CITY OF MOUNTAIN VIEW
RESOLUTION NO.
SERIES 2014

A RESOLUTION ADOPTING AN ADDENDUM TO THE CITY OF MOUNTAIN VIEW 2030 GENERAL PLAN AND GREENHOUSE GAS REDUCTION PROGRAM ENVIRONMENTAL IMPACT REPORT (EIR)

WHEREAS, since certification of the EIR in 2012 by the City Council of the City of Mountain View, refinements and revisions to the water infrastructure demand model have resulted in the identification of additional Capital Improvement Program (CIP) projects in addition to those identified in the EIR; and

WHEREAS, in order to consider and evaluate environmental impacts of the revised water infrastructure CIP beyond what was evaluated in the previously certified EIR, the City has prepared an Addendum to the EIR ("Addendum") in accordance with the California Environmental Quality Act (CEQA), Public Resources Code Section 21000, *et seq.*; and

WHEREAS, the City of Mountain View has determined that the proposed changes to the water infrastructure CIP do not represent a substantial change from the overall program-level analysis of General Plan Build-Out evaluated in the EIR; and

WHEREAS, the City of Mountain View forwarded copies of the proposed Addendum on to the State Clearinghouse, as required by CEQA;

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Mountain View, having independently considered the Addendum and the potentially significant environmental effects of the project, that the Council adopts the Addendum.

TIME FOR JUDICIAL REVIEW:

The time within which judicial review of this document must be sought is governed by California Code of Procedure Section 1094.6 as established by Resolution No. 13850 adopted by the City Council on August 9, 1983.

– – – – – – – – – – –

TB/3/RESO/810-07-01-14r-E

Addendum to Final Environmental Impact Report (SCH 2011012069)

2030 General Plan and Greenhouse Gas Reduction Program

June 2014

Prepared for:
City of Mountain View

CITY OF MOUNTAIN VIEW

ERM

City of Mountain View

Addendum to Final Environmental Impact Report

2030 General Plan and Greenhouse Gas Reduction Program
(SCH 2011012069)

June 2014

Project No. 0251560

Denise Toombs
Partner

Matthew Jones
Project Manager

Environmental Resources Management
1277 Treat Boulevard, Suite 500
Walnut Creek, California 94597
T: 925-946-0455
F: 925-946-9968

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF ACRONYMS

AB	Assembly Bill
ABAG	Association of Bay Area Governments
BAAQMD	Bay Area Air Quality Management District
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CIP	capital improvement program
CO_2e	carbon dioxide equivalent
CMP	congestion management program
EIR	Environmental Impact Report
FEMA	Federal Emergency Management Agency
GGRP	Greenhouse Gas Reduction Program
GHG	greenhouse gas
GPUUIS	General Plan Update Utility Impact Report
LOS	level of service
MMRP	Mitigation Monitoring and Reporting Program
NPDES	National Pollutant Discharge Elimination System
PCJPB	Peninsula Corridor Joint Powers Board
RWQCB	Regional Water Quality Control Plant
UBC	Uniform Building Code
VMT	vehicle miles of travel
VTA	Santa Clara Valley Transportation Authority
WMP	Water Master Plan

1.0 INTRODUCTION

On July 10, 2012, the Mountain View City Council adopted the 2030 General Plan, a comprehensive update to the City of Mountain View (City) 1992 General Plan, along with a citywide Greenhouse Gas Reduction Program (GGRP) and certified the *City of Mountain View 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report (EIR)* (LSA Associates 2012; hereinafter "2012 EIR"), for both programs. The 2030 General Plan is the guiding document for the City's physical development and preservation. It includes goals, policies, and graphics that convey a long-term vision and guide local decision-making to achieve that vision. The General Plan is the foundation for zoning regulations, subdivisions and public works plans. It also addresses other issues related to the City's physical environment, such as noise and safety. The City is the lead agency for programmatic environmental review of the General Plan in compliance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (Title 14 of the California Code of Regulations [CCR] Section 15000 et seq). The City's 2012 EIR informed decision-makers in the city of Mountain View, other responsible agencies, and the general public of the potential environmental consequences of approval and implementation of the following two distinct program components:

1. The City of Mountain View 2030 General Plan, which is the City's fundamental land use and development policy document, and is intended to guide community development, preservation, and environmental conservation in the Mountain View through 2030; and
2. The City of Mountain View GGRP. While the General Plan would direct land use and development patterns throughout the entire city, the GGRP would provide implementation measures for reducing greenhouse gas (GHG) emissions in Mountain View and contribute to the statewide GHG reduction targets of Assembly Bill (AB) 32 (Global Warming Solutions Act), which calls for statewide GHG emission reductions to 1990 levels by 2020.

In many instances, the 2012 EIR recommended mitigation measures in the form of modifications to the proposed General Plan policies, and actions that would reduce or avoid potentially significant impacts.

Since the certification of the EIR in July 2012, the City has proceeded with implementation of the General Plan and GGRP through consistently permitted development and land use actions as anticipated under the

General Plan. The City has also proceeded with ongoing analysis of infrastructure needs as necessary to accommodate planned development as evaluated in the EIR. The 2010 Water Master Plan (WMP) proposed water pipeline improvements based upon the City distribution system's ability to meet both maximum day demand with fire flow, and peak hour demand operational scenarios, while satisfying the established design criteria. The majority of the recommended system improvements are due to existing fire flow deficiencies. A prioritized list of these projects was included in the General Plan Update Utility Impact Study prepared for evaluation in the 2012 EIR, allowing the City to complete projects as funding is available.

Since certification of the 2012 EIR, refinements and revisions to the modeling of water infrastructure demands have resulted in the identification of additional capital improvement program (CIP) projects above and beyond what was disclosed in the EIR. The purpose of this Addendum to the 2012 Final EIR is to disclose and evaluate environmental impacts of the changes to the water infrastructure CIP beyond what was evaluated in the previously certified 2012 EIR.

1.1 CEQA REQUIREMENTS AND ENVIRONMENTAL REVIEW PROCESS

According to CEQA Guidelines Section 15164, if minor changes or additions are necessary to make a prior EIR adequate, an agency can prepare an Addendum when, among other conditions:

- There have not been substantial changes to the project that will require major revisions of the previous document due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- There have not been substantial changes with respect to the circumstances under which the project is undertaken that will require major revisions to the previous document due to the involvement of new significant effects or a substantial increase in the severity of previously identified significant effects; and
- There has not been new information of substantial importance, which was not known and could not have been known at the time that the previous EIR was certified that shows the project will have one or more significant effects not discussed previously or that significant effects previously identified will be substantially more severe than originally identified.

Based on review of the 2012 EIR, the City has determined that the proposed changes to the water infrastructure CIP do not represent a substantial change from the overall program level analysis of General Plan Build-out evaluated in the 2012 EIR. The City has prepared this Addendum to the 2012 Final EIR to document the CEQA analysis performed for the proposed changes. The objectives of this Addendum to the 2012 Final EIR are to:

1. Identify changes to the proposed water infrastructure CIP;
2. Identify environmental impacts of the proposed changes; and
3. Provide documentation of the factual basis for the City's finding that changes in the proposed program will not have a new significant environmental effect or a substantial increase in the severity of previously identified significant effects.

1.2 RESOURCE TOPICS

Consistent with Appendix G of the State CEQA Guidelines, this Addendum evaluates the potential impacts by the project for the following CEQA Checklist resource areas.

- Air Quality;
- Biological Resources;
- Cultural Resources;
- Geology, Soils and Seismicity;
- GHG Emissions (Global Climate Change);
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Noise;
- Public Services and Recreation;
- Transportation and Circulation;
- Utilities and Infrastructure; and
- Mandatory Findings of Significance.

This Addendum also evaluates potential cumulative impacts associated with the proposed changes.

The following environmental resource topics are briefly discussed in Chapter 3, Environmental Checklist. These resources were not considered

in detail in this Addendum because it is not likely that they would be affected by the proposed changes.

- **Agriculture and Forest Resources.** As described in Chapter IV.A of the 2012 EIR, although two properties in the city (247 North Whisman Road and 3119 Grant Road) are mapped by the State Department of Conservation as "Unique Farmland," neither of these properties is actively farmed. No areas of the city are mapped as "Prime Farmland" or "Farmland of Statewide Importance." The 247 North Whisman Road property is zoned Agriculture and under Williamson Act contract. Neither property would be impacted by the proposed changes to the water infrastructure CIP nor would impacts to agriculture resources occur.

  No land in the city is zoned for forestry uses, including timberland. Mountain View contains a very small amount of forest land, as defined by Section 12220(g), which generally occurs in existing parks and open space areas, such as the riparian zone surrounding Stevens Creek. Park and open space areas that contain forest land would be preserved as part of the General Plan and no forest land would be converted to non-forestry uses by either the General Plan or GGRP and no other changes are proposed that would result in the conversion of farmland or forest land, including through indirect development pressures. All infrastructure improvements would occur in existing developed right-of-ways and no impact to forest resources would occur.

- **Land Use and Planning Policy.** As described in Chapter IV.A of the 2012 EIR, the 2012 General Plan replaced the 1992 General Plan; it built on the overarching principles and objectives established under the 1992 General Plan, and the majority of proposed land use designations were equivalent to those in the 1992 General Plan. In addition, the land use changes that were proposed as part of the General Plan were generally modest in scale and would be concentrated within five "change areas" that promote land use patterns that would not substantially conflict with existing uses and would also not disrupt or divide established communities.

  The proposed changes to the water infrastructure CIP would occur primarily in existing right-of-way or pre-existing developed urban areas where easements can be obtained without impacting existing land uses. The proposed changes would not conflict with the land use patterns proposed in the General Plan; therefore, no land use impacts would occur.

- **Mineral Resources.** The 2012 EIR determined that no minerals or aggregate resources of statewide importance are located within

Mountain View and no natural gas, oil, or geothermal resources identified in or adjacent to Mountain View. As such, there would be no impact associated with the proposed changes to the water infrastructure CIP.

- **Population, Housing, and Employment.** As described in Chapter IV.B of the 2012 EIR, implementation of the General Plan was not found to be substantially inconsistent with the population projections of the Association of Bay Area Governments (ABAG) or other regional planning agencies and organizations. Implementation of the General Plan was not found to substantially and directly induce population growth or impact the existing housing stock, resulting in a less-than-significant impact. The General Plan also encourages and supports the goals of the Sustainable Communities and Climate Protection Act (Senate Bill [SB] 375) which supports housing development in close proximity to transit hubs and employment centers. Therefore, implementation of the General Plan was not found to create a substantial imbalance between employed residents and jobs, and the impact was less than significant.

  The proposed changes to the water infrastructure CIP represent negligible changes in the labor force, would have no impact on population, housing, or employment, and would be consistent and supportive of the policies outlined in the General Plan.

- **Visual and Aesthetic Resources**. As described in Chapter IV.N of the 2012 EIR, the visual resources-related policies of the General Plan would protect visual resources. These policies are intended to enhance the overall appearance of the city, encourage the implementation of sound principles of urban design, and cluster taller buildings in areas where they would not adversely affect scenic views. In addition, the visual character of established residential neighborhoods would be protected. New development would be subject to the City's development review process, under which the Development Review Committee would review the architecture and site design of new development and improvements, and provide project applicants with design-related guidance. These policies and design review process are expected to enhance the quality of the visual environment in Mountain View over time and would not result in significant impacts on aesthetics.

  The water infrastructure construction would be temporary in nature and would occur primarily during daytime hours. Nighttime work, if necessary, would only be proposed in high travel roadway corridors with pre-existing nighttime lighting. Therefore, no visual impacts would occur during construction. As the completed infrastructure

would be underground and not visible, or on the underside of bridges, the long-term operation of the infrastructure would not impact the visual character of the city or impede sensitive views.

1.3 IMPACT ANALYSIS IN EIR ADDENDUM

This Addendum to the Final EIR determines if there are potentially significant environmental impacts that warrant additional analysis and comprehensive mitigation measures to minimize the level of impact. The Addendum poses questions with four possible responses to each question:

- **No Impact.** The environmental issue does not apply to the proposed project changes, and the proposed changes would therefore have no environmental impact.
- **Less-than-significant Impact**. The environmental issue in question does apply to the proposed project changes, but the associated impact would be below thresholds that are significant.
- **Potentially Significant Unless Mitigated**. The proposed project changes have the potential to produce significant impacts. However, mitigation measures modifying the operational characteristics of the proposed project changes would reduce impacts to a less-than-significant level.
- **Potentially Significant Impact**. The proposed project changes would produce significant impacts and further analysis is necessary to develop mitigation measures that can reduce impacts to a less-than-significant level.

1.4 SUMMARY OF CERTIFIED EIR

Implementation of the General Plan and GGRP was determined to result in the following significant unavoidable impacts on Air Quality and Transportation and Circulation:

- Increased daily land-use-based vehicle miles of travel (VMT) due to population and employment growth planned within the city;
- Increased motor vehicle traffic and congestion, which would result in decreased roadway and freeway segments levels of service on several roadway and freeway study segments;
- Increased motor vehicle traffic and congestion outside the city of Mountain View;
- Increased traffic noise levels along some roadway and freeway segments in the city;

- Violation of air quality standards by increasing VMT greater than population increase; and
- Cumulatively considerable net increase in ozone and particulate emissions.

The City is incorporating by reference the Mitigation Monitoring and Reporting Program (MMRP) for the Final 2012 EIR. The MMRP was formulated based upon the CEQA Findings and Statement of Overriding Consideration pursuant to Section 15091 and 15093 of the State CEQA Guidelines and Section 21081 of the Public Resources Code.

A summary of the impacts identified in the 2012 EIR is included in Table 1, which also lists mitigation measures recommended in the 2012 EIR, and identifies mitigation monitoring requirements. The applicable measures are also noted under each environmental criterion in the discussions that follow. Table 1 is organized as follows:

- The first column identifies the environmental impacts.
- The second column, entitled "Mitigation Measures," specifies the mitigation measures recommended in the 2012 EIR.
- The third column, entitled "Responsibility for Compliance," specifies the entity responsible for mitigation measure implementation.
- The fourth column, entitled "Method of Compliance and Oversight of Implementation," specifies the manner in which the mitigation measure is implemented, and who has oversight over ensuring implementation of the mitigation measure.
- The fifth column, entitled "Timing of Compliance," details when monitoring will occur to ensure that the mitigating action is completed.

Table 1 Mitigation Monitoring and Reporting Program

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
A. Land Use and Planning Policy				
There are no significant Land Use and Planning Policy impacts.				
B. Population, Housing and Employment				
There are no significant Population, Housing and Employment impacts.				
C. Transportation and Circulation				
TRANS-1: Implementation of the General Plan and GGRP would result in increased daily land-use-based vehicle miles of travel (VMT) per service population in 2030 due to population and employment growth planned within the city.	TRANS-1: The City shall include the following new policy in the Mobility chapter: Policy MOB ##.##: **Multi-modal transportation monitoring.** Monitor progress on the effectiveness of proposed policies to reduce VMT per service population by establishing transportation mode share targets and periodically comparing travel survey data to established targets. The City shall include the following new action under Policy MOB 8.1: Action MOB 8.1.3: **Interim level of**	City of Mountain View Community Development and Public Works Departments	Adoption of the identified policy and action. Establish transportation mode share targets and monitor progress on the effectiveness of policies to reduce VMT per service population. Maintain 1992 General Plan LOS standards for all intersections and roadway segments, with the exception of the identified high-demand areas, until adoption of the mobility plans identified in action MOB 1.1.1.	Ongoing

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	service (LOS) standards. Until adoption of the mobility plans described in action MOB 1.1.1, maintain the citywide vehicle LOS standards from the 1992 General Plan, which include a target peak hour LOS policy of LOS D for all intersections and roadway segments, with the following exceptions in high-demand areas: • Use LOS E for intersections and street segments within the Downtown Core and San Antonio areas where vitality, activity and multi-modal transportation use are primary goals; and • Use LOS E for intersections and street segments on Congestion Management Program (CMP) designated roadways in Mountain View (e.g., El Camino, Central Expressway and San Antonio Road). Monitoring will assist the City in evaluating the effectiveness of the proposed Mobility Element and Land Use and Design Element policies listed in the introduction of this section and			

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	associated VMT reduction measures (e.g., land use/location, neighbor-hood/site enhancement, parking policy/pricing, transit system improvements, and commute trip reduction programs) that may be needed to reduce VMT. However, until such time that additional measures can be incorporated, implementation of the proposed project would result in an increase in VMT that would be considered a significant and unavoidable impact.			
TRANS-2a: Under Existing Plus General Plan Conditions 2009, implementation of the proposed project would increase motor vehicle traffic and congestion, which would result in decreased roadway segment levels of service on one roadway study segment (39. San Antonio Road between SB US 101 Ramps and Charleston Road). This would be considered a potentially significant impact.	TRANS-2a: To improve the LOS, the roadway segments could be widened to meet Palo Alto's citywide level of service standard. However, unless complete funding is available from various sources including the City of Mountain View, implementation of the necessary widening and roadway improvements is not likely or feasible. Additionally, since any roadway improvements would be located outside of the City of Mountain View's jurisdiction, implementation of the roadway improvements cannot be guaranteed by the City. Therefore, no feasible mitigation	--	No feasible mitigation measures are identified for this impact.	--

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	measures have been identified; this impact would remain significant and unavoidable under Existing Plus General Plan Conditions.			
TRANS-2b: Under General Plan Conditions 2030, implementation of the proposed project would increase motor vehicle traffic and congestion, which would result in decreased roadway segment levels of service on several roadway study segments. This would be considered a potentially significant impact.	TRANS-2b: To improve the LOS, the roadway segments can be widened to meet the citywide level of service standard. Widening roadways will result in improved levels of service and decreased vehicle delays; however, the additional pavement width and crossing distance conflicts with the City's multi-modal goals and desire to better balance transportation investments. Alternatively, the City can consider potential operational improvements, such as signal timing and coordination, to ensure that the roadway system is optimized for safe and efficient traffic flow where these improvements are feasible and under the authority and jurisdiction of the City to implement. In the case of San Antonio Road between SB US 101 Ramps and Charleston Road, implementation of roadway widening cannot be guaranteed because this roadway segment is located outside the City of Mountain View's jurisdiction. While signal timing and coordination may reduce levels	City of Mountain View Community Development and Public Works Departments	Continue to explore implementation of measures identified in Mitigation Measure TRANS-2b.	Ongoing

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	of service impacts on some roadways, the City cannot be certain at this time that such improvements would fully mitigate these impacts and no other feasible mitigation measures have been identified as part of this General Plan planning-level analysis. Due to the conflicts with the City's multi-modal policies and physical constraints, these impacts would remain significant and unavoidable under General Plan Conditions 2030.			
TRANS-3a: Under Existing Plus General Plan Conditions 2009, implementation of the proposed project would increase motor vehicle traffic and congestion, which would result in decreased freeway segment levels of service on several freeway study segments. This would be considered a potentially significant impact.	TRANS-3a: To improve LOS, these freeway segments could be widened by one or more freeway lanes to meet the VTA and/or Caltrans level of service standard. While widening these freeways would result in improved levels of service and decreased vehicle delays, most of the freeways serving Mountain View are constrained by the available right-of-way and funding. Additionally, all segments are under Caltrans jurisdiction and the City of Mountain View cannot ensure that improvements to freeway segments are made. Therefore, this impact would remain significant and unavoidable.	City of Mountain View Community Development and Public Works Departments	Continue to explore implementation of the measures identified in Mitigation Measure TRANS-3a.	Ongoing

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
TRANS-3b: Under General Plan Conditions 2030, implementation of the proposed project would increase motor vehicle traffic and congestion, which would result in decreased freeway segment levels of service on several freeway study segments. This would be considered a potentially significant impact.	TRANS-3b: To increase the LOS, these freeway segments could be widened by one or more freeway lanes to meet the level of service standard. While widening these freeways would result in increased levels of service and decreased vehicle delays, most of the freeways serving Mountain View are constrained by the available right-of-way and funding. Additionally, all segments are under Caltrans jurisdiction and the City of Mountain View cannot ensure that improvements to freeway segments are made. Thus, implementation of the General Plan would have a significant and unavoidable impact on freeway segment LOS and no feasible mitigation measures have been identified that would reduce the impact to a less-than-significant level; this impact would remain significant and unavoidable under General Plan Conditions.	--	No feasible mitigation measures are identified for this impact.	--
TRANS-4a: Under Existing Plus General Plan Conditions 2009, implementation of the proposed project would increase motor vehicle traffic and congestion outside the City of Mountain View. This would be considered a significant and unavoidable	TRANS-4a: No feasible mitigation measures are available since implementation of the necessary improvements does not have complete funding available and the implementation of any roadway improvements cannot be guaranteed because the	--	No feasible mitigation measures are identified for this impact.	--

