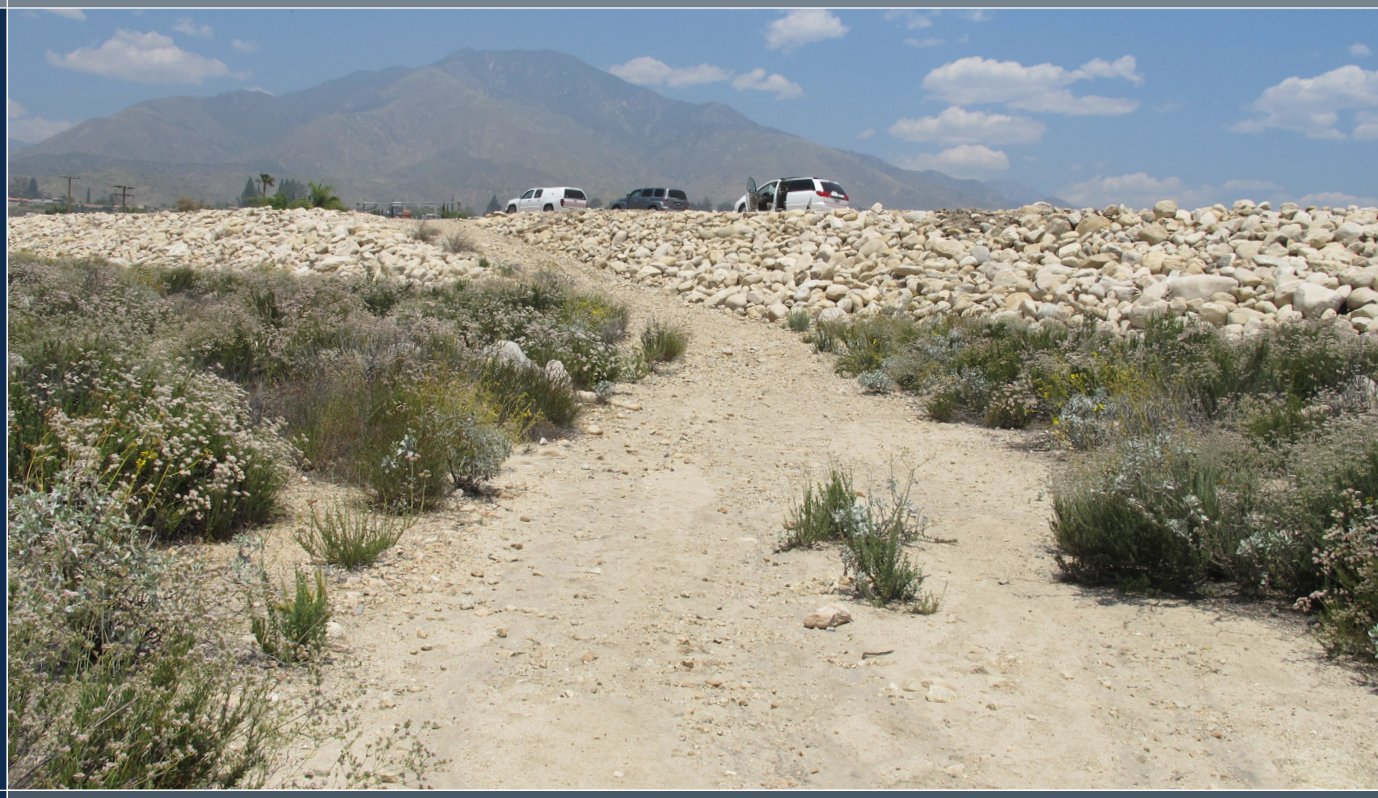
Western San Bernardino County Distribution System Infrastructure Protection Program

FINAL PROGRAM ENVIRONMENTAL IMPACT REPORT, FINDINGS OF FACT, AND MITIGATION MONITORING AND REPORTING PROGRAM

SCH NO. 2014111071



OCTOBER 2020

The Metropolitan Water District
of Southern California
700 North Alameda Street
Los Angeles, California 90012

Metropolitan Report 1626

FINAL

Western San Bernardino County Distribution System Infrastructure Protection Program Environmental Impact Report Findings of Fact and Mitigation Monitoring and Reporting Program SCH No. 2014111071 Metropolitan Report 1626

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
ACOE	U.S. Army Corps of Engineers
APM	Applicant Proposed Measure
ASTM	American Society for Testing and Materials
BMP	best management practice
C&D	construction and demolition
Cal/OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Commission
CGP	Construction General Permit
CIP	Capital Investment Plan
CO	carbon monoxide
CO_2e	carbon dioxide equivalent
CRPR	California Rare Plant Rank
DSIPP	Distribution System Infrastructure Protection Program
EIR	environmental impact report
EPA	U.S. Environmental Protection Agency
ESA	federal Endangered Species Act
GHG	greenhouse gas
GR	Global Response
HCP	habitat conservation plan
LST	localized significance threshold
MLD	most likely descendant
MM	Mitigation Measure
MMRP	Mitigation Monitoring and Reporting Program
MT	metric ton
NAHC	Native American Heritage Commission
NCCP	natural community conservation plan
NOA	Notice of Availability
NOP	Notice of Preparation
NO_x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
O_3	ozone

Acronym/Abbreviation	Definition
PEIR	program environmental impact report
$PM_{2.5}$	fine particulate matter
PM_{10}	coarse particulate matter
PRIMP	paleontological resource impact mitigation program
ROW	right-of-way
RWQCB	Regional Water Quality Control Board
SCAQMD	South Coast Air Quality Management District
SO_x	sulfur oxides
SR	State Route
SRS	Safety Regulatory Services
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
USFWS	U.S. Fish and Wildlife Service
VOC	volatile organic compound

1 Introduction to the Final Program Environmental Impact Report

The Metropolitan Water District of Southern California (Metropolitan) is proposing the design, construction, operation, and maintenance of Capital Investment Plan (CIP) projects and preparation and implementation of an Operations and Maintenance (O&M) Manual for the conveyance and distribution system within its Western San Bernardino County Operating Region (proposed program). The proposed program is identified as the Distribution System Infrastructure Protection Program (DSIPP, or proposed program).

1.1 Introduction

This final program environmental impact report (PEIR) assesses the potentially significant environmental impacts of the proposed program. As described in the California Environmental Quality Act (CEQA) statute and the CEQA Guidelines, public agencies are charged with the duty to avoid or substantially lessen significant environmental effects, with consideration of other conditions, including economic, social, technological, legal, and other benefits. As required by CEQA, this Final PEIR assesses the significant direct and indirect environmental impacts of the proposed program, as well as the significant cumulative impacts that could occur from implementation of the proposed program. This Final PEIR is an informational document only, the purpose of which is to identify the significant impacts of the proposed program on the environment; to indicate how those significant impacts could be avoided or significantly lessened, including feasible mitigation measures; to identify any significant and unavoidable adverse impacts that cannot be mitigated to less than significant; and to identify reasonable and feasible alternatives to the proposed program that would avoid or substantially lessen any significant adverse environmental impacts associated with the proposed program and achieve the fundamental objectives of the proposed program.

The Final PEIR itself does not control how a project can be developed or constructed; rather, the governmental agency must respond to the information contained in the EIR by one or more of the seven methods outlined in Section 15002(h) of the CEQA Guidelines:

1. Changing a proposed project.
2. Imposing conditions on the approval of the project.
3. Adopting plans or ordinances to control a broader class of projects to avoid the adverse changes.
4. Choosing an alternative way to meet the same need.
5. Disapproving the project.
6. Finding that changing or altering the project is not feasible.

7. Finding that the unavoidable significant environmental damage is acceptable as provided in Section 15093.

As defined by Section 15050 of the CEQA Guidelines, Metropolitan is serving as the lead agency for the proposed program. The Final PEIR will be used by Metropolitan as an informational document for the proposed program. The purpose of this Final PEIR is to respond to all comments received by Metropolitan regarding environmental information and analyses contained in the Draft PEIR. Section 15132 of the CEQA Guidelines lists the required contents of the Final PEIR:

(a) The Draft PEIR or a revision to the Draft PEIR.
(b) Comments and recommendation received on the Draft PEIR either verbatim or in summary.
(c) A list of persons, organizations, and public agencies commenting on the Draft PEIR.
(d) The responses of the Lead Agency to significant environmental points raised in the review and consultation process.
(e) Any other information added by the Lead Agency.

The responses to comments (Chapter 2, Responses to Comments Received, of this Final PEIR) and the related appendices include copies of all the letters received during and after the close of the Draft PEIR public review period, as described further below, as well as responses to all comments received.

In addition to these responses to comments, the Final PEIR contains clarifications, corrections of minor revisions to the text, tables, figures, and appendices of the Draft PEIR. The Final PEIR will be used by the Metropolitan Board of Directors in the decision-making process for the proposed program. The Draft PEIR has not been modified to reflect these clarifications, except as shown in Chapter 3, Changes to the Draft Program Environmental Impact Report, of this Final PEIR.

California Public Resources Code, Section 21081, and the CEQA Guidelines, Section 15091, require that the lead agency (in this case Metropolitan) prepare written findings for identified significant impact, accompanied by a brief explanation of the rationale for each finding. Specifically, CEQA Guidelines, Section 15091, states the following:

a) No public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. The possible findings are:
    1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.
    2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes

have been adopted by such other agency or can and should be adopted by such other agency.

3) Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

The Findings of Fact in Support of the Proposed Program (Chapter 4 of this Final PEIR) provides the findings made pursuant to the proposed program.

Section 15097 of the CEQA Guidelines states that the lead agency shall adopt a program for monitoring or reporting on the revisions that it has required for the project and the measures it has imposed to mitigate or avoid significant effects. The proposed program's Mitigation Monitoring and Reporting Program (MMRP) describes the mitigation program to be implemented by Metropolitan for the proposed program.

1.2 Contents and Organization of the Final Program Environmental Impact Report

The Final PEIR, in compliance with the CEQA Guidelines, is organized as follows:

Chapter 1, Introduction to the Final Program Environmental Impact Report. This chapter provides general information on, and the procedural compliance of, the proposed program and the Final EIR.

Chapter 2, Responses to Comments Received. This chapter includes a list of those who provided comments on the Draft PEIR during the public review period. This chapter also includes the comments received on environmental issues raised during the public review process for the Draft PEIR, and Metropolitan's responses to these comments. Each comment is assigned a comment number that corresponds to a response number and response.

Chapter 3, Changes to the Draft Program Environmental Impact Report. This chapter contains a summary of changes made to the document since publication of the Draft EIR as a result of comments received. Revisions were made to clarify information presented in the Draft EIR; only minor technical changes or additions have been made. These changes and additions to the EIR do not raise important new issues related to significant effects on the environment, and are insignificant as the term is used in Section 15088.5(b) of the CEQA Guidelines. This chapter describes the changes that were made and presents the textual changes made since public review of the Draft EIR. Changes are signified by strikeout (i.e., ~~strikeout~~) where text was removed, and by underlined text (i.e., <u>underline</u>) where text was added.

Chapter 4, Findings of Fact in Support of the Proposed Program. This chapter addresses the environmental impacts associated with the proposed program as described in the Draft PEIR and makes findings for each of those significant impacts, accompanied by an explanation of the rationale

for each finding. This chapter of the Final PEIR identifies any changes or alterations that have been made to the program to lessen significant effects that could result from the proposed program and mitigation measures that can lessen impacts. Additionally, this chapter identifies and considers a reasonable range of feasible alternatives to the proposed program, which would be capable, to varying degrees, of reducing identified impacts.

Chapter 5, Mitigation Monitoring and Reporting Program. This chapter of the Final EIR provides the MMRP for the proposed program. The MMRP is presented in table format and identifies mitigation measures for the proposed program, the party responsible for implementing the mitigation measures, the timing of implementing the mitigation measures, and the monitoring and reporting procedures for each mitigation measure.

1.3 California Environmental Quality Act Review

Pursuant to Section 15082 of the CEQA Guidelines, a Notice of Preparation (NOP) dated November 20, 2014, was circulated to interested agencies, organizations, and individuals. The NOP was also sent to the State Clearinghouse at the California Governor's Office of Planning and Research. The State Clearinghouse assigned a state identification number (SCH No. 2014111071) to this PEIR. All comments received during the public review period were considered during the preparation of the Draft PEIR. Appendix D of the Draft PEIR includes copies of the comment letters received on the Initial Study/NOP, as well as a table that summarizes the comments received and lists the Draft PEIR chapter where the comment has been addressed.

Upon completion of the Draft PEIR, notice of the public review was given in accordance with Section 15087 of the CEQA Guidelines. In May 2020, a Notice of Availability (NOA) was prepared and distributed to the State Clearinghouse, San Bernardino County Clerk, responsible and true agencies, organizations, interested parties, and all parties who requested a copy of the Draft PEIR in accordance with CEQA. The Draft PEIR was circulated for a 45-day public review period from May 7, 2020, to June 20, 2020. The comments received during that public review period are provided and responded to in Chapter 2 of this Final PEIR.

The NOA and Draft PEIR were available for public viewing and downloading at www.mwdh2o.com/CEQA. Additional copies of the Draft PEIR were available at Metropolitan's Engineering Resources Center office, located at 700 North Alameda Street, Los Angeles, California 90012, as well as the following locations:

Norman F. Feldheym Central Library
555 West 6th Street
San Bernardino, California 92410

Fontana Lewis Library and Technology Center
8437 Sierra Avenue
Fontana, California 92335-3892

Ovitt Family Community Library
215 East C Street
Ontario, California 91764-4111

Rialto Branch Library
251 West 1st Street
Rialto, California 92376

James S. Thalman Chino Hills Branch Library
14020 City Center Drive
Chino Hills, California 91709

Highland Sam J. Racadio Library
7863 Central Avenue
Highland, California 92346-4107

Paul A. Biane Library
12505 Cultural Center Drive
Rancho Cucamonga, California 91739

A.K. Smiley Public Library
125 West Vine Street
Redlands, California 92373

During the comment period, written comments on the Draft PEIR were received by Metropolitan's Environmental Planning Section. The comments were reviewed and Metropolitan determined that no substantial new environmental issues were raised and that all issues raised in the comments were adequately addressed in the Draft PEIR and/or in Chapter 2, Responses to Comments Received, and Chapter 3, Changes to the Draft Program Environmental Impact Report, of this Final PEIR.

Chapter 2 will be mailed out to public agencies that commented on the Draft PEIR 10 days prior to the Metropolitan Board of Directors hearing on the proposed program, per CEQA Guidelines Section 15088.

1.4 Proposed Program Description

This section of the Final PEIR provides a description of the proposed program, including a summary of CIP projects and proposed O&M activities, the objectives of the proposed program, a summary of impacts, and a description of alternatives to the proposed program.

1.4.1 Overview of the Proposed Program

The proposed program is a comprehensive assessment effort that identifies, prioritizes, and executes needed surface infrastructure protection projects for Metropolitan's conveyance and distribution system. The scope of the program includes only those projects that could be identified from visual inspection of the surface or accessed from manholes at the surface. It does not include projects related to the rehabilitation or replacement of subsurface pipelines.

For this program, Metropolitan divided its service area into operating regions based on geographic areas and roughly following county lines. The DSIPP is being implemented in phases by operating region: Phase 1 includes the operating regions of Orange and Western San Bernardino counties; Phase 2 includes the operating regions of Los Angeles and Riverside/San Diego counties; and Phase 3 encompasses San Bernardino County's outlying areas. The subject of this PEIR is the Western San Bernardino County

Operating Region. Metropolitan's operating regions are generally located within the boundaries of each county, but may also include areas that extend slightly beyond the county boundaries.

In order to ensure continued water supply reliability, Metropolitan is proposing to implement a comprehensive program to (1) design, construct, operate, and maintain CIP infrastructure projects that address surface infrastructure maintenance and protection needs, and (2) prepare and implement an O&M Manual for execution of routine O&M activities. Under the DSIPP, this PEIR is being prepared for proposed CIP projects and O&M activities, and long-term programmatic regional permits will be obtained for work within regulated waters to streamline the CEQA and permitting process and execute projects on a regular and timely basis.

There are two components to the proposed program: CIP projects and O&M activities. The two components of the proposed program are described below:

- **CIP Projects**: CIP infrastructure projects generally consist of repair, upgrade, and/or relocation of existing structures, or the installation of permanent structures to address access or infrastructure problems that threaten system reliability. Types of CIP projects fall into three categories: patrol road improvements and paving, engineered erosion control, and slope stabilization. Examples of proposed patrol road improvement projects road grading, removal of old, damaged paving, vegetation removal, placement and compacting base material, and placement of gravel, asphalt, or concrete paving materials. Engineered erosion control projects include installation of structures or repair of existing structures such culverts, corrugated metal pipes, flared inlets and or upstream wing walls/head walls; and slope stabilization would include regrading and compacting of the slope, rock slope protection, soil cement, anchors, tie-backs, stepped retaining walls, or a combination of methods. CIP projects typically require engineering design and would be conducted on a one-time basis. Once a CIP project is built, it would then require implementation of O&M activities to maintain the structure.
- **O&M Activities**: O&M activities within the Western San Bernardino County Operating Region are currently ongoing; however, the O&M Manual would develop a formalized plan that would provide a systematic and scheduled approach to these maintenance activities and would serve as a comprehensive guide for the maintenance of existing water conveyance and distribution system infrastructure. The O&M Manual would describe routine and single-occurrence maintenance activities and provide a schedule for routine inspection and maintenance of patrol roads and pipeline appurtenant structures. Routine and single-occurrence O&M activities are described below.
    - Routine O&M activities are preventive in nature and include, on a regular basis, standard practices that detect and correct minor issues that may eventually lead to damage or loss of surface infrastructure. Types of routine O&M activities include regular patrols and visual inspections of patrol roads and aboveground appurtenant structures; maintenance of patrol roads (e.g., minor grading, vegetation maintenance, and low water crossing and culvert maintenance); routine facility maintenance, repair,

and replacement (e.g., cleaning of equipment and structures, graffiti removal, coating of structures, vegetation maintenance, and repair/installation of security fencing/signage); pipeline shutdowns and dewatering; and emergency procedures. The O&M component of the proposed program would address all routine, ongoing O&M activities for currently constructed structures, as well as the long-term O&M activities for structures proposed under the CIP component of this program.

- Single-occurrence O&M activities are conducted on a one-time basis and would include repair, rehabilitation, or replacement of existing structures to support the continued maintenance of existing pipelines and appurtenant pipeline structures. Examples of single-occurrence O&M activities include patrol road structural repairs, and could include the installation of low water crossings including Arizona crossings, culverts, and/or bridges. Single-occurrence O&M activities may require design engineering; however, the project design is typically not as complex as that of the CIP projects discussed above. Following construction of the structures, long-term maintenance would occur as described in the O&M Manual under routine O&M.

The proposed design, construction, and operation of the CIP infrastructure projects and the preparation and implementation of the O&M Manual considered together are referred to as the proposed program.

1.4.2 Overview of the Western San Bernardino County Distribution System Protection Program Operating Region

The Western San Bernardino County Operating Region comprises Metropolitan's conveyance and distribution system pipelines and appurtenant structures, right-of-way, and patrol roads within the western portion of San Bernardino County, California. The Western San Bernardino County Operating Region includes 74 miles of pipeline, 392 pipeline structures, and approximately 50 miles of patrol roads. As shown in Table 1-1, the Western San Bernardino County Operating Region pipeline and patrol road system extends through San Bernardino County and 10 cities. The cities are as follows:

- Chino Hills
- Fontana
- Highland
- Montclair
- Ontario
- Rancho Cucamonga
- Redlands
- Rialto
- San Bernardino
- Upland

Metropolitan's right-of-way within the Western San Bernardino County Operating Region extends through multiple parcels. All currently identified CIP project locations, and the Assessor's Parcel Numbers in which that work would occur, are listed in Appendix B (CIP Project Locations) to the Draft PEIR.

To support operation of the conveyance and distribution pipelines within the Western San Bernardino County Operating Region, Metropolitan also maintains a complex system of aboveground appurtenant pipeline structures and a system of patrol roads. The activities performed under the proposed program would occur at these structures and along the patrol roads, which are collectively referred to as "associated infrastructure" in the PEIR.

Table 1-1 summarizes information about the pipelines within Metropolitan's conveyance and distribution system that are included in the Western San Bernardino County Operating Region.

Table 1-1. Summary of Western San Bernardino County Operating Region Pipelines

Pipeline	Local Jurisdiction	Year of Construction	Length (Miles)	Flow		Inner Diameter (Inches)		Overview
				From	*To*	*Min*	*Max*	*Description*
Inland Feeder	Cities of San Bernardino, Highland, Redlands; unincorporated area in San Bernardino County	1960s–1990s	29	Department of Water Resources Devil Canyon facility	Diamond Valley Lake	144	168	The purpose for the Inland Feeder is to transport water from the SWP from Devil Canyon to Diamond Valley Lake or Lake Mathews. It provides system reliability and water quality by enabling Metropolitan to divert large volumes of water (when available) from Northern California and deposit it in surface storage reservoirs for use during dry periods or emergencies. It also blends water that is lower in salinity with water that is higher in salinity to improve water quality.
Etiwanda Pipeline	Cities of Fontana and Rancho Cucamonga	1993	6.5	Turnout structure on the Rialto Pipeline at Rialto Station 3667+14	Upper Feeder at Station 1081+03	144	144	The Etiwanda Pipeline connects the Rialto Pipeline with the Upper Feeder to provide the Upper Feeder with SWP water.
Rialto Pipeline	Cities of Upland, Rancho Cucamonga, Fontana, Rialto, San Bernardino; unincorporated area in San Bernardino County	1975	29	California Department of Water Resources Devil Canyon facility	San Dimas facility	96	135	The Rialto Pipeline transports East Branch California SWP water into Metropolitan's supply and distribution system. The Rialto Pipeline is the sole source of water to the Etiwanda Pipeline. The Rialto Pipeline supplies untreated water to a number of service connections for both groundwater replenishment and domestic purposes prior to arriving at the Live Oak Reservoir. The Rialto Pipeline can deliver water into the Live Oak Reservoir for storage or bypass the reservoir. The pipeline continues westerly from the Live Oak Reservoir and interconnects with the La Verne Pipeline near the Glendora Tunnel.
Upper Feeder	Cities of Montclair, Ontario, Rancho Cucamonga, Fontana; unincorporated area in San Bernardino County and Jurupa Valley	1933–1941	63	Lake Mathews Forebay Outlet Tower	Eagle Rock Control Tower at Station 3319+08	84	140	The Upper Feeder delivers a blend of untreated water from the Colorado River Aqueduct and the SWP to the Weymouth Treatment Plant. This feeder also supplies water to a number of service connections for groundwater storage and replenishment.
Yorba Linda Feeder	City of Chino Hills	1975	18	La Verne Pipeline at Station 118+18 near the Upper Feeder Junction Structure	Robert B. Diemer Water Treatment Plant	96	121	The Yorba Linda Feeder can deliver water from the SWP or the Colorado River Aqueduct, or a blend of both waters to the Robert B. Diemer Water Treatment Plant.

Notes: min = minimum; max = maximum; SWP = State Water Project.
Sources: Metropolitan 2005, 2008, 1997.

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1.4.3 Proposed Program Objectives

The proposed program objectives are as follows:

- Maintain access to pipelines and appurtenant structures to conduct necessary maintenance to ensure reliability of the water supply conveyance and distribution system.
- Address associated infrastructure issues that threaten the reliability and/or security of the conveyance and distribution system and water supply to Metropolitan's service area by implementing proposed infrastructure protection projects.
- Provide a systematic and scheduled approach to ongoing routine maintenance activities.
- Obtain regional permits that provide long-term permitting approval and streamline environmental clearance processes for maintenance projects in regulated waters.
- Streamline environmental clearances and enable Metropolitan to implement proposed CIP projects and critical O&M activities in a timely manner, especially for those projects in environmentally sensitive or regulated areas.

1.4.4 Program Description

1.4.4.1 Description of CIP Projects

The proposed CIP projects generally consist of repair, upgrade, and/or relocation of existing structures, or the installation of permanent structures to address access or infrastructure problems that threaten system reliability. A list of the proposed CIP projects identified in the Western San Bernardino County DSIPP Assessment Report is included in Appendix B of the Draft PEIR. It should be noted that the proposed program description for CIP infrastructure projects only includes design and construction of the projects; O&M activities following construction of CIP projects would be covered under the O&M component of this program description.

Table 1-2 summarizes the proposed CIP project types identified in the Western San Bernardino County DSIPP assessment, including activity duration and equipment.

Table 1-2. Summary of Western San Bernardino County Operating Region DSIPP Proposed CIP Projects

CIP Activity Code No.	Activity	Typical Duration	Typical Equipment Needs
1	Patrol road improvements and paving	1–3 days	Tractor, loader, backhoe, excavator, dump truck, motor grader, roller, paver, water truck
2	Engineered erosion control	Up to 2 weeks	Blade, loader, excavator, dump truck, water truck
3	Slope stabilization	Up to 4 weeks	Dozer, loader, backhoe, blade, dump truck, water truck

Notes: DSIPP = Distribution System Infrastructure Protection Program; CIP = Capital Investment Plan.

Patrol Road Improvements and Paving

Metropolitan maintains approximately 50 miles of paved and unpaved patrol roads within the Western San Bernardino County Operating Region. Some patrol roads are subject to repeated and severe erosion and become impassable due to ruts, potholes, and gullies caused by erosion. In certain locations, unpaved roads or deteriorated paved roads would be paved or repaved to reduce the frequency and magnitude of maintenance issues. Additionally, in areas where existing patrol roads are narrow, road widening to Metropolitan's existing maximum road width (generally a 16-foot-wide patrol road, with 4-foot buffers on either side, for a total of 24 feet in width) would occur. Paving/road-widening activities would include grading of the road to a maximum of 16 feet in width; removal of old, damaged paving; vegetation removal; placement and compacting of base material; and placement of the asphalt or concrete paving materials.

Erosion can also occur in the vicinity of aboveground appurtenant pipeline structures and result in damage to these structures. In these cases, paving would be performed around these structures to reduce the potential for damage and reduce the need for future routine vegetation maintenance, erosion control, and replacement of structures. The paving would be restricted to a 20-foot radius (maximum) around the structure and would consist of reinforced concrete paving or concrete in previously disturbed and maintained areas.

There are 13 identified CIP projects in the Western San Bernardino County Operating Region. Of the 13 CIP projects, 8 involve patrol road grading, grading and paving, or paving around manhole structures, which are generally already disturbed and are maintained as part of current operations. Maintaining patrol roads and controlling water runoff through the maintenance of the patrol roads is a critical function of the DSIPP. Because this type of project is so prevalent, it can be assumed to occur throughout the Western San Bernardino County Operating Region.

Engineered Erosion Control

Engineered erosion control would consist of the installation of permanent structures or repair of existing structures, such as culverts, corrugated metal pipes, flared inlets, and/or upstream wing walls/head walls, necessary to safely direct stormwater flows or creek flows across or along patrol roads or around pipeline appurtenances. This type of proposed CIP project, which typically requires engineering design, is intended to prevent excess sediment deposition and accelerated erosion in features that convey creek flows and/or stormwater flows without impeding or accelerating the flows. The discharge points where stormwater is directed from the constructed feature into a water body would be stabilized with concrete or ungrouted riprap, or by other feasible methods, as necessary.

Slopes adjacent to Metropolitan's structures and Metropolitan structures adjacent to patrol roads would be stabilized with retaining walls, secant walls, gabions, or concrete structure protection to minimize erosion-related issues, which can undermine aboveground structures and patrol roads and threaten the integrity of Metropolitan's system.

In addition, portions of Metropolitan's pipeline system extend beneath creeks, drainages, or other areas of concentrated flows. The natural cover over the pipelines scours over time and eventually there is potential for pipeline exposure. Additional erosion and scour once the pipeline is exposed can result in corrosion and pipe failure. Where pipe exposure, potential pipe exposure, or lack of significant cover has been identified, Metropolitan would provide additional soil cover (where erosion is slower), construct level control structures, or protect the pipeline in place with a concrete covering.

Of the approximately 13 CIP projects in the Western San Bernardino County Operating Region, approximately 12 involve engineered erosion control. These projects typically are located near patrol roads and are needed because the integrity of the patrol road is compromised. In other cases, the bottom of a channel or the bank of a channel has eroded, and engineered erosion control is necessary to prevent further erosion from occurring. This is of particular concern when the erosion is destabilizing an area where there is an underground pipeline and the pipeline will become or already has become exposed. In other cases, there is erosion around blowoff structures, pump wells, or manholes that needs to be repaired so the manhole does not sustain damage.

Slope Stabilization

Slope stabilization projects are proposed where instability presents an appreciable risk to the safety and continuity of the Metropolitan pipeline system. Erosion may also be an issue in areas where larger drainages or washes that convey large quantities of flow are present. These locations typically require annual repair work that may be significantly minimized through the construction of drainage improvements or stabilization structures. In several areas, Metropolitan has noted small to medium-sized gullies that are progressively getting larger through a combination of waterfall erosion (at the head of the gully from cascading water) and landslide erosion along gully banks. In other locations, the occurrence of previous slides or slope failures indicates that the areas may be vulnerable in the future. The slope repair design would include regrading and compacting of the slope, rock slope protection, soil cement, anchors, tie-backs, stepped retaining walls, or a combination of methods.

Of the approximately 13 CIP projects, 4 involve slope stabilization. These projects typically involve bank protection, addition of fill to shore up undermined structures, construction of curbs or retaining walls, and addition of riprap and other materials to stabilize slopes. General locations of these types of projects include slopes above manholes and patrol roads, as well as other Metropolitan aboveground facilities that are at risk from erosion due to unstable slopes.

1.4.4.2 Description of Proposed O&M Activities

Metropolitan's proposed O&M activities are conducted on a regular and ongoing basis and are intended to maintain existing structures, patrol roads, and other appurtenant pipeline structures. These activities are currently ongoing in the Western San Bernardino County Operating Region; however, the Draft O&M Manual (Appendix A of the Draft PEIR) establishes a formalized plan that would provide a systematic and scheduled approach to these maintenance activities and would serve

as a comprehensive guide for the maintenance of existing water conveyance and distribution infrastructure. For the purposes of this CEQA document, O&M activities are divided into two categories: routine O&M activities and single-occurrence O&M activities.

Routine O&M activities do not require extensive engineering or involve the construction of new facilities. They are repeated, routine activities that occur and will continue to occur at regular intervals to maintain patrol roads and other infrastructure in good condition. These activities include patrols and visual inspections; patrol road maintenance; maintenance/cleanout of drainage features; facility maintenance, repair, and replacement; vegetation management/maintenance; and other activities such as pipeline shutdowns/dewatering and emergency work.

Single-occurrence O&M activities would typically be conducted on a one-time basis and would include repair, rehabilitation, or replacement of existing structures to support the continued operation and maintenance of existing pipelines and appurtenant pipeline structures. This includes reestablishment of access to structures through repair and rehabilitation of the patrol roads. In the Western San Bernardino County Operating Region, single-occurrence O&M activities are primarily limited to patrol road structural repairs, and would include installation of low water crossings such as Arizona crossings, culverts, and/or bridges. All proposed O&M activities within the Western San Bernardino County Operating Region are described in the Western San Bernardino County Operating Region O&M Manual. The O&M Manual describes the range of O&M activities that are performed on a regular basis to ensure the continued safety and reliability of water deliveries to Metropolitan's member agencies. For each type of O&M activity, the O&M Manual provides the following:

- General description of work performed
- Description of vehicle and equipment needs
- Description of activity timing and/or frequency

In addition, the O&M Manual includes a description of notification and reporting requirements for work in federal and/or state jurisdictional streambeds and wetlands, in U.S. Fish and Wildlife Service-designated critical habitat, or in the vicinity of special-status wildlife species or nesting birds. It also includes a list of standard best management practices (BMPs) implemented to avoid soil erosion, sedimentation, discharges of materials to stormwater or into water bodies, and the spread of invasive plant species.

Table 1-3 summarizes the activities that will be addressed in the O&M Manual, including activity timing, frequency, and duration, as well as equipment needs.

Table 1-3. Summary of Western San Bernardino County Operating Region DSIPP Proposed O&M Activities

O&M Activity Code No.	Activity	Frequency	Typical Duration	Typical Equipment Needs
Routine O&M Activities				
Patrol Road Maintenance				
1	Grading of patrol roads	Annually and as needed	Ongoing (55 days total to grade all patrol roads in Western San Bernardino County Operating Region)	Motor grader, backhoe, excavator, loader, water truck, dump truck, scraper, and dozer
2	Vegetation maintenance along patrol roads	Annually, prior to grading of patrol roads, and as needed	Ongoing	Bobcat with mower, construction-grade lawn mower, and water truck
3	Culvert maintenance	Annually	1 day per culvert	Motor grader, backhoe, excavator, loader, water truck, dump truck, scraper, dozer, light towers, generators, pumps, and handheld tools
4	Vegetation removal along patrol roads	As needed	Ongoing	Bobcat with mower, construction-grade lawn mower, water truck, and handheld tools
5	Maintenance of low water/Arizona crossings	As needed, typically following large storm events	1 day per crossing	Motor grader, backhoe, excavator, loader, water truck, dump truck, scraper, dozer, light towers, generators, and pumps
6	Erosion control	As needed, typically prior to and following large storm events	1 to 3 days per event	Motor grader, backhoe, excavator, loader, water truck, dump truck, scraper, dozer, and handheld tools; crane, if pipeline segments are placed
Patrol and Inspection				
7	Patrolling and inspections	Weekly with light truck, twice per year with utility truck	Ongoing	Light truck or utility truck; water quality sample collection may be conducted during inspections and would include handheld tools to collect samples
Routine Structure Maintenance, Repair, and Replacement				
8	Cleaning of equipment and structures	Quarterly	Ongoing	Garden hoses, handheld tools, and Metropolitan-approved, biodegradable cleaning solvents
9	Graffiti removal and coating of structures	As needed for graffiti removal; coating every 5 years	Ongoing	Light vehicles, utility truck, handheld tools, such as coating brushes and rollers, hand sanders or pressure-pot sprayer sand blaster

Table 1-3. Summary of Western San Bernardino County Operating Region DSIPP Proposed O&M Activities

O&M Activity Code No.	Activity	Frequency	Typical Duration	Typical Equipment Needs
10	Vegetation maintenance around structures	Annually and as needed	Ongoing	Bobcat with mower, construction-grade lawn mower, water truck, handheld tools, and hand-held sprayer for herbicide
11	Pipeline appurtenance maintenance, repair and replacement (e.g., blowoff structure, pump wells, manholes, vacuum valves, service connections, pressure control structures, pump stations, and valves)	As needed	Ongoing	Handheld tools or mechanical equipment, such as a motor grader, backhoe, excavator, loader, water truck, dump truck, scraper, dozer, light towers, generators, utility truck, and pumps
12	Pest control	Monthly or as needed	Ongoing	Handheld sprayers and bait stations
Other				
13	Shutdowns/ dewatering	As needed	1 to 10 days	Crane, light towers, utility truck, trailers, generators, pumps, temporary piping, and erosion control materials
14	Emergency work	As needed	As needed depending on nature of emergency	As needed depending on nature of emergency
Single-Occurrence O&M Activities				
15	Patrol road structural repairs (low water crossings including Arizona crossings, culverts, and bridges)	As needed	As needed depending upon type of structure	Motor grader, backhoe, excavator, loader, water truck, dump truck, scraper, dozer, and a crane

Sources: Metropolitan 2001, 2013.
Notes: DSIPP = Distribution System Infrastructure Protection Program; O&M = Operations and Maintenance.

Routine O&M Activities

Patrol Road Maintenance

Patrol road maintenance would involve numerous activities including grading of patrol roads, vegetation mowing and trimming along patrol roads, culvert maintenance/cleanout, vegetation removal along patrol roads, maintenance of Arizona crossings and other low water crossings, and erosion control activities. These activities are intended to maintain the Metropolitan patrol road system in good working order and passable condition.

In order to avoid significant drainage and erosion issues prior to the rainy season, Metropolitan would remove soil, debris, and vegetation matter from drainage structures (i.e., low water/Arizona crossings, culverts, cross drains, V-ditches) along the roads. Metropolitan would also keep patrol roads and approximately 4 feet on either side of the patrol road free of vegetation through trimming and mowing. This activity keeps the road passable and alleviates the accumulation of excess organic matter within drainage structures.

Even with diligent cleanout, heavy rains and frequent use by heavy-duty vehicles can result in some degree of soil rutting and concentrated stormwater runoff, leading to the development of erosional channels or rills. In order to minimize or remove erosional features from the patrol roads, Metropolitan would periodically regrade road surfaces in a manner that restores or promotes sheet flow by outsloping, placing additional cross drains, or armoring the inlets and outlets of drainage pipes. In addition to or prior to regrading, ruts and potholes would be filled with soil or rock and temporary erosion control features such as gravel bags, certified weed-free wattles, or silt fencing would be installed. Riprap would also be placed in susceptible areas along patrol roads to minimize or prevent erosion and sedimentation. Repair or construction of fencing and relocation of existing lighting along the patrol roads or the addition of gates to existing fencing may occur to prevent unauthorized use or damage within Metropolitan's right-of-way.

Erosion control methods for patrol roads or structures located in the vicinity of seasonal drainages, seeps, or creeks could include shoring of creek banks through minor earthwork, reseeding or installation of jute netting, or placement of K-rails to prevent erosion of patrol roads along streambeds. The placement of 0.75-inch or larger rock, treated concrete base product, or aggregate base may occur on unpaved patrol roads to prevent washouts, potholes, and ruts.

Patrol and Inspection

Patrolling and inspection of patrol roads and aboveground pipeline infrastructure is required to identify any maintenance required for patrol roads and pipeline infrastructure. The inspections would involve vehicle travel by Metropolitan operations staff along existing patrol roads for each pipeline and pipeline appurtenance location and identification and reporting of any maintenance needs. Water quality sample collection and testing may be conducted during the inspections to ensure that no contamination of water supply has occurred through system malfunction.

Patrolling would be conducted on a weekly basis and is the mechanism through which Metropolitan personnel are alerted to the need for the O&M activities described in this section.

Routine Structure Maintenance, Repair, and Replacement

In addition to keeping patrol roads properly maintained, the O&M Manual describes a series of maintenance activities that would be regularly performed inside of and/or within a 20-foot maximum radius around aboveground pipeline structures. These activities include general cleaning of equipment and structures, graffiti removal and coating of structures, clearing and weed abatement around structures, pipeline appurtenance maintenance and replacement, and pest control.

General cleaning of equipment/structures would be conducted through washing and maintenance of equipment and pipeline appurtenant structures to remove dirt, spider webs, and other debris. Equipment and facility cleaning would be conducted by hand with water from a garden hose attached to the nearest water connection. Metropolitan-approved biodegradable solvents would be used, as needed. Following the washing of equipment and structures, the existing blowoff valves would be exercised by opening them for a few minutes and all moving parts would be lubricated with grease. Structures at grade and below grade would also be painted and coated to remove graffiti, prevent corrosion, and maintain metal and concrete surfaces. If the building or structure is covered with stone cinderblocks, sandblasting would be conducted to remove graffiti and no coating is required. Concrete surfaces would typically be painted with a water-based exterior latex enamel (Metropolitan 2013). All coating, paint colors, and brands are approved by Metropolitan, and Occupational Safety and Health Administration (OSHA) regulations would be adhered to.

Vegetation trimming, mowing, and clearing, as well as weed abatement, for aboveground structures would occur in a similar manner as that described along patrol roads. Metropolitan-approved pesticides/herbicides would be applied by contracted, licensed sprayers, as needed, for safety reasons and to avoid damage to electrical systems and other Metropolitan structures. Targeted pests include rats, mice, spiders, bees, and wasps. Vegetation maintenance and pesticide/herbicide application is currently performed within a 10-foot radius of the appurtenant structures; however, as part of the proposed program, this area could be extended up to 20 feet where property and environmental constraints do not exist.

Structure repair and replacement, which involves pipeline appurtenances located aboveground or in belowground structures accessed through manholes, would be required on occasion to replace defective, outdated, or aging equipment. This activity is limited to work on pipeline appurtenant structures and does not include repair or replacement of segments of pipeline. Although the work does not typically require excavation, minor trenching may be required for work associated with vent piping, electrical equipment, and other miscellaneous appurtenant structures. Any minor trenching or excavation would be restricted to the 10- *to* 20-foot maintained area around existing structures. Structures may be waterproofed or raised or moved slightly within the same structure footprint to avoid water intrusion. Flows may be diverted around the structures with small V-ditches. Gravel may

be placed around manholes or other structures to prevent erosion. The addition of air vents, replacement of valve cabinets, or addition of minor on-site structures to protect existing manholes or other structures may be necessary. Minor vegetation removal within the 10- to 20-foot area around structures may be required for equipment setup and access if growth has occurred between other maintenance and vegetation removal activities. In addition, certain areas may require installation of access gates or fences.

For work in urban areas, depending on the location of the structures, accessing the belowground structures through manholes may require traffic control, and a city-approved traffic control plan may be needed for work that requires a traffic diversion. Work on substructures may involve testing for the presence of gases; pumping of water if the structure or access is flooded; inspection of substructure pipes, valves, and other equipment for corrosion; sandblasting; or prepping for coating and the application of coating.

Other

Pipeline shutdowns and dewatering activities would occasionally be needed to perform inspections and maintenance activities on a pipeline. Prior to performing any shutdown, a designated shutdown coordinator is assigned and is responsible for preparing a shutdown plan; meeting all federal, state, and local laws and regulations; monitoring and enforcing permits and clearances during the shutdown; coordinating with member and other affected agencies; and ensuring that assigned shutdown workers carry out assignments.

As part of a shutdown, the pipeline must be emptied of water (dewatered) before inspections and/or maintenance on the pipeline can be performed. Water is released to drainages, storm drains, or other open areas either through a direct release or through temporary piping. Prior to releasing water into storm drains or flood control facilities, Metropolitan must receive permission from the city or agency with jurisdiction over those affected drains or facilities. Metropolitan would also notify the appropriate Regional Water Quality Control Board of releases of water. Any chlorinated or chloraminated water must be neutralized prior to being discharged into any channel or drain. Water samples of discharged water must be submitted to the Metropolitan water quality lab for analysis. Pumping to dewater the pipeline would occur during the daytime and nighttime hours. As necessary and appropriate, Metropolitan would coordinate with local jurisdictions and notify potentially affected property owners or residents of shutdown activities. Following dewatering of the pipeline, inspections and/or maintenance on pipelines would be performed. Often a shutdown/dewatering event may be conducted in support of a member agency activity on its system. The pipeline would be refilled upon completion of the maintenance activity.

In addition, other O&M activities would include emergency operations procedures. An emergency is defined as a sudden, unexpected occurrence involving a clear and imminent danger that requires immediate action to prevent or mitigate loss of or damage to life, health, property, or essential public services. Emergency work would include flood control, sediment cleanup and removal, or repair of

any kind to avoid loss or damage. The emergency project impact footprint would be restricted to the minimum area necessary to address the potential for loss or damage to life, health, property, or essential public services. Whenever possible, work would be conducted from existing patrol roads and structure locations where disturbance has previously occurred. Metropolitan's Environmental Planning Section would be notified as soon as possible. Pre-activity photographs of the work area would be taken, if possible, and submitted to Metropolitan following completion of the emergency work. Metropolitan would comply, to the extent possible, with all applicable regulations regarding reporting and notification for emergency projects and potential impacts to sensitive resources.

Emergency O&M would likely fit into the activities that are being assessed as either routine or single-occurrence activities or they would be exempt under CEQA (CEQA Guidelines Section 15269). Therefore, emergency O&M activities, while described in the O&M Manual, are not specifically called out in this PEIR because their exact nature is difficult to anticipate.

Single-Occurrence O&M Activities

Single-occurrence O&M activities are maintenance activities that are typically conducted on a one-time basis and include proposed projects involving rehabilitation or replacement of existing structures and patrol roads to support the continued operation of Metropolitan's pipelines. Single-occurrence O&M activities typically require design engineering.

Patrol Road Structural Improvements

Patrol road structural repairs include the placement of railcar bridges, installation of new culverts, or construction of Arizona crossings or other low water crossings such as articulated mat crossings to reestablish or maintain vehicle access on existing patrol roads. In the Western San Bernardino County Operating Region, these crossings were identified as part of the proposed program's patrol road structural repairs. Arizona crossings are permanent at-grade concrete crossings constructed to provide stabilized access through shallow creeks and streambeds. Typically, the first step in constructing an Arizona crossing is to prepare the in situ material (or subgrade) upon which the pavement structure is placed. In western San Bernardino County, most Arizona crossings are installed in dry creek beds. The next step is to place riprap and concrete and build the crossing. The last step is to finish the grade and tie the crossing back in to the patrol road. If the crossing is being constructed in an active creek, then the creek would need to be dewatered or water diversion structures placed so that water does not flow over the area of construction. Culverts are permanent reinforced-concrete-pipe structures that are placed in the bottom of creeks with steeper banks to allow vehicle crossing without interrupting creek flow or changing the slope of the bank. During construction of Arizona crossings or culverts, flows are temporarily directed around the work area with silt fencing, sandbags, Visqueen plastic sheeting, or bypass piping. Similar to construction of Arizona crossings, when constructing a culvert, the site/subgrade must first be prepared. Next, the culvert is laid or constructed with the proper direction and angling for adequate flow, and then the area around the culvert is backfilled and finished.

Railcar bridges are flat steel railcars placed over a larger streambed and used as short span bridges. They span the waterway so permanent structures in the streambed are limited to the placement of concrete abutments on each bank. Beams and plates may be used as a temporary alternative to railcar bridges and involve the placement of beams and metal plates over the creek crossing. There are no railcar bridges proposed in the Western San Bernardino County Operating Region under current design plans.

1.4.5 Summary of Impacts

Table 1-4 presents a summary of the environmental impacts that could result from the proposed program, applicant proposed measures, the level of significance before mitigation, proposed mitigation measures, and the level of significance of the impact after the implementation of the applicant proposed measures and/or mitigation measures.

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Table 1-4. Summary of Program Impacts

CEQA Topic	Environmental Topic	Applicant Proposed Measures	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance
Aesthetics	**Impact AES-1:** Would the program substantially degrade the existing visual character or quality of the site and its surroundings?	**CIP Projects** ***Patrol Road Improvements and Paving*** **APM-AES-1: Design Features.** In areas of visual sensitivity, Metropolitan will coordinate with property owners and/or affected jurisdictions/ agencies to develop and implement design features to minimize, to the extent feasible, the visual impacts associated with installation of paving materials. The selection of paving materials may be influenced by the existing colors in the landscape and by the surrounding landscape context. Materials may be selected such that the roadway surface visually blends in with the surrounding landscape to the extent feasible. ***Engineered Erosion Control and Slope Stabilization*** **APM-AES-2: Slope Protection Design.** In areas of visual sensitivity, where feasible and appropriate, slope-protection measures shall be designed to ensure compatibility with the existing landscape and minimize visual contrast with existing slopes, channels, embankments, and rock faces to the greatest extent feasible. Slope protection designs shall be prepared and reviewed by qualified professionals (e.g., Professional Engineers or Registered Landscape Architects) who have relevant expertise in aesthetically pleasing and contextually sensitive solutions in slope-protection design. Specific slope-protection measures shall be designed in coordination with the property owner/affected jurisdiction or agency associated with the specific location of targeted slope stabilization work. In addition to regrading and compacting slopes to improve structural integrity and minimize continued damage and soil loss, solutions could include live gully repair, fascines/pole cuttings with subsurface drainage, vegetated mechanically stabilized slopes, vegetated gabions, turf reinforcement mats, vegetation, and/or the following: • **Rock Slope Protection:** Sculpting shall be incorporated in the excavated slope to create more natural-looking slope variation and rock staining shall be used to help blend the color of the cut slope or newly installed “rock” to the natural color of the existing slope/channel/embankment/rock face. The height of rock slope-protection features shall be less than the height of the associated slope/channel/embankment/rock face to ensure consistency in scale and to minimize opportunities for view blockage and interruption of lines of sight. If technologically feasible, the solution shall be partially buried to minimize visibility. • **Tiebacks/Anchors:** Where anchored walls are used, sculpted and colored/stained shotcrete shall be applied on the façade of the anchored wall to mimic the form, color, and texture of the natural slope/channel/ embankment/rock face to the greatest extent feasible. • **Stepped Retaining Walls:** Retaining wall materials shall mimic the color and texture of the existing slope/channel/embankment/rock face and shall be selected to minimize resulting visual contrast. The height of retaining walls shall be less than the height of the associated slope/ channel/embankment/rock face to ensure consistency in scale and	Less than significant	—	Less than significant

Table 1-4. Summary of Program Impacts

CEQA Topic	Environmental Topic	Applicant Proposed Measures	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance
		minimize opportunities for view blockage and interruption of lines of sight. If technologically feasible, the retaining wall shall be partially buried to minimize visibility. **O&M Activities** No APMs			
Aesthetics	**Impact AES-2**: Would the program have a substantial adverse effect on a scenic vista?	—	Less than significant	—	Less than significant
Aesthetics	**Impact AES-3:** Would the program substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?	—	Less than significant	—	Less than significant
Aesthetics	**Impact AES-4:** Would the program create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	—	Less than significant	—	Less than significant
Aesthetics	**Cumulative Impacts:** Would the program have a cumulative effect on aesthetic resources?	**CIP Projects** ***Patrol Road Improvements and Paving*** APM-AES-1 ***Engineered Erosion Control and Slope Stabilization*** APM-AES-2 **O&M Activities (all)** No APMs	Less than significant	—	Less than significant
Air Quality	**Impact AQ-1:** Would the program conflict with or obstruct implementation of the applicable air quality plan?	—	Less than significant	—	Less than significant
Air Quality	**Impact AQ-2:** Would the program violate any air quality standard or contribute substantially to an existing or projected air quality violation?	**CIP Projects and O&M Activities (all)** **APM-AQ-1: Construction Equipment.** Where Tier 4 equipment is reasonably available for off-road equipment with engines rated at 50 horsepower or greater, it will be used. **APM-AQ-2: Fugitive Dust Control.** Proposed program activities would adhere to South Coast Air Quality Management District Rule 403, which includes a variety of measures intended to reduce fugitive dust emissions. The following measures shall be implemented during maintenance activities, as needed, to reduce the potential for fugitive dust emissions during grading, excavation, and construction activities: • The areas disturbed at any one time by clearing, grading, earthmoving, or excavation operations shall be minimized to prevent excessive amounts of dust.	Less than significant	—	Less than significant

Table 1-4. Summary of Program Impacts

CEQA Topic	Environmental Topic	Applicant Proposed Measures	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance
		• Pre-grading/excavation activities shall include watering of the area to be graded or excavated before commencement of grading or excavation operations. Application of water should penetrate sufficiently to minimize fugitive dust during earthmoving, grading, and excavation activities, but shall not be applied in a manner that generates runoff from the active work area. In light of drought conditions, Metropolitan would consider alternative feasible methods of dust control that minimize the use of water. • If reclaimed water is used for the purpose of dust control, such water shall be compliant with Title 22 standards applicable to use of recycled water for soil compaction, concrete mixing and dust control (22 CCR Division 4, Chapter 3, Article 3, Section 60307). • All trucks shall be required to cover their loads as required by California Vehicle Code, Section 23114. All graded and excavated material, exposed soil areas, including unpaved parking and staging areas, and other active portions of the construction site, including unpaved roadways, shall be treated to prevent fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally safe soil stabilization materials, and/or roll compaction as appropriate. Watering shall be done as often as necessary, and reclaimed water shall be used whenever possible. • During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earthmoving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by proposed program activities and operations from being a nuisance or hazard, either on site or off site. • Open material stockpiles shall be periodically watered, or treated with appropriate dust suppressants, if needed.			
Air Quality	**Impact AQ-3:** Would the program result in a cumulatively considerable new increase of any criteria pollutant for which the program region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative threshold emissions which exceed quantitative thresholds for ozone precursors)?	**CIP Projects and O&M Activities (all)** APM-AQ-1 APM-AQ-2	Less than significant	—	Less than significant
Air Quality	**Impact AQ-4:** Would the program expose sensitive receptors to substantial pollutant concentrations?	—	Less than significant	—	Less than significant
Air Quality	**Impact AQ-5:** Would the program create objectionable odors affecting a substantial number of people?	—	Less than significant	—	Less than significant

Table 1-4. Summary of Program Impacts

CEQA Topic	Environmental Topic	Applicant Proposed Measures	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance
Air Quality	**Cumulative:** Would the program have a cumulative effect on air quality resources?	**CIP Projects and O&M Activities (all)** APM-AQ-1 APM-AQ-2	Less than significant	—	Less than significant
Biological Resources	**Impact BIO-1:** Would the program 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 Game or U.S. Fish and Wildlife Service?	**CIP Projects (all)** **APM-BIO-1: Pre-Activity Special-Status Plant Surveys.** Within the portions of the CIP project and single-occurrence O&M activity sites that were not surveyed in 2017, or for project sites that do not commence construction by 2022, Metropolitan will complete pre-activity surveys for special-status plant species during the appropriate blooming period for species that have potential to occur. Surveys will conducted by a qualified botanist within the areas that would be subject to direct or indirect impacts. Surveys will conform to the California Native Plant Society Botanical Survey Guidelines (CNPS 2001), Protocols for Surveying and Evaluating Impacts to Special Status Native Populations and Natural Communities (CDFW 2018), and the Endangered Species Recovery Program's General Rare Plant Survey Guidelines (USFWS 2002) or the most current accepted protocol. Plant species encountered during the field surveys will be identified to subspecies or variety, if applicable, to determine sensitivity status. Populations and individuals of any special-status plant species found during pre-activity surveys will be mapped with GPS. Mapped populations of listed species will be avoided unless take authorization has been obtained from the respective resource agency. Non-listed special-status plants will be avoided during construction activities as practicable. Installation of protective fencing and erosion and sediment control measures, as appropriate, will be implemented to protect special-status plant populations found near CIP project and single-occurrence O&M activity sites. **APM-BIO-2: Flagging of Work Limits.** All CIP project and single-occurrence O&M activity work area limits within special-status species habitat, including staging areas, shall be well defined and marked (e.g., by caution tape or temporary fencing). All temporary fencing or other markers shall be clearly visible to construction personnel. Parking, stockpiling, or storage of equipment shall be permitted only within designated staging areas. **APM-BIO-3: Cleaning of Mowing Equipment.** Mowing equipment shall be thoroughly cleaned before use so it is free of seeds from noxious weeds and does not introduce such weeds to new areas. **APM-AQ-2: Fugitive Dust Control** (see Air Quality section of this table). **Routine O&M Activities** APM-BIO-3 **APM-BIO-4: Invasive Plant Removal Protocols.** Invasive plant species shall be removed in a manner that prevents propagation. All cut/removed invasive vegetation shall be taken to a dump as destruction load. Maintenance personnel shall avoid letting cut stems or seedpods be washed downstream or left behind to propagate. APM-AQ-2	Significant (overall)	**CIP Projects and O&M Activities (all)** **MM-BIO-1: Nesting Bird Surveys.** For all proposed program activities, grading or vegetation clearing, cutting, and removal shall be scheduled to occur during the non-breeding season for birds (September 1 through January 31). If grading or vegetation clearing, cutting, or removal are required during the breeding season (February 1 through August 31, or January 1 through August 31 for raptors), then a qualified biologist shall survey all potential nesting vegetation within an appropriate distance from the grading limits for nesting birds prior to grading activities, as property access allows and depending on factors such as habitat suitability; focal species' known tolerance to human activities and noise; the timing, intensity, and extent of the activities; and the presence of vegetation and topographical screening. Between January 1 and February 1, nesting surveys for raptors will be required only if there is suitable raptor nesting habitat within or adjacent to the grading or vegetation removal area. The purpose of the surveys shall be to determine if active nests of special-status or other protected birds are present within the vicinity of the work area. The survey shall be conducted within 7 days prior to the start of work. If no nesting birds are observed, project activities may commence. If an active nest is located, the site shall be marked, and an appropriate buffer established, based on site conditions, nesting species, and construction activity. The buffer area shall not be disturbed until after birds have fledged. The qualified biologist, in conjunction with Metropolitan's Environmental Planning staff, will determine when construction activities may resume in the area. In the event that a threatened or endangered species is located within the survey area and avoidance is not feasible, consultation with the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife shall be required. **MM-BIO-2: Compensation for Impacts to Federally and State-Listed Species Habitat.** Direct temporary and permanent impacts to suitable habitat for federally or state-listed species within proposed CIP project and single-occurrence O&M activity areas shall be mitigated through on-site or off-site measures. Mitigation for temporary and permanent impacts to listed species habitat shall consider, and may overlap with, jurisdictional waters and wetlands (MM-BIO-5). • **Temporary Impacts.** Mitigation for direct temporary impacts to suitable habitat for federally or state-listed species shall be implemented through on-site rehabilitation at a 1:1 mitigation ratio. Areas temporarily impacted shall be returned to similar conditions to those that existed prior to grading and/or ground-	Less than significant

Table 1-4. Summary of Program Impacts

CEQA Topic	Environmental Topic	Applicant Proposed Measures	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance
		Single-Occurrence O&M Activities APM-BIO-1 through APM-BIO-3 APM-AQ-2		disturbing activities. For proposed CIP projects and single-occurrence O&M activity temporary impact areas outside routinely maintained areas, the proposed rehabilitation of impact areas may include, at a minimum, a feasible implementation structure, salvage/seeding details, invasive species eradication methods, a monitoring schedule, performance standards of success, estimated costs, and identification of responsible entities. • **Permanent Impacts.** Metropolitan shall purchase land or fund a mitigation bank or in-lieu fee program to compensate for all permanent loss of suitable habitat for federally or state-listed species (including critical habitat), if available, at a 1:1 ratio. Direct impacts to federally listed species' occupied habitat shall be addressed through either the Section 7 or Section 10(a)(1)(B) process under the federal Endangered Species Act (ESA) of 1973, as amended. Additionally, direct impacts to federally designated critical habitat that cannot be avoided shall be addressed through either the ESA Section 7 or Section 10(a)(1)(B) process. Direct impacts to state-listed species shall be addressed through the California Fish and Game Code Section 2081(b) incidental take permit process. The two processes may require additional mitigation beyond what is being proposed under this CEQA analysis. **MM-BIO-3: Pre-Construction Biological Surveys.** Prior to the start of ground-disturbing construction or vegetation removal associated with Capital Investment Plan (CIP) projects and single-occurrence Operations and Maintenance (O&M) activities, pre-construction surveys for non-listed special-status plant or wildlife species shall be conducted in areas of suitable habitat within 300 feet of ground-disturbing activities, as property access allows. If listed special-status plant or wildlife species habitat is located, then focused surveys will be performed for those species and if they are detected, MM-BIO-2 will be implemented. For all special-status species, locations shall be mapped and monitored for avoidance (MM-BIO-4). **MM-BIO-4: Biological Monitoring.** Should special-status plants or wildlife be identified during MM-BIO-3 or APM-BIO-1, a qualified biologist shall monitor ground-disturbing activities within areas where special-status plant and wildlife species, sensitive vegetation communities, or jurisdictional waters/wetlands are present during CIP projects and single-occurrence O&M activities. The qualified biologist shall look for special-status species that may be located within or immediately adjacent to work areas. If special-status species are found, the biological monitor shall identify their location for avoidance or flush/move them out of harm's way to avoid direct impacts to these species. The qualified biologist, in coordination with The Metropolitan Water District of Southern California (Metropolitan), shall determine when monitoring shall cease.	

