 | 19,060 | 115.40% | 0.90 | D |
| | Bellflower Blvd.-Woodruff Ave. | 16,130 | 4D ¹ | 40,100 | 22,730 | 5686 | 28,416 | 28,520 | 12,286 | 76.17% | 0.71 | C |
| | Woodruff Ave.-Firestone Blvd. | 13,750 | 4U | 26,800 | 18,250 | 4548 | 22,798 | 22,902 | 9,048 | 65.80% | 0.85 | D |
| Imperial Hwy. | Garfield Ave.-Old River School Rd. | 37,384 | 6D | 60,200 | 43,839 | 3184 | 47,023 | 47,127 | 9,639 | 25.78% | 0.78 | C |
| | Old River School Rd.-Paramount Blvd. | 35,268 | 6D | 60,200 | 43,047 | 3184 | 46,231 | 46,335 | 10,963 | 31.08% | 0.77 | C |
| | Paramount Blvd.-Downey Ave. | 34,391 | 6D | 60,200 | 42,777 | 3638 | 46,415 | 46,519 | 12,024 | 34.96% | 0.77 | C |
| | Downey Ave.-Brookshire Ave. | 33,837 | 6D | 60,200 | 42,269 | | 42,269 | 42,495 | 8,432 | 24.92% | 0.71 | C |
| | Brookshire Ave.-Lakewood Blvd. | 34,096 | 6D | 60,200 | 41,802 | 4548 | 46,350 | 46,682 | 12,254 | 35.94% | 0.78 | C |
| | Lakewood Blvd.-Clark Ave. | 40,851 | 6D | 60,200 | 52,617 | 13644 | 66,261 | 66,713 | 25,410 | 62.20% | 1.11 | F |
| | Clark Ave.-Bellflower Blvd. | 38,540 | 6D | 60,200 | 46,518 | 2274 | 48,792 | 49,244 | 10,252 | 26.60% | 0.82 | D |
| | Bellflower Blvd.-Woodruff Ave. | 41,149 | 6D | 60,200 | 45,265 | 4548 | 49,813 | 50,039 | 8,664 | 21.06% | 0.83 | D |
| | Woodruff Ave. -- ECL | 37,092 | 6D | 60,200 | 40,800 | 4548 | 45,348 | 45,470 | 8,256 | 22.26% | 0.76 | C |
| Gardendale St./Foster Rd. | Garfield Ave.-Paramount Blvd. | 10,900 | 4U | 26,800 | 11,990 | | 11,990 | 11,990 | 1,090 | 10.00% | 0.45 | A |
| | Paramount Blvd.-Downey Ave. | 10,410 | 4U | 26,800 | 11,668 | | 11,668 | 11,668 | 1,258 | 12.08% | 0.44 | A |
| | Downey Ave.-Brookshire Ave. | 10,406 | 4U | 26,800 | 13,741 | | 13,741 | 13,741 | 3,335 | 32.05% | 0.51 | A |
| | Brookshire Ave.-Lakewood Blvd. | 12,806 | 4U | 26,800 | 16,889 | | 16,889 | 16,889 | 4,083 | 31.88% | 0.63 | B |
| | Lakewood Blvd.-Clark Ave. | 8,884 | 4U | 26,800 | 12,265 | | 12,265 | 12,265 | 3,381 | 38.06% | 0.46 | A |
| | Clark Ave.-Bellflower Blvd. | 9,284 | 4U | 26,800 | 13,099 | | 13,099 | 13,204 | 3,815 | 41.09% | 0.49 | A |
| | Bellflower Blvd.-Woodruff Ave. | 9,358 | 4U | 26,800 | 12,946 | | 12,946 | 13,051 | 3,588 | 38.34% | 0.49 | A |
| | Woodruff Ave. - ECL | 3,472 | 4U | 26,800 | 4,789 | | 4,789 | 4,894 | 1,317 | 37.93% | 0.18 | A |
| Old River School Rd. | Florence Ave.-Firestone Blvd. | 16,630 | 4U | 26,800 | 21,498 | | 21,498 | 21,498 | 4,868 | 29.27% | 0.80 | C |
| | Firestone Blvd.-Stewart & Gray Rd. | 12,984 | 4U | 26,800 | 19,391 | | 19,391 | 19,391 | 6,407 | 49.35% | 0.72 | C |

5. Environmental Analysis

**Table 5.9-19
Proposed General Plan With TSM Roadway Segment Volume To Capacity Analysis**

| Street | Road Segment | Existing | Roadway Classification | Roadway Capacity | 2025 W/O Downey Landing | Downey Landing Only | Currently Adopted General Plan | Proposed General Plan | Growth | Growth (%) | Volume To Capacity Ratio | LOS |
|-----------------|---|----------|------------------------|------------------|-------------------------|---------------------|--------------------------------|-----------------------|--------|------------|--------------------------|-----|
| | Stewart & Gray Rd.-Imperial Hwy. | 14,168 | 4U | 26,800 | 17,972 | | 17,972 | 17,972 | 3,804 | 26.85% | 0.67 | B |
| Paramount Blvd. | Telegraph Rd.- I-5 Fwy. | 39,412 | 6D ¹ | 60,200 | 48,788 | | 48,788 | 49,162 | 9,376 | 23.79% | 0.82 | D |
| | I-5 Fwy. - Gallatin Rd. | 40,726 | 6D ¹ | 60,200 | 47,987 | | 47,987 | 48,263 | 7,261 | 17.83% | 0.80 | C |
| | Gallatin Rd.-Suva St. | 43,025 | 6D ¹ | 60,200 | 49,413 | | 49,413 | 49,689 | 6,388 | 14.85% | 0.83 | D |
| | Suva St.-Florence Ave. | 39,869 | 6D ¹ | 60,200 | 44,585 | | 44,585 | 44,785 | 4,716 | 11.83% | 0.74 | C |
| | Florence Ave.-Firestone Blvd. | 41,684 | 6D ¹ | 60,200 | 49,289 | | 49,289 | 49,441 | 7,605 | 18.24% | 0.82 | D |
| | Firestone Blvd.-Stewart & Gray Rd. | 29,411 | 6D ¹ | 60,200 | 39,183 | | 39,183 | 39,287 | 9,772 | 33.23% | 0.65 | B |
| | Stewart & Gray Rd.-Imperial Hwy. | 28,811 | 6D ¹ | 60,200 | 39,975 | | 39,975 | 39,975 | 11,164 | 38.75% | 0.66 | B |
| | Imperial Hwy-Gardendale St./Foster Rd. | 28,864 | 6D ¹ | 60,200 | 40,131 | 454 | 40,585 | 40,585 | 11,721 | 40.61% | 0.67 | B |
| Downey Ave. | Gallatin Rd.-Florence Ave. | 8,913 | 4U | 26,800 | 10,733 | | 10,733 | 10,733 | 1,820 | 20.42% | 0.40 | A |
| | Florence Ave.-Firestone Blvd. | 12,210 | 4U | 26,800 | 14,991 | | 14,991 | 15,065 | 2,781 | 22.78% | 0.56 | A |
| | Firestone Blvd.-Stewart & Gray Rd. | 12,610 | 4U | 26,800 | 16,172 | | 16,172 | 16,246 | 3,562 | 28.25% | 0.61 | B |
| | Stewart & Gray Rd.-Imperial Hwy. | 12,553 | 4U | 26,800 | 18,794 | | 18,794 | 18,867 | 6,241 | 49.72% | 0.70 | B |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 11,800 | 4U | 26,800 | 14,753 | | 14,753 | 14,826 | 2,953 | 25.03% | 0.55 | A |
| Brookshire Ave. | Gallatin Rd.-Florence Ave. | 6,600 | 4U | 26,800 | 10,100 | | 10,100 | 10,100 | 3,500 | 53.03% | 0.38 | A |
| | Florence Ave.-Firestone Blvd. | 12,670 | 4D ¹ | 40,100 | 24,921 | | 24,921 | 24,995 | 12,251 | 96.69% | 0.62 | B |
| | Firestone Blvd.-Stewart & Gray Rd. | 19,200 | 4D ¹ | 40,100 | 35,657 | | 35,657 | 35,835 | 16,457 | 85.71% | 0.89 | D |
| | Stewart & Gray Rd.-Imperial Hwy. | 9,800 | 4U | 26,800 | 14,373 | | 14,373 | 14,446 | 4,573 | 46.66% | 0.54 | A |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 5,100 | 4U | 26,800 | 8,300 | | 8,300 | 8,373 | 3,200 | 62.75% | 0.31 | A |
| Lakewood Blvd | Telegraph Rd.-I-5 | 36,434 | 6D | 60,200 | 40,078 | 454 | 40,532 | 41,268 | 4,098 | 11.25% | 0.69 | B |
| | I-5 -Gallatin Rd. | 38,262 | 6D | 60,200 | 42,090 | 1362 | 43,452 | 44,396 | 5,190 | 13.56% | 0.74 | C |
| | Gallatin Rd.-Florence Ave. | 34,492 | 6D | 60,200 | 37,940 | 1364 | 39,304 | 39,996 | 4,812 | 13.95% | 0.66 | B |
| | Florence Ave.-Firestone Blvd. | 42,380 | 6D | 60,200 | 48,049 | 4548 | 52,597 | 52,881 | 10,217 | 24.11% | 0.88 | D |
| | Firestone Blvd.-Stewart & Gray Rd. | 32,461 | 6D ¹ | 60,200 | 38,773 | 6822 | 45,595 | 45,805 | 13,134 | 40.46% | 0.76 | C |

5. Environmental Analysis

**Table 5.9-19
Proposed General Plan With TSM Roadway Segment Volume To Capacity Analysis**

| Street | Road Segment | Existing | Roadway Classification | Roadway Capacity | 2025 W/O Downey Landing | Downey Landing Only | Currently Adopted General Plan | Proposed General Plan | Growth | Growth (%) | Volume To Capacity Ratio | LOS |
|------------------|--|-----------------|-------------------------------|-------------------------|--------------------------------|----------------------------|---------------------------------------|------------------------------|---------------|-------------------|---------------------------------|------------|
| | Stewart & Gray Rd.-Imperial Hwy. | 31,468 | 6D ¹ | 60,200 | 47,368 | 2274 | 49,642 | 50,692 | 18,174 | 57.75% | 0.84 | D |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 32,792 | 6D ¹ | 60,200 | 68,341 | 13644 | 81,985 | 82,979 | 49,193 | 150.02% | 1.38 | F |
| Clark Ave. | Lakewood Blvd.-Imperial Hwy. | 10,155 | 4U | 26,800 | 12,732 | | 12,732 | 12,732 | 2,577 | 25.38% | 0.48 | A |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 14,837 | 4U | 26,800 | 18,660 | | 18,660 | 18,660 | 3,823 | 25.77% | 0.70 | B |
| Bellflower Blvd. | Lakewood Blvd.-Stewart & Gray Rd. | 21,298 | 4D | 40,100 | 26,184 | | 26,184 | 26,305 | 4,886 | 22.94% | 0.66 | B |
| | Stewart and Gray Rd.-Imperial Hwy. | 21,458 | 4D | 40,100 | 27,681 | 6822 | 34,503 | 34,503 | 13,045 | 60.79% | 0.86 | D |
| | Imperial Hwy.-I-105 WB Ramps | 34,691 | 4D | 40,100 | 42,853 | 0 | 42,853 | 43,079 | 8,162 | 23.53% | 1.07 | F |
| | I-105 EB Ramps-Gardendale St./Foster Rd. | 35,196 | 4D | 40,100 | 43,587 | | 43,587 | 43,692 | 8,391 | 23.84% | 1.09 | F |
| Woodruff Ave. | Firestone Blvd.-Stewart & Gray Rd. | 23,955 | 4D | 40,100 | 36,128 | | 36,128 | 36,128 | 12,173 | 50.82% | 0.90 | D |
| | Stewart & Gray Rd.-Imperial Hwy. | 20,968 | 4D | 40,100 | 31,663 | | 31,663 | 31,663 | 10,695 | 51.01% | 0.79 | C |
| | Imperial Hwy.-Gardendale St./Foster Rd. | 20,920 | 4D | 40,100 | 31,838 | | 31,838 | 31,942 | 10,918 | 52.19% | 0.80 | C |

¹ Growth rate has been increased to reflect 10% minimum growth rate.

² Indicates Incremental Growth approach.

¹ Based on traffic volumes, roadway augmented to General Plan Circulation Element designations

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Source: Urban Crossroads

5. Environmental Analysis

**Table 5.9-20
Proposed General Plan With TSM Peak Hour Roadway Link Capacity Analysis**

| Roadway Segment | From | To | Lanes | ADT | Peak Hour capacity | Highest Peak Volume | V/C | LOS |
|-----------------|----------------------|--------------------|-------|--------|--------------------|---------------------|------|----------------|
| Florence Ave | Old River School Rd. | Paramount Bl. | 3 | 58,178 | 4,800 | 2,727 | 0.57 | A |
| Firestone Bl. | Brookshire Av. | Lakewood Bl. | 3 | 58,667 | 4,800 | 2,357 | 0.49 | A |
| Firestone Bl. | Lakewood Bl. | Woodruff Av. | 3 | 59,838 | 4,800 | 2,176 | 0.45 | A |
| Firestone Bl. | Woodruff Av. | Stewart & Gray Rd. | 3 | 59,337 | 4,800 | N/A | 0.45 | A ¹ |
| Firestone Bl. | Stewart & Gray Rd. | East City Limit | 3 | 76,570 | 4,800 | N/A | 0.67 | B ² |
| Imperial Hwy. | Lakewood Bl. | Clark Av. | 3 | 66,713 | 4,800 | 2,318 | 0.48 | A |
| Lakewood Bl. | Imperial Hwy. | Foster Rd. | 3 | 82,979 | 4,800 | 3,487 | 0.73 | C |
| Bellflower Bl. | Imperial Hwy. | I-105 WB Ramps | 2 | 43,079 | 3,200 | 1,482 | 0.46 | A |
| Bellflower Bl. | I-105 EB Ramps | Foster Rd. | 2 | 43,692 | 3,200 | N/A | 0.47 | A ³ |

¹ Peak Hour Level of Service estimated based on results for Firestone Bl. Between Lakewood Bl. And Woodruff Av.

² Peak Hour Level of Service estimated based on results for Lakewood Bl. Between Imperial Hwy. And Foster Rd.

³ Peak Hour Level of Service estimated based on results for Bellflower Bl. Between Imperial Hwy. And I-105 WB Ramps

Source: Urban Crossroads



**Table 5.9-21
Proposed General Plan Intersection Analysis Summary**

| Intersection | Traffic Control ³ | Intersection Approach Lanes ¹ | | | | | | | | | | | | Delay ² (Secs.) | | Level of Service | | |
|---|------------------------------|--|----------|----------|-----------------------|----------|----------|-----------------------|----------|----------|-----------------------|----------|-----------------------|----------------------------|-----------------|------------------|----|--|
| | | North-Bound | | | South-Bound | | | East-Bound | | | West-Bound | | | AM | PM | AM | PM | |
| | | L | T | R | L | T | R | L | T | R | L | T | R | | | | | |
| Old River School Rd. (NS) at: | | | | | | | | | | | | | | | | | | |
| • Florence Av. (EW) | TS | 1.5 | 0.5 | 1 | 0.5 | 1.5 | 0 | 1 | 3 | 0 | 1 | 2 | 0 | -- ⁴ | -- ⁴ | F | F | |
| -with LOS "D/E" improvements | TS | <u>2</u> | <u>2</u> | 1 | <u>2</u> | <u>2</u> | 0 | <u>2</u> | 3 | <u>1</u> | <u>2</u> | <u>3</u> | 0 | 36.6 | 51.4 | D | D | |
| • Firestone Bl. (EW) | TS | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 1>> | 1 | 2 | 1>> | 52.1 | -- ⁴ | D | F | |
| -with LOS "E" improvements | TS | 1 | 2 | 0 | 1 | 2 | 0 | 1 | <u>3</u> | 0 | 1 | <u>3</u> | 0 | 39.1 | 57.3 | D | E | |
| -with LOS "D" improvements | TS | 1 | 2 | 0 | 1 | 2 | 0 | <u>2</u> | 3 | 0 | <u>2</u> | 3 | 0 | 34.2 | 46.2 | C | D | |
| • Imperial Hw. (EW) | TS | 1.5 | 1.5 | 0 | 1 | 2 | 0 | 1 | 3 | 1> | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F | |
| -with LOS "E" improvements | TS | 1.5 | 1.5 | 0 | 1 | 2 | 0 | <u>2</u> ⁷ | 3 | 1> | 1 | 3 | 0 | 62.0 | 46.9 | E | D | |
| -with LOS "D" improvements | TS | 1.5 | 1.5 | 0 | 1 | 2 | 0 | 2 | 3 | 1> | 1 | 3 | <u>1</u> | 41.0 | 38.5 | D | D | |
| Paramount Bl. (NS) at: | | | | | | | | | | | | | | | | | | |
| • Telegraph Rd. (EW) | TS | 1 | 2 | 1> | 1 | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F | |
| -with LOS "D/E" improvements | TS | <u>2</u> | <u>3</u> | 1 | <u>2</u> | <u>3</u> | 0 | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | 0 | 54.4 | 38.7 | D | D | |
| • Florence Av. (EW) | TS | 2 | 2 | 0 | 2 | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F | |
| -with LOS "D/E" improvements ⁶ | TS | 2 | <u>3</u> | <u>1</u> | 2 | <u>3</u> | <u>1</u> | <u>2</u> ⁷ | <u>4</u> | <u>1</u> | <u>2</u> ⁷ | 3 | <u>1</u> | 36.3 | 44.2 | D | D | |
| • Firestone Bl. (EW) | TS | 1 | 2 | 1> | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F | |
| -with LOS "E" improvements | TS | <u>2</u> ⁷ | <u>3</u> | 1 | <u>2</u> ⁷ | 3 | 1 | <u>2</u> | 2 | 1 | <u>2</u> | 2 | <u>1</u> ⁷ | 41.1 | 62.6 | D | E | |
| -with LOS "D" improvements | TS | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 2 | 1 | 2 | <u>3</u> | 0 | 34.8 | 50.8 | C | D | |
| • Stewart & Gray Rd. (EW) | TS | 1 | 3 | 0 | 1 | 2 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | -- ⁴ | -- ⁴ | F | F | |
| -with LOS "D/E" improvements | TS | 1 | 3 | 0 | 1 | 2 | 1 | <u>2</u> | 2 | <u>1</u> | <u>2</u> | 2 | <u>1</u> | 48.8 | 52.2 | D | D | |