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
impact.	improvements would be located outside of the City of Mountain View's jurisdiction. Thus, implementation of the General Plan would remain a significant and unavoidable impact and no feasible mitigation measures have been identified that would reduce the impact to less-than-significant level.			
TRANS-4b: Under General Plan Conditions 2030, implementation of the proposed project would increase motor vehicle traffic and congestion outside the City of Mountain View. This would be considered a significant and unavoidable impact.	TRANS-4b: No feasible mitigation measures are available since implementation of the necessary improvements does not have complete funding available and the implementation of any roadway improvements cannot be guaranteed because the improvements would be located outside of the City of Mountain View's jurisdiction. Thus, implementation of the General Plan would remain a significant and unavoidable impact and no feasible mitigation measures have been identified that would reduce the impact to less-than-significant level.	--	No feasible mitigation measures are identified for this impact.	--
TRANS-5a: Under Existing Plus General Plan Conditions, implementation of the proposed project would increase traffic congestion, which may indirectly result in increased emergency response times. This would be considered a potentially significant	TRANS-5a: The City shall adopt the following new policy as part of the General Plan in order to maintain acceptable emergency response times in the existing plus project condition: Policy MOB 10.4: **Emergency response.**	City of Mountain View Community Development and Public Works Departments	Adoption of the identified policy within the General Plan and continued monitoring and implementation of appropriate measures to maintain emergency response time	Ongoing

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
impact.	Monitor emergency response times and where necessary consider appropriate measures to maintain emergency response time standards. Measures to ensure provision of adequate response times may include the expanded use of emergency vehicle signal preemption, evacuation route modifications, or the construction of new facilities (e.g., fire stations).		standards, if required.	
TRANS-5b: Under General Plan Conditions, implementation of the proposed project would increase traffic congestion, which may indirectly result in increased emergency response times. This would be considered a potentially significant impact.	TRANS-5b: Implement Mitigation Measure TRANS-5.	City of Mountain View Community Development and Public Works Department	Adoption of the identified policy within the General Plan and continued monitoring and implementation of appropriate measures to maintain emergency response time standards, if required.	Ongoing
D. Air Quality				
AIR-1: The General Plan and GGRP would not include all feasible control measures (particularly those related to goods movement and the heat island effect) consistent with the Bay Area Air Quality Management District (BAAQMD) 2010 Clean Air Plan resulting in a cumulatively considerable net increase in criteria air	AIR-1a: Amend the Infrastructure and Conservation chapter of the General Plan to include the following policies: Policy INC 20.4: **Maintain freight routes.** Identify and maintain primary freight routes that provide direct access to industrial and commercial areas.	City of Mountain View Community Development and Public Works Department	Adoption of the identified policies within the General Plan and identification and maintenance of freight routes.	Ongoing

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
pollutants.	Policy INC 20.5: **Truck access.** Plan industrial and commercial development to avoid truck access through residential areas, and minimize truck travel on streets designated Residential in the General Plan.			
	AIR-1b: Amend the Land Use and Design chapter of the General Plan as follows: Policy LUD 10.9: **Sustainable roofs.** Encourage sustainable roofs that reduce a building's energy use, reduce the heat island effect of new and existing development and provide other ecological benefits.	City of Mountain View Community Development and Public Works Department	Adoption of the identified policy amendment within the General Plan and continue to encourage installation of sustainable roofs.	Ongoing

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
AIR-2: Implementation of the General Plan and GGRP could contribute to or result in a violation of air quality standards in the existing and cumulative conditions by increasing VMT greater than the population increase.	AIR-2: Implement Mitigation Measure TRANS-1. Implementation of Mitigation Measure TRANS-1 and the policies and measures identified above would reduce the impact over time and would assist the City in considering additional measures that may be needed to reduce VMT; however, until such time additional measures can be incorporated, implementation of the proposed project would result in an increase in VMT that would be considered a significant and unavoidable impact.	City of Mountain View Community Development and Public Works Departments	Implement Mitigation Measure TRANS-1	Ongoing
AIR-3: Implementation of the General Plan and GGRP could contribute to or result in a violation of air quality standards in the existing and cumulative conditions from construction exhaust and particulate emissions.	AIR-3: Amend the Infrastructure and Conservation chapter of the General Plan to add the following new policies as follows: Policy INC 20.6: **Air quality standards.** Protect the public and construction workers from construction exhaust and particulate emissions. Action INC 20.6.1: Adopt and periodically update standard mitigation measures and development conditions for dust, particulate, and exhaust control standard measures for demolition and grading activities in compliance with the BAAQMD *CEQA Air Quality*	City of Mountain View Community Development and Public Works Departments	Adoption of the identified policy and action amendments within the General Plan and the adoption and periodic update of standard mitigation measures and development conditions for demolition and grading activities.	Ongoing

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	Guidelines.			
AIR-4: Implementation of the General Plan and GGRP would result in a cumulatively considerable net increase in ozone and particulate emissions.	AIR-4: Implement Mitigation Measures AIR-1, AIR-2 and AIR-3.	City of Mountain View Community Development and Public Works Departments	Implementation of Mitigation Measures AIR-1, AIR-2 and AIR-3.	Ongoing
AIR-5: Implementation of the General Plan could expose sensitive receptors to substantial pollutant concentrations under existing and cumulative conditions.	AIR-5: Amend the Infrastructure and Conservation chapter of the General Plan to include new policies and actions as follows: Policy INC 20.7: **Protect sensitive receptors.** Protect the public from substantial pollutant concentrations. Action INC 20.7.1: **Protection of sensitive receptors.** Adopt procedures to require health risk assessments, emissions analysis and risk reduction plans in accordance with BAAQMD-recommended procedures for sensitive land uses, and establish standard mitigation measures and development conditions to comply with BAAQMD standards.	City of Mountain View Community Development and Public Works Departments	Adoption of the identified policy and action amendments within the General Plan and adoption of procedures, standards, and development conditions related to emissions and sensitive receptors.	Ongoing
AIR-6: Implementation of the proposed General Plan and GGRP could result in the	AIR-6: Modify the Infrastructure and Conservation chapter of the General Plan to	City of Mountain View Community	Adoption of the identified policy and action amendments	Ongoing

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
exposure of residents to offensive odors under existing and cumulative conditions.	include new policies and actions as follows: Policy INC 20.8: **Offensive odors.** Protect residents from offensive odors. Action INC 20.8.1: **Odor Control:** Adopt and periodically update City Code regulations, standard mitigation measures and/or development conditions for sources of objectionable odors.	Development and Public Works Departments	within the General Plan and adoption and update of regulations, mitigation measure and development conditions for sources of objectionable odors.	
E. Global Climate Change				
There are no significant Global Climate Change impacts.				

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
F. Noise				
NOI-1: Increased traffic from projected development under the General Plan and GGRP would result in a significant increase in traffic noise levels compared to existing conditions in the 2030 and cumulative conditions along some roadway and freeway segments in the city.	NOI-1: Implementation of the policies and actions included in the General Plan would help to reduce the severity of the significant impact associated with an increase in traffic noise levels over existing conditions associated with development under the General Plan; however, no additional feasible mitigation measures are available to reduce this impact to a less-than-significant level. Therefore, this impact would remain significant and unavoidable.	City of Mountain View Community Development and Public Works Departments	Implementation of policies and actions identified in the General Plan.	Ongoing
G. Geology, Soils and Seismicity				
GEO-1: Implementation of the General Plan and GGRP could result in substantial risk related to geologic or seismic hazards.	GEO-1: Amend Action PSA 4.2.1 as follows: Action PSA 4.2.1: **Enforce building codes**. Enforce building and fire codes and standards. All development and construction proposals shall be reviewed by the City of Mountain View to ensure conformance to current and applicable building and fire code standards.	City of Mountain View Community Development and Public Works Departments	Adoption of the identified action amendment and review of development and construction proposals to ensure compliance with code standards.	Ongoing
GEO-2: Development associated with the General Plan or GGRP could result in	GEO-2: Add a new Action to Policy PSA 4.2	City of Mountain View Community	Adoption of the identified action amendment and adoption	Ongoing

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
damage to structures or property from expansive or corrosive soils.	as follows: Action PSA 4.2.6: **Geotechnical studies.** Adopt and periodically update a set of standard mitigation measures and development conditions related to geotechnical/soils investigation and environmental site assessments.	Development and Public Works Departments	and update of mitigation measures and development conditions related to site investigations.	
H. Hydrology and Water Quality				
There are no significant Hydrology or Water Quality impacts.				
I. Hazards and Hazardous Materials				
HAZ-1: Development under the General Plan and GGRP could contribute to an increase in public and environmental exposure to hazardous materials contamination in development areas.	HAZ-1: Add Action PSA 4.2.7 to the General Plan and GGRP as follows: Action PSA 4.2.7: **Hazardous materials contamination.** Adopt and periodically update a set of standard mitigation measures and development conditions to reduce the potential for contamination associated with hazardous materials related to areas adjacent to highways or previously used for agriculture or industrial uses.	City of Mountain View Community Development and Public Works Departments	Adoption of the identified action amendment and adoption and periodic update of mitigation measures and development conditions associated with hazardous materials.	Ongoing
HAZ-2: Development under the General Plan and GGRP could contribute to an	HAZ-2: Amend Action PSA 3.4.1 of the	City of Mountain View Community	Adoption of the identified action amendment and	Ongoing

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
increase in public and environmental exposure to hazardous materials from federal Superfund sites.	General Plan and GGRP as follows: Action PSA 3.4.1: **Monitor Moffett Field remediation of federal Superfund sites.** Monitor environmental remediation activities at Moffett Field federal Superfund sites within or adjacent to the City of Mountain View and ensure development in areas contaminated by federal Superfund sites implement appropriate measures to protect human health and the environment.	Development and Public Works Departments	monitoring of environmental remediation activities at federal Superfund sites.	
J. Biological Resources				
BIO-1: Implementation of the General Plan may result in the destruction of burrows occupied by burrowing owls.	BIO-1: Add Action LUD 16.1.2 under Policy LUD 16.1 of the General Plan as follows: Action 16.1.2: **Burrowing owl avoid-ance/protection during development.** Require preconstruction surveys and protection measures for burrowing owls prior to any North Bayshore development activities on parcels that a qualified biologist has determined provide suitable underground retreats (e.g., ground squirrel burrows, debris piles, storm drain inlets) that could be occupied by either breeding or	City of Mountain View Community Development and Public Works Departments	Adoption of the identified action amendment and preconstruction surveys for burrowing owls prior to development in the North Bayshore area.	Ongoing

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	wintering owls. Consultation with the California Department of Fish and Game shall be required for any site on which burrowing owls are found during the preconstruction survey.			
BIO-2: Implementation of the General Plan may result in impacts to Congdon's tarplant.	BIO-2: Add Action LUD 16.1.3 under Policy LUD 16.1 of the General Plan as follows: Action 16.1.3: **Special-status plant surveys.** Require preconstruction surveys for Congdon's tarplant and other special-status plant species prior to development of any ruderal or grassland habitat in the North Bayshore area in accordance with CDFG protocols.	City of Mountain View Community Development and Public Works Departments	Adoption of the identified action amendment and preconstruction surveys for special-status plant species prior to development in the North Bayshore area.	Ongoing
BIO-3: Implementation of the General Plan may result in the destruction of wildlife nursery sites such as active bird nests and/or bat roosts.	BIO-3: Revise Action LUD 10.2.1 and add Action LUD 10.2.2 under Policy LUD 10.2 of the General Plan as follows: Action LUD 10.2.2: **Protection of wildlife nursery sites.** Require preconstruction surveys for nesting birds and/or roosting bats prior to any development that involves the removal of vegetation and/or demoli-tion/restoration of abandoned	City of Mountain View Community Development and Public Works Departments	Adoption of the identified action amendment and requiring surveys for nesting birds and roosting bats prior to development.	Ongoing

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	structures (e.g., houses, barns, sheds, bridges).			
K. Cultural Resources				
CULT-1: Ground-disturbing activities associated with new development and redevelopment allowed under the General Plan and GGRP could adversely affect archaeological deposits that qualify as historic resources or archaeological resources under CEQA.	CULT-1: The following new policy and actions shall be included in the Land Use and Design element of the General Plan: Policy LUD 11.5: **Protect important archaeological and paleontological sites.** Utilize the development review process to identify and protect archaeological and paleontological deposits. Action LUD 11.5.1: **Review Historic Property Directory List.** Prior to approval of development permits for projects that include ground-disturbing activities, City staff shall review the most recent and updated Northwest Information Center list: Historic Property Directory for the County of Santa Clara, to determine if known archaeological and paleontological sites underlie the proposed project. If it is determined that known cultural resources are within 0.25 mile of the project site, the City shall require the	City of Mountain View Community Development and Public Works Departments	Adoption of the identified policy and action amendments and implementation of the actions during the development review process.	Ongoing

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	project applicant to conduct a records search at the Northwest Information Center at Sonoma State University to confirm whether there are any recorded cultural resources within or adjacent to the project site. Based on that research, the City shall determine whether field study by a qualified cultural resources consultant is recommended. Action LUD 11.5.2: **Pre-construction cultural resource surveys.** Should City staff determine that field study for cultural resources is required, the project applicant shall have a cultural resource professional meeting the Secretary of the Interior's Standards in history and/or archaeology conduct a pre-construction survey to identify significant cultural resources – including archaeological sites, paleontological resources, and human remains – in the project site and provide project-specific recommendations, as needed. Coordination with local Native American communities should be done when significant cultural resources and remains are identified as part of			

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	pre-approval site analysis. Action LUD 11.5.3: **Archaeological and paleontological standard conditions.** Adopt and periodically update a set of standard mitigation measures and development conditions to address the discovery and identification of archaeological and paleontological deposits.			
CULT-2: Ground-disturbing activities associated with new development and redevelopment allowed under the General Plan and GGRP could adversely affect significant paleontological deposits under CEQA.	CULT-2: Implement Mitigation Measure CULT-1 to determine the potential for paleontological deposits within a project site and to ensure project-specific mitigations for such resources are incorporated as conditions of project approval.	City of Mountain View Community Development and Public Works Departments	Implementation of Mitigation Measure CULT-1.	Ongoing
CULT-3: Ground-disturbing activities associated with new development and redevelopment allowed under the General Plan and GGRP could adversely affect human remains interred outside of formal cemeteries.	CULT-3: Implement Mitigation Measure CULT-1 to identify significant archaeological resources, including those that contain human remains. In addition, the following new policy and action shall be included in the Land Use and Design element of the General Plan: Policy LUD 11.6: **Protect Human Remains.** Utilize the development review process to identify and protect human remains and	City of Mountain View Community Development and Public Works Departments	Adoption of the identified policy and action amendment and ongoing adherence to the action should human remains be identified during development or redevelopment within the city.	Ongoing

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	follow the appropriate procedures outlined under Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98. Action LUD 11.6.1: **Human Remains**. Should human remains be found on a project site, no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains shall be disturbed until the Santa Clara County Coroner is contacted and determines that no investigation of the cause of death is required. If an investigation is required, and the coroner determines the remains to be Native American then (1) the coroner would contact the Native American Heritage Commission within 24 hours; (2) the Native American Heritage Commission would identify the person or persons it believes to be the most likely descended from the deceased native American; and (3) the most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with			

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.			
L. Public Services				
PS-1: New growth and development associated with implementation of the General Plan and GGRP would generate a demand for police protection services beyond the existing police department capacity and may result in the need for additional staff and facilities.	PS-1: Amend the General Plan to include the following new policy and action: Policy PSA 2.6: **Police service levels and facilities.** Ensure Mountain View Police Department service levels and facilities meet demands from new growth and development. Action PSA 2.6.1: **Police service levels and facilities**. Periodically review Police Department service levels and facility needs based on the most recent City studies and recommendations.	City of Mountain View Community Development Department	Adoption of the identified policy and action and continues monitoring and review of Police Department service levels and facility needs.	Ongoing
PS-2: Growth at full implementation of the General Plan would exceed the capacity of public school facilities and may result in the need for additional facilities to maintain acceptable service ratios.	PS-2: Amend the General Plan to include the following new policies: Policy POS 5.6: Ensure that schools serving new development are constructed concurrent with the needs of the community, to the extent allowed by state law.	City of Mountain View Community Development Department	Adoption of the identified policies and ongoing collaboration with local school districts regarding facility needs.	Ongoing

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	Policy POS 5.7: Collaborate with local school districts on their facility needs and identification of appropriate locations for school sites.			
M. Utilities				
There are no significant Utilities impacts.				
N. Visual and Aesthetic Resources				
VIS-1: Development projects under the General Plan and GGRP could increase the amount of light and glare in Mountain View.	VIS-1: The General Plan shall be amended to include the following policy in the Land Use and Design chapter of the General Plan: Policy LUD-#: **Light and glare.** Minimize light and glare from new development. Action **##.##: Light Standards.** Adopt and periodically update a set of City Code regulations, standard mitigation measures and/or development conditions to minimize off-site light and glare from new development.	City of Mountain View Community Development and Public Works Departments	Adoption of the identified policy and action amendments and adoption and update of mitigation measures and development conditions related to light and glare from new development.	Ongoing

Source: LSA Associates, Inc., 2012.

2.0 PROJECT DESCRIPTION

The City of Mountain View (Figure 1) owns, operates, and maintains a potable water distribution system that provides water throughout the city (Figure 2). The City's municipal water system services three pressure zones and consists of three wholesale water turnouts, four reservoirs, three pumping stations, seven active groundwater supply wells, and underground pipes of varying composition, ages, and sizes. Storage in the water system is provided by the reservoirs distributed throughout the City's three pressure zones. Because the Mountain View topography slopes primarily downward from the hills to the San Francisco Bay, the City's water distribution system requires the pressure zones to provide customers at varying elevations with water at a reasonable pressure.

Following the completion of the 1990 Water System Study, the City adopted a CIP that focused on capital expenditures to improve the backbone infrastructure of the water distribution system based on hydraulic sufficiency. The City focused on high-priority, major infrastructure improvements while continuing to maintain the existing water system and replace aging infrastructure. Results from the City's most recent 2010 Water Master Plan (WMP) showed that the distribution system generally performs well and meets the design criteria during maximum day and peak hour conditions. However, during maximum day plus fire flow conditions, the existing system does not meet the design criteria at about 1.5 percent of the "junctions" in its testing model and, as a result, a prioritized list of proposed water pipeline improvements has been created. A total of 24,844 linear feet of pipeline replacements from the WMP were proposed in the General Plan Update Utility Impact Study (GPUUIS) and previously analyzed as part of the build-out of the City evaluated in the 2012 EIR.

In 2014, the City contracted a review of the water system model for consistency with the written content of the GPUUIS and City water infrastructure records (Appendix A). The system demands within the existing water system model were consistent with the City's 2010 WMP. The GPUUIS report identifies an average daily demand increase of close to 20 percent for future planning year 2030, when comparing the WMP land uses to the 2030 General Plan land uses. The model was updated with the revised average daily demands based upon the parcel information and demand changes identified in the GPUUIS.

The review also looked at the model network for consistency with the City's water system Block Maps, GIS shapefiles, and as-built plans. Several inconsistencies were discovered and corrected based upon verification communications with City operations personnel. A revised list of infrastructure upgrades was developed using the hydraulic computer model to identify deficiencies, and then increasing conveyance capacity by either (1) increasing existing pipe sizes (replacement) , (2) installing new pipes parallel to existing or (3) installing new pipes where none existed until deficiencies are eliminated. A capital improvement project list was developed as a tool for the City to assess the need for infrastructure improvements to adequately serve future demands as the City increases growth.

2.1 PROPOSED PROJECT

The complete revised water infrastructure CIP is listed below in Table 2 and shown on Figure 2. The revised network components include pipe sizes and connections, pump station piping configurations, valve operation and configurations, and junction elevations, resulting in a revised need for a total of 80,095 linear feet of pipeline replacements, 4,600 feet of which would be new pipes that would be installed parallel to existing pipes and 11,865 are new pipes. Where improvements also identified in 2010 appear in the table, the 2010 reference ID for that improvement is included. Of the 28 improvements found in the 2010 WMP not carried forward, 10 were constructed as part of the ongoing CIP implementation and 18 were determined to no longer be necessary.