Table 1-4. Summary of Program Impacts

CEQA Topic	Environmental Topic	Applicant Proposed Measures	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance
Biological Resources	**Impact BIO-2:** Would the program 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 Game or U.S. Fish and Wildlife Service?	**CIP Projects (all) and O&M Activities (overall)** APM-BIO-2 APM-BIO-3 APM-AQ-2	Less than significant	—	Less than significant
Biological Resources	**Impact BIO-3:** Would the program have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	**CIP Projects (all) and O&M Activities (overall)** APM-BIO-2 APM-BIO-3 APM-AQ-2	Significant (overall)	**CIP Projects (all) and O&M Activities (overall)** MM-BIO-4 **MM-BIO-5: Compensation for Impacts to Jurisdictional Wetlands and Waters.** Mitigation for temporary and permanent impacts to jurisdictional wetlands and waters shall consider and overlap with compensation for special-status species habitat (MM-BIO-2). The U.S. Army Corps of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board may require additional compensation during the regulatory permitting process. • **Temporary Impacts.** Mitigation for direct temporary impacts to jurisdictional wetlands and waters resulting from CIP projects, single-occurrence O&M activities, and routine O&M activities shall be implemented through on-site restoration. Areas temporarily impacted shall be returned to conditions similar to those that existed prior to grading and/or ground-disturbing activities. For impacted vegetated jurisdictional wetlands and waters, the proposed rehabilitation of impact areas may include, at a minimum, a feasible implementation structure, salvage/seeding details, invasive species eradication methods, a monitoring schedule, performance standards of success, estimated costs, and identification of responsible entities. • **Permanent Impacts.** Mitigation for permanent impacts to jurisdictional wetlands and waters resulting from CIP projects and single-occurrence O&M activities shall be implemented at a minimum 1:1 mitigation ratio through purchase of credits through an agency-approved mitigation bank, in-lieu fee program, or other agreement. If no agency-approved mitigation bank or in-lieu fee program is available, off-site mitigation lands shall be preserved through a conservation easement.	Less than significant

Table 1-4. Summary of Program Impacts

CEQA Topic	Environmental Topic	Applicant Proposed Measures	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance
Biological Resources	**Impact BIO-4:** Would the program 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?	—	Less than significant	—	Less than significant
Biological Resources	**Impact BIO-5:** Would the program conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	—	Less than significant	—	Less than significant
Biological Resources	**Impact BIO-6:** Would the program conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	—	Less than significant	—	Less than significant
Biological Resources	**Cumulative:** Would the program have a cumulative effect on biological resources?	**CIP Projects and O&M Activities (all)** APM-BIO-1 through APM-BIO-4 APM-AQ-2	Significant	**CIP Projects and O&M Activities (all)** MM-BIO-1 through MM-BIO-5	Less than significant
Cultural Resources	**Impact CR-1:** Would the program cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?	—	Significant	**CIP Projects (all)** **MM-CR-1: Avoidance of Impacts to Cultural Resources.** Metropolitan shall minimize or avoid impacts to potentially significant cultural resources discovered unexpectedly during construction by developing and implementing the following: • All work shall halt within 50 feet of the discovery site and the discovery shall be protected in place. • Metropolitan, in consultation with the qualified cultural resources specialist, shall designate an area surrounding the area as a restricted area. • A qualified cultural resources specialist shall evaluate the significance of the discovery. • A qualified cultural resources specialist shall develop appropriate treatment measures for the discovery in consultation with Metropolitan and other appropriate agencies. • Work shall be prohibited in the restricted area until Metropolitan provides written authorization. **O&M Activities** ***Routine and Single-Occurrence O&M Activities*** MM-CR-1 **MM-CR-4: Phase I Cultural Resource and/or Paleontological Survey.** For areas not already surveyed, a pre-activity review	Less than significant

Table 1-4. Summary of Program Impacts

CEQA Topic	Environmental Topic	Applicant Proposed Measures	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance
				should be performed for future ground-disturbing activities associated with Operations and Maintenance (O&M) activities (O&M Activity Code Nos. 3 and 15). For each location where these activities will take place, the proposed activity footprint will first be examined by Metropolitan staff to determine if the proposed ground-disturbing activities will be confined to the area of previous disturbance or if there is a potential for additional ground disturbance within intact native sediments. If it is determined that the proposed activities have the potential to impact undisturbed native sediments, then a Phase I cultural resource and/or a paleontological survey will be required. The purpose of the field surveys will be to visually inspect the ground surface for evidence of archaeological remains and for exposed fossils or traces thereof and to evaluate geologic exposures for their potential to contain preserved fossil material at the subsurface. All archaeological resources observed during the course of fieldwork shall be adequately recorded at the time of discovery following standard documentation procedures. All fossil occurrences observed during the course of fieldwork, significant or not, shall be adequately documented and recorded at the time of discovery. **MM-CR-5: Protective Measures for Archaeological Resources.** For future ground-disturbing O&M activities (O&M Activity Code Nos. 3 and 15) in the vicinity of an archaeological resource, protective measures shall be implemented for significant archaeological sites in close proximity to a proposed program work area. If the pre-activity review (MM-CR-4) identifies a known archaeological site within 50 feet of a Distribution System Infrastructure Protection Program (DSIPP) work area, the following protective measures are required as warranted: • Exclusion fencing and flagging shall be established around any significant or potentially significant archaeological site located within 50 feet of a DSIPP work area. • A qualified archaeologist shall monitor all ground-disturbing activities in all DSIPP work areas located within 50 feet of a significant or potentially significant archaeological site. **MM-CR-6: Phase II Cultural Resources Evaluation.** For future ground-disturbing O&M activities (O&M Activity Code Nos. 3 and 15) in areas where archaeological resources cannot be avoided by implementation of MM-CR-5, development of a Phase II cultural resources evaluation program would be required to be implemented by a qualified archaeologist. The evaluation program will include the development of an appropriate research design and methodological approach to evaluate the archaeological resources that have the potential to be impacted during proposed program-related activities. The findings of the cultural resources evaluation program shall be presented in a	

Table 1-4. Summary of Program Impacts

CEQA Topic	Environmental Topic	Applicant Proposed Measures	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance
				technical report to be submitted to Metropolitan (and the federal lead agency, if applicable) for review and approval. **MM-CR-7: Phase III Data Recovery Plan.** For those archaeological resources determined to be eligible for listing in the California Register of Historical Resources and/or the National Register of Historic Places, a Phase III data recovery plan shall be prepared by a qualified archaeologist prior to the onset of excavations. The plan shall detail the field, laboratory, and archival methods that shall be used during the data recovery program; the curation of archaeological materials at an appropriate facility for future research; and provisions for a report detailing the findings and significance of the archaeological resources. The plan shall be submitted to Metropolitan for review and approval prior to the commencement of data recovery investigations. For prehistoric archaeological sites, a Native American monitor shall be present during the Phase III fieldwork efforts. Results of the Phase III data recovery plan shall be presented in a technical report submitted to Metropolitan for review and approval prior to the commencement of ground-disturbing activities. A final version of the report shall be submitted to the regional California Historic Resources Information System repository.	
Cultural Resources	**Impact CR-2:** Would the program cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?	—	Significant	**CIP Projects (all)** MM-CR-1 **O&M Activities** ***Routine and Single-Occurrence O&M Activities*** MM-CR-1 MM-CR-4 through MM-CR-7	Less than significant
Cultural Resources	**Impact CR-3:** Would the program directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	—	Significant	**CIP Projects (all)** **MM-CR-2: Paleontological Resource Impact Mitigation Program.** Prior to the start of ground-disturbing activities in previously undisturbed areas with high paleontological sensitivity, a qualified professional paleontologist meeting the Society of Vertebrate Paleontology's (2010) standards ("project paleontologist") shall be retained to provide project-level analysis. The project paleontologist shall prepare and implement a paleontological resource impact mitigation program (PRIMP) for areas that will include excavation into native soils with high or undetermined geologic sensitivity. The PRIMP shall provide management strategies based on the assigned sensitivity rankings as well as the proposed depths of ground disturbance. As part of the PRIMP, where new ground disturbance would occur at 4 feet or more below ground surface, full-time monitoring may be required in program work areas determined to have a high or undetermined paleontological sensitivity (i.e., Puente Formation, early Holocene or older axial-channel and	Less than significant

Table 1-4. Summary of Program Impacts

CEQA Topic	Environmental Topic	Applicant Proposed Measures	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance
				alluvial-fan deposits, fault-bounded conglomerate and sandstone), or spot check monitoring in proposed program work areas determined to have low paleontological sensitivity (i.e., Holocene age surficial deposits). In addition, the PRIMP shall require that the project paleontologist conduct a Worker's Environmental Awareness Program (WEAP) training for all field personnel regarding the types of fossils that could be found in the work areas and the procedures to follow should paleontological resources be encountered. Specifically, the training shall provide a description of the fossil resources that may be encountered in the work areas, outline steps to follow in the event that a fossil discovery is made, and provide contact information for the project paleontologist and on-site monitor(s). The training shall be developed by the project paleontologist and may be conducted concurrent with other environmental training (e.g., biological, cultural, and natural resources awareness training, safety training). **MM-CR-3: Preparation, Curation, and Reporting of Vertebrate Fossils.** All unique identifiable vertebrate fossil remains that are collected during the course of the proposed program will be prepared in a properly equipped paleontology laboratory to a point ready for curation. Preparation will include the careful removal of excess matrix from fossil materials and stabilizing and repairing specimens, as necessary. Following laboratory work, all fossil specimens will be identified to the lowest taxonomic level possible, cataloged, analyzed, and delivered to an accredited museum repository for permanent curation and storage. Fossil specimens will be submitted for permanent curation in a museum repository approved by Metropolitan, such as the San Bernardino County Museum or Western Science Center. The cost of curation is assessed by the repository and is the responsibility of Metropolitan. At the conclusion of laboratory work and museum curation, a final report will be prepared describing the results of the paleontological inventory and evaluation. The report will include an overview of the proposed program work area geology and paleontology, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance, and recommendations. If fossils will be donated for permanent curation, a copy of the report will be submitted to the curation institution along with the fossil assemblage. **O&M Activities (all)** MM-CR-2 MM-CR-3 MM-CR-4	

Table 1-4. Summary of Program Impacts

CEQA Topic	Environmental Topic	Applicant Proposed Measures	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance
Cultural Resources	**Impact CR-4:** Would the program disturb any human remains, including those interred outside of formal cemeteries?	**CIP Projects and O&M Activities (all)** **APM-CR-1: Treatment of Human Remains.** If human remains are discovered during construction, no further disturbance shall occur until the county coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the county coroner determines the remains are Native American, the Native American Heritage Commission (NAHC) shall be contacted within a reasonable time. Subsequently, NAHC shall identify the most likely descendant (MLD). The MLD shall then make recommendations and engage in consultations concerning the treatment of the remains as provided in California Public Resources Code Section 5097.98.	Less than significant	—	Less than significant
Cultural Resources	**Cumulative:** Would the program have a cumulative effect on cultural resources?	**CIP Projects and O&M Activities (all)** APM-CR-1	Significant	**CIP Projects (all)** MM-CR-1 MM-CR-2 MM-CR-3 **O&M Activities (all)** MM-CR-1 through MM-CR-7	Less than significant
Geology and Soils	**Impact GEO-1:** Would the program be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the program, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	**CIP Projects** ***Patrol Road Improvements and Paving and Engineered Erosion Control*** **APM-GEO-1: Earthwork and Grading Best Practices.** Metropolitan's design plans, including proposed site grading and earthwork activities, for the proposed program will seek to minimize ground disturbance and shall be coordinated with local jurisdictions, as appropriate. Local jurisdictional restrictions and requirements will be included in the development of project designs. Metropolitan's design plans will be submitted to local jurisdictions for their review and approval as necessary. Comments received from the local jurisdictions will be incorporated into project designs to the extent possible. Metropolitan's contractors shall obtain grading permits as required by the local jurisdictions. Proposed projects shall implement the following earthwork considerations, as applicable: • *Remedial Grading*: Prior to grading, any fill zone shall be cleared of surface and subsurface obstructions. Voids created by removal of buried material shall be backfilled with properly compacted soil. Exposed subgrade in fill zones shall be scarified to a depth of at least 6 inches, moisture conditioned to above optimum, and compacted to at least 90 percent of the American Society for Testing and Materials (ASTM) D 1557-12 (modified Proctor) laboratory maximum density. In some cases, wet subgrades may need to be stabilized with crushed rock, geogrids, and/or other methods. • *Compacted Fill/Backfill*: Fill materials shall be naturally occurring, well-graded soil or soil/rock combinations free of wood, trash, construction debris, and organic, contaminated, or deleterious material.	Less than significant (overall)	—	Less than significant (overall)

Table 1-4. Summary of Program Impacts

CEQA Topic	Environmental Topic	Applicant Proposed Measures	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance
		• *Temporary Excavations*: When necessary to prevent caving and to protect adjacent structures or property, trenches and excavations shall be protected, shored, sheeted, braced, or sloped in accordance with CCR Title 8 and the regulations of local authorities having jurisdiction Excavation requirements are outlined in Metropolitan's construction specifications, and Metropolitan staff will review and approve the contractor's excavation plans. Safety standards established within the California Occupational Safety and Health Administration (Cal/OSHA) CCR Construction Safety Orders (CSOs) and General Industry Safety Orders (GISOs) that are applicable to the work shall be adhered to. Metropolitan construction inspectors will also monitor compliance with regulations. ***Slope Stabilization*** No APMs **O&M Activities** ***Routine O&M Activities*** No APMs ***Single-Occurrence O&M Activities*** **APM-HYD-1: Implementation of a SWPPP or Water Pollution Control Plan, as Applicable** (see Hydrology and Water Quality section of this table).			
Geology and Soils	**Impact GEO-2:** Would the program expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: • Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. • Strong seismic ground shaking? • Seismic-related ground failure, including liquefaction? • Landslides?	—	Less than significant	—	Less than significant
Geology and Soils	**Impact GEO-3:** Would the program result in substantial soil erosion or the loss of topsoil?	—	Less than significant	—	Less than significant

Table 1-4. Summary of Program Impacts

CEQA Topic	Environmental Topic	Applicant Proposed Measures	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance
Geology and Soils	**Impact GEO-4:** Would the program be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	—	Less than significant	—	Less than significant
Geology and Soils	**Impact GEO-5:** Would the program have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	—	No impact	—	No impact
Geology and Soils	**Cumulative:** Would the program have cumulative geological and soils impacts?	APM-GEO-1 APM-HYD-1	Less than significant	—	Less than significant
Greenhouse Gas Emissions	**Impact GHG-1:** Would the program generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	—	Less than significant	—	Less than significant
Greenhouse Gas Emissions	**Impact GHG-2:** Would the program conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	—	Less than significant	—	Less than significant
Greenhouse Gas Emissions	**Cumulative:** Would the program have a cumulative effect on greenhouse gas emissions resources?	—	Less than significant	—	Less than significant
Hazards and Hazardous Materials	**Impact HAZ-1:** Would the program be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as result, would is create a significant hazard to the public or the environment?	**CIP Projects and O&M Activities (all)** **APM-HAZ-1: Hazardous Materials Management**. Hazardous materials storage shall be in compliance with the California Environmental Protection Agency's Department of Toxic Substances Control requirements. Metropolitan and/or its contractor shall be responsible for proper handling, packaging, transportation and disposal of all hazardous waste brought on site or generated on site through incidental use, including but not limited to aerosol spray cans and empty vehicle fluid and cleaning cans. Hazardous materials shall be stored in covered, leak-proof containers when not in use, away from storm drains and heavy traffic areas, and shall be protected from rainfall infiltration and vandalism. Hazardous materials shall be stored separately from non-hazardous materials, on a surface that prevents spills from permeating the ground surface, and in an area secure from unauthorized entry at all times. Incompatible materials shall be stored separately from each other. **APM-HAZ-2: Previously Unidentified Hazardous Materials**. Should hazardous materials previously not identified be discovered during construction and/or grading activities, Metropolitan and/or its contractor shall stop work in the area	Less than significant	—	Less than significant

Table 1-4. Summary of Program Impacts

CEQA Topic	Environmental Topic	Applicant Proposed Measures	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance
		immediately and notify the health and safety representative, who will assess the situation and take appropriate actions, including but not limited to clearing the work area, posting signs and securing the area from unauthorized entry, and notifying the appropriate local authorities. Metropolitan and contractor personnel shall ensure that on-site workers are trained to identify and recognize potentially hazardous materials (e.g., unmarked containers, stained soils, suspicious odors, refuse from illegal dumping). **APM-HAZ-3: Health and Safety Procedures for Lead-Contaminated Soil.** Metropolitan has standard procedures to manage potential hazards related to lead-contaminated soil: Exposure Assessments and Patrol Road Maintenance Guidelines. These standard procedures have been established by the Metropolitan Safety Regulatory Services (SRS) as follows: • **Exposure Assessments.** In the event work activities may expose C&D and/or construction service unit (CSU) employees to lead (or other heavy metals), an exposure assessment will be conducted in the potentially contaminated area. The employees will wear an air pump with sampling cassette throughout the work day. The sampling cassette will be taken to a lab to determine the amount of airborne lead (or other metal) exposure. Based on the lab results, Metropolitan SRS will implement personal protective measures for employees required to work in the exposure area. • **Patrol Road Maintenance Guidelines.** Special safety precautions procedures are required for maintenance work on the Inland Feeder at the approximate location of the Highland Site. These procedures include driving with windows up, driving at slow speeds to reduce airborne dust, not causing airborne dirt while working, rinsing footwear prior to entering a vehicle, and using Lead-Off wet wipes to wipe down hands and other exposed skin areas before re-entering a vehicle. **APM-AQ-2: Fugitive Dust Control** (see Air Quality section of this table).			
Hazards and Hazardous Materials	**Impact HAZ-2:** Would the program impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	**CIP Projects and O&M Activities (all)** **APM-TR-1: Traffic Control Plan** (see Traffic and Circulation section of this table).	Less than significant	—	Less than significant
Hazards and Hazardous Materials	**Impact HAZ-3:** Would the program 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?	**CIP Projects and O&M Activities (all)** **APM-HAZ-4: Fire Protection and Fire Safety.** Metropolitan or Metropolitan's contractor shall provide fire safety measures during construction activities in compliance with Chapter 14 of the California Fire Code. Gasoline-powered or diesel-powered machinery used during construction shall be equipped with standard exhaust controls and muffling devices that will also act as spark arrestors. Fire containment and extinguishing equipment shall be located on site and shall be accessible during construction activities. Construction workers shall be trained in use of the fire suppression equipment and shall not be permitted to idle vehicles on the job site when not in use. Where hot work is necessary, it shall be performed in compliance with the California Fire Code's Chapter 35, "Welding and other Hot Work," and the National Fire Protection Association's 51-B, "Fire Prevention During Welding, Cutting and other Hot Work."	Less than significant	—	Less than significant

Table 1-4. Summary of Program Impacts

CEQA Topic	Environmental Topic	Applicant Proposed Measures	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance
Hazards and Hazardous Materials	**Impact HAZ-4:** Would the program create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	—	Less than significant	—	Less than significant
Hazards and Hazardous Materials	**Impact HAZ-5:** Would the program 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?	—	Less than significant	—	Less than significant
Hazards and Hazardous Materials	**Impact HAZ-6:** Would the program emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	—	Less than significant	—	Less than significant
Hazards and Hazardous Materials	**Impact HAZ-7:** For a program 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 program result in a safety hazard for people residing or working in the program area?	—	Less than significant	—	Less than significant
Hazards and Hazardous Materials	**Impact HAZ-8:** For a program within the vicinity of a private airstrip, would the program result in a safety hazard for people residing or working in the program area?	—	No impact	—	No impact
Hazards and Hazardous Materials	**Cumulative:** Would the program have a cumulative effect on hazards or hazardous materials resources?	**CIP Projects and O&M Activities (all)** APM-HAZ-1 through APM-HAZ-4 APM-AQ-2 APM-TR-1	Less than significant	—	Less than significant
Hydrology and Water Quality	**Impact HYD-1:** Would the program violate any water quality standards or waste discharge requirements?	**CIP Projects** ***Patrol Road Improvements and Paving*** **APM-HYD-1: Implementation of a Stormwater Pollution Prevention Plan (SWPPP) or Water Pollution Control Plan, as Applicable.** For projects or activities subject to the State Water Resources Control Board (SWRCB) Construction General Permit (i.e., where construction disturbances would exceed 1 acre), mobilization or construction shall not begin on the project/ activity site until Metropolitan has submitted permit registration documents, including a SWPPP, to the SWRCB and obtained a waste discharge ID number. **APM-HYD-2: Grading of Patrol Roads.** Patrol roads will be graded in a manner that minimizes the channelization and ponding of stormwater and maximizes	Less than significant	—	Less than significant

Table 1-4. Summary of Program Impacts

CEQA Topic	Environmental Topic	Applicant Proposed Measures	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance
		the dispersion of runoff via sheet flow (rather than erosive, high-velocity flows). Metropolitan's Patrol Road Maintenance Guidelines, which are used by Metropolitan staff during road grading, call for creation of a cross-slope on the road bed of 0.25 inches per foot of road width toward the outside edge, with crowning of the road to be done only on double-lane roads. Where outsloping the road is not possible due to land contours, ditches shall be created along the side of the road to contain water and direct it away from the road. The bank of the ditch from the edge of the road to the bottom of the ditch shall be at an angle of no less than 3 inches per foot, and shall be a minimum of 1 foot wide and 1 foot deep. In high runoff areas, the ditch shall be larger. Modifications to these guidelines may be made based on specific site conditions. Grade dips shall be installed where necessary to direct water across the road. Arizona crossings shall be constructed with materials that will not degrade water quality (e.g., concrete, coarse rock, riprap, and/or gabions). **APM-HYD-3: Dewatering.** If program activities require dewatering to provide a dry work area, dewatering systems will be used to remove and dispose of accumulated surface water and/or manage groundwater seepage. As needed, groundwater will be pumped into truck-mounted storage tanks and either discharged to land in accordance with Regional Water Quality Control Board (RWQCB) regulations, or transported to an authorized discharge location. Discharges of non-stormwater from a trench or excavation that contain sediment or other pollutants directly to a sanitary sewer, storm drain, creek bed, or other receiving water shall be prohibited without first obtaining special authorization or permit from the RWQCB or local jurisdiction. **APM-HYD-4: Avoidance of Spills and Leaks.** All equipment operating in and near a watercourse must be maintained in good working condition and free of leaks. No equipment maintenance or refueling shall occur in a channel or basin bottom. All maintenance crews working with heavy equipment shall be trained in spill containment and response procedures. **APM-HYD-5: Equipment Servicing and Fueling.** All equipment will be serviced and fueled off site. Washing down heavy equipment on the job site shall be permitted only when limited to washing mud or dirt from equipment (engine cleaning or oily parts cleaning is not permitted), and when wash water would drain to an enclosed area where water could percolate or evaporate. Wash water shall not be allowed to enter city or county storm drain systems, and no soaps or chemicals shall be used for equipment washing on the job site. **APM-HYD-6: Concrete Work.** For proposed CIP projects requiring concrete work, all concrete washouts shall be conducted either into excavations where the concrete was poured or within designated concrete washout stations, or shall be captured using a washout recycling system. Crews shall not be allowed to dispose of concrete directly onto the ground. **APM-HYD-7: Maintenance of Existing Hydrology.** Stream crossing structures shall be designed to maintain water depths and water velocities comparable to those found in natural areas upstream and downstream of the crossing.			

Table 1-4. Summary of Program Impacts

CEQA Topic	Environmental Topic	Applicant Proposed Measures	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance
		APM-HYD-8: Avoidance of Channel Work during the Rainy Season. Activities in earthen channels and in channels with soft bottoms and bank protection shall be avoided during the rainy season to the extent feasible to avoid work when water could be present in the drainage. **APM-HYD-9: Materials in Waterways.** No brush, loose soils, or other construction materials/waste shall be deposited on or below the ordinary high-water mark of waterways (streams, creeks, canals, ditches). (This BMP does not apply to the use of packed earth or the planting of vegetation to repair and stabilize earthen channels.) **APM-HYD-10: Temporary Stream Diversions.** Sandbags or other approved methods that avoid and minimize in-stream impacts and effects on wildlife shall be used if temporary stream diversions are required. **APM-HYD-11: Herbicide Use.** Any pesticide or herbicide applications shall occur under the direction of a professional pesticide applicator with either a Qualified Applicator License or an Agricultural Pest Control Adviser License in California. Label instructions and all applicable laws and regulations are to be strictly followed in the application of pesticides and herbicides and in the disposal of excess materials and containers. Only those materials registered by the U.S. Environmental Protection Agency (EPA) for the specific purpose are authorized for use, and they shall be used only when weather conditions will minimize drift and impacts on non-target sites. Before applying any pesticides or herbicides in parks or on federal or state land, Metropolitan shall obtain approval from the appropriate agency for all pesticides and herbicides proposed for use on these lands. Only pesticides on the Metropolitan "Approved Pesticide List" and registered with the EPA and the California Environmental Protection Agency will be used. ***Engineered Erosion Control*** APM-HYD-1 APM-HYD-3 through APM-HYD-11 ***Slope Stabilization*** APM-HYD-1 APM-HYD-3 through APM-HYD-10 **O&M Activities** ***Routine O&M Activities*** APM-HYD-2 through APM-HYD-11 ***Single-Occurrence O&M Activities*** APM-HYD-1 APM-HYD-3 through APM-HYD-11			
Hydrology and Water Quality	**Impact HYD-2:** Would the program 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	**CIP Projects (all)** APM-HYD-1 through APM-HYD-3 APM-HYD-7 through APM-HYD-10	Less than significant	—	Less than significant

Table 1-4. Summary of Program Impacts

CEQA Topic	Environmental Topic	Applicant Proposed Measures	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance
	manner which would result in substantial erosion or siltation on- or off-site?	**O&M Activities** ***Routine O&M Activities*** No APMs ***Single-Occurrence O&M Activities*** APM-HYD-1 through APM-HYD-3 APM-HYD-7 through APM-HYD-10			
Hydrology and Water Quality	**Impact HYD-3:** Would the program substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	**CIP Projects (all)** APM-HYD-1 through APM-HYD-3 APM-HYD-7 through APM-HYD-10 **O&M Activities** ***Routine O&M Activities*** No APMs ***Single-Occurrence O&M Activities*** APM-HYD-1 through APM-HYD-3 APM-HYD-7 through APM-HYD-10	Less than significant	—	Less than significant
Hydrology and Water Quality	**Impact HYD-4:** Would the program 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?	**CIP Projects** ***Patrol Road Improvements and Paving*** APM-HYD-2 ***Engineered Erosion Control*** No APMs ***Slope Stabilization*** No APMs **O&M Activities (all)** No APMs	Less than significant	—	Less than significant
Hydrology and Water Quality	**Impact HYD-5:** Would the program otherwise substantially degrade water quality?	**CIP Projects** ***Patrol Road Improvements and Paving*** APM-HYD-1 through APM-HYD-11 ***Engineered Erosion Control*** APM-HYD-1 APM-HYD-3 through APM-HYD-11 ***Slope Stabilization*** APM-HYD-1 APM-HYD-3 through APM-HYD-11 **O&M Activities (all)** No APMs	Less than significant	—	Less than significant

Table 1-4. Summary of Program Impacts

CEQA Topic	Environmental Topic	Applicant Proposed Measures	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance
Hydrology and Water Quality	**Impact HYD-6:** Would the program 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)?	—	Less than significant	—	Less than significant
Hydrology and Water Quality	**Impact HYD-7:** Would the program 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?	—	No impact	—	No impact
Hydrology and Water Quality	**Impact HYD-8:** Would the program place within a 100-year flood hazard area structures which would impede or redirect flood flows?	—	Less than significant	—	Less than significant
Hydrology and Water Quality	**Impact HYD-9:** Would the program 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?	—	Less than significant	—	Less than significant
Hydrology and Water Quality	**Impact HYD-10:** Would the program result in inundation by seiche, tsunami, or mudflow?	—	Less than significant	—	Less than significant
Hydrology and Water Quality	**Cumulative:** Would the program have a cumulative effect on hydrology or water quality resources?	**CIP Projects and O&M Activities (all)** APM-HYD-1 through APM-HYD-11	Less than significant	—	Less than significant
Land Use	**Impact LU-1:** Would the program conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	—	Less than significant	—	Less than significant
Land Use	**Impact LU-2:** Would the program conflict with any applicable habitat	—	Less than significant	—	Less than significant

Table 1-4. Summary of Program Impacts

CEQA Topic	Environmental Topic	Applicant Proposed Measures	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance
	conservation plan or natural community conservation plan?				
Land Use	**Impact LU-3:** Would the program physically divide an established community?	—	No impact	—	No impact
Land Use	**Cumulative:** Would the program have a cumulative land use impact?	—	Less than significant	—	Less than significant
Noise	**Impact NOI-1:** Would the program result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	**CIP Projects and O&M Activities (all)** **APM-NOI-1: Compliance with Noise Output Regulations.** All mobile or fixed noise-producing equipment used on the proposed program that is regulated for noise output by a federal, state, or local agency shall comply with such regulation while in the course of proposed program activity. **APM-NOI-2: Use of Electric Equipment.** Electrically powered equipment shall be used instead of pneumatic or internal-combustion-powered equipment, where feasible. **APM-NOI-3: Location of Stockpiles and Other Noise-Producing Activities.** Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors. **APM-NOI-4: Construction-Related Speed Limits.** Construction site and haul-road speed limits shall be established and enforced during the construction period. **APM-NOI-5: Construction Hours Restrictions.** As feasible, the hours of construction, including all spoils and material transport, shall be restricted to the time periods and days permitted by the local noise ordinance or other applicable ordinance. As necessary, Metropolitan shall coordinate with the applicable local jurisdiction regarding activities that are not consistent with local ordinances to avoid/minimize impacts **APM-NOI-6: Limits on Noise-Producing Signals.** The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only. **APM-NOI-7: Pre-Construction Coordination.** As necessary, Metropolitan shall voluntarily coordinate with local jurisdictions and sensitive receptors regarding the proposed program to address any potential program-specific noise-related issues prior to commencement of construction activities. **APM-NOI-8: Noise Complaints Response and Resolution.** The on-site construction supervisor shall have the responsibility and authority to receive and resolve noise complaints.	Less than significant	—	Less than significant
Noise	**Impact NOI-2:** Would the program result in a substantial temporary or periodic increase in ambient noise levels in the program vicinity above levels existing without the program?	**CIP Projects and O&M Activities (all)** APM-NOI-1 through APM-NOI-8	Less than significant	—	Less than significant

Table 1-4. Summary of Program Impacts

CEQA Topic	Environmental Topic	Applicant Proposed Measures	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance
Noise	**Impact NOI-3:** Would the program result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	—	Less than significant	—	Less than significant
Noise	**Impact NOI-4:** Would the program result in a substantial permanent increase in ambient noise levels in the program vicinity above levels existing without the program?	—	No impact	—	No impact
Noise	**Impact NOI-5:** For a program 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 program expose people residing or working in the program area to excessive noise levels?	—	Less than significant	—	Less than significant
Noise	**Impact NOI-6:** For a program within the vicinity of a private airstrip, would the program expose people residing or working in the program area to excessive noise levels?	—	Less than significant	—	Less than significant
Noise	**Cumulative:** Would the program have a cumulative noise impact?	**CIP Projects and O&M Activities (all)** APM-NOI-1 through APM-NOI-8	Less than significant	—	Less than significant
Public Services	**Impact PUB-1:** Would the program 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 following public services:				
Public Services	**Impact PUB-1A:** Fire Protection?	**CIP Projects and O&M Activities (all)** **APM-HAZ-4: Fire Protection and Fire Safety** (see Hazards and Hazardous Materials section of this table).	Less than significant	—	Less than significant
Public Services	**Impact PUB-1B:** Police Protection?	—	Less than significant	—	Less than significant
Public Services	**Impact PUB-1C:** Schools?	—	No impact	—	No impact
Public Services	**Impact PUB-1D:** Parks?	—	No impact	—	No impact
Public Services	**Impact PUB-1E:** Other Public Facilities?	—	No impact	—	No impact

Table 1-4. Summary of Program Impacts

CEQA Topic	Environmental Topic	Applicant Proposed Measures	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance
Public Services	**Cumulative:** Would the program have a cumulative public services impact?	—	Less than significant	—	Less than significant
Traffic and Circulation	**Impact TR-1:** Would the program conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance or 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?	—	Less than significant	—	Less than significant
Traffic and Circulation	**Impact TR-2:** Would the program conflict with an applicable congestion management program, 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?	—	Less than significant	—	Less than significant
Traffic and Circulation	**Impact TR-3:** Would the program substantially increase hazards due to a design feature (e.g., sharp curves, or dangerous intersections) or incompatible uses (e.g., farm equipment)?	—	Less than significant	—	Less than significant
Traffic and Circulation	**Impact TR-4:** Would the program result in inadequate emergency access?	**CIP Projects and O&M Activities (all)** **APM-TR-1: Traffic Control Plan.** a. Where appropriate for work on public roadways and as required by the local jurisdiction, prior to the start of the construction phase, Metropolitan or Metropolitan's contractor shall submit a Traffic Control Plan to the appropriate local jurisdiction for review and approval. The plan shall be consistent with the California Department of Transportation (Caltrans) Traffic Manual, Chapter 5. Traffic control shall be in accordance with California Code of Regulations (CCR) Title 8. b. Where appropriate for work on public roadways, Metropolitan shall submit a set of proposed construction plans to agencies with jurisdiction over the roadways to allow them to comment on the proposed plans. c. During construction on public roadways, Metropolitan shall implement traffic management measures as deemed necessary and applicable by a properly licensed engineer. Measures could include the following, as appropriate:	Less than significant	—	Less than significant

Table 1-4. Summary of Program Impacts

CEQA Topic	Environmental Topic	Applicant Proposed Measures	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance
		i. Temporary traffic lanes shall be marked and barricades and lights shall be provided at excavations and crossings per the Manual of Traffic Controls for Construction and Maintenance Work Zones. ii. Construction activities shall affect the least number of travel lanes possible, with both directions of traffic flow being maintained at all times to the extent feasible. iii. Construction shall avoid the morning and evening peak traffic periods to the extent feasible. iv. Construction across on- and off-street bikeways shall be done in a manner that allows for safe bicycle access, or bicycle traffic will be safely rerouted. v. Private driveways located within construction areas shall remain open to maintain access to the maximum extent feasible. Should construction be required that prevents access to a private driveway, Metropolitan shall coordinate with the owners and shall implement measures such as installation of metal plates to provide access. d. During construction of projects that would impact emergency or public access, Metropolitan shall notify all affected fire, police, and paramedic departments/services as well as any affected public transportation agencies of the schedule and duration of construction activities. e. During construction of projects that would impact underlying or adjacent property owners, Metropolitan shall send notification to and coordinate with these owners about the construction activity and duration.			
Traffic and Circulation	**Impact TR-5:** Would the program conflict with adopted policies, plans, or programs regarding public transit, bicycles, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	**CIP Projects and O&M Activities (all)** APM-TR-1	Less than significant	—	Less than significant
Traffic and Circulation	**Impact TR-6:** Would the program 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?	—	No impact	—	No impact
Traffic and Circulation	**Cumulative:** Would the program have a cumulative effect on traffic and/or circulation resources?	**CIP Projects and O&M Activities (all)** APM-TR-1	Less than significant	—	Less than significant
Utilities and Service Systems	**Impact UTL-1:** Would the program require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	—	Less than significant	—	Less than significant

Table 1-4. Summary of Program Impacts

CEQA Topic	Environmental Topic	Applicant Proposed Measures	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance
Utilities and Service Systems	**Impact UTL-2:** Would the program be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	**CIP Projects and O&M Activities (all)** **APM-UTL-1: Waste Reduction and Recycling.** Metropolitan has established a goal to reuse or recycle a minimum of 50 percent of the construction and demolition debris generated by construction activities, including proposed program activities. At a minimum, the waste generated by the proposed program shall meet local waste management regulations specifying minimum percentages of reuse or recycling of construction and demolition waste and debris. Waste shall be recycled whenever possible. Materials that cannot be reused or recycled shall be either incinerated or disposed of at a properly permitted landfill.	Less than significant	—	Less than significant
Utilities and Service Systems	**Impact UTL-3:** Would the program exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	—	No impact	—	No impact
Utilities and Service Systems	**Impact UTL-4:** Would the program require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	—	No impact	—	No impact
Utilities and Service Systems	**Impact UTL-5:** Would the program have sufficient water supplies available to serve the program from existing entitlements and resources, or are new or expanded entitlements needed?	—	No impact	—	No impact
Utilities and Service Systems	**Impact UTL-6:** Would the program result in a determination by the wastewater treatment provider which serves or may serve the program that it has adequate capacity to serve the program's projected demand in addition to the provider's existing commitments?	—	No impact	—	No impact
Utilities and Service Systems	**Impact UTL-7:** Would the program comply with federal, state, and local statutes and regulations related to solid waste?	—	Less than significant	—	Less than significant
Utilities and Service Systems	**Cumulative:** Would the program have a cumulative effect on utilities and/or service systems?	**CIP Projects and O&M Activities (all)** APM-UTL-1	Less than significant	—	Less than significant

1.4.6 Alternatives Considered but Rejected

Alternatives considered but rejected include location and a design alternative. All of the potential alternatives that were considered for the proposed program have been rejected. Section 15126.6(a) of the CEQA Guidelines states that an EIR shall describe "a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project," as well as provide an evaluation of "the comparative merits of the alternatives." Under Section 15126.6(a) of the CEQA Guidelines, an EIR does not need to consider alternatives that are not feasible, nor need it address every conceivable alternative to the project. The range of alternatives "is governed by the 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice." The focus is on informed decision making and public participation rather than providing a set of alternatives simply to satisfy format. Based on the nature of the proposed program (operation and maintenance of an existing water conveyance and distribution system), feasible alternatives to the proposed program, other than the two identified in this section, were not identified. Maintenance projects proposed under the program are small projects at specific locations with limited options for methods of construction. For this reason, identification of feasible alternatives for the proposed program was limited. The following discussion presents the alternatives that were considered but rejected, and why they were rejected. These alternatives are not discussed in further detail and have been eliminated from further consideration.

1.4.6.1 Alternative Locations

CEQA requires that the discussion of alternatives focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project. The key question and first step in the analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen the significant effects of the project need be considered for inclusion in the EIR (14 CCR 15126.6[f][2]). Because the proposed program involves the maintenance, repair, and upgrade of an existing water supply conveyance and distribution system, as well as maintenance projects to address access or infrastructure problems, an alternative site analysis is not appropriate. The proposed program location, or Western San Bernardino County Operating Region, comprises Metropolitan's conveyance and distribution system pipelines and appurtenant structures, right-of-way, and patrol roads within the western portion of San Bernardino County, California. Maintenance needs have been identified at specific locations associated with an existing water supply conveyance and distribution system; therefore, it would not be feasible to move the maintenance activities to another location. Relocating activities to other sites would not meet the proposed program objectives. As a result, alternative locations were rejected and are not analyzed in detail in the Draft PEIR.

1.4.6.2 Project Design Alternative

A second alternative that was considered was the Project Design Alternative, which consists of incorporation of bioengineering techniques (e.g., hydroseeding and geotextiles, planted walls, vegetated gabions) into project design to minimize significant impacts resulting from the proposed program, where feasible. This alternative was considered because it had the potential to feasibly attain the basic objectives of the proposed program, while avoiding or substantially lessening the significant effects of the proposed program. However, after review, it was determined that this approach did not meet the criteria to be considered as a separate alternative. As part of the proposed program, bioengineering techniques are already being incorporated into the design at proposed program sites where feasible and appropriate. In order to obtain regional permits that are being sought as part of the proposed program, the regulatory agencies (U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife) have stated that they expect Metropolitan to consider and incorporate, where feasible, bioengineering techniques into construction methods. Rather than an alternative to be considered, bioengineering is a requirement and feature of the existing proposed program. In addition, in order to minimize impacts from the proposed program and minimize the resulting mitigation, design engineering is taking environmental resources under consideration as part of the design process and design plans are being prepared in a manner that limits/minimizes impacts to sensitive habitats, special-status species, and jurisdictional waters. As such, the Project Design Alternative is already being incorporated as part of the proposed program.

Furthermore, the impacts in the two categories where significant impacts have been identified (biological resources and cultural resources) would not necessarily be avoided or substantially lessened by implementation of the Project Design Alternative. Bioengineering techniques would not likely reduce impacts to cultural resources, as the potential excavation (i.e., ground disturbance) and repair activities, which would create the potential disturbance to archaeological and paleontological resources, would still occur. Bioengineering would not minimize the potential impact to cultural resources. For biological resources, likewise, the impact to the sensitive resource, be it a sensitive habitat or a special-status animal species, would still occur with the disturbance (i.e., excavation, vegetation removal/disturbance) during construction activities. Even with incorporation of bioengineering techniques, the proposed maintenance activities/projects would still be implemented and the resulting construction disturbance would occur. The bioengineering techniques would serve to restore the impact area, but not necessarily reduce the impact from construction disturbance. Thus this Project Design Alternative does not meet the criteria for an alternative to avoid or substantially lessen any of the significant effects of the program.

1.4.7 Alternatives Selected for Further Analysis

Section 15126.6(e) of the CEQA Guidelines requires that an EIR evaluate and analyze the impacts of the "No Project" Alternative, which reflects the "circumstances under which the Project does not proceed." The No Project Alternative, in this case, assumes that the existing water supply conveyance and distribution system in the Western San Bernardino County Operating Region would continue to operate without the implementation of proposed CIP projects or the proposed O&M Manual. Additionally, under the No Project Alternative, the repair, upgrade, and/or relocation of existing structures, or the installation of permanent structures to address access or infrastructure problems, would not occur.

An EIR must identify an "environmentally superior" alternative, and where the No Project Alternative is identified as environmentally superior, the EIR is then required to identify an alternative from among the others evaluated as environmentally superior. Each alternative's environmental impacts are compared to the proposed project and determined to be environmentally superior, neutral, or inferior. However, only those impacts found significant and unavoidable are used in making the final determination of whether an alternative is environmentally superior or inferior to the proposed project. None of the environmental impacts identified in the PEIR were found to be significant and unavoidable. If an alternative is considered clearly superior to the proposed project relative to identified impacts, Section 15126.6 of the CEQA Guidelines requires that alternative be identified as the environmentally superior alternative. By statute, if the environmentally superior alternative is the No Project Alternative, an EIR must also identify an environmentally superior alternative among the other alternatives.

Two alternatives to the proposed program, other than the No Project Alternative, were considered; however, these alternatives were not further considered and analyzed for the reasons stated in Section 1.4.6, Alternatives Considered but Rejected. Based on the analysis provided in Chapter 6, Alternatives, of the Draft PEIR, the No Project Alternative is considered environmentally inferior to the proposed program. In addition, the No Project Alternative would not meet any of the project objectives identified by Metropolitan. The proposed program would allow for maintenance of the existing water conveyance and distribution system and associated infrastructure in a streamlined manner, thus ensuring the continued reliability and security of the water supply system. The proposed program, therefore, is considered the environmentally superior alternative.

1.5 References

14 CCR 15000–15387 and Appendices A–N. Guidelines for Implementation of the California Environmental Quality Act, as amended.

California Public Resources Code, Sections 21000–21177. California Environmental Quality Act (CEQA), as amended.

Metropolitan (The Metropolitan Water District of Southern California). 1997. *Rialto Pipeline System Operations Manual*. Released 1997.

Metropolitan. 2001. *Orange County Feeder Distribution System Operations Manual*. Released April 2001.

Metropolitan. 2005. *Inland Feeder System Operations Manual*. Released December 2005.

Metropolitan. 2008. *Upper Feeder System Operations Manual*. Released December 2008.

Metropolitan. 2013. O&M Manual – Information on Coating Activities. Email communication with S. Bustos (Metropolitan Coating Team Manager) and J. Harriger (Metropolitan Environmental Planning Team). July 6, 2013.

2 Responses to Comments Received

2.1 Introduction

This chapter of the Final Program Environmental Impact Report (PEIR) includes a copy of all comment letters that were submitted to The Metropolitan Water District of Southern California (Metropolitan) during the 45-day public review period for the Draft PEIR for the proposed Western San Bernardino County Distribution System Infrastructure Protection Program (DSIPP; proposed program), along with responses to comments in accordance with California Environmental Quality Act (CEQA) Guidelines Section 15088. The public review period for the Draft PEIR began on May 7, 2020, and ended on June 20, 2020. Metropolitan accepted a late letter from the California Department of Fish and Wildlife and has provided written comments in response (see Section 2.2, Comment Letters and Responses).

All written comment letters received on the Draft PEIR have been coded with a letter to facilitate identification and tracking (see Table 2-1). These comment letters were reviewed and divided into individual comments, with each comment containing a single theme, issue, or concern. Individual comments and the responses to them were assigned corresponding numbers (e.g., A-1, A-2, A-3). Each comment letter is the submittal of an individual, agency, or organization. To aid readers and commenters, electronically bracketed comments have been reproduced in this document, with the corresponding responses provided immediately following the comments. The interested parties listed in Table 2-1 submitted letters during the public review period for the Draft PEIR.

Table 2-1. Comments Received on the Draft Program Environmental Impact Report

Comment Letter Designation	Commenter	Date
Agencies		
A	San Bernardino Valley Water Conservation District (Daniel B. Cozad, General Manager)	June 11, 2020
B	San Bernardino Department of Public Works (Michael R. Perry, Supervising Planner)	June 17, 2020
C	California Department of Fish and Wildlife (Erinn Wilson, Environmental Program Manager I)	June 23, 2020

To finalize the PEIR for the proposed program, the following responses have been prepared to comments that were received during the public review period. Comments that raise environmental issues have been thoroughly addressed in these responses. Comments that do not require a response include those that (1) do not address the adequacy or completeness of the Draft PEIR; (2) do not raise environmental issues; (3) do not address the proposed program; or (4) require the incorporation of additional information not relevant to environmental issues.

Section 15088 of the CEQA Guidelines, Evaluation of and Response to Comments, states:

(a) The lead agency shall evaluate comments on environmental issues received from persons who reviewed the draft EIR and shall prepare a written response. The Lead Agency shall respond to comments raising significant environmental issues received during the noticed comment period and any extensions and may respond to late comments.

(b) The lead agency shall provide a written proposed response, either in a printed copy or in an electronic format, to a public agency on comments made by that public agency at least 10 days prior to certifying an environmental impact report.

(c) The written response shall describe the disposition of significant environmental issues raised (e.g., revisions to the proposed project to mitigate anticipated impacts or objections). In particular, the major environmental issues raised when the Lead Agency's position is at variance with recommendations and objections raised in the comments must be addressed in detail giving reasons why specific comments and suggestions were not accepted. There must be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice. The level of detail contained in the response, however, may correspond to the level of detail provided in the comment (i.e., responses to general comments may be general). A general response may be appropriate when a comment does not contain or specifically refer to readily available information, or does not explain the relevance of evidence submitted with the comment.

(d) The response to comments may take the form of a revision to the draft EIR or may be a separate section in the final EIR. Where the response to comments makes important changes in the information contained in the text of the draft EIR, the Lead Agency should either:

    (1) Revise the text in the body of the EIR, or

    (2) Include marginal notes showing that the information is revised in the response to comments.

Revisions to the Draft PEIR have been prepared to make clarifications, corrections, or minor revisions to the text, tables, figures, and appendices of the Draft PEIR generated either from responses to comments or independently by Metropolitan. Therefore, this Responses to Comments Received chapter, along with Chapter 3, Changes to the Draft Program Environmental Impact Report, are included in the Final PEIR for consideration by the Metropolitan Board of Directors.

Section 15088.5, Recirculation of an EIR Prior to Certification, of the CEQA Guidelines states the following:

(a) A lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review under Section 15087 but before certification. As used in this section, the term "information" can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not "significant" unless the EIR is changed

in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement. "Significant new information" requiring recirculation include, for example, a disclosure showing that:

(1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.

(2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.

(3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.

(4) The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded. (Mountain Lion Coalition v. Fish and Game Com. (1989) 214 Cal.App.3d 1043) (b)

(b) Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR.

(c) If the revision is limited to a few chapters or portions of the EIR, the lead agency need only recirculate the chapters or portions that have been modified.

(d) Recirculation of an EIR requires notice pursuant to Section 15087, and consultation pursuant to Section 15086.

(e) A decision not to recirculate an EIR must be supported by substantial evidence in the administrative record.

(f) The lead agency shall evaluate and respond to comments as provided in Section 15088. Recirculating an EIR can result in the lead agency receiving more than one set of comments from reviewers. The following are two ways in which the lead agency may identify the set of comments to which it will respond. This dual approach avoids confusion over whether the lead agency must respond to comments which are duplicates or which are no longer pertinent due to revisions to the EIR. In no case shall the lead agency fail to respond to pertinent comments on significant environmental issues.

(1) When an EIR is substantially revised and the entire document is recirculated, the lead agency may require reviewers to submit new comments and, in such cases, need not respond to those comments received during the earlier circulation period. The lead agency shall advise reviewers, either in the text of the revised EIR or by an attachment to the revised EIR, that although part of the administrative record, the previous comments do not require a written response in the final EIR, and that new comments must be submitted for the revised EIR. The lead agency need only respond to those comments submitted in response to the recirculated revised EIR.

(2) When the EIR is revised only in part and the lead agency is recirculating only the revised chapters or portions of the EIR, the lead agency may request that reviewers limit their comments to the revised chapters or portions of the recirculated EIR. The lead agency need only respond to (i) comments received during the initial circulation period that relate to chapters or portions of the document that were not revised and recirculated, and (ii) comments received during the recirculation period that relate to the chapters or portions of the earlier EIR that were revised and recirculated. The lead agency's request that reviewers limit the scope of their comments shall be included either within the text of the revised EIR or by an attachment to the revised EIR.

(3) As part of providing notice of recirculation as required by Public Resources Code Section 21092.1, the lead agency shall send a notice of recirculation to every agency, person, or organization that commented on the prior EIR. The notice shall indicate, at a minimum, whether new comments may be submitted only on the recirculated portions of the EIR or on the entire EIR in order to be considered by the agency.

(g) When recirculating a revised EIR, either in whole or in part, the lead agency shall, in the revised EIR or by an attachment to the revised EIR, summarize the revisions made to the previously circulated draft EIR.

The Draft PEIR revisions and information presented in the responses to comments do not result in any conditions set forth in Section 15088.5 of the CEQA Guidelines requiring that the EIR be recirculated prior to its certification. Although CEQA requires recirculation of an EIR when "new significant information is added to the EIR" after the EIR is circulated for public review and before it is certified, "new information" added to the EIR "is not significant unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement." CEQA Guidelines § 15088.5(a); *Laurel Heights Improvement Assn. of San Francisco, Inc. v. Regents of the Univ. of Cal.* (1993) 6 Cal.4th 1112, 1129. Recirculation is not required when new information is added that "merely clarifies or amplifies or makes insignificant modifications in an adequate EIR." In response to comments received on the Draft PEIR, this Final PEIR includes additional information to clarify information or make minor modifications to the PEIR.

2.2 Comment Letters and Responses

The following section includes the comment letters regarding the Draft PEIR received by Metropolitan during the public review period and Metropolitan's responses to each comment. With respect to comment letters received, individual comments within the body of each letter have been identified and numbered. Brackets delineating the individual comments and alphanumeric identifiers have been added in the right margins of each letter. Responses to the bracketed comments are included on the page(s) following each comment letter.

Global responses (GR) were prepared to address common issues that were repeatedly raised in the comment letters. These responses are provided below.

GR-1 **Background on the Decision to Prepare a Program EIR.** As provided in Section 15168 of the CEQA Guidelines, a PEIR may be prepared on a series of actions that may be characterized as one large project, such as an operations and maintenance program. A PEIR is appropriate for the proposed program because it is a long-term program. The use of a PEIR is appropriate when the sequence of analysis will go from a program-level plan to a series of subsequent site-specific actions. Once a PEIR has been prepared, subsequent activities within the program must be evaluated to determine whether the activity has been adequately evaluated in the PEIR, is exempt under CEQA, or an additional CEQA document needs to be prepared. If the PEIR addresses the program's effects as specifically and comprehensively as possible, many subsequent activities could be found to be within the scope of the PEIR, and additional environmental review may not be required (CEQA Guidelines Section 15168[c]). Metropolitan will review activities, where appropriate, to ensure consistency with state and federal environmental regulations. The internal review process includes evaluating the site and activity to determine whether the environmental effects of the action were covered in the PEIR (per Section 15618[c][4] of the CEQA Guidelines). When a PEIR is relied on for a subsequent activity, the lead agency must incorporate feasible mitigation measures and alternatives developed in the PEIR into the subsequent activities.

The PEIR serves a valuable purpose as the first-tier environmental analysis, used to address impacts, including cumulative impacts, which have been adequately addressed at the program level. More specifically, if a future subsequent activity under the proposed program would have effects that were not examined in the PEIR, Metropolitan would evaluate the future activities by preparing an initial study or similar scoping document. If new significant effects are identified, a subsequent negative declaration or mitigated negative declaration or an EIR (e.g., supplemental or subsequent) would be prepared to evaluate project-specific aspects of any subsequent activities or projects that were not adequately addressed in the PEIR. As required by CEQA, Metropolitan would circulate these documents for public review and comment and a Notice of Determination would be filed with the State Clearinghouse. In some cases, where the project-specific activity would require minor changes or additions, an Addendum to the PEIR may be appropriate provided none of the conditions calling for preparation of a Supplemental or a Subsequent EIR have been met (CEQA Guidelines Sections 15162, 15163, and 15164[a]). For those activities determined to be adequately evaluated under the PEIR, Metropolitan would file a Notice of Determination with the State Clearinghouse prior to commencing work.

In addition, the CEQA statutes have identified types of projects that are exempt from environmental review. If, based on review by Metropolitan it is determined that a project

is considered exempt from CEQA, Metropolitan may prepare and file a Notice of Exemption with the State Clearinghouse. The Notice of Exemption would trigger a shorter statute of limitations and would be filed on a case-by-case basis, per Metropolitan's review. Lastly, there are also some activities that would not be subject to CEQA because these types of activities have been adequately addressed in the PEIR and with implementation of mitigation would not result in significant environmental impacts. Other activities, such as routine maintenance, may be determined covered under the general rule that CEQA applies only to projects that have the potential to cause a significant impact (Section 15061[b][3]) and would not require further evaluation.

Several comments suggested that mitigation measures as drafted in the Draft PEIR would result in deferral. In response to this concern, it is noted that the CEQA Guidelines (Section 15126.4[a][1][B]) provide that specific details of mitigation measures may be developed after project approval "when it is impractical or infeasible to include those details during the project's environmental review." CEQA case law (*Center for Biological Diversity v. Department of Fish and Wildlife* (2015) 234 Cal.App.4th 214) also supports the ability of a lead agency to defer certain details of exactly how mitigation will be achieved or implemented if the mitigation measures include specific performance criteria, and commit the agency to mitigate the impact. As noted in *Endangered Habitats League, Inc. v County of Orange* (2005) 131 Cal.App.4th 777, the Fourth District stated: "Deferral of the specifics of mitigation is permissible where the local entity commits itself to mitigation and lists the alternatives to be considered, analyzed, and possibly incorporated in the mitigation plan." In *POET, LLC v. State Air Resources Bd*. (2013) 218 Cal.App.4th 681, the exception to the general rule against deferral was noted by stating "the deferral of the formulation of mitigation measures requires the agency to commit itself to specific performance criteria for evaluating the efficacy of the measures implemented." As described in *Center for Biological Diversity v. Department of Conservation* (2019) 36 Cal.App.5th 210, 239, deferral is permitted "when the agency has committed itself to specific performance criteria for evaluating the efficacy of the measures to be implemented in the future, and the future mitigation measures are formulated and operational before the project activity that they regulate begins." The commitment to mitigate should be accompanied by a list of potential approaches to achieve the avoidance or lessening of the significant effect to demonstrate that the eventually selected measures are reasonably expected to be feasible and effective. The PEIR provides mitigation performance criteria for those impacts that clearly establish how successful mitigation would be implemented for subsequent activities.

As previously explained, a PEIR was prepared for this program because a programmatic level of analysis is necessary due to the long-term, comprehensive nature of the proposed program. Subsequent activities proposed to implement the proposed program will be evaluated to determine whether the specific project components or sites were adequately

addressed in this PEIR. If the subsequent activity was not adequately addressed at the program level, it is anticipated that an initial study will be prepared, leading to a subsequent CEQA document to evaluate project-specific aspects of any such activities that were not previously identified and disclosed in the PEIR. This subsequent analysis could include, for example, site-specific surveys that address the area of potential disturbance. Because many of the proposed activities are not slated to move forward until a future date, project-level details, plans, and specificity are not available, making comprehensive, detailed surveys across the entire program area impractical. This approach is consistent with CEQA's acknowledgment that the degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity described therein, and that the degree of specificity for an EIR on a comprehensive, long-range plan like the proposed program need not be as detailed as an EIR on the projects that might follow (CEQA Guidelines Section 15146.) This approach meets the "reasonableness" test of CEQA, which acknowledges that it is not practical or required that every possible study be prepared as part of the initial PEIR process, and provides the flexibility to address changing conditions in the program area over time.