5. Environmental Analysis

**Table 5.9-21
Proposed General Plan Intersection Analysis Summary**

| Intersection | Traffic Control ³ | Intersection Approach Lanes ¹ | | | | | | | | | | | | Delay ² (Secs.) | | Level of Service | |
|---|------------------------------|--|----------|------------------|-----------------------|----------|----------|-----------------------|----------|------------------|-----------------------|----------|----------|----------------------------|-----------------|------------------|----|
| | | North-Bound | | | South-Bound | | | East-Bound | | | West-Bound | | | AM | PM | AM | PM |
| | | L | T | R | L | T | R | L | T | R | L | T | R | AM | PM | AM | PM |
| • Imperial Hw. (EW) | TS | 2 | 2 | 0 | 1 | 2 | 1> | 2 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "E" improvements | TS | 2 | <u>3</u> | 0 | <u>2</u> | <u>3</u> | 1 | 2 | 3 | <u>1</u> | <u>2</u> | 3 | <u>1</u> | 45.2 | 55.1 | D | E |
| -with LOS "D" improvements | TS | 2 | 3 | <u>1</u> | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 43.9 | 48.6 | D | D |
| Downey Av. (NS) at: | | | | | | | | | | | | | | | | | |
| • Firestone Bl. (EW) | TS | 1< | 1 | 1 | 1< | 1 | 1 | 1< | 2 | 1 | 1< | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D/E" improvements | TS | <u>2</u> | <u>2</u> | 1 | <u>2</u> | <u>2</u> | 0 | 1< | 2 | 1 | 1< | 3 | 0 | 30.8 | 38.1 | C | D |
| Brookshire Av. (NS) at: | | | | | | | | | | | | | | | | | |
| • Firestone Bl. (EW) | TS | 1< | 2 | 0 | 1< | 2 | 0 | 1< | 3 | 0 | 1< | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D/E" improvements | TS | <u>2</u> | <u>4</u> | <u>1</u> | <u>2</u> | <u>2</u> | <u>1</u> | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | <u>1</u> | 36.3 | 53.8 | D | D |
| Lakewood Bl. | | | | | | | | | | | | | | | | | |
| • Telegraph Rd. (EW) | TS | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D/E" improvements | TS | 1 | 2 | 1 | 1 | <u>3</u> | 1 | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | <u>1</u> | 51.9 | 54.8 | D | D |
| • Florence Av. (EW) | TS | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "E" improvements | TS | <u>2</u> ⁷ | 3 | 0 | <u>2</u> ⁷ | 3 | <u>1</u> | <u>2</u> ⁷ | 3 | 0 | <u>2</u> ⁷ | 3 | <u>1</u> | 55.1 | 63.6 | E | E |
| -with LOS "D" improvements | TS | 2 | 3 | <u>1</u> | 2 | 3 | 1 | 2 | 3 | <u>1</u> | 2 | 3 | 1 | 50.4 | 44.4 | D | D |
| • Firestone Bl. (EW) | TS | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 1 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "E" improvements | TS | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | 0 | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | <u>2</u> | 59.7 | 78.0 | E | E |
| -with LOS "D" improvements ⁶ | TS | 2 | 3 | <u>1</u> | 2 | 3 | <u>1</u> | 2 | 3 | 1 | 2 | <u>4</u> | 1 | 51.8 | 49.0 | D | D |
| • Stewart & Gray Rd. (EW) | TS | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 1 | 1 | 2 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "E" improvements | TS | 1 | <u>3</u> | <u>1</u> | 1 | <u>3</u> | 0 | <u>2</u> | 2 | 1 | <u>2</u> | 2 | <u>1</u> | 64.1 | 51.7 | E | D |
| -with LOS "D" improvements ⁶ | TS | 1 | 3 | 1 | 1 | 3 | 0 | 2 | <u>3</u> | 0 | 2 | 2 | 1 | 44.2 | 46.1 | D | D |
| • Imperial Hw. (EW) | TS | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "E" improvements ⁶ | TS | <u>3</u> | 3 | <u>2</u> | <u>2</u> | <u>4</u> | <u>1</u> | <u>2</u> | <u>4</u> | <u>1>></u> | <u>3</u> | 3 | <u>1</u> | 39.4 | 55.0 | D | E |
| -with LOS "D" improvements ⁶ | TS | 3 | <u>4</u> | <u>1>></u> | 2 | 4 | 1 | 2 | 4 | <u>1>></u> | 3 | 3 | 1 | 34.7 | 52.7 | C | D |
| • Foster Rd. (EW) | TS | 1 | 2 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D/E" improvements ⁶ | TS | <u>2</u> | <u>3</u> | 1 | <u>2</u> | <u>4</u> | <u>1</u> | <u>2</u> | 2 | <u>1</u> | <u>2</u> | 2 | 0 | 47.7 | 49.4 | D | D |
| Bellflower Bl. (NS) at: | | | | | | | | | | | | | | | | | |
| • Imperial Hw. (EW) | TS | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "E" improvements | TS | <u>2</u> | 2 | <u>1</u> | <u>2</u> | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 58.7 | 68.8 | E | E |
| -with LOS "D" improvements ⁶ | TS | 2 | 2 | 1 | 2 | 2 | 0 | <u>2</u> | 3 | 0 | <u>2</u> | 3 | 0 | 43.7 | 53.5 | D | D |
| Woodruff Av. (NS) at: | | | | | | | | | | | | | | | | | |
| • Stewart & Gray Rd. (EW) | TS | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1>> | 1 | 2 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "E" improvements | TS | <u>2</u> | 2 | 1 | <u>2</u> | 2 | 1 | <u>2</u> | 2 | 1>> | <u>2</u> | 2 | 1 | 16.0 | 58.1 | B | E |
| -with LOS "D" improvements | TS | 2 | 2 | 1 | 2 | <u>3</u> | 0 | 2 | 2 | 1>> | 2 | 2 | 1 | 19.2 | 50.9 | B | D |
| • Imperial Hw. (EW) | TS | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D/E" improvements | TS | <u>2</u> | <u>3</u> | 1 | <u>2</u> | 2 | 1 | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | 0 | 51.2 | 46.9 | D | D |

¹ When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; < = Protected and permitted; >> = Free right; > = Right turn overlap; 1 = improvement

² Delay and level of service calculated using the following analysis software: Traffix, Version 7.6 (2003). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown.

³ TS = Traffic Signal

⁴ = Delay High, Intersection Unstable, Level of Service "F".

⁵ = Intersection is at a satisfactory Level of Service, but the Volume over Capacity Ratio is greater than 1.00.

⁶ = Improvements beyond allowable limits were necessary to improve intersection to satisfactory Level of Service

⁷ = Improvement consistent with Downey Vision 2010

Source: Urban Crossroads

5. Environmental Analysis

**Table 5.9-22
Proposed General Plan with TSM Intersection Analysis Summary**

| Intersection | Traffic Control ³ | Intersection Approach Lanes ¹ | | | | | | | | | | | | Delay ² (Secs.) | | Level of Service | |
|---|------------------------------|--|----------|-------------|-------------|----------|----------|------------|----------|-------------|------------|----------|----------|----------------------------|-----------------|------------------|----|
| | | North-Bound | | | South-Bound | | | East-Bound | | | West-Bound | | | AM | PM | AM | PM |
| | | L | T | R | L | T | R | L | T | R | L | T | R | | | | |
| Old River School Rd. (NS) at: | | | | | | | | | | | | | | | | | |
| • Florence Av. (EW) | TS | 1.5 | 0.5 | 1 | 0.5 | 1.5 | 0 | 1 | 3 | 0 | 1 | 2 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D/E" improvements | TS | <u>2</u> | <u>1</u> | 1 | <u>2</u> | 1 | 0 | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | 0 | 39.0 | 47.8 | D | D |
| • Firestone Bl. (EW) | TS | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 1>> | 1 | 2 | 1>> | 43.5 | -- ⁴ | D | F |
| -with LOS "D/E" improvements | TS | 1 | 1 | 0 | 2 | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 36.0 | 46.8 | D | D |
| • Imperial Hw. (EW) | TS | 1.5 | 1.5 | 0 | 1 | 2 | 0 | 1 | 3 | 1> | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D/E" improvements | TS | 1.5 | 1.5 | 0 | 1 | 2 | 0 | <u>2</u> | 3 | 1> | 1 | 3 | 0 | 46.1 | 38.4 | D | D |
| Paramount Bl. (NS) at: | | | | | | | | | | | | | | | | | |
| • Telegraph Rd. (EW) | TS | 1 | 2 | 1> | 1 | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D/E" improvements | TS | <u>2</u> | <u>3</u> | 0 | <u>2</u> | <u>3</u> | 0 | <u>2</u> | 3 | 0 | <u>2</u> | 3 | 0 | 54.5 | 48.7 | D | D |
| • Florence Av. (EW) | TS | 2 | 2 | 0 | 2 | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "E" improvements | TS | 2 | 3 | <u>0</u> | 2 | 2 | <u>1</u> | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | 0 | 45.1 | 64.5 | D | E |
| -with LOS "D" improvements | TS | 2 | 3 | <u>1</u> | 2 | <u>3</u> | 0 | 2 | 3 | 1 | 2 | 3 | <u>1</u> | 38.2 | 53.9 | D | D |
| • Firestone Bl. (EW) | TS | 1 | 2 | 1> | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D/E" improvements | TS | <u>2</u> | <u>3</u> | 0 | <u>2</u> | <u>3</u> | 0 | <u>2</u> | 2 | 1 | <u>2</u> | <u>3</u> | 0 | 33.2 | 48.4 | C | D |
| • Stewart & Gray Rd. (EW) | TS | 1 | 3 | 0 | 1 | 2 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D/E" improvements | TS | 1 | 3 | 0 | 1 | 2 | 1 | <u>2</u> | 2 | <u>1</u> | <u>2</u> | 2 | 0 | 48.2 | 50.2 | D | D |
| • Imperial Hw. (EW) | TS | 2 | 2 | 0 | 1 | 2 | 1> | 2 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D/E" improvements | TS | 2 | <u>3</u> | 0 | <u>2</u> | 2 | 1 | 2 | 3 | <u>1</u> | <u>2</u> | 3 | <u>1</u> | 46.1 | 49.8 | D | D |
| Downey Av. (NS) at: | | | | | | | | | | | | | | | | | |
| • Firestone Bl. (EW) | TS | 1< | 1 | 1 | 1< | 1 | 1 | 1< | 2 | 1 | 1< | 3 | 0 | 33.9 | -- ⁴ | C | F |
| -with LOS "D/E" improvements | TS | 1< | <u>2</u> | 1 | 1< | <u>2</u> | 1 | 1< | <u>3</u> | 1 | 1< | 3 | 0 | 29.0 | 32.0 | C | C |
| Brookshire Av. (NS) at: | | | | | | | | | | | | | | | | | |
| • Firestone Bl. (EW) | TS | 1< | 2 | 0 | 1< | 2 | 0 | 1< | 3 | 0 | 1< | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "E" improvements ⁶ | TS | <u>2</u> | <u>3</u> | 0 | <u>2</u> | 2 | <u>1</u> | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | <u>1</u> | 34.1 | 61.7 | C | E |
| -with LOS "D" improvements ⁶ | TS | 2 | 3 | <u>1</u> | 2 | 2 | <u>1</u> | 2 | 3 | 1 | 2 | 3 | 1 | 32.9 | 48.6 | C | D |
| Lakewood Bl. | | | | | | | | | | | | | | | | | |
| • Telegraph Rd. (EW) | TS | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with improvements | TS | <u>2</u> | 2 | <u>2</u> | <u>2</u> | 2 | 1 | <u>2</u> | 3 | 0 | <u>2</u> | 3 | 0 | 54.5 | 54.1 | D | D |
| • Florence Av. (EW) | TS | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 76.5 | -- ⁴ | E | F |
| -with LOS "E" improvements | TS | <u>2</u> | 3 | 0 | <u>2</u> | 3 | 0 | <u>2</u> | 3 | 0 | <u>2</u> | 3 | 0 | 55.5 | 56.5 | E | E |
| -with LOS "D" improvements | TS | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 3 | <u>1</u> | 2 | 3 | 0 | 54.4 | 44.5 | D | D |
| • Firestone Bl. (EW) | TS | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 1 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "E" improvements | TS | <u>2</u> | 3 | 0 | <u>2</u> | 3 | 0 | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | 1 | 66.1 | 52.3 | E | D |
| -with LOS "D" improvements ⁶ | TS | 2 | 3 | <u>1</u> | 2 | 3 | <u>1</u> | 2 | <u>4</u> | 1 | 2 | 3 | 1 | 53.9 | 41.6 | D | D |
| • Stewart & Gray Rd. (EW) | TS | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 1 | 1 | 2 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D/E" improvements ⁶ | TS | 1 | 2 | 0 | 1 | 2 | 0 | <u>2</u> | <u>3</u> | <u>1</u> > | <u>2</u> | <u>3</u> | 0 | 42.3 | 44.7 | D | D |
| • Imperial Hw. (EW) | TS | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "E" improvements ⁶ | TS | <u>3</u> | 3 | <u>2</u> | <u>2</u> | 3 | <u>1</u> | <u>2</u> | <u>4</u> | <u>2</u> | <u>3</u> | 3 | 0 | 42.5 | 59.8 | D | E |
| -with LOS "D" improvements ⁶ | TS | 3 | 3 | <u>1</u> >> | 2 | 3 | 1 | 2 | 4 | <u>1</u> >> | 3 | 3 | 0 | 34.4 | 51.3 | C | D |
| • Foster Rd. (EW) | TS | 1 | 2 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D/E" improvements ⁶ | TS | <u>2</u> | <u>3</u> | 1 | <u>2</u> | <u>4</u> | <u>1</u> | <u>2</u> | 2 | 0 | <u>2</u> | 2 | 0 | 41.5 | 48.4 | D | D |
| Bellflower Bl. (NS) at: | | | | | | | | | | | | | | | | | |
| • Imperial Hw. (EW) | TS | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |



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**Table 5.9-22
Proposed General Plan with TSM Intersection Analysis Summary**

| <i>Intersection</i> | <i>Traffic Control³</i> | <i>Intersection Approach Lanes¹</i> | | | | | | | | | | | | <i>Delay² (Secs.)</i> | | <i>Level of Service</i> | |
|------------------------------|------------------------------------|--|----------|----------|--------------------|----------|----------|-------------------|----------|----------|-------------------|----------|----------|----------------------------------|-----------------|-------------------------|-----------|
| | | <i>North-Bound</i> | | | <i>South-Bound</i> | | | <i>East-Bound</i> | | | <i>West-Bound</i> | | | <i>AM</i> | <i>PM</i> | <i>AM</i> | <i>PM</i> |
| | | <i>L</i> | <i>T</i> | <i>R</i> | <i>L</i> | <i>T</i> | <i>R</i> | <i>L</i> | <i>T</i> | <i>R</i> | <i>L</i> | <i>T</i> | <i>R</i> | <i>AM</i> | <i>PM</i> | <i>AM</i> | <i>PM</i> |
| -with LOS "E" improvements | TS | <u>2</u> | 2 | 0 | <u>2</u> | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 58.2 | 68.2 | E | E |
| -with LOS "D" improvements | TS | 2 | 2 | 0 | 2 | 2 | 0 | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | <u>1</u> | 39.3 | 47.2 | D | D |
| Woodruff Av. (NS) at: | | | | | | | | | | | | | | | | | |
| • Stewart & Gray Rd. (EW) | TS | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1>> | 1 | 2 | 0 | 26.3 | -- ⁴ | C | F |
| -with LOS "D/E" improvements | TS | <u>2</u> | 2 | 1 | <u>2</u> | 2 | 1 | <u>2</u> | 2 | 1>> | <u>2</u> | 2 | <u>1</u> | 22.4 | 47.0 | C | D |
| • Imperial Hw. (EW) | TS | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 0 | 1 | 3 | 0 | -- ⁴ | -- ⁴ | F | F |
| -with LOS "D/E" improvements | TS | <u>2</u> | 2 | <u>2</u> | <u>2</u> | 2 | 1 | <u>2</u> | 3 | <u>1</u> | <u>2</u> | 3 | 0 | 39.5 | 46.3 | D | D |

¹ When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; < = Protected and permitted; >> = Free right; > = Right turn overlap; 1 = improvement

² Delay and level of service calculated using the following analysis software: Traffix, Version 7.6 (2003). Per the 2000 Highway Capacity Manual, overall average intersection delay and level of service are shown for intersections with traffic, traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for worst individual movement (or movements sharing a single lane) are shown.

³ TS = Traffic Signal

⁴ = Delay High, Intersection Unstable, Level of Service "F".

⁵ = Intersection is at a satisfactory Level of Service, but the Volume over Capacity Ratio is greater than 1.00.

⁶ = Improvements beyond allowable limits were necessary to improve intersection to satisfactory Level of Service

⁷ = Improvement consistent with Downey Vision 2010

Source: Urban Crossroads

Improvements needed to reach LOS "E" or LOS "D" for all intersections are also shown in Table 5.9-22. Three of the intersections would require greater improvements than those shown in the Master Plan of Streets and Highways to reach LOS "E". For LOS "D" or better operation, four of the intersections would require greater improvements than those in the Master Plan of Streets and Highways.

Conclusions

Based on the analysis included in this traffic study, the following conclusions have been reached

- Regional through traffic, especially including heavy vehicles, will contribute heavily to overall anticipated growth in traffic on the City of Downey's arterial street system.
- Heavy truck activity will be even more prevalent under future conditions. It will be necessary to ensure that the roadway geometric design parameters, particularly lane widths, accommodate such vehicles.
- LOS "D" operations can generally be achieved at most intersections and on most roadway segments within the City of Downey and should be considered as the generally acceptable level of service standard within the City of Downey. In certain instances, however, LOS "D" cannot be achieved without substantially augmenting the recommended roadway classifications and number of through lanes throughout the City on heavily traveled corridors. Therefore, the City should accept LOS "E" as the acceptable standard for traffic operations under extenuating circumstances (for instance, LOS "D" cannot be obtained without widening beyond the typical engineering standard of dual left turn lanes and an exclusive right turn lane at arterial intersections).

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- Implementing traffic systems management measures, including eliminating parking on the arterial roadway system, constructing augmented turn lanes at arterial to arterial intersections, and ongoing funding of traffic operations measures such as optimizing traffic signal timing and traffic operations capability to respond to traffic accidents and other incidents, can reduce the need for additional physical improvements to the roadway system. In addition, access management measures, such as construction of raised medians, deceleration lanes at major driveways, and consolidation of driveways are an important aspect of TSM strategies and should be implemented wherever possible.
- The City should continue to coordinate with MTA in developing future scheduling and route alignments to serve Downey as necessary. The City should also participate in efforts to develop/maintain important transit support facilities, including park-and-ride lots, bus stops and shelters. To serve the needs of seniors and youth, the City should collaborate with MTA, neighboring cities and other providers to ensure that adequate public transit access is provided to pivotal youth and senior centers. Also, public improvements should be designed to promote the use of public transportation as an alternative to the automobile.
- The City should continue to coordinate with Los Angeles County agencies to enhance the bikeway system. The goal is to link residential areas, schools, parks and commercial centers so that residents can travel within the community without driving. New development projects should be required to include safe and attractive sidewalks, walkways, and bike lanes, and homeowners' associations should be encouraged to construct links to adjacent areas and communities where appropriate.

Table 5.9-23 summarizes the needed improvements to achieve LOS "D" where reasonably achievable (or LOS "E" otherwise) and presents the required improvements for both the Currently Adopted General Plan and Proposed General Plan scenarios, if transportation system management (TSM) measures are not implemented.