Table 2 Recommended Hydraulic Improvements

2014 Project ID	2010 Project ID	Location	Length (ft)	Existing Diameter (in) *	New Diameter (in)	N – New R – Replace P - Parallel	Unit Cost	Total Cost
1		Bryant Ave, btw Brower Ave and Lubich Dr	550	8	12	R	$210	$115,500
2		Hospital Dr, btw North Dr and South Dr	1135	8	12	R	$210	$238,350
3		Miramonte Ave, btw Gest Dr and Amilfi Way	520	12	16	R	$300	$156,000
4		Overland, btw Miramonte Ave and Hospital Dr	1550	-	16	N	$300	$465,000

2014 Project ID	2010 Project ID	Location	Length (ft)	Existing Diameter (in) *	New Diameter (in)	N – New R – Replace P - Parallel	Unit Cost	Total Cost
5		North Dr, btw Hospital Dr and Grant Rd	1290	8	12	R	$210	$270,900
6	P-17 P-18	Begen Ave and Bond Way, south of Cuesta Dr	1050	4/6	8	R	$130	$136,500
7		Martins Ave, btw Grant Rd and Barcelona Ct	1480	-	8	N	$130	$192,400
8	P-9	Lee Dr, btw Tulane Dr and Duke Way	830	4	8	R	$130	$107,900
9	P-7	Tulane Ct, south of Tulane Dr	420	4	8	R	$130	$54,600
10	P-8	Cornell Dr, btw Tulane Dr and Duke Way	880	4	8	R	$130	$114,400
11	P-10	Marilyn Dr, btw Springer Rd and Meadow Ln	900	4	12	R	$210	$189,000
12	P-13	Ernestine Ln, btw Ronden Ct and Lloyd Way	1220	4	8	R	$130	$158,600
13	P-12	Todd St, btw Dennis Ln and Mountain View Ave	1320	4	8	R	$130	$171,600
14	P-11	Gilmore St, btw Dennis Ln and Mountain View Ave	1360	4/6	8	R	$130	$176,800
15		Rich Ave, south of El Camino Real	605	6	8	R	$130	$78,650
16	P-5	Anthony Ct, east of Blackfield Way	230	4	8	R	$130	$29,900
17	P-4	Judson Dr, btw Marich Way and Jardin Dr	1065	4	8	R	$130	$138,450
18	P-2	Marich Way, btw Karen Way and Clark Ave	830	8	12	R	$210	$174,300
19		El Camino Real, east	305	8	12	R	$210	$64,050

2014 Project ID	2010 Project ID	Location	Length (ft)	Existing Diameter (in) *	New Diameter (in)	N – New R – Replace P - Parallel	Unit Cost	Total Cost
		of Yuba Dr						
20		El Camino Real, west of Crestview Dr	665	8	12	R	$210	$139,650
21		Pioneer Way, south of E. Dana St	735	8	12	R	$210	$154,350
22		Mercy St, east of Calderon Ave	1350	6	8	R	$130	$175,500
23		Dalma Dr, east of Calderon Ave	810	4	8	R	$130	$105,300
24		E. Evelyn Ave, btw Kittyhawk Way and Ferry Morse Way	65	-	12	N	$210	$13,650
25		Kittyhawk Way, south of E. Evelyn Ave	595	8	12	R	$210	$124,950
26		Overland, btw Towne Cir and College Ave	240	-	8	N	$130	$31,200
27		Showers Dr, south of Sondgroth Way	295	-	8	N	$130	$38,350
28		Latham St, east of Showers Dr	680	8	12	R	$210	$142,800
29	P-21	El Camino Real, west of San Antonio Rd	1545	8	12	R	$210	$324,450
30		Fayette Dr, btw Del Medio Ave and San Antonio Rd	500	8	12	R	$210	$284,550
			665	8	14	R	$270	
31		Miller Ave, west of San Antonio Rd	405	10	12	R	$210	$85,050
32		California St, west of San Antonio Rd	375	8	12	R	$210	$78,750
33		Del Medio Ct and Monroe Dr, west of Del Medio Ave	310	6	8	R	$130	$225,100
			880	8	12	R	$210	
34		E. Evelyn Ave and S. Bernardo Ave	365	8	12	R	$210	$76,650
35		Central Expy, btw Ravendale Dr and N. Bernardo Ave	1550	-	12	N	$210	$325,500

2014 Project ID	2010 Project ID	Location	Length (ft)	Existing Diameter (in) *	New Diameter (in)	N – New R – Replace P - Parallel	Unit Cost	Total Cost
36		Whisman Station Dr, btw Miranet Ave and Beverly St	400	-	8	N	$130	$52,000
37		Easy St, Central Expy, and Ada Ave	970	8	12	R	$210	$203,700
38		N. Whisman Rd, btw Skyview Ct and Gladys Ave	230	-	8	N	$130	$29,900
39		Flynn Ave, west of N. Whisman Rd	370	6	8	R	$130	$48,100
40	P-38	Walker Dr, west of N. Whisman Rd	1060	6	8	R	$130	$137,800
41		N. Whisman Rd, btw Walker Dr and Whisman Ct	275	-	12	N	$210	$57,750
			-	-	PRV			$125,000
42		N. Whisman Rd, btw Fairchild Dr and Walker Dr	1550	8	12	Rn	$210	$325,500
43		National Ave, west of Ellis St	745	8	12	R	$210	$156,450
44		Clyde Ct, south of Clyde Ave	380	8	12	R	$210	$79,800
45		Easy St, north of Walker Dr	400	6	8	R	$130	$52,000
46		Jackson Alley, south of Jackson St	325	-	8	N	$130	$42,250
47		Granada Dr, btw PCJPB ROW and Wright Ave	700	8	12	R	$210	$147,000
			100	-	Casing	R	$800	
48		Central Expy, btw Silverwood Ave and Farley St	275	8	12	R	$210	$57,750
49		Central Expy Crossing, near Escuela Ave	100	-	12	N	$210	$101,000
			100	-	Casing	N	$800	
50		Central Expy, west of	1115	16	18	R	$210	$234,150

2014 Project ID	2010 Project ID	Location	Length (ft)	Existing Diameter (in) *	New Diameter (in)	N – New R – Replace P - Parallel	Unit Cost	Total Cost
		Escuela Ave						
51		N. Shoreline Blvd, btw Terra Bella Ave and Sterlin Rd	2250	-	16	P	$300	$675,000
52		N. Shoreline Blvd, btw La Avenida St and Terra Bella Ave	1900	-	16	P	$300	$1,450,000
			1100	-	Casing	P	$800	
53		N. Shoreline Blvd, btw Plymouth St and La Avenida St	1000	12	16	R	$300	$300,000
54		US 101 Crossing, btw Macon Ave and San Rafael Ave	940	-	12	N	$210	$597,400
			500	-	Casing	N	$800	
55		Rock St, btw Telford Ave and Camp Ave	605	6	8	R	$130	$78,650
56		Armand Ave, btw Villa and La Avenida St	345	8	12	R	$210	$72,450
57		Armand Ave, btw Pear Ave and Villa	700	-	12	N	$210	$147,000
58		Armand Ave, btw Space Park Way and Pear Ave	645	-	12	N	$210	$135,450
59		Pear Ave, btw N. Shoreline Blvd and Armand Ave	1400	8	12	R	$210	$294,000
60		Space Park Way, btw N. Shoreline Blvd and Armand Ave	1285	8	12	R	$210	$269,850
61		Shorebird Way, south of Charleston Rd	570	-	12	N	$210	$119,700
62		N. Shoreline Blvd, btw Amphitheatre Pkwy and Charleston Rd	1050	12	16	R	$300	$315,000
63		Crittenden Ln, east of N. Shoreline Blvd	375	8	12	R	$210	$78,750
64		Joaquin Rd, btw Charleston Rd and	1305	8	12	R	$210	$274,050

2014 Project ID	2010 Project ID	Location	Length (ft)	Existing Diameter (in) *	New Diameter (in)	N – New R – Replace P - Parallel	Unit Cost	Total Cost
		Plymouth St						
65		Huff Ave, btw Charleston Rd and Plymouth St	1480	8	12	R	$210	$310,800
66		Overland, south of Joaquin Rd and Plymouth St	535	8	12	R	$210	$112,350
67		Plymouth St, btw Alta Ave and Huff Ave	2135	8	12	R	$210	$448,350
68		Parallel Permanente Creek, north of Old Middlefield Way	480	12	14	R	$270	$129,600
69		Old Middlefield Way, btw N. Rengstorff Ave and Telford Ave	1835	12	16	R	$300	$550,500
70		W. Middlefield Rd, btw Fairview Dr and Alvin St	405	6	8	R	$130	$52,650
71		Old Middlefield Way, btw Alvin St and Independence Ave	845	8	12	R	$210	$177,450
72		Independence Ave, btw Wyandotte St and Old Middlefield Way	745	8	12	R	$210	$156,450
73		Wyandotte St, west of Independence Ave	1210	8	12	R	$210	$254,100
74		Independence Ave, btw Leghorn St and Wyandotte St	865	8	12	R	$210	$181,650
75		Leghorn St, west of Independence Ave	1045	8	12	R	$210	$219,450
76		Leghorn St, btw Independence Ave and N. Rengstorff Ave	1105	8	12	R	$210	$232,050
77		Independence Ave, btw Charleston Rd and Leghorn St	890	8	12	R	$210	$186,900
78	P-39	Charleston Rd, west of Independence Ave	1025	8	12	R	$210	$215,250

2014 Project ID	2010 Project ID	Location	Length (ft)	Existing Diameter (in) *	New Diameter (in)	N – New R – Replace P - Parallel	Unit Cost	Total Cost
79		Charleston Rd, btw Independence Ave and N. Rengstorff Ave	960	8	12	R	$210	$201,600
80		US 101 Crossing, near Rengstorff Ave	450	-	12	P	$210	$454,500
			450	-	Casing	P	$800	
81		Overland, east of Salado Dr	320	12	16	R	$300	$96,000
82		Salado Dr, btw Garcia Ave and Bayshore Pkwy	810	8	12	R	$210	$170,100
83		Garcia Ave, btw Salado Dr and Amphitheatre Pkwy	1045	8	12	R	$210	$219,450
84		Charleston Rd, btw Amphitheatre Pkwy and Landings Dr	990	8	12	R	$210	$207,900
85		Garcia Ave, west of Salado Dr	935	8	12	R	$210	$196,350
86		Garcia Ave, east of Marine Way	525	8	12	R	$210	$110,250
87		Overland, btw golf course and Garcia Ave	595	-	12	N	$210	$124,950
88		Overland, btw Coast Ave and Garcia Ave	1000	-	12	N	$210	$210,000
89		Overland, btw Casey Ave and Coast Ave	515	-	12	N	$210	$108,150
90		Broderick Way, btw Terminal Blvd and Casey Ave	520	8	12	R	$210	$109,200
91		Terminal Blvd, btw San Antonio Rd and Broderick Way	760	8	12	R	$210	$159,600
92		Bayshore Pkwy and San Antonio Road, north of Garcia Ave	2355	8	12	R	$210	$494,550
93	P-41	Overland at golf course	760	8	12	R	$210	$159,600

2014 Project ID	2010 Project ID	Location	Length (ft)	Existing Diameter (in) *	New Diameter (in)	N – New R – Replace P - Parallel	Unit Cost	Total Cost
94	P-33	Laura Ln, east of Thompson Ave	120	4	8	R	$130	$15,600
		Water System Hydraulic Improvements						$18,742,450

The CIP would be implemented as needed over the lifespan of the General Plan to allow for the system to be gradually upgraded as development and demand progress.

2.2 CONSTRUCTION

Water pipeline improvements would be installed utilizing traditional trenching techniques within existing developed areas, paved roads, and utility right-of-way(s). Construction activities would consist of pavement saw cutting, pipe removal and replacement, traffic control, installation of miscellaneous appurtenances, excavation, bedding, and backfill for most construction. Directional drilling could be used for installations under larger roads and freeways. In a small number of cases, pipes could be hung under the decks of local bridges.

Replacement of each 750 feet of pipeline can be completed within a standard business week (Monday-Friday) primarily during daytime construction hours (7:00 a.m. – 6:00 p.m.) or if at night, as allowable under the Construction Noise ordinance, Section 8.70.1 of the City of Mountain View's Municipal Code.

2.3 OPERATIONS

Once installed, pipelines would be subject to periodic inspection and maintenance consistent with existing procedures.

3.0 ENVIRONMENTAL IMPACT ANALYSIS

This chapter provides environmental analyses of the physical impacts that could occur as a result of implementation of the water infrastructure changes described above. The environmental and regulatory settings described in the *City of Mountain View 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report (EIR),* certified on July 10, 2012 (LSA Associates 2012), also apply to this Addendum analysis, and no additional settings are provided.

Chapter 3.0 presents each environmental resource topic impact analysis in its own section, as follows.

- 3.1 Air Quality;
- 3.2 Biological Resources;
- 3.3 Cultural Resources;
- 3.4 Geology, Soils, and Seismicity;
- 3.5 GHG Emissions and Climate Change;
- 3.6 Hazards and Hazardous Materials;
- 3.7 Hydrology and Water Quality;
- 3.8 Noise;
- 3.9 Public Services and Recreation;
- 3.10 Transportation and Circulation;
- 3.11 Utilities and Infrastructure; and
- 3.12 Other CEQA-required Sections.

Impacts are evaluated using the same analysis approaches presented in the 2012 EIR, which identified the criteria of significance, then evaluated the effects of the 2030 General Plan and GGRP. In this Addendum, impacts are determined by whether or not implementation of the proposed changes would result in substantial additional impacts other than what were programmatically identified in the 2012 EIR.

3.1 AIR QUALITY

This chapter summarizes the potential air quality impacts related to the implementation of the changes to water infrastructure improvements, compared with what was analyzed in the 2012 EIR for the City of Mountain View 2030 General Plan and GGRP.

3.1.1 Environmental Setting

The Environmental Setting described in the 2012 EIR also applies to this Addendum. No additional environmental setting is provided.

3.1.2 Regulatory Setting

The Regulatory Setting described in the 2012 EIR also applies to this Addendum. No additional regulatory setting is provided.

3.1.3 Impact Analysis

State CEQA Guidelines Appendix G identifies significance criteria to be considered for determining whether a project could have significant impacts on existing air quality. According to these guidelines, an impact would be considered significant if construction or operation would result in any of the following.

1. Conflict with or obstruct implementation of the current air quality plan;
2. Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
3. 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);
4. Expose sensitive receptors or the general public to substantial pollutant concentrations as defined by federal or state air quality standards; or
5. Create objectionable odors affecting a substantial number of people.

According to the Bay Area Air Quality Management District (BAAQMD) CEQA Air Quality Guidelines, to meet the threshold of significance for operational-related criteria air pollutant and precursor impacts, a proposed plan must satisfy the following criteria: Consistency with

current air quality plan (AQP) control measures (this requirement applies to project-level as well as plan-level analyses); and a proposed plan's projected VMT or vehicle trips (VT) increase is less than or equal to its project population increase. The applicable air quality plan for the purpose of this analysis is BAAQMD's 2010 Clean Air Plan (2010 Bay Area Clean Air Plan).

A plan would also have a significant air quality impact related to criteria air pollutants and precursors if it would cause the rate of increase in VMT or VT to be greater than the rate of increase in population.

For toxic air contaminants, the BAAQMD CEQA Air Quality Guidelines also call for showing special overlay zones around existing and planned sources of toxic air contaminants and overlay zones of at least 500 feet from all freeways and high volume roadways.

Impact AQ-1	**Conflict with or obstruct implementation of the current air quality plan.**
Level of Impact	**Less than Significant**

The 2012 EIR found that implementation of 2010 Bay Area Clean Air Plan policies for reducing GHG emissions and improving air quality work in tandem with the GGRP and other General Plan policies would reduce stationary and mobile sources of municipal and community-wide emissions and improve air quality throughout the city. Implementation of Mitigation Measures AIR-1a and AIR-1b (Table 1) would mitigate the potential for the General Plan and GGRP to disrupt or hinder implementation of any control measures in the Clean Air Plan and would incorporate all applicable air quality plan control measures of the 2010 Clean Air Plan. Impacts were determined in the 2012 EIR to be less than significant after mitigation. Mitigation Measures AIR-1a and AIR-1b address General Plan policies involving freight routes, truck access, and sustainable roofs.

While the proposed water infrastructure improvement changes would increase the amount of construction and consequent emissions for such improvements, the development of CIP improvements was analyzed in the 2012 EIR as part of the anticipated build-out proposed under the General Plan. Effective mitigation measures and General Plan policies were proposed to reduce impacts to a less-than-significant level. The proposed increase is not substantial within the larger scale of

development proposed under the General Plan and impacts associated with the CIP are temporary. Therefore, the proposed project change would not result in a new or substantially more severe impact than disclosed in the 2012 EIR and would be less than significant.

Impact AQ-2	**Violate any air quality standard or contribute substantially to an existing or projected air quality violation.**
Level of Impact	**Significant and Unavoidable for Operation Less than Significant for Construction**

As noted in Section 3.1.3 *Impact Analysis* and in the 2012 EIR, to evaluate this significance criterion for general plan projects, according to the BAAQMD's CEQA Air Quality Guidelines, a general plan would meet air quality standards for operational-related criteria air pollutant and air precursor impacts, if it satisfies the following criteria: 1) consistency with current air quality plan control measures and 2) the percentage of the general plan's projected VMT increase is less than or equal to its project population increase. Additionally, construction of the development allowed under the Draft General Plan could generate dust and exhaust emissions that could violate air quality standards.

Consistency with the BAAQMD's 2010 Clean Air Plan is discussed under Impact AQ-1, and as indicated, the Draft General Plan and GGRP would be consistent with air quality control measures associated with the Clean Air Plan with implementation of Mitigation Measure AIR-1a and AIR-1b. The proposed water infrastructure improvement changes would not result in any new or substantially more severe significant impacts.

The 2012 EIR determined that implementation of the General Plan and GGRP with the associated Transportation Demand strategies would result in a VMT increase greater than the population. This would be considered a significant and unavoidable impact associated with future land use in the city even with the proposed feasible mitigation measures and General Plan policies proposed. The proposed changes to the water infrastructure improvement program are within the scope of construction activities evaluated in the EIR and would not be substantial within the context of the overall development build-out contemplated in the 2012 EIR.

As explained in the 2012 EIR, the BAAQMD CEQA Guidelines suggest that the significance of construction period emissions should be based on implementation of a set of feasible control measures designed to reduce particulate and exhaust emissions near construction sites. For construction-related impacts, similar to those resulting from the proposed changes to the water infrastructure CIP, the City proposed Mitigation Measure AIR-3 in the 2012 EIR, which requires the City to adopt and

periodically update standard mitigation measures and development conditions for dust, particulate, and exhaust control measures for demolition and grading in compliance with BAAQMD CEQA Air Quality Guidelines. At a minimum, the mitigation measures and conditions are required to conform to construction mitigation measures recommended in the current BAAQMD CEQA Air Quality Guidelines. This mitigation would also apply to the proposed water infrastructure improvements and would result in less-than-significant impacts for temporary construction activities. Thus, the proposed changes would be considered less than significant for construction. Therefore, the proposed project change would not result in a new or substantially more severe impact than disclosed in the 2012 EIR.

Impact AQ-3	**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).**
Level of Impact	**Significant and Unavoidable**

As described in the 2012 EIR, at the General Plan level, consistency with the Clean Air Plan would indicate the project would not result in a cumulative considerable net increase of any criteria pollutant. While the General Plan includes policies and actions that reduce air emissions, Mitigation Measures AIR-1, AIR-2 and AIR-3 would also be required to reduce criteria air pollutant emissions and reduce air impacts to a less-than-significant level.

Nevertheless, General Plan implementation would cause the average trip length in the Year 2030 to increase, resulting in a VMT growth greater than population growth and a cumulatively considerable net increase in ozone precursor emissions. Therefore, the 2012 EIR found that implementation of the General Plan would contribute at the project level and under cumulative conditions to a net increase in cumulatively considerable criteria air pollutants by releasing emissions greater than those anticipated under the region's Clean Air Plan. Implementation of Mitigation Measures AIR-1, AIR-2 and AIR-3 would help the City reduce this impact over time, but the impact would remain a significant and unavoidable impact.

Although the proposed water infrastructure changes would increase contributions to an already significant and unavoidable impact, the proportional contribution of the proposed changes would not be considered substantial. . Therefore, the proposed project change would not result in a new or substantially more severe impact than disclosed in the 2012 EIR.

Impact AQ-4	**Expose sensitive receptors or the general public to substantial pollutant concentrations as defined by federal or state air quality standards.**
Level of Impact	**Less than Significant**

The 2012 EIR determined that with implementation of Mitigation Measure AIR-5 (See Table 1), requiring the inclusion of policies and actions that provide program-level mitigation for exposure to toxic air contaminants, potential impacts would be less than significant. While the proposed water infrastructure improvement changes would increase the amount of construction and potential exposure to sensitive receptors due to the consequent emissions for such improvements, implementation of CIP improvements were considered in the 2012 EIR and effective mitigation measures and General Plan policies were proposed to reduce impacts to a less-than-significant level. The proposed increase is not substantial within the larger scale of development proposed under the General Plan and impacts associated with the CIP are temporary in duration. As such, impacts associated with the proposed changes would be less than significant.