Nonetheless, the analysis of biological impacts provided in Section 4.3.6, Impact Analysis, of the Draft PEIR is exhaustive and based on detailed surveys. As described in Section 4.3.1, Methods of Analysis, a thorough literature review was conducted on the program area. Vegetation mapping was completed in the field by qualified biologists and all sensitive vegetation communities identified by the California Department of Fish and Wildlife were mapped. Focused surveys were conducted for special-status plants in 2017 (see Appendix F-2 to the Draft PEIR). Additionally, focused protocol-level surveys for coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo bellii pusillus*), and San Bernardino kangaroo rat (*Dipodomys merriami parvus*) were conducted. Finally, a formal jurisdictional delineation of waters of the United States/state was conducted.

The PEIR disclosed and evaluated all known impacts from proposed activities on all protected species. It did so comprehensively and specifically for each species. The courts have held that there is no need for a PEIR to contain a site-specific analysis for each contemplated future project (*Center for Biological Diversity v. Department of Fish and Wildlife* (2015) 234 Cal.App.4th 214). If additional CEQA analysis is required for future activities, site-specific surveys and analysis will be conducted and supplemental CEQA review performed if new or more severe impacts beyond those identified in the PEIR are identified. The data used in the PEIR to establish the existing biological conditions and to assess potential impacts are adequate and meet the requirements under CEQA. Additionally, the mitigation measures require additional surveys to be completed, with corresponding performance criteria. Specifically, Mitigation Measure (MM) BIO-1 (Compensation for Impacts to Federally and State-Listed Species Habitat) requires that

nesting bird surveys be conducted 7 days prior to the start of work and that a buffer be placed around any nest if nests are found, until a qualified biologist determines that it is appropriate to commence work and the nest will not be disturbed. MM-BIO-3 (Pre-Construction Biological Surveys) requires pre-construction surveys prior to the start of ground-disturbing construction or vegetation removal and specifies that if special-status species are located, they will be monitored for avoidance. MM-BIO-4 (Biological Monitoring) requires that a qualified biologist shall monitor ground-disturbing activities and look for special-status species within or immediately adjacent to the work areas so that they can be flushed or moved out of harm's way to avoid direct impacts. Applicant Proposed Measure (APM) BIO-1 (Pre-Activity Special-Status Plant Surveys) requires pre-activity focused special-status plant surveys in the portions of the CIP project area that were not surveyed in 2017. Populations and individuals of any special-status plant species found during pre-activity surveys will be mapped with GPS. Mapped populations of listed species will be avoided unless take authorization has been obtained from the respective resource agency. Non-listed special-status plants will be avoided during construction activities as practicable. Installation of protective fencing and erosion and sediment control measures, as appropriate, will be implemented to protect special-status plant populations found near CIP project and single-occurrence O&M activity sites.

Metropolitan is aware that additional permitting for impacts to waters of the United States/state or take of federal Endangered Species Act (ESA) or California ESA (CESA) protected species would require additional permits from regulatory agencies. The regulatory framework is provided in Section 4.3.3 of the Draft PEIR and addresses these permit requirements. It is not required to include the permitting requirements in the PEIR impacts analysis and mitigation measures. Metropolitan is also aware that the resource agencies may require additional surveys and mitigation as part of the regulatory permitting process. However, this information does not need to be a part of the PEIR.

GR-2 **Standards for Responses to Comments.** This global response has been prepared in response to comments that provide conclusory statements without factual information or other evidence that might support such claims. Section 15088(c) of the CEQA Guidelines specifies that the focus of the responses to comments shall be on the disposition of significant environmental issues. Where Metropolitan's position is at variance with the recommendations and objections raised in the comment, Metropolitan has provided, in detail, reasons why specific comments and suggestions were not accepted. However, Section 15088(c) of the CEQA Guidelines also specifies that the level of detail contained in the response may correspond to the level of detail provided in the comment. Conclusory statements unsupported by factual information will not suffice. A general response may be appropriate when a comment does not contain or specifically refer to readily available information or does not explain the relevance of evidence submitted with the comment.

GR-3 **Determining the Significance of the Environmental Effect.** Section 15064 of the CEQA Guidelines provides guidance for determining whether a project may have a significant effect on the environment. Determining whether a project may have a significant impact on the environment is based on substantial evidence in light of the whole record. As noted in Section 15064 of the CEQA Guidelines, "substantial evidence" is defined as facts, reasonable assumptions predicated on facts, and expert opinion supported by facts. Argument, speculation, or unsubstantiated opinion or narrative does not constitute substantial evidence. Some comments assert or request that impacts should be considered significant or that significance conclusions in the Draft PEIR should be revised without supporting substantial evidence in support of the assertion. Where the commenter provides no facts or other substantial evidence to support an assertion that the physical environment could directly or indirectly be significantly impacted as a result of the proposed program, the Final PEIR is not required to consider unsubstantiated impacts as significant. CEQA permits disagreement with respect to environmental issues addressed in an EIR. As Section 15151 of the CEQA Guidelines states, "[d]isagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among experts. Perfection is not required, but the EIR must be adequate, complete and a good faith effort at full disclosure." Therefore, consistent with CEQA, Chapter 4, Environmental Analysis, of the Draft PEIR provides an adequate, complete, and good faith effort at full disclosure of the physical environmental impacts, based on substantial evidence in light of the whole record, which includes concerns raised during the Notice of Preparation scoping period. Comments made on the Draft PEIR that do not provide substantial evidence for impact conclusions different from those identified in the Draft PEIR will not be addressed further in the Final PEIR.

GR-4 **Mitigation for Significant Impacts.** Several comments suggest changes related to mitigation ratios proposed to reduce environmental impacts to a less than significant level or suggest additional mitigation measures to reduce impacts. Per the analysis presented in the Draft PEIR, the proposed program has the potential to result in significant environmental effects. Chapter 5, Mitigation Monitoring and Reporting Program, of this Final PEIR presents mitigation measures identified in the Draft PEIR, including those that have been revised in response to comments made on the Draft PEIR, that would avoid or substantially reduce significant environmental impacts. Minor revisions to the mitigation measures do not affect the significance conclusions provided in the Draft PEIR.

Mitigation measures in the Draft PEIR are provided only for impacts on the environment found to be significant (14 CCR 15126.4[a][3]). The mitigation measures presented in Chapter 4 of the Draft PEIR (and provided in Chapter 5 of this Final PEIR) have an essential nexus between the mitigation measure and the significant impact (*Nollan v. California Coastal Commission*, 483 U.S. 825 [1987]), and the mitigation measures are "roughly proportional" to the significant impacts of the proposed program (*Dolan v. City of Tigrad*,

512 U.S. 374 [1994]). Mitigation measures cannot be and are not imposed when no impact on the environment is found. Specifically, the proposed program includes mitigation measures to protect California Endangered Species Act (CESA) listed species (MM-BIO-2, MM-BIO-3, and MM-BIO-4 include measures to protect CESA-listed species for all proposed program activities). Some comments suggest changes to the mitigation measure ratios described in the Draft PEIR without providing an essential nexus for the change and without appropriate determination of the rough proportionality between the recommended change and the significant impact. Although the California Department of Fish and Wildlife may determine that permanent protection and perpetual management of compensatory habitat is necessary and required pursuant to CESA to fully mitigate program-related impacts of the taking on the Covered Species, per Title 14 Section 783.4(a)(2) of CESA, the measures required to meet this obligation shall be "roughly proportional" in extent to the impact of the authorized taking on the species. Where the commenter does not provide a nexus between the proposed mitigation measure and the significant impact, and where the proposed mitigation is not roughly proportional to the significant impacts of the proposed program, Metropolitan, will not consider such revisions or additions to mitigation measures identified in the Draft PEIR.

Comment Letter A

San Bernardino Valley Water Conservation District

Helping Nature Store Our Water

Ms. Michelle Morrison
Environmental Planning Section
The Metropolitan Water District of Southern California
P.O. Box 54153
Los Angeles, California 90054-0153

June 11, 2020

Subject: Western San Bernardino County DSIPP Draft PEIR

Dear Michelle Morrison,

The San Bernardino Valley Water Conservation District (District) appreciates the opportunity to comment on the Draft PEIR for the Western San Bernardino County Distribution System Infrastructure Protection Program proposed by The Metropolitan Water District of Southern California. The District owns a large portion of the land beneath and adjacent to the Inland Feeder Pipeline within the Santa Ana River Wash for purposes of groundwater recharge. In addition, the District is also the lead Permittee on the Upper Santa Ana River Wash Habitat Conservation Plan (Wash Plan), which was developed to support water conservation, mining, and other critical activities while conserving habitat near and adjacent to DSIPP projects for five rare, threatened and endangered species. A-1

While the District is not a CEQA responsible agency, we appreciate the analysis of the Wash Plan in Biological Resources and Land Use & Planning and its inclusion on Figures 4.3-2 and 4.9-2, and provide the following comments: A-2

1) We recommend updating the Wash Plan status on page 4.3-22-23 to note that the Notice of Availability of the Final Upper Santa Ana River Wash Habitat Conservation Plan and the joint Final Environmental Impact Statement/Supplement Environmental Impact Report was published in the Federal Register on May 15, 2020.
2) We recommend updating the Wash Plan references throughout to the current 2020 version of the documents. A-3
3) We understand from sections 4.3.6.4 and 4.3.6.5 is that there are impacts within the Wash Plan area from Patrol Road Improvements and Paving (CIP Activity Code 1), Engineered Erosion Control (CIP Activity Code 2), and Routine O&M Activities; with no impacts occurring within the Wash Plan area from Slope Stabilization (CIP Activity Code 3) or Single-Occurrence O&M Activities. These CIP projects occurring within the A-4

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Wash Plan area are noted as Inland Feeder Stations 733+15, 813+00, and 822+10. Sections 4.9.5.1 and 4.9.5.2 are less clear as to where coordination for Wash Plan and/or sensitive species impacts is noted under the Slope Stabilization (CIP Activity Code 3) and Single-Occurrence O&M Activities. The latter section notes that no impacts will occur but provides a framework for coordination and avoidance and minimization that would occur in an impact scenario.

A-4 Cont.

4) We appreciate the commitment to coordination for sites within the Wash Plan area in sections 4.9.5.1 and 4.9.5.2. In some cases, coordination is noted specifically with the County and in others the coordinating entity is left unspecified. We recommend inclusion of the District, as the Wash Plan lead Permittee, as a specified coordination entity for sites within the Wash Plan area. We believe that early coordination is key to successful permitting in these critical habitat areas, especially because Met is not a Wash Plan participant.

A-5

5) We appreciate the commitment to appropriate Wash Plan avoidance and minimization measures for sites within the Wash Plan area in sections 4.9.2, 4.9.5.1 and 4.9.5.2. For reference, these measures are found in section 5.5 of the Wash Plan.

A-6

6) We have not reviewed the habitat or analysis related to the appropriate amount, however, to offset permanent impacts occurring within the Wash Plan area (page 4.3-5), we recommend mitigation within the Wash Plan area in order to maintain the functions and values of the HCP Preserve. Specifically, Wash Plan Neutral Lands may have Conservation Easement acreage available for mitigation purposes. Please contact the District contact below for more information.

A-7

If you have any questions or need additional information, please contact me or Betsy Miller at 909-793-2503, or via email bmiller@sbvwcd.org. Thank you for including us in the Notice of Availability; please continue to include us in any other updates or notices regarding this project.

A-8

Sincerely,

Daniel B. Cozad
General Manager

Response to Comment Letter A

San Bernardino Valley Water Conservation District
Daniel B. Cozad, General Manager
June 11, 2020

A-1 The commenter states that San Bernardino Valley Water Conservation District (District) owns a large portion of the land beneath and adjacent to the Inland Feeder and is the lead permittee on the Upper Santa Ana River Wash Habitat Conservation Plan (Wash Plan). As addressed in Section 4.3, Biological Resources, of the Draft PEIR, Metropolitan acknowledges that 635 acres of the proposed program area associated with the Inland Feeder occurs within the boundaries of the Wash Plan area.

A-2 Section 4.3.3, page 4.3-23, of the Draft PEIR has been revised to include the following statement: The Notice of Availability of the Final Upper Santa Ana River Wash Habitat Conservation Plan and the joint Final Environmental Impact Report/Supplemental Environmental Impact Report was published in the Federal Register on May 15, 2020.

A-3 References to the Wash Plan have been changed to May 2020 on the following pages of the Draft PEIR; 4.3-2; 4.3-51; 4.3-58; 4.3-65; 4.3-70; 4.3-77; and 8-6.

A-4 The commenter states that there is a discrepancy between Section 4.3, Biological Resources, and Section 4.9, Land Use and Planning, of the Draft PEIR regarding whether there would be impacts to areas included in the Wash Plan from slope stabilization (Capital Investment Plan [CIP] Activity Code No. 3) and single-occurrence Operations and Management (O&M) activities (O&M Activity Code No. 15). No impacts will occur to areas included in the Wash Plan from slope stabilization and single-occurrence O&M activities, as indicated in Section 4.3, Biological Resources, so these activities would not conflict with the Wash Plan and no coordination regarding the implementation of slope stabilization and single-occurrence O&M activities would be necessary.

A-5 Metropolitan acknowledges that the District may be included as a specified coordination entity for sites within the Wash Plan area.

A-6 Metropolitan will review the measures in Section 5.5 of the Wash Plan for potential incorporation into the avoidance and minimization measures for CIP project sites within the area covered by the Wash Plan.

A-7 As stated in Section 4.3, Biological Resources, compensation for impacts to federally and state-listed species habitat will consist of the purchase of lands or funding of mitigation banks, which could include coordinating with the District.

A-8 Metropolitan acknowledges the commenter's contact information and their request for inclusion in correspondence relating to the proposed program.

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Comment Letter B

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SAN BERNARDINO COUNTY

Department of Public Works
- Flood Control
- Operations
- Solid Waste Management
- Surveyor
- Transportation

Brendon Biggs, M.S., P.E.
Interim Director

June 17, 2020
File: 10(ENV)-4.01

Ms. Michelle Morrison
Environmental Planning Section
The Metropolitan Water District of Southern California P.O. Box 54153
Los Angeles, California 90054-0153
Phone: (213) 217-7906
Email: EP@mwdh2o.com

Transmitted Via Email

RE: CEQA – NOTICE OF AVAILABILITY OF A DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT FOR THE WESTERN SAN BERNARDINO COUNTY DISTRIBUTION SYSTEM INFRASTRUCTURE PROTECTION PROGRAM

Dear Ms. Morrison:

Thank you for allowing the San Bernardino County Department of Public Works the opportunity to comment on the above-referenced project. **We received this request on May 7, 2020** and pursuant to our review, the following comments are provided:

Flood Control Planning/Water Resources Division (Michael Fam, Chief, 909-387-8120):

1. We have reviewed the Draft Program Environmental Impact Report for the MWD and it appears that the Notice has identified the major concerns of the District. However, the District's recommendations are most often made for site specific conditions and, therefore, the recommendations made here are general in nature until such time as more detailed plans become available. B-1

2. From the information that was provided, it appears that the project proponent proposes to develop the DSIPP program in order to make facility improvements needed to meet MWD's continued water supply reliability needs and O/M obligation. Any revision to the drainage should be reviewed and approved by the jurisdictional agency in which the revision occurs. Should construction of new, or alterations to existing storm drains be necessary as part of the Proposed Project, their impacts and any required mitigation should be discussed within the MND before the document is adopted by the Lead Agency. The project is subject to the following District Comprehensive Storm Drain Plans (CSDP) and Master Plans of Drainage (MPD): B-2

- CSDP 1-4 and 6 -7
- Montclair MPD
- Fontana MPD
- Ontario MPD
- Upland MP

3. We recommend that the most current FEMA regulations, for construction within established floodplains and the Regulatory Floodway, be enforced by the local jurisdictions. In particular, we emphasize the regulations that states that the proposed encroachment "will not result in any increase in flood levels within the community during the occurrence of the base flood discharge (44CFR 60.3(d)(3})". B-3

Permits/Operations Support Division (Melissa Walker, Chief, 909-387-7995):

1. The Project involves use of San Bernardino County Flood Control District (SBCFCD) right-of-way and facilities. Any new or altered activities on the District's right-of-way or facilities, will require a permit from the SBCFCD prior to start of construction and may require amendments to existing agreements between the SBCFCD and local water agencies. We suggest the Metropolitan Water District submit an application with plans in advance of their work schedule. Also, SBCFCD facilities built by the Army Corps of Engineers (ACOE) will require the SBCFCD to obtain approval (408-Permit) from the ACOE. The necessity for any, or all of these permits, and any impacts associated with them, should be addressed in the DEIR prior to adoption and certification. Please contact Marty Mish at Flood Operations/Permits (909) 387-8005 for assistance. B-4

Transportation Planning Division (Jinghui Bradley, PWE III, 909-387-8173):

1. Any work within the unincorporated County Maintained Road System (CMRS) right-of-way will require a permit from the San Bernardino County Department of Public Works. The Metropolitan Water District should coordinate with the Department of Public Works Transportation Planning Division when scheduling commencement of any project within the CMRS right-of-way to ensure there is no conflict with planned Department of Public Works projects. B-5

We respectfully request to be included on the circulation list for all project notices, public reviews, or public hearings. In closing, I would like to thank you again for allowing the San Bernardino County Department of Public Works the opportunity to comment on the above-referenced project. Should you have any questions or need additional clarification, please contact the individuals who provided the specific comment, as listed above. B-6

Sincerely,

Michael Perry

Michael R. Perry
Supervising Planner
Environmental Management

Response to Comment Letter B

San Bernardino County Department of Public Works
Michael R. Perry, Supervising Planner
June 17, 2020

B-1 The commenter states that the Draft PEIR identified the major concerns of the San Bernardino County Flood Control District (District). Additionally, the commenter states that recommendations made within the comment letter are general in nature until more detailed plans becomes available. Metropolitan acknowledges that there are 430 acres of flood control facilities under the District's jurisdiction within the proposed program study area. Metropolitan would coordinate with the District accordingly when proposed patrol road improvements and paving projects (CIP Activity Code No. 1) and routine O&M activities (O&M Activity Code Nos. 1–6) occur within the District's jurisdiction.

B-2 As addressed in Section 4.13, Utilities and Service Systems, of the Draft PEIR, the proposed program would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities. Nonetheless, Metropolitan would coordinate with local jurisdictions to the extent feasible during proposed program implementation to avoid and/or minimize potential impacts from the proposed program. Implementation of the proposed program would not conflict with the District's Comprehensive Storm Drain Plans and Master Plans of Drainage listed in this comment.

B-3 Metropolitan would follow the most current Federal Emergency Management Agency (FEMA) regulations for construction within established floodplains and the Regulatory Floodway. Additionally, as discussed in Section 4.8, Hydrology and Water Quality, of the Draft PEIR, some of the proposed CIP projects and O&M activities may be located within a 100-year flood hazard area; however, proposed routine O&M activities would not result in construction of any structures that would impede or redirect flows. Proposed CIP projects and single-occurrence O&M activities could include construction of drainage structures, culverts, and crossings, which are designed to carry the flow of water so that facilities are not damaged or the damage is reduced in the event of flooding. None of the proposed CIP projects or O&M activities would require construction of structures that would impede or redirect flood flows. Therefore, the proposed program would not result in any increase in flood levels in the community during the occurrence of the base flood discharge.

B-4 The commenter states that any new or altered activities on the District's right-of-way or facilities will require a permit from the District prior to start of construction and may require amendments to existing agreements between the District and local water agencies. In the event that new or altered activities occur within the District's right-of-way, Metropolitan would submit an application with plans in advance of their work schedule, and if necessary

obtain permits from the U.S. Army Corps of Engineers. Metropolitan would contact the staff listed in this comment if any assistance is needed.

B-5 Should Metropolitan conduct work within the unincorporated County Maintained Road System right-of-way, Metropolitan will obtain any necessary permits from the San Bernardino County Department of Public Works and coordinate with the Department of Public Works Transportation Planning Division when scheduling individual projects/activities.

B-6 Metropolitan acknowledges this comment and will include the San Bernardino County Department of Public Works on the circulation list for all notices, public reviews, or public hearings relating to the proposed program.

Comment Letter C

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State of California – Natural Resources Agency
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GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

June 23, 2020

Ms. Jennifer Harriger
Environmental Planning Section
The Metropolitan Water District of Southern California
P.O. Box 54153
Los Angeles, California 90054-0153
EP@mwdh2o.com

Subject: Western San Bernardino County Distribution System Infrastructure Protection Program Project Draft Program Environmental Impact Report (DPEIR), SCH # 2014111071, San Bernardino County

Dear Ms. Harriger:

The California Department of Fish and Wildlife (CDFW) has reviewed the above-referenced Western San Bernardino County Distribution System Infrastructure Protection Program Project (WSBC DSIPP or Project). The Draft Program Environmental Impact Report (DPEIR's) supporting documentation includes *Biological Resource Reports* (BRR), including: *Vegetation Mapping Report*; *Botanical Survey Report*; *Coastal California* Gnatcatcher Survey *Report*; *Least Bell's Vireo Survey Report*; *San Bernardino Kangaroo Rat Survey Report*; *Additional Protocol Survey Reports*; *Biological Resources Mapbook*; *Special-Status Plant Species Potential to Occur*; *Special-Status Wildlife Species Potential to Occur*; *Jurisdictional Wetlands*; *Special-Status Species Modeled Habitat*; *Special-Status Species Modeled Habitat Impacts*; and *Vegetation Communities Impacts*.

C-1

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW's Role

CDFW is California's Trustee Agency for fish and wildlife resources, and holds those resources in trust by statute for all the people of the State [Fish & G. Code, §§ 711.7, subdivision (a) & 1802; Public Resources Code, § 21070; California Environmental Quality Act (CEQA) Guidelines, § 15386, subdivision (a)]. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect state fish and wildlife resources.

C-2

CDFW is also submitting comments as a Responsible Agency under CEQA (Public Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise

regulatory authority as provided by the Fish and Game Code, including lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take", as defined by state law, of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), or CESA-listed rare plant pursuant to the Native Plant Protection Act (NPPA; Fish & G. Code, §1900 et seq.) authorization as provided by the applicable Fish and Game Code will be required.

C-2 Cont.

Project Description and Summary

Project Description: The Project is split into three distinctive parts each addressing construction, rehabilitation, repair, and operations and maintenance (O&M) of existing pipelines, access roads, and appurtenant structures. Project components include:

1) Capital Investment Projects (CIP). CIP infrastructure projects generally consist of repair, upgrade, and/or relocation of existing structures, or the installation of permanent structures to address access or infrastructure problems. Examples of CIP infrastructure projects include patrol road upgrades (e.g., paving); installation of engineered erosion control structures (e.g., grouted riprap or channel lining); and slope stabilization measures.

2) Single-occurrence O&M activities. Single-occurrence O&M activities are conducted on a one-time basis and would include repair, rehabilitation, or replacement of existing structures to support the continued maintenance of existing pipelines and appurtenant pipeline structures. Examples of single-occurrence O&M activities include patrol road structural repairs including the installation of low water crossings (Arizona crossings, culverts, and/or bridges).

3) Routine O&M activities. Routine O&M activities are preventive in nature and include, on a regular basis, standard practices that detect and correct minor issues that may eventually lead to damage or loss of surface infrastructure. Types of routine O&M activities include regular patrols and visual inspections of patrol roads and aboveground appurtenant structures; maintenance of patrol roads (e.g., grading, vegetation maintenance, low water crossing and culvert maintenance); routine facility maintenance, repair, and replacement (e.g., cleaning of equipment and structures, graffiti removal, coating of structures, vegetation maintenance, repair/installation of security fencing/signage); pipeline shutdowns and dewatering; and emergency procedures.

The Project only includes those activities that could be identified from visual inspection of the surface or accessed from manholes at the surface. The Project and does not include projects related to the rehabilitation or replacement of subsurface pipelines.

C-3

Objective: The proposed Project objectives include:

Maintain access to pipelines and appurtenant structures to conduct necessary maintenance to ensure reliability of the water supply conveyance and distribution system.

Address associated infrastructure issues that threaten the reliability and/or security of the conveyance and distribution system and water supply to Metropolitan Water District of Southern California's (Metropolitan's) service area by implementing proposed infrastructure protection projects.

C-4

Provide a systematic and scheduled approach to ongoing routine maintenance activities.

Obtain regional permits that provide long-term permitting approval and streamline environmental clearance processes for maintenance projects in regulated waters.

Streamline environmental clearances and enable Metropolitan Water District of Southern California (Metropolitan) to implement proposed CIP projects and critical O&M activities in a timely manner, especially for those projects in environmentally sensitive or regulated areas.

C-4 Cont.

Location: The Project encompasses Metropolitan's Western San Bernardino County Operating Region. The region includes 74 miles of pipeline, 392 pipeline structures, and approximately 50 miles of patrol roads. Pipelines to be included in Project activities include the Inland Feeder Pipeline (cities of San Bernardino, Highland, Redlands, and unincorporated area in San Bernardino County); Etiwanda Pipeline (cities of Fontana and Rancho Cucamonga); Rialto Pipeline (cities of Upland, Rancho Cucamonga, Fontana, Rialto, San Bernardino; unincorporated area in San Bernardino County); Upper Feeder (cities of Montclair, Ontario, Rancho Cucamonga, Fontana, unincorporated area in San Bernardino County, and Jurupa Valley); Yorba Linda Feeder (city of Chino Hills)

C-5

Comments and Recommendations

CDFW offers the comments and recommendations below to assist Metropolitan in adequately identifying, avoiding, and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. CDFW recommends the measures or revisions below be included in a science-based monitoring program that contains adaptive management strategies as part of the Project's CEQA mitigation, monitoring and reporting program (Public Resources Code, § 21081.6 and CEQA Guidelines, § 15097).

C-6

Comment #1: Natural Communities and Sensitive Plants

Issue #1: The DPEIR describes the process used to identify sensitive habitat through desktop review and modeling. The description of identifying suitable habit for rare plants or sensitive vegetation communities does not include discussions with Metropolitan staff who routinely work in the field. Site visits, conducted outside plant blooming season, were used to confirm presence of habitat able to support rare plants. However, to confirm model accuracy, site visits should be conducted in areas assume to be negative for sensitive plants.

C-7

Issue #2: Riversidean alluvial fan sage scrub is a natural community addressed in the DPEIR. Page 20 of Volume II Appendix F-1 Vegetation Community and Land Cover Mapping Report indicates that sensitive natural communities were mapped at a minimum mapping unit of 1.0 acre.

C-8

Issue #3: Page 4.3-47 of the DPEIR states, "Potential short-term indirect impacts to sensitive vegetation communities in the proposed program area from proposed patrol road improvements and paving would include generation of fugitive dust, chemical pollutants (herbicides and pesticides), and increased human activity. Dust and applications for fugitive dust control can impact vegetation surrounding the limits of grading, resulting in changes in the community structure and function. However, these disturbances would not result in significant impacts with

C-9

implementation of APM-BIO-2, APM-BIO-3, and APM-AQ-2 (see Section 4.3.5); other internal construction guidelines and BMPs, as discussed in Chapter 3; and MM-BIO-4. There would be no long-term indirect impacts to sensitive vegetation communities associated with patrol road improvements and paving. All impacts relating to O&M activities following construction of CIP projects would be considered under the O&M impacts described in Section 4.3.6.5. Impacts would be less than significant."

C-9 Cont.

Issue #4: Evaluation of impacts to sensitive plants was restricted. Page 4.3-1 of the DPEIR states "Metropolitan considered the following special-status biological resources for the CEQA analysis:

> **"Plants** – species listed as threatened or endangered under the federal and state Endangered Species Acts (ESAs) and species with a California Rare Plant Rank (CRPR) of 1 or 2 as defined by CDFW (CDFW 2020)."

C-10

Issue #5: Page 4.3-1 identifies areas analyzed for evaluation including acreage comprised of "proposed Capital Investment Plan (CIP) project locations, single-occurrence Operations and Maintenance (O&M) activity locations (which overlap with CIP projects), and existing pipeline alignments/rights-of-way and patrol roads plus a 500-foot buffer (proposed program area)." Routine maintenance sites do not appear to be included in the analysis of exiting baseline conditions even though the project includes routine maintenance activities. The O&M Plan included in Appendix A identifies several routine maintenance activities that will not be reviewed by Metropolitan Environmental staff. However, those activities have the potential to significantly impact sensitive plants and CDFW Species of Special Concern (SSC).

C-11

C-12

Specific impacts: CDFW is concerned the document does not properly evaluate routine maintenance activities as components of the Project. Routine maintenance has the potential to have long term impacts that are separate from one-time construction.

C-13

CDFW is concerned about the accuracy of the DPEIR's methodology for mapping sensitive plant communities. Field visits were not randomized to include areas assumed to be modeled accurately. The lack of quality control measures to confirm field conditions could result in sensitive communities being missed; therefore, not properly evaluated for the purposes of the environmental document.

C-14

The DPEIR does not adequately address impacts to vegetation communities as a result of routine maintenance, road improvements, and on-going use of the road through sensitive natural communities, including streams. Habitat degradation due to the invasion of non-native plants and invasive aquatic species spread by vehicle traffic, heavy equipment, hand tools, and boots is a potential project impact.

C-15

According to the CDFW's Survey of California Vegetation Classification and Mapping Standards (2019), minimum mapping units for wetlands and other special types of vegetated communities is ¼ acre. This concern is further amplified because many of the project's impacts are linear access roads that would result in wetland and riparian vegetation or sensitive natural communities (i.e., scalebroom scrub) being missed during evaluation.

C-16

Without proper evaluation of Sensitive Natural Communities from Project related impacts Project implementation may result in impacts to rare or endangered plants or plant communities.

C-17

Plant communities, alliances, and associations with a state-wide ranking of S1, S2, S3 and S4 should be considered sensitive and declining at the local and regional level. The DPEIR does not evaluate impacts to several of these rankings. Without proper evaluation Project implementation may result in significant impacts to rare or endangered plants or plant communities that have been recorded within the Project footprint and adjacent to the Project vicinity. C-17 Cont.

Evidence impact would be significant: The DPEIR determined that project impacts are less than significant, and no mitigation measures are required. However, quality control measures were not employed to assure habitat that supports sensitive communities and plants were included. Without proper surveys an accurate determination of impacts cannot be reached. C-18

For the permanent and indirect impacts to scalebroom scrub, or Riversidean alluvial fan sage scrub, Metropolitan determined impacts were not significant because the habitat is small in size (0.17 acres) compared to the surrounding community. CDFW disagrees with the conclusions made in the DPEIR and believes that all impacts to this sensitive natural community should be considered significant and would likely warrant mitigation. C-19

CDFW is concerned regarding the lack of adequate assessment in the DPEIR's indirect impact analysis. Without adequate analysis indirect impacts could result in ongoing habitat degradation resulting in significant impacts not addressed, avoided, or mitigated for resulting in ongoing loss of sensitive natural communities. C-20

CDFW considers potential impacts to CDFW sensitive plant communities and species, and locally important vegetation communities and plants, were not considered during analysis of impacts. CDFW believes without adequate analysis impacts to these communities and plants would result in significant impacts and should be mitigated. C-21

Ongoing routine maintenance work occurs annually and can occur several times a year. Routine maintenance has the potential to create permanent impacts, however the DPEIR did not include routine maintenance sites, outside road grading, in its vegetation and special status plant surveys. C-22

Mitigation at a 1:1 ratio does not account for temporal impacts and is insufficient to reduce impacts to a less than significant level. C-23

Recommended Potentially Feasible Mitigation Measure(s):

Recommendation #1: CDFW strongly encourages Metropolitan to include clearly defined quality control measures during modeling and mapping activities to ensure all habitats with the ability to support sensitive natural communities and special status plants were included in surveys. The final environmental document should include a discussion on quality control measures and identify increased field visits to support finings all habitat was properly evaluated. C-24

Recommendation #2: CDFW recommends the final environmental document include analysis of impacts caused by ongoing routine maintenance activities. Metropolitan should include effective mitigation, including avoidance and conservation, to reduce impacts to less than significant. C-25

Mitigation Measure #1: The final environmental document should provide feasible mitigation that will compensate for loss of a sensitive natural community through the conservation of similar or higher-quality habitat at a minimum 3:1 (replacement-to-impact) ratio for permanent loss and the on-site restoration of all scalebroom scrub or other sensitive natural communities for temporal loss. C-26

Mitigation Measure #2: CDFW recommends a finer scale mapping unit to accurately map these resources and ensure they are not lost because of the large mapping units. C-27

Mitigation Measure #3: CDFW recommends the final environmental document include evaluation of impacts on vegetation communities, alliances, and associations with a statewide ranking of S1, S2, S3, and some S4. Because these rankings are considered sensitive and declining at the local and regional level (Sawyer et al. 2008), CDFW considers impacts to these as significant under CEQA and would require mitigation. An S3 ranking indicates there are 21 to 80 occurrences of this community in existence in California, S2 has 6 to 20 occurrences, and S1 has less than 6 occurrences. C-28

Mitigation Measure #4: CDFW recommends any revegetation plan proposed for mitigation for special status plant communities be submitted to CDFW for review and approval The mitigation for unavoidable impacts to special status plant communities should strive to develop a more superior habitat quality and quantity than that which was impacted by any development project. The mitigation to offset the temporal loss of several growing seasons that would likely occur while achieving any revegetation success criteria. This could include higher mitigation ratios of areas occupied by targeted special status plant communities and increased level of protection of revegetated areas to prohibit human-caused degradation. C-29

Comment #2: Special Status Plants

Issue #1: CDFW is concerned regarding the determination stated on page 4.3-41 of the DPEIR. "As described in Section 4.3.2.2, Special-Status Plants, focused surveys for special-status plants were conducted during the appropriate seasons for the patrol road improvements and paving (CIP Activity Code No. 1) locations during an above-average rainfall year and no special-status species were observed in these CIP project areas. Permanent and temporary direct impacts to individual special status plants are not anticipated and thus would be less than significant." C-30

Issue #2: According to Appendix F-2 Botanical Survey Report, "Access to modeled habitat within Survey Area S3 and S4 via the Tribal Lands was granted for June 26, 2017; however, surveyors were restricted to remaining within access roads allowing only visual observation via binoculars. Access to modeled habitat within Survey Area O4 was limited due to areas being enclosed by fencing, allowing only visual observation via binoculars. Therefore, there was limited visibility to detect special-status plants within these survey areas. Small, inconspicuous annual or perennial herbs may not have been detectable". C-31

Specific impacts: There are several CESA-listed endangered species known to occupy areas within the project areas, including Santa Ana River woollystar (*Eriastrum densifolium*), slender horned spineflower (*Dodecahema leptoceras*) and thread leaved Brodiaea (*Brodiaea filifolia*). According to page 10 of Appendix F-A, 181 Santa Ana River woollystar were found during surveys. C-32

Surveys that do not allow for 100% visual coverage do not provide enough information to make a thorough assessment and cannot be used to reach a less than significant determination. C-32 Cont.

Evidence impact would be significant: Metropolitan's methodology included in the DPEIR for surveying Special Status Plants and use of the methodology to address project specific impacts is not adequate. Of particular importance Survey Areas S3 and S4 have high potential for thread-leaved Brodiaea, and Survey Area O4 has potential for slender-horned spineflower, and Santa Ana River woollystar. C-33

The DPEIR determined that project impacts are less than significant, and no mitigation measures are required. Reaching a finding of less than significant based on incomplete survey results could lead to direct take of CESA-listed species. Take of CESA-listed species is significant under CEQA. Take of CESA-listed species without a mitigation and minimization plan could result in local extinction or significant and unmitigated impacts to the species. C-34

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: CDFW recommends the DPEIR and Metropolitan identify they will obtain Incidental Take Permits to authorize the take of CESA-listed plant species during project impacts. C-35

Mitigation Measure #2: The final PEIR should include a full analysis of impacts to CESA-listed species. CDFW recommends avoiding any CESA-listed species found on the Project. If avoidance is not feasible, CDFW recommends mitigating at a ratio of no less than 5:1. This ratio may increase based on acreage, the individual plants, environmental factors that influence regrowth, and how removal effects each unique community. All revegetation/restoration areas that will serve as mitigation should include preparation of a restoration plan, to be approved by USFWS and CDFW prior to any project related ground disturbance. The restoration plan should include restoration and monitoring methods; annual success criteria; contingency actions should success criteria not be met; long-term management and maintenance goals; and, a funding mechanism to assure for in perpetuity management and reporting. Areas proposed as mitigation should have a recorded conservation easement and be dedicated to an entity which has been approved to hold/manage lands (AB 1094; Government Code, §§ 65965-65968). C-36

Comment #3: Nesting Birds

Issue: The DPEIR states "For all proposed program activities, grading or vegetation clearing, cutting, and removal shall be scheduled to occur during the non-breeding season for birds (September 1 through January 31). If grading or vegetation clearing, cutting, or removal are required during the breeding season (February 1 through August 31), then a qualified biologist shall survey all potential nesting vegetation within 100 feet of the grading limits for nesting birds prior to grading activities, as property access allows." Throughout the DPEIR buffers around nesting birds and special status species is limited to 100 feet. Mitigation for loss of nesting birds and nesting bird habitat is not included in the environmental document. C-37

Specific impacts: Project activities during the breeding season of nesting birds could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment in trees and structures directly adjacent to the project footprint. Project activities could also lead to the C-38

loss of foraging habitat for sensitive bird species. Nesting bird surveys could miss active nests and increase predation on located nests by crows, ravens, and other wildlife. C-38 Cont.

Why impact would occur: Impacts to nesting birds could result from potential ground disturbing or vegetation removal activities, construction activities, staging, dewatering, equipment transport, and increased human activity. Project disturbance activities could result in mortality or injury to nestlings, as well temporary or long-term loss of suitable foraging habitats. Project activity during the breeding season of nesting birds could result in the incidental loss of breeding success or otherwise lead to nest abandonment. C-39

Evidence impact would be significant: The loss of occupied habitat or reductions in the number of rare bird species, either directly or indirectly through nest abandonment or reproductive suppression, would constitute a significant impact absent appropriate mitigation. Furthermore, nests of all native bird species are protected under state laws and regulations, including Fish and Game Code sections 3503 and 3503.5. C-40

Fully protected status precludes CDFW from authorizing any amount of incidental take or intentional take to meet any project mitigation requirement. When projects show the potential to cause take of fully protected species, CDFW advises on appropriate measures to avoid take. Given the legal status of fully protected animals, take avoidance measures should meet very high standards of effectiveness, substantially greater than the measures to minimize take required under Incidental Take Permits. C-41

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: To protect nesting birds that may occur on site or adjacent to a development project boundary, CDFW recommends that no construction should occur from February 15 (January 1 for raptors) through August 31. C-42

Mitigation Measure #2: If avoidance is not feasible, a qualified biologist should complete a survey for nesting bird activity within a 500-foot radius of the project footprint. The nesting bird surveys should be conducted at appropriate nesting times and concentrate on potential roosting or perch sites. Surveys should occur at times when forging is occurring to easily identify nest locations without needing to encroach on nesting sites. CDFW recommends the Lead Agency require surveys be conducted by a qualified biologist no more than 7 days prior to the beginning of any project-related activity likely to impact raptors and migratory songbirds, for the entire project site. Project activities include site preparation, staging of equipment, testing of equipment, as well as specific construction and maintenance activities. If project activities are delayed or suspended for more than 7 days during the breeding season, repeat the surveys. If nesting raptors and migratory songbirds are identified, CDFW recommends the following minimum no-disturbance buffers be implemented: 300 feet around active passerine (perching birds and songbirds) nests, 500 feet around active non-listed raptor nests and 0.5 mile around active listed bird nests. C-43

These buffers should be maintained until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival. Buffers should be monitored and may need to be increased to protect active nests.

Mitigation Measure #3: CDFW recommends surveying the entire project footprint including a 500-foot radius to determine the potential distribution of fully protected species and assure that "take" will be avoided during Project activities. The environmental document should also include measures to preclude "take" during operations and from increased construction traffic and maintenance related to single-occurrence O&M and CIP activities. The environmental document should analyze the potential "take" as a result of habitat modification. If modification of occupied habitat causes mortality of individuals, then the Project will be considered the cause of the take. Therefore, to avoid take, construction and operation activities should avoid all raptors by a distance of no less than the distance that the specific species are known or expected to travel within their home range, based on telemetry, mark-recapture, or other data. C-44

Mitigation Measure #4: Metropolitan should develop a Nesting Bird Mitigation Plan to mitigate impacts to and loss of nesting birds. Impacts to nesting birds should be offset by setting aside replacement habitat to be protected in perpetuity under a conservation easement dedicated to a local land conservancy or other appropriate entity, which should include an appropriate non-wasting endowment to provide for the long-term management of mitigation lands. CDFW recommends that Metropolitan require mitigation plan for impacted species be submitted to CDFW for review and comment prior to Project implementation C-45

Comment #4: Special Status Birds

Issue #1: Burrowing Owl
The DPEIR does not appear to fully address project impacts to burrowing owl (*Athene cunicularia*). C-46

Issue #2: Least Bell's Vireo
The DPEIR evaluated least Bell's vireo (*Vireo bellii pusillus*) impacts based on eight protocol level presence/absence surveys conducted during focused riparian bird surveys from May 8, 2017 through July 29, 2017. According to the Appendix F-4 Least Bell's Vireo Report "The survey area focused on approximately 12 proposed Capital Investment Project (CIP) footprints and single-occurrence operation and maintenance (O&M) locations, plus a 500-foot buffer, that will be implemented in 2017." Impacts to routine maintenance sites were not included in the evaluation. C-47

Proposed mitigation includes surveys prior to the start of work; however, surveys would only be conducted within 100 feet of grading limits.

Proposed mitigation for temporary and permanent impacts is set at a 1:1 ratio.

Routine maintenance activities do not appear to be included in impact analysis.

Issue #3: California Gnatcatcher
Proposed mitigation includes surveys prior to the start of work; however, surveys would only be conducted within 100 feet of grading limits. Surveys conducted for California gnatcatcher were conducted long project footprints with 300-foot buffer. However, no discussion of type of work or site specifics was offered to justify the 300-foot buffer. A 500-foot buffer is recommended especially if surveying for special status species. C-48

Proposed mitigation for temporary and permanent impacts is set at a 1:1 ratio.

Routine maintenance activities do not appear to be included in impact analysis. Some routine maintenance activities that can impact wildlife include use of rodenticides, noise from increased activity, vibrations from graffiti remove and sand blasting. These activities can have impacts not assessed in the DPEIR. C-48 Cont.

Issue #4: Southwestern Willow Flycatcher
Due to lack of surveys, the information needed to address impacts to Southwestern willow flycatcher were not adequately evaluated for the DPEIR. Metropolitan did not conduct protocol level surveys for Southwestern willow flycatcher even though incidental observations occurred during other surveys. Surveys could have been adjusted to encompass requirements for Southwestern willow flycatcher, or additional days could have been added to the schedule to allow Metropolitan to gather information of the species. C-49

Specific impacts: Current known occurrences of the burrowing owls, a state species of concern, have been documented recently within the immediate project area. CEQA requires public agencies in California to analyze and disclose potential environmental impacts associated with a project that the agency will carry out, fund, or approve. Based on burrowing owl(s) being observed immediately adjacent to the project site, focused surveys should have been completed per the Staff Report on Burrowing Owl Mitigation (CDFW, March 2012) within the project and appropriate buffer.

Without full analysis of all Project activities it is impossible to accurately determine if significant impacts will occur. CDFW would consider the omission of maintenance activities in the analysis to indicate Metropolitan has not fulfill the responsibilities of the Lead Agency under CEQA. An examples of routine maintenance activity that could have a significant impact on burrowing owls is rodent control through use of bait stations that is described in the O&M manual. C-50

Why impact would occur: While the DPEIR provides an impact assessment, which estimates the potential impacts to burrowing owls and their habitat,(directly or indirectly) the DPEIR fails to identify how it proposed to mitigate the loss of burrowing owl nesting and foraging habitat. C-51

Without thorough surveys an accurate inventory of wildlife will not be available to assist in avoidance of impacts. Proper avoidance and mitigation measure will not be implemented leading to direct impacts to listed species or SSC. Inadequate avoidance, minimization, and mitigation measures for impacts to these species will result in the Project continuing to have a substantial adverse direct, indirect, and cumulative effect. C-52

Mitigation ratios of 1:1 fail to consider immediate impacts to wildlife using the area as nesting or forging habitat. Changes in habitat can lead to impacts that continue beyond work activities. Changes in vegetation can require several seasons to rebound to pre-project conditions. Mitigation ratios need to consider direct impacts to species occupying the area and the time it takes for an area to return to pre-project conditions. Permanent impacts need to be mitigated at a higher rate to account for complete loss of habitat and forcing wildlife to move to new areas, which could lead to increased competition on reduced fitness. C-53

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: CDFW recommends that Metropolitan follow the recommendations and C-54

guidelines provided in the Staff Report on Burrowing Owl Mitigation (2012), including surveys to provide the information needed to determine the potential effects of the proposed project and activities on burrowing owls, and to avoid take in accordance with FGC sections 86, 3503, and 3503.5. C-54 Cont.

Mitigation Measure #2: Project use of rodenticides that could result in direct or secondary poisoning to burrowing owl should be avoided. C-55

Mitigation Measure #3: The final environmental document should include routine maintenance activities in the impact analysis. CDFW recommends the type of routine maintenance activity should not be the only aspect considered when determining impacts. The activity location and time of year should be considered when assessing potential impacts to biological resources. C-56

Mitigation Measure #4: The final environmental document should provide specific mitigation that is roughly proportional to the level of impacts, including cumulative impacts, in accordance with the provisions of CEQA (CEQA Guidelines, §§ 15126.4(a)(4)(B), 15064, 15065, and 16355). Mitigation measures should be effective, specific, enforceable, and feasible actions that will improve environmental conditions. Current scientific literature supports the conclusion that mitigation for permanent burrowing owl habitat loss necessitates replacement with an equivalent or greater habitat area for breeding, foraging, wintering, and dispersal. This often includes the presence of burrows, burrow surrogates, fossorial mammal dens, well drained soils, and abundant and available prey within close proximity to the burrow. Reevaluation of mitigation of least Bell's vireo and California gnatcatcher impacts should employ the same logic and should be based on specific habitat requirements of the species impacted, species life history information, habitat sensitivity, and time required to restore the area to pre-project conditions. C-57

Mitigation Measure #5: CDFW recommends the final environmental document include surveys for Southwestern willow flycatcher conducted as outlined in the United States Fish and Wildlife Service (USFWS) *Southwestern Willow Flycatcher Protocol Revision 2000*. C-58

Comment #5: San Bernardino Kangaroo Rat

Issue: Page 4.3-42 of the DPEIR states Any impacts to individual San Bernardino kangaroo rat (*Dipodomys merriami parvus*) would be considered "take" under the ESA. Therefore, impacts to individual San Bernardino kangaroo rat would be potentially significant absent mitigation. However, implementation of MM-BIO-3 and MM-BIO-4 would ensure that any individuals or burrows would be detected prior to initiation of project activities and that impacts to individuals would be avoided.

Specific impacts: CDFW is concerned regarding this determination of avoidance and mitigation of impacts. MM-BIO-3 identifies Pre-Construction Biological Surveys and MM-BIO-4 identifies Biological Monitoring. Neither, Pre-Construction Biological Surveys nor Biological Monitoring would be able to confirm that the Project would not result in impacts to San Bernardino kangaroo rat or potential "take" of this species. C-59

Why impact would occur: Only protocol level small mammal trapping would be able to adequately determine presence or absence in the Project locations.

A petition (Petition) was submitted to the Fish and Game Commission (Commission) to list San

Bernardino kangaroo rat as endangered pursuant to the California Endangered Species Act (CESA), Fish and Game Code Section 2050 et seq. On August 7, 2019, the Commission accepted the Petition for consideration and San Bernardino kangaroo rat was designated as a candidate species. On August 23, 2019, publication of the Commission's acceptance of the Petition for consideration and designation of the San Bernardino kangaroo rat as a candidate species was posted; therefore, take of San Bernardino kangaroo rat will be prohibited unless authorization pursuant to CESA is obtained.

Surveys conducted for the DPEIR were done during winter and, although temperatures were within protocol level survey requirements, they were done at a time of year San Bernardino kangaroo rat activity is known to slow down. Even with the late survey activity presence of San Bernardino kangaroo rat was recorded within the Project footprint. Without protocol level surveys done prior to Project activities "take" of San Bernardino kangaroo rat is likely.

C-59 Cont.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: As protocol trapping has found presences of San Bernardino kangaroo rat in several of the Project locations, CDFW strongly recommends that MWD obtain an Incidental Take Permits to authorize project impacts.

C-60

Mitigation Measure #2: To avoid impacts to San Bernardino kangaroo rat, a CESA-Candidate Species, Metropolitan should conduct protocol level surveys prior to the start of Project activities.

C-61

Mitigation Measure #3: CDFW strongly recommends Metropolitan develop and submit a Species Avoidance and Mitigation Plan to CDFW for review and comment. Metropolitan should address all comments to CDFW's satisfaction prior to the start of Project activities.

C-62

Comment #6: Impacts to Candidate Endangered Species – Crotch's Bumble Bee

Issue: Appendix F-9 of the BRR disregards the need for focused surveys for Crotch's bumble bee (*Bombus crotchii*) due to the "Low potential to occur. Food plants are present in the program area, but the species has no records within 75 years." The report neglected to identify the lack of current records is likely due to an absence of focused surveys. Until recently focused surveys for Crotch's bumble bee were not required for projects.

Specific Impact: Project ground disturbing activities such as grading and grubbing may result in crushing or filling of active bee colonies, causing the death or injury of adults, eggs, and larvae. The Project may remove bee habitat by eliminating native vegetation that may support essential foraging habitat.

Why Impact would occur: Impacts to Crotch's bumble bee could result from ground disturbing activities. Project disturbance activities could result in mortality or injury to hibernating bees, as well as temporary or long-term loss of suitable foraging habitats. Construction during the breeding season of bees could result in the incidental loss of breeding success or otherwise lead to nest abandonment.

Evidence Impact would be significant: On June 12, 2019, CDFW accepted a petition for Crotch's bumble bee as a candidate species for listing under CESA. As a CESA candidate, the

C-63

species is granted full protection of a threatened or endangered species under CESA. The Project's potential to substantially reduce and adversely modify habitat for Crotch's bumble bee, reduce and potentially seriously impair the viability of populations of Crotch's bumble bee, and reduce the number and range of the species while taking into account the likelihood that special status species on adjacent and nearby natural lands rely upon the habitat that occurs on the proposed Project site.

C-63 Cont.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure: Due to suitable habitat within the Project site, within one year prior to vegetation removal and/or grading, a qualified entomologist familiar with the species behavior and life history should conduct surveys to determine the presence/absence of Crotch's bumble bee. Surveys should be conducted during flying season when the species is most likely to be detected above ground, between March 1 to September 1 (Thorp et al. 1983). Survey results including negative findings should be submitted to CDFW prior to initiation of Project activities. If "take" or adverse impacts to Crotch's bumble bee cannot be avoided either during Project activities or over the life of the Project, please be advised that a CESA permit may be required (pursuant to Fish & Game Code, § 2080 et seq.).

C-64

Comment #7: Impacts to California Species of Special Concern

Issue: Nine mammal species, including western mastiff bat (*Eumops perotis californicus*), western yellow bat (*Lasiurus xanthinus*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), San Diego desert woodrat (*Neotoma lepida intermedia*), Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), American badger (*Taxidea taxus*) were identified in the DPEIR as having moderate to high possibility to occur onsite; six reptile species including include the California legless lizard (*Anniella pulchra*), California glossy snake (*Arizona elegans occidentalis*), red diamondback rattlesnake (*Crotalus ruber*), coast patch-nosed snake (*Salvadora hexalepis virgultea*), two-striped gartersnake (*Thamnophis hammondii*), and Blainville's horned lizard (*Phrynosoma blainvillii*) had a moderate to high potential to occur on site; and one amphibian, western spadefoot (*Spea hammondii*) was trapped during San Bernardino kangaroo rat surveys. The DPEIR determined impact to all these species would be less than significant and no mitigation was required. Routine maintenance activities were not included in the impact analysis for the Project.

C-65

Specific impact: Project ground disturbing activities such as grading and grubbing may result in habitat destruction, causing the death or injury of adults, juveniles, eggs, or hatchlings. Work near bat maternity roosts could cause abandonment of roost resulting in direct take for young too young to fly. In addition, the Project may remove habitat by eliminating native vegetation that may support essential foraging and breeding habitat.

C-66

Why impact would occur: Project implementation includes grading, vegetation clearing, and other activities that may result in direct mortality, population declines, or local extirpation of Special Status amphibian, reptile, and mammal species.

Evidence impact would be significant: CEQA provides protection not only for CESA- and ESA-listed species, but for any species including but not limited to SSC that can be shown to meet the criteria for State listing. These SSC meet the CEQA definition of rare, threatened or

C-67

endangered species (CEQA Guidelines, § 15065). Take of SSC could require a mandatory finding of significance by the Lead Agency, (CEQA Guidelines, § 15065). C-67 Cont.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: Due to potentially suitable habitat within the Project site, prior to vegetation removal and/or grading, qualified biologists familiar with the amphibian, reptile and mammal species behavior and life history should conduct specialized surveys to determine the presence/absence of SSC. Surveys should be conducted during active season when the reptiles are most likely to be detected. Survey results, including negative findings, should be submitted to CDFW for review 2 weeks prior to initiation of Project activities. C-68

Mitigation Measure #2: CDFW recommends bat surveys be conducted by a qualified bat specialist to determine baseline conditions within the Project and within a 500-foot buffer. In addition, an analysis of the potential significant effects of the proposed Project on the species (CEQA Guidelines §15125). CDFW recommends the final environmental documents include the use of acoustic recognition technology to maximize detection of bat species to minimize impacts to sensitive bat species. The final document should detail the presence of any bats and include species specific mitigation measures to reduce impacts to below a level of significance C-69

Mitigation Measure #3: Permanent impacts to occupied habitat should be offset by setting aside replacement habitat to be protected in perpetuity under a conservation easement dedicated to a local land conservancy or other appropriate entity, which should include an appropriate non-wasting endowment to provide for the long-term management of mitigation lands. CDFW recommends that Metropolitan require mitigation plan for impacted species be submitted to CDFW for review and comment prior to Project implementation. C-70

Mitigation Measure #4: For proposed preservation and/or restoration, the final environmental document should include measures to protect the targeted habitat values in perpetuity from direct and indirect negative impacts. The objective should be to offset the Project-induced qualitative and quantitative losses of wildlife habitat values. An appropriate non-wasting endowment should be provided for the long-term monitoring and management of mitigation lands. C-71

Mitigation Measure #5: CDFW disagrees with the conclusion of the DPEIR that no western spadefoot breeding pools would be impacted by the Project. A juvenile western spadefoot toad was captured during surveys. Metropolitan is aware impacts to surrounding areas during routine maintenance activities can impact wildlife beyond a 300-foot buffer. CDFW recommends survey buffers be increased to 500 feet. The final environmental document should reevaluate impacts with the larger buffer and include routine maintenance activities. C-72

Comment #8: Impacts to Aquatic Species

Issue #1: The Project description included the institution of grouted rip rap, the use of concrete base for road improvement, and the installation of Arizona crossings. Each of these has the potential to impact aquatic species. The DPEIR did not adequately evaluate impacts to aquatic species from these Project activities. C-73

Specific impact: Grouted rip rap and road base with cement ingredients typically erode over time; causing concrete debris to travel downstream. Arizona crossings typically change hydrology within the stream channel and impacting sediment transport in the aquatic system.

Why impact would occur: Debris from upstream stabilization projects pollute downstream waters potentially causing changes in stream flows and obstructing passage of downstream aquatic and semi aquatic species; changes in hydrology and sediment transport can impact downstream spawning habitat and soil needed by sensitive plants in downstream areas.

C-73 Cont.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: Metropolitan should redesign slope stabilization and road maintenance activities to exclude the use of grout and road base containing concrete.

C-74

Mitigation Measure #2: The evaluation of impacts from Arizona crossings should include current hydrology reports that consider fish passage needed by the stream systems and sediment transport requirements of the watershed.

C-75

Comment #9: General Comments

Relying on future plans not adequate: CEQA Guidelines §15070 and §15071 require the document to analyze if the Program may have a significant effect on the environment as well as review if the Program will 'avoid the effect or mitigate to a point where clearly no significant effects would occur'. Relying on future surveys, the preparation of future management plans, or mitigating by obtaining permits are considered deferred mitigation under CEQA. To analyze if the Program may have a significant effect on the environment, the Program related impacts, including survey results for species that occur in the entire Program area need to be disclosed during the public comment period. This information is necessary to allow CDFW to comment on alternatives to avoid impacts, as well as to assess the significance of the specific impact relative to the species (e.g., current range, distribution, population trends, and connectivity).

C-76

Additional Recommendations:

CDFW recommends the following Metropolitan proposed mitigation measure be modified to incorporate the underlined additions or remove the strike out language.

MM-BIO-2: Compensation for Impacts to Federally and State-Listed Species Habitat. Incidental Take Permits shall be obtained prior to the start of any proposed CIP, single-occurrence O&M activity or routine maintenance activity where there is potential for take of a Federally and State-Listed Species. Direct temporary and permanent impacts to suitable habitat for federally or state-listed species within proposed CIP project and single-occurrence O&M activity areas shall be mitigated through on-site or off-site measures. Mitigation for temporary and permanent impacts to listed species habitat shall consider, and may overlap with, jurisdictional waters and wetlands (MM-BIO-5). Temporary Impacts. Mitigation for direct temporary impacts to suitable habitat for federally or state-listed species shall be implemented through ~~on-site rehabilitation at a 1:1 mitigation ratio~~ compensation through the conservation of similar or higher-quality habitat at a minimum 3:1 (replacement-to-impact) ratio. Areas temporarily impacted shall be returned to similar conditions to those that existed prior to grading and/or ground-disturbing activities. For proposed CIP projects and single-occurrence O&M activity temporary impact areas outside

C-77

routinely maintained areas, the proposed rehabilitation of impact areas may include, at a minimum, a feasible implementation structure, salvage/seeding details, invasive species eradication methods, a monitoring schedule, performance standards of success, estimated costs, and identification of responsible entities.

C-77 Cont.

Permanent Impacts. Metropolitan shall purchase land or fund a mitigation bank or in-lieu fee program to compensate for all permanent loss of suitable habitat for federally or state-listed species (including critical habitat), ~~if available,~~ at a ~~1:1 ratio~~ minimum 3:1 ratio. This ratio may increase based on acreage, the individual plants, environmental factors that influence regrowth, and how removal effects each unique community. Direct impacts to federally listed species' occupied habitat shall be addressed through either the Section 7 or Section 10(a)(1)(B) process under the federal Endangered Species Act (ESA) of 1973, as amended. Additionally, direct impacts to federally designated critical habitat that cannot be avoided shall be addressed through either the ESA Section 7 or Section 10(a)(1)(B) process. Direct impacts to state-listed species shall be addressed through the California Fish and Game Code Section 2081(b) incidental take permit process. The two processes may require additional mitigation beyond what is being proposed under this CEQA analysis.