Table 5.9-24 summarizes the existing and recommended intersection lane configurations for both the Currently Adopted General Plan with TSM and Proposed General Plan with TSM scenarios. The differences are:

Old River School Road (NS) at Firestone Boulevard (EW):

- The Currently Adopted General Plan with TSM requires two left turn lanes on the northbound and southbound approaches. The Proposed General Plan scenario needs one left turn lane for the northbound and southbound approaches. For the eastbound and westbound approaches, the Currently Adopted General Plan with TSM requires two left turn lanes, two through lanes, and a free right turn lane for each approach. The Proposed General Plan scenario requires the eastbound and westbound approaches to have one left turn lane, two through lanes, and one shared through-right lane.

Brookshire Avenue (NS) at Firestone Boulevard (EW):

- The Proposed General Plan with TSM requires two through lanes and one shared through-right lane for the northbound approach while the Currently Adopted General Plan land use scenario only requires two northbound through lanes and an exclusive northbound right turn lane.

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Lakewood Boulevard (NS) at Firestone Boulevard (EW):

- The Currently Adopted General Plan with TSM requires three through lanes and an exclusive right turn lane for the northbound approach while the Proposed General Plan land use scenario requires two through lanes and one shared through-right turn lane for the northbound approach.

By comparing Table 5.9-23 to Table 5.9-24, it is possible to conclude that applying TSM measures to the Proposed General Plan land use scenario reduces the required lanes at most intersections. The changed lane requirements are:

Old River School Road (NS) at Florence Avenue (EW):

- TSM eliminates the need for a second northbound through lane and a second southbound through lane.

Old River School Road (NS) at Florence Avenue (EW):

- TSM eliminates the need for a second eastbound left turn lane and a second westbound left turn lane.

Old River School Road (NS) at Imperial Highway (EW):

- TSM eliminates the need for a westbound right turn lane.

Paramount Boulevard (NS) at Telegraph Road (EW):

- TSM eliminates the need for a northbound right turn lane and an eastbound right turn lane

Paramount Boulevard (NS) at Florence Avenue (EW):

- TSM eliminates the need for a southbound right turn lane and a fourth eastbound through lane.

Paramount Boulevard (NS) at Firestone Boulevard (EW):

- TSM eliminates the need for a northbound right turn lane and a southbound right turn lane.

Paramount Boulevard (NS) at Stewart and Gray Road (EW):

- TSM eliminates the need for a westbound right turn lane.

Paramount Boulevard (NS) at Imperial Highway (EW):

- TSM eliminates the need for a northbound right turn lane and a third southbound through lane.

Downey Avenue (NS) at Firestone Boulevard (EW):

- TSM eliminates the need for a second northbound left turn lane and a second southbound left turn lane.
- TSM requires a southbound right turn lane and a third eastbound through lane.

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Brookshire Avenue (NS) at Firestone Boulevard (EW);

- TSM eliminates the need for a fourth northbound through lane and a northbound right turn lane.

Lakewood Boulevard (NS) at Telegraph Road (EW):

- TSM eliminates the need for a southbound through turn lane, an eastbound right turn lane, and a westbound right turn lane.
- TSM requires a second northbound left turn lane, a second northbound right turn lane, and a second southbound left turn lane.

Lakewood Boulevard (NS) at Florence Avenue (EW):

- TSM eliminates the need for a northbound right turn lane, a southbound right turn lane and a westbound right turn lane.

Lakewood Boulevard (NS) at Firestone Boulevard (EW):

- TSM eliminates the need for a northbound right turn lane and a second westbound left turn lane.

Lakewood Boulevard (NS) at Stewart and Gray Road (EW):

- The improvements are not directly comparable, as LOS “D” can be achieved with TSM, while LOS “E” is the best LOS that can be attained without TSN.

Lakewood Boulevard (NS) at Imperial Highway (EW):

- TSM eliminates the need for a fourth southbound through lane, an eastbound free right lane, and a westbound right turn lane.
- TSM requires two eastbound right turn lanes.

Lakewood Boulevard (NS) at Foster Road (EW):

- TSM eliminates the need for an eastbound right turn lane.

Bellflower Boulevard (NS) at Imperial Highway (EW):

- TSM eliminates the need for a northbound right turn lane.
- TSM requires an eastbound right turn lane and a westbound right turn lane

Woodruff Avenue (NS) and Stewart & Gray Road (EW):

- TSM eliminates the need for a third southbound through lane.
- TSM requires two southbound through lanes and one southbound right turn lane.

Woodruff Avenue (NS) and Imperial Highway (EW):

- TSM eliminates the need for a third northbound through lane.
- TSM requires two northbound right turn lanes.



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**Table 5.9-23
Required Intersection Configuration Without TSM Measures**

| Intersection | Traffic Control ² | Intersection Approach Lanes ¹ | | | | | | | | | | | |
|--|------------------------------|--|-----|-----|------------|---|---|-----------|---|----|-----------|---|---|
| | | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| | | L | T | R | L | T | R | L | T | R | L | T | R |
| Old River School Rd. (NS) at: | | | | | | | | | | | | | |
| Florence Av (EW) | | | | | | | | | | | | | |
| Currently adopted general plan improvements | TS | 2 | 2 | 1>> | 2 | 2 | 0 | 2 | 3 | 1 | 2 | 3 | 0 |
| Proposed general plan improvements | TS | 2 | 2 | 1 | 2 | 2 | 0 | 2 | 3 | 1 | 2 | 3 | 0 |
| Firestone Bl. (EW) | | | | | | | | | | | | | |
| Currently adopted general plan improvements | TS | 1 | 2 | 1 | 1 | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| Proposed general plan improvements | TS | 1 | 2 | 0 | 1 | 2 | 0 | 2 | 3 | 0 | 2 | 3 | 0 |
| Imperial Hwy. (EW) | | | | | | | | | | | | | |
| Currently adopted general plan improvements | TS | 1.5 | 1.5 | 0 | 1 | 2 | 0 | 2 | 3 | 1> | 2 | 3 | 0 |
| Proposed general plan improvements | TS | 1.5 | 1.5 | 0 | 1 | 2 | 0 | 2 | 3 | 1> | 1 | 3 | 0 |
| Paramount Bl. (NS) at: | | | | | | | | | | | | | |
| Telegraph Rd. (EW) | | | | | | | | | | | | | |
| Currently adopted general plan improvements | TS | 2 | 3 | 1 | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 3 | 0 |
| Proposed general plan improvements | TS | 2 | 3 | 1 | 2 | 3 | 0 | 2 | 3 | 1 | 2 | 3 | 0 |
| Florence Av. (EW) | | | | | | | | | | | | | |
| Currently adopted general plan improvements | TS | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Proposed general plan improvements | TS | 2 | 3 | 1 | 2 | 4 | 1 | 2 | 4 | 1 | 2 | 3 | 1 |
| Firestone Bl. (EW) | | | | | | | | | | | | | |
| Currently adopted/proposed general plan improvements | TS | 2 | 3 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 0 |
| Stewart & Gray Rd. (EW) | | | | | | | | | | | | | |
| Currently adopted/proposed general plan improvements | TS | 1 | 3 | 0 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 |
| Imperial Hwy. (EW) | | | | | | | | | | | | | |
| Currently adopted general plan improvements | TS | 2 | 3 | 0 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Proposed general plan improvements | TS | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Downey Av. (NS) at: | | | | | | | | | | | | | |
| Firestone Bl. (EW) | | | | | | | | | | | | | |
| Currently adopted general plan improvements | TS | 2 | 2 | 1 | 2 | 2 | 0 | 1 | 2 | 1 | 1< | 3 | 0 |
| Proposed general plan improvements | TS | 2 | 2 | 1 | 2 | 2 | 0 | 1< | 2 | 1 | 1< | 3 | 0 |
| Brookshire Av. (NS) at: | | | | | | | | | | | | | |
| Firestone Bl (EW) | | | | | | | | | | | | | |
| Currently adopted general plan improvements | TS | 2 | 3 | 1 | 2 | 2 | 1 | 2 | 4 | 1 | 2 | 4 | 1 |

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**Table 5.9-23
Required Intersection Configuration Without TSM Measures**

| <i>Intersection</i> | <i>Traffic Control²</i> | <i>Intersection Approach Lanes¹</i> | | | | | | | | | | | |
|--|------------------------------------|--|----------|----------|-------------------|----------|----------|------------------|----------|----------|------------------|----------|----------|
| | | <i>Northbound</i> | | | <i>Southbound</i> | | | <i>Eastbound</i> | | | <i>Westbound</i> | | |
| | | <i>L</i> | <i>T</i> | <i>R</i> | <i>L</i> | <i>T</i> | <i>R</i> | <i>L</i> | <i>T</i> | <i>R</i> | <i>L</i> | <i>T</i> | <i>R</i> |
| Proposed general plan improvements | TS | 2 | 4 | 1 | 2 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Lakewood Bl Telegraph Rd. (EW) | | | | | | | | | | | | | |
| Currently adopted general plan improvements | TS | 1 | 3 | 2 | 1 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Proposed general plan improvements | TS | 1 | 2 | 1 | 1 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Florence Av. (EW) | | | | | | | | | | | | | |
| Currently adopted general plan improvements | TS | 2 | 3 | 0 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Proposed general plan improvements | TS | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Firestone Bl (EW) | | | | | | | | | | | | | |
| Currently adopted general plan improvements | TS | 2 | 3 | 1 | 2 | 3 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Proposed general plan improvements | TS | 2 | 3 | 1 | 2 | 3 | 0 | 2 | 3 | 1 | 2 | 3 | 2 |
| Stewart & Gray Rd. (EW) | | | | | | | | | | | | | |
| Currently adopted general plan improvements | TS | 1 | 3 | 1 | 1 | 3 | 0 | 2 | 3 | 1> | 2 | 2 | 1 |
| Proposed general plan improvements | TS | 1 | 3 | 1 | 1 | 3 | 0 | 2 | 2 | 1 | 2 | 2 | 1 |
| Imperial Hwy. (EW) | | | | | | | | | | | | | |
| Currently adopted/proposed general plan improvements | TS | 3 | 3 | 2 | 2 | 4 | 1 | 2 | 4 | 1>> | 3 | 3 | 1 |
| Foster Rd. (EW) | | | | | | | | | | | | | |
| Currently adopted/proposed general plan improvements | TS | 2 | 3 | 1 | 2 | 4 | 1 | 2 | 2 | 1 | 2 | 2 | 0 |
| Bellflower Bl. (NS) at: | | | | | | | | | | | | | |
| Imperial Hwy. (EW) | | | | | | | | | | | | | |
| Currently adopted general plan improvements | TS | 2 | 2 | 1 | 2 | 2 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Proposed general plan improvements | TS | 2 | 2 | 1 | 2 | 2 | 0 | 2 | 3 | 0 | 2 | 3 | 0 |
| Woodruff Av. (NS) at: | | | | | | | | | | | | | |
| Stewart & Gray Rd. (EW) | | | | | | | | | | | | | |
| Currently adopted general plan improvements | TS | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1>> | 2 | 2 | 1 |
| Proposed general plan improvements | TS | 2 | 2 | 1 | 2 | 3 | 0 | 2 | 2 | 1>> | 2 | 2 | 1 |
| Imperial Hwy. (EW) | | | | | | | | | | | | | |
| Currently adopted general plan improvements | TS | 2 | 3 | 2 | 2 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 0 |
| Proposed general plan improvements | TS | 2 | 3 | 1 | 2 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 0 |

¹ When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L= Left; T= Through; R= Right; < = Protected and permitted; >> = Free right; >= Right turn overlap

² TS= Traffic Signal

Source: Urban Crossroads

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**Table 5.9-24
Existing and Recommended Intersection Configurations With TSM Measures**

| Intersection | Traffic Control ² | Intersection Approach Lanes ¹ | | | | | | | | | | | |
|--|------------------------------|--|-----|---|------------|-----|---|-----------|---|-----|-----------|---|----|
| | | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| | | L | T | R | L | T | R | L | T | R | L | T | R |
| Old River School Rd. (NS) at: Florence Av (EW) | | | | | | | | | | | | | |
| Existing lanes | TS | 1.5 | 0.5 | 1 | 0.5 | 1.5 | 0 | 1 | 3 | 0 | 1 | 2 | 0 |
| Currently adopted/proposed general plan improvements | TS | 2 | 1 | 1 | 2 | 1 | 0 | 2 | 3 | 1 | 2 | 3 | 0 |
| Firestone Bl. (EW) | | | | | | | | | | | | | |
| Existing lanes | TS | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 1 | 1 | 2 | 1 |
| Currently adopted general plan improvements | TS | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 1>> | 2 | 2 | 1> |
| Proposed general plan improvements | TS | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 3 | 0 | 1 | 3 | > |
| Imperial Hwy. (EW) | | | | | | | | | | | | | |
| Existing lanes | TS | 1.5 | 1.5 | 0 | 1.5 | 1.5 | 0 | 1 | 3 | 1 | 1 | 3 | 0 |
| Currently adopted/proposed general plan improvements | TS | 1.5 | 2 | 0 | 1 | 2 | 0 | 2 | 3 | 1> | 1 | 3 | 0 |
| Paramount Bl. (NS) at: Telegraph Rd. (EW) | | | | | | | | | | | | | |
| Existing lanes | TS | 1 | 2 | 1 | 1 | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| Currently adopted/proposed general plan improvements | TS | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 3 | 0 |
| Florence Av. (EW) | | | | | | | | | | | | | |
| Existing lanes | TS | 2 | 2 | 0 | 2 | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| Currently adopted/proposed general plan improvements | TS | 2 | 3 | 1 | 2 | 3 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Firestone Bl. (EW) | | | | | | | | | | | | | |
| Existing lanes | TS | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 0 |
| Currently adopted/proposed general plan improvements | TS | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 2 | 1 | 2 | 3 | 0 |
| Stewart & Gray Rd. (EW) | | | | | | | | | | | | | |
| Existing lanes | TS | 1 | 3 | 0 | 1 | 2 | 1 | 1 | 2 | 0 | 1 | 2 | 0 |
| Currently adopted/proposed general plan improvements | TS | 1 | 3 | 0 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 0 |
| Imperial Hwy. (EW) | | | | | | | | | | | | | |
| Existing lanes | TS | 2 | 2 | 0 | 1 | 2 | 1 | 2 | 3 | 0 | 1 | 3 | 0 |
| Currently adopted/proposed general plan improvements | TS | 2 | 3 | 0 | 2 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |

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**Table 5.9-24
Existing and Recommended Intersection Configurations With TSM Measures**

| Intersection | Traffic Control ² | Intersection Approach Lanes ¹ | | | | | | | | | | | |
|--|------------------------------|--|---|---|------------|---|---|-----------|---|----|-----------|---|---|
| | | Northbound | | | Southbound | | | Eastbound | | | Westbound | | |
| | | L | T | R | L | T | R | L | T | R | L | T | R |
| Downey Av. (NS) at: Firestone Bl. (EW) | | | | | | | | | | | | | |
| Existing lanes | TS | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 3 | 0 |
| Currently adopted/proposed general plan improvements | TS | 1< | 2 | 1 | 1< | 2 | 1 | 1< | 3 | 1 | 1< | 3 | 0 |
| Brookshire Av. (NS) at: Firestone Bl (EW) | | | | | | | | | | | | | |
| Existing lanes | TS | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| Currently adopted general plan improvements | TS | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Proposed general plan improvements | TS | 2 | 3 | 0 | 2 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Lakewood Bl Telegraph Rd. (EW) | | | | | | | | | | | | | |
| Existing lanes | TS | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 0 | 1 | 3 | 0 |
| Currently adopted/proposed general plan improvements | TS | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 3 | 0 | 2 | 3 | 0 |
| Florence Av. (EW) | | | | | | | | | | | | | |
| Existing lanes | TS | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| Currently adopted/proposed general plan improvements | TS | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 3 | 1 | 2 | 3 | 0 |
| Firestone Bl (EW) | | | | | | | | | | | | | |
| Existing lanes | TS | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 1 |
| Currently adopted general plan improvements | TS | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 | 2 | 3 | 1 |
| Proposed general plan improvements | TS | 2 | 3 | 0 | 2 | 3 | 0 | 2 | 3 | 1 | 2 | 3 | 1 |
| Stewart & Gray Rd. (EW) | | | | | | | | | | | | | |
| Existing lanes | TS | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 1 | 1 | 2 | 0 |
| Currently adopted/proposed general plan improvements | TS | 1 | 2 | 0 | 1 | 2 | 0 | 2 | 3 | 1> | 2 | 3 | 0 |
| Imperial Hwy. (EW) | | | | | | | | | | | | | |
| Existing lanes | TS | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 | 1 | 3 | 0 |
| Currently adopted/proposed general plan improvements | TS | 3 | 3 | 2 | 2 | 3 | 1 | 2 | 4 | 2 | 3 | 3 | 0 |
| Foster Rd. (EW) | | | | | | | | | | | | | |
| Existing lanes | TS | 1 | 2 | 1 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 |
| Currently adopted/proposed general plan | TS | 2 | 3 | 1 | 2 | 4 | 1 | 2 | 2 | 0 | 2 | 2 | 0 |

5. Environmental Analysis

**Table 5.9-24
Existing and Recommended Intersection Configurations With TSM Measures**

| <i>Intersection</i> | <i>Traffic Control²</i> | <i>Intersection Approach Lanes¹</i> | | | | | | | | | | | |
|--|------------------------------------|--|----------|----------|-------------------|----------|----------|------------------|----------|----------|------------------|----------|----------|
| | | <i>Northbound</i> | | | <i>Southbound</i> | | | <i>Eastbound</i> | | | <i>Westbound</i> | | |
| | | <i>L</i> | <i>T</i> | <i>R</i> | <i>L</i> | <i>T</i> | <i>R</i> | <i>L</i> | <i>T</i> | <i>R</i> | <i>L</i> | <i>T</i> | <i>R</i> |
| improvements | | | | | | | | | | | | | |
| Bellflower Bl. (NS) at: Imperial Hwy. (EW) | | | | | | | | | | | | | |
| Existing lanes | TS | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 2 | 0 | 1 | 3 | 0 |
| Currently adopted/proposed general plan improvements | TS | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 3 | 1 |
| Woodruff Av. (NS) at: Stewart & Gray Rd. (EW) | | | | | | | | | | | | | |
| Existing lanes | TS | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 0 |
| Currently adopted/proposed general plan improvements | TS | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1>> | 2 | 2 | 1 |
| Imperial Hwy. (EW) | | | | | | | | | | | | | |
| Existing lanes | TS | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 3 | 0 | 1 | 3 | 0 |
| Currently adopted/proposed general plan improvements | TS | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 3 | 1 | 2 | 3 | 0 |

¹ When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L= Left; T= Through; R= Right; < = Protected and permitted; >> = Free right; >= Right turn overlap

² TS= Traffic Signal

Source: Urban Crossroads

5. *Environmental Analysis*

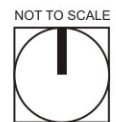
The recommended Master Plan of Streets and Highways is depicted on Figure 5.9-26. Figure 5.9-27 presents recommended arterial mid-block cross-sections, as well as augmented arterial (to arterial) intersection cross-sections that should be required in conjunction with any future (re)development activities within the City of Downey.