Impact AQ-5	**Create objectionable odors affecting a substantial number of people.**
Level of Impact	**No Impact**

The 2012 EIR determined that Implementation of Mitigation Measure AIR-6 would provide for adequate buffers between sources of odors and sensitive receptors, mitigating the effects of odors on sensitive receptors under existing conditions and new residences or sensitive receptors to a less-than-significant level.

Construction and operation of the additional proposed water infrastructure improvements would not produce any offensive odors and there would be no impact.

3.1.4 Cumulative Impacts

The proposed water infrastructure changes would not substantially contribute to the overall impacts associated with implementation of the General Plan. The proposed water infrastructure changes would not conflict with the BAAQMD 2010 Bay Area Clean Air Plan nor create cumulative impacts associated with construction emissions and exposure of sensitive receptors to substantial pollutant concentrations or odors.

The proposed changes, while not substantial, would perpetuate significant and unavoidable cumulative impacts associated with the net increases in criteria pollutants and violation of air quality standards that occur under the General Plan.

3.2 BIOLOGICAL RESOURCES

This chapter summarizes the potential biological resource impacts related to the implementation of the changes to the water infrastructure improvements, compared with what was analyzed in the 2012 EIR for the City of Mountain View 2030 General Plan and GGRP.

3.2.1 Environmental Setting

The Environmental Setting described in the 2012 EIR also applies to this Addendum. No additional environmental setting is provided.

3.2.2 Regulatory Setting

The Regulatory Setting described in the 2012 EIR also applies to this Addendum. No additional regulatory setting is provided.

3.2.3 Impact Analysis

The State CEQA Guidelines Appendix G identifies significance criteria to be considered for determining whether a project could have significant impacts on Biological Resources. According to these guidelines, an impact would be considered significant if construction or operation would result in any of the following.

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
3. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act through direct removal, filling, hydrological interruption, or other means;
4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Impact BIO-1	**Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?**
Level of Impact	**Less than Significant**

The 2012 EIR determined that, combined with state and federal regulatory requirements, the policies and actions in the proposed General Plan would reduce impacts to special-status plants and animals to a less-than significant level.

All the proposed water infrastructure projects would be built within existing developed areas, paved roads, and utility right-of-way(s) and would have negligible impacts on habitat for special-status species. Tree trimming could potentially be required for getting equipment access to sites and could potentially impact nesting birds. General Plan Policy INC 16.3, which pertains to the general protection and enhancement of nesting, foraging, and other habitat for special-status species and other wildlife, would reduce potential impacts to less than significant.

Impact BIO -2	**Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?**
Level of Impact	**No Impact**

Riparian habitat within the Planning Area is limited to the riparian woodland along Stevens Creek. The 2012 EIR determined that implementation of General Plan policies and actions will ensure that the habitat value of the Stevens Creek riparian woodland is retained, and impacts from development under the General Plan would be less than significant.

All proposed water infrastructure projects would be built within existing developed areas, paved roads, and utility right-of-way(s) and would have no impact on riparian habitat or any other sensitive natural community.

Impact BIO -3	**Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**
Level of Impact	**No Impact**

The 2012 EIR determined that implementation of General Plan policies and actions will reduce impacts to federally protected wetlands to a less-than-significant level and no additional mitigation measures are required.

All the proposed water infrastructure projects would be within existing developed areas, paved roads, and utility right-of-way(s) and would have no impact on wetlands and other waters.

Impact BIO -4	**Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**
Level of Impact	**Less than Significant**

The 2012 EIR disclosed that future development in the Planning Area could impact active bird nests protected by the Migratory Bird Treaty Act and California Fish and Game Code if vegetation removal is conducted during the nesting season (approximately March through August). The 2012 EIR determined that implementation of General Plan policies and actions, including mitigation measures to protect wildlife nursery sites, would reduce potential impacts on wildlife corridors and nursery sites to a less-than significant level.

Tree trimming could potentially be required for getting equipment access to water infrastructure CIP sites and could potentially impact nesting birds. Policy INC 16.3, which pertains to the general protection and enhancement of nesting, foraging, and other habitat for special-status species and other wildlife, coupled with Action LUD 10.2.2 that requires preconstruction surveys for nesting birds, would reduce potential impacts to less than significant.

Impact BIO -5	**Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**
Level of Impact	**No Impact**

The 2012 EIR determined that implementation of the City's Heritage Tree Ordinance and General Plan policies and actions will reduce potential impacts to Heritage trees to a less-than-significant level and no additional

mitigation measures are required. While tree trimming could potentially be required for getting equipment access to sites, no trees would be removed as part of the construction of water infrastructure improvements and there would be no impact.

Impact BIO -6	**Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**
Level of Impact	**No Impact**

No portions of the Planning Area are subject to approved local, regional, or state conservation plans. The proposed water infrastructure CIP changes will have no impact on approved conservation plans and no additional mitigation measures are required.

3.2.4 Cumulative Impacts

The 2012 EIR explained that the Planning Area contains several regionally important biological resources. The tidal marsh, tidal mudflat, and salt pond habitats in the northern portion of the Planning Area are part of the larger South Bay ecosystem that supports numerous special-status wildlife species as well as large numbers of migrating and wintering waterbirds (e.g., shorebirds and waterfowl). The burrowing owl population at Shoreline Regional Park is one of the few locations in the South Bay where this species has persisted while disappearing from other areas due to development. The 2012 EIR determined, however, that implementation of the General Plan is not expected to contribute to cumulative impacts to these biological resources, since they are located in protected areas in and adjacent to Shoreline Regional Park where no future development will occur under the General Plan. The remainder of the Planning Area is already surrounded by development and sensitive biological resources in these areas are limited. As such, implementation of the General Plan will not impact biological resources in surrounding areas. As the proposed changes to the water infrastructure improvements would result in no or negligible impacts to biological resources, the changes would not result in new or substantially more severe cumulative impacts.

3.3 CULTURAL RESOURCES

This chapter summarizes the potential cultural resource impacts related to implementation of the changes to the water infrastructure improvements, compared with what was analyzed in the 2012 EIR for the City of Mountain View 2030 General Plan and GGRP.

3.3.1 Environmental Setting

The Environmental Setting described in the 2012 EIR also applies to this Addendum. No additional environmental setting is provided.

3.3.2 Regulatory Setting

The Regulatory Setting described in the 2012 EIR also applies to this Addendum. No additional regulatory setting is provided.

3.3.3 Impact Analysis

The State CEQA Guidelines Appendix G identifies significance criteria to be considered for determining whether a project could have significant impacts on Cultural Resources. According to these guidelines, an impact would be considered significant if construction or operation would result in any of the following:

1. A substantial adverse change in the significance of a historic resource that is either listed or eligible for listing in the National Register of Historic Places, the California Register of Historical Resources, a local register of historic resources, or any cultural resource that is not listed in, or not eligible for listing in, a federal, state, or local historical register, but is otherwise determined by the City to be historically significant. A resource that the City may deem historically significant—but is otherwise not eligible for listing in a historical register—would likely lack the integrity or historical significance required for formal listing, but is nonetheless viewed by the community as an important element of the city's character and history.
2. A substantial adverse change in the significance of a unique archaeological resource.
3. Disturbance or destruction of a unique paleontological resource or site or a unique geologic feature.
4. Disturbance of any human remains, including those interred outside of formal cemeteries.

Impact CULT-1	**Cause a substantial adverse change in the significance of a historic resource as defined in § 15064.5?**
Level of Impact	**No Impact**

The 2012 EIR determined that implementation of General Plan policies and actions would have a less-than significant impact on historic resources and no additional mitigation measures are required. All proposed water infrastructure projects would be built within existing developed areas, paved roads, and utility right-of-way(s) and would have no impact on historic resources.

Impact CULT-2	**Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?**
Level of Impact	**Less than Significant**

The 2012 EIR determined that implementation of General Plan policies and actions, including mitigation measures requiring preconstruction cultural resource surveys and modification of the development review process, would have a less-than significant impact on archaeological resources. All proposed new water infrastructure projects would be built within existing developed areas, paved roads, and utility right-of-way(s). While unlikely, new pipe installation could require trenching in previously undisturbed areas with previously unidentified subsurface deposits, but these areas are within previously developed footprints and have likely been disturbed. In the small number of sites where previous disturbance may not yet have occurred, General Plan Policy LUD 11.5 (Protect important archaeological and paleontological sites) and Actions 11.5.1 (Review Historic Property Directory List), 11.5.2 (Pre-construction cultural resource surveys), and 11.5.3 (Archaeological and paleontological standard conditions) would reduce potential impacts to less than significant.

Impact CULT-3	**Directly or indirectly destroy a unique paleontological resource or site or unique geologic**

	feature?
Level of Impact	**Less than Significant**

The 2012 EIR determined that implementation of General Plan policies and actions, including mitigation policies requiring preconstruction cultural resource surveys and modification of the development review process, would have a less-than significant impact on paleontological resources. All proposed water infrastructure projects would be built within existing developed areas, paved roads, and utility right-of-way(s). While unlikely, new pipe installation could require trenching in previously undisturbed areas with previously unidentified subsurface deposits, but these areas are within previously developed sites and have likely been disturbed. In the small number of sites where previous disturbance may not yet have occurred, General Plan Policy LUD 11.5 (Protect important archaeological and paleontological sites) and Action 11.5.3 (Archaeological and paleontological standard conditions) would reduce potential impacts to less than significant.

Impact CULT-4	**Disturb any human remains, including those interred outside of formal cemeteries?**
Level of Impact	**Less than Significant**

The 2012 EIR determined that implementation of General Plan policies and actions, including mitigation measures requiring protection of human remains under Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98, the General Plan would have a less-than significant impact. All proposed water infrastructure projects would be built within existing developed areas, paved roads, and utility right-of-way(s). While unlikely, new pipe installation could require trenching in previously undisturbed areas with previously unidentified human remains, these areas are within previously developed sites and General Plan Policy LUD 11.6, which requires the identification and protection of human remains, would ensure that potential impacts are less than significant.

3.3.4 Cumulative Impacts

The 2012 EIR determined that the implementation of appropriate General Plan policies and actions would reduce any potential cumulative impacts related to cultural resources to a less-than-significant level. Mitigation

Measure CULT-1 provides that Policy LUD 11.5, Action LUD 11.5.1, Action LUD 11.5.2, and Action LUD 11.5.3 shall be included in the Land Use and Design element of the General Plan. The EIR concluded that with the inclusion of this policy and actions, this impact would be reduced to a less-than-significant level. As the proposed changes to the water infrastructure improvements would result in less-than-significant impacts to cultural resources consistent with the scope of construction activity evaluated in the 2012 EIR, the changes would not result in cumulative impacts.

3.4 GEOLOGY, SOILS, AND SEISMICITY

This chapter summarizes the potential geology and soils impacts, including geologic and seismic hazards, related to implementation of the changes to the water infrastructure improvements, compared with what was analyzed in the 2012 EIR for the City of Mountain View 2030 General Plan and GGRP.

3.4.1 Environmental Setting

The Environmental Setting described in the 2012 EIR also applies to this Addendum. No additional environmental setting is provided.

3.4.2 Regulatory Setting

The Regulatory Setting described in the 2012 EIR also applies to this Addendum. No additional regulatory setting is provided.

3.4.3 Impact Analysis

The State CEQA Guidelines Appendix G identifies significance criteria to be considered for determining whether a project could have significant impacts on geology and soils. According to these guidelines, an impact would be considered significant if construction or operation would result in any of the following:

1. Expose a significant number of 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;
    - Strong seismic ground-shaking;
    - Seismic-related ground failure, including liquefaction; and/or
    - Landslides.
2. Result in substantial soil erosion or the loss of top soil.
3. 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 an onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse.

4. Be located on expansive soil, as defined in Table 18-1-B of the UBC (1994), creating substantial risks to life or property.
5. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

Impact GEO-1 **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?**
- **Strong seismic ground-shaking?**
- **Seismic–related ground failure, including liquefaction?**
- **Landslides?**

Level of Impact **Less than Significant**

No known active faults are present within Mountain View city limits and the fault rupture hazard for the city is considered to be very low. However, local faults are capable of producing very strong to violent ground-shaking in Mountain View. The 2012 EIR determined that General Plan policies and actions, including mitigation measures requiring the City to review projects for building and fire code conformance (Mitigation Measure GEO-1), would reduce the potential impacts related to exposure to seismic and geologic hazards to a less-than-significant level and no further mitigation would be required. The proposed water infrastructure projects would be installed within existing developed areas, paved roads, and utility right-of-way(s) and would not expose people to increased seismic risks. Improvements would be subject General Plan policies and actions that ensure structures are built to code and protect the proposed improvements from structural damage or failure damage, resulting in less-than-significant impacts.

Impact GEO-2 **Result in substantial soil erosion or the loss of**

	topsoil?
Level of Impact	**No Impact**

The 2012 EIR determined that compliance with state and local requirements would reduce erosion and topsoil impacts from the General Plan and GGRP to a less-than-significant level. The proposed water infrastructure projects would be installed within existing developed areas, paved roads, and utility right-of-way(s) that would be restored immediately after pipeline installation and would not result in soil erosion or loss of topsoil. There would be no impact.

Impact GEO-3	**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 offsite landslide, lateral spreading, subsidence, liquefaction or collapse?**
Level of Impact	**Less than Significant**

The 2012 EIR determined that General Plan policies and actions, including mitigation measures requiring the City to review projects for building and fire code conformance (Mitigation Measure GEO-1) and preparation of geotechnical studies (Mitigation Measure GEO-2), would reduce the potential impacts related to unstable soils or making soils unstable to a less-than-significant level. The proposed water infrastructure projects would be installed within existing developed areas, paved roads, and utility right-of-way(s) and would not be at risk for damage associated with landslide, lateral spreading, subsidence, liquefaction, or collapse. Potential impacts are less than significant.

Impact GEO-4	**Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (UBC) (1994), creating substantial risks to life or property?**
Level of Impact	**Less than Significant**

The 2012 EIR determined that General Plan policies and actions, including mitigation measures requiring the City to review projects for building and fire code conformance (Mitigation Measure GEO-1) and preparation of

geotechnical studies (Mitigation Measure GEO-2), would reduce the potential impacts related to expansive soil risks to a less-than-significant level and no further mitigation would be required. The proposed water infrastructure projects would be installed within existing developed areas, paved roads, and utility right-of-way(s), but could be affected by construction of future development projects. However, considering the above-referenced General Plan policies and actions, impacts associated with proposed water infrastructure projects would be less than significant.

Impact GEO-5	**Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?**
Level of Impact	**No Impact**

The General Plan area is serviced by a sanitary sewer system operated by the City of Mountain View. Therefore, there are no impacts related to alternative wastewater disposal systems and no mitigation is required. The proposed water infrastructure projects would not introduce the need for septic tanks or alternative wastewater disposal systems and there would be no impact.

3.4.4 Cumulative Impacts

The 2012 EIR determined that the General Plan and GGRP would not contribute to a cumulative impact that would be considerable, since other developments on the Peninsula would similarly be affected by site-specific geologic and seismic conditions and site-specific impacts from geological and seismic hazards on developments are not transferable to other sites. As the proposed changes to the water infrastructure improvements would result in less-than-significant impacts consistent with the scope and scale evaluated in the 2012 EIR, the changes would not result in cumulative impacts related to geology and soils.

3.5 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

This chapter summarizes the potential GHG gas emissions and climate change impacts related to the implementation of the changes to the water infrastructure improvements, compared with what was analyzed in the 2012 EIR for the City of Mountain View 2030 General Plan and GGRP.

3.5.1 Environmental Setting

The Environmental Setting described in the 2012 EIR also applies to this Addendum. No additional environmental setting is provided.

3.5.2 Regulatory Setting

The Regulatory Setting described in the 2012 EIR also applies to this Addendum. No additional regulatory setting is provided.

3.5.3 Impact Analysis

The State CEQA Guidelines Appendix G and BAAQMD identify significance criteria to be considered for determining whether a project could have significant impacts on GHG emissions and climate change. According to these guidelines, an impact would be considered significant if construction or operation would result in any of the following:

1. Conflict with a qualified GHG Reduction Strategy;
2. Result in operational-related GHG emissions that exceed 6.6 metric tons of carbon dioxide equivalents (CO_2e) annually per service population; or
3. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

Impact GHG-1	**Conflict with a qualified GHG Reduction Strategy?**
Level of Impact	**No Impact**

The General Plan and GGRP were determined to not conflict with a qualified GHG Reduction Strategy as the City's intent was for them to become the Greenhouse Gas Reduction Strategy for the City. The CEQA determination of significance is therefore based on the General Plan and

GGRP's projected GHG efficiency metric for service population as discussed under Impact GHG-2. As the proposed water infrastructure improvements require no alteration of the GGRP and is consistent with the GGRP's GHG reduction strategies, there would be no impact.

Impact GHG-2	**Result in operational-related greenhouse gas emissions that exceed 6.6 metric tons of CO_2e annually per service population?**
Level of Impact	**Less than Significant**

The 2012 EIR determined that the General Plan and GGRP's GHG efficiency level would be considered a less-than-significant impact with respect to GHG emissions or a cumulatively considerable contribution to substantial adverse physical effects on the environment related to global climate change, and mitigation would not be required. While the proposed water infrastructure improvements would result in additional short-term small increases in emissions during construction, this would result in a negligible increase in CO_2e annually per service population and would be less than significant.

Impact GHG-3	**Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs?**
Level of Impact	**Less than Significant**

The 2012 EIR determined that the General Plan and GGRP would implement appropriate GHG reduction strategies and would not conflict with or impede implementation of reduction goals identified in AB 32, the Governor's Executive Order S-3-05, and other strategies to help reduce GHGs to the level proposed by the State. Therefore, this impact would be less than significant and no additional mitigation would be required. The proposed water infrastructure improvements, while an incremental increase in what was previously identified, are consistent with the adopted GGRP and General Plan emission reduction strategies, including Energy Efficiency, Water Conservation and Efficiency, Solid Waste Reduction, and Transportation and Motor Vehicle measures. With implementation of these reduction strategies, impacts would be less than significant.

3.5.4 Cumulative Impacts

The 2012 EIR determined that the GGRP is a qualified GHG Reduction Strategy under the standards established by the BAAQMD and is consistent with the goals of AB 32 in meeting all standards consistent with the requirements of qualified GHG Reduction Strategies. Therefore, consistent with State CEQA Guidelines, all future projects that are consistent with the adopted GGRP and General Plan, would be presumed to have a less-than-significant impact related to GHG emissions. As the proposed water infrastructure improvements are consistent with the adopted GGRP and General Plan emission reduction strategies, including Energy Efficiency, Water Conservation and Efficiency, Solid Waste Reduction, and Transportation and Motor Vehicle measures, with implementation of these reduction strategies, impacts would be less than significant.

3.6 HAZARDS AND HAZARDOUS MATERIALS

This chapter summarizes the potential hazards and hazardous material impacts related to the implementation of changes to the water infrastructure improvements, compared with what was analyzed in the 2012 EIR for the City of Mountain View 2030 General Plan and GGRP.

3.6.1 Environmental Setting

The Environmental Setting described in the 2012 EIR also applies to this Addendum. No additional environmental setting is provided.

3.6.2 Regulatory Setting

The Regulatory Setting described in the 2012 EIR also applies to this Addendum. No additional regulatory setting is provided.

3.6.3 Impact Analysis

The State CEQA Guidelines Appendix G identifies significance criteria to be considered for determining whether a project could have significant impacts on hazards and hazardous materials. According to these guidelines, an impact would be considered significant if construction or operation would result in any of the following:

1. Create a significant hazard to the public or the environment through the routine transport, use, handling, or disposal of hazardous materials;
2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste within 0.25 mile of an existing or proposed school;
4. Create a significant hazard to the public or the environment from existing hazardous materials contamination by exposing future occupants or users of the site to contamination in excess of applicable environmental screening levels;
5. Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment;

6. Be located within an adopted airport land-use plan for a public-use airport, resulting in a safety hazard for people residing and working in the project area;
7. Create hazards to navigable airspace for the Moffett Federal Airfield as defined in the Federal Aviation Regulations, resulting in a safety hazard for people residing and working in the project area;
8. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
9. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildland is adjacent to urbanized areas or where residences are intermixed with wildland.

Impact HAZ-1	**Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**
Level of Impact	**Less than Significant**

The 2012 EIR determined that compliance with federal, state, and local requirements and the General Plan and GGRP policies and actions would reduce potential impacts to a less-than-significant level and no further mitigation would be required.

Construction of the proposed water infrastructure improvements would require negligible amounts of construction grade hazardous materials (e.g., solvents and lubricants) and fuels during construction, but these activities would be discrete and temporary. Routine maintenance may also require the transport and use of minor amounts of lubricants and other materials. For these activities, the General Plan Actions PSA 3.2.2 (Enforce hazardous materials ordinances) and PSA 3.3.1 (Regulate new hazardous materials uses) would apply and potential impacts would be less than significant.