C-78

MM-BIO-3: Pre-Construction Biological Surveys. Prior to the start of ground-disturbing construction or vegetation removal associated with Capital Investment Plan (CIP) projects and single-occurrence Operations and Maintenance (O&M) activities, pre-construction surveys for special-status plant or wildlife species shall be conducted in areas of suitable habitat within ~~300~~ 500 feet of ground disturbing activities, as property access allows. If special-status plant or wildlife species are located during the focused surveys, then their locations shall be mapped and monitored for avoidance (MM-BIO-4). If avoidance is not feasible, the project activities will not begin until an Incidental Take Permit is obtained from CDFW and/or USFWS authorizing the "take" of the species.

C-79

MM-BIO-4: Biological Monitoring. Should special-status plants or wildlife be identified during MM-BIO-3 or APM-BIO-1, a qualified biologist shall monitor ground-disturbing activities within areas where special-status plant and wildlife species, sensitive vegetation communities, or jurisdictional waters/wetlands are present during CIP projects and single-occurrence O&M activities. The qualified biologist shall look for special-status species that may be located within or immediately adjacent to work areas. If special-status species are found, the biological monitor shall identify their location for avoidance or flush/move them out of harm's way to avoid direct impacts to these species. The qualified biologist, in coordination with Metropolitan, shall determine when monitoring shall cease. CDFW shall be notified at least three days before monitoring ends, or within 24 hours, whichever is longer.

C-80

Filing Fees

The Program as proposed, could have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required for the underlying Project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

C-81

Conclusion

We appreciate the opportunity to comment on the Project to assist Metropolitan in adequately analyzing and minimizing/mitigating impacts to biological resources. CDFW requests an opportunity to review and comment on any response that Metropolitan has to our comments and to receive notification of any forthcoming hearing date(s) for the Project. Questions regarding this letter and further coordination on these issues should be directed to Megan Evans, Senior Environmental Scientist, at Megan.Evans@wildlife.ca.gov or (805) 320-4417. C-82

Sincerely,

DocuSigned by:
Erinn Wilson
DC7324F4C5BB489...

Erinn Wilson
Environmental Program Manager I

ec: CDFW
Victoria Tang – Los Alamitos
Felicia Silva – Los Alamitos
Andrew Valand – Los Alamitos
Malinda Santonil – Los Alamitos
Susan Howell – San Diego
Kim Freeburn- Ontario
Brandy Wood- Ontario
CEQA Program Coordinator - Sacramento

State Clearinghouse

References:

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Response to Comment Letter C

California Department of Fish and Wildlife
Erinn Wilson, Environmental Program Manager I
June 23, 2020

C-1 The commenter states that CDFW reviewed the Draft PEIR and associated biological appendices and they appreciate the opportunity to provide comments and recommendations. Metropolitan acknowledges this comment.

C-2 The commenter describes CDFW's role as a trustee agency under CEQA for fish and wildlife. The commenter also states that CDFW is submitting comments as a responsible agency under CEQA.

C-3 The commenter correctly summarizes the project description described in Chapter 3 of the Draft PEIR.

C-4 The commenter correctly summarizes the project objectives described in Chapter 3 of the Draft PEIR.

C-5 The commenter correctly summarizes the project location described in Chapter 2 of the Draft PEIR.

C-6 The commenter states that CDFW is offering comments and recommendations on biological resources to assist Metropolitan. The commenter recommends that CDFW's suggested revisions be included in the Final PEIR.

C-7 **CDFW Comment #1: Natural Communities and Sensitive Plants.**

CDFW Issue No. 1. The commenter states that the process of identifying sensitive habitat was through desktop review and modeling and that the methods for identification of suitable habitat for rare plants and sensitive vegetation communities did not include discussions with Metropolitan staff who conduct field work, nor did they include site visits to confirm accuracy. The commenter also states that the site visits were conducted outside the plant blooming season.

As described in Appendix F-1 to the Draft PEIR, sensitive vegetation communities were not mapped solely through desktop review, and no modeling was used. Prior to conducting field work, existing vegetation community mapping was compiled and then aerial imagery was reviewed to make preliminary determinations on vegetation communities. Once these preliminary data were compiled, Dudek biologists conducted vegetation mapping in the field. Once the field mapping and aerial interpretation phases were complete, the

boundaries of the vegetation communities and land uses were converted into geo-referenced polyline features in ArcGIS.

Metropolitan staff members who routinely work in the field were not consulted about suitable habitat for special-status plants and sensitive natural communities because these staff members are primarily O&M staff, who are not specifically trained in identifying special-status plants and sensitive natural communities. However, Metropolitan biologists reviewed the Draft PEIR and technical appendices prior to public review and their site-specific knowledge of the program area and impacts was incorporated into the Draft PEIR.

As described in Appendix F-2 to the Draft PEIR, focused special-status plant surveys were conducted in May and June of 2017. The timing of surveys coincided with the blooming period for all target species listed in Table 2 of Appendix F-2 (i.e., all target species listed in Table 2 are known to bloom in May and June). Furthermore, the 2016–2017 rainy season was an above-average rainfall year (NOAA 2020), which led to a substantial bloom of the region's native plant species. In addition, as described in Appendix F-2, reference population checks were conducted for two federally and state-listed special-status plant species and three additional California Rare Plant Rank (CRPR) 1 and 2 species, which were all observed in bloom and identifiable, thereby confirming that surveys were conducted within the appropriate plant blooming season.

C-8 **CDFW Issue #2.** The commenter correctly states that Riversidean alluvial fan sage scrub and other sensitive natural communities were mapped at a minimum mapping unit of 1 acre.

C-9 **CDFW Issue #3.** The commenter correctly quotes Section 4.3.6.4 of the Draft PEIR regarding short-term indirect impacts to sensitive vegetation communities.

C-10 **CDFW Issue #4.** The commenter correctly states that special-status plants were defined as species listed as threatened or endangered under the federal ESA and the California ESA (CESA) and species with a CRPR of 1 or 2 as defined by CDFW (CDFW 2020).

C-11 **CDFW Issue #5.** The commenter states that routine maintenance sites are not included in the analysis of existing baseline. This statement is not correct.

All routine maintenance would occur within the program area and the biological baseline for the program area is described in the Draft PEIR.

C-12 **CDFW Issue #5 (cont.).** The commenter states that Appendix A (O&M Manual) to the Draft PEIR identifies several routine maintenance activities that will not be reviewed by Metropolitan's Environmental Planning Section and further states that those activities have the potential to significantly impact sensitive plants and CDFW species of special concern.

Please refer to Response C-22.

C-13 The commenter states that CDFW is concerned that routine maintenance is not properly evaluated.

Please refer to Response C-22.

C-14 The commenter states that CDFW is concerned about the accuracy of the vegetation mapping and states that field visits should have been conducted in modeled areas.

As described in Appendix F-1, the mapping of vegetation communities was not a modeling exercise. The vegetation map for the program area was created in a stepwise fashion. The first step was to review and compile existing vegetation mapping. Then biologists reviewed aerial imagery to make preliminary determinations about potential vegetation communities. Following compilation of existing vegetation mapping and aerial photography review, biologists conducted vegetation mapping in the field. As described in Section 2.4 of Appendix F-1, a field manual was created for the biologists that included protocols on mapping to ensure that data collection was uniform, replicable, and reliable among biologists. Field maps were printed at 1:2,400 scale (1 inch = 200 feet). All mapping was done directly in the field onto the same aerial photographic base used during the aerial interpretation.

C-15 The commenter states that CDFW is concerned about habitat degradation due to invasion by non-native plants and invasive aquatic species from road maintenance, road improvements, and ongoing use of roads.

Metropolitan has included applicant proposed measures (APMs), which are standard best management practices (BMPs) for Metropolitan's routine O&M activities. These APMs are included in standard specifications for CIP projects that will avoid and minimize the impacts of non-native invasive plant and aquatic species from the proposed program. Specifically, APM-BIO-2 (Flagging of Work Limits) requires that all CIP project and O&M activity work area limits within special-status species habitat, including staging areas, be well defined and marked, that all temporary fencing or other markers be clearly visible to construction personnel, and that all parking, stockpiling, or storage of equipment be permitted only within designated staging areas. Adherence to this measure will minimize the potential for invasive plant and aquatic species (non-native bi-valves, snails, and invasive algae) from being introduced into aquatic environments such as wetlands and streams. APM-BIO-3 (Cleaning of Mowing Equipment) requires that mowing equipment be cleaned to prevent the spread of seeds from noxious weeds, minimizing the effect of introducing non-native plants. APM-BIO-4 (Invasive Plant Removal Protocols) requires that invasive plant species be removed in a manner that prevents propagation, also minimizing the effect of the introduction of non-native species.

C-16 The commenter states that according to CDFW's Survey of California Vegetation Classification and Mapping Standards (2019), the minimum mapping unit for wetlands and other special types of vegetation communities is 0.25 acres.

As noted in Response C-8, the minimum mapping unit for sensitive vegetation communities was 1 acre. The vegetation mapping was completed in 2015, before the 2019 guidance from CDFW was published. Prior to this, CDFW recommended a minimum mapping unit of 1 acre for sensitive vegetation communities. Additionally, while the minimum mapping unit was 1 acre, when feasible, smaller vegetation polygons were delineated. For instance, of the 147 sensitive vegetation polygons that were delineated, 53 (or 36%) were less than 1 acre. Also, in addition to vegetation mapping, a jurisdictional delineation, which maps wetlands and waters of the United States/state, was conducted and there was no minimum mapping unit for these resources; thus, wetlands and waters of 0.25 acres or less were mapped during the jurisdictional delineation. Therefore, Metropolitan believes that the sensitive vegetation communities, including wetlands and waters, have been properly evaluated under CEQA.

C-17 The commenter states that plant communities, alliances, and associations with a statewide (or "S") ranking of S1, S2, S3, and S4 should be considered sensitive vegetation communities. However, *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018) states that sensitive natural communities are defined by CDFW in the *California Sensitive Natural Communities* list (CDFW 2019). The vegetation communities considered sensitive in the Draft PEIR are those that are included in the *California Sensitive Natural Communities* list (CDFW 2019), as stated in Section 4.3.1.1 of the Draft PEIR. According to CDFW (2019), natural communities with ranks of S1 to S3 are considered sensitive (not communities with a rank of S4). Therefore, the Draft PEIR addresses impacts to sensitive natural communities per CDFW guidance (CDFW 2018, 2019).

C-18 The commenter states that quality control measures were not employed to ensure that habitats that support sensitive communities and special-status plants were included in the analysis.

Metropolitan disagrees with this statement. Please refer to Response C-7.

C-19 The commenter states that impacts to 0.17 acres of scale broom scrub should be considered a significant impact.

Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018) states that a discussion of the significance of sensitive natural communities in the project area should be made considering nearby occurrences and natural community distribution. This protocol does

not state that any impact to a sensitive natural community, no matter how small, is considered significant. There are 371 acres of scale broom scrub in the program area and even more within the region. Therefore, of the 371 acres of scale broom scrub in the program area, only 0.05% would be directly impacted. Additionally, these impacts would be spread out between the Inland Feeder and Rialto Pipeline sites, which are more than 19 miles apart, and would likely occur at different times. Also, many of the impacts would be to habitat that is adjacent to existing development or disturbed areas such as roads and residential development. The determination of whether an impact to sensitive vegetation communities is significant is whether there would be a substantial adverse effect. Metropolitan, as the lead agency, has determined that the loss of 0.05% of the scale broom scrub in the entire program area is not a substantial adverse effect and therefore the impact would be less than significant.

Additionally, please refer to Responses GR-2 and GR-3.

C-20 The commenter states that the analysis of indirect impacts to sensitive natural communities and special-status plants is inadequate.

Short-term and long-term indirect impacts to sensitive vegetation communities and special-status plants are addressed in Sections 4.3.6.4 and 4.3.6.5 for CIP projects and O&M activities.

As described in Section 4.3.6.4, the proposed CIP projects could result in short-term indirect impacts to special-status plants and sensitive vegetation communities including generation of fugitive dust, introduction of chemical pollutants, introduction of non-native plants, and/or increased human activity during construction. There would be no long-term indirect impacts because once the construction projects are completed, no indirect impacts would remain. For example, this program is not a master-planned community where following construction there would be long-term indirect impacts such as increased human activity from residences. The short-term and long-term indirect effects for single-occurrence O&M activities would be the same as the CIP projects, as described in Section 4.3.6.5, O&M Activities.

The short-term indirect impacts associated with the proposed CIP projects and single-occurrence O&M activities would be avoided and minimized through APMs described in Section 4.3.6.1. Specifically, APM-AQ-2 (Fugitive Dust Control) requires that the proposed program activities adhere to South Coast Air Quality Management District Rule 403, which includes a variety of measures intended to reduce fugitive dust emissions (see Section 4.2.4 of the Draft PEIR). APM-BIO-2 (Flagging of Work Limits) requires that parking, stockpiling, and storage of equipment be permitted only within staging areas, which avoids and minimizes the potential effects of chemical pollutants by containing the equipment in a designated staging area away from sensitive biological resources. APM-BIO-3 (Cleaning

of Mowing Equipment) requires that mowing equipment be cleaned to prevent the spread of seeds from noxious weeds, minimizing the effect of introducing non-native plants. APM-BIO-4 (Invasive Plant Removal Protocols) requires that invasive plant species be removed in a manner that prevents propagation, also minimizing the effect of the introduction of non-native species. APM-BIO-2 also requires that the limits of work be delineated in the field using flagging, which will keep construction personnel outside of non-impacted, potentially natural areas.

As described in Section 4.3.6.5, short-term and long-term indirect impacts to special-status plant species and sensitive vegetation communities associated with routine O&M activities would not likely result in significant impacts. All routine O&M activities are currently conducted on a regular basis, are temporary, and occur within the existing disturbance footprint. The proposed O&M activities would be short in duration and would not result in substantial changes to the landscape once completed (e.g., there would be no change or very limited changes in human activity, soil erosion, and hydrology). No significant short-term or long-term indirect impacts would occur to special-status plants or vegetation communities from routine O&M activities.

C-21 The commenter states that impacts to sensitive vegetation communities and special-status plants were not adequately analyzed and should be considered significant.

Please refer to Responses GR-2, GR-3, C-19, C-20, and C-30.

C-22 The commenter states that routine maintenance has the potential to create permanent impacts to sensitive vegetation communities and special-status plants.

According to Section 15125(a) of the CEQA Guidelines, an EIR must include a description of the existing physical environmental condition in the vicinity of the project as it exists at the time when the Notice of Preparation (NOP) is published. This “environmental setting” will normally constitute the baseline condition against which project-related impacts are compared. Therefore, the baseline conditions for the Draft PEIR, unless noted otherwise, are based on conditions that existed in November 2014, when the NOP was published. Additionally, since the NOP was published, no substantial landscape-level changes were found during the desktop analysis or the field surveys conducted after the NOP was published. The baseline for routine O&M activities is that these activities are currently conducted on a regular basis, are temporary, and occur within the existing disturbance footprint throughout the program area. The proposed routine O&M activities are short in duration and would not result in substantial changes to the landscape once completed (e.g., there would be no change or very limited changes in human activity, soil erosion, and hydrology). Therefore, routine O&M activities are not likely to create new substantial permanent impacts to sensitive vegetation or special-status plants given that this maintenance is already occurring.

C-23 The commenter states that a mitigation ratio of 1:1 is insufficient to reduce impacts to less than significant levels due to temporal impacts.

MM-BIO-2 (Compensation for Impacts to Federally and State-Listed Species Habitat) requires Metropolitan to purchase land or fund a mitigation bank or in-lieu fee program to compensate for the permanent loss of habitat at a 1:1 ratio. Unlike a wetlands restoration project, for example, there is no temporal loss of functions and values. For example, a wetlands restoration project may require time to establish appropriate functions and values as plants grow from seed or container stock or invasive species are removed. Mitigation through land purchase or by funding a mitigation bank or an in-lieu fee program does not require time to establish the biological functions and values like creating a restoration project may. Additionally, as noted in Table 4.3-11 in the Draft PEIR, the loss of habitat for these species would be spread throughout the proposed program area in small and fragmented habitat patches, would occur incrementally over time, and would represent a very small percentage of the total suitable habitat for each of these species that would remain within the program area. Also, many of the impacts would be to habitat that is adjacent to existing development or disturbed areas such as roads and residential development. In contrast, the mitigation would be part of a larger high-quality block of habitat contiguous with other habitat blocks, providing higher functions and values than the habitat that is being impacted; this further justifies a ratio of 1:1. Therefore, the proposed mitigation outlined in MM-BIO-2 is adequate to mitigate impacts to less than significant levels.

For further information, please refer to Responses GR-2, GR-3, and GR-4.

C-24 **CDFW Recommendation #1.** CDFW recommends that quality control measures during modeling and mapping be defined to ensure that all sensitive vegetation communities and special-status plants are included in the survey. CDFW also recommends increased field visits.

As described in Appendices F-1 and F-2, there was no modeling completed for mapping sensitive vegetation communities or special-status plants; the vegetation mapping and special-status plant surveys were completed in the field by qualified biologists.

Additionally, please see Responses C-7 and C-14 for additional information.

C-25 **CDFW Recommendation #2.** CDFW states that Metropolitan should include an analysis of impacts caused by routine maintenance.

Impacts associated with routine maintenance were analyzed in the Draft PEIR. Please refer to Responses C-20 and C-22.

C-26 **CDFW Mitigation Measure #1.** CDFW recommends that Metropolitan include mitigation for permanent and temporary impacts to sensitive vegetation communities at a 3:1 ratio (instead of a 1:1 ratio).

Impacts to sensitive vegetation communities are minimal. There are direct impacts to 0.01 acres of California sycamore alliance and 0.17 acres of scale broom alliance proposed as part of the overall program. *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018) states that a discussion of the significance of sensitive natural communities in the project area should be made considering nearby occurrences and natural community distribution. This protocol does not state that any impact to a sensitive natural community, no matter how small, is considered significant. Furthermore, CDFW's proposal that all impacts to sensitive vegetation communities should be considered significant and require mitigation is not consistent with Final Subsequent Environmental Impact Report for the Suction Dredge Permitting Program (CDFG 2012a), in which CDFW states that a less than significant impact generally refers to a situation where there is a measurable impact, but the impact is not likely to result in a widespread or long-lasting adverse effect on a natural community. CDFW is requesting additional effort for the proposed program that is inconsistent with its own level of analysis under CEQA.

There are 371 acres of scale broom scrub in the program area, and more within the region. Of the 371 acres of scale broom scrub in the program area, only 0.05% would be directly impacted as a result of program implementation. Additionally, these impacts would be spread out between the Inland Feeder and Rialto Pipeline sites, which are more than 19 miles apart, and would likely occur at different times. Also, many of the impacts would be to habitat that is adjacent to existing development or disturbed areas such as roads and residential development. The determination of whether an impact to sensitive vegetation communities is significant is based on whether there would be a substantial adverse effect. Metropolitan, as the lead agency, has determined that the loss of 0.05% of the scale broom scrub in the entire program area is not a substantial adverse effect and that the impact would therefore be less than significant. Similarly, there are 30 acres of California sycamore alliance in the program area, and more within the region. Of the 30 acres of California sycamore alliance in the program area, only 0.02% would be directly impacted. The determination of whether an impact to sensitive vegetation communities is significant is based on whether there would be a substantial adverse effect. Metropolitan, as the lead agency, has determined that the loss of 0.02% of the California sycamore alliance in the entire program area is not a substantial adverse effect and that the impact would therefore be less than significant. Therefore, mitigation is not required for these impacts from the proposed program.

For further information, please refer to Responses GR-2, GR-3, and GR-4.

C-27 **CDFW Mitigation Measure #2.** CDFW recommends a finer-scale mapping unit to map sensitive vegetation communities.

Please refer to Response C-16.

C-28 **CDFW Mitigation Measure #3.** CDFW recommends that S1, S2, S3, and some S4 vegetation communities be considered sensitive under CEQA.

Please refer to Response C-17.

C-29 **CDFW Mitigation Measure #4.** CDFW recommends that any revegetation plans that are prepared for mitigation of impacts to sensitive natural communities be submitted to CDFW for review and approval.

As described in MM-BIO-2 (see Section 4.3.6.4 of the Draft PEIR), the proposed rehabilitation of impact areas will include a feasible implementation structure, salvage/seeding details, invasive species eradication methods, a monitoring schedule, performance standards of success, estimated costs, and identification of responsible entities, which are all elements of revegetation plans.

Metropolitan has the staff expertise to review and approve the mitigation program for temporary impacts to sensitive natural communities; therefore, CDFW does not need to review and approve restoration plans.

C-30 **CDFW Comment # 2: Special-Status Plants.**

CDFW Issue #1. CDFW is concerned regarding the determination that no special-status plants were observed during the 2017 focused surveys within the project areas for patrol road improvements and paving (CIP Activity Code No. 1) and that permanent and temporary direct impacts are not anticipated and thus would be less than significant.

As described in the Draft PEIR, Section 4.3.2.2, the construction footprint was refined to include existing patrol roads that would be used for access to some of the CIP project/single-occurrence O&M activity sites, some of which fell outside the 2017 special-status plant survey area. Because these areas are existing roads, they are mapped as the Non-Natural Land Covers/Unvegetated Communities mapping type, as shown in Appendix F-7 to the Draft PEIR. These existing roads are regularly driven and maintained as part of routine O&M activities, which limits the potential for special-status species to occur on them.

No special-status plants were observed within the project areas for patrol road improvements and paving that did fall within the 2017 special-status plant survey area, thereby affirming the limited potential for special-status species to occur in these areas. However, while the potential for special-status plant species is limited within the patrol

road improvements and paving areas, as described in Section 3.5.4, Applicant Proposed Measures for CIP Projects, of the Draft PEIR, Metropolitan implements APMs for CIP projects. These APMs include APM-BIO-1 (Pre-Activity Special-Status Plant Surveys), which requires pre-activity focused special-status plant surveys in the portions of the CIP project area that were not surveyed in 2017. Populations and individuals of any special-status plant species found during pre-activity surveys will be mapped with GPS. Mapped populations of listed species will be avoided unless take authorization has been obtained from the respective resource agency. Non-listed special-status plants will be avoided during construction activities as practicable. Installation of protective fencing and erosion and sediment control measures, as appropriate, will be implemented to protect special-status plant populations found near CIP project and single-occurrence O&M activity sites. In addition, MM-BIO-3 (Pre-Construction Biological Surveys) and MM-BIO-4 (Biological Monitoring) include measures to protect special-status plant species for all proposed program activities.

C-31 **CDFW Issue #2.** The commenter correctly summarizes access restrictions to modeled habitat within Survey Areas S3, S4, and O4, as described in Appendix F-2 to the Draft PEIR.

C-32 The commenter states that surveys that do not allow for 100% visual coverage do not provide enough information to make a thorough assessment and cannot be used to reach a determination of less than significant impacts.

As described in Appendix F-2 to the Draft PEIR, special-status plant surveys were conducted in conformance with the *Protocols for Surveying and Evaluating Impacts to Special-Status Native Plant Populations and Natural Communities* (CDFG 2009), *CNPS* [California Native Plant Society] *Botanical Survey Guidelines* (CNPS 2001), and *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants* (USFWS 1996). Surveys were conducted by walking meandering transects to allow 100% visual coverage to detect special-status species. Areas where 100% visual coverage was not conducted would trigger implementation of APM-BIO-1, which requires pre-activity focused special-status plant surveys within the portions of the CIP project and single-occurrence O&M activity sites that were not surveyed in 2017. Please refer to Responses C-30, C-33, and GR-1.

C-33 The commenter states that Metropolitan's methodology for surveying special-status plants and use of methodology to address project specific impacts is not adequate, particularly in reference to Survey Areas S3, S4, and O4.

As described in Appendix F-2 to the Draft PEIR, Survey Areas S3 and S4 are located within Tribal Lands and access to these survey areas was not granted until June 26, 2017. Access was restricted to the access roads only; therefore, only visual observation using binoculars was allowed outside of the right-of-way. It is further acknowledged in Appendix

F-2 that the restricted access in these areas resulted in limited visibility to detect special-status plants. Some areas within Survey Area 04 were enclosed by fencing, which limited survey activity in these areas to visual observation using binoculars. However, APM-BIO-1 requires pre-activity focused special-status plant surveys within the portions of the CIP project and single-occurrence O&M activity sites that were not surveyed in 2017. This APM would apply to Survey Areas S3, S4, and 04; therefore, Metropolitan will complete pre-activity surveys for special-status plant species during the appropriate blooming period for species that have potential to occur.

Per APM-BIO-1, surveys will be conducted by a qualified botanist in the areas that would be subject to direct or indirect impacts. Surveys will conform to the *CNPS Botanical Survey Guidelines* (CNPS 2001), *Protocols for Surveying and Evaluating Impacts to Special Status Native Populations and Natural Communities* (CDFW 2018), and the Endangered Species Recovery Program's *General Rare Plant Survey Guidelines* (USFWS 2002) or the most current accepted protocol. Plant species encountered during the field surveys will be identified to subspecies or variety, if applicable, to determine sensitivity status.

Populations and individuals of any special-status plant species found during pre-activity surveys will be mapped with GPS. Mapped populations of listed species will be avoided unless take authorization has been obtained from the respective resource agency. Non-listed special-status plants will be avoided during construction activities as practicable. Installation of protective fencing and erosion and sediment control measures, as appropriate, will be implemented to protect special-status plant populations found near CIP project and single-occurrence O&M activity sites. Please refer to Responses C-30, C-33, and GR-1.

C-34 CDFW correctly states that the PEIR determined that project impacts to special-status plants are less than significant and no mitigation measures are required.

However, as described in Section 3.5.4.3, APM-BIO-1 requires pre-activity focused special-status plant surveys during the appropriate blooming period within portions of the CIP project and single-occurrence O&M activity sites that were not surveyed in 2017, or for project sites that do not commence construction by 2022. In addition, MM-BIO-3 and MM-BIO-4 include measures to protect special-status plant species for all proposed program activities. Section 4.3.6.4 also states that indirect impacts to special-status plants would be mitigated through application of APM-BIO-2, APM-BIO-3, and APM-AQ-2 (see Section 4.3.5) and other internal construction guidelines and BMPs, as discussed in Chapter 3 of the Draft PEIR.

C-35 **CDFW Mitigation Measure #1.** CDFW recommends that Metropolitan obtain incidental take permits to authorize take of CESA-listed species during program impacts.

The comment is noted. Implementation of CEQA mitigation measures does not preclude a project proponent from other legal obligations, including consultation with CDFW and the U.S. Fish and Wildlife Service (USFWS) regarding listed species and possible incidental take permitting where necessary. As such, the APMs and mitigation measures that have already been proposed (APM-BIO-1, MM-BIO-2, MM-BIO-3, and MM-BIO-4) and additional need to consult as necessary address this comment. As described in Section 3.5.4.3, APM-BIO-1 states that mapped populations of listed species will be avoided unless take authorization has been obtained from the respective resource agency. Furthermore, Section 4.3.6.4 also includes MM-BIO-2, MM-BIO-3, and MM-BIO-4, which include measures to protect CESA-listed species for all proposed program activities.

C-36 **CDFW Mitigation Measure #2.** CDFW states that the PEIR should include a full analysis of impacts to CESA-listed species and that if avoidance is not feasible, mitigation should occur at a ratio of no less than 5:1.

The PEIR provides a full analysis of impacts to CESA-listed species, as described in Section 4.3.6.4.

Regarding mitigation at a ratio of no less than 5:1, please refer to Responses GR-4 and C-23.

C-37 **CDFW Comment #3: Nesting Birds.**

The commenter reproduces the first sentence in MM-BIO-1 (Nesting Bird Surveys) regarding mitigation for potential impacts to nesting birds and then states that throughout the Draft PEIR, buffers around nesting birds and other special-status species is limited to 100 feet and that mitigation for loss of nesting birds and nesting bird habitat is not included in the Draft PEIR.

MM-BIO-1 (see Section 4.3.6.4 of the Draft PEIR) specifies that surveys for nesting birds be conducted within 100 feet of the grading limits for proposed activities occurring during the breeding season and within potential nesting habitat. However, the actual buffer that will be established around any active nests observed during the survey will, as stated in MM-BIO-1, take into consideration "site conditions, nesting species, and construction activity." As stated in the measure, "the buffer area shall not be disturbed until after birds have fledged. The qualified biologist, in conjunction with Metropolitan's Environmental Planning staff, will determine when construction activities may resume in the area." As stated in Section 4.3.6.4 of the Draft PEIR, "implementation of MM-BIO-1 would ensure that any nests of these species would be detected prior to initiation of project activities, and that impacts to the nests, eggs, and nestlings would be avoided." As such, this measure serves as mitigation for the potential loss of nesting birds. Please refer to Response C-42 for revisions to MM-BIO-1.

With respect to mitigation for loss of nesting bird habitat, and pursuant to the CEQA threshold of significance identified in the Draft PEIR as Impact BIO-1 (see Section 4.3.4), the focus of the impacts analysis is on those 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 Game or U.S. Fish and Wildlife Service." As such, the loss of vegetation that could provide nesting habitat for any bird species, especially for common bird species, would not normally rise to the level of significance under CEQA. However, the potential loss of nesting habitat for species that meet the criteria in Impact BIO-1 was considered potentially significant for some species in the Draft PEIR. MM-BIO-2 (Compensation for Impacts to Federally and State-Listed Species Habitat) and MM-BIO-5 (Compensation for Impacts to Jurisdictional Wetlands and Waters) (see Section 4.3.6.4 of the Draft PEIR) both include the rehabilitation of temporarily impacted habitat as well as compensatory mitigation for the permanent loss of habitat for these bird species.

C-38 The commenter lists several impacts that program activities during the nesting season could have on nesting birds, including the loss of foraging habitat for sensitive bird species, and states that nesting bird surveys could miss active nests and increase predation on located nests by crows, ravens, and other wildlife.

The Draft PEIR addresses potential impacts of program activities to nests, eggs, or nestlings of birds and notes that such impacts would be potentially significant absent mitigation (see Section 4.3.6.4 of the Draft PEIR). The Draft PEIR further states that implementation of MM-BIO-1 would ensure that any active bird nests would be detected prior to initiation of program activities, and that impacts to active nests, eggs, and nestlings would be avoided. See Response C-37 regarding the loss of habitat for bird species. Regarding the statement in the comment that nesting bird surveys could miss active nests, MM-BIO-1 includes the requirement that all nesting bird surveys be conducted by a qualified biologist, which is expected to substantially minimize the potential for active nests to be missed during surveys. The comment does not explain how active nests located by the qualified biologist would "increase predation on located nests by crows, ravens, and other wildlife." Qualified biologists searching for active nests typically do so by looking for adults exhibiting behavior indicative of an active nest, such as territorial actions, feeding of young, and incubating or brooding. Such searches are normally done at an adequate distance from the nest so as not to incite or harass adults or young.

C-39 The commenter states that program activities during the breeding season of nesting birds could result in the incidental loss of breeding success or otherwise lead to nest abandonment.

The comment is noted. Please refer to Responses C-37 and C-38.

C-40 The commenter states that the loss of occupied rare bird habitat or direct and indirect impacts to active nests would constitute a significant impact absent mitigation. The commenter further states that active nests of all native bird species are protected under the California Fish and Game Code.

Potential impacts on occupied habitat of special-status bird species, direct and indirect impacts on active nests of these species, and the significance of these impacts under CEQA are described in detail in Section 4.3.6.3, Summary of Impacts and Significance, of the Draft PEIR. As described in this section, potential impacts on active nests of all special-status bird species occurring or potentially occurring in the program area, as well as impacts to habitat for some of these species, are concluded to be potentially significant absent mitigation. The statement by the commenter regarding the protection provided to active nests of native birds by the California Fish and Game Code is noted.

C-41 The commenter states that given the legal status of fully protected animals, take avoidance measures should meet very high standards of effectiveness, substantially greater than the measures to minimize take required under incidental take permits.

The commenter describes CDFW's policy on addressing state fully protected species but does not specifically address the adequacy of the Draft PEIR. Pursuant to Table 4.3-5 in the Draft PEIR, fully protected species are known to occur or are expected to occur within areas potentially impacted by program implementation. However, as required by law, no take of CDFW fully protected species would occur as part of the proposed program.

C-42 **CDFW Mitigation Measure #1.** CDFW recommends that no construction occur from February 15 (January 1 for raptors) through August 31.

Restricting program activities to outside of the breeding season is not feasible because that would eliminate 7 months out of the year for construction of necessary projects. Metropolitan must conduct certain activities, particularly O&M activities, to maintain critical infrastructure and provide access not only to infrastructure but to shared roads for fire access and other utilities throughout the year. Nesting birds will be protected through implementation of MM-BIO-1. To address CDFW's concern regarding raptors, which could nest as early as January 1 (per CDFW), and to address other comments below regarding survey zone size, MM-BIO-1 has been revised as follows:

MM-BIO-1 **Nesting Bird Surveys.** For all proposed program activities, grading or vegetation clearing, cutting, and removal shall be scheduled to occur during the non-breeding season for birds (September 1 through January 31). If grading or vegetation clearing, cutting, or removal are required during the breeding season (February 1 through August 31, or January 1 through August 31 for raptors), then a qualified biologist shall survey all potential

nesting vegetation within an appropriate distance from grading limits for nesting birds prior to grading activities, as property access allows and depending on factors such as habitat suitability; focal species' known tolerance to human activities and noise; the timing, intensity, and extent of the activities; and the presence of vegetation and topographical screening. Between January 1 and February 1, nesting surveys for raptors will be required only if there is suitable raptor nesting habitat within or adjacent to the grading or vegetation removal area. The purpose of the surveys shall be to determine if active nests of special-status or other protected birds are present within the vicinity of the work area. The survey shall be conducted within 7 days prior to the start of work. If no nesting birds are observed, project activities may commence. If an active nest is located, the site shall be marked, and an appropriate buffer established, based on site conditions, nesting species, and construction activity. The buffer area shall not be disturbed until after birds have fledged. The qualified biologist, in conjunction with Metropolitan's Environmental Planning staff, will determine when construction activities may resume in the area. In the event that a threatened or endangered species is located within the survey area and avoidance is not feasible, consultation with the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife shall be required.

C-43 **CDFW Mitigation Measure #2.** CDFW recommends changes to MM-BIO-1 including nesting bird survey distances from the program footprint (500-foot radius), specific no-disturbance-buffer distances (300 feet for non-raptor bird species, 500 feet for raptor species, and 0.5 miles for listed bird species), survey timing, and monitoring.

Because of the linear nature of many of the components of the proposed program, and because many of the proposed projects and activities are adjacent to land not owned by Metropolitan, the distance from the edge of the program footprint at which nest surveys can be conducted cannot be precisely defined at the programmatic level. Furthermore, the distance from the edge of a given ground-disturbing activity or construction activity at which nesting surveys should be conducted can depend on a number of factors, including the focal species and their tolerance to human activities and noise, the presence/absence of suitable nest habitat within and adjacent to the project or activity footprint, the timing, intensity, and extent of the project/activity, and the presence of vegetation and topographical screening. Therefore, the exact distance from the project or activity footprint at which nest surveys will be conducted for the proposed program will be determined by the qualified biologist. Please refer to Response C-42 for revisions to MM-BIO-1 that reflect this approach.

As described in MM-BIO-1, if an active bird nest is discovered during the nest surveys, an appropriate no-disturbance buffer will be established around the nest "based on site conditions, nesting species, and construction activity." A qualified biologist designated by Metropolitan will monitor nest activity to determine whether a larger or smaller buffer is required to ensure compliance with the protections provided by the California Fish and Game Code. The avoidance buffer width would vary depending on such factors as the tolerance of the bird species to human activities and noise, the type of equipment used, the duration and intensity of the activity, and screening by vegetation or topography. The qualified biologist will have the authority to halt work as necessary to ensure full compliance. Additionally, in the event that a threatened or endangered species is located within the survey area and avoidance is not feasible, consultation with USFWS and/or CDFW would be required.

C-44 **CDFW Mitigation Measure #3.** CDFW recommends surveying the entire program footprint, including a 500-foot radius. CDFW further recommends that the PEIR include measures to preclude take and analyze potential take as a result of habitat modifications during operation and from CIP projects and single-occurrence O&M activities. In order to avoid take, CDFW recommends that all construction and operation activities avoid all raptors by a distance of no less than the distance that specific species are known or expected to travel within their home range.

Please refer to Response GR-1 regarding the purpose of a PEIR and Response C-41 regarding the potential for impacts on fully protected species. In addition, see Responses C-37 and C-38 regarding how potential direct and indirect impacts to bird species, including raptors, will be avoided. See also Response C-40 regarding the radius of surveys.

Additionally, the following survey buffers were applied to these field surveys (see Appendix F to the Draft PEIR):

- Vegetation Mapping: An approximately 9,512-acre study area that included a 500-foot buffer to the outside of all CIP project locations and footprints, O&M activity work areas, facilities and structures, and patrol roads
- Special-Status Plants: CIP project footprints and single-occurrence O&M activity locations, plus a 500-foot buffer
- Coastal California Gnatcatchers: CIP project footprints and single-occurrence O&M activity locations, plus a 500-foot buffer
- Least Bell's Vireo: CIP project footprints and single-occurrence O&M activity locations, plus a 500-foot buffer
- San Bernardino Kangaroo Rat: Within the modeled habitat identified in the 9,512-acre study area

C-45 **CDFW Mitigation Measure #4.** CDFW recommends that Metropolitan develop a Nesting Bird Mitigation Plan to mitigate impacts to and loss of nesting birds by setting aside replacement habitat to be protected in perpetuity.

California Fish and Game Code Section 3503 prohibits the taking, possession, or needless destruction of the nest or eggs of any bird. The comment implies that Metropolitan will violate the law (Section 3503 of the California Fish and Game Code), that this would be a significant impact under CEQA, and that Metropolitan would need mitigation for such an impact. Metropolitan adheres to all applicable laws and regulations. To ensure that no impacts to active bird nests will occur, Metropolitan has included MM-BIO-1 in the Draft PEIR. MM-BIO-1 requires surveys for active bird nests, and the avoidance of such nests, during program activities that would occur during the nesting season. For further information, please refer to Response GR-4.

Please refer to Responses GR-4, C-37, and C-38 regarding potential direct and indirect impacts to nesting bird habitat. As noted in Section 4.3.6.4 of the Draft PEIR, "with the exception of coastal California gnatcatcher, least Bell's vireo, and San Bernardino kangaroo rat, the loss of suitable habitat (except nests) for special-status wildlife would be less than significant. A substantial amount of suitable habitat would remain in the vicinity that could be used by these species, and the small loss of habitat would not affect regional populations." Nevertheless, MM-BIO-2 and MM-BIO-5 both include the rehabilitation of temporarily impacted habitat as well as compensatory mitigation for the permanent loss of habitat for listed species. This mitigation is also expected to benefit common bird species.

C-46 **CDFW Comment #4: Special-Status Birds.**

CDFW Issue #1: Burrowing Owl. The commenter states that burrowing owl (*Athene cunicularia*) impacts are not fully addressed in the Draft PEIR.

Potential impacts on special-status species, including burrowing owl, which has been included in the Bird–Raptor Guild with other species that would experience similar impacts, is discussed specifically in Section 4.3.6.3 in the Draft PEIR. Potential loss of habitat for burrowing owl is listed in Table 4.3-11, Special-Status Wildlife Species Impacts from Proposed CIP Projects and Single-Occurrence O&M Activities Summary, of the Draft PEIR. Direct permanent and temporary impacts to burrowing owl habitat are discussed in Section 4.3.6.3 of the Draft PEIR under the heading Bird–Raptor (Long-Eared Owl, Burrowing Owl, Loggerhead Shrike). Impacts on special-status species (including burrowing owl) associated with proposed O&M activities are discussed in Section 4.3.6.5 of the Draft PEIR.

Additionally, please refer to Response GR-2.

C-47 **CDFW Issue #2: Least Bell's Vireo.** The commenter states that routine maintenance areas were not surveyed for least Bell's vireo and that routine maintenance activities were not included in the impacts analysis.

Potential impacts on special-status species, including least Bell's vireo, which has been included in the Bird–Riparian Guild with other species that would experience similar impacts, are discussed specifically in Section 4.3.6.3, Summary of Impacts and Significance, in the Draft PEIR. Potential loss of habitat for least Bell's vireo is listed in Table 4.3-11, Special-Status Wildlife Species Impacts from Proposed CIP Projects and Single-Occurrence O&M Activities Summary, of the Draft PEIR. Direct permanent and temporary impacts to least Bell's vireo habitat are discussed in Section 4.3.6.3 of the Draft PEIR under the heading Bird–Riparian (Yellow-Breasted Chat, Yellow Warbler, and Least Bell's Vireo). Impacts on special-status species (including least Bell's vireo) associated with proposed O&M activities are discussed in Section 4.3.6.5 of the Draft PEIR.

In addition, please refer to Response C-42 for proposed revisions to MM-BIO-1, which is intended to protect nesting birds for all proposed program activities.

For further information, please refer to Responses GR-1 and GR-2.

C-48 **CDFW Issue #3: California Gnatcatcher.** The commenter recommends that a 500-foot survey radius from grading limits be applied for coastal California gnatcatcher and other special-status species. Additionally, CDFW states that routine maintenance activities are not included in the analysis.

The recommendation by CDFW to use a 500-foot survey radius from grading limits for sensitive species is noted. However, the width of the construction and activity buffer necessary to achieve compliance is not set forth in the ESA, the Migratory Bird Treaty Act, or the California Fish and Game Code. Please refer to Response C-43 regarding the radius of nest surveys for bird species.

Potential impacts associated with routine maintenance activities are discussed in Section 4.3.6.5 of the Draft PEIR. In addition, please refer to Response C-42 for proposed revisions to MM-BIO-1, which is intended to protect nesting birds for all proposed program activities.

C-49 **CDFW Issue #4: Southwestern Willow Flycatcher.** CDFW states that southwestern willow flycatcher (*Empidonax traillii extimus*) were not adequately evaluated because focused surveys were not performed and that there were incidental detections during other surveys.

As stated in Sections 4.3.1.1 and 4.3.1.3 in the Draft PEIR, the potential to occur and resulting evaluation for the need to perform surveys was based on literature review and habitat modeling which relied on the best available resources. For listed species, this

included a follow-up site review to verify the assessment. The willow flycatcher identified during the least Bell's vireo survey was made by a biologist without a USFWS 10(a)(1)(A) permit for a southwestern willow flycatcher, and was thus not a USFWS-qualified surveyor to use vocal playback as a method to elicit bird response. The identification was made prior to the protocol season for the species so it was likely a migrant, and migrants can occur in many atypical habitat and land cover types. In general, the habitat was not optimal for southwestern willow flycatcher, as they prefer nesting habitat that is next to water, preferably still or stagnant water. Metropolitan maintains that the habitat quality was poor, so potential for southwestern willow flycatcher is still considered to be low. However, the species will still be included in pre-construction surveys (MM-BIO1 and MM-BIO-3) and protections under MM-BIO-2 regarding listed species.

C-50 The commenter states that burrowing owl is known to occur in the program area and that focused surveys for burrowing owl should therefore have been completed. The commenter further suggests that a full analysis of impacts, including maintenance activities, such as the use of rodenticides for rodent control, that could adversely affect burrowing owls, needs to be included in the Draft PEIR.

As shown in Tables 4.3-4 and 4.3-5 in the Draft PEIR, burrowing owls are assumed to have a moderate to high potential for occurring in the proposed program area and in association with the CIP projects and single-occurrence O&M activities. Therefore, for the purposes of the analysis of impacts in the Draft PEIR, burrowing owls are assumed to potentially occur. Pre-construction nesting bird surveys, as described in and pursuant to MM-BIO-1, will include searches for burrowing owl and measures to be implemented to avoid direct impacts to active burrowing owl burrows.

Please refer to Response C-46 regarding potential direct impacts on this species due to program implementation. With respect to O&M activities, the Draft PEIR lists those activities that could potentially impact special-status species, including burrowing owl; notably, the list of activities does not include the use of bait stations for rodent control. Nevertheless, for O&M activities that would potentially adversely affect special-status wildlife species, including burrowing owl, the Draft PEIR states that if any such activities would occur during the breeding season for such species, MM-BIO-1 would be implemented to minimize/avoid impacts. To clarify that rodenticides will not be used for rodent control as part of any O&M activities, the following paragraph from Section 3.6.1.3, Routine Structure Maintenance, Repair, and Replacement, of the Draft PEIR has been revised as follows:

> Vegetation trimming, mowing, and clearing, as well as weed abatement, for aboveground structures would occur in a similar manner as that described along patrol roads. Metropolitan-approved pesticides/herbicides would be applied by

contracted, licensed sprayers, as needed, for safety reasons and to avoid damage to electrical systems and other Metropolitan structures. Targeted pests include rats, mice, spiders, bees, and wasps. Rodenticide use on the distribution system is not included as part of the rodent control program. Vegetation maintenance and pesticide/herbicide application is currently performed within a 10-foot radius of the appurtenant structures; however, as part of the proposed program, this area could be extended up to 20 feet where property and environmental constraints do not exist.

A similar paragraph in the Executive Summary has also been revised to reflect this change.

C-51 The commenter states that proposed mitigation for the loss of burrowing owl nesting and foraging habitat was not evaluated in the Draft PEIR.

Please refer to Response C-45 regarding mitigation of impacts to bird habitat.

C-52 The commenter states that without thorough wildlife surveys, an accurate inventory of wildlife associated with the proposed program would not be available to assist in the development of avoidance and mitigation measures for sensitive species resulting in continued adverse effects on these species as a result of project implementation.

As discussed in Sections 4.3.1.1 and 4.3.1.3 of the Draft PEIR, the potential for special-status species to occur throughout the proposed program area was evaluated based on extensive literature review and database searches, development and analysis of species-specific habitat models, and focused field habitat assessments. As discussed in Section 4.3.1.4, extensive surveys were conducted for a variety of special-status species, including for special-status plants, coastal California gnatcatcher, least Bell's vireo, and San Bernardino kangaroo rat. Based on this analysis, a number of measures were developed to avoid, minimize, and/or mitigate potential adverse impacts on these species and their habitat, including a number of APMs listed in Section 4.3.5 and measures developed as part of the Draft PEIR listed in Section 4.3.6.

Additionally, please refer to Response GR-1.

C-53 The commenter states that a mitigation ratio of 1:1 fails to consider immediate impacts to wildlife using the area as nesting or foraging habitat and that all permanent impacts to wildlife need to be mitigated at a higher ratio.

Please refer to Responses GR-4, C-23, and C-57.

C-54 **CDFW Mitigation Measure #1.** CDFW recommends that Metropolitan follow the guidelines provided in the *Staff Report on Burrowing Owl Mitigation* (CDFG 2012b) to avoid impacts to burrowing owls.

Please refer to Response C-50 regarding surveys for burrowing owl to avoid impacts to this species, including take.

C-55 **CDFW Mitigation Measure #2.** CDFW states that use of rodenticides can result in poisoning of burrowing owl and should be avoided.

Please refer to Response C-50 regarding the use of rodenticides as part of any rodent-control program.

C-56 **CDFW Mitigation Measure #3.** CDFW recommends that the Final PEIR include routine maintenance activities, including activity location and time of year, in the impact analysis.

Section 4.3.6.5 of the draft PEIR analyzes the potential impacts to biological resources associated with routine O&M activities. However, at this time, the precise location of routine O&M activities are not delineated because details of each activity is not fully known at this time. Metropolitan will review routine O&M activities, where appropriate, to ensure consistency with state and federal environmental regulations. The internal review process includes evaluating the site and activity to determine whether the environmental effects of the action were covered in the PEIR (per Section 15618[c][4] of the CEQA Guidelines). The PEIR serves a valuable purpose as the first-tier environmental analysis, used to address impacts, including cumulative impacts that have been adequately addressed at the program level. More specifically, if a future subsequent activity under the proposed program would have effects that were not examined in the PEIR, Metropolitan would evaluate the future activities by preparing an initial study or similar device. If new significant effects are identified, a supplemental CEQA document would be prepared to evaluate project-specific aspects of any subsequent activities or projects that were not adequately addressed in the PEIR. As required by CEQA, Metropolitan would circulate these documents for public review and comment and a Notice of Determination would be filed with the State Clearinghouse. In some cases, where the project-specific activity would require minor changes or additions, an Addendum to the PEIR may be appropriate provided none of the conditions calling for preparation of a Supplemental or a Subsequent EIR have occurred (CEQA Guidelines Sections 15162, 15163, and 15164[a]). For those activities determined to be adequately evaluated under the PEIR, Metropolitan would file a Notice of Determination with the State Clearinghouse prior to commencing work.

Please refer to Response GR-1 for additional information.

C-57 **CDFW Mitigation Measure #4.** CDFW states that, per CEQA, mitigation should be roughly proportional to the level of impacts and should be effective, specific, feasible, and enforceable. CDFW asserts that, pursuant to current scientific literature, mitigation for burrowing owl habitat loss necessitates replacement with an equivalent or greater amount

of suitable owl habitat. CDFW also states that impacts to least Bell's vireo and coastal California gnatcatcher habitat should employ the same logic.

CDFW is correct that mitigation under CEQA should be roughly proportional to the level of impact, as supported, per CDFW, by current literature. As listed in Table 4.3-9 in the Draft PEIR, the loss of habitat associated with the proposed program amounts to: (1) a permanent loss of 0.23 acres (0.18% of the available habitat within the program-wide area and temporary loss of 0.07 acres of burrowing owl habitat; (2) a permanent loss of 0.01 acres (0.013%) of least Bell's vireo habitat; and (3) a permanent loss of 0.41 acres (0.03%) and temporary loss of 0.31 acres of coastal California gnatcatcher habitat. As noted in Table 4.3-11 in the Draft PEIR, the loss of habitat for these species would be spread throughout the proposed program area in small and fragmented habitat patches, would occur incrementally over time, and would represent a very small percentage of the total suitable habitat for each of these species that would remain within the program area. Also, many of the impacts would be to habitat that is adjacent to existing development or disturbed areas, such as roads and residential development, and within areas that are currently within existing routine O&M areas, minimizing the quality of the habitat. As described on page 4.3-42 of the Draft PEIR, "A substantial amount of suitable habitat would remain in the vicinity that could be used by these species, and the small loss of habitat would not affect regional populations." As such, and as stated on the same page, "with the exception of coastal California gnatcatcher, least Bell's vireo, and San Bernardino kangaroo rat, the loss of suitable habitat (except nests) for special-status wildlife would be less than significant." As stated on page 4.3-38 of the Draft PEIR, direct permanent and temporary impacts to habitat for burrowing owl would be less than significant because the small loss of suitable habitat would not substantially reduce the population of these species in the vicinity of the CIP project and single-occurrence O&M activity areas, especially given the large area of suitable habitat that would remain available to these species in the vicinity. Therefore, no mitigation for habitat loss associated with burrowing owl is required under CEQA for impacts determined to be less than significant.

As discussed in Section 4.3.6.4 of the Draft PEIR, because the coastal California gnatcatcher and least Bell's vireo are federally listed as endangered (with least Bell's vireo also state listed as endangered), any loss of habitat could be a significant impact absent mitigation. However, as described, implementation of MM-BIO-2 would provide 1:1 mitigation for temporary loss of suitable habitat for any federally listed species, as well as mitigation for permanent habitat loss through preservation or funding of a mitigation bank or in-lieu fee program at a 1:1 ratio. Also, many of the impacts would be to habitat that is adjacent to existing development or disturbed areas such as roads and residential development. In contrast, the mitigation would be part of a larger high-quality block of habitat contiguous with other habitat blocks, providing higher functions and values than

the habitat that is being impacted; this justifies a ratio of 1:1. This mitigation is considered roughly proportional to the impact and meets CDFW's suggested criteria of replacing habitat loss at an equivalent or greater amount.

Please refer to Response C-67 for additional information.

C-58 **CDFW Mitigation Measure #5.** CDFW recommends that the Final PEIR include surveys for southwestern willow flycatcher in accordance with the USFWS 2000 protocol.

Please refer to Responses C-49 and GR-1.

Additionally, the most current survey protocol is *A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher* (USGS 2010) (see https://www.fws.gov/ventura/endangered/species/surveys-protocol.html and https://wildlife.ca.gov/Conservation/Survey-Protocols#377281284-birds).

C-59 **CDFW Comment #5: San Bernardino Kangaroo Rat.** CDFW correctly restates the direct impact assessment for San Bernardino kangaroo rat (kangaroo rat) but questions the ability of MM-BIO-3 and MM-BIO-4 to confirm the absence of take of the species. CDFW states that only protocol surveys could adequately determine presence or absence of the kangaroo rat. CDFW states that the kangaroo rat is a state candidate species and take will be prohibited unless authorization pursuant to CESA is obtained. CDFW further states that surveys were performed during the winter and that without protocol surveys prior to program activities, take is likely.

Focused protocol surveys for kangaroo rat were within the survey and permit parameters for the species. Metropolitan considers the surveys adequate for CEQA purposes.

MM-BIO-3 has been revised to more clearly state that focused surveys for listed species will be conducted prior to construction of CIP projects and single-occurrence O&M activities. MM-BIO-3 has been revised as follows:

MM-BIO-3 **Pre-Construction Biological Surveys.** Prior to the start of ground-disturbing construction or vegetation removal associated with Capital Investment Plan (CIP) projects and single-occurrence Operations and Maintenance (O&M) activities, pre-construction surveys for non-listed special-status plant or wildlife species shall be conducted in areas of suitable habitat within 300 feet of ground-disturbing activities, as property access allows. If listed special-status plant or wildlife species habitat is ~~are~~ located, then ~~during the~~ focused surveys~~,~~ will be performed for those species and if they are detected, MM-BIO-2 will be implemented. For all special-status species, ~~then their~~ locations shall be mapped and monitored for avoidance (MM-BIO-4).

This measure ensures that focused surveys will be performed for this species where suitable habitat occurs. Further, MM-BIO-2 requires minimum mitigation for impacts to listed species habitat and discusses the need for additional consultation and possible take permitting with CDFW or USFWS if impacts to listed species are anticipated. These measures do not obviate the need for Metropolitan to adhere to all state and federal regulations outside the CEQA arena. Metropolitan would still be required to consult for listed species regardless.

CDFW correctly states that the kangaroo rat is currently a candidate state species that enjoys the protections of a state-listed species. The CDFW state review report is due on August 23, 2020 (CFGC 2020). If at that time CDFW determines that listing is appropriate, the recommendation will then proceed to the California Fish and Game Commission (CFGC) for approval. If CFGC finds that the petitioned action is not warranted, the process will end and the species will be removed from the list of candidate species. If CFGC finds that the petitioned action is warranted, the species will be added to the list of threatened and endangered species through a regulation change. If program actions occur while the kangaroo rat is a candidate or after CFGC determines that listing is warranted, then consultation and possible permitting would be required through CDFW. Regardless, the species is federally listed and any potential take of the species would require federal consultation.

C-60 **CDFW Mitigation Measure #1.** CDFW recommends that Metropolitan obtain an incidental take permit for San Bernardino kangaroo rat.

The comment is noted. As indicated in Response C-59, implementation of CEQA mitigation measures does not preclude a project proponent from other legal obligations, including consultation with CDFW and USFWS regarding listed species and possible incidental take permitting where necessary. As such, the mitigation measures that have already been proposed (MM-BIO-2) and the additional need to consult as necessary address this comment.

C-61 **CDFW Mitigation Measure #2.** CDFW recommends that Metropolitan perform protocol-level surveys for San Bernardino kangaroo rat prior to the start of program activities.

As indicated in Response C-59, MM-BIO-3 already requires pre-construction surveys for special-status species, which includes the kangaroo rat. Further, MM-BIO-2 requires consultation with CDFW and/or USFWS if there might be take of a listed species. This consultation could result in additional minimization or mitigation requirements.

Please refer to Response C-59.

C-62 **CDFW Mitigation Measure #3.** CDFW recommends that Metropolitan develop and submit a Species Avoidance and Mitigation Plan for San Bernardino kangaroo rat to CDFW for review and comment.

Metropolitan believes that APM-BIO-2 (Flagging of Work Limits), MM-BIO-2 (Compensation for Impacts to Federally and State-Listed Species Habitat), MM-BIO-3 (Pre-Construction Biological Surveys), and MM-BIO-4 (Biological Monitoring) adequately direct protective measures to be implemented for the protection of San Bernardino kangaroo rat. No additional plans are necessary.

For further information, please refer to Response GR-4.

C-63 CDFW Comment #6: Impacts to Candidate Endangered Species – Crotch's Bumble Bee

CDFW states that focused surveys were not performed for Crotch's bumble bee (*Bombus crotchii*) due to the proposed program's habitat assessment not taking into account an absence of survey effort in the records because they had not been required until recently. CDFW states that surveys should therefore be performed for Crotch's bumble bee, with specific concern regarding crushing or filling of bee colonies, resulting in injury, death, abandonment of nests, or reduced breeding success.

Metropolitan does not agree that focused surveys are required at this time. While it is true that focused surveys are not regularly performed for this species yet, there have been none detected in the vicinity within the last 75 years. A CDFW Region 5 senior scientist solicited input regarding Crotch's bumble bee habitat preferences from noted bee expert, Keng-Lou Hung. Dr. Hung indicated that the species is found in relatively pristine habitats and likely associated with scrub and chaparral habitats (Hung, pers. comm. 2019). The project will impact approximately 1.4 total acres of scrub and chaparral out of a possible 1,857 acres, or 0.07% of the probable habitat for this species. Based on these reasons, it was assessed that there was a low chance of the species nesting within the affected portion of the alignment and therefore a less than significant impact. However, MM-BIO-3 requires that pre-construction surveys occur. If Crotch's bumble bee is found, then implementation of MM-BIO-2 will be enacted, which would include consultation with CDFW regarding the need for an incidental take permit.

C-64 CDFW Mitigation Measure. CDFW proposes a mitigation measure that would determine whether Crotch's bumble bee is present and indicate when a California Fish and Game Code 2080 Incidental Take Permit might be required.

Metropolitan agrees that pre-construction surveys for this species should occur in compliance with MM-BIO-3 and if found, then MM-BIO-2 would require CDFW consultation. Because this species was determined to have low potential to occur, impacts to potential habitat were considered to be less than significant and thus mitigation is not required.