The recommended Master Plan of Streets and Highways includes a new arterial designation, Primary Arterial, that reflects a four lane divided cross-section. This designation has been recommended for Woodruff Avenue, which was formerly designated as a four to six lane Major Arterial. The Major Arterial designation is now used solely to designate six lane divided roadways, while the Secondary Arterial designation refers to roadways exhibiting a four lane undivided mid-block section. The addition of a Primary Arterial designation ensures that the City is clearly defining a specific desired roadway cross-section for all of the arterial roadways throughout the City.

Figure 5.9-26. also identifies several locations where the required number of approach lanes exceeds even the recommended augmented roadway cross-sections. The feasibility of implementing some of these additional improvements is questionable. It may be necessary to identify these locations as intersections where a significant, unavoidable adverse impact will occur as a result of continued growth in the City of Downey and surrounding region. This finding would apply in the context of both the Currently Adopted or Proposed General Plan land use scenarios. In addition, it is recognized that ongoing development within the City and the surrounding region will result in a significant, unavoidable adverse impact to the regional freeway system and the interchanges of the City of Downey arterial system with the regional freeway system, based on the analysis completed in conjunction with the regional transportation plan.

5. Environmental Analysis

City of Downey Recommended Master Plan of Streets & Highways

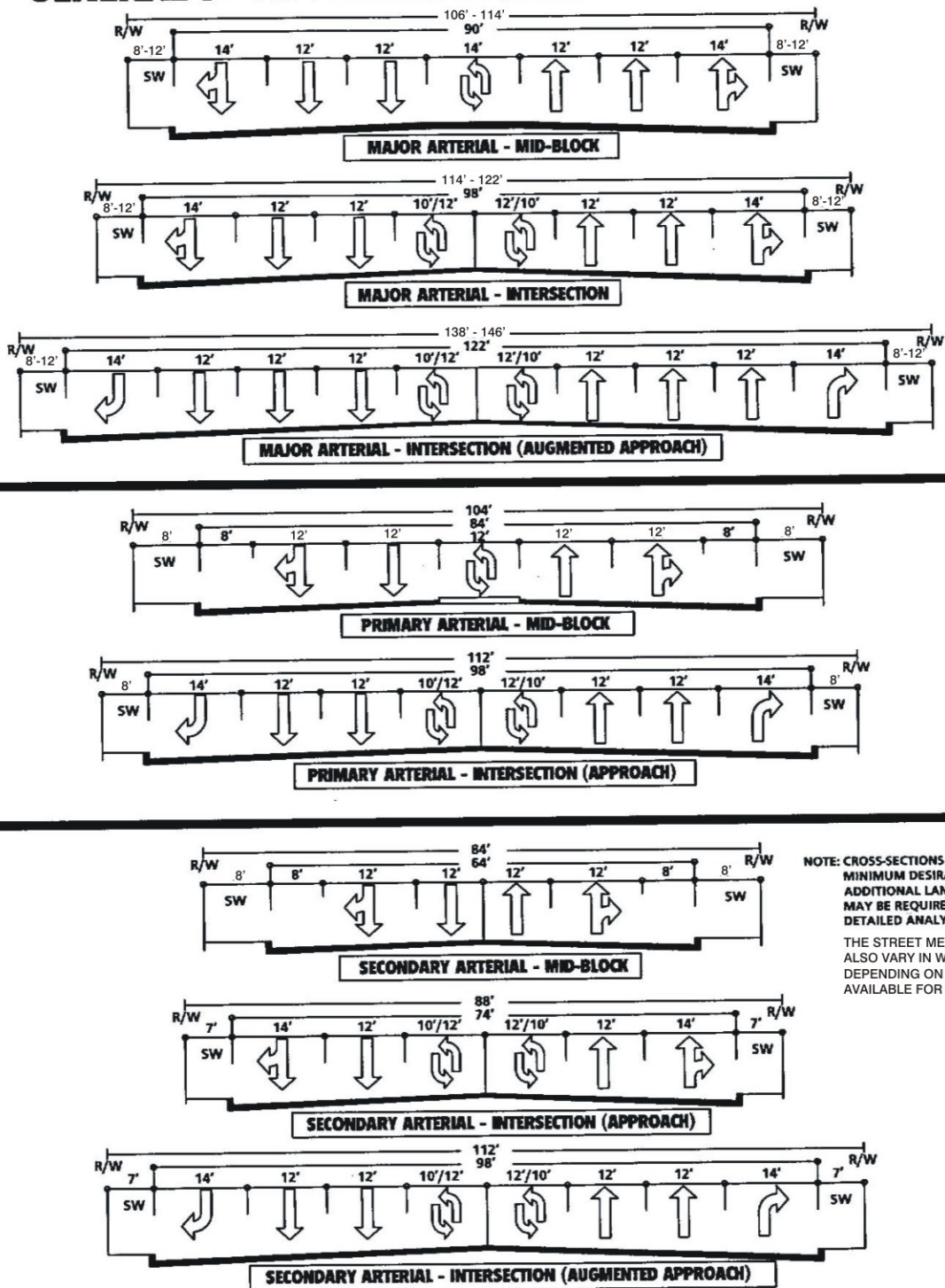


5. *Environmental Analysis*

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5. Environmental Analysis

City of Downey Recommended General Plan Arterial Roadway Cross-Sections



5. *Environmental Analysis*

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5. Environmental Analysis

Existing Regulations and Standard Conditions

A number of Goals, Policies and Programs are included in the proposed update of the Downey General Plan that will help to reduce the impacts of this project on traffic and circulation. They are listed in Appendix A.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: Improvements will be required at all intersections analyzed in this study, to achieve acceptable (LOS “D” or LOS “E” where LOS “D” is infeasible) traffic operations. Recommended improvements for each intersection for Proposed General Plan conditions are proposed to reduce the project traffic impacts to the extent possible. These improvements would be made at such time as future projects are proposed that would impact one or more of the intersections listed below.

MM 5.9-1 Old River School Rd. (NS) at Florence Avenue (EW):

- Construct one additional northbound approach lane (total of four approach lanes) and stripe the northbound approach to provide two left turn lanes, one through lane, and one right turn lane.
- Construct one additional southbound approach lane (total of three approach lanes) and stripe the southbound approach to provide two left turn lanes one shared through-right lane.
- Construct two additional eastbound approach lanes (total of six approach lanes) and stripe the eastbound approach to provide two left turn lanes, three through lanes, and one right turn lane.
- Construct two additional westbound approach lanes (total of five approach lanes) and stripe the westbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane.

MM 5.9-2 Old River School Road (NS) at Imperial Highway (EW):

- Re-stripe the southbound approach to provide one left turn lane, one through lane, and one shared through-right lane.
- Construct one additional eastbound approach lane (total of six approach lanes) and stripe the eastbound approach to provide two left turn lanes, three through lanes, and one right turn lane with overlap phasing.

MM 5.9-3 Paramount Boulevard (NS) at Telegraph Road (EW):

- Construct one additional northbound approach lane (total of five approach lanes) and stripe the northbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane.
- Construct two additional southbound approach lanes (total of five approach lanes) and stripe the southbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane.

5. *Environmental Analysis*

- Construct one additional eastbound approach lane (total of five approach lanes) and stripe the eastbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane.
- Construct one additional westbound approach lane (total of five approach lanes) and stripe the westbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane.

MM 5.9-4 Paramount Boulevard (NS) at Florence Avenue (EW):

- Construct one additional northbound approach lane (total of five approach lanes) and stripe the northbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane.
- Construct one additional southbound approach lane (total of five approach lanes) and stripe the southbound approach to provide two left turn lanes, two through lanes, and one right turn lane.
- Construct two additional eastbound approach lanes (total of six approach lanes) and stripe the eastbound approach to provide two left turn lanes, three through lanes, and one right turn lane.
- Construct one additional westbound approach lane (total of five approach lanes) and stripe the westbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane.

MM 5.9-5 Paramount Boulevard (NS) at Firestone Boulevard (EW):

- Construct one additional northbound approach lane (total of five approach lanes) and stripe the northbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane.
- Construct one additional southbound approach lane (total of five approach lanes) and stripe the southbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane.
- Construct one additional eastbound approach lane (total of five approach lanes) and stripe the eastbound approach to provide two left turn lanes, two through lanes, and one right turn lane.
- Construct one additional westbound approach lane (total of five approach lanes) and stripe the westbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane.

MM 5.9-6 Paramount Boulevard (NS) at Stewart & Gray Road (EW):

- Construct two additional eastbound approach lanes (total of five approach lanes) and stripe the eastbound approach to provide two left turn lanes, two through lanes, and one right turn lane.

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- Construct one additional westbound approach lane (total of four approach lanes) and stripe the westbound approach to provide two left turn lanes, one through lane, and one shared through-right turn lane.
- Re-stripe the eastbound approach to provide one left turn lane, two through lanes, and one shared through-right lane.
- Re-stripe the westbound approach to provide one left turn lane, two through lanes, and one shared through-right lane.

MM 5.9-7 Paramount Boulevard (NS) at Imperial Highway (EW):

- Construct one additional northbound approach lane (total of five approach lanes) and stripe the northbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane.
- Construct one additional southbound approach lane (total of five approach lanes) and stripe the southbound approach to provide two left turn lanes, two through lanes, and one right turn lane.
- Construct one additional eastbound approach lane (total of six approach lanes) and stripe the eastbound approach to provide two left turn lanes, three through lanes, and one right turn lane.
- Construct two additional westbound approach lanes (total of six approach lanes) and stripe the westbound approach to provide two left turn lanes, three through lanes, and one right turn lane.

MM 5.9-8 Downey Avenue (NS) at Firestone Boulevard (EW):

- For the northbound approach, provide left turn protected and permitted phasing.
- For the southbound approach, provide left turn protected and permitted phasing.
- Construct one additional eastbound approach lane (total of five approach lanes) and stripe the eastbound approach to provide one left turn lane with protected and permitted phasing, three through lanes, and one right turn lane.
- For the westbound approach, provide left turn protected and permitted phasing.

MM 5.9-10 Brookshire Avenue (NS) at Firestone Boulevard (EW):

- Construct two additional northbound approach lanes (total of five approach lanes) and stripe the northbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane.
- Construct one additional southbound approach lane (total of five approach lanes) and stripe the southbound approach to provide two left turn lanes, two through lanes, and one right turn lane.

5. *Environmental Analysis*

- Construct two additional eastbound approach lanes (total of six approach lanes) and stripe the eastbound approach to provide two left turn lanes, three through lanes, and one right turn lane.
- Construct two additional westbound approach lanes (total of six approach lanes) and stripe the westbound approach to provide two left turn lanes, three through lanes, and one right turn lane.

MM 5.9-11 Lakewood Boulevard (NS) at Telegraph Road (EW):

- Construct two additional northbound approach lanes (total of six approach lanes) and stripe the northbound approach to provide two left turn lanes, two through lanes, and two right turn lanes.
- Construct one additional southbound approach lane (total of five approach lanes) and stripe the southbound approach to provide two left turn lanes, two through lanes, and one right turn lane.
- Construct one additional eastbound approach lane (total of five approach lanes) and stripe the eastbound approach lane to provide two left turn lanes, two through lanes, and one shared through-right lane.
- Construct one additional westbound approach lane (total of five approach lanes) and stripe the westbound approach lane to provide two left turn lanes, two through lanes, and one shared through-right lane.

MM 5.9-12 Lakewood Boulevard (NS) at Florence Avenue (EW):

- Construct one additional northbound approach lane (total of five approach lanes) and stripe the northbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane.
- Construct one additional southbound approach lane (total of five approach lanes) and stripe the southbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane.
- Construct one additional eastbound approach lane (total of five approach lanes) and stripe the eastbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane.
- Construct one additional westbound approach lane (total of five approach lanes) and stripe the westbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane.

MM 5.9-13 Lakewood Boulevard (NS) at Firestone Boulevard (EW):

- Construct one additional northbound approach lane (total of five approach lanes) and stripe the northbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane.

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- Construct one additional southbound approach lane (total of five approach lanes) and stripe the southbound approach to provide two left turn lanes, two through lanes, and one shared through-right lane.
- Construct two additional eastbound approach lanes (total of six approach lanes) and stripe the eastbound approach to provide two left turn lanes, three through lanes, and one right turn lane.
- Construct one additional westbound approach lane (total of six approach lanes) and stripe the westbound approach to provide two left turn lanes, three through lanes, and one right turn lane.

MM 5.9-14 Lakewood Boulevard (NS) at Stewart & Gray Road (EW):

- Construct three additional northbound approach lanes (total of six approach lanes) and stripe the northbound approach to provide two left turn lanes, three through lanes, and one right turn lane with overlap phasing.
- Construct three additional southbound approach lanes and one right turn lane.
- Construct one additional eastbound approach lane (total of five approach lanes) and stripe the eastbound approach to provide two left turn lanes, two through lanes, and one right turn lane.
- Construct two additional westbound approach lanes (total of five approach lanes) and stripe the westbound approach to provide two left turn lanes, two through lanes and one right lane.

MM 5.9-15 Lakewood Boulevard (NS) at Imperial Highway (EW):

- Construct four additional northbound approach lanes (total of eight approach lanes) and stripe the northbound approach to provide three left turn lanes, three through lanes, and two right turn lanes.
- Construct two additional southbound approach lanes (total of six approach lanes) and stripe the southbound approach to provide two left turn lanes, three through lanes, and one right turn lane.
- Construct four additional eastbound approach lanes (total of eight approach lanes) and stripe the eastbound approach to provide two left turn lanes, four through lanes, and two right turn lanes.
- Construct two additional westbound approach lanes (total of six approach lanes) and stripe the westbound approach to provide three left turn lanes, two through lanes, and one shared through-right lane.

MM 5.9-16 Lakewood Boulevard (NS) at Foster Road (EW):

- Construct two additional northbound approach lanes (total of six approach lanes) and stripe the northbound approach to provide two left turn lanes, three through lanes, and one right turn lane.

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- Construct four additional southbound approach lanes (total of seven approach lanes) and stripe the southbound approach to provide two left turn lanes, four through lanes, and one right turn lane.
- Construct one additional eastbound approach lane (total of four approach lanes) and stripe the eastbound approach to provide two left turn lanes, one through lane, and one shared through-right lane.
- Construct one additional westbound approach lane (total of six approach lanes) and stripe the westbound approach to provide two left turn lanes, three through lane, and one -right through lane.

MM 5.9-17 Bellflower Boulevard (NS) at Imperial Highway (EW):

- Construct one additional northbound approach lane (total of four approach lanes) and stripe the northbound approach to provide two left turn lanes, one through lane, and one shared through-right lane.
- Construct one additional southbound approach lane (total of four approach lanes) and stripe the southbound approach to provide two left turn lanes, one through lane, and one shared through-right lane.

MM 5.9-18 Woodruff Avenue (NS) at Stewart & Gray Road (EW):

- Construct one additional northbound approach lane (total of five approach lanes) and stripe the northbound approach to provide two left turn lanes, two through lanes, and one right turn lane.
- Construct one additional southbound approach lane (total of five approach lanes) and stripe the southbound approach to provide two left turn lanes, two through lanes, and one right turn lane.
- Construct one additional eastbound approach lane (total of five approach lanes) and stripe the eastbound approach to provide two left turn lanes, two through lanes, and one free right turn lane.
- Construct two additional westbound approach lanes (total of five approach lanes) and stripe the westbound approach to provide two left turn lanes, two through lanes, and one right turn lane.

MM 5.9-19 Woodruff Avenue (NS) at Imperial Highway (EW):

- Construct one additional northbound approach lane (total of five approach lanes) and stripe the northbound approach to provide two left turn lanes, two through lanes, and one right turn lane.
- Construct one additional southbound approach lane (total of five approach lanes) and stripe the southbound approach to provide two left turn lanes, two through lanes, and one right turn lane.

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- Construct two additional eastbound approach lanes (total of six approach lanes) and stripe the eastbound approach to provide two left turn lanes, three through lanes, and one right turn lane.
- Construct two additional westbound approach lane (total of six approach lanes) and stripe the westbound approach to provide two left turn lanes, three through lanes, and one right turn lane.

Table 5.9-25 shows the achievable intersection level of services with recommended roadway system improvements called for by the above mitigation measures.

| Table 5.9-25 | | |
|--|-------------------------|-----------|
| Achievable Intersection Level of Service With Recommended Roadway System (And Typical Engineering Practice Intersection Improvements) | | |
| INTERSECTION | LEVEL OF SERVICE | |
| | AM | PM |
| Old River School Road (NS) at: | | |
| • Forence av. (EW) | D | D |
| • Firestone Bl. (EW) | D | D |
| • Imperial Hw. (EW) | D | D |
| Paramount Bl. (NS) at: | | |
| • Telegraph Rd. (NS): | D | D |
| • Florence Av. (EW) | D | D |
| • Firestone Bl. (EW) | C | D |
| • Stewart and Gray Rd. (EW) | D | D |
| • Imperial Hw. (EW) | D | D |
| Downey Av. (NS) at: | | |
| • Firestone Bl. (EW) | C | C |
| Brookshire Av. (NS) at: | | |
| • Firestone Bl. (EW) | D | F |
| Lakewood Bl. | | |
| • Telegraph Rd. (EW) | D | D |
| • Florence Ave. (EW) | D | D |
| • Firestone Bl. (EW) | E | D |
| • Stewart & Grey Rod (EW) | D | D |
| • Imperial Hw. (EW) | F | F |
| • Gardendale St.. (EW) | D | F |
| Bellflower Bl. (NS) at: | | |
| • Imperial Hw. (EW) | D | D |
| Woodruff Av. (NS) at: | | |
| • Stewart & Grey Rd. (EW) | C | D |
| • Imperial Hw. (EW) | D | D |
| Source: Urban Crossroads | | |

5. Environmental Analysis

Level of Significance After Mitigation: The proposed Circulation Chapter includes improvements necessary to maintain adequate levels of service in the City at buildout. However, improvements necessary to maintain adequate level of service at the following intersections could impact adjacent land uses at the following intersections.

- Firestone Boulevard
 - Stewart and Gray Road
- Imperial Highway
 - Lakewood Boulevard
 - Clark Road
- Lakewood Boulevard
 - Gardendale Street
- Bellflower Boulevard
 - Imperial Highway
 - 105 Freeway (WB)
- Bellflower Boulevard
 - I-105 (EB) Ramp
 - Gardendal Street / Foster Road

As a result, a significant impact would remain if the City chooses not to implement the required improvements.

IMPACT: *Would the project exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?*

Impact Analysis:

The net effect of the proposed General Plan is expected to result in an increase in traffic volumes within the City of Downey and surrounding areas. The potential increase in traffic resulting from the proposed land use changes have been evaluated to determine if further CMP analysis is necessary. The CMP establishes a standard of an increase of 50 peak hour trips or more at CMP intersections as the basis for determining if further CMP analysis is required.