Impact HAZ-2	**Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

Level of Impact	Less than Significant

The 2012 EIR determined that although hazardous materials releases from accidents cannot feasibly be eliminated, implementation of the General Plan and GGRP policies and actions, as well as existing regulatory programs at the federal, state, and local levels, would reduce potential impacts related to the reasonably foreseeable upset or accident conditions to a less-than-significant level, and no additional mitigation is required.

The proposed changes to the water infrastructure improvements would have a minor, but similar mechanism for potential impacts during construction and maintenance of infrastructure. The General Plan Actions PSA 3.2.2 (Enforce hazardous materials ordinances), PSA 3.3.1 (Regulate new hazardous materials uses), and INC 18.1.1 (Enforcing existing contamination prevention regulations) would apply and ensure that potential impacts are less than significant.

Impact HAZ-3	Emit hazardous emissions, or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?
Level of Impact	**No Impact**

The 2012 EIR determined that a zoning ordinance required by the General Plan to protect sensitive users associated with schools and day-care facilities in coordination with existing regulatory requirements would reduce the potential for school children to be exposed to hazardous or acutely hazardous materials to a less-than-significant level, and no additional mitigation is required.

The proposed changes to the water infrastructure improvements would not necessitate sites for management of hazardous materials within 0.25 mile of an existing or proposed school and there would be no impact associated with the changes.

Impact HAZ-4	Create a significant hazard to the public or the environment from existing hazardous materials contamination by exposing future occupants or users of the site to contamination in excess of

applicable environmental screening levels?

Level of Impact **Less than Significant**

The 2012 EIR determined that hazardous materials from historical land uses including, but not limited to, agriculture, highways, or industrial facilities could have contaminated soil, groundwater, and/or surface water. New development or redevelopment in areas with known or potential contamination can pose a threat to human health and/or the environment if the materials are not properly identified and managed. The General Plan identified policies and actions to ensure that impacts related to known or unknown potential hazardous materials contamination at new development and redevelopment sites would be less than significant.

The proposed changes to the water infrastructure improvements would consist of temporary ground-disturbing activities. The City's Hazardous Material Ordinance requires testing of excavated soils in areas with known hazards to ensure that potential hazardous materials are identified and properly disposed of prior to replacing infrastructure and restoring the site to pre-construction conditions. Compliance with the General Plan policies and actions, and the City's Hazardous Material Ordinance, would ensure that potential impacts of the proposed water improvements are less than significant.

Impact HAZ-5 **Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?**

Level of Impact **Less than Significant**

The 2012 EIR determined that the General Plan includes policies and actions that generally reduce potential impacts for existing sites on the Government Code Section 65962.5 list and identified mitigation measures that will require the City to monitor environmental remediation activities at Moffett Field Federal Superfund sites within or adjacent to the city of Mountain View. The policies ensure that development in areas contaminated by Federal Superfund sites would have appropriate measures to protect human health and the environment, reducing impacts to less than significant.

The proposed changes to the water infrastructure improvements could occur in the identified areas, but implementation of General Plan Policies INC 18.1 (Contamination prevention), INC 18.2 (Contamination clean-up) PSA 3.4 (Oversight agencies), and the supporting actions within each of those policies would protect sensitive receptors from exposure and result in less-than-significant impacts.

Impact HAZ-6	**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?**
Level of Impact	**No Impact**

The city of Mountain View is not located within any protected airspace zones defined by the Santa Clara County Airport Land Use Commission and has no heliports listed by the FAA. Therefore, this is not an impact and no mitigation is required.

Impact HAZ-7	**Create hazards to navigable airspace for the Moffett Federal Airfield as defined in the Federal Aviation Regulations, resulting in a safety hazard for people residing and working in the project area?**
Level of Impact	**No Impact**

The 2012 EIR determined that compliance with existing Federal Aviation Administration regulations, as well as applicable policies and actions from the General Plan and GGRP, reduces potential impacts on airport safety operations for Moffett Federal Airfield to a less-than-significant level and no additional mitigation is required.

The proposed changes to the water infrastructure improvements would be placed underground and would result in no impact on the navigable airspace for the Moffett Federal Airfield.

Impact HAZ-8	**Impair implementation of or physically interfere**

	with an adopted emergency response plan or emergency evacuation plan?
Level of Impact	**Less than Significant**

The 2012 EIR determined that the policies and actions of the General Plan and GGRP and Mitigation Measure TRANS-5, which would monitor and manage emergency response times, would reduce potential impacts related to impairment or interference with emergency response plans or emergency evacuation plans to a less-than-significant level, and no additional mitigation was required.

The proposed changes to the water infrastructure improvements would result in temporary lane restrictions during construction, but would maintain passage on all city roads and would have no permanent impact on emergency response times. Hence, impacts would be considered less than significant.

Impact HAZ-9	**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?**
Level of Impact	**Less than Significant**

The 2012 EIR determined that, according to CAL FIRE, there are no Fire Hazard Severity Zones for State responsibility areas or Very High Fire Hazard Severity Zones for local responsibility areas within or adjacent to the city of Mountain View. Based on this mapping, impacts related to wildland fire hazards on new development or redevelopment in Mountain View would be less than significant and no mitigation is required.

The proposed changes to the water infrastructure improvements would be minor projects within the urban area of Mountain View and impacts would also be considered less than significant.

3.6.4 Cumulative Impacts

The 2012 EIR determined that hazardous materials and other public health and safety issues are generally site-specific and would not contribute to

impacts associated with other contaminated sites in Santa Clara County. Therefore, the City's contribution to countywide impacts related to hazards and hazardous materials with implementation of the General Plan and GGRP would not be cumulatively considerable.

The proposed changes to the water infrastructure improvements are minor incremental actions, but remain within the context and scale of the General Plan Build-out evaluated in the 2012 EIR and would not be cumulatively considerable.

3.7 HYDROLOGY AND WATER QUALITY

This chapter summarizes the potential hydrology and water quality impacts related to the implementation of changes to the water infrastructure improvements, compared with what was analyzed in the 2012 EIR for the City of Mountain View 2030 General Plan and GGRP.

3.7.1 Environmental Setting

The Environmental Setting described in the 2012 EIR also applies to this Addendum. No additional environmental setting is provided.

3.7.2 Regulatory Setting

The Regulatory Setting described in the 2012 EIR also applies to this Addendum. No additional regulatory setting is provided.

3.7.3 Impact Analysis

The State CEQA Guidelines Appendix G identifies significance criteria to be considered for determining whether a project could have significant impacts on hydrology and water quality. An impact would be considered significant if construction or operation of the proposed changes would cause any of the following:

1. Violate any water quality standards or waste discharge requirements;
2. 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 that would not support existing land uses or planned uses for which permits have been granted);
3. 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 that would result in substantial erosion or siltation on- or offsite, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or offsite;
4. Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff;
5. Otherwise substantially degrade water quality;

6. 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;
7. Place structures within a 100-year flood hazard area that would impede or redirect flood flows;
8. 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; or
9. Expose people or structures to inundation by seiche, tsunami, or mudflow.

Impact HYD-1	**Violate any water quality standards or waste discharge requirements?**
Level of Impact	**Less than Significant**

The 2012 EIR determined that implementation of the General Plan policies and actions, in conjunction with compliance with existing regulatory programs, would ensure that water quality impacts related to growth under the General Plan and GGRP would be less than significant without requiring additional mitigation measures.

Construction activities for proposed changes to the water infrastructure improvements could potentially result in discharges of waste or excavated soils into urban runoff. As such, construction would be subject to the same enforcement of surface water and groundwater quality standards (Policy INC 8.4) and waste discharge requirement best management practices required for compliance with existing regulatory programs and the Municipal Regional Storm water NPDES Permit (Policy INC 8.2). Impacts with water quality enforcement in place would be less than significant.

Impact HYD-2	**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)?

Level of Impact **Less than Significant**

The City uses groundwater resources to supplement water purchased from other water agencies. Growth and new development under the General Plan could result in added pressure on these groundwater resources. The proposed water infrastructure improvements would facilitate the ready transfer of groundwater and purchased water throughout the city. The 2012 EIR determined that General Plan and GGRP actions would ensure that adverse impacts to groundwater resources under the General Plan and GGRP would be less than significant. These actions include groundwater monitoring, regulation, and replenishment consistent with the existing programs of the Santa Clara Valley Water District.

Construction of proposed water infrastructure improvements would be shallow and would have no impact on the groundwater table or result in depletion of the resource. The proposed changes to the water infrastructure improvements would not promote increased groundwater use with General Plan policies in place. As such, impacts would be less than significant.

Impact HYD-3 **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 substantial erosion or siltation on or off site, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?**

Level of Impact **Less than Significant**

The 2012 EIR determined that implementation of the General Plan policies and actions, in conjunction with compliance with existing regulatory programs would ensure that storm water impacts related to growth under the General Plan and GGRP would be less than significant.

The proposed changes to the water infrastructure improvements are all located within existing developed areas, paved roads, and utility right-of-way(s). All but three sites are currently paved over and all sites are developed and graded. Construction activities would return all sites to

post-project conditions and maintain existing grades and drainage patterns. This impact would be less than significant.

Impact HYD-4	**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?**
Level of Impact	**Less than Significant**

The 2012 EIR determined that development under the General Plan and GGRP has the potential to increase and alter impervious surfaces. Development-related changes to impervious surfaces could increase storm water runoff volumes, potentially resulting in hydromodification impacts (degradation of water quality in creeks related to higher erosive flows). Construction activities, operation of new development, and associated changes in runoff patterns also have the potential to introduce contaminants to storm water. Compliance with existing National Pollutant Discharge Elimination System (NPDES) permits for construction and post-construction as well as compliance with the General Plan policies and actions would reduce this impact to less than significant.

The proposed changes to the water infrastructure improvements would have construction and development impacts similar to those described in the 2012 EIR. Construction activities would not result in increased impervious surface as all infrastructure work would return the surface grades and materials to pre-existing conditions. Compliance with existing NPDES permits (Policy INC 8.2) for construction and post-construction as well as compliance with the supporting General Plan Policies INC 6.4 (Discharge regulations), INC 8.1 (Citywide storm water system), INC 8.4 (Runoff pollution prevention), and Action INC 8.3.1 (Best practices in City operations) would ensure potential impacts are less than significant.

Impact HYD-5	**Otherwise substantially degrade water quality?**
Level of Impact	**No Impact**

The 2012 EIR determined that no other mechanisms beyond those previously identified and discussed would result in impacts on general water quality due to the General Plan and GGRP. Similarly, the proposed

changes to the water infrastructure improvements would not result in additional impacts to general water quality beyond those previously evaluated.

Impact HYD-6	**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?**
Level of Impact	**No Impact**

The 2012 EIR determined that new development under the General Plan and GGRP could place new construction in flood zones, including within the 100-year flood hazard boundary. Existing federal and state programs address potential flooding impacts. The Federal Emergency Management Agency (FEMA) is responsible for mapping flood hazard zones. State law AB 162, among other provisions, requires the annual review of flood hazard zones. In conjunction with General Plan policies and actions, this impact would be reduced to less than significant.

The proposed changes to the water infrastructure improvements would not include housing and the proposed changes would have no impact.

Impact HYD-7	**Place structures within a 100-year flood hazard area structures that would impede or redirect flood flows?**
Level of Impact	**Less than Significant**

The 2012 EIR determined that build-out of the General Plan could result in new construction being placed in the 100-year flood zone. Such construction could potentially impede or redirect flood flows. Existing federal and state programs address potential flooding impacts. FEMA is responsible for mapping flood hazard zones and State law AB 162, among other provisions, requires the annual review of flood hazard zones. These programs and requirements in conjunction with General Plan policies and actions would reduce this impact to less than significant.

Some of the proposed changes to the water infrastructure improvements are located within the 100-year flood hazard area of San Francisco Bay and

Permanente and Hale Creeks. Construction activities would return all impacted sites to post-project conditions and maintain existing grades and drainage patterns. This impact would be less than significant.

Impact HYD-8	**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?**
Level of Impact	**Less than Significant**

The Stevens Creek Reservoir is located upstream from the city on Stevens Creek. The city is not located within a dam failure inundation zone, although the Stevens Creek Reservoir inundation area is located just outside city limits. Therefore, the 2012 EIR determined that impacts related to the failure of a levee or dam would be less than significant. This conclusion would not be impacted by the proposed water infrastructure improvements, which include utility replacement near the city limits and the Stevens Creek Reservoir inundation area. Therefore, potential impacts would be less than significant.

Impact HYD-9	**Inundation by seiche, tsunami, or mudflow?**
Level of Impact	**Less than Significant**

The 2012 EIR determined that seiches and tsunamis would not be expected to affect areas developed as part of the General Plan and GGRP, so impacts related to these phenomena would be considered less than significant. Seiches have not exceeded 4 inches in water elevations during the probable most significant earthquake (1906) and tsunamis would only be expected to affect low-lying marsh areas and Bayward portions of sloughs. The water infrastructure improvements are proposed at the developed edge of the baylands and impacts of the changes would also be considered less than significant.

3.7.4 Cumulative Impacts

The 2012 EIR determined that the General Plan and GGRP's contribution to potentially significant hydrology and water quality impacts could all be mitigated to a less-than-significant level.

The proposed changes to the water infrastructure improvements are minor actions within the context and scale of the General Plan and would also not be cumulatively considerable.

3.8 NOISE

This chapter summarizes the potential noise impacts related to the implementation of changes to the water infrastructure improvements, compared with what was analyzed in the 2012 EIR for the City of Mountain View 2030 General Plan and GGRP.

The following are brief definitions of noise terminology used in this evaluation:

- **Sound.** A vibratory disturbance transmitted by pressure waves through a medium such as air and capable of being detected by a receiving mechanism, such as the human ear or a microphone.
- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
- **Decibel (dB).** A measure of sound intensity based on a logarithmic scale that indicates the squared ratio of actual sound pressure level to a reference sound pressure level (20 micropascals).
- **A-Weighted Decibel (dBA).** A measure of sound intensity that is weighted to take into account the varying sensitivity of the human ear to different frequencies of sound. The dBA scale is the most widely used for environmental noise assessments. Typical A-weighted noise levels for various types of sound sources are summarized in Table 3.
- **Equivalent Sound Level (Leq)**. Leq represents an average of the sound energy occurring over a specified period. In effect, Leq is the steady-state sound level that would contain the same acoustical energy as the time-varying sound that actually occurs during the monitoring period. The 1 hour A-weighted equivalent sound level (Leq 1h) is the energy average of A-weighted sound levels occurring during a 1-hour period.
- **Day-Night Level (Ldn).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with a 10 dB penalty added to sound levels between 10:00 p.m. and 7:00 a.m.
- **Community Noise Equivalent Level (CNEL).** Similar to Ldn, this noise descriptor adds an additional 5 dB penalty to sound levels between 7:00 p.m. and 10:00 p.m.

Table 3 Typical A-Weighted Sound Levels

Common Outdoor Activities	Sound Level (dBA)	Common Indoor Activities
	110	Rock band
Jet flyover at 1,000 feet		
	100	
Gas lawnmower at 3 feet		
	90	
Diesel truck at 50 mph at 50 feet		Food blender at 3 feet
	80	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawnmower at 100 feet	70	Vacuum cleaner at 3 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60	
		Large business office
Quiet urban area, daytime	50	Dishwasher in next room
Quiet urban area, nighttime	40	Theater, large conference room (background)
Quiet suburban area, nighttime		
	30	Library
Quiet rural area, nighttime		Bedroom at night, concert hall (background)
Rustling of leaves	20	
		Broadcast/recording studio
	10	
	0	

Source: California Department of Transportation, 2009.

Urban noise commonly represents the combined sound level contributed by several individual sources—different pieces of equipment operating on a construction site, for instance. However, the individual dB ratings for different noise sources cannot be arithmetically added to give the combined sound level for all sources. Instead, the combined noise level produced by multiple noise sources is calculated using logarithmic summation. For example, if one bulldozer produces a noise level of 80 dBA, then two bulldozers operating side by side would generate a combined noise level of 83 dBA (only 3 dBA louder than the single bulldozer).

Human sound perception, in general, is such that a change in sound level of 3 dB is just noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving the sound level. A doubling of actual sound energy is required to result in a 3 dB (i.e., barely noticeable) increase in noise; in practice, for example, this means that the volume of traffic on a roadway typically needs to double to result in a noticeable increase in noise.

Sound perception also depends on whether a new sound is similar to existing sounds in an area. Most people cannot detect differences of 1 or 2 dB between noise levels of a similar nature (for example, a 1 dB increase in traffic noise compared to existing traffic noise). However, under ideal listening conditions, some people can detect differences of 2 or 3 dB, and most people under normal listening conditions would probably perceive a 5 dB change in sounds of a similar nature. When a new, intruding sound is of a different nature than the background sound (for example, a car alarm compared to quiet residential sounds), most people can detect changes as small as 1 dBA.

When distance is the only factor considered, sound levels from isolated point sources of noise typically decrease by about 6 dB for every doubling of distance from the noise source. When the noise source is a continuous line, such as vehicle traffic on a highway, sound levels decrease by about 3 dB for every doubling of distance. Noise levels can also be affected by several factors other than the distance from the noise source. Topographic features and structural barriers that absorb, reflect, or scatter sound waves can affect the reduction of noise levels over distance. Atmospheric conditions (e.g., wind speed and direction, humidity levels, and temperatures) and the presence of dense vegetation can also affect the degree of sound attenuation. Normally the presence of acoustically absorptive ground such as grass will increase the rate of attenuation by about 1.5 dB per doubling of distance. Thus, where absorptive ground is present, the attenuation rate for a point source will increase to about 7.5 dB per doubling of distance, and the rate for a line source will increase to about 4.5 dB per doubling of distance.

Noise-sensitive land uses are generally defined as locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Noise-sensitive land uses typically include residences, hospitals, schools, guest lodgings, libraries, and certain types of passive recreational uses, such as parks to be used for reading, conversation, and meditation (Federal Transit Administration 2006).

3.8.1 Environmental Setting

The Environmental Setting described in the 2012 EIR also applies to this Addendum. No additional environmental setting is provided.

3.8.2 Regulatory Setting

The Regulatory Setting described in the 2012 EIR also applies to this Addendum. No additional regulatory setting is provided.

3.8.3 Impact Analysis

The State CEQA Guidelines Appendix G identifies significance criteria to be considered for determining whether a project could have significant impacts on the existing noise environment. An impact would be considered significant if construction or operation of the proposed changes would cause any of the following:

1. Expose persons to or generate noise levels in excess of standards established in the General Plan or noise ordinance or applicable standards of other agencies;
2. Expose persons to or generate excessive groundborne vibration or groundborne noise levels;
3. Result in a substantial (5 dBA or greater) permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
4. Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project and in excess of standards established in the General Plan or noise ordinance, or applicable standards of other agencies; or
5. Be located within the Moffett Federal Airfield Airport Influence Area and expose people residing or working in the project area to excessive noise levels associated with aircraft noise.

Impact NOI-1	**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?**
Level of Impact	**Less than Significant**

The 2012 EIR determined that adherence to the policies and actions contained in General Plan and GGRP would ensure that exposure of sensitive receptors to excessive noise levels from stationary and mobile noise impacts was sufficiently mitigated such that related potential noise impacts would be less than significant and no additional mitigation would be required.

The proposed changes to the water infrastructure improvements would include construction in proximity to sensitive residential receptors in the city. The proposed changes to the water infrastructure improvements are

consistent with other activities addressed in the General Plan, and implementation of General Plan policies and actions, primarily related to compliance with the City's Noise Ordinance (Action NOI 1.1.1), requiring limited construction hours (Action NOI 1.7.3) or restrictions on construction activities and noise performance standards for stationary noise sources. As such, potential impacts would be less than significant.

Impact NOI-2	**Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?**
Level of Impact	**Less than Significant**

The 2012 EIR determined that, with implementation of General Plan policies and actions, the exposure of sensitive receptors to excessive groundborne vibration or noise levels associated with projected growth under the General Plan and GGRP would be a less-than-significant impact and no additional mitigation measures are required.