C-65 CDFW Comment #7: Impacts to California Species of Special Concern

The commenter states that impacts to California species of special concern were determined to be less than significant, routine maintenance activities were not included in the impact analysis, and that no mitigation was required.

Please refer to Response C-20.

According to Section 15125(a) of the CEQA Guidelines, an EIR must include a description of the existing physical environmental condition in the vicinity of the project as it exists at the time when the NOP is published. This environmental setting will normally constitute the baseline condition against which project-related impacts are compared. Therefore, the baseline conditions for the Draft PEIR, unless noted otherwise, are based on conditions that existed in November 2014, when the NOP was published. The baseline for routine O&M activities is that these activities are currently conducted on a regular basis, are temporary, and occur within the existing disturbance footprint. The continuation of routine O&M activities is not likely to change baseline conditions substantially. The proposed O&M activities would be short in duration and would not result in substantial changes to the landscape once completed (e.g., there would be no change or very limited changes in human activity, soil erosion, and hydrology). Therefore, routine O&M activities are not likely to create new substantial permanent impacts to California species of special concern given that this maintenance is already occurring.

Regarding the impact assessment, species were combined into guilds as discussed in Section 4.3.6 of the Draft PEIR. Combining species into guilds is a practice also employed by CDFW, such as in the Joint EIR/Environmental Impact Statement (EIS) for the Newhall Ranch Resource Management and Development Plan and Spineflower Conservation Plan (Dudek 2009). To summarize, impacts to species habitat were considered to be less than significant (except for coastal California gnatcatcher, least Bell's vireo, and San Bernardino kangaroo rat; for these species, habitat loss would be mitigated to less than significant with implementation of MM-BIO-2) due to the limited scope of impacts, wide dispersion of impacts over a broad area, lack of certain habitat requirements, and abundance of available habitat for these species. This led to the conclusion that while impacts may occur to California species of special concern and their habitat, the impacts would not be so significant to affect the viability of the population or their ability to maintain gene flow; therefore, impacts would not substantially affect the population. CEQA does not require that any impact to a sensitive resource be determined to be significant. Similarly, CDFW does not have specific adopted thresholds to use for analysis purposes, nor do they provide this information for consideration in the PEIR as part of their NOP comment letter.

C-66 The commenter states that program ground-disturbing activities may result in habitat destruction and injury or death of special-status species occurring or potentially occurring

in the program area. The commenter also states that such activities near bat maternity roosts can cause abandonment of active roosts, resulting in the direct take (death) of any young not able to fly.

Direct and indirect impacts to various special-status species are discussed in detail in Section 4.3.6.3 of the Draft PEIR. As stated in the Draft PEIR, the small permanent and temporary loss of suitable habitat for special-status bats would not substantially reduce the population of these species in the vicinity of the program, especially given the large area of suitable habitat that would remain available to these species in the vicinity. Therefore direct permanent and temporary impacts from the loss of habitat were considered to be less than significant. With respect to potential impacts on bat maternity roosts, MM-BIO-3 would include pre-construction searches for active bat maternity roosts, and MM-BIO-4 would include active monitoring of any such roosts by a qualified biologist to ensure that no adverse impacts to the roosts would occur.

C-67 The commenter states that program implementation may result in direct mortality, population declines, or local extirpation of special-status amphibian, reptile, and mammal species and restates the guidance provided in CEQA Guidelines Section 15065.

The commenter incorrectly states that CEQA provides protection for listed and special-status species. CEQA provides a platform for analysis of the effects of a project on resources. Based on the conclusions of that analysis, mitigation may or may not be warranted. Please refer to Response C-65. While it is concluded that there could be an impact to special-status species, CEQA Guidelines Section 15065(a) discusses when a project may have a significant effect, an EIR would be required. In this case, a PEIR was prepared. Later in Section 15065(a)(1), the CEQA Guidelines further refine the direction to note that an EIR would be required where "The project has the potential to substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; substantially reduce the number or restrict the range of an endangered, rare or threatened species." In this case, it was determined that these did not apply due to the limited scope of impacts, wide dispersion of impacts over a broad area, lack of certain habitat requirements, and abundance of available habitat for these species. As stated in Response C-65, CEQA does not require that any impact to a sensitive resource be determined to be significant. Similarly, CDFW does not have specific adopted thresholds to use for analysis purposes, nor do they provide this information for consideration in the PEIR as part of their NOP comment letter. Furthermore, CDFW's proposal that all impacts to special-status species should be considered significant is not consistent with the Final Subsequent EIR for the Suction Dredge Permitting Program (CDFG 2012a), in which CDFW states that a less than significant impact generally refers to a situation where there is a measurable impact, but the impact is not likely to result in an adverse population-level effect

on a particular species. CDFW is requesting additional effort for the proposed program that is inconsistent with its own level of analysis under CEQA.

C-68 **CDFW Mitigation Measure #1.** CDFW suggests that species surveys be performed by qualified biologists and during the appropriate time of year and conditions. CDFW also requests that survey results be submitted to CDFW within 2 weeks prior to program activities for review.

Metropolitan believes that APM-BIO-1 (Pre-Activity Special-Status Plant Surveys), APM-BIO-2 (Flagging of Work Limits), MM-BIO-1 (Nesting Bird Surveys), MM-BIO-2 (Compensation for Impacts to Federally and State-Listed Species Habitat), MM-BIO-3 (Pre-Construction Biological Surveys), and MM-BIO-4 (Biological Monitoring) adequately direct protective measures to be implemented for the protection of special-status species. No additional requirements or agency reporting, other than that related to listed species, is required by CEQA.

C-69 **CDFW Mitigation Measure #2.** CDFW recommends that bat surveys, using acoustic recognition technology, be conducted by a qualified biologist to determine baseline conditions within the program area and a 500-foot buffer, and that the Draft PEIR should include an analysis of potential impacts on bat species. Further, CDFW states that the final environmental document should include measures to reduce any impacts to sensitive bat species to below a level of significance.

As presented in Table 4.3-4 in the Draft PEIR, three special-status bat species were determined to have a moderate to high potential of occurring within the proposed program area based on the suitability of habitat and known occurrences in the region. As such, no focused surveys were considered necessary to determine presence/absence for the purposes of CEQA. An analysis of potential impacts on these species is provided in detail in Section 4.3.6.3, under Mammal–Moderate Mobility (Pallid Bat, Western Mastiff Bat, Western Yellow Bat, San Diego Black-Tailed Jackrabbit, and American Badger), of the Draft PEIR. As noted in this discussion, adults of these species are highly mobile, so they would be able to avoid injury or mortality from program-related disturbance. With respect to potential impacts on bat maternity roosts, MM-BIO-3 requires pre-construction searches for active bat maternity roosts and MM-BIO-4 requires active monitoring of any such roosts by a qualified biologist to ensure that no adverse impacts to the roosts would occur.

C-70 **CDFW Mitigation Measure #3.** CDFW states that permanent impacts to occupied habitat for California species of special concern should be offset by a conservation easement and that a mitigation plan should be provided to CDFW for review and comment.

Please refer to Responses GR-4, C-65, and C-67 regarding the impact analysis conclusions for California species of special concern and the consequent need for mitigation for these species.

C-71 **CDFW Mitigation Measure #4.** CDFW recommends that, for areas proposed for preservation/restoration, the final environmental document should include measures to protect habitat values in perpetuity targeted from direct and indirect adverse impacts in order to offset program-induced qualitative and quantitative losses of wildlife habitat values. To accomplish this, CDFW recommends that an endowment be provided for the long-term monitoring and management of mitigation lands.

Please refer to Response C-57 regarding the significance of impacts on habitat for special-status wildlife species and measures to mitigate those impacts. As noted, for those species for which habitat impacts were considered significant under CEQA, implementation of MM-BIO-2 would provide 1:1 mitigation for temporary loss of suitable habitat for any federally listed species, as well as mitigation for permanent habitat loss through preservation or funding of a mitigation bank or in-lieu fee program at a 1:1 ratio. These programs include long-term monitoring and management of mitigation lands. Currently, mitigation banking options are available at the Cajon Creek Habitat Conservation Management Area, Lytle Creek Conservation Bank, and Soquel Canyon Mitigation Bank, among other areas. This mitigation is considered roughly proportional to the impact, pursuant to CEQA, and is expected to address the protection of habitat values suggested in the comment.

C-72 **CDFW Mitigation Measure #5.** CDFW disagrees with the conclusion in the Draft PEIR that no western spadefoot (*Spea hammondii*) breeding pools would be impacted by the program because a juvenile spadefoot was found during surveys.

Metropolitan disagrees with CDFW. Section 4.3, Biological Resources, of the Draft PEIR states that "Based on the extensive surveys that have been conducted, no breeding pools occur within the CIP project areas or the single-occurrence O&M activity areas. Therefore, no impacts to western spadefoot aquatic breeding habitat would occur." It is not uncommon to find western spadefoot in upland areas—indeed, they spend most of their life away from ephemeral breeding ponds and in the surrounding uplands. The juvenile western spadefoot that was mentioned by CDFW was San Bernardino kangaroo rat by-catch, trapped in an upland area in Rancho Cucamonga where there are no standing pools. The soils in that area preclude the formation of pools that would last the requisite time to support spadefoot. The analysis in the Draft PEIR contemplated the program's potential effects on western spadefoot upland habitat and determined that the permanent impacts to 1.76 acres and temporary impacts to an additional 1 acre (or 0.15% of the available 1,834 modeled acres of upland habitat) were less than significant. Therefore, no mitigation was required.

C-73 CDFW Comment #8: Impacts to Aquatic Species.

CDFW Issue #1. The commenter states that grouted riprap, concrete base for road improvements, and Arizona crossings have the potential to impact aquatic species due to the potential for downstream pollution, obstruction of stream flows and passage of aquatic species, and changes in hydrology and sediment transport.

The PEIR presents a range of options for patrol road maintenance, including Arizona crossings, treated-concrete base product, and riprap. The goal of the road maintenance activities is to reduce erosion and ensure that roads are passable. To reduce impacts to hydrology and water quality from erosion control and road maintenance activities, APM-HYD-1 through APM-HYD-11 (see Section 4.8.4 of the Draft PEIR) would be implemented. These measures would reduce the potential for downstream pollution, alteration or obstruction of stream flows and passage, and changes in hydrology and sediment transport, thereby reducing potential impacts to aquatic species not directly addressed in Chapter 4.3.

C-74 **CDFW Mitigation Measure #1.** CDFW proposes excluding grout and road base containing concrete from slope stabilization and road maintenance activities.

The PEIR provides Metropolitan with a range of options for slope stabilization and road maintenance activities. Not all proposed methods would be used in all locations, but including the entire range is useful for specific cases where those methods would be appropriate.

C-75 **CDFW Mitigation Measure #2.** CDFW proposes additional analysis of Arizona crossings using current hydrologic reports that consider fish passage and sediment transport.

The locations of proposed low-water crossings are all upstream of San Sevaine Flood Control Channel. Flow in this portion of the channel is ephemeral, and based on aerial maps, connectivity to downstream drainages ends at Wilson Avenue. South of Wilson Avenue, San Sevaine is a series of basins for groundwater percolation that terminate at a spillway to Etiwanda Creek. As a result, upstream fish passage from Etiwanda Creek is not possible due to the gradient and length of the spill channel, which would preclude fish passage. Downstream fish passage that may occur during winter or spring flows would not be affected by low-water crossings.

Arizona crossings would be designed to maintain existing conditions with regard to fish passage and sediment transport by adhering to APM-HYD-7 (Maintenance of Existing Hydrology). Stream crossing structures would be designed to maintain water depths and water velocities comparable to those found in natural areas upstream and downstream of the crossing.

Furthermore, CDFW's proposal of additional analysis of Arizona crossings using current hydrologic reports that consider fish passage and sediment transport is not consistent with the Draft Environmental Impact Statement and Environmental Impact Report and Draft Land Use Plan Amendment (EIR/EIS/LUPA) for the Crimson Solar Project (BLM and CDFW 2019), in which CDFW, specifically Region 6, is the lead agency under CEQA. Arizona crossings are proposed with armored riprap and concrete to "maximize avoidance and minimize impacts on washes." No hydrologic reports or additional impact analysis are provided in the Draft EIR/EIS/LUPA. CDFW is requesting additional effort for the proposed program that is inconsistent with its own level of analysis under CEQA for a similar proposed project feature within the same CDFW Region.

C-76 CDFW Comment #9: General Comments.

The commenter states that relying on future surveys, the preparation of future management plans, or mitigating by obtaining permits are considered deferred mitigation under CEQA.

Please refer to Response GR-1.

C-77 CDFW Additional Recommendations. CDFW suggests additional language be inserted into MM-BIO-2 in the Draft PEIR, including the acquisition of an incidental take permit where there is a potential for take of a state- or federally listed species. CDFW also suggests that temporarily impacted habitat be restored at a minimum 3:1 ratio instead of the 1:1 ratio currently included in this measure.

MM-BIO-2 includes text that requires direct impacts to any habitat occupied by a federally listed species to be addressed through either the Section 7 or Section 10(a)(1)(B) process under the federal ESA. The measure also includes similar language for any impacts to state-listed species that would be addressed through the California Fish and Game Code Section 2081(b) Incidental Take Permit process.

See Response C-57 regarding the adequacy of the 1:1 restoration ratio for temporary impacts to suitable habitat for listed species by the proposed program. As stated in MM-BIO-2 in the Draft PEIR, areas temporarily impacted "shall be returned to similar conditions to those that existed prior to grading and/or ground-disturbing activities." This mitigation is considered roughly proportional to the impact, in accordance with the provisions of CEQA (14 CCR 15126.4[a][4][B], 15064, 15065, and 16355), and also meets CDFW's suggested criteria in Comment C-57 of replacing habitat loss "with an equivalent or greater habitat area."

Please refer to Response GR-4 for additional information.

C-78 CDFW suggests that the habitat compensation ratio in MM-BIO-2 in the Draft PEIR for permanent habitat loss of suitable habitat for federally or state-listed species be increased from the existing 1:1 ratio to a minimum 3:1 ratio.

Please refer to Response C-77 regarding habitat replacement ratios.

C-79 CDFW recommends that MM-BIO-3 in the Draft PEIR, which addresses pre-construction surveys for special-status plant or wildlife species, be revised to state that such surveys should be conducted within 500 feet of ground-disturbing activities instead of the 300 feet currently required in the measure. CDFW also recommends that the measure be modified to incorporate the following language for cases where special-status plant or wildlife species are observed within areas proposed for ground-disturbance activities during the pre-construction surveys: "If avoidance is not feasible, the project activities will not begin until an Incidental Take Permit is obtained from CDFW and/or USFWS authorizing the 'take' of the species."

Please refer to Response C-48 related to the recommendation of a 500-foot buffer. Regarding an incidental take permit, see Responses C-59, C-60, and C-77.

C-80 CDFW recommends that MM-BIO-4 be modified to incorporate the following language: "CDFW shall be notified at least three days before monitoring ends, or within 24 hours, whichever is longer."

The comment is unclear as to the purpose of the requested revision to MM-BIO-4. This measure requires that a qualified biologist conduct the monitoring and determine, based on site conditions and the potential for species to be impacted, when monitoring shall be discontinued. If there is a concern by the qualified biologist regarding potential impacts on a species regulated by CDFW, the biologist will contact CDFW, as appropriate.

C-81 CDFW states that payment of the filing fee is required for the underlying program approval to be operative, vested, and final.

Metropolitan is aware that a filing fee to CDFW is required. The CDFW filing fee will be paid when filing the Notice of Determination, which will happen within 5 days of Metropolitan's Board of Directors certifying the PEIR.

C-82 CDFW requests the opportunity to review and comment on any response that Metropolitan has and to receive notification of any forthcoming hearing date(s) for the proposed program.

Pursuant to CEQA Guidelines 15088(b), Evaluation of and Response to Comments, Metropolitan, serving as CEQA lead agency, is required to provide a written proposed response, in a printed copy or in an electronic format, to any public agency, such as CDFW, that has commented on the Draft EIR, at least 10 days prior to certifying an EIR. As a

matter of normal process and policy, Metropolitan will notify CDFW of all proposed responses at least 10 days in advance of Metropolitan's Board Meeting where this program and PEIR will be considered. This advance notice will also note the date, time, and location of the hearing at which this PEIR will be considered for certification.

2.3 References

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3 Changes to the Draft Program Environmental Impact Report

3.1 Introduction

All additions or correction to the Draft Program Environmental Impact Report (PEIR) text, tables, and figures generated either from responses to comments or independently by The Metropolitan Water District of Southern California (Metropolitan) are stated in this chapter of the Final PEIR.

As provided in Section 15088(c) of the California Environmental Quality Act (CEQA) Guidelines, responses to comments may take the form of a revision to a Draft EIR or may be a separate section in the Final EIR. This chapter complies with the latter, and provides changes to the Draft PEIR presented in strikethrough text (i.e., ~~strikethrough~~) signifying deletions, and underline text (i.e., underline) signifying additions. These notations are meant to provide clarification, corrections, or minor revisions needed as a result of public comments or because of changes in the proposed Western San Bernardino County Distribution System Infrastructure Protection Program (DSIPP; proposed program) since the release of the Draft PEIR, as required by Section 15132 of the CEQA Guidelines. None of the corrections or additions constitutes significant new information or substantial program changes requiring recirculation of the PEIR, as defined by Section 15088.5 of the CEQA Guidelines. The Draft PEIR revisions are incorporated as part of the Final PEIR for consideration by Metropolitan's Board of Directors.

3.2 Changes to the Draft Program Environmental Impact Report

Changes to the Draft PEIR are provided in this section. Page numbers correspond to the Draft PEIR. After the location or locations of the changes (by page number), a brief explanation of the nature of the change is provided, followed by the text from the Draft PEIR with changes shown in ~~strikethrough~~ and underline.

Pages E-14 and 3-21

*Comment Letter C suggested clarification regarding potential impacts to burrowing owl (*Athene cunicularia*) from the proposed program. To clarify that rodenticides (which could adversely affect burrowing owls) will not be used for rodent control as part of any O&M activities, the following paragraph, which appears in both Section E.4.2, Description of Proposed O&M Activities, of the Executive Summary and in Section 3.6.1.3, Routine Structure Maintenance, Repair, and Replacement, of the Draft PEIR, has been revised as shown below in underline.*

Vegetation trimming, mowing, and clearing, as well as weed abatement, for aboveground structures would occur in a similar manner as that described along patrol roads. Metropolitan-approved pesticides/herbicides would be applied by, contracted, licensed sprayers, as needed, for safety reasons and to avoid damage to electrical systems and other Metropolitan structures. Targeted pests include rats, mice, spiders, bees, and wasps. Rodenticide use on the distribution system is not included as part of the rodent control program. Vegetation maintenance and pesticide/herbicide application is currently performed within a 10-foot radius of the appurtenant structures; however, as part of the proposed program, this area could be extended up to 20 feet where property and environmental constraints do not exist.

Pages E-22 and 4.3-44 of the Draft PEIR; page 43 of Appendix A (O&M Manual)

In response to Comment Letter C, which recommended that no construction occur from February 15 (January 1 for raptors) through August 31, Mitigation Measure (MM) BIO-1 has been revised as shown below in ~~strikethrough~~/underline.

MM-BIO-1 **Nesting Bird Surveys.** For all proposed program activities, grading or vegetation clearing, cutting, and removal shall be scheduled to occur during the non-breeding season for birds (September 1 through January 31). If grading or vegetation clearing, cutting, or removal are required during the breeding season (February 1 through August 31, or January 1 through August 31 for raptors), then a qualified biologist shall survey all potential nesting vegetation within ~~100 feet of~~ an appropriate distance from the grading limits for nesting birds prior to grading activities, as property access allows and depending on factors such as habitat suitability; focal species' known tolerance to human activities and noise; the timing, intensity, and extent of the activities; and the presence of vegetation and topographical screening. Between January 1 and February 1, nesting surveys for raptors will be required only if there is suitable raptor nesting habitat within or adjacent to the grading or vegetation removal area. The purpose of the surveys shall be to determine if active nests of special-status or other protected birds are present within the vicinity of the work area. The survey shall be conducted within 7 days prior to the start of work. If no nesting birds are observed, project activities may commence. If an active nest is located, the site shall be marked, and an appropriate buffer established, based on site conditions, nesting species, and construction activity. The buffer area shall not be disturbed until after birds have fledged. The qualified biologist, in conjunction with Metropolitan's Environmental Planning staff, will determine when construction activities may resume in the area. In the event that a threatened or endangered species is located within the survey area and avoidance is not feasible, consultation with the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife shall be required.

Pages E-23 and 4.3-45 of the Draft PEIR; page 44 of Appendix A (O&M Manual)

In response to Comment Letter C, which questioned the adequacy of the surveys noted in the Draft PEIR, MM-BIO-3 has been revised as shown below in ~~strikethrough~~/underline to clarify the adequacy of the surveys under CEQA.

MM-BIO-3 **Pre-Construction Biological Surveys.** Prior to the start of ground-disturbing construction or vegetation removal associated with Capital Investment Plan (CIP) projects and single-occurrence Operations and Maintenance (O&M) activities, pre-construction surveys for non-listed special-status plant or wildlife species shall be conducted in areas of suitable habitat within 300 feet of ground-disturbing activities, as property access allows. If listed special-status plant or wildlife species habitat is ~~are~~ located, then ~~during the~~ focused surveys~~,~~ will be performed for those species and if they are detected, MM-BIO-2 will be implemented. For all special-status species, ~~then their~~ locations shall be mapped and monitored for avoidance (MM-BIO-4).

Pages 4.3-2, 4.3-51, 4.3-58, 4.3-65, 4.3-70, and 4.3-77

Comment Letter A notes that the Notice of Availability of the Final Upper Santa Ana River Wash Habitat Conservation Plan (Wash Plan) and the joint Final Environmental Impact Statement/Supplemental Environmental Impact Report was published in the Federal Register on May 15, 2020. In response, references to the Wash Plan have been changed to reflect this update, as shown below. These changes have been made on the page numbers listed above in Section 4.3.1.1, Literature Review; Section 4.3.6.4, CIP Projects; Section 4.3.6.5, O&M Activities; and Chapter 8, References. An example from page 4.3-2 is shown in ~~strikethrough~~/underline below. Note that because this is not a substantive change, it is depicted once below but not repeated for every instance in the Draft PEIR.

- Draft Environmental Impact Statement/Supplemental Environmental Impact Report Proposed Habitat Conservation Plan and Section 10 Permit for the Upper Santa Ana River Wash Plan (USFWS and SBVWCD ~~2019~~ 2020)

Pages 4.3-22 and 4.3-23

Comment Letter A notes that the Notice of Availability of the Final Wash Plan and the joint Final Environmental Impact Statement/Supplemental Environmental Impact Report was published in the Federal Register on May 15, 2020. As such, Section 4.3, Biological Resources, has been revised as shown below in ~~strikethrough~~/underline to reflect the updated status of the Wash Plan.

Upper Santa Ana River Wash Habitat Conservation Plan

The Upper Santa Ana River Wash Habitat Conservation Plan (Wash Plan) encompasses approximately 4,800 acres and includes lands within the jurisdiction of the County of San Bernardino, the Cities of

Highland and Redlands, and the Bureau of Land Management. It includes a large reach of the Santa Ana River and Plunge Creek and a small portion of Mill Creek just above its confluence with the Santa Ana River. The existing Santa Ana River Woollystar Preservation Area also overlaps the Wash Plan area. The Wash Plan would cover three federally endangered species, the San Bernardino kangaroo rat, Santa Ana River woollystar, and slender-horned spineflower (*Dodecahema leptoceras*); one federally threatened species, the coastal California gnatcatcher; and the coastal cactus wren (*Campylorhynchus brunneicapillus*). It would mitigate for the impacts of mining, groundwater recharge, road improvements, wells, trails, and other activities; these include new facilities/activities as well as the operation and maintenance of existing facilities. ~~The Wash Plan has completed the public review process as of January 21, 2020, with a draft that was released in January 2018.~~ The Notice of Availability of the Final Wash Plan and the joint Final Environmental Impact Statement/Supplemental Environmental Impact Report was published in the Federal Register on May 15, 2020.

Page 4.7-21

This page of the Draft PEIR has been revised as shown below in ~~strikethrough~~/underline for consistency between Impact NOI-5 and Impact TR-6.

Impact HAZ-7: Safety Hazard near a Public Airport

Existing Metropolitan pipelines are located within 2 miles of Redlands Municipal Airport, ~~and~~ San Bernardino International Airport, and Rialto Municipal Airport, and the Upper Feeder is located within 2 miles of Ontario International Airport; therefore, proposed CIP projects and O&M activities would occur within this area. Program activities, however, would be unlikely to result in a safety hazard for those working or residing in the area. Proposed CIP projects and O&M activities would not result in construction of facilities or structures that could visually or physically obstruct flight paths or roads leading to Redlands Municipal Airport, San Bernardino International Airport, Rialto Municipal Airport, or Ontario International Airport, and maintenance activities are currently ongoing in this area. Federal Aviation Administration noticing criteria are not applicable to the proposed program because no new structures would be erected and all existing surface infrastructure is low profile or flush with the ground. Metropolitan employees would potentially be exposed to noise or dangers associated with nearby air traffic; however, work in these areas would be temporary and short term, reducing the likelihood that employees would be significantly impacted by these effects. These impacts would be less than significant.

Page 4.9-8

Comment Letter A states that there is a discrepancy between Section 4.3, Biological Resources, and Section 4.9, Land Use and Planning, of the Draft PEIR regarding whether there would be impacts to areas included in the Wash Plan from slope stabilization (CIP Activity Code No. 3) and single-occurrence O&M activities (O&M Activity Code No. 15). No impacts would occur to areas included in the Wash Plan from slope stabilization and single-occurrence O&M activities, as indicated in Section

4.3, Biological Resources. As such, these activities would not conflict with the Wash Plan and no coordination regarding the implementation of slope stabilization and single-occurrence O&M activities would be necessary. Section 4.9, Land Use and Planning, has been revised accordingly on page 4.9-8, as shown in ~~strikethrough~~/underline below.

Impact LU-2: Conflict with an HCP/NCCP

None of the slope stabilization projects would occur within the boundaries of the Wash Plan. Therefore, there would be no conflicts with the HCP and no impacts would occur. ~~As with patrol road improvements and paving projects, Metropolitan would coordinate slope stabilization closely with the County to ensure that no impacts would occur to sensitive resources. Metropolitan would implement avoidance and minimization measures during slope stabilization implementation to ensure activities do not conflict with the Wash Plan; therefore, impacts would be less than significant, and no mitigation is required.~~

Page 4.9-10

As pointed out in Comment Letter A, no impacts would occur to areas included in the Wash Plan from slope stabilization and single-occurrence O&M activities (see discussion under Page 4.9-8, above); therefore, Section 4.9, Land Use and Planning, has been revised on page 4.9-10 of the Draft PEIR as shown in ~~strikethrough~~/underline below.

Impact LU-2: Conflict with an HCP/NCCP

A portion of the proposed program area (Inland Feeder) is within the boundaries of the Wash Plan, however no single-occurrence O&M activities are proposed along the Inland Feeder or within the Wash Plan. None of the single-occurrence O&M activities would occur within the boundaries of the Wash Plan. Therefore, no impacts would occur relating to conflicts with an HCP. ~~Metropolitan would coordinate activities to ensure that no impacts would occur to sensitive resources should a single-occurrence O&M activity be required in the future. Metropolitan would implement avoidance and minimization measures during single-occurrence O&M activity implementation to ensure that activities do not conflict with the Wash Plan; therefore, impacts would be less than significant, and no mitigation is required~~.

Page 4.10-21

This text was carried into the Draft PEIR as one of the Impacts Found Not to Be Significant from the 2014 Initial Study. However, between the publication of the 2014 Initial Study and the release of the Draft PEIR, the proposed program no longer included projects or activities that were in Riverside County. Therefore, Riverside Municipal Airport is no longer within 2 miles of the proposed program, and the Draft PEIR has been amended accordingly as shown below in ~~strikethrough~~/underline.

Impact NOI-5: Excessive Noise Levels near Public Airport or Public Use Airport

Existing Metropolitan pipelines and structures are located within 2 miles of several airports, including the Rialto Municipal Airport, San Bernardino International Airport (formerly Norton Air Force Base), Redlands Municipal Airport, ~~Riverside Municipal Airport,~~ and Ontario International Airport; therefore, proposed CIP projects and O&M activities could occur within this area. Proposed program activities, however, would be unlikely to result in excessive noise levels for those working or residing in the proposed program area. Proposed CIP projects and O&M activities would not result in construction of facilities or structures that would create permanent, long-term noise impacts. Although the proposed construction of CIP projects and implementation of O&M activities would result in higher noise levels associated with heavy equipment, these types of activities are currently ongoing in this area, and proposed program-related construction activities would be short term and temporary, thus reducing the likelihood that people residing or working in the area would be exposed to excessive noise levels. Impacts would be less than significant.

Page 4.12-20

The text on this page has been revised for consistency between Impact HAZ-7 and Impact NOI-5, as shown in ~~strikethrough~~/underline below.

Impact TR-6: Change in Air Traffic Patterns

Proposed CIP projects and O&M activities would occur within 2 miles of Redlands Municipal Airport, San Bernardino International Airport, Ontario International Airport, Rialto Municipal Airport, and Cable Airport. The proposed program, however, would not result in construction of facilities or structures that could visually or physically obstruct flight paths leading to and from these airports. Proposed CIP projects and O&M activities would not result in a change in air traffic levels or patterns, or change the level of risk; therefore, the proposed CIP projects and O&M activities would not result in air traffic impacts.

Page 8-6

Comment Letter A notes that the Notice of Availability of the Final Wash Plan and the joint Final Environmental Impact Statement/Supplemental Environmental Impact Report was published in the Federal Register on May 15, 2020. As such, Section 4.3, Biological Resources, has been revised as shown below in ~~strikethrough~~/underline to reflect the updated status of the Wash Plan.

USFWS and SBVWCD (U.S. Fish and Wildlife Service and San Bernardino Valley Water Conservation District). 2019. ~~*Draft*~~ *Final Environmental Impact Statement/Supplemental Environmental Impact Report: Proposed Habitat Conservation Plan and Section 10 Permit for the Upper Santa Ana River Wash Plan*. SCH No. 2015031022 SEIR. Prepared by Ruth Villalobos & Associates Inc., ELMT Consulting, and Michael Baker International. ~~December 2019~~ May 2020. https://www.sbvwcd.org/our-projects/wash-plan.html.

4 Findings of Fact in Support of the Proposed Program

This statement of Findings of Fact (Findings) addresses the environmental effects associated with the proposed Western San Bernardino County Distribution System Infrastructure Protection Program (DSIPP; proposed program), as described in the draft program environmental impact report (PEIR). These Findings are made pursuant to the California Environmental Quality Act (CEQA; California Public Resources Code, Section 21000 et seq.), specifically California Public Resources Code, Sections 21081, 21081.5, and 21081.6, and the CEQA Guidelines (14 CCR 15000 et seq.), specifically Sections 15091 and 15093. The Draft PEIR examines the full range of potential effects of construction and operation of the proposed program and identifies standard mitigation practices that could be employed to reduce, minimize, or avoid those potential effects.

4.1 Purpose

CEQA Section 21081 and CEQA Guidelines Section 15091 require that the lead agency, in this case The Metropolitan Water District of Southern California (Metropolitan), prepare written findings for identified significant effects, accompanied by a brief explanation of the rationale for each finding. Specifically, CEQA Guidelines Section 15091 states, in part, that:

a) No public agency shall approve or carry out a project for which an EIR [environmental impact report] has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. The possible findings are:
    1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effect as identified in the final EIR.
    2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
    3) Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

In accordance with CEQA Section 21081 and CEQA Guidelines Section 15093, whenever significant effects cannot be mitigated to below a level of significance, the decision-making agency is required to balance, as applicable, the benefits of the project against its unavoidable environmental risks when determining whether to approve the project. If the benefits of a project outweigh the

unavoidable adverse environmental effects, the adverse effects may be considered "acceptable." In that case, the decision-making agency may prepare and adopt a Statement of Overriding Considerations, pursuant to the CEQA Guidelines.

Section 15093 of the CEQA Guidelines states:

a) CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable."

b) When the lead agency approves a project which will result in the occurrence of significant effects which are identified in the final EIR but are not avoided or substantially lessened, the agency shall state in writing the specific reasons to support its action based on the Final EIR and/or other information in the record. The statement of overriding considerations shall be supported by substantial evidence in the record.

c) If an agency makes a statement of overriding considerations, the statement should be included in the record of the project approval and should be mentioned in the notice of determination. This statement does not substitute for, and shall be in addition to, findings required pursuant to Section 15091.

None of the environmental impacts identified in the PEIR were found to be significant and unavoidable. Metropolitan finds that the inclusion of certain mitigation measures as part of the approval of the proposed program will reduce all of those effects to less than significant levels.

As required by CEQA, Metropolitan, in adopting these findings, also adopts a Mitigation Monitoring and Reporting Program (MMRP) for the proposed program (Chapter 5 of this Final PEIR). Metropolitan finds that the MMRP, which is incorporated by reference and included as part of this Final PEIR, meets the requirements of CEQA Section 21081.6, by providing for the implementation and monitoring of measures intended to mitigate potentially significant effects of the proposed program.

In accordance with CEQA and the CEQA Guidelines, Metropolitan adopts these findings as part of its certification of the Final PEIR for the proposed program. Pursuant to CEQA Section 21082.1(c)(3), Metropolitan also finds that the Final PEIR reflects Metropolitan's independent judgment as the lead agency for the proposed program.

4.1.1 Record of Proceedings

For the purposes of CEQA and the Findings herein set forth, the record of proceedings for the proposed program consists of those items listed in CEQA Section 21167.6(e), along with other

miscellaneous items contained within the Metropolitan's files that are relevant to the consideration of the program. The record of proceedings for Metropolitan's decision on the proposed program consists of the following documents, at a minimum and without limitation, which are incorporated by reference and made part of the record supporting these Findings:

- The Notice of Preparation (NOP), Notice of Availability, and all other public notices issued by Metropolitan in conjunction with the proposed project
- The Draft PEIR for the proposed program and all technical appendices and documents relied on or incorporated by reference
- All written comments submitted by agencies, organizations, or members of the public during the public review comment period on the Draft PEIR and Metropolitan's responses to those comments
- The Final EIR for the proposed program
- The MMRP for the proposed program
- All reports, studies, memoranda, maps, staff reports, or other planning documents relating to the proposed program prepared by Metropolitan or consultants to Metropolitan with respect to Metropolitan's compliance with the requirements of CEQA and with respect to Metropolitan's action on the proposed program
- All documents submitted to Metropolitan by other public agencies or members of the public in connection with the Draft EIR, up through the close of the public review period for the program on June 20, 2020
- Any minutes and/or verbatim transcripts of all information sessions, public meetings, and public hearings held by Metropolitan in connection with the proposed program
- Any documentary or other evidence submitted to Metropolitan at such information sessions, public meetings, and public hearings
- All resolutions adopted by Metropolitan regarding the proposed program, and all staff reports, analyses, and summaries related to the adoption of those resolutions
- Matters of common knowledge to Metropolitan, including, but not limited to federal, state, and local laws and regulations
- Any documents expressly cited in these findings, in addition to those cited above; and any other materials required for the record of proceedings by CEQA Section 21167.6(e)

4.1.2 Custodian and Location of Records

The documents and other materials that constitute the Record of Proceedings for Metropolitan's actions related to the proposed program are located at The Metropolitan Water District of Southern California, 700 North Alameda Street, Los Angeles, California 90012. Metropolitan is the custodian of the Record of Proceedings for the proposed program.

4.2 Impacts Determined to Be Less Than Significant with Mitigation

This section identifies significant adverse impacts of the proposed program that require findings to be made under CEQA Section 21081(a) and CEQA Guidelines Section 15091(a)(1). Based on substantial evidence, Metropolitan finds that adoption of the mitigation measures set forth in this section will reduce the identified significant impacts to less than significant levels.

4.2.1 Biological Resources

4.2.1.1 Potentially Significant Impacts to Biological Resources

Impact BIO-1: Adverse Effects on Special-Status Species

Direct Impacts

Plants

CIP Projects (All) and Single-Occurrence O&M Activities

For all CIP projects and single-occurrence O&M activities that do not commence construction by 2022, in accordance with Applicant Proposed Measure (APM) BIO-1 (see Section 4.2.1.2 for full text of APMs) Metropolitan will complete pre-activity surveys for special-status plant species during the appropriate blooming period for species that have potential to occur. Non-listed special-status plants will be avoided during construction activities as practicable. Installation of protective fencing and erosion and sediment control measures, as appropriate, will be implemented to protect special-status plant populations found near CIP project sites and single-occurrence O&M activity sites.

Routine O&M Activities

Routine O&M activities are currently conducted on a regular basis within the proposed program area, are temporary, and occur within the existing disturbance footprint. These activities would not typically result in significant direct permanent or temporary impacts to special-status plants. Therefore, no significant direct impacts to special-status plants are expected to occur during routine O&M activities.

Wildlife

CIP Projects (All) and Single-Occurrence O&M Activities

Direct permanent impacts associated with CIP projects and single-occurrence O&M activities have the potential to adversely affect special-status wildlife species through loss of breeding and/or foraging habitat. With the exception of coastal California gnatcatcher (*Polioptila californica californica*), least Bell's

vireo (*Vireo bellii pusillus*), and San Bernardino kangaroo rat (*Dipodomys merriami parvus*), the loss of suitable habitat (except nests) for special-status wildlife would be less than significant. A substantial amount of suitable habitat would remain in the vicinity that could be used by these species, and the small loss of habitat would not affect regional populations.

With the exception of coastal California gnatcatcher, least Bell's vireo, and San Bernardino kangaroo rat, the loss of individual special-status wildlife would also be less than significant. Impacts would be very limited in scope and would occur over a large area that would continue to support these species. Therefore, these minor impacts would not affect the sustainability of the regional populations.

For all CIP projects and single-occurrence O&M activities, there would be temporary and permanent loss of suitable habitat for least Bell's vireo, which is a federally and state-listed species; coastal California gnatcatcher, which is a federally listed species; and San Bernardino kangaroo rat, which is a federally listed species and a state candidate species. Any loss of habitat for these species could be a significant impact absent mitigation. Implementation of Mitigation Measure (MM) BIO-2 (see Section 4.2.1.3, Mitigation Measures, for full text of mitigation measures) would provide 1:1 mitigation for temporary loss of suitable habitat for these species, as well as mitigation for permanent habitat loss through preservation or funding of a mitigation bank or in-lieu fee program at a 1:1 ratio.

Impacts to nests, eggs, or nestlings of special-status birds (including coastal California gnatcatcher and least Bell's vireo) would be potentially significant absent mitigation. However, implementation of MM-BIO-1 would ensure that any nests of these species would be detected prior to initiation of program activities, and that impacts to the nests, eggs, and nestlings of any bird species would be avoided. Therefore, implementation of this measure would reduce impacts to nests, eggs, and nestlings of these Bird—Riparian Guild species to less than significant.

Any impacts to individual San Bernardino kangaroo rat would be considered take under the federal Endangered Species Act. Therefore, impacts to individual San Bernardino kangaroo rat would be potentially significant absent mitigation. However, implementation of MM-BIO-3 and MM-BIO-4 would ensure that any individuals or burrows would be detected prior to initiation of program activities and that impacts to individuals would be avoided.

Routine O&M Activities

Routine O&M activities are currently conducted on a regular basis within the proposed program area, are temporary, and occur within the existing disturbance footprint. These activities would not typically result in significant direct permanent or temporary impacts to special-status wildlife.

However, routine O&M activities that are conducted during the breeding season (February 1 through August 31) could result in direct impacts to nesting birds. Direct impacts to individual special-status wildlife, active nests, or the young of nesting special-status bird species would be significant, absent mitigation. If routine O&M activities occur within the breeding bird season, significant impacts may

occur if appropriate mitigation is not implemented. Therefore, if construction activities occur within the breeding bird season, which may result in significant impacts, MM-BIO-1 would be implemented to mitigate any impacts to less than significant.

Indirect Impacts

Plants

CIP Projects (All) and Single-Occurrence O&M Activities

Potential short-term indirect impacts to special-status plants in the proposed program area from patrol road improvements and paving, engineered erosion control, slope stabilization, and single-occurrence O&M activities would include fugitive dust, introduction of chemical pollutants, introduction of non-native plant species, and increased human activity. Dust and applications for fugitive dust control can impact vegetation surrounding the limits of grading, resulting in changes in the community structure and function. These changes could result in impacts to suitable habitat for special-status plant species. Ground disturbance resulting from construction activities often promotes invasion from invasive weedy annual and perennial vegetation that can outcompete native species. Introduction of non-native plant species could displace native plant species, reducing diversity, increasing flammability and fire frequency,[1] and changing groundwater and surface water levels. These indirect effects would be mitigated through application of APM-BIO-2, APM-BIO-3, and APM-AQ-2; other internal construction guidelines and best management practices (BMPs); and MM-BIO-4. No long-term indirect impacts to special-status plant species would occur from patrol road improvements and paving, engineered erosion control, slope stabilization, and single-occurrence O&M activities in the proposed program area.

Routine O&M Activities

Short-term and long-term indirect impacts to special-status plant species associated with routine O&M activities would not likely be significant. All routine O&M activities are currently conducted on a regular basis, are temporary, and occur within the existing disturbance footprint. Impacts would be less than significant with mitigation. The proposed O&M activities would be short in duration and would not result in substantial changes to the landscape once completed (e.g., there would be no change or very limited changes in human activity, soil erosion, and hydrology). No significant short-term or long-term indirect impacts would occur to special-status plants from routine O&M activities.

[1] In some instances, non-native, invasive plant species have higher flammability and ignition potential than native species, which can compromise safety by exacerbating fire hazards in upland areas.

Wildlife

CIP Projects (All) and Single-Occurrence O&M Activities

Potential short-term indirect impacts to special-status wildlife species in the proposed program area from patrol road improvements and paving, engineered erosion control, slope stabilization, and single-occurrence O&M activities would include generation of fugitive dust, introduction of chemical pollutants, noise, and increased human activity. Dust could impact vegetation surrounding the limits of grading, resulting in changes in the community structure and function. These changes could result in impacts to suitable habitat for special-status wildlife species. However, these disturbances would not result in significant short-term indirect impacts with implementation of APM-BIO-2, APM-BIO-3, and APM-AQ-2; other internal construction guidelines and BMPs; and MM-BIO-3 and MM-BIO-4. Use of chemical pollutants is not anticipated during construction-related program activities. Construction-related noise can have a variety of indirect impacts on wildlife species, including increased stress, weakened immune systems, altered foraging behavior, displacement due to startle, degraded communication with members of the same species (e.g., masking), damaged hearing from extremely loud noises, and increased vulnerability to predators (Brattstrom and Bondello 1983, as cited in Lovich and Ennen 2011). However, these disturbances would not result in significant short-term indirect impacts due to the short activity time frames and the type of construction equipment used during program implementation. Construction activities related to patrol road improvements and paving, slope stabilization, and single-occurrence O&M activities would result in increased human activity, which can deter wildlife from using habitat areas. However, this type of disturbance would not result in significant short-term indirect impacts due to the short activity time frames and duration of program activities.

Routine O&M Activities

Short-term and long-term indirect impacts to special-status wildlife species associated with routine O&M activities would not likely be significant. All routine O&M activities are currently conducted on a regular basis, are temporary, and occur within the existing disturbance footprint. Species that occur in the vicinity of routine O&M activity sites are adapted to the conditions generated by such activities.

However, noise generated by routine O&M activities, including vegetation maintenance and removal along patrol roads and around structures, that are conducted during the breeding season (February 1 through August 31) could result in indirect impacts to nesting birds. Noise related to these activities has the potential to disrupt reproductive and feeding activities. Under the Migratory Bird Treaty Act, indirect impacts to individual special-status wildlife, active nests, or the young of nesting special-status bird species would be significant absent mitigation. This impact would be significant, absent mitigation, but would be mitigated to a less than significant level through implementation of MM-BIO-1.

Impact BIO-3: Adverse Effect on Wetlands

Patrol road improvements and paving activities and engineered erosion control activities would permanently impact 0.33 acres and temporarily impact 0.16 acres of state and federal waters along the Inland Feeder and the Rialto Pipeline. Proposed slope stabilization activities would permanently impact 0.15 acres and temporarily impact 0.06 acres of state and federal waters along the Inland Feeder and Rialto Pipeline portions of the program area. Single-occurrence O&M activities would permanently impact 0.06 acres of non-wetland state and federal waters along the Rialto Pipeline portion of the proposed program area. Single-occurrence O&M activities would permanently impact 0.00 acres (less than 0.005 acres) of vegetated streambed and unvegetated streambed waters of the state. No long-term indirect impacts to jurisdictional wetlands associated with patrol road improvements and paving, engineered erosion control, slope stabilization, or single-occurrence O&M activities would occur. No significant direct or indirect impacts to federal or state jurisdictional wetlands or waters would occur from routine O&M activities.

The U.S. Army Corps of Engineers (ACOE) implements the federal policy embodied in Executive Order 11990, which, when implemented, is intended to result in no net loss of wetland values or function for waters of the United States. Similarly, California Executive Order W-59-93 was implemented to ensure no net loss of wetland values or function for waters of the state. Therefore, permanent and temporary direct impacts to jurisdictional resources would be significant. APM-BIO-2, APM-BIO-3, and APM-AQ-2 would be incorporated into the proposed program to avoid and/or reduce impacts; however, impacts would remain potentially significant absent mitigation. Implementation of MM-BIO-4 and MM-BIO-5 would be implemented to reduce the impacts to jurisdictional wetlands and waters to below a level of significance.

4.2.1.2 Applicant Proposed Measures

APM-BIO-1 **Pre-Activity Special-Status Plant Surveys.** Within the portions of the CIP project and single-occurrence O&M activity sites that were not surveyed in 2017, or for project sites that do not commence construction by 2022, Metropolitan will complete pre-activity surveys for special-status plant species during the appropriate blooming period for species that have potential to occur. Surveys will conducted by a qualified botanist within the areas that would be subject to direct or indirect impacts. Surveys will conform to the California Native Plant Society Botanical Survey Guidelines (CNPS 2001), Protocols for Surveying and Evaluating Impacts to Special Status Native Populations and Natural Communities (CDFW 2018), and the Endangered Species Recovery Program's General Rare Plant Survey Guidelines (USFWS 2002) or the most current accepted protocol. Plant species encountered during the field surveys will be identified to subspecies or variety, if applicable, to determine sensitivity status.

Populations and individuals of any special-status plant species found during pre-activity surveys will be mapped with GPS. Mapped populations of listed species will be avoided unless take authorization has been obtained from the respective resource agency. Non-listed special-status plants will be avoided during construction activities as practicable. Installation of protective fencing and erosion and sediment control measures, as appropriate, will be implemented to protect special-status plant populations found near CIP project and single-occurrence O&M activity sites.

APM-BIO-2 **Flagging of Work Limits.** All CIP project and single-occurrence O&M activity work area limits within special-status species habitat, including staging areas, shall be well defined and marked (e.g., by caution tape or temporary fencing). All temporary fencing or other markers shall be clearly visible to construction personnel. Parking, stockpiling, or storage of equipment shall be permitted only within designated staging areas.

APM-BIO-3 **Cleaning of Mowing Equipment.** Mowing equipment shall be thoroughly cleaned before use so it is free of seeds from noxious weeds and does not introduce such weeds to new areas.

APM-BIO-4 **Invasive Plant Removal Protocols.** Invasive plant species shall be removed in a manner that prevents propagation. All cut/removed invasive vegetation shall be taken to a dump as destruction load. Maintenance personnel shall avoid letting cut stems or seedpods be washed downstream or left behind to propagate.

APM-AQ-2 See Section 4.3.3.2.

4.2.1.3 Mitigation Measures

MM-BIO-1 **Nesting Bird Surveys.** For all proposed program activities, grading or vegetation clearing, cutting, and removal shall be scheduled to occur during the non-breeding season for birds (September 1 through January 31). If grading or vegetation clearing, cutting, or removal are required during the breeding season (February 1 through August 31, or January 1 through August 31 for raptors), then a qualified biologist shall survey all potential nesting vegetation within an appropriate distance from the grading limits for nesting birds prior to grading activities, as property access allows and depending on factors such as habitat suitability; focal species' known tolerance to human activities and noise; the timing, intensity, and extent of the activities; and the presence of vegetation and topographical screening. Between January 1 and February 1, nesting surveys for raptors will be required only if there is suitable raptor nesting habitat within or adjacent to the grading or vegetation removal area. The purpose of the surveys shall be to determine if active nests of special-status or other protected birds are present within the vicinity of the work area. The survey shall be conducted within 7 days prior to the start of work. If no nesting birds are observed, project activities may commence. If an active nest is located, the site

shall be marked, and an appropriate buffer established, based on site conditions, nesting species, and construction activity. The buffer area shall not be disturbed until after birds have fledged. The qualified biologist, in conjunction with Metropolitan's Environmental Planning staff, will determine when construction activities may resume in the area. In the event that a threatened or endangered species is located within the survey area and avoidance is not feasible, consultation with the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife shall be required.

MM-BIO-2 **Compensation for Impacts to Federally and State-Listed Species Habitat.** Direct temporary and permanent impacts to suitable habitat for federally or state-listed species within proposed CIP project and single-occurrence O&M activity areas shall be mitigated through on-site or off-site measures. Mitigation for temporary and permanent impacts to listed species habitat shall consider, and may overlap with, jurisdictional waters and wetlands (MM-BIO-5).

- **Temporary Impacts.** Mitigation for direct temporary impacts to suitable habitat for federally or state-listed species shall be implemented through on-site rehabilitation at a 1:1 mitigation ratio. Areas temporarily impacted shall be returned to similar conditions to those that existed prior to grading and/or ground-disturbing activities. For proposed CIP projects and single-occurrence O&M activity temporary impact areas outside routinely maintained areas, the proposed rehabilitation of impact areas may include, at a minimum, a feasible implementation structure, salvage/seeding details, invasive species eradication methods, a monitoring schedule, performance standards of success, estimated costs, and identification of responsible entities.
- **Permanent Impacts.** Metropolitan shall purchase land or fund a mitigation bank or in-lieu fee program to compensate for all permanent loss of suitable habitat for federally or state-listed species (including critical habitat), if available, at a 1:1 ratio. Direct impacts to federally listed species' occupied habitat shall be addressed through either the Section 7 or Section 10(a)(1)(B) process under the federal Endangered Species Act (ESA) of 1973, as amended. Additionally, direct impacts to federally designated critical habitat that cannot be avoided shall be addressed through either the ESA Section 7 or Section 10(a)(1)(B) process. Direct impacts to state-listed species shall be addressed through the California Fish and Game Code Section 2081(b) incidental take permit process. The two processes may require additional mitigation beyond what is being proposed under this CEQA analysis.

MM-BIO-3 **Pre-Construction Biological Surveys.** Prior to the start of ground-disturbing construction or vegetation removal associated with Capital Investment Plan (CIP) projects and single-occurrence Operations and Maintenance (O&M) activities, pre-construction surveys for non-listed special-status plant or wildlife species shall be conducted in

areas of suitable habitat within 300 feet of ground-disturbing activities, as property access allows. If listed special-status plant or wildlife species habitat is located, then focused surveys will be performed for those species and if they are detected, MM-BIO-2 will be implemented. For all special-status species, locations shall be mapped and monitored for avoidance (MM-BIO-4).

MM-BIO-4 **Biological Monitoring.** Should special-status plants or wildlife be identified during MM-BIO-3 or APM-BIO-1, a qualified biologist shall monitor ground-disturbing activities within areas where special-status plant and wildlife species, sensitive vegetation communities, or jurisdictional waters/wetlands are present during CIP projects and single-occurrence O&M activities. The qualified biologist shall look for special-status species that may be located within or immediately adjacent to work areas. If special-status species are found, the biological monitor shall identify their location for avoidance or flush/move them out of harm's way to avoid direct impacts to these species. The qualified biologist, in coordination with The Metropolitan Water District of Southern California (Metropolitan), shall determine when monitoring shall cease.

MM-BIO-5 **Compensation for Impacts to Jurisdictional Wetlands and Waters.** Mitigation for temporary and permanent impacts to jurisdictional wetlands and waters shall consider and overlap with compensation for special-status species habitat (MM-BIO-2). The U.S. Army Corps of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board may require additional compensation during the regulatory permitting process.

- **Temporary Impacts.** Mitigation for direct temporary impacts to jurisdictional wetlands and waters resulting from CIP projects, single-occurrence O&M activities, and routine O&M activities shall be implemented through on-site restoration. Areas temporarily impacted shall be returned to conditions similar to those that existed prior to grading and/or ground-disturbing activities. For impacted vegetated jurisdictional wetlands and waters, the proposed rehabilitation of impact areas may include, at a minimum, a feasible implementation structure, salvage/seeding details, invasive species eradication methods, a monitoring schedule, performance standards of success, estimated costs, and identification of responsible entities.
- **Permanent Impacts.** Mitigation for permanent impacts to jurisdictional wetlands and waters resulting from CIP projects and single-occurrence O&M activities shall be implemented at a minimum 1:1 mitigation ratio through purchase of credits through an agency-approved mitigation bank, in-lieu fee program, or other agreement. If no agency-approved mitigation bank or in-lieu fee program is available, off-site mitigation lands shall be preserved through a conservation easement.

4.2.1.4 Findings per CEQA Guidelines

Consistent with the CEQA Guidelines Section 15126.4(a)(1), feasible measures that can minimize significant adverse impacts were developed for the potentially significant impacts described in Section 4.2.1.1. These feasible measures, MM-BIO-1 through MM-BIO-5, are listed in Section 4.2.1.3.

Metropolitan finds that these mitigation measures are feasible, are adopted, and will reduce the potential biological resources impacts of the proposed program to less than significant levels. Accordingly, Metropolitan finds that, pursuant to CEQA Section 21081(a)(1) and CEQA Guidelines Section 15091(a)(1), changes or alterations have been required in or incorporated into the proposed program that will mitigate or avoid any potentially significant impacts on biological resources that were identified in the Draft PEIR.

4.2.1.5 Facts in Support of the Findings Related to Biological Resources

Implementation of MM-BIO-1 through MM-BIO-5 would reduce potentially significant program impacts related to biological resources to a less than significant level. There would be no significant, unavoidable impacts related to biological resources after implementation of these mitigation measures.

4.2.2 Cultural Resources

4.2.2.1 Potentially Significant Impacts to Cultural Resources

Impact CR-1: Adverse Change in Significance of a Historical Resource

CIP Projects (All)

Ground-disturbing activities associated with the widening of existing roads, use of mechanical equipment for culvert maintenance activities, installation or repair of erosion control structures, or slope stabilization may disturb intact native sediments, which could contain historical resources. Therefore, the CIP projects that involve these activity types were assessed through a Phase I survey, and no significant historical resources were identified within CIP project work areas. However, MM-CR-1 (see Section 4.2.2.2) would be required to avoid significant impacts to historical resources that may be discovered during construction activities.

O&M Activities (All)

A total of 15 different O&M activities (both routine and single-occurrence) are addressed in the Draft PEIR. A total of 12 of these activities (O&M Activity Code Nos. 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 13) would likely result in no ground disturbance or only minor ground disturbance and, as such, have little to no potential of impacting historical resources. Routine O&M activities that involve culvert maintenance using heavy equipment (O&M Activity Code No. 3) and single-occurrence O&M activities

that involve culvert maintenance and/or patrol road structural repairs (O&M Activity Code No. 15) may result in ground disturbance that extends into intact native sediments, which could contain historical resources. O&M Activity Code No. 14 is emergency work, and it is not addressed in this analysis because it would be exempt under CEQA. Implementation of MM-CR-1 and then MM-CR-4 through MM-CR-7, if necessary, would reduce potentially significant impacts to historical resources.

Impact CR-2: Adverse Change in Significance of an Archaeological Resource

CIP Projects (All)

Ground-disturbing activities associated with the widening of existing roads, use of mechanical equipment for culvert maintenance activities, installation or repair of erosion control structures, or slope stabilization may disturb intact native sediments that could contain archaeological resources. Therefore, this type of activity was assessed through a Phase I survey, and no significant resources were identified within CIP project work areas, including the locations of the two previously recorded archaeological sites. However, MM-CR-1 would be required to avoid significant impacts to archaeological resources that may be discovered during construction activities.

O&M Activities (All)

A total of 15 different O&M activities (both routine and single-occurrence) are addressed in the Draft PEIR. A total of 12 of these activities (O&M Activity Code No. 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 13) would likely result in no ground disturbance or only minor ground disturbance and, as such, have little to no potential of impacting archaeological resources. Routine O&M activities that involve culvert maintenance using heavy equipment (O&M Activity Code No. 3) and single-occurrence O&M activities that involve culvert maintenance and/or patrol road structural repairs (O&M Activity Code No. 15) may result in ground disturbance that extends into intact native sediments, which could contain archaeological resources. Mitigation would be required to reduce the potential for significant impacts from the proposed program. Implementation of MM-CR-1, and then MM-CR-4 through MM-CR-7, if necessary, would reduce impacts to below a level of significance.

Impact CR-3: Adverse Change in Significance of a Paleontological Resource

CIP Projects (All)

The Paleontological Resource Assessment completed for the proposed program revealed that a review of relevant scientific literature and museum collections records maintained by the Natural History Museum of Los Angeles County and the University of California Museum of Paleontology online collections database did not yield any fossil localities within the proposed program footprint. However, there are several potentially fossil-bearing geologic units mapped within the programmatic footprint, such as Puente Formation, as well as older Quaternary alluvium (i.e., Pleistocene surficial deposits).

Proposed program-related construction that extends into native sediments could potentially impact intact and unique paleontological resources. Ground-disturbing activities associated with patrol road improvements and paving, engineered erosion control, and slope stabilization may disturb intact native sediments, which could contain paleontological resources. As such, CIP projects that involve this type of activity have the potential to significantly impact paleontological resources in the proposed program area. MM-CR-2 and MM-CR-3 would be required to reduce potential impacts to unique paleontological resources or geologic features below a level of significance.