The net effect of the changes in land use primarily impacts the City of Downey and no increases of 50 peak hour trips are anticipated at intersections outside the City of Downey. The only CMP intersection within the City of Downey is the intersection of Lakewood Boulevard (NS) at Firestone Boulevard (EW). The previously presented changes in trip generation by area have been combined with the previously presented trip distributions to determine if the CMP threshold of 50 peak hour trips is met at the intersection of Lakewood Boulevard (NS) at Firestone Boulevard (EW).

Table 5.9-26 summarizes the results of this analysis. As shown on Table 5.9-26 the proposed land use changes will contribute less than the CMP threshold of 50 peak hour trips, and no further analysis is necessary in accordance with CMP requirements.

5. Environmental Analysis

**Table 5.9-26
Lakewood Bl. (NS) at Firestone Bl. (EW) CMP Project Traffic Contribution Summary**

| Area | Area PM Peak Hour Trip Generation | Trip Distribution Percentage | Area Contribution |
|-------|-----------------------------------|------------------------------|-------------------|
| 1 | 52 | 5% | 3 |
| 3 | 133 | 5% | 7 |
| 9 | 190 | 20% | 38 |
| 13 | 221 | 0% | 0 |
| Total | 596 | | 48 |

Source: Urban Crossroads

Existing Regulations and Standard Conditions

The Downey Vision 2025 General Plan Contains a policy and a number of programs related to congestion management that are listed in Appendix A.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: No mitigation measures are necessary since the proposed project will not exceed the CMP threshold of adding 50 vehicle trips at the intersection of Lakewood Boulevard and Firestone Boulevard which is on the CMP System.

5.9.5 Cumulative Impacts

Approval of the proposed project will result in the generation of additional vehicle trips. These trips will add traffic to streets and intersections within Downey that currently are operating at LOS “E” and “F”. Even with the implementation of the mitigation measures included as part of the EIR, some intersections will continue to operate at a LOS of “F” which is considered an unacceptable LOS by the City. Therefore, the project will create a significant cumulative traffic impact on the City’s street system.

5.9.6 Significant Unavoidable Adverse Impacts

The feasibility of implementing the improvements included in the project traffic study is questionable. Many intersections cannot be improved to bring the LOS at these inter-sections to a LOS “D” or “E”. This will result in the creation of significant, unavoidable adverse impact as a result of continued growth in the City of Downey and surrounding region. This finding would apply in the context of both the Currently Adopted or Proposed General Plan land use scenarios. It is recognized that ongoing development within the City and the surrounding region will result in a significant, unavoidable adverse impact to the regional freeway system and the interchanges of the City of Downey arterial system with the regional freeway system, based on the analysis completed in conjunction with the regional transportation plan.

**Table 5.9-27
Intersections that will be at LOS “E” and LOS “F” Even with Mitigation**

| Intersection | Level of Service |
|---|--------------------------------|
| Lakewood Boulevard <ul style="list-style-type: none"> ▪ Firestone Boulevard (EW) | “E” in the AM |
| Brookshire Avenue (NS) <ul style="list-style-type: none"> ▪ Firestone Boulevard (EW) | “F” in the PM |
| Lakewood Boulevard <ul style="list-style-type: none"> ▪ Imperial Avenue (EW) ▪ Gardendale Street (EW) | “F” in the PM “F” in the PM |

5. Environmental Analysis

5.10 UTILITIES AND SERVICE SYSTEMS

5.10.1 Methodology

The potential for adverse impacts on utilities systems and facilities was evaluated based on information provided by service providers concerning current service levels and the ability of the service providers to accommodate the increased demand created by the proposed project. The utilities correspondence can be found in Appendix B of this DEIR.

5.10.2 Existing Conditions

Wastewater Services

The City of Downey is located within the jurisdictional boundaries of the Sanitation Districts of Los Angeles County, District No. 2. The County Sanitation District operates eleven wastewater treatment facilities, ten of which are classified as water reclamation plants (WRPs). These facilities serve approximately five million people in 78 cities and unincorporated county areas through over 1,330 miles of main trunk sewers to convey and treat over 525 million gallons per day (mgd), 200 mgd of which are available for reuse in the dry Southern California climate. Seventeen of the Districts that provide sewerage services in the metropolitan Los Angeles area are also signatories to Joint Outfall Agreement that provides for a regional, interconnected system of facilities known as the Joint Outfall System. The service area of the Joint Outfall System encompasses 73 cities and unincorporated territory, including some areas within the City of Los Angeles. This system provides sewage treatment and disposal for residential, commercial, and industrial users.

Wastewater generated by the City is treated at the Joint Water Pollution Control Plant (JWPCP) located in the City of Carson, which has a design capacity of 385 million gallons per day (mgd) and currently processes an average flow of 321.6 mgd, and the Los Coyotes Water Reclamation Plant (WRP) located in the City of Cerritos, which has a design capacity of 37.5 mgd and currently processes an average flow of 32 mgd.

Water Services

The City of Downey Water Department provides water service to the City of Downey. Downey's Water System currently serves a population of approximately 107,823 through 23,500 service connections. On an average day, the system delivers 16 million gallons of water to approximately 96 percent of the City area. The remaining portions of the City, including an area that lies east of the San Gabriel River, south of the I-5 Freeway, and north of Cecilia Avenue, are surveyed by other water purveyors.

The Water Department obtains one hundred percent of its water supply from groundwater, although they have the capability to purchase water from the Metropolitan Water District (MWD). The City's Water Department operates 21 groundwater wells, which pump groundwater from the Central Basin Watermaster and the Water Replenishment District of Southern California. The City both owns and leases groundwater pumping rights, which allow the City to pump water from the Central Basin. Three connections to MWD's Feeder Main can be opened in an emergency to provide a backup supply of potable water. Table 5.10-1, below, shows the annual production of water in Downey over the last ten years for which data is available.

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**Table 5.10-1
Annual Water Production Data (acre-feet/year)**

| <i>Fiscal Year</i> | <i>Groundwater Wells¹</i> | <i>Purchased Water Connections²</i> | <i>Reclaimed Water³</i> | <i>Total Annual Production</i> |
|----------------------------|--------------------------------------|--|------------------------------------|--------------------------------|
| 1993-1994 | 15,774 | 309 | 315 | 16,398 |
| 1994-1995 | 16,866 | 93 | 519 | 17,477 |
| 1995-1996 | 16,536 | 1 | 507 | 17,044 |
| 1996-1997 | 16,701 | 2 | 612 | 17,315 |
| 1997-1998 | 15,069 | 20 | 519 | 15,608 |
| 1998-1999 | 16,045 | 0 | 636 | 16,680 |
| 1999-2000 | 17,340 | 18 | 710 | 18,069 |
| 2000-2001 | 17,645 | 1 | 660 | 18,306 |
| 2001-2002 | 17,642 | 0 | 732 | 18,374 |
| 2002-2003 | 16,976 | 0 | 666 | 17,643 |
| Average⁴ | 16,656 | 43 | 560 | 17,291 |

¹Currently 20 active wells; Several wells were destroyed during fiscal year 1997/1998 resulting in the lowest annual production during the ten-year span from 1993-2003.

²Water purchased from MWD.

³Reclaimed water purchased from Central Basin Municipal Water District, a member agency of MWD.

⁴Average annual production from 1990 – 2003; Excludes FY 1997/1998 – See Note 1

Source: City of Downey

The system consists of large (12 – 24 inch) ductile iron transmission mains along most of the City’s major arterials: Paramount Blvd., Lakewood Blvd., Woodruff Ave., Imperial Hwy., Stewart and Gray Rd., Firestone Blvd., and Telegraph Rd. These transmission mains act as conduits for moving large volumes of water throughout the City into distribution mains (4 – 10 inches in size) for delivery to the City’s customers and fire services. The transmission/distribution system consists of approximately 1.7 million feet of intersecting, looped piping. The piping is primarily composed of ductile iron or cast iron, and ranges in diameter from 4 to 24 inches in size.

Reclaimed Water

The Central Basin Municipal Water District (CBMWD) supplies reclaimed water to portions of the City of Downey and owns the infrastructure that carries the reclaimed water. CBMWD purchases and resells tertiary-treated recycled water produced at both the Los Coyotes and San Jose Creek Water Reclamation Plants. Both plants together produce an average of 120 mgd of recycled water, approximately 40% of which is reused by CBMWD as part of the Central Basin Recycled Water Project (CBRWP). The CBRWP is comprised of two separate projects: E. Thornton Ibbetson Century and Esteban E. Torres Rio Hondo Recycled Water Projects.

The Ibbetson Project and Torres Project are interconnected by an intricate 50-mile distribution system and operate as one recycled water supply system. The Central Basin Recycled Water Project delivering approximately 4,000 acre-feet of recycled water annually to more than 150 industrial, commercial, and landscape irrigation sites. This use of recycled water augments the groundwater and imported water supplies of southeast Los Angeles County.

Once purchased from CBMWD, the recycled water is re-sold by the City of Downey to its customers at a discount of 20% from the current rate for domestic water. Since fiscal year 1993-1994, the City has purchased an average of 550 acre-feet/year of recycled water from CBMWD. However, the amount of recycled water used by the City’s customers in fiscal year 1999-2000 totaled 710 acre-feet and is expected to increase over the next 20 years.

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Electricity

Southern California Edison Company (SCE) provides electricity to the City of Downey. As a public utility, the SCE is under the jurisdiction of Public Utilities Commission (PUC) and Federal regulatory agencies. Should these agencies take any action that affects electricity supply, or the conditions under which service is available, electricity service will be provided in accordance with revised conditions. SCE has expressed that it has facilities in the area of the proposed project and that electricity service to the project could be provided from existing facilities within in the City.

Natural Gas

Southern California Gas Company (The Gas Company) supplies natural gas service to the City of Downey. The availability of natural gas service is based upon present conditions of gas supply and regulatory policies. As a public utility, the Gas Company is under the jurisdiction of Public Utilities Commission (PUC) and Federal regulatory agencies. Should these agencies take any action that affects gas supply, or the conditions under which service is available, gas service will be provided in accordance with revised conditions. The Gas Company has expressed that it has facilities in the area of the proposed project and that gas services to the project could be provided from an existing gas main located in various locations in the City.

Drainage Facilities

For a detailed discussion of the drainage patterns and storm drain system within the City, refer to Section 5.4, *Hydrology and Water Quality*.

Solid Waste

Solid waste disposal services in the City of Downey are provided by CalMet Services, Inc. In 2003, CalMet collected approximately 80,500 tons of solid waste from within the City of Downey. Waste collected within the City is brought to the Downey Area Recycling and Transfer Facility (DART), which is owned by the County Sanitation Districts of Los Angeles County. DART is located at 9770 Washburn Road in Downey and has a rate of Disposal by CalMet of approximately 6,700 tons per month.

The Puente Hills Landfill is owned and operated by the County Sanitation Districts of Los Angeles County since 1970. The Sanitation Districts are a confederation of 25 independent special districts that manage the resources that others consider waste, including solid waste and sewage. The Sanitation Districts' service areas covers approximately 810 square miles and encompasses 78 cities and unincorporated areas of the County, encompassing a population of about 5.3 million people. On the solid waste side, the Sanitation Districts operate three active sanitary landfills, two recycle centers, two transfer/materials recovery facilities, and three landfill gas-to-energy facilities.

Waste materials are separated from recyclables with the remaining waste materials taken to the Puente Hills Landfill in Whittier with a rate of Disposal by CalMet of approximately 155 tons per month. Puente Hills Landfill is permitted to accept 4,000 tons per day and includes both a materials recovery and rail transfer facility. Puente Hills Landfill has an estimated closing date of 2013.

5.10.3 Thresholds of Significance

The criteria used to determine the significance of impacts on hazards and hazardous materials are taken from City-approved Thresholds of Significance based on the City's Initial Study and the model Initial Study checklist in Appendix G of the State CEQA Guidelines.

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- Would the project exceed waste water treatment requirements of the applicable Regional Water Quality Control Board?
- Would the project require or result in the construction of new water or waste water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
- Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
- Would the project have sufficient water supplies available to serve the project from existing entitlements and resources or are new or expanded entitlements needed?
- Would the project result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
- Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?
- Would the project comply with federal, state, and local statutes and regulations related to solid waste?

5.10.4 Environmental Impacts and Mitigation Measures

IMPACT: *Would the project exceed waste water treatment requirements of the applicable Regional Water Quality Control Board?*

Impact Analysis: The Los Angeles County Regional Water Quality Control Board (RWQCB) administers the NPDES permit requirements in Downey. Under the NPDES permit issued to Los Angeles County, all development and significant redevelopment are obligated to implement structural and non-structural non-point source pollution control measures known as Best Management Practices (BMPs) to limit urban pollutants reaching the Waters of the United States to the maximum extent practical. The regulations require facilities that discharge storm water to obtain a NPDES permit. In addition, the NPDES storm water management program also calls for the implementation of BMPs to the "maximum extent practicable..." in dealing with non-point sources of pollution such as: urban runoff, including automotive by-products, trash, food wastes, landscape and agricultural runoff, including pesticides and fertilizers, and runoff from construction sites. Both point sources, such as direct drainage sources, and non-point sources of water pollution, such as urban runoff, are usually discharged via separate storm drains to "waters of the United States" and are therefore regulated under the Federal Clean Water Act (CWA).

The City of Downey must therefore comply with Federal water quality, waste discharge, and total maximum daily load standards defined by the CWA. In addition, any projects or construction activities performed within a Caltrans right of way must conform to Encroachment Permitting requirements. Implementation of the General Plan Update would potentially impact the quantity of runoff and other pollutant loadings to receiving waters. However, the City of Downey is served by a comprehensive sanitary sewer system and no wastewater would be discharged impacting surface water or groundwater resources. Therefore, no exceedances of RWQCB's wastewater treatments are anticipated.

5. Environmental Analysis

Relevant Goals and Policies

There are no Relevant Goals and Policies related to wastewater treatment requirements.

Existing Regulations and Standard Conditions

No existing codes or regulations related to wastewater treatment requirements apply to the proposed General Plan Update.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures: Connection and service fees charged by the County Sanitation Districts of Los Angeles County allow an agency to meet wastewater treatment requirements of the Los Angeles Regional Water Quality Control Board. No mitigation measure is necessary.

Level of Significance After Mitigation: Less than significant.

IMPACT: *Would the project require or result in the construction of new water or waste water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

Impact Analysis: Implementation of the proposed General Plan Update would allow for the construction of 2,906 new housing units, 13,848 residents and 4,900 jobs through the City's build out. These increased numbers would result in the demand for additional water as well as additional generation of wastewater within the City.

Water Services

Although the General Plan Update itself will not directly result in new development, any development that occurs as a result of the General Plan Update, including the redesignation in land use of 16 sites identified by the City, would result in an increase in population and subsequent increase in potable water demand. This increase in water demand will require the purchase of additional water rights and supplies, as well as the construction of new facilities to meet the associated increase in water demand.

The City of Downey gets 100 percent of their water from groundwater. Specifically, Downey pumps groundwater from the Central Groundwater Basin, an adjudicated basin which limits the amount of water each purveyor can pump on an annual basis. The limit to the amount of groundwater that each pumper is allowed to extract from the basin on an annual basis is referred to as the "Allowed Pumping Allocation" (APA), which corresponds to 80% of the party's total water rights. As such, the City would have to purchase additional water rights to accommodate population and employment increases that occur due to the General Plan Update including the redesignation of land use of 16 sites within the City.

The addition of 13,848 residents, as allowed under the buildout of the General Plan, would generate the demand for approximately 1,460¹⁵ acre-feet of water per year. The additional demand could be met in a number of ways: Lease additional groundwater rights each year, purchase additional groundwater rights on a one-time basis, purchase additional MWD water from CBMWD each year, or utilized reclaimed water to offset all or a portion of new potable demand.

The Urban Water Management Plan (UWMP) prepared by the City has factored in future growth within Downey and anticipates the City has a reliable water source to supply future development based on the availability of groundwater resources in addition to the availability of MWD water for purchase. In

¹⁵ City of Los Angeles, Draft CEQA Thresholds Guide, 1998.

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addition, the City has indicated that compliance with the Goals, Policies and Programs in the General Plan Update would ensure that no significant impacts to water resources occur as a result of the proposed project¹⁶.

Water Delivery

With respect to the water delivery system, fire flow requirements would be an area of concern since this typically determines the size of the water distribution network in a local area. Potential impacts could result in areas where changes in land use designation have been identified. When project specific information is available, required fire flow rates will need to be determined and the future project property owner/developer will be responsible for making the necessary improvements to the water distribution system to achieve the required fire flow rates without reducing existing service levels.

Wastewater Services

Sewage is collected by City collector facilities and conveyed to trunk sewers owned and maintained by the Sanitation District of Los Angeles County, District No. 2. Wastewater generated by the City is treated at the Joint Water Pollution Control Plant (JWPCP) located in the City of Carson, which has a design capacity of 385 million gallons per day (mgd) and currently processes an average flow of 321.6 mgd, and the Los Coyotes Water Reclamation Plant (WRP) located in the City of Cerritos, which has a design capacity of 37.5 mgd and currently processes an average flow of 32 mgd.

The General Plan Update, including the redesignation in land use of 16 sites identified by the City, would allow for the development of 2,906 new dwelling units, an increase of 13,848 in population and an increase of 4,900 jobs within the City. This increased population within the City would result in the generation of approximately 3.6 mgd¹⁷ of wastewater within the City. Any increase in wastewater generation would result in increased pressure on the current wastewater treatment system in Downey and within the Sanitation District as a whole. However, any development that is proposed would be evaluated to determine potential impacts on the sewer system, and any necessary sewer connection fees would be paid by potential developers. The Sanitation District indicated payment of this fee would mitigate the impact of any proposed development by allowing for the incremental expansion of the sewerage system to accommodate any such development.

Relevant Goals and Policies

The Downey Vision 2025 General Plan Update contains the following goal, policies and programs related to the provision of water and wastewater are listed in Appendix A of the EIR.

Existing Regulations and Standard Conditions

- Payment of a sewage system connection fee will be required for all new development within the City prior to permit to connect to the sewer is issued.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: Compliance with existing regulations and standard conditions as well as the goals, policies and programs listed above would serve to mitigate any potential impacts related to utilities systems pursuant to the proposed Downey Vision 2025 General Plan Update.

Level of Significance After Mitigation: Less than significant.

¹⁶ Dan Mueller, P.E., City of Downey

¹⁷ County Sanitation Districts of Los Angeles County, based on residential generation factor, 2004.

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IMPACT: *Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

Impact Analysis: Impacts related to storm water drainage facilities can be found in Section 5.4, *Hydrology and Water Quality*, of this Draft EIR.

Relevant Goals and Policies

Goals, policies and programs related to storm water drainage facilities can be found in Appendix A under *Hydrology and Water Quality* of this Draft EIR.