The proposed changes to the water infrastructure improvements would include construction, including the potential need for jackhammers, in proximity to sensitive residential receptors in the city. The proposed changes to the water infrastructure improvements are consistent with other activities within the General Plan and implementation of General Plan policies and actions, primarily related to Noise Ordinance restrictions, would reduce noise exposures. As explained in the 2012 EIR, implementation of General Plan policies NOI 1.1 (Noise Ordinance), NOI 1.2 (Noise-sensitive land uses), NOI 1.3 (Exceeding acceptable noise thresholds), and NOI 1.4 (Site Planning) would minimize potential groundborne vibration and noise impacts from construction activity that could occur with implementation of the General Plan by requiring the City to take steps to reduce the exposure of noise sensitive land uses to construction-related groundborne vibration and noise. Policy NOI 1.7 (Stationary sources) and Action NOI 1.7.3 (Construction activities) also specifically require enforcement of the permitted hours for construction activities, thus reducing the exposure of sensitive receptors to significant groundborne vibration or noise impacts. As such, potential impacts related to groundborne vibration would be less than significant.

Impact NOI-3	**A substantial permanent increase in ambient noise**

	levels in the project vicinity above levels existing without the project?
Level of Impact	**No Impact**

The 2012 EIR determined that while General Plan policies would help to mitigate the severity of the effects of permanent increases in traffic noise, they would not prevent all anticipated traffic noise increases within the city. Thus, the General Plan build-out would result in increases in traffic noise along the roadway segments identified in the 2012 EIR even after mitigation and would be considered a significant, unavoidable impact.

The proposed changes to the water infrastructure improvements would only result in short-term construction noise and temporary increases in traffic associated with construction of infrastructure, and as such, would result in no permanent impact on ambient noise levels.

Impact NOI-4	**A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?**
Level of Impact	**Less than Significant**

The 2012 EIR disclosed that construction activities associated with development allowed by the General Plan could result in substantial temporary or periodic increases in ambient noise levels near project sites throughout the city. Specifically, construction-related noise could occur from increased traffic flow on streets and from equipment use and other activities associated with demolition, site preparation, and construction. The 2012 EIR determined that with implementation of General Plan policies and actions, the exposure of sensitive receptors to excessive noise levels from construction activities associated with development under the General Plan and GGRP would be considered a less-than-significant impact.

The proposed changes to the water infrastructure improvements would include construction in proximity to sensitive residential receptors in the city with the potential for substantial noise increases. The proposed changes to the water infrastructure improvements are consistent with other activities addressed in the General Plan and implementation of General Plan policies and actions, primarily related to construction restrictions, would reduce noise exposures. For example, General Plan

Policy NOI 1.1 would ensure that noise impacts from construction activities associated with development that could occur with implementation of the Draft General Plan would be minimized by requiring the use of the Land Use Compatibility Standards Table as a guide for requiring additional analysis and possible noise mitigation measures for making planning and development decisions on projects with potential noise impacts. Policy NOI 1.7 specifically restricts noise levels from stationary sources, including noise from construction activities, through the enforcement of the City's Noise Ordinance, which includes construction timing and noise reduction restrictions to reduce noise exposure for sensitive receptors. As such, potential impacts would be less than significant.

Impact NOI-5	**Be located within the Moffett Federal Airfield Airport Influence Area and would expose people residing or working in the project area to excessive noise levels associated with aircraft noise.**
Level of Impact	**No Impact**

As described in the existing noise environment in the 2012 EIR, aircraft noise in Mountain View is primarily related to aircraft operations at Moffett Federal Airfield and at Palo Alto Airport. While portions of the city are within the 60 dBA CNEL noise contour of the Moffett Federal Airfield, these land uses include open space, business park, and industrial, all of which are compatible land uses for these ambient noise levels. Implementation of the General Plan is not anticipated to result in any substantial increase in aircraft operations compared to existing conditions as the Moffett Federal Airfield is under the jurisdiction and control of the U.S. federal government.

As the proposed changes are specifically tied to temporary construction of infrastructure, implementation is not anticipated to result in any increase in aircraft operations compared to existing conditions. There would be no impact and no additional mitigation measures are required.

3.8.4 Cumulative Impacts

The 2012 EIR determined that while General Plan policies would help to mitigate the severity of the effects of permanent cumulative increases in traffic noise, they would not prevent all anticipated traffic noise increases within the city. Thus, the General Plan build-out would result in

temporary cumulative increases in traffic noise along the roadway segments identified in the 2012 EIR even after mitigation and would be considered a significant, unavoidable cumulative impact. The proposed changes to the water infrastructure improvements would result in temporary increases in trips and construction noise, but would not cumulatively contribute to permanent increases in the city's ambient noise environment.

3.9 PUBLIC SERVICES AND RECREATION

This chapter summarizes the potential public services and recreation impacts related to the implementation of the changes to the water infrastructure improvements, compared with what was analyzed in the 2012 EIR for the City of Mountain View 2030 General Plan and GGRP.

3.9.1 Environmental Setting

The Environmental Setting described in the 2012 EIR also applies to this Addendum. No additional environmental setting is provided.

3.9.2 Regulatory Setting

The Regulatory Setting described in the 2012 EIR also applies to this Addendum. No additional regulatory setting is provided.

3.9.3 Impact Analysis

The State CEQA Guidelines Appendix G identifies significance criteria to be considered for determining whether a project could have significant impacts on public services and recreation. An impact would be considered significant if construction or operation of the proposed changes would cause any of the following:

1. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:
   a) Fire protection;
   b) Police protection;
   c) Schools;
   d) Community facilities; and
   e) Parks.
2. 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.

3. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.
4. Create a shortage of park facilities for new residents in which the City standard of 3 acres per 1,000 persons would be violated.

The proposed changes to the water infrastructure improvements do not include the construction, expansion, or elimination of community facilities, recreational facilities, schools, or housing. In addition, the proposed changes to the water infrastructure improvements would not result in an increase in population or housing, which would create demand for recreational facilities or schools. Therefore, potential impacts on recreational facilities, including parks, and schools are not analyzed further.

Impact PS-1	**Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:** • **Fire protection?** • **Police protection?**
Level of Impact	**Less than Significant**

The 2012 EIR determined that the population and employment growth resulting from implementation of the General Plan would increase the demand for fire protection, police protection, and emergency medical services. General Plan policies and actions would ensure the maintenance of adequate staffing, performance levels and facilities to serve the needs of communities and would require City agencies to work with neighboring cities to evaluate possible efficiencies for sharing services. With the implementation of General Plan policies and actions, impacts on fire protection, police protection, and emergency medical services were determined to be less than significant.

The proposed changes to the water infrastructure improvements would include temporary construction activities that may require police, fire, or emergency services in case of emergency or an accident, but the needs would be temporary in nature and would not result in an increased long-term demand. As such, impacts are considered less than significant.

3.9.4 Cumulative Impacts

The 2012 EIR determined that cumulative impacts to public services are expected to be less than significant with implementation of General Plan policies and actions. The proposed changes to the water infrastructure improvements require minor, temporary construction activities and would not make a considerable contribution to increased demand for public services in the region.

3.10 TRANSPORTATION AND CIRCULATION

This chapter summarizes the potential transportation and circulation impacts related to implementation of additional water infrastructure improvements, compared with what was analyzed in the 2012 EIR for the City of Mountain View 2030 General Plan and GGRP.

3.10.1 Environmental Setting

The Environmental Setting described in the 2012 EIR also applies to this Addendum. No additional environmental setting is provided.

3.10.2 Regulatory Setting

The Regulatory Setting described in the 2012 EIR also applies to this Addendum. No additional regulatory setting is provided.

3.10.3 Impact Analysis

The State CEQA Guidelines Appendix G identifies significance criteria to be considered for determining whether a project could have significant impacts on existing transportation and circulation. An impact would be considered significant if construction or operation of the proposed changes would cause any of the following:

1. Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.
2. Conflict with an applicable congestion management program (CMP), including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.
3. 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.
4. Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
5. Result in inadequate emergency access.

6. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or that otherwise decrease the performance or safety of such facilities.

Regarding air traffic patterns, the proposed changes to the water infrastructure improvements would not include any aboveground structures. This would not result in any impact to air traffic patterns. Therefore, the proposed changes would not result in a change in air traffic patterns or otherwise result in a safety risk, and impacts would not occur. Potential impacts on air traffic patterns are not addressed further. The 2012 EIR also determined that the General Plan will not substantially increase hazards due to a design feature, (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). The proposed changes to the water infrastructure improvements would not include modification of any local roadway design. There would be no impact in this area and it will not be addressed further in this Addendum.

The CEQA Guidelines are intended to provide general guidance for lead agencies evaluating impacts to the transportation system. The determination of significance for program impacts is based on applicable policies, regulations, goals, and guidelines defined by the City of Mountain View and adjacent jurisdictions, and by the CEQA Guidelines. For purposes of evaluating the program impacts associated with implementation of the proposed water infrastructure improvements, the significance criteria used in the 2012 EIR are applied. The detailed impact criteria applied for the project are presented below.

1. **Vehicle Miles of Travel (VMT) Impact Criteria (A Measure of Circulation System Effectiveness):** A change in land-use-based VMT per service population is considered significant when:
    - The proposed project causes daily land-use-based VMT per service population to increase over existing conditions.
2. **Roadway Segment Criteria:** A daily roadway segment operation is considered significant if implementation of the proposed project would cause:
    - Mountain View roadway segment operations outside of Downtown and San Antonio Center areas and congestion management program (CMP) facilities (San Antonio Road and El Camino Real) to deteriorate from an acceptable level of service (LOS D) to an unacceptable level (LOS E or F).

- Mountain View roadway segment operations within the Downtown and San Antonio Center areas to deteriorate from an acceptable level (LOS E) to an unacceptable level (LOS F).
- Palo Alto or Los Altos roadway segment operations to deteriorate from an acceptable level (LOS D) to an unacceptable level (LOS E or F).
- Santa Clara County roadway segment operations to deteriorate from an acceptable level (LOS E) to an unacceptable level (LOS F).

If a segment is already operating at an unacceptable level as defined by the controlling agency (i.e., the City of Mountain View for local streets, Santa Clara County for expressways, and Caltrans or the Santa Clara Valley Transportation Authority (VTA) for El Camino Real), an increase in traffic volume on the segment representing more than one percent of the facilities' capacity is considered significant.

3. **Freeway Segment Criteria:** Similar to the roadway segment significance criteria, roadway and freeway segment significant impacts are defined to occur under the VTA CMP standard (LOS E) when the addition of traffic from the proposed project causes:
   - Roadway or freeway segment operations to deteriorate from an acceptable level to an unacceptable level (LOS F).

The Caltrans level of service standard and significance criteria from the Guide for the Preparation of Traffic Impact Studies (December 2002) defines traffic impacts on Caltrans freeway segments as occurring when:

- A Caltrans freeway segment and other state route operations deteriorate from an acceptable level (LOS C/D cusp) to an unacceptable level (LOS D, E or F).

If a segment is already operating at unacceptable levels, as defined by the controlling agency (i.e., Caltrans or VTA for freeway segments), an increase in traffic volume on the segment representing more than one percent of the facilities' capacity is considered significant.

4. **Adjacent Jurisdiction Roadway Segment Criteria:** An impact to an adjacent community is considered significant if implementation of the proposed project would cause 25 percent or more of its major street lane miles to meet the following conditions in a peak-hour:
   - A future volume-to-capacity (V/C) ratio is greater than 1.0; and
   - More than 10 percent of the peak-hour traffic volume on the segment is attributable to the project (in either peak hour)

5. **Other Criteria:** The land-use changes of the project would not affect the vehicle performance measures listed above and would not result in additional impacts or cause a more severe impact on pedestrians, bicycle, transit, emergency access, and air traffic. Therefore, the program level impacts and mitigation for pedestrians, bicycle, transit, emergency access, and air traffic would be the same as discussed in the 2012 EIR.

Impact TRANS-1	**Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**
Level of Impact	**Significant and Unavoidable**

The 2012 EIR determined that implementation of the General Plan and GGRP would result in significant and unavoidable impacts on daily land-use-based VMT per service population in 2030 due to population and employment growth planned within the city. The 2012 EIR identified significant and unavoidable impacts due to decreased CMP roadway segment levels of service on San Antonio Road between the southbound US 101 Ramps and Charleston Road and under existing conditions. The 2012 EIR identified significant and unavoidable impacts on several additional roadway segments at General Plan build-out (2030) conditions. In the analysis of freeway segment operations, the 2012 EIR identified significant and unavoidable impacts on US 101 under existing (2009) conditions and all local freeways (US 101, SR 85, SR 237) under General Plan build-out (2030). Lastly, the 2012 EIR identified a significant and unavoidable increase in motor vehicle traffic and congestion outside Mountain View under existing and 2030 build-out. All significant and unavoidable impacts assumed implementation of General Plan policies and actions plus additional mitigation measures to lessen the identified impact to the maximum extent practical.

The 2012 EIR also identified less than-significant-impacts on mass transit, bicycle, and pedestrian facilities with implementation of the General Plan policies and actions.

The proposed changes to the water infrastructure improvements would be temporary construction actions and would be negligible within the overall context of the approved General Plan. Although the proposed changes would increase congestion on local roadway and freeway segments already beyond capacity, and would increase contributions to an already significant and unavoidable impact, the changes would not result in a new or substantially more severe significant impact.

Impact TRANS-2 **Conflict with an applicable congestion management program (CMP), including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?**

Level of Impact **Significant and Unavoidable**

There are six CMP facilities within the city (US 101, SR 85, SR 237, Central Expressway, El Camino Real, and San Antonio Road). The 2012 EIR determined that the General Plan and GGRP would result in significant and unavoidable impacts on US 101, SR 85, SR 237, and San Antonio Road under existing and 2030 build-out conditions.

The proposed changes to the water infrastructure improvements would be temporary construction actions and would be negligible within the overall context of the approved General Plan. Although the proposed changes would increase congestion on CMP facilities already beyond capacity, and would increase contributions to an already significant and unavoidable impact, the changes would not result in a new or substantially more severe significant impact.

Impact TRANS-3 **Result in inadequate emergency access?**

Level of Impact **Less than Significant**

The 2012 EIR determined that under existing and 2030 build-out conditions, implementation of the General Plan and GGRP would increase traffic congestion, which may indirectly result in increased emergency response times. Implementation of Mitigation Measures TRANS-5a and TRANS-5B (Shown in Table 1), combined with General Plan Policy MOB

10.4 (Emergency response), would reduce the potential impact on emergency response times to a less-than-significant impact.

The proposed changes to the water infrastructure improvements would be temporary, short-term construction actions that are not anticipated to close local roads , but could result in short term closures for which contractors would be required to provide alternate routes. Short term construction closures with City approved alternate routes would have a less-than-significant impact on emergency response times.

Impact TRANS-6	**Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?**
Level of Impact	**No Impact**

As described under Impact TRANS-1, the 2012 EIR identified less-than-significant impacts on mass transit, bicycle, and pedestrian facilities with implementation of the General Plan policies and actions.

The proposed changes to the water infrastructure improvements would be temporary, short-term construction actions and would not decrease the performance of any transit, bicycle, and pedestrian facilities. There would be no impact resulting from the proposed changes.

3.10.4 Cumulative Impacts

Cumulative impacts related to transportation and circulation issues are addressed under the analysis of 2030 General Plan build-out conditions described in each of the previous sections. The proposed changes would not result in new or substantially more severe contributions to significant cumulative impacts.

3.11 UTILITIES AND INFRASTRUCTURE

This chapter summarizes the potential utilities and service systems impacts related to the implementation of additional water infrastructure improvements, compared with what was analyzed in the 2012 EIR for the City of Mountain View 2030 General Plan and GGRP.

3.11.1 Environmental Setting

The Environmental Setting described in the 2012 EIR also applies to this Addendum. No additional environmental setting is provided.

3.11.2 Regulatory Setting

The Regulatory Setting described in the 2012 EIR also applies to this Addendum. No additional regulatory setting is provided.

3.11.3 Impact Analysis

The State CEQA Guidelines Appendix G identifies significance criteria to be considered for determining whether a project could have significant impacts on utilities and service systems. An impact would be considered significant if construction or operation of the proposed changes would cause any of the following:

1. Require new or expanded entitlements for water supplies;
2. Require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects;
3. Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects;
4. Generate a demand for wastewater treatment that exceeds the capacity of the wastewater treatment provider, when considered in addition to the provider's existing commitments;
5. Result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
6. Exceed wastewater treatment requirements of the Regional Water Quality Control Board;

7. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which would cause significant environmental effects;
8. Generate a demand for solid waste disposal that cannot be accommodated by the landfill serving the project area;
9. Be inconsistent with federal, state, or local statutes and regulations related to solid waste;
10. Result in wasteful, inefficient, or unnecessary consumption of energy by residential, commercial, industrial, or public uses; or
11. Require the construction of additional electricity, gas, or telecommunications infrastructure facilities, the construction of which could cause significant environmental effects.

Impact UTIL-1	**Require new or expanded entitlements for water supplies?**
Level of Impact	**Less than Significant**

The 2012 EIR determined that with the adopted 2010 Urban Water Management Plan and Water System Master Plan, existing regulations, and the implementation of more stringent citywide water conservation strategies, supplies to meet increased water demand would be adequate to serve demand for water generated by projected growth associated with the General Plan. Accordingly, impacts associated with water supply and demand would be less than significant.

The 2012 EIR also determined that new or expanded entitlements for water supplies from the San Francisco Public Utilities Commission and the Santa Clara Valley Water District would not be required. Because the GGRP Water Strategy is associated with water conservation strategies identified in the 2010 Urban Water Management Plan, implementation of the GGRP would result in a beneficial impact to the city's water supply and its associated facilities. Therefore, the General Plan and GGRP would not require new or expanded water supply entitlements, and this impact would be considered less than significant.

The proposed changes to the water infrastructure improvements would provide sufficient capacity to deliver for existing entitlements to areas of development proposed under the General Plan and would not facilitate or accommodate new or expanded water supply entitlements. Accordingly,

the impacts are consistent with what was evaluated in the 2012 EIR and impacts would be less than significant.

Impact UTIL-2	**Require or result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**
Level of Impact	**Less than Significant**

The 2012 EIR determined that General Plan Policies INC 1.3 and INC 1.4 would ensure the installation of adequate utilities (including adequately sized water lines) prior to approval of new development and the maintenance and enhancement of existing capital facilities in conjunction with capital expansion. General Plan Policy INC 4.3 would prioritize maintenance and enhancement of existing facilities in conjunction with capital expansion projects, and Action Item INC 4.3.1 would require an Annual Water Main Replacement Program and budget. Action Item INC 4.3.2 would require the City to consider new impact and maintenance fees for new development to create a sustainable water supply system. These impact and maintenance fees would ensure the provision of adequately sized water lines to serve new and existing development. Therefore, the General Plan and GGRP would not require or result in the construction of new water facilities, the construction of which would cause significant environmental effects. The impact was considered less than significant. The policies and actions identified above are as follows:

Infrastructure and Conservation

- Policy INC 1.3: **Utilities for new development.** Ensure adequate utility service levels prior to approval of new development.
- Policy INC 1.4: **Existing capital facilities.** Maintain and enhance existing capital facilities in conjunction with capital expansion.

Potable Water Supply

- Policy INC 4.1: **Water supply.** Maintain a reliable water supply.
    - Action INC 4.1.3: **City reservoir storage.** Regularly review reservoir capacity to ensure the City meets recommended storage amounts.

- Policy INC 4.3: **Prioritizing existing facilities.** Prioritize maintenance and enhancement of existing capital facilities in conjunction with capital expansion.
    - Action INC 4.3.1: **Water main replacement.** Execute the Annual Water Main Replacement Program and budget.
    - Action INC 4.3.2: **Fee structure.** Review and update the procedure and fee structure defining the cost of water system upgrades made necessary by new development, considering the possibility of new impact and maintenance fees to create a sustainable water supply system.

The proposed water infrastructure improvements, while greater in number and scale than originally considered in 2012, are consistent with the policies and actions proposed in the General Plan for water infrastructure. The proposed water infrastructure improvements would also be constructed within existing developed areas, paved roads, and utility right-of-way(s) where environmental impacts on many resources would not consequently occur and where baseline conditions are impacted due to existing development. Construction of the facilities is short term and temporary and would not result in permanent significant impacts.

The proposed facilities maintain and enhance existing capital facilities in conjunction with capital expansion by upsizing existing pipes, constructing new pipes or enhancing capacity by placing new pipes immediately adjacent to existing pipes within existing utility corridors. The model review that resulted in the changes reflects awareness and ongoing review by the City to ensure adequate utility service levels prior to approval of new development and that the City has sufficient information to charge appropriate impact and maintenance fees associated with new development approvals. As such, the impact of the proposed changes to the water infrastructure improvements would be less than significant.

Impact UTIL-3	**Require or result in the construction of new wastewater facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**
Level of Impact	**No Impact**

The 2012 EIR determined that with the implementation of General Plan policies and actions, the General Plan and GGRP would not require or result in the construction of new wastewater facilities. The General Plan and GGRP would also not result in the construction of facilities which would cause significant environmental effects. The proposed changes to the water infrastructure improvements would not result in the need for additional wastewater treatment facilities and there would be no impact.