O&M Activities (All)

A total of 15 different O&M activities (both routine and single-occurrence) are addressed in the Draft PEIR. A total of 12 of these activities (O&M Activity Code Nos. 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 13) would likely result in no ground disturbance or only minor ground disturbance and, as such, have little to no potential of impacting paleontological resources. Routine O&M activities that involve culvert maintenance using heavy equipment (O&M Activity Code No. 3) and single-occurrence O&M activities that involve culvert maintenance and/or patrol road structural repairs (O&M Activity Code No. 15) may result in ground disturbance that extends into intact native sediments, which could contain paleontological resources. If no pre-activity survey has been done, then MM-CR-4 would apply. If resources are present based on MM-CR-4 review results, then MM-CR-2 and MM-CR-3 would be required to reduce significant impacts to unique paleontological resources. O&M Activity Code No. 14 is emergency work, and it is not addressed in this analysis because it would be exempt under CEQA. Implementation of MM-CR-4, and then MM-CR-2 and MM-CR-3, if necessary, would reduce any impacts below a level of significance.

4.2.2.2 Mitigation Measures

MM-CR-1 **Avoidance of Impacts to Cultural Resources.** Metropolitan shall minimize or avoid impacts to potentially significant cultural resources discovered unexpectedly during construction by developing and implementing the following:

- All work shall halt within 50 feet of the discovery site and the discovery shall be protected in place.
- Metropolitan, in consultation with the qualified cultural resources specialist, shall designate an area surrounding the area as a restricted area.
- A qualified cultural resources specialist shall evaluate the significance of the discovery.
- A qualified cultural resources specialist shall develop appropriate treatment measures for the discovery in consultation with Metropolitan and other appropriate agencies.
- Work shall be prohibited in the restricted area until Metropolitan provides written authorization.

MM-CR-2 **Paleontological Resource Impact Mitigation Program.** Prior to the start of ground-disturbing activities in previously undisturbed areas with high paleontological sensitivity, a qualified professional paleontologist meeting the Society of Vertebrate Paleontology's (2010) standards ("project paleontologist") shall be retained to provide project-level analysis. The project paleontologist shall prepare and implement a paleontological resource impact mitigation program (PRIMP) for areas that will include excavation into native soils with high or undetermined geologic sensitivity. The PRIMP shall provide management strategies based on the assigned sensitivity rankings as well as the proposed depths of ground disturbance.

As part of the PRIMP, where new ground disturbance would occur at 4 feet or more below ground surface, full-time monitoring may be required in program work areas determined to have a high or undetermined paleontological sensitivity (i.e., Puente Formation, early Holocene or older axial-channel and alluvial-fan deposits, fault-bounded conglomerate and sandstone), or spot check monitoring in proposed program work areas determined to have low paleontological sensitivity (i.e., Holocene age surficial deposits).

In addition, the PRIMP shall require that the project paleontologist conduct a Worker's Environmental Awareness Program (WEAP) training for all field personnel regarding the types of fossils that could be found in the work areas and the procedures to follow should paleontological resources be encountered. Specifically, the training shall provide a description of the fossil resources that may be encountered in the work areas, outline steps to follow in the event that a fossil discovery is made, and provide contact information for the project paleontologist and on-site monitor(s). The training shall be developed by the project paleontologist and may be conducted concurrent with other environmental training (e.g., biological, cultural, and natural resources awareness training, safety training).

MM-CR-3 **Preparation, Curation, and Reporting of Vertebrate Fossils.** All unique identifiable vertebrate fossil remains that are collected during the course of the proposed program will be prepared in a properly equipped paleontology laboratory to a point ready for curation. Preparation will include the careful removal of excess matrix from fossil materials and stabilizing and repairing specimens, as necessary. Following laboratory work, all fossil specimens will be identified to the lowest taxonomic level possible, cataloged, analyzed, and delivered to an accredited museum repository for permanent curation and storage. Fossil specimens will be submitted for permanent curation in a museum repository approved by Metropolitan, such as the San Bernardino County Museum or Western Science Center. The cost of curation is assessed by the repository and is the responsibility of Metropolitan.

At the conclusion of laboratory work and museum curation, a final report will be prepared describing the results of the paleontological inventory and evaluation. The report will include an overview of the proposed program work area geology and paleontology, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance, and recommendations. If fossils will be donated for permanent curation, a copy of the report will be submitted to the curation institution along with the fossil assemblage.

MM-CR-4 **Phase I Cultural Resource and/or Paleontological Survey.** For areas not already surveyed, a pre-activity review should be performed for future ground-disturbing activities associated with Operations and Maintenance (O&M) activities (O&M Activity Code Nos. 3 and 15). For each location where these activities will take place, the proposed activity footprint will first be examined by Metropolitan staff to determine if the proposed ground-disturbing activities will be confined to the area of previous disturbance or if there is a potential for additional ground disturbance within intact native sediments. If it is determined that the proposed activities have the potential to impact undisturbed native sediments, then a Phase I cultural resource and/or a paleontological survey will be required. The purpose of the field surveys will be to visually inspect the ground surface for evidence of archaeological remains and for exposed fossils or traces thereof and to evaluate geologic exposures for their potential to contain preserved fossil material at the subsurface. All archaeological resources observed during the course of fieldwork shall be adequately recorded at the time of discovery following standard documentation procedures. All fossil occurrences observed during the course of fieldwork, significant or not, shall be adequately documented and recorded at the time of discovery.

MM-CR-5 **Protective Measures for Archaeological Resources.** For future ground-disturbing O&M activities (O&M Activity Code Nos. 3 and 15) in the vicinity of an archaeological resource, protective measures shall be implemented for significant archaeological sites in close proximity to a proposed program work area. If the pre-activity review (MM-CR-4) identifies a known archaeological site within 50 feet of a Distribution System Infrastructure Protection Program (DSIPP) work area, the following protective measures are required as warranted:

- Exclusion fencing and flagging shall be established around any significant or potentially significant archaeological site located within 50 feet of a DSIPP work area.
- A qualified archaeologist shall monitor all ground-disturbing activities in all DSIPP work areas located within 50 feet of a significant or potentially significant archaeological site.

MM-CR-6 **Phase II Cultural Resources Evaluation.** For future ground-disturbing O&M activities (O&M Activity Code Nos. 3 and 15) in areas where archaeological resources cannot be avoided by implementation of MM-CR-5, development of a Phase II cultural resources evaluation program would be required to be implemented by a qualified archaeologist. The evaluation program will include the development of an appropriate research design and methodological approach to evaluate the archaeological resources that have the potential to be impacted during proposed program-related activities. The findings of the cultural resources evaluation program shall be presented in a technical report to be submitted to Metropolitan (and the federal lead agency, if applicable) for review and approval.

MM-CR-7 **Phase III Data Recovery Plan.** For those archaeological resources determined to be eligible for listing in the California Register of Historical Resources and/or the National Register of Historic Places, a Phase III data recovery plan shall be prepared by a qualified archaeologist prior to the onset of excavations. The plan shall detail the field, laboratory, and archival methods that shall be used during the data recovery program; the curation of archaeological materials at an appropriate facility for future research; and provisions for a report detailing the findings and significance of the archaeological resources. The plan shall be submitted to Metropolitan for review and approval prior to the commencement of data recovery investigations. For prehistoric archaeological sites, a Native American monitor shall be present during the Phase III fieldwork efforts. Results of the Phase III data recovery plan shall be presented in a technical report submitted to Metropolitan for review and approval prior to the commencement of ground-disturbing activities. A final version of the report shall be submitted to the regional California Historic Resources Information System repository.

4.2.2.3 Findings per CEQA Guidelines

Consistent with CEQA Guidelines Section 15126.4(a)(1), feasible measures that can minimize significant adverse impacts were developed for the potentially significant impacts described in Section 4.2.2.1. These feasible measures, MM-CR-1 through MM-CR-7, are listed in Section 4.2.2.2.

Metropolitan finds that these mitigation measures are feasible, are adopted, and will reduce the potential cultural resources impacts of the proposed program to less than significant levels. Accordingly, Metropolitan finds that, pursuant to CEQA Section 21081(a)(1) and CEQA Guidelines Section 15091(a)(1), changes or alterations have been required in or incorporated into the proposed program that will mitigate or avoid potentially significant impacts on cultural resources that were identified in the Draft PEIR.

4.2.2.4 Facts in Support of the Findings Related to Cultural Resources

Implementation of MM-CR-1 through MM-CR-7 would reduce potentially significant program impacts related to cultural resources to a less than significant level. There would be no significant, unavoidable impacts related to cultural resources after implementation of these mitigation measures.

4.3 Impacts Determined to Be Less Than Significant

This section provides the resource topics that were analyzed in the Draft PEIR and found to have less than significant impacts and those that were omitted from analysis in the Draft PEIR because the 2014 Initial Study had determined that all impacts would be less than significant. For ease of comparison with the Draft PEIR and internal consistency, all thresholds from Appendix G of the CEQA Guidelines are presented in the format used in the Draft PEIR (Impact XX-XX: Short Version of Threshold), even for those that were not analyzed in the Draft PEIR.

4.3.1 Aesthetics

4.3.1.1 Less Than Significant Impacts to Aesthetics

Impact AES-1: Degradation of Visual Quality/Character

Patrol Road Improvements and Paving (CIP Activity Code No. 1)

The majority of pipelines and CIP projects would occur in developed, urban landscapes of the Valley Region of San Bernardino County and the remaining CIP projects would generally occur in areas that have been visibly altered by access roads; pipelines and other water- and non-water related development flood channels; residential, commercial, and industrial uses; and roads. Patrol road improvements and paving would occur in relatively small discrete areas that have been previously disturbed by existing development, including Metropolitan infrastructure (e.g., manholes, patrol roads). Overall, they would not impact the visual quality/character. Because patrol road improvements and paving would occur in small and discrete linear areas along pipelines and within locations that have been subject to previous disturbance and alteration, patrol road improvements and paving activities (CIP Activity Code No. 1) would not result in the substantial degradation of existing visual quality and/or character. In addition, APM-AES-1 (see Section 4.3.1.2) would be implemented as part of Metropolitan's standard practice to further minimize impacts to aesthetics and visual quality and character. Impacts would be less than significant.

Engineered Erosion Control (CIP Activity Code No. 2)

Engineered erosion control may occur in streams, creek beds, and washes. In these instances and depending on the elevation of adjacent terrain and density of nearby vegetation, erosion control measures

may be visible to sensitive receptors in the surrounding area. Therefore, except for discharge points and in locations where open streams, creek beds, and washes are present, erosion control measures are generally not visible to sensitive receptors in the surrounding area. For pipelines where existing embankments require improvement to ensure the protection of Metropolitan facilities, proposed solutions would include reconstruction of the embankment and the installation of boulders at the toe of the embankment for added protection. It should also be noted that the below-ground-level installation of engineered erosion control along existing streams or in washes prone to flooding would enhance the ability of these measures to blend in with the existing landscape. In addition, the overall visibility of engineered erosion control features would be further reduced with implementation of APM-AES-2, which requires slope protection measures to be compatible with the existing landscape and requires minimization of visual contrast to the greatest extent feasible. Impacts would be less than significant.

Slope Stabilization (CIP Activity Code No. 3)

Proposed slope stabilization measures, including slope reconstruction, riprap reconstruction, rock slope protection, anchors, tiebacks, and stepped retaining walls, would not substantially affect the existing visual quality and character of developed channels, washes, and other locations in the Western San Bernardino County Operating Region. In addition, slope stabilization activities may be screened from view of the public such that stabilization measures may not be visible or readily noticeable. Additionally, the regrading of a currently unvegetated slope and/or installation of riprap for additional protection would be concentrated near existing visual features, including an existing manhole structure and patrol road, that are not typically objects of focus in the views of passing highway motorists. As such, slope stabilization activities would not substantially affect the overall character and/or quality of the existing landscape. APM-AES-2 would also be implemented to further reduce potential impacts and would ensure that slope protection measures are visually compatible with existing slopes, channels, embankments, and rock faces to the greatest extent feasible. Impacts would be less than significant.

O&M Activities (All)

Because the proposed O&M activities would involve maintenance and repair of existing facilities, and because the Metropolitan right-of-way (ROW), where located in primarily unaltered open space such as Tonner Canyon, is often inaccessible to the public, the degree of visual change that would be perceptible would be negligible. The pipeline appurtenant structures are not large or visually dominant, and grading or vegetation management that would occur during O&M activities would result in minor, incremental visual change that would be characteristic of activities that already occur along Metropolitan's patrol roads and facilities. Similarly, the visual presence of vehicles and personnel during maintenance activities would be temporary and would represent a continuation of existing routine activities. For these reasons, the impact of proposed O&M activities on the existing visual quality and/or character of O&M sites and their surroundings would be less than significant.

Impact AES-2: Adverse Effect on a Scenic Vista

The County of San Bernardino (County) General Plan does not specifically designate scenic vista points; however, the County seeks to preserve and protect cultural resources, including parks, areas of regional significance, and scenic, cultural, and historic sites that contribute to a distinctive visual experience (County of San Bernardino 2014). The proposed CIP projects and O&M activities would result in visual changes that are minor in magnitude and would be located within the context of existing facilities characteristic of Metropolitan's ROW, such as patrol roads and pipeline appurtenances. Proposed O&M activities, such as road grading or minor vegetation maintenance, would primarily maintain the existing patrol roads and pipeline appurtenant structures, with very little to no visual change. The presence of construction equipment to perform O&M work would be short term and temporary. Construction activities associated with some of the proposed CIP projects, such as those involving slope repair and rehabilitation or stream-crossing structures, would require grading activities, vegetation management, and use of construction-related vehicles and equipment that could appear visually cluttered or uncharacteristic of the broader visual context. However, such activities would be temporary, are commonly associated with maintenance and improvement activities along utility ROWs, and would not affect an officially recognized scenic vista. In addition, many of these activities would not occur in areas frequented by the public. As such, the implementation of proposed CIP projects and O&M activities would have a less than significant impact on existing views from scenic vistas.

Impact AES-3: Damage to Scenic Resources within a State Scenic Highway

The proposed program study area is not located within the vicinity of a State Scenic Highway, as designated by the California Department of Transportation (Caltrans). The closest State Scenic Highway to the proposed program study area is a 4-mile stretch of State Route (SR) 91 extending from the intersection of SR-55 with SR-91 to the eastern limits of the city of Anaheim (Caltrans 2016). The Yorba Linda Feeder, the closest location within the Western San Bernardino County Operating Region to the designated State Scenic Highway, is located approximately 8 miles northeast of the SR-55 and SR-91 junction.

At a distance of 8 miles, neither the CIP projects nor the O&M activities proposed under the DSIPP would physically affect features within the State Scenic Highway corridor, such as trees, rock outcroppings, or historic buildings. However, scenic resources also include the views experienced by motorists along the scenic highway. Neither the CIP projects nor the O&M activities would be perceptible to motorists because resulting visual changes, if any, would be low profile and out of view due to distance, intervening topography, and the general level of development in the area. Routine O&M activities in general, even if they occurred closer to the highway and were visible, would not have adverse effects because they would be temporary and typical of activities that already routinely occur along utility ROWs. For these reasons, no impacts pertaining to damage to scenic resources within a State Scenic Highway would occur.

Impact AES-4: New Source of Light or Glare

No new permanent lighting would be installed as part of the proposed program. Therefore, potential effects with respect to lighting would be limited to circumstances where temporary, portable lighting would be needed to complete construction work at night. Construction, operation, and maintenance activities are typically conducted during daytime hours; however, use of temporary, portable light sources may sometimes be necessary during routine pipeline shutdowns. Additionally, such lighting would only be required in locations where street lighting is not present or adequate (e.g., rural/open space areas). Because these circumstances would be the exception rather than the rule, and would be temporary if needed, the impact would be minimal. As standard practice, Metropolitan uses hooded, downward-directed lights to illuminate work areas and to minimize light trespass onto adjacent properties. Because the proposed program does not include permanent lighting and because the need for nighttime light is episodic, is limited in extent and duration, and would involve use of downward-directed lights, the impact would be less than significant.

4.3.1.2 Applicant Proposed Measures

APM-AES-1 **Design Features.** In areas of visual sensitivity, Metropolitan will coordinate with property owners and/or affected jurisdictions/agencies to develop and implement design features to minimize, to the extent feasible, the visual impacts associated with installation of paving materials. The selection of paving materials may be influenced by the existing colors in the landscape and by the surrounding landscape context. Materials may be selected such that the roadway surface visually blends in with the surrounding landscape to the extent feasible.

APM-AES-2 **Slope Protection Design.** In areas of visual sensitivity, where feasible and appropriate, slope-protection measures shall be designed to ensure compatibility with the existing landscape and minimize visual contrast with existing slopes, channels, embankments, and rock faces to the greatest extent feasible. Slope protection designs shall be prepared and reviewed by qualified professionals (e.g., Professional Engineers or Registered Landscape Architects) who have relevant expertise in aesthetically pleasing and contextually sensitive solutions in slope-protection design. Specific slope-protection measures shall be designed in coordination with the property owner/affected jurisdiction or agency associated with the specific location of targeted slope stabilization work. In addition to regrading and compacting slopes to improve structural integrity and minimize continued damage and soil loss, solutions could include live gully repair, fascines/pole cuttings with subsurface drainage, vegetated mechanically stabilized slopes, vegetated gabions, turf reinforcement mats, vegetation, and/or the following:

- **Rock Slope Protection:** Sculpting shall be incorporated in the excavated slope to create more natural-looking slope variation and rock staining shall be used to help blend the color of the cut slope or newly installed “rock” to the natural color of the

existing slope/channel/embankment/rock face. The height of rock slope-protection features shall be less than the height of the associated slope/channel/embankment/rock face to ensure consistency in scale and to minimize opportunities for view blockage and interruption of lines of sight. If technologically feasible, the solution shall be partially buried to minimize visibility.

- **Tiebacks/Anchors:** Where anchored walls are used, sculpted and colored/stained shotcrete shall be applied on the façade of the anchored wall to mimic the form, color, and texture of the natural slope/channel/embankment/rock face to the greatest extent feasible.
- **Stepped Retaining Walls:** Retaining wall materials shall mimic the color and texture of the existing slope/channel/embankment/rock face and shall be selected to minimize resulting visual contrast. The height of retaining walls shall be less than the height of the associated slope/channel/embankment/rock face to ensure consistency in scale and minimize opportunities for view blockage and interruption of lines of sight. If technologically feasible, the retaining wall shall be partially buried to minimize visibility.

4.3.1.3 Finding

Implementation of the proposed program would not have an adverse effect on a scenic vista, damage scenic resources, degrade the existing visual character or quality of the site and its surroundings, or create a substantial new source of light or glare. Impacts related to aesthetics would be less than significant, as described in Section 4.1 (Aesthetics) of the Draft PEIR. Therefore, no mitigation would be required and no significant, unavoidable adverse impacts would occur.

4.3.2 Agriculture and Forestry Resources

4.3.2.1 Less Than Significant Impacts to Agriculture and Forestry Resources

Impact AG-1: Prime Farmland, Unique Farmland, or Farmland of Statewide Importance

The California Department of Conservation Farmland Mapping and Monitoring Program mapped Prime Farmland, Unique Farmland, and Farmland of Statewide Importance throughout the Western San Bernardino County Operating Region (CDOC 2011). Several proposed CIP project and O&M activity sites in the Western San Bernardino County Operating Region occur within grazing land; however, only two identified proposed O&M activity locations, which are along the Inland Feeder (Stations 1054+10 and 1056+70, since removed from the program after circulation of the NOP), occur within Prime Farmland according to the Farmland Mapping and Monitoring Program (CDOC 2011). No proposed CIP projects are located in Prime Farmland and no identified CIP project or O&M activity sites are located in Unique Farmland or Farmland of Statewide Importance. Proposed O&M activities would not convert farmland to non-agricultural uses. All work associated with O&M activities would occur primarily within Metropolitan's existing ROW, around existing patrol roads and pipeline

infrastructure, and all appropriate measures would be taken to minimize or avoid any potential disturbances to adjacent farmland from both identified and future unknown O&M activities. Proposed O&M activities would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use; therefore, impacts would be less than significant.

Impact AG-2: Conflict with Existing Agricultural Zoning or Williamson Act Contract

Based on a review of the California Department of Conservation Williamson Act Enrollment Maps for the County (CDOC 2012/2013), there are some Williamson Act parcels located across the alignment of the Inland Feeder; however, California Government Code Section 51238(a)(1) states that the construction, alteration, and maintenance of water facilities are compatible uses in an agricultural preserve, unless the governing body makes a finding to the contrary. Therefore, impacts involving a conflict with existing zoning for agricultural use or a Williamson Act contract would not occur.

Impact AG-3: Conflict with Existing Forestland, Timberland, or Timberland Production Zoning

The Inland Feeder extends through the San Bernardino National Forest; however, the portion of this alignment that extends through the San Bernardino National Forest is underground in tunnels (the Arrowhead East and West tunnels), and there are no pipelines or associated surface infrastructure in the designated forest land. Therefore, no CIP projects or O&M activities would occur in the San Bernardino National Forest. The closest identified proposed CIP project and O&M activity locations to the San Bernardino National Forest are Inland Feeder Stations 822+10 and 19+55, respectively (CPADP 2014). Both of these locations are approximately 0.2 miles from the boundary of the forest. None of the proposed CIP projects or O&M activities would occur within the boundaries of the San Bernardino National Forest, and proposed program activities would not result in a conflict with existing zoning for forestland, timberland, or timberland production. The proposed program would have no impact on forest land or timberland.

Impact AG-4: Loss or Conversion of Forestland

The Inland Feeder alignment extends through the San Bernardino National Forest; however, the portion of the alignment in the forest is underground in a tunnel, there are no pipelines or surface infrastructure to maintain, and no CIP projects or O&M activities are proposed on designated forest land. Therefore, proposed CIP projects and O&M activities would not result in the loss of forest land or the conversion of forest land to non-forest use. The proposed program would have no impact on forest land.

Impact AG-5: Changes in the Existing Environment Resulting in Conversion of Forestland or Farmland

The Inland Feeder alignment extends through the San Bernardino National Forest; however, the portion of the alignment in the forest is underground in a tunnel, and there are no pipelines or surface infrastructure to maintain. Therefore, no CIP projects or O&M activities are proposed within designated

forest land. Two proposed O&M activity locations are located on designated farmlands; however, the permanent conversion of these lands into non-agricultural uses as a result of proposed O&M activities is not anticipated. All work associated with proposed O&M activities would occur around existing pipeline infrastructure, and all appropriate measures would be taken to minimize or avoid any potential disturbances to farmland. According to California Government Code Section 51238(a)(1), the construction, alteration, and maintenance of water facilities are compatible uses within an agricultural preserve, unless the governing body makes a finding to the contrary; therefore, impacts involving a conflict with existing zoning for agricultural use or a Williamson Act contract would not occur. Impacts to farmlands would be less than significant.

4.3.2.2 Finding

The November 2014 Initial Study for the proposed program found no potential for significant impacts to agriculture and forestry resources; therefore, this topic was not addressed in the PEIR. No mitigation would be required and no significant, unavoidable adverse impacts would occur.

4.3.3 Air Quality

4.3.3.1 Less Than Significant Impacts to Air Quality

Impact AQ-1: Conflict with Applicable Air Quality Plan

Because the proposed program does not propose a change in land use designations and would not generate employment that was not accounted for in the Southern California Association of Governments 2016 Regional Growth Forecast, and the proposed program would not generate emissions that would exceed the South Coast Air Quality Management District (SCAQMD) construction thresholds, impacts relating to the proposed program's potential to conflict with or obstruct implementation of the SCAQMD 2016 Air Quality Management Plan would be less than significant.

Impact AQ-2: Violation or Contribution to Violation of Air Quality Standards

There is a potential for construction of proposed CIP projects to occur concurrently with construction of one or more other CIP projects; however, it is not anticipated that more than three CIP projects would occur simultaneously under normal scheduling practices. It is not anticipated that simultaneous construction of CIP projects and/or O&M activities would exceed the thresholds for volatile organic compounds (VOCs), oxides of nitrogen (NO_x), carbon monoxide (CO), sulfur oxides (SO_x), or fine particulate matter ($PM_{2.5}$; particulate matter with an aerodynamic diameter of less than or equal to 2.5 microns) without exceeding the coarse particulate matter (PM_{10}; particulate matter with an aerodynamic diameter of less than or equal to 10 microns) threshold because PM_{10} is generated from equipment operation, vehicle travel, and earthwork, which are the primary sources of emissions. As such, PM_{10} is assumed to be the limiting criteria air pollutant in this analysis. Based on conservative assumptions and emissions estimates, and assuming maximum emissions associated with proposed

CIP projects and O&M activities, proposed program-generated emissions could potentially exceed the SCAQMD PM_{10} threshold for construction if eight CIP projects or nine O&M activities, or an equivalent combination thereof, would occur simultaneously. The proposed individual CIP projects and O&M activities would not exceed the SCAQMD thresholds for VOCs, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$. Because the maximum number of concurrent construction projects and activities is anticipated to be six projects and/or activities (e.g., three CIP projects and three O&M activities), concurrent construction activities under the proposed program would also not exceed the SCAQMD threshold. With incorporation of APM-AQ-1 and APM-AQ-2 into the proposed program as part of Metropolitan's standard practice, impacts would be less than significant.

Impact AQ-3: Increase of Criteria Pollutant for which Program Region Is Nonattainment

The South Coast Air Basin is a nonattainment area for ozone (O_3), PM_{10}, and $PM_{2.5}$ under the National Ambient Air Quality Standards and/or California Ambient Air Quality Standards. Implementation of the proposed program would generate VOC and NO_x emissions (which are precursors to O_3) and emissions of PM_{10} and $PM_{2.5}$. However, the maximum daily construction emissions from proposed CIP projects and O&M activities would not exceed the SCAQMD significance thresholds. In addition, simultaneous construction of multiple CIP projects and/or O&M activities would not exceed the SCAQMD construction thresholds because the maximum number of concurrent projects is anticipated to be less than the number of concurrent projects with combined emissions that would exceed thresholds. Because the proposed program is not expected to exceed the SCAQMD thresholds, the proposed program would thereby not conflict with the SCAQMD 2016 Air Quality Management Plan, which addresses the cumulative emissions in the South Coast Air Basin. Project-specific impacts would be less than significant. Nonetheless, the proposed program includes APM-AQ-1 and APM-AQ-2, which would further reduce proposed program-generated emissions.

Impact AQ-4: Exposure of Sensitive Receptors to Pollutants

Localized Significance Thresholds

Construction activities associated with the proposed program would result in temporary on-site sources of fugitive dust and construction equipment emissions. The most stringent SCAQMD localized significance threshold (LST) in the Western San Bernardino County Source-Receptor Areas were compared to the maximum daily on-site construction emissions. The maximum daily on-site construction emissions during proposed CIP project implementation would not exceed the most stringent LSTs. Additionally, proposed O&M activities would not generate emissions in excess of site-specific LSTs. As such, site-specific CIP project and O&M activity construction impacts on ambient air quality at sensitive receptor locations would be less than significant.

Carbon Monoxide Hotspots

Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed federal and/or state standards for CO are

termed CO "hotspots." Individual proposed program CIP projects and O&M activities would be temporary and would not be a source of daily, long-term mobile-source emissions. Accordingly, proposed activities would not generate traffic that would contribute to potential adverse traffic impacts that may result in the formation of CO hotspots. In addition, due to continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the South Coast Air Basin is steadily decreasing. Maximum background CO levels in western San Bernardino County are less than 28 percent of the 1-hour and 8-hour National Ambient Air Quality Standards and California Ambient Air Quality Standards and would be expected to improve further due to reductions in motor vehicle emissions. Based on these considerations, the proposed program would result in a less than significant impact to air quality with regard to potential CO hotspots.

Toxic Air Contaminants

Toxic air contaminants (TACs) are defined as substances that may cause or contribute to an increase in deaths or in serious illness, or which may pose a present or potential hazard to human health. Construction activities would not generate substantial emissions of PM_{10}, and emissions from individual CIP projects and O&M activities would not exceed the SCAQMD maximum daily construction thresholds. In addition, with implementation of APM-AQ-1 as part of Metropolitan's standard practice, off-road equipment over 50 horsepower would be fitted with engines rated Tier 4 Interim or higher (i.e., Tier 4 Final), which would substantially reduce PM_{10} emissions from combustion. The construction period for the proposed program would occur during 2020 and 2021, an approximately 2-year period, after which proposed program-related TAC emissions associated with the proposed CIP projects and O&M activities would cease. The proposed future ongoing O&M activities are not expected to generate substantial emissions of criteria air pollutants or TACs. Because these future activities are anticipated to involve fewer projects (daily and annual) and the intensity of activities would be reduced, future emissions are expected to result in lower emissions than analyzed herein for the proposed program. Thus, the proposed program would not result in a long-term (i.e., 30-year) source of TAC emissions.

Health Impacts of Criteria Air Pollutants

Construction of the proposed program would generate criteria air pollutant emissions; however, the proposed program would not exceed the SCAQMD mass-emission thresholds. The majority of the proposed program's projects and activities would occur within a 2-year schedule, but future and ongoing O&M activities would also occur. Because the anticipated maximum number of projects and/or activities that would occur concurrently is six projects and/or activities (e.g., three CIP projects and three O&M activities), concurrent construction activities under the proposed program would not exceed the SCAQMD thresholds for construction. Accordingly, the proposed program would not result in a potentially significant contribution to regional concentrations of non-attainment pollutants and would not result in a significant contribution to the adverse health impacts associated with those pollutants. Impacts would be less than significant.

Impact AQ-5: Creation of Objectionable Odors

It is possible that odors could be released during construction of proposed CIP projects and O&M activities. Paints and enamels used for graffiti removal; coating, lubricants, and solvents used to clean Metropolitan structures during proposed O&M activities; and paving and construction equipment used for implementation of CIP projects could release objectionable odors. Chemicals used for maintenance and cleaning would be used in quantities small enough to be able to be transported on a utility vehicle and would not be used in concentrations substantial enough to significantly impact areas surrounding the CIP project and O&M activity sites. In addition, the majority of projects and activities associated with the proposed program are in remote areas located away from residences and other occupied facilities, so a limited number of people would be affected. The potential release of odors associated with construction equipment and maintenance and cleaning materials would be minor, temporary, and unlikely to impact a substantial number of people; therefore, impacts would be less than significant.

4.3.3.2 Applicant Proposed Measures

APM-AQ-1 **Construction Equipment.** Where Tier 4 equipment is reasonably available for off-road equipment with engines rated at 50 horsepower or greater, it will be used.

APM-AQ-2 **Fugitive Dust Control.** Proposed program activities would adhere to South Coast Air Quality Management District Rule 403, which includes a variety of measures intended to reduce fugitive dust emissions. The following measures shall be implemented during maintenance activities, as needed, to reduce the potential for fugitive dust emissions during grading, excavation, and construction activities:

- The areas disturbed at any one time by clearing, grading, earthmoving, or excavation operations shall be minimized to prevent excessive amounts of dust.
- Pre-grading/excavation activities shall include watering of the area to be graded or excavated before commencement of grading or excavation operations. Application of water should penetrate sufficiently to minimize fugitive dust during earthmoving, grading, and excavation activities, but shall not be applied in a manner that generates runoff from the active work area. In light of drought conditions, Metropolitan would consider alternative feasible methods of dust control that minimize the use of water.
- If reclaimed water is used for the purpose of dust control, such water shall be compliant with Title 22 standards applicable to use of recycled water for soil compaction, concrete mixing and dust control (22 CCR Division 4, Chapter 3, Article 3, Section 60307).
- All trucks shall be required to cover their loads as required by California Vehicle Code, Section 23114. All graded and excavated material, exposed soil areas, including unpaved parking and staging areas, and other active portions of the

construction site, including unpaved roadways, shall be treated to prevent fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally safe soil stabilization materials, and/or roll compaction as appropriate. Watering shall be done as often as necessary, and reclaimed water shall be used whenever possible.

- During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earthmoving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by proposed program activities and operations from being a nuisance or hazard, either on site or off site.
- Open material stockpiles shall be periodically watered or treated with appropriate dust suppressants, if needed.

4.3.3.3 Finding

Implementation of the proposed program would not conflict with an applicable air quality plan, contribute to the violation of an air quality standard, contribute to the cumulatively considerable net increase of any criteria pollutant for which the proposed program region is nonattainment under an applicable federal or state ambient air quality standard, or expose sensitive receptors to substantial pollutant concentrations. Impacts related to air quality would be less than significant, as described in Section 4.2 (Air Quality) of the Draft PEIR. Therefore, no mitigation would be required and no significant, unavoidable adverse impacts would occur.

4.3.4 Biological Resources

4.3.4.1 Less Than Significant Impacts to Biological Resources

Impact BIO-2: Adverse Impact on Riparian Habitat/Sensitive Natural Communities

Patrol Road Improvements and Paving (CIP Activity Code No. 1)

Potential permanent and temporary direct impacts from patrol road improvements and paving activities could occur to one sensitive vegetation community in the proposed program area: scale broom scrub. These impacts are on the Inland Feeder and the Rialto Pipeline. Permanent impacts would occur on 0.16 acres and temporary impacts would occur on 0.01 acres. The small amount of scale broom scrub impacted (0.04 percent of the total in the program area) is not substantial in comparison with the 413.8 acres of the community that has been mapped in the program area. Therefore, permanent and temporary direct impacts to sensitive vegetation communities would be less than significant.

Potential short-term indirect impacts to sensitive vegetation communities in the proposed program area from proposed patrol road improvements and paving would include generation of fugitive dust, chemical pollutants (herbicides and pesticides), and increased human activity. Dust and applications for fugitive

dust control can impact vegetation surrounding the limits of grading, resulting in changes in the community structure and function. However, these disturbances would not result in significant impacts with implementation of APM-BIO-2, APM-BIO-3, and APM-AQ-2 (see Sections 4.2.1.2 and 4.3.3.2).

Engineered Erosion Control (CIP Activity Code No. 2)

Potential permanent and temporary direct impacts from engineered erosion control activities would occur to two sensitive vegetation communities within the proposed program area: California sycamore woodlands and scale broom scrub. Permanent impacts would occur on 0.01 acres and temporary impacts would occur on 0.00 acres (less than 0.005 acres) of California sycamore woodlands, and permanent impacts would occur on 0.16 acres of scale broom scrub. No temporary impacts would occur to scale broom scrub. The small amount of California sycamore woodlands impacted (0.05 percent of the total in the program area) is not substantial in comparison with the 20.7 acres of the community that has been mapped in the program area, and more within the region. The small amount of scale broom scrub impacted (0.04 percent of the total in the program area) is not substantial in comparison with the 413.8 acres of the community that has been mapped in the program area, and more within the region. Permanent and temporary direct impacts to sensitive vegetation communities would be less than significant.

Indirect impacts to sensitive vegetation communities as a result of implementing the proposed engineered erosion control activities would be equivalent to those analyzed in this section for patrol road improvements and paving (CIP Activity Code No. 1). Impacts would be less than significant.

Slope Stabilization (CIP Activity Code No. 3)

Potential permanent and temporary impacts from slope stabilization activities would occur to two sensitive vegetation communities within the proposed program area: California sycamore woodlands and scale broom scrub. Permanent and temporary impacts would occur on 0.00 acres (less than 0.005 acres) of California sycamore woodlands, and permanent impacts would occur on 0.05 acres of scale broom scrub. The small amount of California sycamore woodlands impacted (less than 0.005 acres, or 0.00 percent of the total in the program area) is not substantial in comparison with the 20.7 acres of the community that has been mapped in the program area, and more within the region. The small amount of scale broom scrub impacted (0.01 percent of the total in the program area) is not substantial in comparison with the 413.8 acres of the community that has been mapped in the program area, and more within the region. Permanent and temporary direct impacts to sensitive vegetation communities would be less than significant.

Indirect impacts to sensitive vegetation communities as a result of implementing the proposed slope stabilization activities would be equivalent to those analyzed in this section for patrol road improvements and paving (CIP Activity Code No. 1). Impacts would be less than significant.

Routine O&M Activities

Routine O&M activities are currently conducted on a regular basis within the proposed program area, are temporary, and occur within the existing disturbance footprint. These activities would not typically result in significant direct permanent or temporary impacts to sensitive vegetation communities. Therefore, no significant direct impacts to sensitive vegetation communities are expected to occur during routine O&M activities.

Short-term and long-term indirect impacts to sensitive vegetation communities relating to O&M activities would not likely be significant. All routine O&M activities would occur within the existing disturbance footprint, would be conducted on a regular basis, and would be temporary. No significant short-term or long-term indirect impacts would occur to sensitive vegetation communities from routine O&M activities.

Single-Occurrence O&M Activities

Single-occurrence O&M activities would result in direct permanent impacts to sensitive vegetation communities. The only sensitive vegetation community that would be impacted by single-occurrence O&M activities is scale broom scrub. Permanent impacts would occur on 0.02 acres. The small amount of scale broom scrub impacted (0.00 percent of the total in the program area) is not substantial in comparison with the 413.8 acres of the community that has been mapped in the program area, and more within the region. APM-BIO-2, APM-BIO-3, and APM-AQ-2 would be incorporated into the proposed program as part of Metropolitan's standard practice to avoid and/or reduce impacts. Permanent direct impacts to this sensitive vegetation community would be less than significant.

Indirect impacts to sensitive vegetation communities as a result of implementing the proposed single-occurrence O&M activities would be equivalent to those analyzed for patrol road improvements and paving (CIP Activity Code No. 1). Impacts would be less than significant.

Impact BIO-4: Interference with Wildlife Movement/Use of Nursery Sites

No significant direct permanent or temporary impacts would occur to wildlife movement or use of native wildlife nursery sites associated with patrol road improvements and paving, engineered erosion control, slope stabilization, and routine and single-occurrence O&M activities. There may be some short-term indirect impacts to localized wildlife movement and nursery sites during implementation of the proposed patrol road improvements and paving, engineered erosion control, slope stabilization projects, and single-occurrence O&M activities, from increased human presence and construction-related noise. However, these impacts would be temporary and minor and would not be expected to significantly disrupt wildlife movement due to the small footprint of each proposed project or activity and the ability for wildlife to avoid construction areas. No significant long-term indirect impacts to wildlife movement or nursery sites would occur as a result of program implementation.

Impact BIO-5: Conflict with Biological Resources Protection Policies and Ordinances

Per California Government Code Section 53091, Metropolitan, as a public water utility, is exempt from local zoning and building ordinances. As part of standard practice, however, Metropolitan would coordinate with local jurisdictions if necessary, during proposed program implementation to avoid and/or minimize potential impacts from the proposed program and to be consistent with policies when feasible. Additionally, the activities outlined in this proposed program are not inconsistent with local plans and ordinances. As there are no potential conflicts with local policies or ordinances, direct impacts are not expected to occur.

Impact BIO-6: Conflict with an HCP or NCCP

Approximately 635 acres of the proposed program area associated with the Inland Feeder occurs within the boundaries of the Upper Santa Ana River Wash Habitat Conservation Plan (Wash Plan; LSA 2008) area. Metropolitan is not a signatory to the Wash Plan. Three CIP projects are proposed within the Wash Plan boundaries; however, Metropolitan maintains a permanent easement for the Inland Feeder. The proposed program would not preclude the adoption of this habitat conservation plan (HCP) or natural community conservation plan (NCCP), nor would it conflict with the Wash Plan. The impacts from the three CIP projects (0.22 acres of permanent impacts and 0.08 acres of temporary impacts) are minimal in the context of the 4,900-acre Wash Plan area and these projects would not preclude the assembly of the preserve or implementation of the conservation measures in the Wash Plan. Therefore, impacts would be less than significant, and no mitigation is required.

4.3.4.2 Applicant Proposed Measures

APM-BIO-2 See Section 4.2.1.2.

APM-BIO-3 See Section 4.2.1.2.

APM-AQ-2 See Section 4.3.3.2.

4.3.4.3 Finding

Implementation of the proposed program would not adversely impact riparian habitat/sensitive natural communities, interfere with wildlife movement/uses of nursery sites, conflict with biological protection policies and ordinances, or conflict with an HCP or NCCP. These impacts related to biological resources would be less than significant, as described in Section 4.3 (Biological Resources) of the Draft PEIR. Therefore, no mitigation would be required with respect to the topics listed above and no significant, unavoidable adverse impacts would occur.

4.3.5 Cultural Resources

4.3.5.1 Less Than Significant Impacts to Cultural Resources

Impact CR-4: Disturbance of Human Remains

There is no evidence of human remains in the program area, but given the prehistoric and historic use of the area, human remains may be encountered during ground-disturbing activities. Additionally, existing regulations through California Health and Safety Code Section 7050.5 et seq. state that if human remains are discovered during construction, no further disturbance shall occur until the appropriate county coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the county coroner determines the remains are Native American, the Native American Heritage Commission (NAHC) shall be contacted within a reasonable time. Subsequently, the NAHC shall identify the most likely descendant (MLD). The MLD shall then make recommendations and engage in consultations concerning the treatment of the remains as provided in California Public Resources Code Section 5097.98. Given the required compliance with existing regulations pertaining to the discovery of human remains, as detailed in APM-CR-1 (see Section 4.3.5.2), the proposed program would result in less than significant impacts to human remains.

4.3.5.2 Applicant Proposed Measures

APM-CR-1 **Treatment of Human Remains.** If human remains are discovered during construction, no further disturbance shall occur until the county coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the county coroner determines the remains are Native American, the Native American Heritage Commission (NAHC) shall be contacted within a reasonable time. Subsequently, NAHC shall identify the most likely descendant (MLD). The MLD shall then make recommendations and engage in consultations concerning the treatment of the remains as provided in California Public Resources Code Section 5097.98.

4.3.5.3 Finding

Implementation of the proposed program would not disturb any human remains, including those interred outside of formal cemeteries. These impacts related to cultural resources would be less than significant, as described in Section 4.4 (Cultural Resources) of the Draft PEIR. Therefore, no mitigation would be required with respect to the disturbance of human remains and no significant, unavoidable adverse impacts would occur.

4.3.6 Geology and Soils

4.3.6.1 Less Than Significant Impacts to Geology and Soils

Impact GEO-1: Location on/Causing of Unstable Soil

The majority of proposed CIP projects would involve patrol road improvements and paving around structures. Most of the proposed engineered erosion control activities would occur on valley bottoms and near creeks and drainages, where the terrain is relatively flat to gently sloping, and thus would not occur in areas mapped as landslide areas. Similarly, proposed single-occurrence O&M activities would occur on valley bottoms and near creeks where the terrain is relatively flat to gently sloping, and thus would not occur in steeply sloped areas. Although the location of the proposed CIP projects primarily in open space areas would minimize the impact of slope failures on the public and habitable structures, the consequences of a slope failure could include sediment sloughing into local creeks and streams. However, with implementation of APM-GEO-1 (see Section 4.3.6.2), grading would be conducted in accordance with applicable standards governing construction safety and excavations (including the California Code of Regulations [CCR] Title 8 California Department of Occupational Health and Safety [Cal/OSHA] Construction Safety Orders and General Industry Safety Orders) and coordinated with local jurisdictions.

Slope stabilization activities (e.g., regrading and compacting of the slope; installation of rock slope protection, soil cement, anchors, tie-backs, and/or stepped retaining walls) would lessen the potential for weak soils and unstable slopes to adversely affect Metropolitan's surface infrastructure, adjacent properties, and the public. Therefore, there would be a beneficial effect with respect to unstable soil and landslides, and impacts would be less than significant.

The impacts of proposed routine O&M activities would not be significant because they would not involve installation of new structures and are intended to protect and/or improve existing conditions with respect to unstable soils. There would be no major grading or excavation activities associated with routine O&M activities that would create unstable soils, potentially resulting in landslides. Routine O&M activities would have no impact with respect to unstable soils and resulting hazards, such as landslides.

APM-HYD-1 (see Section 4.3.9.2) would also require Metropolitan to prepare a stormwater pollution prevention plan (SWPPP) in areas of anticipated land disturbance in excess of 1 acre in size and would ensure that proper BMPs are implemented so as not to cause excessive or accelerated erosion. BMPs to be implemented as part of a SWPPP would include measures such as placing erosion control structures and sediment traps (e.g., wattles, erosion matting, sandbags, and/or hydroseed) around the construction work area to prevent turbid water from leaving the construction site. For sites less than 1 acre in size, Metropolitan's Master Specifications (Section 01072) require preparation and implementation of a water pollution control plan that requires personnel and contractors to install

and maintain erosion control devices, as specified in the Caltrans Stormwater Quality Manuals and Handbooks, within and around the construction work area, to minimize or avoid sediment-laden runoff being emitted from the construction zone. Implementation of APM-GEO-1 and APM-HYD-1 (see Section 4.3.6.2) as part of Metropolitan's standard practice would ensure that impacts with respect to unstable soils would be less than significant.

Impact GEO-2: Exposure of People/Structures to Adverse Geological Effects

Regardless of the location, extent, and magnitude of seismic hazards present within the Western San Bernardino County Operating Region, the proposed program would not increase public exposure to adverse geologic effects, including surface ruptures, strong seismic ground shaking, ground failure, and landslides. This is because neither the proposed CIP projects nor the proposed O&M activities involve structures for human occupancy, increased public access to hazardous areas, or any other activity that could exacerbate the severity of existing geologic and seismic risks. On the contrary, certain proposed program elements, such as repair of slopes and/or embankments, actually provide enhanced protection to surface infrastructure against such risks. The majority of proposed program activities would occur along Metropolitan's existing pipelines and patrol roads, which are generally inaccessible to the public. Proposed CIP projects and single-occurrence O&M activities would be designed by qualified individuals using industry standard practices. Infrastructure would be inspected and repaired, if necessary, in the event it experiences damage in an earthquake. The impacts of the proposed program with respect to public safety (i.e., loss, injury, or death) and/or property damage would be negligible; therefore, the impact would be less than significant.

Impact GEO-3: Soil Erosion or Loss of Topsoil

Stormwater runoff along patrol roads and intermittent flows in ephemeral creeks are locally resulting in scour, erosion, and gullying sufficient in magnitude to hinder passage of Metropolitan maintenance vehicles and threaten the integrity of Metropolitan's pipelines, appurtenant structures, and patrol roads. The proposed program would be implemented to repair this erosion and protect existing infrastructure. The proposed CIP projects include actions to minimize the potential for erosion to adversely affect Metropolitan's facilities, such as repairing/restoring existing rills and gullies through natural or engineered means, as well as constructing drainage improvements or stabilization structures to avoid excessive volume and velocity of stormwater runoff. Among the O&M activities proposed are routine inspections to detect and repair erosion issues as they appear, installation of erosion control features as needed, and grading of patrol roads to address existing erosion problem areas. These activities are limited to Metropolitan's existing facilities, are generally confined to previously disturbed areas, and will decrease the potential for existing erosion problems to continue or worsen in the future. The long-term impacts with respect to substantial soil erosion or the loss of topsoil would be less than significant.

Impact GEO-4: Location on Expansive Soil

Section 1803A.5.3 of the California Building Code provides criteria for soil expansion testing in association with structural design. The expansive potential of soils is typically related to the type and amount of clay minerals in a soil, along with the moisture content of the soil and how often it changes (i.e., wet/dry cycles). Expansive soils can be widely dispersed and are found in hillside areas as well as in low-lying areas in alluvial basins. Therefore, the proposed program area likely includes expansive soils.

This threshold of significance does not apply to routine O&M activities because Metropolitan's existing surface infrastructure would simply be maintained and would not require or involve the construction of new or expanded facilities. The type of facilities that would be installed for proposed CIP projects and single-occurrence O&M activities, such as paving, Arizona crossings, culverts, grouted riprap, and concrete ditches, are not habitable structures and would not expose the public to substantial risks to life or property if they were damaged by expansive soils. Standard engineering practices, such as use of sandy (i.e., non-clay-rich) fill soils, and other methods would be used to ensure that proposed facilities do not experience damage or failure due to expansive soil. For these reasons, the impact of the proposed program to life or property from expansive soils would not be significant.

Impact GEO-5: Incapability of Supporting Septic Tanks/Alternative Wastewater Systems

Proposed CIP projects and O&M activities would not involve any septic tanks or alternative wastewater disposal systems; therefore, there would be no impact on this topic from the proposed program.

4.3.6.2 Applicant Proposed Measures

APM-GEO-1 **Earthwork and Grading Best Practices.** Metropolitan's design plans, including proposed site grading and earthwork activities, for the proposed program will seek to minimize ground disturbance and shall be coordinated with local jurisdictions, as appropriate. Local jurisdictional restrictions and requirements will be included in the development of project designs. Metropolitan's design plans will be submitted to local jurisdictions for their review and approval as necessary. Comments received from the local jurisdictions will be incorporated into project designs to the extent possible. Metropolitan's contractors shall obtain grading permits as required by the local jurisdictions.

Proposed projects shall implement the following earthwork considerations, as applicable:

- *Remedial Grading:* Prior to grading, any fill zone shall be cleared of surface and subsurface obstructions. Voids created by removal of buried material shall be backfilled with properly compacted soil. Exposed subgrade in fill zones shall be scarified to a depth of at least 6 inches, moisture conditioned to above optimum, and compacted to at least 90 percent of the American Society for Testing and

Materials (ASTM) D 1557-12 (modified Proctor) laboratory maximum density. In some cases, wet subgrades may need to be stabilized with crushed rock, geogrids, and/or other methods.

- *Compacted Fill/Backfill:* Fill materials shall be naturally occurring, well-graded soil or soil/rock combinations free of wood, trash, construction debris, and organic, contaminated, or deleterious material.
- *Temporary Excavations*: When necessary to prevent caving and to protect adjacent structures or property, trenches and excavations shall be protected, shored, sheeted, braced, or sloped in accordance with CCR Title 8 and the regulations of local authorities having jurisdiction. Excavation requirements are outlined in Metropolitan's construction specifications, and Metropolitan staff will review and approve the contractor's excavation plans. Safety standards established within the California Occupational Safety and Health Administration (Cal/OSHA) CCR Construction Safety Orders (CSOs) and General Industry Safety Orders (GISOs) that are applicable to the work shall be adhered to. Metropolitan construction inspectors will also monitor compliance with regulations.

APM-HYD-1 See Section 4.3.9.2.

4.3.6.3 Finding

Implementation of the proposed program would not have an adverse effect related to location on a geologic unit or soil that is unstable or that would become unstable as a result of the program and potentially result in an on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. The proposed program would also not expose people or structures to potential substantial adverse effects related to rupture of a known earthquake fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides. The proposed program would not result in substantial soil erosion, would not be located on expansive soil creating substantial risks to life or property, and would not use alternative wastewater disposal systems. Impacts related to geology and soils would be less than significant, as described in Section 4.5 (Geology and Soils) of the Draft PEIR. Therefore, no mitigation would be required and no significant, unavoidable adverse impacts would occur.

4.3.7 Greenhouse Gas Emissions

4.3.7.1 Less Than Significant Impacts to Greenhouse Gas Emissions

Impact GHG-1: Generation of Greenhouse Gas Emissions

Construction of the CIP projects and O&M activities under the proposed program would result in greenhouse gas (GHG) emissions, which are primarily associated with use of off-road construction

equipment, on-road hauling and vendor trucks, and worker vehicles. The proposed program would not generate operational emissions. Annualized construction emissions over 30 years are compared with the GHG significance threshold of 3,000 MT CO2e to determine the significance of proposed program-generated GHG emissions.

It is estimated that 60 percent of the required CIP projects would occur in 2020, and the remaining 40 percent would occur in 2021. All CIP projects are expected to be completed during 2020 and 2021. Representative CIP Project C (slope stabilization) was estimated to result in the greatest emissions of the CIP projects analyzed (i.e., result in emissions greater than Representative CIP Project B, which represented erosion control projects). Representative CIP Project C would also result in emissions greater than Representative CIP Project A (patrol road improvements and paving); therefore, the emissions estimated for CIP Activity Code No. 3 were assumed to conservatively estimate total annual GHG emissions for CIP projects categorized as CIP Activity Code Nos. 1, 2, and 3 or CIP Activity Code Nos. 2 and 3. Construction of CIP projects would result in approximately 164 metric tons (MT) carbon dioxide equivalent (CO_2e) in 2020 and 66 MT CO_2e in 2021.

Metropolitan estimated that the annual frequency of O&M Activity Code No. 1 would be every year from January to March. Accordingly, it was assumed that there would be 55 days (22 working days per month) of patrol road grading in 2020 and 2021, as well as in future years. Emissions generated during Representative O&M Activity A (grading of patrol roads) construction was estimated on a per-day basis. As such, the greatest emissions associated with O&M Activity Code A were multiplied by 55 days to conservatively estimate annual GHG emissions. For O&M Activity Code Nos. 6, 11, and 15, Metropolitan provided estimated annual occurrences of 15, 15, and 1 occurrences per year, respectively. The estimated GHG emissions for Representative O&M Activities B, C, and D were multiplied by the estimated annual occurrences to estimate annual emissions. O&M activities would result in approximately 144 MT CO_2e per year. It is anticipated that O&M activities would occur in 2020 and 2021, and would continue to occur over the duration of proposed program implementation. Future activities would potentially involve fewer projects (daily and annual) and the intensity of activities may be reduced; as such, GHG emissions associated with O&M activities in 2020 through 2050 are expected to result in lower GHG emissions than analyzed in the Draft PEIR for the proposed program.

Construction of CIP projects in 2020 and 2021 and construction of O&M activities over 30 years is estimated to result in a combined total of approximately 4,537 MT CO_2e. Program construction emissions amortized over 30 years would be approximately 151 MT CO_2e. Estimated average annual construction emissions would not exceed the SCAQMD thresholds of 3,000 MT CO_2e. Therefore, the proposed program (all CIP projects and O&M activities) would not result in cumulatively considerable emissions. Impacts would be less than significant.

Impact GHG-2: Conflict with Applicable Plan, Policy, or Regulation for GHG Reduction

Metropolitan has not adopted a comprehensive climate action plan. However, in 2011, the County adopted the San Bernardino County GHG Reduction Plan. The GHG Reduction Plan presents a comprehensive set of actions to reduce its internal and external GHG emissions to 15 percent below current levels by 2020, consistent with the Assembly Bill 32 Scoping Plan (Scoping Plan; CARB 2008). Projects that do not exceed 3,000 MT CO_2e per year are considered to be consistent with the GHG Reduction Plan and determined to have a less than significant individual and cumulative impact for GHG emissions (County of San Bernardino 2011). Construction of the proposed program would not exceed the screening threshold of 3,000 MT CO_2e per year. As discussed previously, the proposed program would result in a total of approximately 4,537 MT CO_2e, which amortized over 30 years would be approximately 151 MT CO_2e. Therefore, the proposed program would not conflict with the County's GHG Reduction Plan.

The proposed program involves implementation of CIP projects and O&M activities on existing infrastructure, which entails short-term use of construction equipment and worker vehicle trips. As such, the proposed program would not conflict with the goals and policies of the Regional Transportation Plan/Sustainable Communities Strategy.

The Scoping Plan provides a framework for actions to reduce California's GHG emissions and requires the California Air Resources Board and other state agencies to adopt regulations and other initiatives to reduce GHG emissions. To the extent that these regulations are applicable to the proposed program, the program would comply with all regulations adopted in furtherance of the Scoping Plan to the extent required by law.

The proposed program would not interfere with implementation of any of the previously described GHG reduction goals for 2030 or 2050 because—as evidenced previously—the proposed program's amortized GHG emissions of 151 MT CO_2e would be substantially lower than the SCAQMD significance threshold of 3,000 MT CO_2e. Therefore, the proposed program would not conflict with the state's trajectory toward future GHG reductions and the proposed program's impacts on GHG emissions in the 2030 and 2050 horizon years would be less than significant.

4.3.7.2 Finding

Implementation of the proposed program would not have impacts with regard to generation of greenhouse gas emissions, either directly or indirectly, or conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing greenhouse gas emissions, as described in Section 4.6 (Greenhouse Gas Emissions) of the Draft PEIR. Therefore, no mitigation would be required and no significant, unavoidable adverse impacts would occur.

4.3.8 Hazards and Hazardous Materials

4.3.8.1 Less Than Significant Impacts to Hazards and Hazardous Materials

Impact HAZ-1: Location on a Hazardous Materials Site

There are no patrol road improvements and paving, engineered erosion control, or slope stabilization projects or single-occurrence O&M activities located on a site that is included on a list of hazardous materials. Hazardous material sites either are located far enough away from the ROW to not have an impact on the proposed program or have received regulatory closure. While there are no program-specific impacts that directly require APM-HAZ-1, APM-HAZ-2, or APM-HAZ-3 (see Section 4.3.8.2) to be implemented, these measures are standard practice for Metropolitan, and they would be applied generally, as needed, throughout the proposed program. The potential impacts with respect to these issues would be less than significant.

Routine O&M activities could occur within the segments of the Inland Feeder that extend through the lead shot fallout zone of the Highland Site, approximately Inland Feeder Station 740+00 to Inland Feeder Station 765+00. The Highland Site is not a Cortese List site; therefore, impacts would be less than significant. However, O&M road grading activities associated with this segment of the Inland Feeder, although relatively brief in duration, could expose workers to an unacceptable risk of lead exposure. Implementing APM-AQ-2 (see Section 4.3.3.2) and APM-HAZ-3 would reduce the potential for airborne lead particles, as well as workers' exposure to lead, thereby reducing potential impacts related to lead-contaminated soil in this particular area. No earthwork, including soil excavation by hand or using equipment, is anticipated in this area as part of O&M activities. With implementation of APM-AQ-2 and APM-HAZ-3, a significant hazard to the public or environment would not be anticipated for routine O&M activities in the lead-impacted area.

Impact HAZ-2: Impairment of an Emergency Response Plan

Proposed patrol road improvements and paving, engineered erosion control, and soil stabilization projects and all O&M activities would be constructed primarily within Metropolitan's ROW, and would not impact interstates, highways, or prime arterials; therefore, impacts to emergency response plans would not occur. However, there could be instances where there may be a need to partially obstruct a public road or a Metropolitan patrol road that could serve as an emergency access. However, should design plans require this, then prior notification and coordination with emergency services providers and other road users (e.g., residents, agencies) regarding construction, road closures, and detours, as specified in APM-TR-1 (see Section 4.3.16.2), would minimize temporary impacts during construction. Metropolitan would coordinate with local jurisdictions and, as necessary, prepare a Traffic Control Plan as specified in APM-TR-1 to avoid or minimize impacts to local roadways and emergency response situations. With implementation of APM-TR-1 as part of Metropolitan's standard

practice, CIP projects and O&M activities implemented under the proposed program would not result in inadequate emergency access and the impacts would be less than significant.