Existing Regulations and Standard Conditions

Existing Regulations and Standard Conditions related to storm water drainage facilities can be found in Section 5.4.4, *Hydrology and Water Quality*, of this Draft EIR.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: The goals, policies and programs listed under Utilities and Service Systems in Appendix A of this Draft EIR would serve to mitigate any potential impacts related to utilities systems pursuant to the proposed Downey Vision 2025 General Plan Update.

Level of Significance After Mitigation: Less than significant.

IMPACT: *Would the project have sufficient water supplies available to serve the project from existing entitlements and resources or are new or expanded entitlements needed?*

Impact Analysis: As described above, the City of Downey provides water service to the City of Downey. Downey gets 100 percent of its water from groundwater, although emergency sources of water are available for purchase from MWD.

The City pumps its water from the Central Groundwater Basin, an adjudicated Basin which limits the amount of water each purveyor can pump on an annual basis. The limit to the amount of groundwater that each pumper is allowed to extract from the basin, the "Allowed Pumping Allocation" (APA), corresponds to 80 percent of the party's total water rights. As such, the City would have to purchase additional water rights to accommodate the increase in water demand resulting from any development that occurs due to implementation of the General Plan Update, including the redesignation in land use of the 16 sites identified by the City. However, this growth has been accounted for and factored in the Urban Water Management Plan (UWMP), indicates that water sources are available to provide water for future growth, as it occurs in the future.

SB 610 and SB 221

Senate Bills 610 (chapter 643, Statutes of 2001) and Senate Bill 221 (Chapter 642, Statutes of 2001) amended state law, effective January 1, 2002, to improve the link between information of water supply availability and certain land use decisions made by cities and counties. Both statutes require detailed information regarding water availability to be provided to the city and county decision-makers prior to approval of specified large development projects. Both statutes also require this detailed information be included in the administrative record that serves as the evidentiary basis for an approval action by the city or county on such projects. Both measures recognize local control and decision-making regarding the availability of water for projects and the approval of projects.

5. Environmental Analysis

Under SB 610, water assessments must be furnished to local governments for inclusion in any environmental documentation for certain projects (as defined in Water Code Section 10912[a]) subject to the California Environmental Quality Act. Under SB 221, approval by a city or county of certain residential subdivisions requires an affirmative written verification of sufficient water supply. SB 221 is intended as a 'fail safe' mechanism to ensure that collaboration on finding the needed water supplies to serve a new large subdivision occurs before construction begins.

According to the "Draft Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001" by the California Department of Water Resources (DWR), preparation of a General Plan Update does not trigger a requirement for preparation of a SB 610 or SB 221 water supply analysis. However, a foundational document for compliance with both SB 610 and SB 221 is the Urban Water Management Plan (UWMP). Both of these statutes repeatedly identify the UWMP as a planning document that, if properly prepared, can be used by a water supplier to meet the standards set forth in both statutes. Thorough and complete UWMPs will allow water suppliers to see UWMPs as a reference to prepare the specific documents required by these two statutes. Cities, counties, water districts, property owners, and developers will be able to utilize this document when planning for and proposing new projects.

UWMPs serve as important source documents for cities and counties as they update their General Plan. Conversely, General Plans are source documents as water suppliers update their UWMPs. These planning documents are linked and their accuracy and usefulness are interdependent. It is crucial that cities/counties and water suppliers work closely when developing and updating these planning documents. The City of Downey has an adopted UWMP based on the land uses allowed in the City's existing General Plan. In order to assist future projects in preparing required water supply analyses pursuant to SB 610 and SB 221, the City of Downey will update their UWMP next year in 2005, which will address than land use changes proposed by the General Plan Update.

Relevant Goals and Policies

See relevant goals and policies listed under construction of new water or waste water treatment facilities or expansion of existing facilities in Appendix A of this EIR.

Existing Regulations and Standard Conditions

- Any proposed developments falling under the parameters of BS 610 or SB 221 must complete Water Supply Assessments.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: Compliance with existing regulations and standard conditions, as well as the goals, policies and programs listed in Appendix A would serve to mitigate any potential impacts related to utilities systems pursuant to the proposed Downey Vision 2025 General Plan Update.

Level of Significance After Mitigation: Less than significant.

IMPACT: *Would the project result in a determination by the waste water treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

Impact Analysis: As indicated above, the payment of a sewerage connection fee to the County Sanitation Districts of Los Angeles County for any new development that is proposed within Downey would serve to mitigate any potential impacts to the sewer system caused by the implementation of the General Plan Update, including the redesignation in land use of 16 the sites identified by the City.

5. Environmental Analysis

Relevant Goals and Policies

The Downey Vision 2025 General Plan Update does not contain goals, policies or programs related to wastewater treatment.

Existing Regulations and Standard Conditions

Payment of a sewage system connection fee will be required for all new development within the City prior to permit to connect to the sewer is issued.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: Compliance with the existing regulations and standard conditions would serve to mitigate any potential impacts related to wastewater facilities pursuant to the proposed Downey Vision 2025 General Plan Update.

Level of Significance After Mitigation: Less than significant.

IMPACT: *Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?*

Impact Analysis: The City of Downey's residents and businesses produce approximately 80,500 tons of waste per year. In order to properly manage this waste, Downey must remain committed to waste reduction, diversion and recycling. This is especially important in the face of the upcoming closure of the Puente Hills Landfill, currently Downey's primary resource for solid waste disposal. The Puente Hills Landfill has an estimated closure date of 2013¹⁸.

As Los Angeles County's population continues to grow so will its waste. The County Integrated Waste Management Department (IWMD) is responsible for ensuring that County waste is disposed of in a way that protects public health, safety and the environment. Long-range strategic planning is necessary to ensure that waste generated by the County is safely disposed of and that the County's future disposal needs are met.

The General Plan Update, including the redesignation in land use of 16 sites within the City would allow for the development of approximately 2,906 dwelling units, an increase of 13,848 in population, and an increase of 4,900 jobs within the City. At build out, these increases would result in the generation of approximately 387,137 additional pounds of solid waste per day¹⁹ within Downey. However, the implementation of the policies and programs listed below, as well as compliance with the City's existing diversion programs would help mitigate impacts on solid waste and would guide future provision of solid waste disposal services within the City.

Relevant Goals and Policies:

The Downey Vision 2025 General Plan Update contains a number of goals, policies and programs related to the public utilities in Appendix A.

- Reduce the amount of material disposed of at landfills.

¹⁸ California Integrated Waste Management Board.

¹⁹ Based on 12.23 pounds per household per day and 10.53 pounds per employee per day average in the City of Los Angeles, City of Los Angeles Draft CEQA Thresholds, 1998.

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Existing Regulations and Standard Conditions

- The City will continue to implement solid waste reduction programs in compliance with AB 939.
- In accordance with the California Solid Waste Reuse and Recycling Access Act of 1991, each development project shall be required by the City to provide an adequate storage area for collection and removal of recyclable materials.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: The Goals and Policies listed in Appendix A under Utilities and Service Systems would serve to mitigate any potential impacts related to solid waste pursuant to the proposed Downey Vision 2025 General Plan Update.

Level of Significance After Mitigation: Less than significant.

IMPACT: *Would the project comply with federal, state, and local statutes and regulations related to solid waste?*

Impact Analysis: All local governments are required under Assembly Bill 939 (AB 939), the Integrated Waste Management Act of 1989, to develop source reduction, re-use, recycling, and composting programs to reduce tonnage of solid waste going to landfills. The goal of AB 939 was to reduce tonnage to landfills by 24% in 1995 and 50% in the year 2000. Pursuant to AB 939, Downey adopted the Source Reduction and Recycling Element (SRRE), which identifies policies and waste diversion programs to ensure that Downey is in compliance with the requirements of AB 939.

Residents of Downey currently use curbside recyclables and green waste containers to increase diversion. CalMet distributes recycling information to customers to increase environmental awareness and discourage contamination. In 2002, Downey had a diversion rate of 44%. The City is currently implementing various outreach programs and is considering an ordinance to assist in achieving the 50% diversion rate goal. Any development that is proposed as a result of the General Plan Update, including the redesignation of the 16 sites identified with the City, would be responsible for complying with City recycling programs and ordinances related to achieving the 50% diversion rate mandated by AB 939.

Relevant Goals and Policies

See relevant goals and policies listed in Appendix A under reduction of the amount of materials disposed at the landfills.

Existing Regulations and Standard Conditions

See Existing Codes and Regulations listed above under “Would the project be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs.”

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures: The existing regulations and standard conditions as well as the goals, policies and programs listed in this section would serve to mitigate any potential impacts related to solid waste pursuant to the proposed Downey Vision 2025 General Plan Update.

Level of Significance After Mitigation: Less than significant.

5. *Environmental Analysis*

5.10.5 Cumulative Impacts

All the cumulative projects would result in increased demand for utilities. Generally, the various service agencies incorporate growth anticipated in the adopted General Plan into their long-range planning programs. Standard measures such as the payment of fees and incorporation of needed facilities were addressed in each project as determined appropriate in individual environmental analyses.

This section of the DEIR has analyzed the potential utility impacts associated with the proposed project including wastewater treatment, drainage and flood control systems, water supply and distribution systems, solid waste, electricity, and natural gas and concluded that no significant impacts would occur. As such, the project's contribution to cumulative impacts related to utilities is less than considerable and, therefore, less than significant.

5.10.6 Significant Unavoidable Adverse Impacts

The General Plan Goals, Policies and Programs, and mitigation measures identified above would reduce potential impacts associated with utilities and service systems to a level of insignificance.

6. *Alternatives to the Proposed Project*

6.1 INTRODUCTION

6.1.1 Purpose and Scope

The California Environmental Quality Act (CEQA) requires that an EIR include a discussion of reasonable project alternatives that would “feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives” (CEQA Guidelines Section 15126.6). This chapter identifies potential alternatives to the proposed project and evaluates them, as required by CEQA.

Key provisions of the CEQA Guidelines on alternatives (Section 15126.6(a) through (f)) are summarized below to explain the foundation and legal requirements for the alternatives analysis in the EIR.

- The discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly” (15126.6(b)).
- “The specific alternative of ‘no project’ shall also be evaluated along with its impact” 15126.6(e)(1). “The no project analysis shall discuss the existing conditions at the time the Notice of Preparation is published, and at the time the environmental analysis is commenced, as well as what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives” (15126.6(e)(2)).
- “The range of alternatives required in an EIR is governed by a ‘rule of reason’ that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project” (15126.6(f)).
- “Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent)” (15126.6(f)(1)).
- For alternative locations, “only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR” (15126.6(f)(2)(A)).
- “An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative” (15126.6(f)(3)).

For each development alternative, this analysis:

- Describes the alternative
- Analyzes the impact of the alternative as compared to the proposed project.
- Identifies the impacts of the project that would be avoided or lessened by the alternative.
- Assesses whether the alternative would meet most of the basic project objectives.
- Evaluates the comparative merits of the alternative and the project.

6. *Alternatives to the Proposed Project*

Per the CEQA Guidelines Section 15126.6(d), additional significant effects of the alternatives are discussed in less detail than the significant effects of the project as proposed.

6.1.2 Project Objectives

As described in Section 3.2, the following objectives have been established for the proposed project and will aid decision makers in their review of the project, the project alternatives, and associated environmental impacts:

- Provide a comprehensive update to the City's General Plan to more effectively deal with contemporary issues facing the City of Downey.
- Preserve and enhance Downey's position as the quality premier City in the southeast area of Los Angeles.
- Preserve the single-family character of residential areas in the City.
- Promote the land uses that address the needs of residents, workers and visitors to the City.
- Promote managed and reasonable growth.
- Develop a network of streets, pedestrian paths, and bikeways which promote the safe and efficient movement of people and goods.
- Concentrate and enhance commercial uses in strategic locations, primarily at the City's major intersections.
- Intensify the development potential of the area around Downey Landing.
- Create a pedestrian friendly, active Downtown that reflects the character of the City.
- Create and maintain a public system of park and recreational facilities.
- Preserve and enhance Downey as a premier community by developing policies and programs that promote positive design characteristics and a strong visual image for the Community.
- Change the General Plan land use designations for 16 areas throughout the City consistent with the goals and policies contained in the updated General Plan.

6.2 ALTERNATIVES SELECTED FOR FURTHER ANALYSIS

Based on the criteria listed above, the following three alternatives have been determined to represent a reasonable range of alternatives which have the potential to feasibly attain most of the basic objectives of the project but which may avoid or substantially lessen any of the significant effects of the project. These alternatives are analyzed in detail in the following sections.

- No-Project/Existing General Plan Alternative
- Reduced Intensity Alternative
- Mixed Use Alternative

An EIR must identify an "environmentally superior" alternative and where the No Project Alternative is identified as environmentally superior, the EIR is then required to identify as environmentally superior

6. Alternatives to the Proposed Project

an alternative from among the others evaluated. Each alternative's environmental impacts are compared to the proposed project and determined to be environmentally superior, neutral or inferior. However, only those impacts found significant and unavoidable are used in making the final determination of whether an alternative is environmentally superior or inferior to the proposed project. Only the impacts involving air quality, noise and traffic were found to be significant and unavoidable. Section 6.7 identifies the Environmentally Superior Alternative.

The Recommended Land Use Alternative (proposed General Plan Update) is analyzed in detail in Chapter 5.0 of this DEIR.

Alternatives Comparison

The following statistical analysis provides a summary of general socioeconomic buildout projections determined by the three land use alternatives, including the proposed project. It is important to note that these are not growth projections. That is, they do not anticipate what is likely to occur by a certain time horizon, but rather provide a buildout scenario that would only occur if all of the areas of the City were to develop to the probable capacities yielded by the land use alternatives. The following statistics were developed as a tool to better understand the difference between the alternatives analyzed in the DEIR. Table 6.2-1 identifies City-wide information regarding dwelling unit, population and employment projections.

**Table 6.2-1
Buildout Statistical Summary**

| | <i>Proposed Project</i> | <i>No Project/Existing General Plan Alternative</i> | <i>Reduced Intensity Alternative</i> | <i>Mixed Use Alternative</i> |
|----------------|-------------------------|---|--|----------------------------------|
| Dwelling Units | 36,915 | 34,010 | 29,532 | 37,567 |
| Population | 121,063 | 107,215 | 95,851 | 122,693 |
| Employment | 60,400 | 55,500 | 59,120 | 60,400 |

6.3 NO-PROJECT/EXISTING GENERAL PLAN ALTERNATIVE

Section 15126.6(e) of the CEQA Guidelines requires that an EIR evaluate and analyze the impacts of the “No-Project” Alternative. When the project is the revision of an existing land use or regulatory plan, policy, or ongoing operation, the no-project alternative will be the continuation of the plan, policy, or operation into the future. Therefore, the No Project/Existing General Plan Update Alternative, as required by the CEQA Guidelines, analyzes the effects of continued implementation of the City’s existing General Plan. This alternative assumes the existing General Plan remains as the adopted long-range planning policy document for the City. Development would continue to occur within the City in accordance with the existing General Plan. Buildout pursuant to the existing General Plan would allow current development patterns to remain. The No-Project/Existing General Plan Alternative would provide 2,413 fewer dwelling units, a decrease in population of 11,337 persons, and provide 4,900 fewer jobs within the City at buildout, as compared to the proposed General Plan Update.

6.3.1 Air Quality

Under the No-Project/Existing General Plan Alternative, the City would continue to function under the direction of the existing General Plan. Buildout under the existing General Air Quality would result in 4,900 fewer jobs, 2,905 fewer dwelling units and 13,848 fewer residents than buildout under the Recommended Land Use Alternative. The reductions in dwelling units, employment and population would reduce traffic volumes on a City-wide basis. Therefore, emissions into the South Coast Air Basin

6. *Alternatives to the Proposed Project*

would be reduced. Therefore, the No-Project/Existing General Plan alternative is considered environmentally superior to the Recommended Land Use Alternative.

6.3.2 Geology and Soils

Under the No-Project/Existing General Plan Alternative, the City would continue to function under the direction of the existing General Plan. Buildout under the existing General Plan would result in 4,900 fewer jobs, 2,905 fewer dwelling units and 13,848 fewer residents than buildout under the Recommended Land Use Alternative. The fewer number of people anticipated under this Alternative would expose a fewer number of people to impacts related to geology and soils. However, the entire City is located within a liquefaction zone and future residents would still be subject to liquefaction in the undeveloped portions of the City during future seismic events. However, the No-Project/Existing General Plan Alternative is still considered environmentally superior to the proposed project with regard to geology and soils.

6.3.3 Hazards and Hazardous Materials

Under the No-Project/Existing General Plan Alternative, the City would continue to function under the direction of the existing General Plan. Buildout under the existing General Plan would result in 4,900 fewer jobs, 2,905 fewer dwelling units and 13,848 fewer residents than buildout under the Recommended Land Use Alternative. This would result in less direct exposure of the population to potential hazards and hazardous materials. There is a greater potential for conflict between residential and industrial land uses under the Recommended Land Use Alternative. Therefore, the No-Project/Existing General Plan Alternative is considered environmentally superior to the proposed project with regards to hazards and hazardous materials.

6.3.4 Hydrology and Water Quality

Under the No-Project/Existing General Plan Alternative, the City would continue to function under the direction of the existing General Plan. Buildout under the existing General Plan would result in 4,900 fewer jobs and 13,848 fewer residents than buildout under the Recommended Land Use Alternative. Although the existing General Plan currently discusses issues related to water and hydrology, the existing General Plan contains only general discussions and does not contain policies that specifically target the prevention or reduction of urban runoff or water pollution. Even with decreased levels of population and development anticipated under the No-Project/Existing General Plan Alternative, increased levels of water pollution and urban runoff would result. Therefore, the No-Project/Existing General Plan Alternative is environmentally inferior to the Recommended Land Use Alternative.

6.3.5 Land Use and Planning

Under this alternative the City would continue to function under the direction of the existing General Plan and General Plan Land Use Map. Under the Recommended Land Use Alternative, 2,905 more dwelling units and an increase of 13,848 more residents would be allowed within the City. Some of the new residences would be developed in area near existing industrial uses and there could be conflicts between residential and industrial land uses under the Recommended Land Use Alternative. However, fewer residences would be built in these areas under this Alternative. Therefore, the No-Project/Existing General Plan Alternative is considered environmentally superior to the proposed project with regards to land use.

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6.3.6 Noise

Under this Alternative, the City would continue to function under the direction of the existing General Plan Noise Element. Buildout under the existing General Plan would result in 4,900 fewer jobs, 2,905 fewer housing units and 13,848 fewer residents than the proposed project. Automobiles from outside the City would continue to use the local freeways and street system within the City, impacting land uses in the City adjacent to these freeways and street with traffic noise. Helicopter and aircraft flying through the City would also generate noise that impacts existing land uses in the City.

As a result of reductions in the number of dwelling units and employment, traffic volumes throughout the City would be slightly less on a City-wide basis. Due to the reduction in associated traffic volumes, the No-Project/Existing General Plan Alternative would reduce the noise volumes from adjacent arterials within the City. Due to reduced development activity, temporary short-term construction noise impacts associated with the proposed project would also be reduced under the No-Project/Existing General Plan Alternative. Therefore, the No-Project/Existing General Plan Alternative impacts are considered superior to the proposed project.