Impact UTIL-4	**Generate a demand for wastewater treatment that exceeds the capacity of the wastewater treatment provider, when considered in addition to the provider's existing commitments?**
Level of Impact	**No Impact**

The 2012 EIR determined that the Palo Alto Regional Water Quality Control Plant (RWQCP) has adequate capacity to serve anticipated growth. General Plan policies would ensure coordination with partners and local agencies to monitor changing rules and regulations regarding wastewater discharge from the Palo Alto RWQCP, and the future implementation of the Palo Alto RWQCP Long Range Facilities Plan would address aging equipment, new regulatory requirements, and sustainability. As such, impacts were determined to be less than significant.

The proposed changes to the water infrastructure improvements would not generate additional demand for wastewater treatment as the improvements would be designed to accommodate growth planned in General Plan 2030 and analyzed in the 2012 EIR and there would be no impact.

Impact UTIL-5	**Result in a determination by the wastewater treatment provider that 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?**
Level of Impact	**No Impact**

As described above, the 2012 EIR determined that the Palo Alto RWQCP has adequate capacity to serve anticipated growth and impacts would be less than significant. The proposed changes to the water infrastructure improvements would not generate additional demand for wastewater treatment and there would be no impact.

Impact UTIL-6	**Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?**
Level of Impact	**Less than Significant**

The discharge of storm water from the City's storm drainage system is regulated by the federal NPDES Nonpoint Source Program. Mountain View is under the jurisdiction of the Regional Water Quality Control Board and City compliance with the MMRP is mandated by state and federal laws, statutes, and regulations. The 2012 EIR determined that as implementation of the General Plan and GGRP would not exceed wastewater treatment requirements, the impact would be considered less than significant.

The proposed changes to the water infrastructure improvements could result in temporary, short-term construction activities that could result in negligible discharges to the City's storm drainage system. These temporary minor discharges would not exceed wastewater treatment requirements and would be considered less than significant.

Impact UTIL-7	**Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**
Level of Impact	**No Impact**

The 2012 EIR determined that implementation of the General Plan and GGRP would have a less-than-significant impact associated with the construction and expansion of stormwater facilities. Implementation of General Plan and GGRP policies and existing City and regional programs and regulations would minimize potentially significant impacts that would require or result in the construction of new storm water drainage

facilities, and environmental impacts related to the construction and expansion of storm water treatment facilities serving the city.

The proposed changes would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities; therefore, there is no impact.

Impact UTIL-8	**Generate a demand for solid waste disposal that cannot be accommodated by the landfill serving the project area?**
Level of Impact	**Less than Significant**

The 2012 EIR determined that implementation of the General Plan policies and actions, GGRP measures, and the City's existing programs designed to minimize the waste stream would ensure that construction of new solid waste disposal facilities or substantial expansion of existing facilities would not be required. As such, implementation of the General Plan and GGRP would not generate a demand for solid waste disposal that would not be accommodated by existing landfills. The impact was determined to be less than significant.

The proposed changes to the water infrastructure improvements would result in a minimal incremental increase in solid waste and could easily be accommodated by existing landfills.

Impact UTIL-9	**Be inconsistent with federal, state, and local statues and regulations related to solid waste?**
Level of Impact	**Less than Significant**

The 2012 EIR determined that as of 2006, Mountain View had a waste diversion rate of 72 percent, one of the highest rates in the country. Therefore, the city is in compliance with state law, which requires that 50 percent of solid waste be diverted from landfills. Additionally, Mountain View has committed to the waste reduction policies INC 10.1 (Zero Waste), INC 10.3 (Source Reduction), INC 10.4 (Construction waste reuse), INC 10.5 (Reuse), INC 10.6 (Recovered materials), INC 11.1 (Waste Diversion and reduction), and INC 11.2 (Recycling). Therefore, implementation of the General Plan and GGRP would not conflict with

federal, state, or local statutes or regulations related to solid waste disposal. This impact was determined to be less than significant.

The proposed changes to the water infrastructure improvements would result in the removal of deficient infrastructure and other construction materials that may need to be disposed of. Consistent with General Plan Policy INC 10.4 (Construction waste reuse), the City would require contractors to divert and recycle solid waste to the maximum extent practical. This impact would be less than significant.

Impact UTIL-10	**Result in wasteful, inefficient, or unnecessary consumption of energy by residential, commercial, industrial, or public uses?**
Level of Impact	**Less than Significant**

The 2012 EIR determined that with implementation of General Plan Policies and GGRP measures, the project would not result in wasteful, inefficient, or unnecessary consumption of energy. This impact was determined to be less than significant. The proposed changes to the water infrastructure improvements would be fully consistent with General Plan Policies INC 13.5, INC 14.1, INC 15.1 and associated actions, which would promote the deployment of renewable energy technologies throughout existing and future development. With implementation of these measures impacts would also be less than significant.

Impact UTIL-11	**Require the construction of additional electricity, gas, or telecommunications infrastructure facilities, the construction of which could cause significant environmental effects?**
Level of Impact	**No Impact**

The 2012 EIR determined that new utility infrastructure to serve future projects would be minor in nature and would not result in significant effects. This impact was determined to be less than significant. The proposed changes to the water infrastructure improvements would be temporary construction activities and would not require the construction of additional electricity, gas, or telecommunications infrastructure. There would be no impacts due to the proposed changes.

3.11.4 Cumulative Impacts

The 2012 EIR determined that development associated with the General Plan and GGRP would contribute to regional impacts associated with the provision of utilities, but were determined to be less than significant. The proposed changes to the water infrastructure improvements would be temporary construction activities fully consistent with General Plan Policies and GGRP measures and would not be cumulatively considerable.

3.12 OTHER CEQA-REQUIRED SECTIONS

As required by CEQA, this chapter discusses the following types of impacts that could result from implementation of the proposed water infrastructure changes to the General Plan:

- Growth-inducing impacts;
- Unavoidable significant environmental impacts; and
- Significant irreversible changes.

3.12.1 Growth-Inducing Impacts

The 2012 EIR determined that implementation of the General Plan would directly induce population and employment growth in Mountain View by designating land within the city for development that is more intense than current designations allowed. The proposed changes to water infrastructure improvements would be temporary construction activities fully consistent with General Plan policies and GGRP measures and would not induce further growth. Furthermore, the proposed changes are the result of General Plan Policies (Infrastructure and Conservation Policies INC 1.3 and INC 1.4) specifically aimed at ensuring that the City's water infrastructure can accommodate the growth already planned in the 2030 General Plan.

3.12.2 Unavoidable Significant Environmental Impacts

As previously discussed, the 2012 EIR determined that implementation of the General Plan and GGRP was determined to result in the following significant unavoidable impacts on Air Quality and Transportation and Circulation:

- Increased daily land-use-based VMT due to population and employment growth planned within the city;
- Increased motor vehicle traffic and congestion, which would result in decreased roadway and freeway segments levels of service on several roadway and freeway study segments;
- Increased motor vehicle traffic and congestion outside the city of Mountain View;
- Increased traffic noise levels along some roadway and freeway segments in the city;
- Violation of air quality standards by increasing VMT greater than the population increase; and

- Cumulatively considerable net increase in ozone and particulate emissions.

The proposed new water infrastructure improvements, while negligible within the context of General Plan and GGRP implementation, do further perpetuate and add to these previously identified significant and unavoidable impacts.

3.12.3 Significant Irreversible Changes

An EIR must identify any significant irreversible environmental changes that could result from implementation of a proposed project. The 2012 EIR identified irreversible changes including: (1) changes in land use that would commit future generations; (2) irreversible changes from environmental accidents; and (3) consumption of non-renewable resources.

Implementation of the General Plan would commit future generations in the city to intensification of the amount of residential and mixed-use in five change areas: North Bayshore, East Whisman, El Camino Real, San Antonio, and Moffett Boulevard. These land uses would benefit the city and the region by providing needed housing and transit-oriented development within an existing urban area. Development associated with the General Plan would not commit future generations to a development pattern that is often described as "urban sprawl." The proposed changes to the water infrastructure improvements would facilitate this development pattern and would not result in any further commitment of future generations.

The 2012 EIR determined that implementation of General Plan policies and actions would reduce the irreversible or nearly irreversible effects of environmental accidents to less than significant levels. The proposed changes to the water infrastructure improvements would be construction activities potentially susceptible to environmental accidents. These construction activities would be fully consistent with General Plan policies and GGRP measures and the potential for environmental accidents would be less than significant.

The 2012 EIR determined that the development of dense residential and mixed-use districts in close proximity to transit nodes under the General Plan would de-emphasize private automobile use and encourage transit ridership, resulting in the conservation of fossil fuels. Therefore, the General Plan and GGRP would result in the efficient use of non-renewable energy sources. The proposed changes to the water infrastructure

improvements would be fully consistent with General Plan policies and GGRP measures and impacts on use of non-renewable energy sources would be less than significant.

4.0 REFERENCES

AECOM. 2012. *Mountain View Greenhouse Gas Reduction Program*. Prepared for City of Mountain View, CA.

Bay Area Air Quality Management District. 2011. *California Environmental Quality Act Air Quality Guidelines*. June. San Francisco, CA.

Bay Area Air Quality Management District. 2010. *Bay Area 2010 Clean Air Plan*. September 15. San Francisco, CA.

California, State of. 2002. Department of Transportation. *Guide for the Preparation of Traffic Impact Studies*. December. Sacramento, CA.

City of Mountain View. 2012. *Mountain View 2030 General Plan*. Prepared by City of Mountain View Community Development Department, Mountain View, CA. Adopted July 10, 2012.

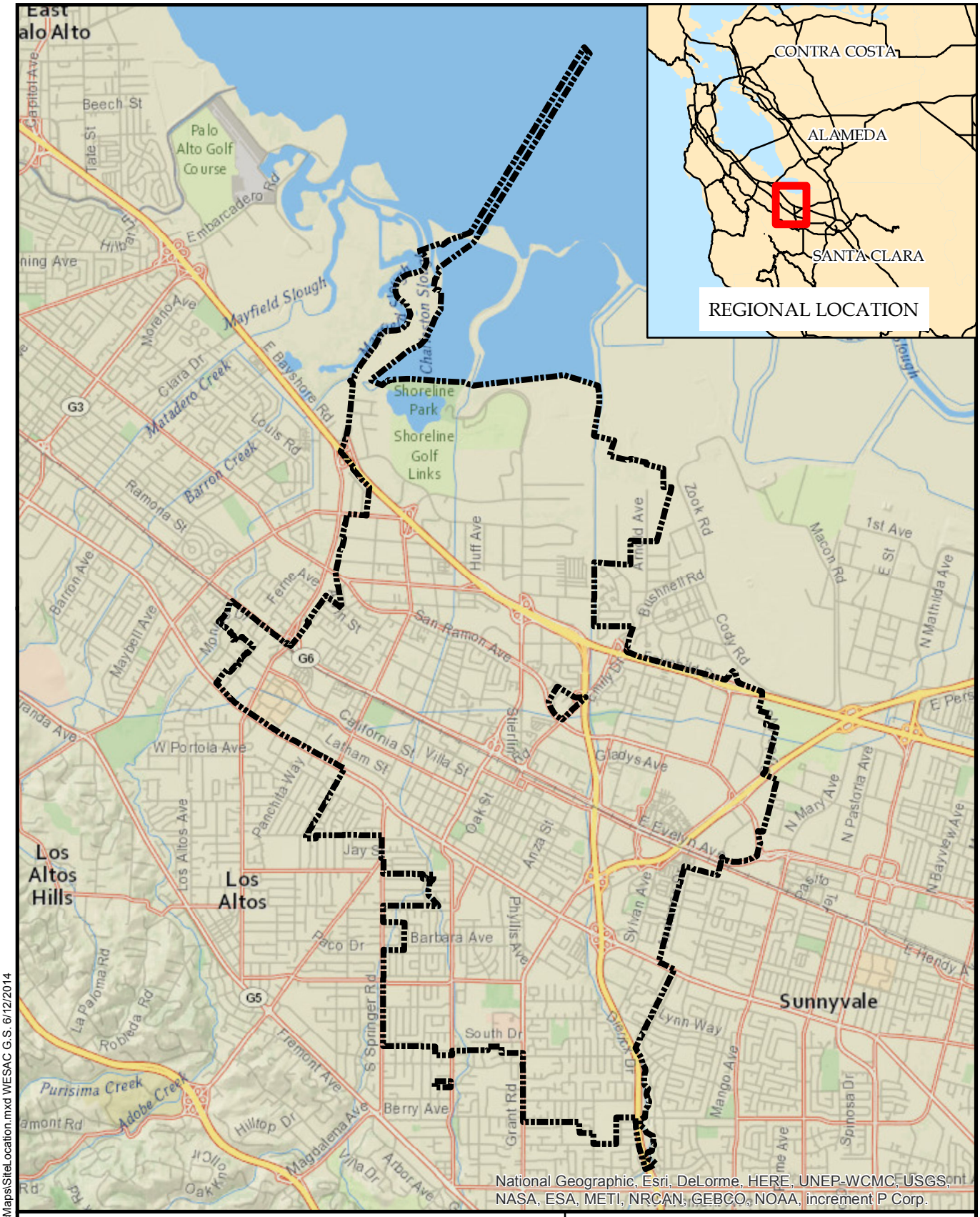
Federal Transit Administration, 2006. *Transit Noise and Vibration Impact Assessment*. May.

International Conference of Building Officials (UBC). 1994. *Uniform Building Code Volume 2; structural engineering design provisions*. Whittier, CA.

LSA Associates. 2012. *City of Mountain View 2030 General Plan and Greenhouse Gas Reduction Program Final Environmental Impact Report*. June. SCH No. 2011012069. Prepared for City of Mountain View, CA.

LSA Associates. 2011. *City of Mountain View Draft 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report*. November. Public Review Draft. SCH No. 2011012069. Prepared for City of Mountain View, CA.

Figures



N

0 25 50

Miles

ERM

Addendum to the 2030 General Plan and Greenhouse Gas Reduction Program EIR
Mountain View, California

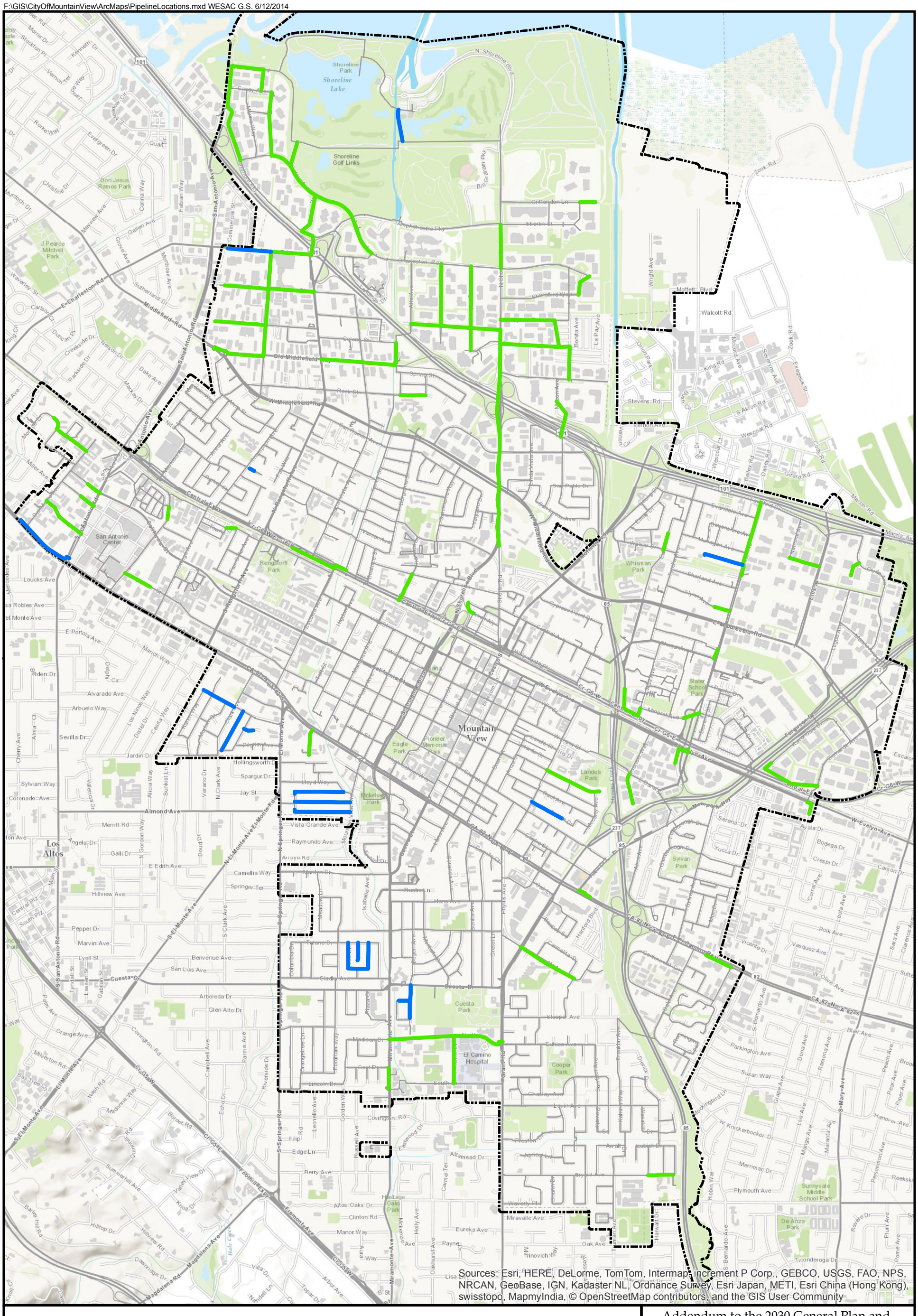
Figure 1
Site Location

PREPARED BY: G.S.

JOB NO. 0251560
FILE: SiteLocation

F:\GIS\CityOfMountainView\ArcMaps\SiteLocation.mxd WESAC G.S. 6/12/2014

F:\GIS\CityOfMountainView\ArcMaps\PipelineLocations.mxd WESAC G.S. 6/12/2014



Legend

- 2014 Planned Pipeline Improvements
- 2010 Planned Pipeline Improvements
- Existing Pipelines
- City of Mountain View Boundary

N

0 0.25 0.5

Miles

Addendum to the 2030 General Plan and Greenhouse Gas Reduction Program EIR
Mountain View, California

Figure 2
Pipeline Improvement Locations

ERM

PREPARED BY:	JOB NO. 0251560
G.S.	FILE: PipelineLocations

Appendix A
Updated Water System Modeling

1171 Homestead Road, Suite 255
Santa Clara, CA 95050-5485
408-246-4848
FAX 408-246-5624
s&w@swsv.com

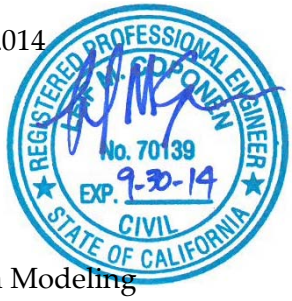
Schaaf & Wheeler
CONSULTING CIVIL ENGINEERS

MEMORANDUM

TO: Ed Arango, PE (City of Mountain View) DATE: June 17, 2014

FROM: Leif Coponen, PE (C70139) JOB #:

SUBJECT: City of Mountain View – 2030 General Plan – Updated Water System Modeling



The City of Mountain View has contracted with Schaaf & Wheeler to conduct water system hydraulic modeling to update the previous work done as part of the 2030 General Plan EIR, specifically *Appendix E1 – General Plan Update Utility Impact Study, October 2011* (GPUUIS). Schaaf & Wheeler received the computer water model files, referred herein as *Model*, (Innovyze's InfoWater format) from the City's previous engineering consultant, these files are used as the basis for the modeling effort performed under this scope of work. This memorandum is intended to discuss the Model revisions for water demands and existing infrastructure, the starting boundary conditions and performance criteria for the modeled scenarios, the revision to fire flow requirements, and required capital improvements to meet the City's system performance criteria. The analyses contained within this memorandum only consider the water system hydraulic conveyance performance and do not provide recommendations regarding water supply capacity or water storage capacity requirements.

Model Revisions

Schaaf & Wheeler engineers reviewed the City-provided Model for consistency with the written content of the GPUUIS and City water infrastructure records. The system demands within the existing Model were consistent with the City's Water Master Plan, 2010 (WMP). The GPUUIS report identifies an average daily demand increase of close to 20-percent for future planning year 2030, when comparing the WMP land uses to the 2030 General Plan land uses. Schaaf & Wheeler updated the Model with revised average daily demands based upon the parcel information and demand changes identified in the GPUUIS Appendix A, Table 1. Total average daily demand (Year 2030) used for the updated model is 17.4 million gallons per day (MGD), which is consistent with GPUUIS Table 3-1 when line loss is added per WMP Table 4-5.