Impact HAZ-3: Exposure to Risk of Wildland Fires

Patrol road improvements and paving projects, engineered erosion control projects, soil stabilization projects, and routine O&M activities located on portions of the Rialto Pipeline, Inland Feeder, and Upper Feeder are located within a fire hazard severity zone. Single-occurrence O&M activities may occur in areas that are designated as Moderate, Very High, and High fire hazard areas. Short-term construction activities associated with the proposed program in these areas could introduce potential sources of ignition. For example, heavy equipment and worker vehicles, through heated exhausts or sparks in contact with dry vegetation, may result in ignition. The potential for patrol road paving projects, engineered erosion control projects, soil stabilization projects, and single-occurrence O&M activities to ignite a wildfire is considered low; however, the threat of starting a wildfire may be elevated during dry and windy days and in locations with abundant fuel sources (e.g., dry grasses, shrubs, and brush). Additionally, the potential effects of routine O&M activities with respect to wildfire ignition sources may be somewhat elevated in comparison, because certain O&M activities could require hot work. APM-HAZ-4 (see Section 4.3.8.2) would be implemented to aid in reducing the potential for a fire incident and to give work crews the tools needed to respond to a small fire. Therefore, impacts of the proposed program regarding exposure of people and structures to wildfire would be less than significant.

Impact HAZ-4: Routine Transport, Use, or Disposal of Hazardous Materials

Small quantities of hazardous materials (i.e., quantities small enough to be transported on a utility truck), such as solvents, lubricants, enamels, paint, fuel, pesticides, and herbicides, would be used during construction of proposed CIP projects and single-occurrence O&M activities, as well as during routine O&M activities, such as facility and equipment maintenance, cleaning, graffiti removal, coating, and vegetation maintenance. These substances are currently used in the process of routine maintenance and repair activities conducted by Metropolitan along its conveyance and distribution system pipelines in accordance with all applicable federal, state, and local laws. All coatings, paint colors, and brands are approved by Metropolitan; pesticides and/or herbicide products are applied according to their material safety data sheets and product labels; and all applicable federal Occupational Safety and Health Administration (OSHA) and Cal/OSHA regulations are adhered to. Metropolitan would not be transporting, using, or disposing of hazardous materials in large quantities during implementation of the proposed CIP projects and O&M activities. No new facilities would be constructed that would require storage of hazardous materials on site. Pesticide and herbicide applications and other hazardous materials would be used only where needed and primarily in areas not frequented by the public (i.e., within Metropolitan's ROW). Additionally, Metropolitan implements APM-HAZ-1 and APM-HAZ-2 as standard BMPs, further reducing potential impacts from routine transport, use, or disposal of hazardous materials. The use, transport, and disposal of hazardous materials associated with the proposed program would, therefore, result in a less than significant impact.

Impact HAZ-5: Release of Hazardous Materials into the Environment

The proposed CIP projects and O&M activities would involve the use and transport of small quantities (i.e., quantities small enough to be transported on a utility truck) of hazardous materials such as solvents, lubricants, enamels, paint, fuel, pesticides, and herbicides, but would do so in accordance with applicable federal, state, and local laws. Hazardous materials would be used only where needed, and primarily in areas not frequented by the public (i.e., within Metropolitan's ROW). None of the proposed activities would involve permanent use or storage of hazardous materials. Additionally, Metropolitan implements APM-HAZ-1 and APM-HAZ-2 as standard BMPs, further reducing potential impacts from a potential release of hazardous materials. It is unlikely that the small quantities of hazardous materials associated with the proposed program would create a significant hazard to the public or environment through a release of hazardous materials; therefore, impacts would be less than significant.

Impact HAZ-6: Hazardous Emissions/Materials near Schools

No extremely hazardous materials or acutely hazardous wastes are associated with the proposed program. The proposed program would involve the use, transport, and disposal of very small quantities of hazardous materials, such as solvents, lubricants, enamels, paint, fuel, pesticides, and herbicides. Use of hazardous materials would be limited to Metropolitan's ROW. All hazardous materials would be transported and used in accordance with applicable federal, state, and local laws. The proposed program would not generate hazardous emissions that would affect an existing or proposed school; therefore, these impacts would be considered less than significant.

Impact HAZ-7: Safety Hazard near a Public Airport

Existing Metropolitan pipelines are located within 2 miles of Redlands Municipal Airport, San Bernardino International Airport, and Rialto Municipal Airport, and the Upper Feeder is located within 2 miles of Ontario International Airport; therefore, proposed CIP projects and O&M activities would occur within this area. Program activities, however, would be unlikely to result in a safety hazard for those working or residing in the area. Proposed CIP projects and O&M activities would not result in construction of facilities or structures that could visually or physically obstruct flight paths or roads leading to Redlands Municipal Airport, San Bernardino International Airport, or Ontario International Airport, and maintenance activities are currently ongoing in this area. The Federal Aviation Administration noticing criteria are not applicable to the proposed program because no new structures would be erected and all existing surface infrastructure is low profile or flush with the ground. Metropolitan employees would potentially be exposed to noise or dangers associated with nearby air traffic; however, work in these areas would be temporary and short term, reducing the likelihood that employees would be significantly impacted by these effects. These impacts would be less than significant.

Impact HAZ-8: Safety Hazard near a Private Airstrip

The Rialto Pipeline is located within 2 miles of Cable Airport, which is located in the city of Upland; therefore, proposed O&M activities would occur within this area. These activities include patrol road maintenance, graffiti removal and coating of structures, and vegetation maintenance around structures. Proposed program activities would be unlikely to result in a safety hazard for those working or residing in the area. Proposed CIP projects and O&M activities would not result in the construction of facilities or structures that could visually or physically obstruct flight paths or roads leading to Cable Airport, and maintenance activities already occur routinely without issue. Metropolitan employees are not likely to be exposed to noise or dangers associated with nearby air traffic because work in these areas would be temporary and short term, reducing the likelihood that employees would be significantly impacted by these dangers. No impacts would occur.

4.3.8.2 Applicant Proposed Measures

APM-HAZ-1 **Hazardous Materials Management.** Hazardous materials storage shall be in compliance with the California Environmental Protection Agency's Department of Toxic Substances Control requirements. Metropolitan and/or its contractor shall be responsible for proper handling, packaging, transportation and disposal of all hazardous waste brought on site or generated on site through incidental use, including but not limited to aerosol spray cans and empty vehicle fluid and cleaning cans. Hazardous materials shall be stored in covered, leak-proof containers when not in use, away from storm drains and heavy traffic areas, and shall be protected from rainfall infiltration and vandalism. Hazardous materials shall be stored separately from non-hazardous materials, on a surface that prevents spills from permeating the ground surface, and in an area secure from unauthorized entry at all times. Incompatible materials shall be stored separately from each other.

APM-HAZ-2 **Previously Unidentified Hazardous Materials.** Should hazardous materials previously not identified be discovered during construction and/or grading activities, Metropolitan and/or its contractor shall stop work in the area immediately and notify the health and safety representative, who will assess the situation and take appropriate actions, including but not limited to clearing the work area, posting signs and securing the area from unauthorized entry, and notifying the appropriate local authorities. Metropolitan and contractor personnel shall ensure that on-site workers are trained to identify and recognize potentially hazardous materials (e.g., unmarked containers, stained soils, suspicious odors, refuse from illegal dumping).

APM-HAZ-3 **Health and Safety Procedures for Lead-Contaminated Soil.** Metropolitan has standard procedures to manage potential hazards related to lead-contaminated soil: Exposure Assessments and Patrol Road Maintenance Guidelines. These standard procedures have been established by the Metropolitan Safety Regulatory Services (SRS) as follows:

- **Exposure Assessments.** In the event work activities may expose C&D and/or construction service unit (CSU) employees to lead (or other heavy metals), an exposure assessment will be conducted in the potentially contaminated area. The employees will wear an air pump with sampling cassette throughout the work day. The sampling cassette will be taken to a lab to determine the amount of airborne lead (or other metal) exposure. Based on the lab results, Metropolitan SRS will implement personal protective measures for employees required to work in the exposure area.
- **Patrol Road Maintenance Guidelines.** Special safety precautions procedures are required for maintenance work on the Inland Feeder at the approximate location of the Highland Site. These procedures include driving with windows up, driving at slow speeds to reduce airborne dust, not causing airborne dirt while working, rinsing footwear prior to entering a vehicle, and using Lead-Off wet wipes to wipe down hands and other exposed skin areas before re-entering a vehicle.

APM-HAZ-4 **Fire Protection and Fire Safety.** Metropolitan or Metropolitan's contractor shall provide fire safety measures during construction activities in compliance with Chapter 14 of the California Fire Code. Gasoline-powered or diesel-powered machinery used during construction shall be equipped with standard exhaust controls and muffling devices that will also act as spark arrestors. Fire containment and extinguishing equipment shall be located on site and shall be accessible during construction activities. Construction workers shall be trained in use of the fire suppression equipment and shall not be permitted to idle vehicles on the job site when not in use. Where hot work is necessary, it shall be performed in compliance with the California Fire Code's Chapter 35, "Welding and other Hot Work," and the National Fire Protection Association's 51-B, "Fire Prevention During Welding, Cutting and other Hot Work."

APM-AQ-2 See Section 4.3.3.

APM-TR-1 See Section 4.3.16.

4.3.8.3 Finding

Implementation of the proposed program would not have impacts related to the routine transport, use, or disposal of hazardous materials, nor would it release hazardous materials into the environment through reasonably foreseeable accident and upset conditions or release hazardous materials or emissions near schools. The proposed program would not be located on a hazardous materials site and it would not pose a safety hazard near public or private use airports. The proposed program would also not impair the implementation of or physically interfere with an adopted emergency response or evacuation plan or expose people or structures to significant risk involving wildfires. Impacts related to hazards and hazardous materials would be less than significant, as

described in Section 4.7 (Hazards and Hazardous Materials) of the Draft PEIR. Therefore, no mitigation would be required and no significant, unavoidable adverse impacts would occur.

4.3.9 Hydrology and Water Quality

4.3.9.1 Less Than Significant Impacts to Hydrology and Water Quality

Impact HYD-1: Violation of Water Quality Standards

Patrol Road Improvements and Paving (CIP Activity Code No. 1)

Construction activities could create land disturbances and temporarily introduce the potential for increased levels of sediment and other construction-related pollutants (e.g., fuels, grease, debris) into local receiving waters. These potential impacts are predominantly temporary because all work areas would be restored to pre-construction conditions to the extent practicable following construction and because the ultimate intent of the proposed CIP projects and O&M activities is to reduce infrastructure access problems stemming from erosion and sedimentation.

The proposed program's impacts to previously undisturbed land (i.e., native soils and vegetation) would be minimal, would be geographically dispersed in scattered locations along the linear ROW, and would not occur simultaneously. Temporary work areas have been located so as to maximize the use of existing roads and previously disturbed land, and new disturbances of native soils and vegetation would be geographically disconnected and generally confined to areas on the edges of existing roads, turnaround/turnout areas, and pipeline appurtenances. Disturbance of previously undisturbed land would not be anticipated in many scenarios; however, where this type of disturbance would occur, the infiltration capacity and stormwater retention provided by undisturbed soils and vegetation would be reduced.

Construction activities have the greatest potential to adversely affect water quality when conducted during the rainy season, within erosion-prone soils, and/or within sediment-sensitive watersheds or water bodies listed in Section 303(d) of the Clean Water Act. Pollutant categories that construction activities have the potential to release include sediment, debris (trash and litter), oils and grease, fuels, and substances that can change the pH or oxygen levels (e.g., decaying organic matter, concrete washouts). Metropolitan routinely implements standard water quality BMPs in all of its construction activities. In addition, compliance with conditions identified in the regulatory permits issued by ACOE, the Santa Ana Regional Water Quality Control Board (RWQCB), and/or the California Department of Fish and Wildlife (CDFW) would include location-specific conditions to adequately protect water quality and riparian/aquatic biota. Because most patrol road paving activities would be confined to previously disturbed areas, disturbance of previously undisturbed land would not be anticipated in many scenarios.

Although construction site dewatering is not anticipated due to the shallow nature of the disturbances, per APM-HYD-3 (see Section 4.3.9.2), Metropolitan would obtain all approvals

necessary from the Santa Ana RWQCB if conditions warrant dewatering of groundwater from excavations. This could include a waiver with conditions (i.e., under the general permit for "low-threat" discharges) or other means. In any case, Metropolitan would be required to ensure that discharges do not adversely affect a water of the state.

The required implementation of a SWPPP per the State Water Resources Control Board (SWRCB) Construction General Permit (CGP) (where applicable), implementation of APMs specified in this section, and compliance with conditions identified in the regulatory permits issued by ACOE, RWQCB, and/or CDFW would ensure that construction activities associated with the proposed program would not violate any federal, state, or regional water quality standards or waste discharge requirements, or otherwise substantially degrade surface or groundwater quality during construction. For sites less than 1 acre in size, Metropolitan's Master Specifications (Section 01072) require preparation and implementation of a water pollution control plan that requires personnel and contractors to install and maintain erosion control devices, as specified in the Caltrans Stormwater Quality Manuals and Handbooks, within and around the construction work area to minimize or avoid sediment-laden runoff exiting the construction zone. For the reasons above, with incorporation of APM-HYD-1 through APM-HYD-11 as part of Metropolitan's standard practice, impacts of proposed patrol road improvements and paving with respect to this criterion would be less than significant.

Engineered Erosion Control (CIP Activity Code No. 2)

The analysis and conclusions with respect to this criterion would be similar to those discussed above for proposed patrol road improvements and paving (CIP Activity Code No. 1). The implementation of a SWPPP per the SWRCB CGP (where applicable), implementation of APMs as described under patrol road improvements and paving (except APM-HYD-2, which is specific to patrol roads), and compliance with other National Pollutant Discharge Elimination System (NPDES) permits (e.g., dewatering) would ensure that construction activities associated with the proposed program would not violate any federal, state, or regional water quality standards or waste discharge requirements, or otherwise substantially degrade surface or groundwater quality during construction.

Proposed engineered erosion control activities that cross streams or washes would be subject to regulatory permits from ACOE, RWQCB, and/or CDFW. In issuing these permits, the agencies would require that certain conditions be met to adequately protect water quality and riparian/aquatic biota. For temporarily impacted areas, the proposed rehabilitation of impact areas shall include restoration, soil salvage, and/or reseeding of native vegetation communities, including coastal sage scrub and riparian/wetland communities.

Engineered erosion control projects within a wash or creek would have a higher potential to violate water quality standards during and immediately following construction. These areas include Waterman Canyon/Twin Canyon (Inland Feeder Station 225+00 to 295+00) and Cable Creek/Devil Canyon (Inland Feeder Station 0+00 to 42+00). However, implementation of APMs and compliance with regulatory permits from ACOE, RWQCB, and CDFW would ensure that impacts would be less than

significant. The long-term impacts could be beneficial, because the intent of the proposed engineered erosion control projects is to prevent excess sediment deposition and accelerated erosion. In addition, incorporation of APM-HYD-1 and APM-HYD-3 through APM-HYD-11 into the proposed program as part of Metropolitan's standard practice would result in less than significant impacts.

Slope Stabilization (CIP Activity Code No. 3)

The impacts of proposed slope stabilization projects with respect to violation of water quality standards would be less than significant for the same reasons described previously for engineered erosion control projects (CIP Activity Code No. 2). With the implementation of APM-HYD-1 and APM-HYD-3 through APM-HYD-10 as part of Metropolitan's standard practice, impacts from slope stabilization projects would be less than significant.

Routine O&M Activities

Generally, analysis and conclusions with respect to this criterion are the same as discussed above for proposed patrol road improvements and paving (CIP Activity Code No. 1); however, routine O&M activities are generally less intense and of shorter duration than the proposed CIP projects, and many would not require appreciable land disturbance in previously undisturbed areas.

Patrol road maintenance would include actions such as removal of soil, debris, and vegetation from drainage structures to minimize the likelihood of erosion problem areas developing in the future. As part of Metropolitan's standard practice, unpaved patrol roads may be regraded periodically to promote sheetflow by outsloping, and would include placement of additional cross-drains or armoring the inlets and outlets of drainage pipes where drainage problems are observed. These actions would be preventive, to ensure that problems associated with erosion and scour are reduced in subsequent storms. Patrol road maintenance could involve land disturbance, but with the specific purpose of preparing the patrol road to properly convey stormwater during wet weather and to discourage erosion. With implementation of the APMs provided in Section 4.3.9.2, except APM-HYD-1 (because O&M activities are exempt from the CGP), impacts from patrol road maintenance on hydrology and water quality would be less than significant.

Routine O&M activities would also involve pipeline shutdowns and dewatering activities. Discharges of raw water and treated drinking water, if performed improperly, could contribute constituents of concern and adversely affect surface water quality. As part of standard practice, prior to releasing water into storm drains or flood control facilities, Metropolitan would coordinate with the city or agency with jurisdiction over the drains or facilities receiving the discharges. Also as part of standard practice, Metropolitan would notify the appropriate RWQCB of the discharge activity. Any chlorinated or chloraminated water would be neutralized prior to being discharged into any channel or drain. Water samples of discharged water must be submitted to the Metropolitan water quality lab for analysis. Pipeline shutdowns and dewatering activities would be performed in compliance with the specific conditions of the RWQCB waste discharge requirements (e.g., treatment prior to discharge,

restrictions on rate of discharge, and armoring/protecting discharge location). For these reasons, the effect of pipeline shutdowns and dewatering activities on hydrology and water quality would be less than significant.

Vegetation maintenance activities could include application of herbicides and pest control chemicals. If improperly applied, such products could be mobilized and contribute to water quality degradation in receiving waters. Metropolitan's standard practice, per APM-HYD-11, is to ensure that all pesticide and herbicide applications occur under the direction of a professional pesticide applicator with either a Qualified Applicator License or an Agricultural Pest Control Adviser License in California. Label instructions and all applicable laws and regulations are strictly followed in the application of pesticides and herbicides and in the disposal of excess materials and containers. Only those materials registered by the U.S. Environmental Protection Agency for the specific purpose are authorized for use. Before applying any pesticides or herbicides in parks or on state or federal land, Metropolitan obtains approval from the appropriate agency. Based on these standard practices, use of herbicides and pest control chemicals would occur only where needed, and in accordance with all applicable laws and regulations requiring licensed professionals to carry out the activity. For this reason, the impact associated with vegetation maintenance activities would be less than significant.

With implementation of the APMs related to erosion, sedimentation, and discharge control (APM-HYD-2 and APM-HYD-3); vehicle maintenance (APM-HYD-4 and APM-HYD-5); work in or in proximity to stream and creek crossings (APM-HYD-6 through APM-HYD-10); and herbicide use (APM-HYD-11) as part of Metropolitan's standard practice, the effect of routine O&M activities on hydrology and water quality would be less than significant and water quality standards and waste discharge requirements would not be violated.

Single-Occurrence O&M Activities

The analysis and conclusions with respect to this criterion would be similar to that discussed above for engineered erosion control projects (CIP Activity Code No. 2). The required implementation of a SWPPP per the SWRCB CGP (if applicable), implementation of APMs, and compliance with other NPDES permits (e.g., dewatering) would ensure that single-occurrence O&M activities associated with the proposed program would not violate any federal, state, or regional water quality standards or waste discharge requirements, or otherwise substantially degrade surface or groundwater quality.

Proposed single-occurrence O&M activities that cross streams or washes would be subject to jurisdictional permits from ACOE and/or RWQCB, and/or streambed alteration agreements from CDFW. In issuing these permits, the agencies would require that certain conditions be met to adequately protect water quality and riparian/aquatic biota. For temporarily impacted areas, the proposed rehabilitation of impact areas would include restoration, soil salvage, and/or reseeding of native vegetation communities, including coastal sage scrub and riparian/wetland communities.

Because these activities would be designed to ensure passage of stormwater flows without causing substantial erosion and scour, the impact would be less than significant. For the long term, impacts could be beneficial, because the intent of single-occurrence O&M activities is to prevent excess sediment deposition and accelerated erosion. Implementation of APM-HYD-1 and APM-HYD-3 through APM-HYD-11 as part of Metropolitan's standard practice would reduce any impacts to less than significant.

Impact HYD-2: Alteration of Drainage Pattern, Causing Erosion/Siltation

Impact HYD-3: Alteration of Drainage Pattern, Causing Flooding

Patrol Road Improvements and Paving (CIP Activity Code No. 1)

Metropolitan would properly design the roads to avoid or substantially minimize adverse impacts due to local increases in impervious surfaces associated with patrol road paving. All new road paving projects would be designed to match the pre-paving hydrology to the greatest extent feasible, would promote sheet flow and avoid concentrated flow, and would incorporate velocity dissipation devices (e.g., armored ditches and outlets) where necessary to avoid substantial erosion or scour. Road designs would be prepared or reviewed by a qualified licensed (professional) engineer with relevant expertise in small roadway drainage designs. The designed drainage solution(s) would be included in the approved CIP project to ensure the avoidance or minimization of substantial damage, soil loss, or flooding along the identified road segments. Examples of such solutions could include the following:

- Outsloping roads wherever possible to minimize concentrated flows
- Where required for proper maneuvering and safety, creating properly designed ditches that will carry anticipated flows away from the roads
- Installing rolling dips, ditch relief culverts, and/or water bars at intervals appropriate for the road grade and soil erosivity
- Armoring ditches and outlets with riprap or heavy woody debris
- Minimizing the number of water crossings and maintaining crossings as close to a 90° angle as possible to the streambed
- Constructing perennial and seasonal/ephemeral stream crossings so as not to change the cross-sectional area of the stream channel or impede fish migration
- Constructing perennial and seasonal/ephemeral stream crossings with materials that will not degrade water quality (e.g., concrete, coarse rock, riprap, and/or gabions)

Proper design of patrol road paving segments as described above is consistent with APM-HYD-2 and APM-HYD-7. Implementation of APM-HYD-1 would ensure that BMPs are prescribed to protect stormwater runoff and ensure avoidance of substantial degradation of water quality. In addition, with implementation of APM-HYD-2, APM-HYD-3, and APM-HYD-7 through APM-HYD-10 as part of Metropolitan's standard practice, alteration of the drainage pattern would not cause substantial

erosion/siltation and/or flooding. As previously discussed, for sites less than 1 acre in size, Metropolitan's Master Specifications (Section 01072) require preparation and implementation of a water pollution control plan to minimize or avoid sediment-laden runoff exiting the construction zone. Therefore, potential impacts on stormwater runoff volumes and velocity associated with proposed patrol road improvements and paving would be less than significant.

Engineered Erosion Control (CIP Activity Code No. 2)

One of the purposes of proposed engineered erosion control projects is to safely direct stormwater flows or creek flows across or along patrol roads or around pipeline appurtenances, preventing excess sediment deposition and accelerated erosion through features that convey creek flows and/or stormwater flows without impeding or accelerating the flows. Although engineered erosion control activities could alter the existing drainage pattern of the related work areas, they would do so in a manner that prevents or substantially reduces further erosion and scour. Because the improvements would be designed to accommodate 25- and 100-year storm events, they would not have substantial adverse effects with regard to flooding. For the reasons above, with the implementation of the APMs related to erosion, sedimentation, and discharge control (APM-HYD-1 and APM-HYD-3) and work in or in proximity to stream and creek crossings (APM-HYD-7 through APM-HYD-10) as part of Metropolitan's standard practice, the impacts of proposed engineered erosion control projects with respect to alteration of drainage patterns would be less than significant.

Slope Stabilization (CIP Activity Code No. 3)

The impacts of proposed slope stabilization projects with respect to alteration of drainage patterns would be less than significant for the same reasons described previously for engineered erosion control projects (CIP Activity Code No. 2). Implementation of APM-HYD-1, APM-HYD-3, and APM-HYD-7 through APM-HYD-10 as part of Metropolitan's standard practice would reduce any impacts.

Routine O&M Activities

Routine O&M activities would not require substantial alteration of drainage patterns because the activities are minor and would involve existing infrastructure. The only grading activities required would be for the purpose of maintaining existing drainage patterns and avoiding future erosion or scour issues. For routine O&M activities, there would not be a substantial alteration of the drainage pattern that would cause erosion/siltation and/or flooding; therefore, potential impacts on stormwater runoff volumes and velocity associated with routine O&M activities would be less than significant.

Single-Occurrence O&M Activities

The analysis and conclusions with respect to single-occurrence O&M activities under these criteria would be similar to those discussed above for engineered erosion control projects (CIP Activity No. 2). Although single-occurrence O&M activities within a wash or creek would have a higher potential

to alter drainage patterns during and immediately following construction, implementation of APMs related to erosion, sedimentation, and discharge control (APM-HYD-1 through APM-HYD-3) and work in or in proximity to stream and creek crossings (APM-HYD-7 through APM-HYD-10) as part of Metropolitan's standard practice, along with compliance with regulatory permits from ACOE, CDFW, and RWQCB, would ensure that impacts would be less than significant. For the long term, impacts could be beneficial, because the intent of single-occurrence O&M activities is to prevent excess sediment deposition and accelerated erosion.

Impact HYD-4: Excess Runoff Water

CIP Projects (All)

Patrol road improvements and paving would typically occur on unpaved patrol roads located in open space/undeveloped areas that are not directly served by urban storm drains. Stormwater runoff flowing through the Metropolitan ROW would typically enter the nearest wash or drainage channel rather than urban underground storm drains. While this criterion is generally not applicable to patrol road paving projects, there could be locations where patrol roads are situated in areas where flows eventually run off into an urban storm drain; however, the increase in runoff due to road paving would be minimal because paving would occur on existing patrol roads that are unpaved but have already been graded and compacted for vehicle access. Therefore, the areas to be paved are already disturbed and highly compacted, and thus have little to no capacity to slow or decrease runoff through infiltration or evapotranspiration. In addition, as specified in APM-HYD-2, proper design of roadways would minimize potential increases in the rate and volume of stormwater runoff. Therefore, with incorporation of APM-HYD-2 into the proposed program as part of Metropolitan's standard practice, impacts of proposed patrol road improvements and paving projects on the capacity of existing or planned stormwater drainage systems would be less than significant.

Proposed engineered erosion control projects, by their nature, are intended to avoid excess runoff water, avoid scour and sediment deposition along Metropolitan facilities, and slow the velocity of runoff such that downstream impacts are minimized. In addition, engineered erosion control projects would not affect the existing volume of stormwater runoff. The impacts of proposed slope stabilization projects with respect to exceeding the capacity of existing or planned stormwater drainage systems, resulting in excess runoff, would be less than significant for the same reasons described for engineered erosion control projects. Therefore, the engineered erosion control and slope stabilization elements of CIP projects would have a less than significant impact with respect to exceeding the capacity of existing or planned stormwater drainage systems.

O&M Activities (All)

Compared to existing conditions, proposed O&M activities would result in no appreciable change in the amount of runoff draining from Metropolitan's facilities and patrol roads. O&M activities would not involve addition of impervious surfaces or construction of new drainage facilities. The only

proposed O&M activities that could impact the stormwater drainage system are shutdowns/dewatering, because water from the pipelines may be discharged into the nearest storm drain inlet. Metropolitan pipelines convey raw and treated water, and would not constitute a source of polluted runoff. Additionally, Metropolitan uses Visqueen sheets, hoses, sandbags, and other BMPs to ensure that sediment is not washed into storm drains during dewatering. These activities would occur only when needed to access a segment of pipeline for inspections, repair, or emergency purposes, and are already occurring without exceeding the capacity of stormwater drainage systems or providing additional sources of polluted runoff. There are no other O&M activities that would impact stormwater drainage systems. Impacts would be less than significant for O&M activities.

Impact HYD-5: Other Substantial Degradation of Water Quality

CIP Projects (All)

Implementation of APM-HYD-1 through APM-HYD-11 and compliance with other NPDES permits (e.g., dewatering) would ensure that construction activities associated with the proposed program would not violate any federal, state, or regional water quality standards or waste discharge requirements, or otherwise substantially degrade surface or groundwater quality during construction. Proposed patrol road improvements and paving would not involve non-stormwater discharge or other activities that would otherwise cause substantial degradation to water quality. As a result, impacts to water quality would be less than significant.

For the same reasons described previously for patrol road improvements and paving (CIP Activity Code No. 1), including the implementation of APM-HYD-1 and APM-HYD-3 through APM-HYD-11 as part of Metropolitan's standard practice, the impacts of proposed engineered erosion control projects and slope stabilization projects with respect to other substantial degradation of water quality would be less than significant.

O&M Activities (All)

The range of potential effects of the proposed O&M activities on water quality are generally adequately captured by the previous criteria, including construction-related effects from land disturbance and long-term effects of single-occurrence O&M activities on drainage patterns. Shutdown/dewatering discharges, if improperly performed, have the potential to degrade water quality; however, as part of the proposed program, prior to discharging/dewatering treated water work crews would dechlorinate and pH test the water and check it for oily residue. Water samples of discharged water would be sent to the Metropolitan water quality lab for analysis. In addition, Metropolitan would notify the appropriate public and regulatory agencies with jurisdiction over affected bodies of water and drainage facilities. Impacts would be less than significant for O&M activities.

Impact HYD-6: Depletion of Groundwater Supplies

CIP Projects (All)

Proposed CIP projects are not anticipated to encounter groundwater during excavation or ground-disturbing activities; however, the potential for encountering groundwater does exist. Should groundwater be encountered during ground-disturbing activities and dewatering be necessary during construction, a general NPDES dewatering permit from the local RWQCB would be obtained by the contractor, and discharges would be made in accordance with the RWQCB requirements outlined in Order No. R8-2009-0003 (Santa Ana RWQCB 2009). Groundwater would not be pumped for CIP project activities. In addition, as a condition of coverage under Order No. R8-2009-0003, construction activities would be required to comply with established discharge prohibitions, including prohibitions contained in RWQCB water quality control plans and statewide water quality control plans. For these reasons, impacts to groundwater from implementation of proposed CIP projects would be less than significant.

O&M Activities (All)

Proposed O&M activities would primarily be related to maintenance of patrol roads and aboveground pipeline structures. There are no proposed O&M activities that would be invasive enough to potentially encounter groundwater during implementation. Also, groundwater resources would not be relied on for water supply, dust suppression, or any other need. Therefore, impacts to groundwater resulting from O&M activities under the proposed program would be less than significant.

Impact HYD-7: Placement of Housing in a Flood Hazard Area

The proposed program would not place housing within a 100-year flood hazard area; therefore, no impacts would occur.

Impact HYD-8: Placement of Structures Impeding/Redirecting Flood Flows in a 100-Year Flood Hazard Area

Some of the proposed CIP projects and O&M activities may be located within a 100-year flood hazard area; however, proposed routine O&M activities would not result in construction of any structures that would impede or redirect flows. Proposed CIP projects and single-occurrence O&M activities could include construction of drainage structures, culverts, and crossings, which are designed to carry the flow of water so that facilities are not damaged or the damage is reduced in the event of flooding. None of the proposed CIP projects or O&M activities would require construction of structures that would impede or redirect flood flows. Therefore, this impact would be less than significant.

Impact HYD-9: Risk of Loss/Injury/Death from Flooding, Including Levee/Dam Failure

Proposed CIP projects and O&M activities could occur within the vicinity of the Seven Oaks and San Antonio Dams (County of San Bernardino 2019a); however, the proposed CIP projects are related to

O&M activities that would occur along existing infrastructure that is already subject to flooding due to dam failure, and the types of CIP projects proposed would not increase the risk of loss, injury, or death as a result of flooding from levee or dam failure. No dams would be modified as part of the proposed program, and the types of projects and activities proposed would not involve structures that people would work or reside in. Therefore, this impact would be less than significant.

Impact HYD-10: Risk of Inundation by Seiche/Tsunami/Mudflow

The proposed program sites are not located in proximity to the ocean and therefore would not be susceptible to inundation by tsunamis. Seiches are oscillations in an enclosed body of water (e.g., sloshing in a reservoir) due to seismically induced ground shaking. Proposed program maintenance activities would occur along existing pipeline infrastructure that is not located adjacent to reservoirs or lakes. In addition, although mudflows could potentially occur in the vicinity of pipelines and related infrastructure, proposed maintenance activities would not result in inundation by mudflows. Therefore, impacts would be less than significant.

4.3.9.2 Applicant Proposed Measures

APM-HYD-1 **Implementation of a Stormwater Pollution Prevention Plan (SWPPP) or Water Pollution Control Plan, as Applicable.** For projects or activities subject to the State Water Resources Control Board (SWRCB) Construction General Permit (i.e., where construction disturbances would exceed 1 acre), mobilization or construction shall not begin on the project/activity site until Metropolitan has submitted permit registration documents, including a SWPPP, to the SWRCB and obtained a waste discharge ID number.

APM-HYD-2 **Grading of Patrol Roads.** Patrol roads will be graded in a manner that minimizes the channelization and ponding of stormwater and maximizes the dispersion of runoff via sheet flow (rather than erosive, high-velocity flows). Metropolitan's Patrol Road Maintenance Guidelines, which are used by Metropolitan staff during road grading, call for creation of a cross-slope on the road bed of 0.25 inches per foot of road width toward the outside edge, with crowning of the road to be done only on double-lane roads. Where outsloping the road is not possible due to land contours, ditches shall be created along the side of the road to contain water and direct it away from the road. The bank of the ditch from the edge of the road to the bottom of the ditch shall be at an angle of no less than 3 inches per foot, and shall be a minimum of 1 foot wide and 1 foot deep. In high runoff areas, the ditch shall be larger. Modifications to these guidelines may be made based on specific site conditions. Grade dips shall be installed where necessary to direct water across the road. Arizona crossings shall be constructed with materials that will not degrade water quality (e.g., concrete, coarse rock, riprap, and/or gabions).

APM-HYD-3 **Dewatering.** If program activities require dewatering to provide a dry work area, dewatering systems will be used to remove and dispose of accumulated surface water and/or manage groundwater seepage. As needed, groundwater will be pumped into truck-mounted storage tanks and either discharged to land in accordance with Regional Water Quality Control Board (RWQCB) regulations, or transported to an authorized discharge location. Discharges of non-stormwater from a trench or excavation that contain sediment or other pollutants directly to a sanitary sewer, storm drain, creek bed, or other receiving water shall be prohibited without first obtaining special authorization or permit from the RWQCB or local jurisdiction.

APM-HYD-4 **Avoidance of Spills and Leaks.** All equipment operating in and near a watercourse must be maintained in good working condition and free of leaks. No equipment maintenance or refueling shall occur in a channel or basin bottom. All maintenance crews working with heavy equipment shall be trained in spill containment and response procedures.

APM-HYD-5 **Equipment Servicing and Fueling.** All equipment will be serviced and fueled off site. Washing down heavy equipment on the job site shall be permitted only when limited to washing mud or dirt from equipment (engine cleaning or oily parts cleaning is not permitted), and when wash water would drain to an enclosed area where water could percolate or evaporate. Wash water shall not be allowed to enter city or county storm drain systems, and no soaps or chemicals shall be used for equipment washing on the job site.

APM-HYD-6 **Concrete Work.** For proposed CIP projects requiring concrete work, all concrete washouts shall be conducted either into excavations where the concrete was poured or within designated concrete washout stations, or shall be captured using a washout recycling system. Crews shall not be allowed to dispose of concrete directly onto the ground.

APM-HYD-7 **Maintenance of Existing Hydrology.** Stream crossing structures shall be designed to maintain water depths and water velocities comparable to those found in natural areas upstream and downstream of the crossing.

APM-HYD-8 **Avoidance of Channel Work during the Rainy Season.** Activities in earthen channels and in channels with soft bottoms and bank protection shall be avoided during the rainy season to the extent feasible to avoid work when water could be present in the drainage.

APM-HYD-9 **Materials in Waterways.** No brush, loose soils, or other construction materials/waste shall be deposited on or below the ordinary high-water mark of waterways (streams, creeks, canals, ditches). (This BMP does not apply to the use of packed earth or the planting of vegetation to repair and stabilize earthen channels.)

APM-HYD-10 **Temporary Stream Diversions.** Sandbags or other approved methods that avoid and minimize in-stream impacts and effects on wildlife shall be used if temporary stream diversions are required.

APM-HYD-11 **Herbicide Use.** Any pesticide or herbicide applications shall occur under the direction of a professional pesticide applicator with either a Qualified Applicator License or an Agricultural Pest Control Adviser License in California. Label instructions and all applicable laws and regulations are to be strictly followed in the application of pesticides and herbicides and in the disposal of excess materials and containers. Only those materials registered by the U.S. Environmental Protection Agency (EPA) for the specific purpose are authorized for use, and they shall be used only when weather conditions will minimize drift and impacts on non-target sites. Before applying any pesticides or herbicides in parks or on federal or state land, Metropolitan shall obtain approval from the appropriate agency for all pesticides and herbicides proposed for use on these lands. Only pesticides on the Metropolitan "Approved Pesticide List" and registered with the EPA and the California Environmental Protection Agency will be used.

4.3.9.3 Finding

Implementation of the proposed program would not violate any water quality standards or waste discharge requirements, substantially deplete groundwater supplies or interfere with groundwater recharge, or substantially alter the existing drainage pattern of the site or area in such a way as to result in substantial erosion or siltation or increase the rate or amount of surface runoff, result in flooding on or off site. The proposed program would also not contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems, place housing or structures in a 100-year flood hazard area, or expose people or structures to significant risk related to flooding as a result of the failure of a levee or dam. Impacts related to hydrology and water quality would be less than significant, as described in Section 4.8 (Hydrology and Water Quality) of the Draft PEIR. Therefore, no mitigation would be required and no significant, unavoidable adverse impacts would occur.

4.3.10 Land Use and Planning

4.3.10.1 Less Than Significant Impacts to Land Use and Planning

Impact LU-1: Conflict with a Land Use Plan/Policy/Regulation

CIP Projects (All)

Patrol road improvements and paving projects, engineered erosion control projects, and slope stabilization projects would occur throughout several local jurisdictions. There would be no new development, and patrol road improvements and paving would not require or result in changes to

land uses or zoning designations. In addition, maintenance of utilities is typically considered consistent with local land use plans. As part of standard practice, Metropolitan would coordinate with local jurisdictions to the extent feasible during proposed program implementation to avoid and/or minimize potential impacts from the proposed program. Implementation of the proposed program would not conflict with local jurisdictions' land use plans, policies, or regulations.

There are 430 acres of flood control facilities under the jurisdiction of the San Bernardino County Flood Control District (District) within the proposed program study area. There are no planning documents associated with these facilities; therefore, a land use plan or policy conflict would not occur. However, to ensure that the patrol road improvements and paving projects, engineered erosion control projects, and slope stabilization projects would not conflict with the District's maintenance activities, Metropolitan would coordinate with the District accordingly when proposed patrol road improvements and paving projects occur within the District's maintenance area.

Federal lands (Bureau of Land Management and U.S. Forest Service) are within the proposed program's study area; however, patrol road improvements and paving projects, engineered erosion control projects, and slope stabilization projects, would not occur on federal land.

Impacts would be less than significant with respect to a conflict with an applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

O&M Activities (All)

The proposed program is related to maintenance of the aboveground infrastructure associated with existing water conveyance and distribution pipelines. As part of the proposed program, routine and single-occurrence O&M activities would occur throughout several local jurisdictions, including those of the Bureau of Land Management, the U.S. Forest Service, and the District. O&M activities would not require extensive engineering or involve the construction of new facilities. There would be no new development, and the proposed program would not require or result in changes to land uses or zoning designations. In addition, maintenance of utilities is typically considered to be consistent with local land use plans. As part of standard practice, Metropolitan would coordinate with local jurisdictions to the extent feasible during proposed program implementation to avoid and/or minimize potential impacts from the proposed program. Implementation of the proposed program would not conflict with local jurisdictions' land use plans, policies, or regulations. Impacts would be less than significant for O&M activities with respect to a conflict with an applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Impact LU-2: Conflict with an HCP or NCCP

A portion of the proposed program area (Inland Feeder) is within the boundaries of the Wash Plan; however, no slope stabilization or single-occurrence O&M activities would occur within the boundaries of the Wash Plan. Metropolitan maintains a permanent maintenance easement for this

pipeline, which begins at Boulder Avenue in the city of Highland, runs east along the Southern California Edison easement to Cone Camp Road in the city of Highland, and turns south across the Wash Plan planning area to Opal Avenue in the San Bernardino County community of Mentone (LSA 2008). Although not a signatory to the Wash Plan, Metropolitan would implement avoidance and minimization measures during CIP project implementation to ensure that CIP project activities do not conflict with the plan; therefore, impacts would be less than significant and no mitigation is required.

Impact LU-3: Division of an Established Community

Proposed CIP projects and O&M activities would not divide an established community. Both proposed CIP projects and O&M activities are related to maintenance activities and infrastructure protection projects for existing pipeline systems; no new construction is proposed. These projects and activities would not be invasive or large enough to physically divide a community. Rather, these projects and activities would ensure water supply reliability for Metropolitan's member agencies and minimize the potential for emergencies, which would support the surrounding communities. The proposed program would not divide an established community and no impact would result.

4.3.10.2 Finding

Implementation of the proposed program would not divide an established community or conflict with any applicable land use plan, policy, or regulation of any agency with jurisdiction over the program or conflict with any applicable HCP or NCCP, as described in Section 4.9 (Land Use and Planning) of the Draft PEIR. Therefore, no mitigation would be required and no significant, unavoidable adverse impacts would occur.

4.3.11 Mineral Resources

4.3.11.1 Less Than Significant Impacts to Mineral Resources

Impact MR-1: Loss of Availability of a Known Mineral Resource

The U.S. Geological Survey records the locations of non-metallic and metallic mineral resources in the state of California. The closest identified proposed CIP project and O&M activity locations to a metallic mineral resource site are Rialto Pipeline Stations 3583+87 (subsequently removed from the program after circulation of the NOP) and 3571+01. The CIP project and O&M activity sites are located 3 and 4 miles away, respectively (USGS 2014). These project/activity sites would not be located within the vicinity of metallic mineral resources; therefore, CIP projects and O&M activities would not impact these resources.

The closest identified proposed CIP project and O&M activity locations to a non-metallic mineral resource site are Inland Feeder Station 824+20 and Upper Feeder Station 687+00 (subsequently removed from the project after circulation of the NOP). The CIP project and O&M activity sites occur

0.35 and 0.2 miles away, respectively (USGS 2014). CIP projects for these stations would include engineered erosion control and patrol road paving and paving around structures. O&M activities for these stations would include pipeline appurtenance maintenance, repair, or replacement; patrol road grading; vegetation maintenance and removal along patrol roads; and vegetation maintenance around structures. Proposed CIP projects and O&M activities would not cover over non-metallic mineral resources or otherwise obstruct access to these resources.

Activities under the proposed program could result in a loss of availability of mineral resources if they are located on or adjacent to a resource site and preclude the existing or future extraction of that resource. Mineral resources may not be extracted if there is on-site paving or construction, or construction of adjacent incompatible uses; however, proposed CIP projects and O&M activities would be temporary and are located within previously disturbed areas on or along existing distribution system infrastructure within Metropolitan's ROW, and the types of activities proposed would not preclude the future extraction of mineral resources. Proposed CIP projects and O&M activities would have a less than significant impact on the availability of known mineral resources.

Impact MR-2: Loss of Availability of a Locally Important Mineral Resource Recovery Site

According to the Final EIR for the County General Plan (County of San Bernardino 2007), the mineral resources in the county include peat, bituminous rock, gold, sand, gravel, clay, crushed stone, limestone, diatomite, salt, borate, and potash. Aggregate mining is a major component of the mining industry within the county (County of San Bernardino 2007). Aggregate resources (e.g., sand, gravel, and crushed stone) are used in composite materials such as concrete and asphalt and are mainly used for construction purposes. Riverside County has extensive deposits of clay, limestone, iron, sand, and aggregates (County of Riverside 2014). However, the proposed CIP projects and O&M activities are not located on active mining operation sites or on designated mineral resource sites.

Proposed CIP projects and O&M activities would not result in the loss of availability of a locally important mineral resource recovery site or impact aggregate resource areas. Proposed CIP projects and O&M activities would occur within Metropolitan's ROW, as well as in previously disturbed areas on or along existing distribution system infrastructure, and the types of activities proposed would not be large enough to impact a mineral resource. None of the proposed CIP projects or O&M activities would result in the loss of availability of a locally important mineral resource recovery site. No impacts would occur on locally important mineral resources.

4.3.11.2 Finding

The 2014 Initial Study for the proposed program found no potential for significant impacts to mineral resources; therefore, mineral resources were not addressed in the Draft PEIR. No mitigation would be required and no significant, unavoidable adverse impacts would occur.

4.3.12 Noise

4.3.12.1 Less Than Significant Impacts to Noise

Impact NOI-1: Exceedance of Noise Level Standards

Metropolitan is exempt through California Government Code Section 53091, as well as the local codes; however, construction activities associated with proposed CIP projects and O&M activities would be limited to Mondays through Fridays, 7:00 a.m. to 6:00 p.m., which is generally consistent with the applicable codes. Construction activities are not expected on Saturdays, Sundays, or during federal holidays, and construction is not expected to occur during nighttime hours. In addition, implementation of APM-NOI-1 through APM-NOI-8 (see Section 4.3.12.2) as part of Metropolitan's standard practice would further minimize noise impacts. Therefore, impacts related to the generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, would be less than significant.

Impact NOI-2: Increase in Ambient Noise Levels

Although Metropolitan is not subject to local noise ordinances based on California Government Code Section 53091 and is exempt from the local codes though exemptions or exceptions associated with construction activities or government/public agency projects, to the extent possible, construction activities associated with proposed CIP projects and O&M activities would be limited to Mondays through Fridays, 7:00 a.m. to 6:00 p.m. No construction activities are expected on Saturday, Sundays, or during federal holidays, and construction is not expected to occur during nighttime hours. Although noise from proposed O&M activities would be audible and would temporarily elevate the local ambient noise level to some degree at nearby noise-sensitive land uses, construction is expected to be short term at each location and generally consistent with the types of maintenance activities that currently occur routinely throughout the system. As part of standard practice, where feasible, Metropolitan would implement the noise minimization APMs described in Section 4.3.12.2 to reduce noise levels in the vicinity of sensitive receptors. With noise minimization measures APM-NOI-1 through APM-NOI-8 in place, in addition to the short-term, temporary nature of the noise, impacts related to a substantial temporary or periodic increase in ambient noise levels in the proposed program vicinity above levels existing without the proposed program would be less than significant.

Impact NOI-3: Excessive Groundborne Vibration or Noise

Construction and maintenance activities associated with proposed CIP projects and O&M activities would not result in exposure of persons to or generation of excessive ground-borne noise levels. The construction-related noise levels would be from, but not necessarily limited to, the use of heavy equipment at the site or vehicles transporting material to or from the construction site. Activities that could generate excessive ground-borne vibrations include pile-driving, blasting, and demolition; however, these activities are not required to implement CIP projects and O&M activities under the

proposed program. Therefore, excessive ground-borne vibrations are not anticipated, and impacts would be considered less than significant.

Impact NOI-4: Permanent Increase in Ambient Noise Levels

Proposed CIP projects and O&M activities would not result in a substantial permanent increase in ambient noise levels in the proposed program vicinity. The proposed program is related to maintenance and repair and/or protection of the existing distribution system. The proposed program does not involve structures that currently generate, or would generate in the future, substantial amounts of noise. The proposed program would not introduce new noise sources and is not anticipated to generate a substantial increase in permanent noise levels. Noise associated with construction of proposed CIP projects and O&M activities would be short term and temporary, only for the duration of the construction, and would not introduce a new permanent source of noise. There would be no impacts associated with a substantial permanent increase in ambient noise levels.

Impact NOI-5: Excessive Noise Levels near Public Airport or Public Use Airport

Existing Metropolitan pipelines and structures are located within 2 miles of several airports, including the Rialto Municipal Airport, San Bernardino International Airport (formerly Norton Air Force Base), Redlands Municipal Airport, and Ontario International Airport; therefore, proposed CIP projects and O&M activities could occur within this area. Proposed program activities, however, would be unlikely to result in excessive noise levels for those working or residing in the proposed program area. Proposed CIP projects and O&M activities would not result in construction of facilities or structures that would create permanent, long-term noise impacts. Although the proposed construction of CIP projects and implementation of O&M activities would result in higher noise levels associated with heavy equipment, these types of activities are currently ongoing in this area, and proposed program-related construction activities would be short term and temporary, thus reducing the likelihood that people residing or working in the area would be exposed to excessive noise levels. Impacts would be less than significant.

Impact NOI-6: Excessive Noise Levels near Private Airstrip

The Rialto Pipeline is located within 2 miles of Cable Airport, which is located in the city of Upland; therefore, proposed CIP projects and O&M activities would occur within this area (DOT 2013). These activities include graffiti removal and coating of structures, vegetation maintenance around structures, and pipeline appurtenance maintenance, repair, and replacement. Proposed program activities would be unlikely to result in a safety hazard for those working or residing in the area. Proposed CIP projects and O&M activities would not result in the construction of facilities or structures that could visually or physically obstruct flight paths or roads leading to Cable Airport, and maintenance activities already occur routinely without issue. Metropolitan employees are not likely to be exposed to noise or dangers associated with nearby air traffic because work in these areas would be temporary and short term, reducing the likelihood that employees would be significantly impacted by these dangers. Impacts would be less than significant.

4.3.12.2 Applicant Proposed Measures

APM-NOI-1 **Compliance with Noise Output Regulations.** All mobile or fixed noise-producing equipment used on the proposed program that is regulated for noise output by a federal, state, or local agency shall comply with such regulation while in the course of proposed program activity.

APM-NOI-2 **Use of Electric Equipment.** Electrically powered equipment shall be used instead of pneumatic or internal-combustion-powered equipment, where feasible.

APM-NOI-3 **Location of Stockpiles and Other Noise-Producing Activities.** Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors.

APM-NOI-4 **Construction-Related Speed Limits.** Construction site and haul-road speed limits shall be established and enforced during the construction period.

APM-NOI-5 **Construction Hours Restrictions.** As feasible, the hours of construction, including all spoils and material transport, shall be restricted to the time periods and days permitted by the local noise ordinance or other applicable ordinance. As necessary, Metropolitan shall coordinate with the applicable local jurisdiction regarding activities that are not consistent with local ordinances to avoid/minimize impacts.

APM-NOI-6 **Limits on Noise-Producing Signals.** The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.

APM-NOI-7 **Pre-Construction Coordination.** As necessary, Metropolitan shall voluntarily coordinate with local jurisdictions and sensitive receptors regarding the proposed program to address any potential program-specific noise-related issues prior to commencement of construction activities.

APM-NOI-8 **Noise Complaints Response and Resolution.** The on-site construction supervisor shall have the responsibility and authority to receive and resolve noise complaints.

4.3.12.3 Finding

Implementation of the proposed program would not expose people to or generate noise levels in excess of established standards, expose people to or generate excessive ground-borne vibrations/ground-borne noise levels, create a substantial permanent increase in ambient noise levels, or create a substantial temporary or periodic increase in ambient noise levels. Furthermore, the proposed program is not located in an airport land use plan, and although it is within 2 miles of a public use airport or a private airstrip, it would not expose people residing or working in the area to

excessive noise levels. Impacts related to noise would be less than significant, as described in Section 4.10 (Noise) of the Draft PEIR. Therefore, no mitigation would be required and no significant, unavoidable adverse impacts would occur.

4.3.13 Population and Housing

4.3.13.1 Less Than Significant Impacts to Population and Housing

Impact POP-1: Inducement of Substantial Population Growth

Proposed CIP projects and O&M activities are primarily related to maintenance and protection of the existing conveyance and distribution system and would not expand Metropolitan's existing infrastructure. Since the capacity of the distribution system would stay the same with the implementation of the proposed CIP projects and O&M activities, no indirect stimulus to growth would occur. No homes or employment opportunities are proposed that would directly facilitate population growth. The workforce hired to implement/construct the proposed program would be minimal in size and would most likely already be employed by Metropolitan or would come from the region, so there would be no growth as a result of implementation/construction or long-term maintenance activities. Proposed CIP projects and O&M activities would not directly or indirectly induce substantial population growth. No impacts associated with population growth directly or indirectly resulting from the proposed program would occur.

Impact POP-2: Displacement of Housing

Proposed CIP projects and O&M activities would occur along Metropolitan's existing conveyance and distribution system within the existing Metropolitan ROW and would not require the displacement of existing housing or the construction of replacement housing elsewhere. No impact to existing housing would occur.

Impact POP-3: Displacement of People, Necessitating Replacement Housing

Proposed CIP projects and O&M activities would occur along Metropolitan's existing conveyance and distribution system within the existing Metropolitan ROW and would not displace any people. Therefore, the proposed CIP projects and O&M activities would not require the construction of replacement housing elsewhere. No impact associated with the displacement of people and construction of replacement housing would occur.

4.3.13.2 Finding

The Initial Study for the proposed program found no potential for significant impacts to population and housing; therefore, population and housing were not addressed in the Draft PEIR. No mitigation would be required and no significant, unavoidable adverse impacts would occur.

4.3.14 Public Services

4.3.14.1 Less Than Significant Impacts to Public Services

Impact PS-1A: Fire Protection

CIP Projects (All)

Although the use of construction equipment around flammable vegetation presents an increased fire risk that could result in the need for fire suppression services, all CIP projects would be required to have fire safety measures, such as fire suppression equipment, in place prior to the start of any construction. Compliance with recommended fire protection and prevention BMPs (detailed in APM-HAZ-4 in Section 4.3.8.2) would further reduce potential impacts due to fire hazards; therefore, impacts to fire protection services as a result of proposed patrol road improvements and paving projects, engineered erosion control projects, and slope stabilization projects would be less than significant.

O&M Activities (All)

Proposed vegetation mowing and trimming along patrol roads and around aboveground structures would provide adequate setbacks and reduce the risk of fire-related accidents; however, use of maintenance equipment around flammable vegetation presents an increased fire risk that could result in the need for fire suppression services. Proposed O&M activities would require less equipment than CIP projects; however, the potential to ignite a fire in areas with a high fire hazard severity still exists. Compliance with recommended fire protection and prevention BMPs (described in APM-HAZ-4 in Section 4.3.8.2) would further reduce potential impacts due to fire hazards. During patrol road maintenance grading, a water truck would follow the grader. The operator of the water truck would be the designated fire watch.

The proposed program is a maintenance program for existing facilities. The proposed program would not include construction of new or expanded facilities that would increase the number of facilities, or indirectly cause population growth and development, resulting in the need for additional fire protection services. In the event that fire suppression services are required, existing fire stations and crews would be able to adequately support the proposed activities, and no new or additional fire protection services would be required. Therefore, with incorporation of APM-HAZ-4 into the proposed program as part of Metropolitan's standard practice, impacts to fire protection services as a result of proposed O&M activities would be less than significant.

Impact PS-1B: Police Protection

Proposed CIP projects and O&M activities would not modify facilities in such a way as to present an attractive nuisance to the public, requiring the need for additional police services. Activities under the proposed program would not require additional police protection nor would they require the expansion of any police facilities. No impact to police protection would occur.

Impact PS-1C: Schools

The proposed CIP projects and O&M activities do not include the construction of new homes or businesses. Therefore, direct population growth, which could result in the need for additional or expanded school facilities, would not occur with implementation of the proposed program. The proposed program would not add capacity to existing Metropolitan pipelines, which could induce population growth. Rather, the proposed program would repair and maintain existing infrastructure to ensure an adequate water supply to the existing water service area. As a result, the proposed program would not increase school enrollment or result in the need for new or expanded school facilities. Impacts related to schools would not occur.

Impact PS-1D: Parks

Proposed CIP projects and O&M activities would occur in the immediate vicinity of several parks; however, this section describes the impacts on parks as a public service. The proposed program would protect and repair an existing water conveyance distribution system. Proposed program activities would be limited to maintenance and minor construction activities along existing pipeline alignments, and impacts would be short term and temporary. The proposed program does not include the expansion or construction of park facilities, and would not result in an increase in water conveyance capacity or otherwise affect the location, distribution, density, or growth rate of the population in the vicinity of the proposed program area. Because growth would not occur, the proposed program would not result in an increase in the use of existing parks such that new parks would be needed or physical deterioration of the parks would occur. Proposed CIP projects and O&M activities would result in no impacts related to increased usage and physical deterioration of park facilities. Additionally, the proposed program would not result in environmental impacts related to the construction of parks. Therefore, impacts associated with parks as a public service would be less than significant.

Impact PS-1E: Other Public Facilities

Proposed CIP projects and O&M activities may occur near other public facilities, such as libraries, government buildings, or medical centers; however, none of the proposed activities would result in adverse physical impacts to public facilities. Activities under the proposed program would not involve a housing component or other components that would result in population growth and increased demands on public facilities within the area. Proposed CIP projects and O&M activities would not expand the existing conveyance and distribution system infrastructure, resulting in population growth and increased demands on public facilities. No impact to other public facilities would occur.

4.3.14.2 Applicant Proposed Measures

APM-HAZ-4 See Section 4.3.8.2.

4.3.14.3 Finding

Implementation of the proposed program would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or the 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 fire protection, police protection, schools, parks, or other public facilities. Impacts related to public services would be less than significant, as described in Section 4.11 (Public Services) of the Draft PEIR. Therefore, no mitigation would be required and no significant, unavoidable adverse impacts would occur.

4.3.15 Recreation

4.3.15.1 Less Than Significant Impacts to Recreation

Impact REC-1: Increase in the Use of an Existing Neighborhood, Regional Park, or Recreational Facility

Proposed CIP projects and O&M activities would occur in the immediate vicinity of a number of parks and recreational areas. Temporary limited access to trails and other recreational areas could occur as a result of proposed CIP projects and O&M activities; however, the program activities would not result in closures of parks or recreational areas to the public, leading to the increased use of other existing neighborhood or regional parks or recreational facilities. In addition, CIP projects and O&M activities involve the maintenance and protection of existing infrastructure and do not include the construction of new housing or creation of employment opportunities, which could increase the use and resulting substantial physical deterioration of parks or recreational facilities. The impact of the proposed CIP projects and O&M activities on parks and recreational facilities would be less than significant.

Impact REC-2: Inclusion of or Requirement for Construction/Expansion of Recreational Facilities

The proposed program involves the maintenance and protection of existing infrastructure and does not include the construction or expansion of recreational facilities. Proposed CIP projects and O&M activities would occur in or near recreational facilities; however, the proposed program would not result in additional use of any recreational facilities, requiring the construction or expansion of new recreational facilities. Proposed CIP projects and O&M activities would not involve any growth-inducing components through the construction of new or expansion of existing infrastructure, which would result in an increase in population and result in the need for new or expanded recreational facilities. No impact would occur.

4.3.15.2 Finding

The Initial Study for the proposed program found no potential for significant impacts to recreation; therefore, recreation was not addressed in the Draft PEIR. No mitigation would be required and no significant, unavoidable adverse impacts would occur.