6.3.7 Public Services

Under the No-Project/Existing General Plan Alternative, the existing General Plan is expected to result in 13,848 fewer residents, 2,905 fewer dwelling units, and 4,900 fewer jobs than the Recommended Land Use Alternative. The lower level of population growth projected in the existing General Plan would result in fewer impacts to the public services in the City than the Recommended Land Use Alternative. Therefore, the No-Project/Existing General Plan Alternative is considered environmentally superior to the Recommended Land Use Alternative.

6.3.8 Recreation

Under the No-Project/Existing General Plan Alternative, the City would continue to function under the direction of the existing General Plan. Due to the lower level of population predicted under buildout conditions of this Alternative, the demands on existing recreational facilities would be less than the Recommend Land Use Alternative. As a result, fewer acres of parkland would be required to serve the projected population. Therefore, the No-Project/Existing General Plan Alternative is considered environmentally superior to the proposed project.

6.3.9 Transportation and Circulation

Under this Alternative, the City would continue to function under the direction of the existing General Plan, including the existing Circulation Element. Buildout under the existing General Plan would result in 4,900 fewer jobs, 2,905 fewer dwelling units and 13,848 fewer residents than buildout under the Recommended Land Use Alternative. Due to reductions in the number of jobs, dwelling units and employment, overall traffic volumes within the City would be decreased. However, it is anticipated that the growth in background traffic to be experienced in the coming years from growth in southern California would increase commute times for City residents. Therefore, the No-Project/Existing General Plan Alternative is considered environmentally superior to the Recommended Land Use Alternative.

6.3.10 Utilities & Services Systems

Under the No-Project/Existing General Plan Alternative, the existing General Plan is expected to result in 13,848 fewer residents, 2,905 fewer dwelling units, and 4,900 fewer jobs than the Recommended Land Use Alternative. The lower level of population growth projected in the existing General Plan would result in fewer impacts to public utilities and service systems in the City than the Recommended Land Use

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Alternative. Therefore,, the No-Project/Existing General Plan Alternative is considered environmentally superior to the Recommended Land Use Alternative.

6.3.11 Conclusion

The No-Project/Existing General Plan Alternative would not be considered environmentally superior to the Recommended Land Use Alternative (proposed project) in the area of hydrology and water quality. This alternative would be environmentally superior in the areas of air quality, geology and soils, hazards and hazardous materials, land use and planning, noise , public services, recreation , transportation/traffic, and utilities and services systems.

The adoption of the No-Project/Existing General Plan Alternative would leave the City open for future growth that may not be compatible with the goals and objectives of the City. In addition, such growth would not be comparable in quality with the development under the Recommended Land Use Alternative. The No-Project/Existing General Plan Alternative fails to accomplish the project objectives in the City's vision and has other potential environmental impacts resulting from its implementation. Specifically, the No-Project/Existing General Plan Alternative does not provide a comprehensive update of the City's General Plan to more effectively deal with contemporary issues facing the City of Downey, concentrate and enhance the development potential of the area around Downey Landing, or change the General Plan land use designations for 16 areas throughout the City consistent with the goals and policies contained in the updated General Plan. The No-Project/Existing General Plan Alternative is, therefore, not considered environmentally superior to the Recommended Land Use Alternative.

6.4 REDUCED INTENSITY ALTERNATIVE

The Reduced Intensity Alternative would reduce the remaining growth potential associated with the proposed General Plan Update by 20%. The 20% reduction was based on the total remaining buildout potential of the proposed General Plan as compared to existing land uses and applied on a City-wide basis. This Alternative would reduce total dwelling units at buildout by 580, decrease population at buildout by 2,768 persons, and provide 980 fewer jobs at buildout, as compared to the proposed General Plan Update. Land use designations would remain the same, although allowable intensities would be reduced.

6.4.1 Air Quality

The air pollutant emissions generated by the project-related traffic would be reduced by approximately 20% under the Reduced Intensity Alternative. This Alternative would reduce the projected exceedance of the SCAQMD Threshold Criteria for project generated CO, ROG, NO_x, and PM₁₀ emissions, although the thresholds would still be exceeded and considered significant. In addition, this alternative would reduce the project's contribution of housing to the job-rich Los Angeles County Subregion, which is inconsistent with the AQMP. It should be noted, however, that any reductions to air pollutant emissions from a reduction in vehicle trips from residential units would be specific to the project area, and not necessarily a regional reduction. Because this alternative reduces the employment-generating uses that are a part of the project, it could have the effect of increasing vehicle trips and vehicle miles traveled because it removes an employment center from an area near transportation corridors and therefore is not environmentally superior to the Recommended Land Use Alternative

6.4.2 Geology and Soils

Since this alternative reduces the development intensity and not development area, grading volumes associated with the proposed project would be similar. Development would be concentrated in existing

6. *Alternatives to the Proposed Project*

undeveloped areas of the City. As a result, potential geological impacts would be the same as compared to the proposed project.

6.4.3 Hazards and Hazardous Materials

Under the Reduced Intensity Alternative, residential, commercial and industrial uses would still be allowed throughout the City. Light industrial uses would result in less direct exposure of the population to potential hazards and hazardous materials. Therefore, the impacts associated with the Reduced Intensity Alternative would be the same as compared to the proposed project.

6.4.4 Hydrology and Water Quality

Since this alternative reduces the number of units and development area, hydrology impacts would be less than the proposed project since this alternative would result in the development of fewer impermeable surfaces being constructed on a site.

6.4.5 Land Use and Relevant Planning

Under the Reduced Intensity Alternative, residential, commercial, and industrial development throughout the project site would be reduced by approximately 20%. Since the development areas would be generally similar to the proposed project, land use impacts would remain the same.

6.4.6 Noise

Construction noise impacts would generally be similar to the proposed project. However, due to the reduction in associated traffic volumes, the Reduced Intensity Alternative would result in slight reductions in the noise volumes on arterials within the City of Downey. Therefore, the Reduced Intensity Alternative is considered environmentally superior to the proposed project with regard to noise.

6.4.7 Public Services

Under the Reduced Intensity Alternative, the demand for public services including schools, libraries, water, sewer, solid waste, electricity and natural gas would be reduced by approximately 20%. This would reduce the amount of infrastructure necessary to serve future growth in accordance with the proposed General Plan Update. Therefore, the Reduced Intensity Alternative is considered environmentally superior to the proposed project with regard to public services.

6.4.8 Recreation

Buildout under the Reduced Intensity Alternative would result in 580 fewer units, decrease population at buildout by 2,768 persons, and provide 980 fewer jobs than buildout conditions under the Recommended Land Use Alternative. This would reduce demands on existing recreational facilities by approximately 20%. As a result, less parkland would be required to serve the projected population. Therefore, the Reduced Intensity Alternative would be considered environmentally superior to the proposed project.

6.4.9 Transportation and Traffic

Buildout under the Reduced Intensity Alternative would result in 580 fewer units, decrease population at buildout by 2,768 persons, and provide 980 fewer jobs than buildout conditions under the proposed Land Use Alternative. The Reduced Density Alternative would reduce projected traffic growth by approximately 20%. As a result, the Reduced Intensity Alternative would generate fewer vehicle trips and

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would have fewer traffic-related impacts than the proposed project. Therefore, the Reduced Intensity Alternative would be considered environmentally superior to the proposed project.

6.4.10 Utilities and Services System

Buildout under the Reduced Intensity Alternative is expected to result in 2,768 fewer residents, 580 fewer dwelling units and 980 fewer jobs than the Recommended Land Use Alternative. The lower level of projected population growth would result in fewer impacts to public utilities and service systems in the City than the Recommended Land Use Alternative. Therefore, the Reduced Intensity Alternative is considered environmentally superior to the Recommended Land Use Alternative.

6.4.11 Conclusion

This alternative would lessen impacts associated with noise, public services, recreation, transportation/traffic and utility and service systems by approximately 20%. The remaining impacts are generally the same as the proposed project. However, the benefits of providing additional housing in a job rich area would be less under this alternative than the proposed project. By comparison, the recommended Land Use Alternative allows for the development of housing opportunities in close proximity to regional employment and activity centers within the City. The Reduced Intensity Alternative may also impede the City's ability to achieve its housing goals contained in the adopted Housing Element. This alternative would meet most but not all of the project objectives as described in Section 6.1.2, although it would contribute less housing to a jobs rich region. Although the Reduced Density Alternative does not fully achieve all of the City's objectives established for the proposed project, it would reduce many environmental impacts and is considered environmentally superior to the proposed project.

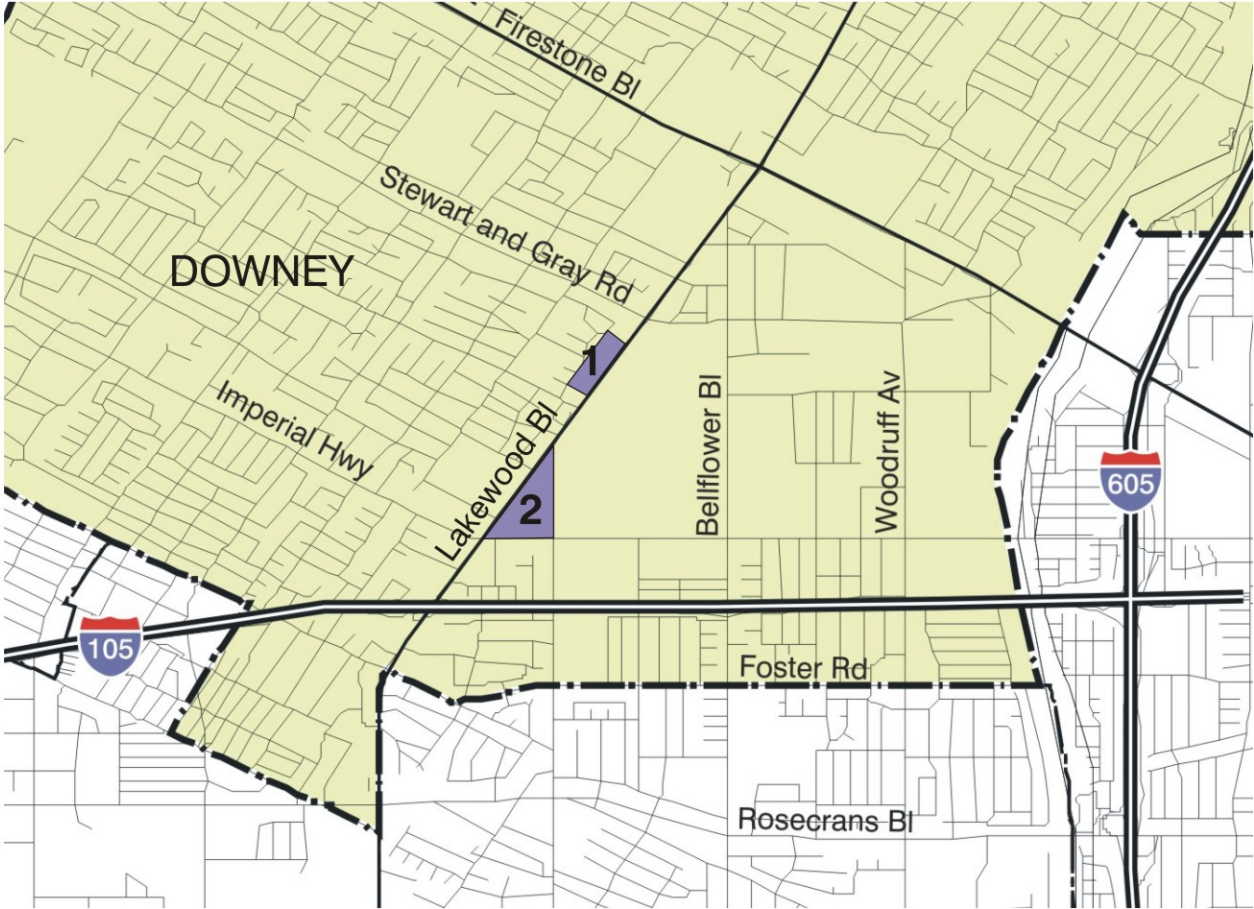
6.5 MIXED USE ALTERNATIVE

The Mixed Use Alternative would include the redesignation of two additional areas in the City as Mixed Use that would allow the development of a mix of commercial and residential land uses on these sites. The General Plan currently includes a Mixed Use designation in part of the downtown Downey area and on the Downey Landing site (see previous Figure 4.3.1). The Mixed Use designation allows development of a maximum of 24 dwelling units an acre and General Commercial uses.

The Mixed Use Alternative includes the redesignation of an 11.4-acre site on the west side of Lakewood Avenue near the intersection of Stewart & Gray from its current General Plan designation of Office to Mixed Use. This site is located to the west and across the street from the Downey Landing site. Existing land uses on this site include commercial, single- and multi-family residential, offices-medical, medical care, auto sales, auto service and a church. Also included would be the redesignation of an 15.7-acre triangular parcel of land bordered on the east by Clarke Avenue, Imperial Highway on the south and Lakewood Boulevard on the west. Existing land uses on this site consist of commercial uses along Lakewood Avenue and Imperial Highway, and multi-family uses along Clarke Avenue. This site is also located just to the west of the Downey Landing site on the east side of Lakewood Boulevard. See Figure 6.1-1 for the location of these sites.

6. Alternatives to the Proposed Project

Areas Proposed for Mixed Use



 Area Proposed to be Used for Mixed Use



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6. Alternatives to the Proposed Project

Table 6.5-1 summarizes the pertinent information about the two sites proposed to be designated for mixed use.

| Site | Size of Site | Existing GP Designation | Mixed Development Intensity | Proposed GP Designation | Mixed |
|-------------|---------------------|---------------------------------|--|--------------------------------|--|
| 1 | 11.5 acres | Office ¹ | 751,806 sq. ft. of Office ² 8,343 trips | Mixed Use ³ | 125,235 sq. ft. of Neighborhood Commercial 276 Residential Units 6,319 trips |
| 2 | 15.7 acres | General Commercial ⁴ | 4,025,838 sq. ft. of General Commercial 44,049 trips ⁵ | Mixed Use | 170,235 sq. ft. of Neighborhood Commercial 376 Residential Units 8,639 trips |

¹ Assumed a 50% net coverage, with a 3-story building to be developed on this site as allowed by the Downey Municipal Code for the land use.
² Auto trips were determined by using the ITE Manual for typical Office Building.
³ Assumed a FAR of 0.25 with 24 dwelling units per acre to be developed on the site. Neighborhood Commercial to be developed on the site would be limited to one story, with a maximum of 3,000 sq. ft. per commercial use as allowed by the Downey Municipal Code.
⁴ Assumed a 50 % lot coverage with a 3-story building to be developed on this site as allowed by the Downey Municipal Code for this land use.
⁵ Auto trips were determined by using the ITE Manual for a Neighborhood Commercial.

Some assumptions were made about the development that could occur within the proposed mixed use areas proposed as part of this Alternative. It was assumed that there would be a split between commercial and residential uses within the mixed use projects, with commercial uses comprising of 20% to 50% of the development and medium density housing comprising between 50% and 80% of the development. Up to 24 units an acre could be developed on these sites to provide medium density housing. Market conditions would determine the configuration of the projects that would actually be developed on these sites. Neighborhood commercial uses to be included in the mixed use projects would support the residential uses within the project. Since the commercial uses would support residential uses, it was assumed that a 10% to 20% internal trip capture rate would be applied.

6.5.1 Air Quality

The Mixed Use Alternative would result in less intense development on the two project sites covered by this Alternative than if they were developed with the uses allowed by the current General Plan. Mixed use development of Site No. 1 would be six times smaller than if office uses were allowed on this site (125,235 sq. ft. of neighborhood commercial versus 751, 806 sq. ft. of office building). Up to 276 residential units would be developed on this site that would not occur if the site were developed for office use. However, this mixed use land uses would still generate about a third of the automobile trips than office use on this site would generate (6, 310 trips versus 8, 343 trips). This would generate 30% less air pollutants than if office development were allowed on this site. The mixed use project would be environmentally superior than if the this site were developed with office use.

This Alternative would also provide for a mixed use development on Site No. 2 that would be six times smaller than if a general commercial land use were allowed to be developed on this site as currently allowed by the General Plan. Up to 376 residential units could also be developed on this site. However, this Mixed Use land use would still generate 5 times less traffic than if the site were developed for general commercial use (8,639 trips versus 44,049 trips). Therefore, the mixed use project would generate substantially less air pollutants than if the site were developed for general commercial use. This mixed use project would be environmentally superior than if this site were developed with general commercial use.

6. *Alternatives to the Proposed Project*

6.5.2 Geology and Soils

The Mixed Use Alternative would substantially reduce the intensity of development on Sites No. 1 and 2. However, since up to 652 residential units could be constructed on the project site, residents living on the site would be exposed to future seismic events. No residential units would be developed if office building or general commercial uses were developed on these sites. Grading volumes would be much less than the proposed project. As a result, potential geological impacts would be environmentally inferior compared to the proposed project.

6.5.3 Hazards and Hazardous Materials

Under the Mixed Use Alternative, residential commercial and industrial uses would still be allowed throughout the City. Light industrial uses would result in less direct exposure of the population to potential hazards and hazardous materials. Therefore, the impacts associated with the Mixed Use Alternative would be the same as compared to the proposed project.

6.5.4 Hydrology and Water Quality

The Mixed Use Alternative would reduce the intensity of development on sites No. 1 and 2 since less commercial land uses would be developed on these sites. Development of up to 652 residential units is not anticipated to substantially increase runoff from these sites or impact water quality since these projects would have to comply with existing regulations that reduce pollutants from entering runoff water e.g. obtaining a NPDES Permit, preparation of a stormwater pollution prevention plan, use of Best Management Practices etc. Therefore, the impacts associated with the Mixed Use Alternative would be the same as compared to the proposed project.

6.5.5 Land Use and Relevant Planning

Under the Mixed Use Alternative commercial uses on sites No. 1 and 2 would be less than currently allowed by the General Plan. Additional residential uses would be developed on these sites since there are already single-and multi-family residences on site No. 1 and multi-family residences on site No. 2. Since the sites would be developed with less residential than called for by the General Plan, impacts associated with this alternative would be environmentally superior compared to the proposed project.

6.5.6 Noise

Construction noise impacts would generally be similar to the proposed project for this alternative. However, due to the reduction in associated traffic volumes, the Mixed Use alternative would result in slight reductions in the noise volumes on arterials within the City of Downey. Therefore, the Mixed Use Alternative is considered environmentally superior to the proposed project with regard to noise.

6.5.7 Public Services

Under the Mixed Use Alternative the demand for public services including schools, libraries, water, sewer, solid waste, electricity and natural gas would be substantially reduced. This would reduce the amount of infrastructure necessary to serve future growth in accordance with the proposed project. Therefore, the Mixed Use Alternative is considered environmentally superior to the proposed project with regard to public services.