Our engineers also reviewed the Model network for consistency with the City's water system Block Maps, GIS shapefiles, and as-built plans. Several inconsistencies were discovered and corrected based upon verification and communications with City operations personnel. The revised network components include: pipe sizes and connections, pump station piping configurations, valve operation and configurations, and junction elevations.

Boundary Conditions

The City and Schaaf & Wheeler set starting boundary conditions for the model that are consistent with industry standards. Boundary conditions include valve settings, number of pumps ON, and water level in hydraulic grade controlling reservoirs. Table 1 summarizes the boundary conditions used for the updated model.

Table 1: Starting Boundary Conditions

Turnout Valve Settings		HGL
	SFPUC #5 (Zone 1)	189
	SFPUC #7 (Zone 2)	275
	SFPUC #14 (Zone 2)	269
	SCVWD (Zone 3)	317
Pump Station Pumps		# ON
	Graham Zone 1	1
	Graham Zone 2	1
	Miramonte Zone 3	2
	Whisman Zone 1	1
	Whisman Zone 2	1
Tanks		Initial Level
	Miramonte	12

The City receives the majority of their water supply by pressure regulated turnouts from the San Francisco Public Utilities Commission (SFPUC) and the Santa Clara Valley Water District (SCVWD). The turnouts are modeled with pressure reducing valve settings consistent with current operations. Pump station capacities are modeled based upon current operating parameters and system constraints, and up to a maximum of firm pumping capacity for each pressure zone (largest pump out of service). The Miramonte Tank is the free water surface for Pressure Zone 1, which helps set the hydraulic grade line for the pressure zone. The initial tank level is set at the bottom of the equalization band of the tank storage volume to simulate peak demand conditions when the tank is draining.

Scenarios and Performance Criteria

Two demand condition scenarios are analyzed to determine required system improvements to meet the City's performance criteria, Peak Hour Demand (PHD) and Fire Flow with Maximum Day Demand (MDD+FF). Separate performance criteria are established for each scenario. The performance criteria used for this modeling effort conforms to the criteria established in the WMP Section 5.4.1, with the exception of pipe velocity constraints. Table 2 summarizes the performance criteria used for the modeling analyses.

Table 2: Performance Criteria

Criteria	PHD	MDD+FF
Minimum Allowable System Pressure (psi)	40	20

The first scenario analyzed is the Peak Hour Demand condition. The average daily demand for each demand junction throughout the City has a peaking factor applied based upon Table 6-2 of the GPUUIS, also provided in Table 3. The model is analyzed to determine any portion of the water system that does not meet the minimum allowable pressure. The second scenario analyzed is the Fire Flow with Maximum Day Demand. The average daily demand for each demand junction throughout the City has a peaking factor applied based upon Table 6-2 of the GPUUIS, and Table 3 of this report. The Fire Flow function of the modeling software is utilized to determine the highest available fire flow at each junction, one junction at a time, while maintaining the minimum allowable pressure within the water system.

Table 3: Peaking Factors

Scenario	Peaking Factor (*ADD)
Maximum Day	1.71
Peak Hour	2.79

Fire Flow Requirements

In order to analyze the water system's ability to adequately convey potential fire flows throughout the system, fire flow criteria need to be set. The City's WMP discusses the planning level fire flow requirements related to City land use categories. The previous fire flow requirements are used for this analysis without any reduction factors, based upon discussions and direction from the City. Table 4 summarizes the fire flow requirements identified in the WMP.

Table 4: WMP Identified Fire Flow Requirements

Land Use	Required Fire Flow (gpm)
Single Family Residential	1,500
Multi-Family Residential	2,500
Schools	2,500
Business and Small Commercial	1,500-3,500
Industrial and Commerical Centers	3,500-5,000

Schaaf & Wheeler applied fire flow requirements for the various land uses adopted as part of the 2030 General Plan EIR. Table 5 summarizes the fire flow requirements per land use that are used for the updated modeling analyses. While applying fire flow requirements, Schaaf & Wheeler used previous parcel-specific (non-reduced) fire flow requirements identified in the WMP as a guide to be consistent between different studies.

Table 5: Fire Flow Requirements per 2030 GP Land Uses

Land Use	Required Fire Flow (gpm)
Low-Density Residential	1,500
Medium Low-Density Residential	1,500
Medium to High-Density Residential	2,500
Neighborhood Commerical	3,500
General Commercial	5,000
Industrial/Regional Commercial	5,000
Office	3,500
High-Intensity Office	5,000
General Industrial	3,500
Neighborhood Mixed-Use	3,500
General Mixed-Use	5,000
Mixed-Use Corridor	3,500
North Bayshore Mixed-Use	5,000
Mixed-Use Center	5,000
Downtown Mixed-Use	3,500
Parks	1,500
Schools/Public Meeting/Churches	2,500
Institutional/Hospitals	5,000

Capital Improvement Requirements

The Peak Hour Demand and Maximum Day Demand with Fire Flow scenarios were used to determine needed infrastructure improvements to the water system in order to meet performance criteria. Projects are developed using the hydraulic computer model to identify deficiencies, and then increasing conveyance capacity by increasing existing pipe sizes (replacement), by installing new pipes parallel to existing, or by installing new pipes where none previously existed until deficiencies are eliminated. A capital improvement project list is developed as a tool for the City to assess the need for infrastructure improvements to adequately serve future demands as the City increases growth. The unit project costs used for this analysis are based upon the GPUUIS unit costs identified in Table 6-3 of that report, and for convenience Table 6 of this report, to allow easier comparison between the two reports.

Table 6: Pipeline Unit Costs

Pipe Diameter (in)	Unit Cost ($/LF)
8	$130
12	$210
14	$270
16	$300
18	$340
Casing	*$800*

The description of the development of pipeline unit costs can be found in Section 6.1 of the GPUUIS, for reference. Schaaf & Wheeler has added the unit cost for installing casing pipe for freeway/Caltrans right-of-way crossings, as the previous reports did not include pipe improvements across controlled access roads.

Pipe segments requiring improvements based upon the modeling results are summarized in Table 7, including general location description, existing pipe size, new pipe size, pipe length, type of improvement (new, replacement, or parallel), unit costs, and estimated project cost. Figure 1 provides a visual representation of where each improvement project is located within the City.

Table 7: Recommended Hydraulic Improvements

Project ID	Location	Length (ft)	Existing Diameter (in)	New Diameter (in)	N - New R - Replace P - Parallel	Unit Cost	Total Cost
1	Bryant Ave, btw Brower Ave and Lubich Dr	550	8	12	R	$210	$ 115,500
2	Hospital Dr, btw North Dr and South Dr	1135	8	12	R	$210	$ 238,350
3	Miramonte Ave, btw Gest Dr and Amalfi Way	520	12	16	R	$300	$ 156,000
4	Overland, btw Miramonte Ave and Hospital Dr	1550	-	16	N	$300	$ 465,000
5	North Dr, btw Hospital Dr and Grant Rd	1290	8	12	R	$210	$ 270,900
6	Begen Ave and Bond Way, south of Cuesta Dr	1050	4/6	8	R	$130	$ 136,500
7	Martins Ave, btw Grant Rd and Barcelona Ct	1480	-	8	N	$130	$ 192,400
8	Lee Dr, btw Tulane Dr and Duke Way	830	4	8	R	$130	$ 107,900
9	Tulane Ct, south of Tulane Dr	420	4	8	R	$130	$ 54,600
10	Cornell Dr, btw Tulane Dr and Duke Way	880	4	8	R	$130	$ 114,400
11	Marilyn Dr, btw Springer Rd and Meadow Ln	900	8	12	R	$210	$ 189,000
12	Ernistine Ln, btw Ronden Ct and Lloyd Way	1220	4	8	R	$130	$ 158,600
13	Todd St, btw Dennis Ln and Mountain View Ave	1320	4	8	R	$130	$ 171,600
14	Gilmore St, btw Dennis Ln and Mountain View Ave	1360	4/6	8	R	$130	$ 176,800
15	Rich Ave, south of El Camino Real	605	6	8	R	$130	$ 78,650
16	Anthony Ct, east of Blackfield Way	230	4	8	R	$130	$ 29,900
17	Judson Dr, btw Marich Way and Jardin Dr	1065	4	8	R	$130	$ 138,450
18	Marich Way, btw Karen Way and Clark Ave	830	8	12	R	$210	$ 174,300
19	El Camino Real, east of Yuba Dr	305	8	12	R	$210	$ 64,050
20	El Camino Real, west of Crestview Dr	665	8	12	R	$210	$ 139,650
21	Pioneer Way, south of E. Dana St	735	8	12	R	$210	$ 154,350
22	Mercy St, east of Calderon Ave	1350	6	8	R	$130	$ 175,500
23	Dalma Dr, east of Calderon Ave	810	4	8	R	$130	$ 105,300
24	E. Evelyn Ave, btw Kittyhawk Way and Ferry Morse Way	65	-	12	N	$210	$ 13,650
25	Kittyhawk Way, south of E. Evelyn Ave	595	8	12	R	$210	$ 124,950
26	Overland, btw Towne Cir and College Ave	240	-	8	N	$130	$ 31,200
27	Showers Dr, south of Sondgroth Way	295	-	8	N	$130	$ 274,350
		295	-	Casing	N	$800	
28	Latham St, east of Showers Dr	680	8	12	R	$210	$ 142,800
29	El Camino Real, west of San Antonio Rd	1545	8	12	R	$210	$ 324,450
30	Fayette Dr, btw Del Medio Ave and San Antonio Rd	500	8	12	R	$210	$ 284,550
		665	8	14	R	$270	
31	Miller Ave, west of San Antonio Rd	405	10	12	R	$210	$ 85,050
32	California St, west of San Antonio Rd	375	8	12	R	$210	$ 78,750
33	Del Medio Ct and Monroe Dr, west of Del Medio Ave	310	6	8	R	$130	$ 225,100
		880	8	12	R	$210	
34	E. Evelyn Ave and S. Bernardo Ave	365	8	12	R	$210	$ 76,650
35	Central Expy, btw Ravendale Dr and N. Bernardo Ave	1550	-	12	N	$210	$ 325,500
36	Whisman Station Dr, btw Miranet Ave and Beverly St	400	-	8	N	$130	$ 52,000
37	Easy St, Central Expy, and Ada Ave	970	8	12	R	$210	$ 203,700
38	N. Whisman Rd, btw Skyview Ct and Gladys Ave	230	-	8	N	$130	$ 29,900
39	Flynn Ave, west of N. Whisman Rd	370	6	8	R	$130	$ 48,100
40	Walker Dr, west of N. Whisman Rd	1060	6	8	R	$130	$ 137,800
41	N. Whisman Rd, btw Walker Dr and Whisman Ct	275	-	12	N	$210	$ 182,750
		-	-	PRV	N	$125,000	
42	N. Whisman Rd, btw Fairchild Dr and Walker Dr	1550	8	12	R	$210	$ 325,500
43	National Ave, west of Ellis St	745	8	12	R	$210	$ 156,450
44	Clyde Ct, south of Clyde Ave	380	8	12	R	$210	$ 79,800
45	Easy St, north of Walker Dr	400	6	8	R	$130	$ 52,000
46	Jackson Alley, south of Jackson St	325	-	8	N	$130	$ 42,250
47	Granada Dr, btw PCJPB ROW and Wright Ave	700	8	12	R	$210	$ 227,000
		100	-	Casing	R	$800	
48	Central Expy, btw Silverwood Ave and Farley St	275	8	12	R	$210	$ 57,750
49	Central Expy Crossing, near Escuela Ave	100	-	12	N	$210	$ 101,000
		100	-	Casing	N	$800	
50	Central Expy, west of Escuela Ave	1115	16	18	R	$340	$ 379,100
51	N. Shoreline Blvd, btw Terra Bella Ave and Sterlin Rd	2250	-	16	P	$300	$ 675,000
52	N. Shoreline Blvd, btw La Avenida St and Terra Bella Ave	1900	-	16	P	$300	$ 1,450,000
		1100	-	Casing	P	$800	
53	N. Shoreline Blvd, btw Plymouth St and La Avenida St	1000	12	16	R	$300	$ 300,000
54	US 101 Crossing, btw Macon Ave and San Rafael Ave	940	-	12	N	$210	$ 597,400
		500	-	Casing	N	$800	
55	Rock St, btw Telford Ave and Camp Ave	605	6	8	R	$130	$ 78,650
56	Armand Ave, btw Villa and La Avenida St	345	8	12	R	$210	$ 72,450
57	Armand Ave, btw Pear Ave and Villa	700	-	12	N	$210	$ 147,000
58	Armand Ave, btw Space Park Way and Pear Ave	645	-	12	N	$210	$ 135,450
59	Pear Ave, btw N. Shoreline Blvd and Armand Ave	1400	8	12	R	$210	$ 294,000

Project ID	Location	Length (ft)	Existing Diameter (in)	New Diameter (in)	N - New R - Replace P - Parallel	Unit Cost	Total Cost
60	Space Park Way, btw N. Shoreline Blvd and Armand Ave	1285	8	12	R	$210	$ 269,850
61	Shorebird Way, south of Charleston Rd	570	-	12	N	$210	$ 119,700
62	N. Shoreline Blvd, btw Amphitheatre Pkwy and Charleston Rd	1050	12	16	R	$300	$ 315,000
63	Crittenden Ln, east of N. Shoreline Blvd	375	8	12	R	$210	$ 78,750
64	Joaquin Rd, btw Charleston Rd and Plymouth St	1305	8	12	R	$210	$ 274,050
65	Huff Ave, btw Charleston Rd and Plymouth St	1480	8	12	R	$210	$ 310,800
66	Overland, south of Joaquin Rd and Plymouth St	535	8	12	R	$210	$ 112,350
67	Plymouth St, btw Alta Ave and Huff Ave	2135	8	12	R	$210	$ 448,350
68	Parallel Permanente Creek, north of Old Middlefield Way	480	12	14	R	$270	$ 129,600
69	Old Middlefield Way, btw N. Rengstorff Ave and Telford Ave	1835	12	16	R	$300	$ 550,500
70	W. Middlefield Rd, btw Fairview Dr and Alvin St	405	6	8	R	$130	$ 52,650
71	Old Middlefield Way, btw Alvin St and Independence Ave	845	8	12	R	$210	$ 177,450
72	Independence Ave, btw Wyandotte St and Old Middlefield Way	745	8	12	R	$210	$ 156,450
73	Wyandotte St, west of Independence Ave	1210	8	12	R	$210	$ 254,100
74	Independence Ave, btw Leghorn St and Wyandotte St	865	8	12	R	$210	$ 181,650
75	Leghorn St, west of Independence Ave	1045	8	12	R	$210	$ 219,450
76	Leghorn St, btw Independence Ave and N. Rengstorff Ave	1105	8	12	R	$210	$ 232,050
77	Independence Ave, btw Charleston Rd and Leghorn St	890	8	12	R	$210	$ 186,900
78	Charleston Rd, west of Independence Ave	1025	8	12	R	$210	$ 215,250
79	Charleston Rd, btw Independence Ave and N. Rengstorff Ave	960	8	12	R	$210	$ 201,600
80	US 101 Crossing, near Rengstorff Ave	450	-	12	P	$210	$ 454,500
		450	-	Casing	P	$800	
81	Overland, east of Salado Dr	320	12	16	R	$300	$ 96,000
82	Salado Dr, btw Garcia Ave and BayshorePkwy	810	8	12	R	$210	$ 170,100
83	Garcia Ave, btw Salado Dr and Amphitheatre Pkwy	1045	8	12	R	$210	$ 219,450
84	Charleston Rd, btw Amphitheatre Pkwy and Landings Dr	990	8	12	R	$210	$ 207,900
85	Garcia Ave, west of Salado Dr	935	8	12	R	$210	$ 196,350
86	Garcia Ave, east of Marine Way	525	8	12	R	$210	$ 110,250
87	Overland, btw golf course and Garcia Ave	595	-	12	N	$210	$ 124,950
88	Overland, btw Coast Ave and Garcia Ave	1000	-	12	N	$210	$ 210,000
89	Overland, btw Casey Ave and Coast Ave	515	-	12	N	$210	$ 108,150
90	Broderick Way, btw Terminal Blvd and Casey Ave	520	8	12	R	$210	$ 109,200
91	Terminal Blvd, btw San Antonio Rd and Broderick Way	760	8	12	R	$210	$ 159,600
92	Bayshore Pkwy and San Antonio Road, north of Garcia Ave	2355	8	12	R	$210	$ 494,550
93	Overland at golf course	760	8	12	R	$210	$ 159,600
94	Laura Ln, east of Thompson Ave	120	4	8	R	$130	$ 15,600
Water System Hydraulic Improvements							**$18,742,450**

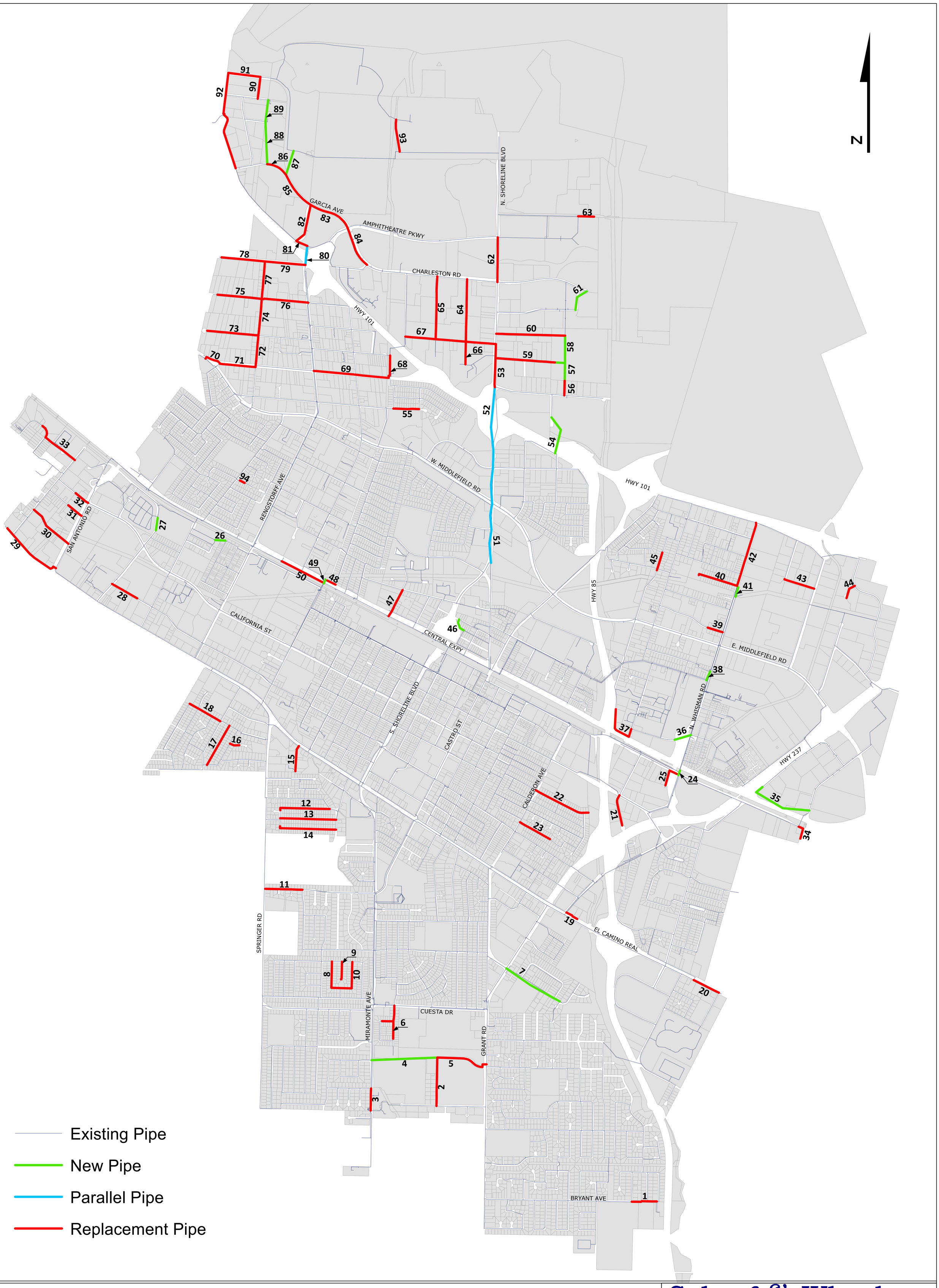


FIGURE 1: Hydraulic Pipe Improvements

Schaaf & Wheeler
Consulting Civil Engineers

City of Mountain View
2030 General Plan
Updated Water System Modeling
Memorandum

Date: 6/17/2014
Map By: SAT