6.5.8 Recreation

Buildout under the Mixed Use Alternative would result in fewer units than allowed by the General Plan. It is anticipated that some recreational facilities would be developed on site No. 1 and 2 as part of the

6. *Alternatives to the Proposed Project*

residential units that would be developed on these site. This would reduce the demand on existing recreational facilities. As a result, less parkland would be required to serve the projected population. Therefore, the Mixed Use Alternative would be considered environmentally superior to the proposed project.

6.5.9 *Transportation and Traffic*

The Mixed Use Alternative would result in far fewer automobile trips than under the land uses allowed on site No. 1 and 2 by the General Plan as discussed in 6.6.1 above. The Mixed Use Alternative would reduce projected traffic growth by approximately 30%. As a result, the Mixed Use Alternative would generate fewer vehicle trips and would have fewer traffic-related impacts than the proposed project. Therefore, the Mixed Use Alternative would be considered environmentally superior to the proposed project.

6.5.10 *Utilities and Services System*

The Mixed Use Alternative is expected to reduce the intensity of the development on sites No. 1 and 2 by at least 30%. The lower level of projected population growth would result in fewer impacts to public utilities and service systems in the City than the Recommended Land Use Alternative. Therefore, the Mixed Use Alternative is considered environmentally superior to the Recommended Land Use Alternative.

6.5.11 *Conclusion*

This Alternative would lessen impacts associated with air quality, hydrology and water quality, land use and relevant planning, noise, public services, recreation, transportation and traffic and utilities by approximately 30%. The remaining soils and geology impact would be worse than the propose project. This Alternative would also proved additional housing in a job rich area. However, this Alternative would meet most but not all of the project objectives as described in Section 6.1.2. This Alternative would not change the General Plan land use designations for 16 areas throughout the City consistent with the goals and policies contained in the updated General Plan. Only the land use designations for sites No. 1 and 2 would be changed.

6.6 *ENVIRONMENTALLY SUPERIOR ALTERNATIVE*

CEQA requires a lead agency to identify the “environmentally superior alternative” and, in cases where the “No-Project” Alternative is environmentally superior to the proposed project, the environmentally superior development alternative must be identified. One alternative has been identified as “environmentally superior” to the proposed project:

- Mixed Use Alternative

The Mixed Use Alternative has been identified as the environmentally superior alternative. This alternative would lessen impacts associated with all impact categories except for soils and geology by approximately 30%. However, the benefits of changing the land use designations for the 16 sites through the city would not occur as part of this Alternative. By comparison, the proposed project allows for the redesignation of the land uses on these sites. This Alternative would meet most but not all of the project objectives as described in Section 6.1.2, although it would contribute less housing to a jobs rich region.

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7. Long-Term Implications

7.1 GROWTH INDUCING IMPACTS

Section 15126 of the California Environmental Quality Act (CEQA) Guidelines requires that an Environmental Impact Report (EIR) discuss the ways in which a proposed project could directly or indirectly foster economic or population growth, or the construction of additional housing. Direct growth inducing impacts are generally associated with the provision of urban services and the extension of infrastructure to an undeveloped area. The extension of services and facilities to an individual site can reduce development constraints for other nearby areas and can serve to induce further development in the vicinity. Indirect or secondary growth inducing impacts consist of growth induced in the region by the additional demands for housing, employment, and goods and services associated with population increase caused by, or attracted to, new development.

Growth-inducing impacts fall into two general categories, direct and indirect. Direct growth-inducing impacts are generally associated with the provision of urban services to an undeveloped area. The provision of these services to a site, and the subsequent development, can serve to induce other landowners in the vicinity to convert their property to urban uses. Indirect, or secondary growth-inducing impacts consist of growth induced in the region by the additional demands for housing, goods, and services associated with the population increase caused by, or attracted to, a new project.

The purpose of a General Plan is to guide growth and development in a community. Accordingly, the General Plan is premised on a certain amount of growth taking place. Los Angeles County, as well as the entire Southern California region, has experienced dramatic growth the past two decades and this trend is expected to continue into the foreseeable future. The focus of the General Plan, then, is to provide a framework in which the growth can be managed and to tailor it to suit the needs of the community and surrounding area.

During the past several decades, the SCAG region, including Imperial, Riverside, San Bernardino, Los Angeles, Orange and Ventura Counties, has been one of the fastest growing regions in the nation. Between 1950 and 1970, the population doubled in size, growing at a rate of 5% per year. Between 1980 and 1990, the region's population grew by over 25% to 14.6 million. Between 1990 and 2000, the region's population grew by nearly 15% to 16.5 million.

The City of Downey is almost at buildout. The projected population for the City at buildout in the year 2025 for the Proposed Land Use Alternative is 121,063. The buildout population represents an increase of 13,242 persons, which represents a 12.28 % increase over the existing population of the year 2000 107,821. The Proposed Land Use Alternative also provides for a total of 36,915 dwelling units and 60,400 jobs by Year 2030.

The cumulative impacts of the update of the Downey General Plan, along with the proposed redesignation of the 16 areas included as part of this project will require some improvement and relocation of infrastructure and expansion of community facilities and services. Implementation of the project and the recommended mitigation measures will assist in improving the circulation on the street system within the City.

The Land Use Chapter addresses the land use issues and opportunities in Downey, and the goals, issues, policies and programs that will guide the development of land uses within the City. It discusses reclassification of land use designations to reflect the changes to these land use designations. Economic development within the context of an urban, infill setting would have a beneficial impact. Since the infrastructure is largely in place, secondary growth-inducing effects do not represent a significant environmental impact. Amendments to the Circulation Element discusses acceptable levels of service at buildout and addresses land use changes associated with the proposed General Plan Update.



7. Long-Term Implications

In conclusion, the proposed project is a response to the existing infrastructure and development within the City of Downey as well as Los Angeles County.

7.2 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Implementation of the proposed land uses that would be allowed by the update of the City's General Plan would allow construction activities that will entail the commitment of non-renewable and/or slowly renewable energy resources, human resources, and natural resources, such as lumber and other forest products, sand and gravel, asphalt, steel, copper, lead, other metals, and water. An increased commitment of social services and maintenance services (e.g., police, fire and water services) will also be required. The energy and social services commitments will be long-term obligations, since it is nearly impossible to return land to its original conditions once it has been developed.

As the City of Downey continues to develop, both residential and non-residential development would require further commitment of energy resources in the form of natural gas and electricity generated by coal, hydroelectrical power or nuclear energy. Increased motor vehicular travel in the City would be accompanied by increased consumption of petroleum products. An increased commitment of social services and public maintenance services, e.g., waste disposal and treatment, would also be required. These commitments would be long-term obligations, since development/redevelopment of land uses within the City will require.

Since the City of Downey is mostly developed, the commitment of undeveloped land that would be developed as a result of the proposed General Plan and Zoning Code Update would be small. In addition, the proposed General Plan Update includes policies to protect existing uses of the area discussed in this DEIR. The proposed plan would result in a long-term intensification of development and some alteration to the current environment of Downey.

7.3 SUMMARY OF CUMULATIVE IMPACTS

The following is a summary of the cumulative impacts created by the update of the General Plan for each parameter analyzed in Section 5 of the project EIR:

Air Quality – Impacts relating to air quality are generally considered in cumulative terms. The proposed General Plan Update contains goals and policies that address air quality and mitigation measures suggested here would have the benefit of reducing air quality impacts to less than significant for certain projects. However, large-scale projects (in excess of 10 acres) would have temporary air impacts due to construction that exceed thresholds. As such, the project's contribution to cumulative impacts related to air would remain cumulatively significant.

Geology and Soils – Structural engineers would be required to design foundations to withstand seismically induced liquefaction. Compliance with the General Plan Goals and Policies as well as with existing codes and regulations will ensure that potential impacts from liquefaction will be less than significant. Mitigation of geologic, seismicity and soil impacts of development projects would be specific to each site. As such, the project's contribution to cumulative impacts related to soils and geology is less than considerable and therefore, less than cumulatively significant.

Hazards and Hazardous Materials — The General Plan Update includes area that are considered hazardous or handle hazardous materials on site. Mitigation measures discussed in Section 5.3 would not result in any significant impacts related to hazards, hazardous materials or hazardous wastes due to the implementation of the proposed Downey Vision 2025 General Plan Update. Therefore, implementation of the proposed Downey Vision 2025 General Plan Update would not result in any cumulatively considerable impacts related to hazards, hazardous materials or hazardous wastes.

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Hydrology and Water Quality – The proposed project has the potential to substantially deplete groundwater supplies through the subsequent increase in population in the City. Compliance with Existing Regulations and Standard Conditions, as well as the Goals, Policies and Programs listed above would serve to mitigate any potential impacts related to hydrology and water quality pursuant to the proposed Downey Vision 2025 General Plan Update. For water quality, future development projects would be required to demonstrate compliance with all applicable Federal, State, and local water quality regulations through the design and implementation of construction and post-construction BMPs to effectively mitigate potential pollutants in storm water and non-storm water discharges. The proposed General Plan Update and other projects of this nature do not physically alter the hydrology within the City. The cumulative impacts associated with the project’s incremental effect and the effects of other similar projects are not considered significant.

Land Use — The Downey Vision 2025 General Plan Update proposed land use changes that recognize the existing infrastructure within the City of Downey. The General Plan Update would not result in any inconsistencies with adopted plans and policies that could not be mitigated to a level that is less than significant. Therefore, the cumulative impacts associated with the project’s incremental effect and the effects of other similar projects are not considered significant.

Noise — Cumulative growth and pass-through traffic will produce traffic noise increases that represent a significant change from existing conditions. This increase in traffic is not a result of the proposed project. While cumulative noise impacts from adoption of the proposed General Plan Update are negligible, cumulative noise impacts are considered significant along several roadway segments.

Public Services – All the cumulative projects would result in an increased demand for public services. Standard measures such as the payment of fees and incorporation of needed facilities were addressed in each cumulative project as determined appropriate in individual project analyses. Therefore, the cumulative impacts associated with the update of the Downey General Plan are not considered significant.

Recreation – Future population would generate a higher demand for recreational facilities and programs, and reduce the number of existing parkland per resident. An additional 13-acre park is proposed within the Downey Landing project, which will allow the City to maintain its current parkland percentage of 0.94 acre per 1,000 population. In addition, parkland In-lieu fees are required for new residential developments. As a result, cumulative recreation impacts associated with implementation of the General Plan Update would be less than significant.

Transportation – Approval of the proposed project will result in the generation of additional vehicle trips. These trips will add traffic to streets and intersections within Downey that currently are operating at LOS “E” and “F”. Even with the implementation of the mitigation measures included as part of the EIR, some intersections will continue to operate at a LOS of “F” which is considered an unacceptable LOS by the City. Therefore, the project will create a significant cumulative traffic impact on the City’s street system.

Utilities and Services – All the cumulative projects would result in increased demand for utilities. Standard measures such as the payment of fees and incorporation of needed facilities were addressed in each project as determined appropriate in individual environmental analyses. As such, the project’s contribution to cumulative impacts related to utilities is less than considerable and, therefore, less than significant.

7.4 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Section 15126 (f) of the CEQA Guidelines requires that an EIR describe any significant irreversible environmental changes which would be involved in the proposed action should it be implemented. In the case of the proposed project, implementation of the proposed General Plan Update EIR would allow for



7. *Long-Term Implications*

additional residential, commercial, and office development consistent with the adopted Land Use Chapter. Future development will require the commitment of vacant parcels of land or redevelopment of existing developed land within the City of Downey. Future development will involve construction activities that will entail the commitment of non-renewable and/or slowly renewable energy resources, human resources, and natural resources such as lumber and other forest products, sand and gravel, asphalt, steel, copper, lead, other metals, and water. An increased commitment of social services and public maintenance services (e.g., police, fire, schools, libraries and sewer and water services) will also be required. The energy and social service commitments will be long-term obligations in view of the fact that it is impossible to return the land to its original condition once it has been developed.

7.5 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Section 1.0 of this EIR contains a detailed summary table which identifies the project's environmental impacts, proposed mitigation measures, and the level of impact significance after mitigation. This section lists the impacts which are considered significant after all mitigation is applied. The significant impacts are as follows:

Air Quality

Construction activities associated with individual development projects in accordance with the proposed General Plan Update could exceed AQMDs significance thresholds. However, actual significance would need to be determined on a project by project basis as future development applications are submitted.

The Goals and Policies contained in the proposed General Plan Update are expected to reduce emissions associated with future development. However, even after the application of these Goals and Policies, the proposed project is expected to generate emissions levels in exceedance of AQMDs threshold criteria for CO, ROG, NO_x, and PM₁₀ in the South Coast Air Basin, which is classified as a non-attainment area. As a result, project-related air quality impacts are considered a Significant Unavoidable Adverse Impact and a Statement of Overriding Considerations must be adopted concurrent with project approval.

Although the project will result in significant regional air quality impacts, the proposed project is consistent with Air Quality Management Plan and other regional plan strategies to reduce the number of trips and the length of trips in the region, and to improve the balance between jobs and housing at the subregional level. The AQMP recognizes that emissions due to trips and mode choices are not only a function of the transportation system, but also relate to the proximity of housing and job-generating land uses, and proximity of jobs to transportation infrastructure and transit.

The future CO emissions are projected to be in compliance with the 1-hour and 8-hour State and Federal standards, and therefore, the local CO impacts due to all future scenarios are not considered to be significant.

Noise

Implementation of the proposed General Plan Goals and Policies, existing codes and regulations, and mitigation measures listed above will reduce all potential short-term and long-term noise impacts to the extent feasible. Furthermore, the included mitigation for site operations could reduce any significant impacts on new, proposed development or the impact of any proposed industrial land uses to less than significant levels. However, as shown in table 5.6-4, many roadways within the City are expected generate noise levels in excess of 65 CNEL. As a result, in locations where these roadways are adjacent to existing sensitive land uses, the impacts are anticipated to remain significant.

7. *Long-Term Implications*

Traffic and Circulation

The proposed project would result in significant unavoidable adverse impacts to the following intersections:

Since more than two left-turn lanes and one right-turn lane would be required to be constructed at these intersections, the operation of these intersections can not be brought up to LOS “D” or “E”.

- Imperial Highway at Lakewood Boulevard and Clark Road
- Bellflower Boulevard at Imperial Highway and I-105 Freeway (WB)
- Bellflower Boulevard at I-105 (EB) Ramp and Gardendale Street / Foster Road

These intersections would have to be improved with extraordinary improvements, including triple left lanes or additional through lanes. These improvements would require additional right-of-way acquisition that could impact existing adjacent land uses. As a result, impacts to these intersections would remain a Significant Unavoidable Adverse Impact.



7. *Long-Term Implications*

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8. *Impacts Found Not To Be Significant*

The potential project impacts of the proposed City of Downey, General Plan Update related to the following environmental parameters are either not significant or can be mitigated to below a level of significance:

The Initial Study identified six impact categories among a number of environmental issues that would not be significantly impacted by the proposed project and therefore, did not warrant further review in this EIR. Each of these environmental issues were evaluated in the Initial Study and not determined to be a potentially significant impact of the project. Refer to the Initial Study in Appendix A for more information. The impact categories found not to be significant were:

8.1 AESTHETICS

As described in the Initial Study, the proposed General Plan Update was not anticipated to have a potentially significant impact on Aesthetic Resources. There are no state scenic highways within the City of Downey and no scenic vistas would be significantly impacted by the proposed update of the City's General Plan. Development pursuant to the General Plan would improve the visual character of the City through redevelopment opportunities for older, aging properties. Aesthetics will be considered at the development review stage to ensure that the visual character and quality of sites is maintained either through zoning code requirements and/or the City's Design Review Board.

8.2 AGRICULTURAL RESOURCES

As described in the Initial Study, the proposed General Plan Update was not anticipated to have a potentially significant impact on Agricultural Resources. The majority of the City is built out and does not have any large areas which are currently in agricultural production. However, the General Plan will continue to allow use of easements for limited agricultural production including nursery crops.

8.3 BIOLOGY

As described in the Initial Study, the proposed General Plan Update was not anticipated to have a potentially significant impact on Biological Resources. The City of Downey is located within a fully developed urban setting. No species identified as a candidate, sensitive, or special status species in local, regional, state, or federal documents are expected within the City of Downey.

8.4 CULTURAL

The policies and programs of the General Plan address structures and objects that are considered historical resources as defined on CEQA Guidelines Section 15064.5. Since Downey is a mature community, there are many structures and objects that are more than 50 years old that may also potentially be considered historical resources. However, since age is only one of many factors that determine historical significance, not all structures and objects more than 50 year old may be historically significant. Further analysis to determine impacts, if any, on historical resources shall be conducted at the development review stage prior to project approval. The proposed General Plan Update will not result in the demolition of any existing structures.

Development and redevelopment projects pursuant to the update of the General Plan may involve grading activities as part of future development. However, the City of Downey is nearly built out with very little vacant undeveloped land. The majority of the 16 properties subject to the proposed land use changes are already developed and have been previously been graded. Therefore, the likelihood that archaeological resources exist on-site is low. Previous development within the City of Downey has not revealed any archaeological resources, as defined Section 15064.5 of the CEQA Guidelines.



8. *Impacts Found Not To Be Significant*

Development and redevelopment projects pursuant to the update of the General Plan may involve grading activities as part of future development. However, the City of Downey is nearly built out with very little vacant undeveloped land. The majority of the 16 properties subject to the proposed land use changes are already developed and have been previously been graded. Therefore, the likelihood that paleontological resources exist on-site is low. Previous development within the City of Downey has not revealed any paleontological resources, as defined Section 15064.5 of the CEQA Guidelines.

Development pursuant to the General Plan is not expected to disturb any human remains since all burials in the City have occurred in the Downey Cemetery since the late 1880s.

8.5 MINERAL RESOURCES

As described in the Initial Study, the proposed General Plan Update was not anticipated to have a potentially significant impact on Mineral Resources. A review of City and state maps, indicated no known mineral resources in the area impacted by the General Plan Update.

8.6 POPULATION & HOUSING

As described in the Initial Study, the proposed General Plan Update was not anticipated to have a potentially significant impact on Population and Housing for the City of Downey. According to SCAG growth projections the City of Downey would experience 7 % growth in housing units, 11% growth in residents, and 9 % growth in employees over the next 20-year period. Since Downey is a mature community with no large expanses of vacant land, this growth can only be accommodated through in-fill development and development of underutilized properties. It is projected that the proposed update of the General Plan will result in the potential for 2,415 additional housing units, 11,335 additional residents, and 4,900 additional employees in the City of Downey by the Year 2025. This amount of growth is not significant relative to the Citywide totals of 34,010 housing units, 107,823 residents, and 55,500 employees, according to SCAG figures for the Year 2000. Additionally, the growth will most likely be spread out over the 20-year period of the General Plan and would not induce substantial growth in the Downey area. This would result in approximately 120 new housing units, 566 additional residents and 245 additional jobs being created in Downey each year. Thus, this growth was not considered potentially significant and is not discussed in this DEIR.

All other potential impacts discussed in the project Initial Study are fully addressed in this Draft EIR.

9. *Organizations and Persons Consulted*

The following organizations and persons were consulted during the preparation of the Downey General Update EIR.

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