4.3.16 Traffic and Circulation

4.3.16.1 Less Than Significant Impacts to Traffic and Circulation

Impact TR-1: Conflict with Circulation System Plan, Ordinance, or Policy

Impact TR-2: Conflict with Congestion Management Plan

For the trip generation analysis, the number of daily morning peak-hour and evening peak-hour vehicle trips that would occur as a result of each representative CIP project and O&M activity were evaluated. Representative projects were chosen because numerous small maintenance activities are included in the proposed program and it would not be feasible to conduct a site-specific traffic analysis for each of the sites throughout the proposed program area. Representative projects were chosen through consultation with Metropolitan based on what activities were most frequently going to occur and how long they would take to complete, on average. A threshold of 100 trips per peak hour as established in the Transportation Impact Study Guidelines (County of San Bernardino 2019b).

- **Patrol Road Improvements and Paving (CIP Activity Code No. 1):** The representative project for patrol road improvements and paving (CIP Activity Code No. 1) is assumed to have a construction duration of 10 days. During construction, this type of project is projected to generate a minimum of approximately 9 daily vehicle trips, with a maximum of 59 daily vehicle trips. Under the maximum trip scenario, 21 trips would occur in the morning peak hour, 6 trips would occur in the evening peak hour, and the remaining 32 trips would occur throughout the day.
- **Engineered Erosion Control (CIP Activity Code No. 2):** The representative project for engineered erosion control (CIP Activity Code No. 2) is assumed to have a construction duration of 16 days. This type of project is projected to generate approximately 29 daily vehicle trips, with a maximum of 48 daily vehicle trips. Under the maximum trip scenario, 17 trips would occur in the morning peak hour, 4 trips would occur in the evening peak hour, and the remaining 27 trips would occur throughout the day.
- **Slope Stabilization (CIP Activity Code No. 3):** The representative project for slope stabilization (CIP Activity Code No. 3) is assumed to have a construction duration of 36 days. This type of project is estimated to generate approximately 39 daily vehicle trips, with a maximum of 74 daily vehicle trips. Under the maximum trip scenario, 26 trips would occur in the morning peak hour, 8 trips would occur in the evening peak hour, and the remaining 40 trips would occur throughout the day.

- **Routine O&M Activities:** For the purposes of the traffic analysis, grading of patrol roads, erosion control and structural maintenance, repair and replacement (O&M Activity Code Nos. 1, 6, and 11, respectively) were chosen as representative projects. The construction duration of patrol road grading representative projects was assumed to range from 1 day to 11 days. Grading of patrol roads is projected to generate approximately 19 to 51 daily vehicle trips, depending on the length and condition of the patrol road. Under the maximum trip scenario, 18 trips would occur during the morning peak hour, 6 trips would occur during the evening peak hour, and the remaining 27 trips would occur throughout the day. Erosion control is projected to generate approximately 26 to 46 daily vehicle trips. Under the maximum trip scenario, 16 trips would occur during the morning peak hour and 4 trips would occur during the evening peak hour. Structure maintenance, repair, and replacement is projected to generate approximately 9 to 31 daily vehicle trips. Under the maximum trip scenario, 11 trips would occur during the morning peak hour and 3 trips would occur during the evening peak hour.
- **Single-Occurrence O&M Activities:** For analysis purposes, single-occurrence O&M activities include such activities as construction of culverts and low water crossings. These patrol road structural improvements are assumed to have a duration of 24 days per occurrence. This type of activity is estimated to generate a maximum of 32 daily vehicle trips. Under the maximum trip scenario, 11 trips would occur during the morning peak hour, 3 trips would occur during the evening peak hour, and the remaining 18 trips would occur throughout the day.

Based on the trip generation data for the representative projects, all the project activities were examined and none exceeded a maximum of 74 daily trips. Therefore, all trips for each scenario were below the threshold of 100 trips per peak hour as established in the County Transportation Impact Study Guidelines (County of San Bernardino 2019). This represents a negligible increase in traffic related to the proposed program; therefore, further traffic impact analysis is not warranted and there would be no conflict with applicable plans, policies, or ordinances. The proposed program activities would not generate a substantial number of vehicle trips, nor would they conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system or conflict with an applicable congestion management program. Impacts resulting from the proposed program would be less than significant.

Impact TR-3: Increased Hazards Due to Design Features

CIP Projects (All)

Implementation of CIP projects would not change the current access to or use of patrol roads; therefore, implementation of these types of projects would not create incompatible uses. In addition, these CIP projects would not involve any new design features that would substantially increase hazards on the roads; there would be no major redesign or reconfiguration of features associated with the proposed program. During construction, there could be some temporary obstructions associated with construction activities; however, these would occur within Metropolitan's private

patrol roads, not in public roads. These private road closures would be short term and temporary and would not represent a substantial hazard or incompatible use. There would be no substantial impacts associated with hazards from design features or incompatible uses with implementation of CIP projects under the proposed program; impacts would be less than significant.

O&M Activities (All)

Proposed O&M activities associated with the proposed program would not substantially increase hazards due to a design feature or incompatible uses. O&M activities are intended to maintain existing facilities; there would be no new uses or design features that would increase hazards. In fact, proposed O&M activities could provide for better safety and access. There could be some temporary obstructions to access associated with construction activities; however, these would be short term and temporary and would not represent a substantial hazard or incompatible use. There would be no substantial impacts associated with hazards from design features or incompatible uses with implementation of O&M activities under the proposed program, and impacts would be less than significant.

Impact TR-4: Inadequate Emergency Access

CIP Projects (All)

Implementation of CIP projects under the proposed program would not result in inadequate emergency access. These types of projects would not involve any new design features that would result in inadequate emergency access; there would be no major redesign or reconfiguration of features associated with the proposed program. In fact, under the proposed program, roads would be repaired and/or improved to reestablish and/or improve access and safety, so implementation of the proposed program would likely provide better and more reliable long-term access for emergency vehicles. During construction, there could be short-term and temporary impacts associated with construction activities. Metropolitan's patrol roads are typically not publicly traveled roads; however, emergency vehicles (e.g., fire department vehicles) and other agencies could use some of these roads for emergency access. For those public roads impacted by the proposed program, temporary road or lane closures could be required during construction; however, as necessary, Metropolitan would coordinate with the local jurisdictions and/or affected agencies/entities regarding any temporary road or lane closures and temporary access routes necessary to accommodate construction.

Based on the individual CIP project location, the nature and impacts of the proposed activities, and requirements of the jurisdiction in which the work is occurring, Metropolitan would prepare a Traffic Control Plan as specified in APM-TR-1 (see Section 4.3.16.2) prior to the start of construction to minimize impacts. Likewise, prior notification and coordination with emergency services providers and other road users (e.g., agencies), as specified in APM-TR-1, would minimize temporary impacts during construction. All construction activities would be temporary, and when each CIP project has been constructed, all closed areas would be reopened. With implementation of APM-TR-1 as part of Metropolitan's standard practice, CIP projects under the proposed program would not result in inadequate emergency access, and impacts would be less than significant.

O&M Activities (All)

Proposed O&M activities are intended to maintain existing facilities; there would be no new facilities or changes in use that are expected to result in inadequate emergency access. In fact, O&M activities would provide for continued access and could even improve the access and safety. There could be some minor obstructions to the access associated with construction activities; however, these would be short term and temporary. As necessary, Metropolitan would implement APM-TR-1, including notification and coordination with local jurisdictions, emergency services providers, or affected entities regarding any maintenance work that might have an impact on emergency access to ensure adequate access. All activities would be temporary, and when each O&M activity has been implemented, access would be reestablished. With incorporation of APM-TR-1 into the proposed program, impacts would be less than significant.

Impact TR-5: Conflict with Alternative Transportation Plans/Facilities

Implementation of the proposed program could affect public transit, bicycle, or pedestrian facilities on a short-term, temporary basis during construction. As necessary, Metropolitan would coordinate with local jurisdictions regarding any temporary public transit, bicycle, or pedestrian route closures associated with the proposed program. If required by the local jurisdiction in which the work is occurring, Metropolitan would implement measures as described in APM-TR-1. All construction activities would be temporary, and when the CIP projects and O&M activities have been constructed, all routes would be reopened. There would be no permanent impact to public transit, bicycle, or pedestrian facilities or decrease in the performance or safety of such features. With implementation of APM-TR-1 as part of Metropolitan's standard practice, CIP projects and O&M activities implemented under the proposed program would not result in conflicts with public transit, bicycle, or pedestrian routes or programs, and impacts would be less than significant.

Impact TR-6: Change in Air Traffic Patterns

Proposed CIP projects and O&M activities would occur within 2 miles of Redlands Municipal Airport, San Bernardino International Airport, Ontario International Airport, Rialto Municipal Airport, and Cable Airport. The proposed program, however, would not result in construction of facilities or structures that could visually or physically obstruct flight paths leading to and from these airports. Proposed CIP projects and O&M activities would not result in a change in air traffic levels or patterns, or change the level of risk; therefore, the proposed CIP projects and O&M activities would not result in air traffic impacts.

4.3.16.2 Applicant Proposed Measures

APM-TR-1 Traffic Control Plan.

a. Where appropriate for work on public roadways and as required by the local jurisdiction, prior to the start of the construction phase, Metropolitan or Metropolitan's contractor shall submit a Traffic Control Plan to the appropriate local jurisdiction for

review and approval. The plan shall be consistent with the California Department of Transportation (Caltrans) Traffic Manual, Chapter 5. Traffic control shall be in accordance with California Code of Regulations (CCR) Title 8.

b. Where appropriate for work on public roadways, Metropolitan shall submit a set of proposed construction plans to agencies with jurisdiction over the roadways to allow them to comment on the proposed plans.

c. During construction on public roadways, Metropolitan shall implement traffic management measures as deemed necessary and applicable by a properly licensed engineer. Measures could include the following, as appropriate:

   i. Temporary traffic lanes shall be marked and barricades and lights shall be provided at excavations and crossings per the Manual of Traffic Controls for Construction and Maintenance Work Zones.

   ii. Construction activities shall affect the least number of travel lanes possible, with both directions of traffic flow being maintained at all times to the extent feasible.

   iii. Construction shall avoid the morning and evening peak traffic periods to the extent feasible.

   iv. Construction across on- and off-street bikeways shall be done in a manner that allows for safe bicycle access, or bicycle traffic will be safely rerouted.

   v. Private driveways located within construction areas shall remain open to maintain access to the maximum extent feasible. Should construction be required that prevents access to a private driveway, Metropolitan shall coordinate with the owners and shall implement measures such as installation of metal plates to provide access.

d. During construction of projects that would impact emergency or public access, Metropolitan shall notify all affected fire, police, and paramedic departments/services as well as any affected public transportation agencies of the schedule and duration of construction activities.

e. During construction of projects that would impact underlying or adjacent property owners, Metropolitan shall send notification to and coordinate with these owners about the construction activity and duration.

4.3.16.3 Finding

Implementation of the proposed program would not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system or conflict with an applicable congestion management program. The proposed program also would not increase hazards due to a design feature, result in inadequate emergency access, or conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities. The proposed

program would not result in a change in air traffic patterns. Impacts related to transportation and traffic would be less than significant, as described in Section 4.12 (Traffic and Circulation) of the Draft PEIR. Therefore, no mitigation would be required and no significant, unavoidable adverse impacts would occur.

4.3.17 Utilities and Service Systems

4.3.17.1 Less Than Significant Impacts to Utilities and Service Systems

Impact UTL-1: Construction/Expansion of Stormwater Drainage Facilities

CIP Projects (All)

CIP projects would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities. However, there is the potential for these CIP projects to generate runoff that may enter a storm drainage system. CIP projects would typically occur in open space areas that are not directly served by urban storm drains. Stormwater runoff flowing through Metropolitan's ROW would typically enter the nearest wash or drainage channel rather than urban underground storm drains. In the event that proposed CIP projects are in locations that eventually run off into an urban storm drain, the increase in runoff due to road paving would be minimal because paving would occur on existing patrol roads that are unpaved, but have already been graded and compacted for vehicle access. Therefore, the areas to be paved are already disturbed and highly compacted, and have little to no capacity to slow or decrease runoff through infiltration or evapotranspiration. CIP projects would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, and impacts would be less than significant.

O&M Activities (All)

Routine O&M activities would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities. Proposed routine O&M activities, with the exception of pipeline shutdown and dewatering, would result in no appreciable change in the amount of runoff draining from Metropolitan's facilities and patrol roads, because routine O&M activities would not involve the addition of impervious surfaces or construction of new drainage facilities.

Pipeline shutdowns and dewatering activities (O&M Activity Code No. 13) are routinely needed to perform inspections and maintenance activities on a pipeline. The pipeline must be emptied of water (dewatered) before inspections and/or maintenance on the pipeline can be performed. Water is released to drainages, storm drains, or other open areas either through a direct release or through temporary piping. This activity can impact stormwater drainage systems, since the water from the pipelines may be discharged into the nearest storm drain inlet; however, it does not create the need to construct new stormwater drainage facilities or expand existing stormwater drainage facilities. Prior to releasing water into storm drains or flood control facilities, Metropolitan would coordinate

with the city or agency with jurisdiction over those affected drains or facilities. Pipeline shutdowns and dewatering activities are performed in compliance with the specific conditions of the RWQCB waste discharge requirements (e.g., treatment prior to discharge, restrictions on rate of discharge, and armoring/protecting discharge location) and Metropolitan would notify the appropriate RWQCB in writing of its discharges. Dewatering would occur such that flows would be within the capacity of natural drainages and storm drains. In addition, this is an ongoing activity, which does not create a need for new or expanded stormwater facilities. Considering that coordination would occur with local jurisdictions and the RWQCB, and the fact that these discharges are short term and intended to stay within the existing capacity of existing stormwater drainage systems, the impact of pipeline shutdowns and dewatering activities would be less than significant.

Proposed single-occurrence O&M activities would result in no appreciable change in the amount of runoff draining from Metropolitan's facilities and patrol roads. Single-occurrence O&M activities would involve patrol road structural repairs (O&M Activity Code No. 15). These activities would not substantially increase impervious surfaces or sufficiently alter drainage patterns to measurably increase the volume of water entering storm drain systems, nor would it require the construction of new stormwater drainage facilities or expansion of existing facilities. Therefore, impacts related to the construction of new stormwater drainage facilities or expansion of existing facilities would be less than significant.

Impact UTL-2: Sufficient Landfill Capacity

CIP Projects (All)

Patrol road improvements and paving projects would include grading the road to a maximum of 16 feet in width; removal of old, damaged paving (repaving only); removal of vegetation; placement and compacting of base material; and placement of the asphalt or concrete paving materials. Therefore, this activity would result in the generation of solid waste through the removal of existing pavement and vegetation, and would result in an increased demand for solid waste disposal capacity.

Engineered erosion control projects would result in the generation of solid waste through the removal of existing pavement and vegetation, and would result in an increased demand for solid waste disposal capacity. Engineered erosion control projects are not anticipated to generate significant amounts of waste, except for vegetation and soil. Of this waste, the vegetation can be served by a landfill with sufficient permitted capacity. Existing erosion control features may need to be removed and replaced. Existing engineering control features that require replacement would be removed from the site, and materials that are no longer salvageable would be disposed of; however, wood, metal, and plastic materials that are part of these existing features would be recycled. Therefore, engineered erosion control projects would result in the generation of solid waste and would result in an increased demand for solid waste disposal capacity.

Slope stabilization projects may include regrading and compacting of slopes, rock slope protection, soil cement, anchors, tie-backs, stepped retaining walls, or a combination of methods. Slope stabilization projects are not anticipated to generate significant amounts of waste, except for vegetation and soil. Of these two types of waste, the vegetation can be served by a landfill with sufficient permitted capacity.

Considering that the majority of solid waste (e.g., asphalt, concrete, green waste) generated by CIP projects would be recyclable and the solid waste generated would be minimal, impacts would be less than significant. In addition, APM-UTL-1 (see Section 4.3.17.2) would be incorporated into the proposed program to further ensure that waste generated by this type of project would be diverted from a local landfill to the extent feasible. CIP projects are expected to meet the diversion requirements, and would be served by a landfill with sufficient permitted capacity to accommodate the proposed program's solid waste disposal needs; therefore, with implementation of APM-UTL-1 as part of Metropolitan's standard practice, impacts would be less than significant.

O&M Activities (All)

The majority of routine O&M activities involve clearing, mowing, and trimming vegetation and grading soil along and surrounding patrol roads. Routine structure maintenance, repair, and replacement could generate solid waste associated with cleaning materials and paints used for removing graffiti, coating structures, and cleaning equipment and structures. Cleaning materials and paint containers would be recycled when possible. Leftover paints and solvents would be used for future maintenance. Vegetation trimming, mowing, and clearing, and weed abatement for aboveground structures would occur in a similar manner as that described for activities along patrol roads. When possible, equipment that is removed from the site (e.g., valve cabinets, air vents, vent piping, electrical equipment) would be recycled. Pipeline shutdowns and dewatering activities would involve the release of water to drainages, storm drains, or other open areas either through a direct release or through temporary piping. Temporary piping materials would be reused for future dewatering activities. Therefore, this activity is not anticipated to generate solid waste.

Single-occurrence O&M activities are typically conducted on a one-time basis and include projects involving patrol road structural repairs (O&M Activity Code No. 15) to support the continued operation of Metropolitan's pipelines. Single-occurrence O&M activities are not anticipated to generate significant amounts of waste, except for vegetation and soil. The vegetation can be disposed of in a landfill with sufficient capacity and the soil can be reused on site or disposed of off site, depending on the suitability of the material.

Because the majority of O&M activities generate minimal solid waste, landfill disposal would require little capacity. Therefore, impacts would be less than significant. In addition, APM-UTL-1 would be incorporated into the proposed program to further ensure that waste generated by O&M activities would be diverted from a local landfill to the extent feasible. O&M activities are expected to meet the diversion requirements and would be served by a landfill with sufficient permitted capacity to accommodate the proposed

program's solid waste disposal needs; therefore, with implementation of APM-UTL-1 as part of Metropolitan's standard practice, impacts would be less than significant.

Impact UTL-3: Exceeding Wastewater Treatment Requirements

Proposed CIP projects and O&M activities would not generate additional wastewater treatment demands or exceed the wastewater treatment requirements of the applicable RWQCB. The proposed program would have no impacts related to wastewater treatment requirements.

Impact UTL-4: Construction/Expansion of Water/Wastewater Treatment Facilities

The purpose of the proposed program is to upgrade, rehabilitate, and maintain existing water infrastructure. Proposed CIP projects and O&M activities would not require or result in the construction of new or the expansion of existing water or wastewater facilities. The proposed program would have no impact on water or wastewater facilities.

Impact UTL-5: Requirement for Additional Water Supplies

Proposed CIP projects and O&M activities would not require additional water supplies. Proposed CIP projects and O&M activities would increase the reliability and longevity of existing infrastructure; there would be no expansion of existing infrastructure. Proposed program activities may require water for construction-related activities, including dust suppression and washing down streets or paved areas, but these amounts would be minimal, and existing entitlements and resources would be adequate to support potential needs. Proposed program activities would have sufficient water supplies, and no new or expanded entitlements would be needed. There would be no impact from the proposed program on water supplies.

Impact UTL-6: Adequate Wastewater Treatment Capacity

Proposed CIP projects and O&M activities would not involve construction of facilities that would increase the generation of wastewater. There would be no construction that would result in impacts to wastewater treatment providers, because the proposed program does not involve new housing, commercial construction, or other wastewater generators. Proposed program activities would have no impact on wastewater systems.

Impact UTL-7: Compliance with Solid Waste Statutes and Regulations

Proposed CIP projects and O&M activities would generate small amounts of solid waste, construction and demolition debris, and green waste during construction-related activities. All waste produced due to proposed program activities would be removed immediately following the activity and disposed of properly in accordance with federal, state, and local statutes and regulations. Proposed program activities related to compliance with applicable statutes and regulations would have less than significant impacts.

4.3.17.2 Applicant Proposed Measures

APM-UTL-1 **Waste Reduction and Recycling.** Metropolitan has established a goal to reuse or recycle a minimum of 50 percent of the construction and demolition debris generated by construction activities, including proposed program activities. At a minimum, the waste generated by the proposed program shall meet local waste management regulations specifying minimum percentages of reuse or recycling of construction and demolition waste and debris. Waste shall be recycled whenever possible. Materials that cannot be reused or recycled shall be either incinerated or disposed of at a properly permitted landfill.

4.3.17.3 Finding

Implementation of the proposed program would not exceed wastewater treatment requirements, nor would it require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities or require or result in the construction of new stormwater drainage facilities or expansion of existing facilities causing significant environmental effects. In addition, the proposed program would not result in insufficient water supplies, inadequate wastewater system capacity, or inadequate landfill capacity, nor would it conflict with federal, state, and local regulations related to solid waste disposal. Impacts related to utilities and service systems would be less than significant, as described in Section 4.13 (Utilities and Service Systems) of the Draft PEIR. Therefore, no mitigation would be required and no significant, unavoidable adverse impacts would occur.

4.4 Findings Regarding Alternatives to the Proposed Program

CEQA requires that an EIR describe a range of reasonable alternatives to the project, or to the location of the project, that could feasibly attain the basic objectives of the project, and to evaluate the comparative merits of the alternatives (14 CCR 15126.6). An EIR should also provide some discussion of how the lead agency or project proponent, in determining the scope of an EIR, narrowed the range of alternatives discussed in detail within the "range of reasonable alternatives" required by CEQA Guidelines Section 15126.6(c). The preliminary discussion of how the range was focused need not be as extensive as the full "alternatives analysis" required by the CEQA Guidelines (see *Goleta II*, 52 Cal.3d 553, 569 [276 Cal.Rptr. 410]; *Laurel Heights Improvement Association v. Regents of the University of California* [1988] 47 Cal.3d 376, 404–405 [253 Cal.Rptr. 4261]). In *Goleta II* (52 Cal.3d 553, 564–566), the California Supreme Court emphasized that the range of alternatives to be included in an EIR should focus on those that could "feasibly" attain the basic objectives of the project. The CEQA Guidelines also state: "Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts" (14 CCR 15126.6[c]).

4.4.1 Alternatives Eliminated from Further Consideration

Alternatives considered but eliminated from further consideration include alternative locations and a Project Design Alternative. All of the potential alternatives that were considered for the proposed program have been rejected. Section 15126.6(a) of the CEQA Guidelines states that an EIR shall describe "a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project," as well as provide an evaluation of "the comparative merits of the alternatives." Under Section 15126.6(a), an EIR does not need to consider alternatives that are not feasible, nor need it address every conceivable alternative to the project. The range of alternatives "is governed by the 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice" (14 CCR 15126.6[a]). The focus is on informed decision making and public participation rather than providing a set of alternatives simply to satisfy format. Based on the nature of the proposed program (operation and maintenance of an existing water conveyance and distribution system), feasible alternatives to the proposed program, other than the two identified in this section, were not identified. The CIP projects and O&M activities proposed under the program are small projects at specific locations with limited options for methods of construction. For this reason, identification of feasible alternatives for the proposed program was limited. The following discussion presents the alternatives that were considered but rejected, and why they were rejected. These alternatives are not discussed in further detail and have been eliminated from further consideration.

4.4.1.1 Alternative Locations

CEQA requires that the discussion of alternatives focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project. The key question and first step in the analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen the significant effects of the project need be considered for inclusion in the EIR (14 CCR 15126.6[f][2]). Because the proposed program involves the maintenance, repair, and upgrade of an existing water supply conveyance and distribution system, as well as maintenance projects to address access or infrastructure problems, an alternative site analysis is not appropriate. The proposed program location, the Western San Bernardino County Operating Region, comprises Metropolitan's conveyance and distribution system pipelines and appurtenant structures, ROW, and patrol roads within western San Bernardino County, California. Maintenance needs have been identified at specific locations associated with an existing water supply conveyance and distribution system; therefore, it would not be feasible to move the maintenance activities to another location. Relocating CIP projects and O&M activities to other sites would not meet the proposed program objectives. As a result, alternative locations were rejected and are not analyzed in detail in the Draft PEIR.

4.4.1.2 Project Design Alternative

A second alternative that was considered was the Project Design Alternative, which consists of incorporation of bioengineering techniques (e.g., hydroseeding and geotextiles, planted walls, vegetated gabions) into project design to minimize significant impacts resulting from the proposed program, where feasible. This alternative was considered because it had the potential to feasibly attain the basic objective of the proposed program, while avoiding or substantially lessening the significant effects of the proposed program. However, after review, it was determined that this approach did not meet the criteria to be considered as a separate alternative. As part of the proposed program, bioengineering techniques are already being incorporated into the design at proposed program sites where feasible and appropriate. In order to obtain regional permits that are being sought as part of the proposed program, the regulatory agencies (ACOE, RWQCB, and CDFW) have stated that they expect Metropolitan to consider and incorporate, where feasible, bioengineering techniques into construction methods. Rather than an alternative to be considered, bioengineering is a requirement and feature of the existing proposed program. In addition, to minimize impacts from the proposed program and the resulting mitigation, design engineering is taking environmental resources under consideration as part of the design process and design plans are being prepared in a manner that limits/minimizes impacts to sensitive habitats, special-status species, and jurisdictional waters. As such, the Project Design Alternative is already being incorporated into the proposed program.

Further, the impacts in the two categories where significant impacts have been identified (biological resources and cultural resources) would not necessarily be avoided or substantially lessened by implementation of the Project Design Alternative. Bioengineering techniques would not likely reduce impacts to cultural resources, because the potential excavation (i.e., ground disturbance) and repair activities that would create the potential disturbance to archaeological and paleontological resources would still occur. Bioengineering would not minimize the potential impact to cultural resources. For biological resources, likewise, the impact to the sensitive resource, be it a sensitive habitat or a special-status animal species, would still occur with the disturbance (i.e., excavation, vegetation removal/disturbance) during construction activities. Even with incorporation of bioengineering techniques, the proposed CIP projects and O&M activities would still be implemented and the resulting construction disturbance would occur. The bioengineering techniques would serve to restore the impact area, but would not necessarily reduce the impact from construction disturbance. Therefore, the Project Design Alternative does not meet the criteria for an alternative to avoid or substantially lessen any of the significant effects of the program.

4.4.2 Alternatives to the Proposed Program Evaluated in the Draft Program Environmental Report

Section 15126.6(e) of the CEQA Guidelines requires that an EIR evaluate and analyze the impacts of the "No Project" Alternative, which reflects the "circumstances under which the Project does not proceed." The No Project Alternative, in this case, assumes that the existing water supply conveyance and distribution system in the Western San Bernardino County Operating Region would continue to operate without the implementation of proposed CIP projects or the proposed O&M activities. Additionally, under the No Project Alternative, the repair, upgrade, and/or relocation of existing structures, or the installation of permanent structures to address access or infrastructure problems, would not occur.

An EIR must identify an "environmentally superior" alternative, and where the No Project Alternative is identified as environmentally superior, the EIR is then required to identify an alternative from among the others evaluated as environmentally superior. Each alternative's environmental impacts are compared to the proposed project and determined to be environmentally superior, neutral, or inferior. However, only those impacts found significant and unavoidable are used in making the final determination of whether an alternative is environmentally superior or inferior to the proposed project. None of the environmental impacts identified in the PEIR were found to be significant and unavoidable. If an alternative is considered clearly superior to the proposed project relative to identified impacts, Section 15126.6 of the CEQA Guidelines requires that alternative to be identified as the environmentally superior alternative. By statute, if the environmentally superior alternative is the No Project Alternative, an EIR must also identify an environmentally superior alternative among the other alternatives.

Two alternatives to the proposed program other than the No Project Alternative were considered; however, these alternatives were not further analyzed for the reasons stated in Section 4.4.1, Alternatives Eliminated from Further Consideration. Based on the analysis provided in Chapter 6, Alternatives, of the Draft PEIR, the No Project Alternative is considered environmentally inferior to the proposed program. In addition, the No Project Alternative would not meet any of the program objectives identified by Metropolitan. The proposed program would allow for maintenance of the existing water conveyance and distribution system and associated infrastructure in a streamlined manner, thus ensuring the continued reliability and security of the water supply system. The proposed program, therefore, is considered to be the environmentally superior alternative.

4.5 General Findings

1. The plans for the proposed program have been prepared and analyzed so as to provide for public involvement in the planning and the CEQA processes.
2. To the degree that any impacts described in the Draft PEIR are perceived to have a significant effect on the environment, or such impacts appear ambiguous as to their effect on the

environment, any significant effect of such impacts has been substantially lessened or avoided by the mitigation measures set forth in the Draft and Final PEIR.

3. Comments regarding the Draft PEIR received during the public review period have been adequately addressed in Chapter 2, Responses to Comments Received, in this Final PEIR. Any significant effects described in such comments were avoided or substantially lessened by the mitigation measures described in the Draft and Final PEIR.

4.6 Legal Effects of Findings

To the extent that these findings conclude that the proposed mitigation measures outlined in this Final PEIR are feasible and have not been modified, superseded, or withdrawn, Metropolitan hereby commits to implementing these measures. These findings, in other words, are not merely informational, but rather constitute a binding set of obligations that will come into effect when Metropolitan approves the proposed program.

The mitigation measures that are referenced in the MMRP (Chapter 5 of this Final PEIR) and adopted concurrently with these findings will be effectuated through the process of construction and implementation of the proposed program.

4.7 Independent Review and Analysis

Under CEQA, the lead agency must (1) independently review and analyze the EIR; (2) circulate draft documents that reflect its independent judgment; (3) as part of the certification of an EIR, find that the report or declaration reflects the independent judgment of the lead agency; and (4) submit copies of the documents to the State Clearinghouse if there is state agency involvement or if the project is of statewide, regional, or area-wide significance (California Public Resources Code, Section 21082.1[c]).

This Final PEIR reflects Metropolitan's independent judgment. Metropolitan has exercised independent judgment in accordance with CEQA Section 21082.1(c)(3) in retaining its own environmental consultant in the preparation of the PEIR, as well as reviewing, analyzing and revising material prepared by the consultant.

Having received, reviewed, and considered the information in the Final PEIR, as well as any and all other information in the record, Metropolitan hereby makes findings pursuant to and in accordance with CEQA Sections 21081, 21081.5, and 21081.6.

4.8 References

14 CCR 15000 et seq. and Appendices A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

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5 Mitigation Monitoring and Reporting Program

5.1 Introduction

California Public Resources Code Section 21081.6 requires that, upon certification of an environmental impact report, "the public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation."

A Mitigation Monitoring and Reporting Program (MMRP) is required to ensure that adopted mitigation measures (MMs) and applicant proposed measures (APMs) are successfully implemented for the for the proposed Western San Bernardino County Distribution System Infrastructure Protection Program (DSIPP; proposed program). The Metropolitan Water District of Southern California (Metropolitan) is the lead agency for the proposed program and is responsible for implementation of the MMRP. The MMRP will be active through all phases of the program, including design, construction, and operation. Metropolitan must adopt this MMRP, or an equally effective program, if it approves the proposed program with the mitigation measures that were adopted or made conditions of program approval. This MMRP has been developed in compliance with California Public Resources Code Section 21081.6 and Section 15097 of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.), and includes the following information:

- A list of mitigation measures and APMs
- The entity responsible for ensuring that each mitigation measure or APM is implemented and that monitoring and reporting activities occur
- The timing for implementation of the mitigation measures or APMs
- The entity responsible for implementing or monitoring the mitigation measures or APMs
- Whether the mitigation measure or APM is proposed for Capital Investment Program (CIP) projects, single-occurrence Operations and Maintenance (O&M) activities, or routine O&M activities

The implementing/monitoring entities may vary between CIP projects/single-occurrence O&M activities and routine O&M activities depending on whether the project/activity is constructed/implemented by a contractor or by Metropolitan staff. In addition, for CIP projects and single-occurrence O&M activities, monitoring and reporting activities will be finished upon completion of construction or any post-construction monitoring requirements, whereas routine O&M activities will occur routinely and will be ongoing, so the MMRP will remain active.

As part of the MMRP, monitoring compliance forms for each mitigation measure or APM will be developed for the proposed projects within the proposed program. These forms will be completed to document implementation of all measures. Once all measures have been completed, the compliance monitor will sign off on the measure to indicate that the required mitigation measure or APM has been completed.

Table 5-1. Mitigation Monitoring and Reporting Program for CIP Projects and O&M Activities

Applicant Proposed Measures/Mitigation Measures	Responsible Party	Timing of Implementation	Implementing Party	CIP Project/O&M Activity Type
Aesthetics				
APM-AES-1: Design Features. In areas of visual sensitivity, Metropolitan will coordinate with property owners and/or affected jurisdictions/ agencies to develop and implement design features to minimize, to the extent feasible, the visual impacts associated with installation of paving materials. The selection of paving materials may be influenced by the existing colors in the landscape and by the surrounding landscape context. Materials may be selected such that the roadway surface visually blends in with the surrounding landscape to the extent feasible.	Metropolitan	Prior to construction	Metropolitan Environmental Planning Section Metropolitan Design Engineering Team	• CIP Projects (Patrol Road Improvements and Paving)
APM-AES-2: Slope Protection Design. In areas of visual sensitivity, where feasible and appropriate, slope-protection measures shall be designed to ensure compatibility with the existing landscape and minimize visual contrast with existing slopes, channels, embankments, and rock faces to the greatest extent feasible. Slope protection designs shall be prepared and reviewed by qualified professionals (e.g., Professional Engineers or Registered Landscape Architects) who have relevant expertise in aesthetically pleasing and contextually sensitive solutions in slope-protection design. Specific slope-protection measures shall be designed in coordination with the property owner/affected jurisdiction or agency associated with the specific location of targeted slope stabilization work. In addition to regrading and compacting slopes to improve structural integrity and minimize continued damage and soil loss, solutions could include live gully repair, fascines/pole cuttings with subsurface drainage, vegetated mechanically stabilized slopes, vegetated gabions, turf reinforcement mats, vegetation, and/or the following: • **Rock Slope Protection:** Sculpting shall be incorporated in the excavated slope to create more natural-looking slope variation and rock staining shall be used to help blend the color of the cut slope or newly installed "rock" to the natural color of the existing slope/channel/embankment/rock face. The height of rock slope-protection features shall be less than the height of the associated slope/channel/embankment/rock face to ensure consistency in scale and to minimize opportunities for view blockage and interruption of lines of sight. If technologically feasible, the solution shall be partially buried to minimize visibility. • **Tiebacks/Anchors:** Where anchored walls are used, sculpted and colored/stained shotcrete shall be applied on the façade of the anchored wall to mimic the form, color, and texture of the natural slope/channel/embankment/rock face to the greatest extent feasible. • **Stepped Retaining Walls:** Retaining wall materials shall mimic the color and texture of the existing slope/channel/embankment/rock face and shall be selected to minimize resulting visual contrast. The height of retaining walls shall be less than the height of the associated slope/channel/embankment/rock face to ensure consistency in scale and minimize opportunities for view blockage and interruption of lines of sight. If technologically feasible, the retaining wall shall be partially buried to minimize visibility.	Metropolitan	Prior to construction	Metropolitan Environmental Planning Section Metropolitan Design Engineering Team Qualified professionals (e.g., Professional Engineers or Registered Landscape Architects) who have relevant expertise in aesthetically pleasing and contextually sensitive solutions in slope-protection design	• CIP Projects (Engineered Erosion Control and Slope Stabilization)
Air Quality				
APM-AQ-1: Construction Equipment. Where Tier 4 equipment is reasonably available for off-road equipment with engines rated at 50 horsepower or greater, it will be used.	Metropolitan	During construction	Metropolitan Construction Management Team/ Construction Contractor Environmental Monitor	• CIP Projects (all) • O&M Activities (all)
APM-AQ-2: Fugitive Dust Control. Proposed program activities would adhere to South Coast Air Quality Management District Rule 403, which includes a variety of measures intended to reduce fugitive dust emissions. The following measures shall be implemented during maintenance activities, as needed, to reduce the potential for fugitive dust emissions during grading, excavation, and construction activities: • The areas disturbed at any one time by clearing, grading, earthmoving, or excavation operations shall be minimized to prevent excessive amounts of dust. • Pre-grading/excavation activities shall include watering of the area to be graded or excavated before commencement of grading or excavation operations. Application of water should penetrate sufficiently to minimize fugitive dust during earthmoving, grading, and excavation activities, but shall not be applied in a manner that generates runoff from the active work area. In light of drought conditions, Metropolitan would consider alternative feasible methods of dust control that minimize the use of water.	Metropolitan	During construction	Metropolitan Construction Management Team/ Construction Contractor Environmental Monitor	• CIP Projects (all) • O&M Activities (all)

Table 5-1. Mitigation Monitoring and Reporting Program for CIP Projects and O&M Activities

Applicant Proposed Measures/Mitigation Measures	Responsible Party	Timing of Implementation	Implementing Party	CIP Project/O&M Activity Type
• If reclaimed water is used for the purpose of dust control, such water shall be compliant with Title 22 standards applicable to use of recycled water for soil compaction, concrete mixing and dust control (22 CCR Division 4, Chapter 3, Article 3, Section 60307). • All trucks shall be required to cover their loads as required by California Vehicle Code, Section 23114. All graded and excavated material, exposed soil areas, including unpaved parking and staging areas, and other active portions of the construction site, including unpaved roadways, shall be treated to prevent fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally safe soil stabilization materials, and/or roll compaction as appropriate. Watering shall be done as often as necessary, and reclaimed water shall be used whenever possible. • During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earthmoving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by proposed program activities and operations from being a nuisance or hazard, either on site or off site. Open material stockpiles shall be periodically watered, or treated with appropriate dust suppressants, if needed.				
Biological Resources				
APM-BIO-1: Pre-Activity Special-Status Plant Surveys. Within the portions of the CIP project and single-occurrence O&M activity sites that were not surveyed in 2017, or for project sites that do not commence construction by 2022, Metropolitan will complete pre-activity surveys for special-status plant species during the appropriate blooming period for species that have potential to occur. Surveys will conducted by a qualified botanist within the areas that would be subject to direct or indirect impacts. Surveys will conform to the California Native Plant Society Botanical Survey Guidelines (CNPS 2001), Protocols for Surveying and Evaluating Impacts to Special Status Native Populations and Natural Communities (CDFW 2018), and the Endangered Species Recovery Program's General Rare Plant Survey Guidelines (USFWS 2002) or the most current accepted protocol. Plant species encountered during the field surveys will be identified to subspecies or variety, if applicable, to determine sensitivity status. Populations and individuals of any special-status plant species found during pre-activity surveys will be mapped with GPS. Mapped populations of listed species will be avoided unless take authorization has been obtained from the respective resource agency. Non-listed special-status plants will be avoided during construction activities as practicable. Installation of protective fencing and erosion and sediment control measures, as appropriate, will be implemented to protect special-status plant populations found near CIP project and single-occurrence O&M activity sites.	Metropolitan	Prior to construction	Metropolitan Environmental Planning Section Qualified botanist	• CIP Projects (all) • Single-Occurrence O&M Activities (O&M Activity Code No. 15)
APM-BIO-2: Flagging of Work Limits. All CIP project and single-occurrence O&M activity work area limits within special-status species habitat, including staging areas, shall be well defined and marked (e.g., by caution tape or temporary fencing). All temporary fencing or other markers shall be clearly visible to construction personnel. Parking, stockpiling, or storage of equipment shall be permitted only within designated staging areas.	Metropolitan	Prior to and during construction	Metropolitan Environmental Planning Section Environmental Monitor	• CIP Projects (all) • Single-Occurrence O&M Activities (O&M Activity Code No. 15)
APM-BIO-3: Cleaning of Mowing Equipment. Mowing equipment shall be thoroughly cleaned before use so it is free of seeds from noxious weeds and does not introduce such weeds to new areas.	Metropolitan	Prior to and during construction	Metropolitan Landscape Maintenance staff	• Routine O&M Activities
APM-BIO-4: Invasive Plant Removal Protocols. Invasive plant species shall be removed in a manner that prevents propagation. All cut/removed invasive vegetation shall be taken to a dump as destruction load. Maintenance personnel shall avoid letting cut stems or seedpods be washed downstream or left behind to propagate.	Metropolitan	Prior to and during construction	Metropolitan Landscape Maintenance staff	• Routine O&M Activities
MM-BIO-1: Nesting Bird Surveys. For all proposed program activities, grading or vegetation clearing, cutting, and removal shall be scheduled to occur during the non-breeding season for birds (September 1 through January 31). If grading or vegetation clearing, cutting, or removal are required during the breeding season (February 1 through August 31, or January 1 through August 31 for raptors), then a qualified biologist shall survey all potential nesting vegetation within an appropriate distance from the grading limits for nesting birds prior to grading activities, as property access allows and depending on factors such as habitat suitability; focal species' known tolerance to human activities and noise; the timing, intensity, and extent of the activities; and the presence of vegetation and topographical screening. Between January 1 and February 1, nesting surveys for raptors will be required only if there is suitable raptor nesting habitat within or adjacent to the grading or vegetation removal area. The purpose of the surveys shall be to determine if active nests of special-status or other protected birds are present within the vicinity of the work area. The survey shall be conducted	Metropolitan	Prior to construction	Metropolitan Environmental Planning Section Qualified biologist	• CIP Projects (all) • O&M Activities (all)

Table 5-1. Mitigation Monitoring and Reporting Program for CIP Projects and O&M Activities

Applicant Proposed Measures/Mitigation Measures	Responsible Party	Timing of Implementation	Implementing Party	CIP Project/O&M Activity Type
within 7 days prior to the start of work. If no nesting birds are observed, project activities may commence. If an active nest is located, the site shall be marked, and an appropriate buffer established, based on site conditions, nesting species, and construction activity. The buffer area shall not be disturbed until after birds have fledged. The qualified biologist, in conjunction with Metropolitan's Environmental Planning staff, will determine when construction activities may resume in the area. In the event that a threatened or endangered species is located within the survey area and avoidance is not feasible, consultation with the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife shall be required.				
MM-BIO-2: Compensation for Impacts to Federally and State-Listed Species Habitat. Direct temporary and permanent impacts to suitable habitat for federally or state-listed species within proposed CIP project and single-occurrence O&M activity areas shall be mitigated through on-site or off-site measures. Mitigation for temporary and permanent impacts to listed species habitat shall consider, and may overlap with, jurisdictional waters and wetlands (MM-BIO-5). • **Temporary Impacts.** Mitigation for direct temporary impacts to suitable habitat for federally or state-listed species shall be implemented through on-site rehabilitation at a 1:1 mitigation ratio. Areas temporarily impacted shall be returned to similar conditions to those that existed prior to grading and/or ground-disturbing activities. For proposed CIP projects and single-occurrence O&M activity temporary impact areas outside routinely maintained areas, the proposed rehabilitation of impact areas may include, at a minimum, a feasible implementation structure, salvage/seeding details, invasive species eradication methods, a monitoring schedule, performance standards of success, estimated costs, and identification of responsible entities. • **Permanent Impacts.** Metropolitan shall purchase land or fund a mitigation bank or in-lieu fee program to compensate for all permanent loss of suitable habitat for federally or state-listed species (including critical habitat), if available, at a 1:1 ratio. Direct impacts to federally listed species' occupied habitat shall be addressed through either the Section 7 or Section 10(a)(1)(B) process under the federal Endangered Species Act (ESA) of 1973, as amended. Additionally, direct impacts to federally designated critical habitat that cannot be avoided shall be addressed through either the ESA Section 7 or Section 10(a)(1)(B) process. Direct impacts to state-listed species shall be addressed through the California Fish and Game Code Section 2081(b) incidental take permit process. The two processes may require additional mitigation beyond what is being proposed under this CEQA analysis.	Metropolitan	Prior to, during, and after construction	Metropolitan Environmental Planning Section	• CIP Projects (all) • Single-Occurrence O&M Activities (O&M Activity Code No. 15)
MM-BIO-3: Pre-Construction Biological Surveys. Prior to the start of ground-disturbing construction or vegetation removal associated with Capital Investment Plan (CIP) projects and single-occurrence Operations and Maintenance (O&M) activities, pre-construction surveys for special-status plant or wildlife species shall be conducted in areas of suitable habitat within 300 feet of ground-disturbing activities, as property access allows. If listed special-status plant or wildlife species habitat is located, then focused surveys will be performed for those species and if they are detected, MM-BIO-2 will be implemented. For all special-status species, locations shall be mapped and monitored for avoidance (MM-BIO-4).	Metropolitan	Prior to construction	Metropolitan Environmental Planning Section Qualified biologist	• CIP Projects (all) • Single-Occurrence O&M Activities (O&M Activity Code No. 15)
MM-BIO-4: Biological Monitoring. Should special-status plants or wildlife be identified during MM-BIO-3 or APM-BIO-1, a qualified biologist shall monitor ground-disturbing activities within areas where special-status plant and wildlife species, sensitive vegetation communities, or jurisdictional waters/wetlands are present during CIP projects and single-occurrence O&M activities. The qualified biologist shall look for special-status species that may be located within or immediately adjacent to work areas. If special-status species are found, the biological monitor shall identify their location for avoidance or flush/move them out of harm's way to avoid direct impacts to these species. The qualified biologist, in coordination with The Metropolitan Water District of Southern California (Metropolitan), shall determine when monitoring shall cease.	Metropolitan	During construction	Metropolitan Environmental Planning Section Qualified biologist	• CIP Projects (all) • Single-Occurrence O&M Activities (O&M Activity Code No. 15)
MM-BIO-5: Compensation for Impacts to Jurisdictional Wetlands and Waters. Mitigation for temporary and permanent impacts to jurisdictional wetlands and waters shall consider and overlap with compensation for special-status species habitat (MM-BIO-2). The U.S. Army Corps of Engineers, California Department of Fish and Wildlife, and Regional Water Quality Control Board may require additional compensation during the regulatory permitting process. • **Temporary Impacts.** Mitigation for direct temporary impacts to jurisdictional wetlands and waters resulting from CIP projects, single-occurrence O&M activities, and routine O&M activities shall be implemented through on-site restoration. Areas temporarily impacted shall be returned to conditions similar to those that existed prior to grading and/or ground-disturbing activities. For impacted vegetated jurisdictional wetlands and waters, the proposed	Metropolitan	Prior to, during, and after construction	Metropolitan Environmental Planning Section	• CIP Projects (all) • Single-Occurrence O&M Activities (O&M Activity Code No. 15)

Table 5-1. Mitigation Monitoring and Reporting Program for CIP Projects and O&M Activities

Applicant Proposed Measures/Mitigation Measures	Responsible Party	Timing of Implementation	Implementing Party	CIP Project/O&M Activity Type
rehabilitation of impact areas may include, at a minimum, a feasible implementation structure, salvage/seeding details, invasive species eradication methods, a monitoring schedule, performance standards of success, estimated costs, and identification of responsible entities. • **Permanent Impacts.** Mitigation for permanent impacts to jurisdictional wetlands and waters resulting from CIP projects and single-occurrence O&M activities shall be implemented at a minimum 1:1 mitigation ratio through purchase of credits through an agency-approved mitigation bank, in-lieu fee program, or other agreement. If no agency-approved mitigation bank or in-lieu fee program is available, off-site mitigation lands shall be preserved through a conservation easement.				
Cultural Resources				
APM-CR-1: Treatment of Human Remains. If human remains are discovered during construction, no further disturbance shall occur until the county coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the county coroner determines the remains are Native American, the Native American Heritage Commission (NAHC) shall be contacted within a reasonable time. Subsequently, NAHC shall identify the most likely descendant (MLD). The MLD shall then make recommendations and engage in consultations concerning the treatment of the remains as provided in California Public Resources Code Section 5097.98.	Metropolitan	During construction	Metropolitan Environmental Planning Section	• CIP Projects (all) • O&M Activities (all)
MM-CR-1: Avoidance of Impacts to Cultural Resources. Metropolitan shall minimize or avoid impacts to potentially significant cultural resources discovered unexpectedly during construction by developing and implementing the following: • All work shall halt within 50 feet of the discovery site and the discovery shall be protected in place. • Metropolitan, in consultation with the qualified cultural resources specialist, shall designate an area surrounding the area as a restricted area. • A qualified cultural resources specialist shall evaluate the significance of the discovery. • A qualified cultural resources specialist shall develop appropriate treatment measures for the discovery in consultation with Metropolitan and other appropriate agencies. • Work shall be prohibited in the restricted area until Metropolitan provides written authorization.	Metropolitan	During construction	Metropolitan Environmental Planning Section Qualified cultural resources specialist	• CIP Projects (all) • Single-Occurrence O&M Activities (O&M Activity Code No. 15)
MM-CR-2: Paleontological Resource Impact Mitigation Program. Prior to the start of ground-disturbing activities in previously undisturbed areas with high paleontological sensitivity, a qualified professional paleontologist meeting the Society of Vertebrate Paleontology's (2010) standards ("project paleontologist") shall be retained to provide project-level analysis. The project paleontologist shall prepare and implement a paleontological resource impact mitigation program (PRIMP) for areas that will include excavation into native soils with high or undetermined geologic sensitivity. The PRIMP shall provide management strategies based on the assigned sensitivity rankings as well as the proposed depths of ground disturbance. As part of the PRIMP, where new ground disturbance would occur at 4 feet or more below ground surface, full-time monitoring may be required in program work areas determined to have a high or undetermined paleontological sensitivity (i.e., Puente Formation, early Holocene or older axial-channel and alluvial-fan deposits, fault-bounded conglomerate and sandstone), or spot check monitoring in proposed program work areas determined to have low paleontological sensitivity (i.e., Holocene age surficial deposits). In addition, the PRIMP shall require that the project paleontologist conduct a Worker's Environmental Awareness Program (WEAP) training for all field personnel regarding the types of fossils that could be found in the work areas and the procedures to follow should paleontological resources be encountered. Specifically, the training shall provide a description of the fossil resources that may be encountered in the work areas, outline steps to follow in the event that a fossil discovery is made, and provide contact information for the project paleontologist and on-site monitor(s). The training shall be developed by the project paleontologist and may be conducted concurrent with other environmental training (e.g., biological, cultural, and natural resources awareness training, safety training).	Metropolitan	Prior to construction	Metropolitan Environmental Planning Section Qualified professional paleontologist meeting the Society of Vertebrate Paleontology's (2010) standards	• CIP Projects (all) • Single-Occurrence O&M Activities (O&M Activity Code No. 15)
MM-CR-3: Preparation, Curation, and Reporting of Vertebrate Fossils. All unique identifiable vertebrate fossil remains that are collected during the course of the proposed program will be prepared in a properly equipped paleontology laboratory to a point ready for curation. Preparation will include the careful removal of excess matrix from fossil materials and	Metropolitan	During and after construction	Metropolitan Environmental Planning Section	• CIP Projects (all)

Table 5-1. Mitigation Monitoring and Reporting Program for CIP Projects and O&M Activities

Applicant Proposed Measures/Mitigation Measures	Responsible Party	Timing of Implementation	Implementing Party	CIP Project/O&M Activity Type
stabilizing and repairing specimens, as necessary. Following laboratory work, all fossil specimens will be identified to the lowest taxonomic level possible, cataloged, analyzed, and delivered to an accredited museum repository for permanent curation and storage. Fossil specimens will be submitted for permanent curation in a museum repository approved by Metropolitan, such as the San Bernardino County Museum or Western Science Center. The cost of curation is assessed by the repository and is the responsibility of Metropolitan. At the conclusion of laboratory work and museum curation, a final report will be prepared describing the results of the paleontological inventory and evaluation. The report will include an overview of the proposed program work area geology and paleontology, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance, and recommendations. If fossils will be donated for permanent curation, a copy of the report will be submitted to the curation institution along with the fossil assemblage.				• Single-Occurrence O&M Activities (O&M Activity Code No. 15)
MM-CR-4: Phase I Cultural Resource and/or Paleontological Survey. For areas not already surveyed, a pre-activity review should be performed for future ground-disturbing activities associated with Operations and Maintenance (O&M) activities (O&M Activity Code Nos. 3 and 15). For each location where these activities will take place, the proposed activity footprint will first be examined by Metropolitan staff to determine if the proposed ground-disturbing activities will be confined to the area of previous disturbance or if there is a potential for additional ground disturbance within intact native sediments. If it is determined that the proposed activities have the potential to impact undisturbed native sediments, then a Phase I cultural resource and/or a paleontological survey will be required. The purpose of the field surveys will be to visually inspect the ground surface for evidence of archaeological remains and for exposed fossils or traces thereof and to evaluate geologic exposures for their potential to contain preserved fossil material at the subsurface. All archaeological resources observed during the course of fieldwork shall be adequately recorded at the time of discovery following standard documentation procedures. All fossil occurrences observed during the course of fieldwork, significant or not, shall be adequately documented and recorded at the time of discovery.	Metropolitan	Prior to construction	Metropolitan Environmental Planning Section Qualified cultural resources specialist Program paleontologist	• Routine O&M Activities (O&M Activity Code No. 3) • Single-Occurrence O&M Activities (O&M Activity Code No. 15)
MM-CR-5: Protective Measures for Archaeological Resources. For future ground-disturbing O&M activities (O&M Activity Code Nos. 3 and 15) in the vicinity of an archaeological resource, protective measures shall be implemented for significant archaeological sites in close proximity to a proposed program work area. If the pre-activity review (MM-CR-4) identifies a known archaeological site within 50 feet of a Distribution System Infrastructure Protection Program (DSIPP) work area, the following protective measures are required as warranted: • Exclusion fencing and flagging shall be established around any significant or potentially significant archaeological site located within 50 feet of a DSIPP work area. • A qualified archaeologist shall monitor all ground-disturbing activities in all DSIPP work areas located within 50 feet of a significant or potentially significant archaeological site.	Metropolitan	Prior to and during construction	Metropolitan Environmental Planning Section Qualified archaeologist	• Routine O&M Activities (O&M Activity Code No. 3) • Single-Occurrence O&M Activities (O&M Activity Code No. 15)
MM-CR-6: Phase II Cultural Resources Evaluation. For future ground-disturbing O&M activities (O&M Activity Code Nos. 3 and 15) in areas where archaeological resources cannot be avoided by implementation of MM-CR-5, development of a Phase II cultural resources evaluation program would be required to be implemented by a qualified archaeologist. The evaluation program will include the development of an appropriate research design and methodological approach to evaluate the archaeological resources that have the potential to be impacted during proposed program-related activities. The findings of the cultural resources evaluation program shall be presented in a technical report to be submitted to Metropolitan (and the federal lead agency, if applicable) for review and approval.	Metropolitan	Prior to and during construction	Metropolitan Environmental Planning Section Qualified archaeologist	• Routine O&M Activities (O&M Activity Code No. 3) • Single-Occurrence O&M Activities (O&M Activity Code No. 15)
MM-CR-7: Phase III Data Recovery Plan. For those archaeological resources determined to be eligible for listing in the California Register of Historical Resources and/or the National Register of Historic Places, a Phase III data recovery plan shall be prepared by a qualified archaeologist prior to the onset of excavations. The plan shall detail the field, laboratory, and archival methods that shall be used during the data recovery program; the curation of archaeological materials at an appropriate facility for future research; and provisions for a report detailing the findings and significance of the archaeological resources. The plan shall be submitted to Metropolitan for review and approval prior to the commencement of data recovery investigations. For prehistoric archaeological sites, a Native American monitor shall be present during the Phase III fieldwork efforts. Results of the Phase III data recovery plan shall be presented in a technical report submitted to Metropolitan for review and approval prior to the commencement of ground-disturbing activities. A final version of the report shall be submitted to the regional California Historic Resources Information System repository.	Metropolitan	Prior to construction	Metropolitan Environmental Planning Section Qualified archaeologist Native American monitor	• CIP Projects (all) • Routine O&M Activities (O&M Activity Code No. 3) • Single-Occurrence O&M Activities (O&M Activity Code No. 15)

Table 5-1. Mitigation Monitoring and Reporting Program for CIP Projects and O&M Activities

Applicant Proposed Measures/Mitigation Measures	Responsible Party	Timing of Implementation	Implementing Party	CIP Project/O&M Activity Type
Geology and Soils				
APM-GEO-1: Earthwork and Grading Best Practices. Metropolitan's design plans, including proposed site grading and earthwork activities, for the proposed program will seek to minimize ground disturbance and shall be coordinated with local jurisdictions, as appropriate. Local jurisdictional restrictions and requirements will be included in the development of project designs. Metropolitan's design plans will be submitted to local jurisdictions for their review and approval as necessary. Comments received from the local jurisdictions will be incorporated into project designs to the extent possible. Metropolitan's contractors shall obtain grading permits as required by the local jurisdictions. Proposed projects shall implement the following earthwork considerations, as applicable: • *Remedial Grading*: Prior to grading, any fill zone shall be cleared of surface and subsurface obstructions. Voids created by removal of buried material shall be backfilled with properly compacted soil. Exposed subgrade in fill zones shall be scarified to a depth of at least 6 inches, moisture conditioned to above optimum, and compacted to at least 90 percent of the American Society for Testing and Materials (ASTM) D 1557-12 (modified Proctor) laboratory maximum density. In some cases, wet subgrades may need to be stabilized with crushed rock, geogrids, and/or other methods. • *Compacted Fill/Backfill*: Fill materials shall be naturally occurring, well-graded soil or soil/rock combinations free of wood, trash, construction debris, and organic, contaminated, or deleterious material. • *Temporary Excavations*: When necessary to prevent caving and to protect adjacent structures or property, trenches and excavations shall be protected, shored, sheeted, braced, or sloped in accordance with CCR Title 8 and the regulations of local authorities having jurisdiction Excavation requirements are outlined in Metropolitan's construction specifications, and Metropolitan staff will review and approve the contractor's excavation plans. Safety standards established within the California Occupational Safety and Health Administration (Cal/OSHA) CCR Construction Safety Orders (CSOs) and General Industry Safety Orders (GISOs) that are applicable to the work shall be adhered to. Metropolitan construction inspectors will also monitor compliance with regulations.	Metropolitan	Prior to and during construction	Metropolitan Construction Management/ Construction Contractor Metropolitan Design Engineering	• CIP Projects ((all)
Hazards and Hazardous Materials				
APM-HAZ-1: Hazardous Materials Management. Hazardous materials storage shall be in compliance with the California Environmental Protection Agency's Department of Toxic Substances Control requirements. Metropolitan and/or its contractor shall be responsible for proper handling, packaging, transportation and disposal of all hazardous waste brought on site or generated on site through incidental use, including but not limited to aerosol spray cans and empty vehicle fluid and cleaning cans. Hazardous materials shall be stored in covered, leak-proof containers when not in use, away from storm drains and heavy traffic areas, and shall be protected from rainfall infiltration and vandalism. Hazardous materials shall be stored separately from non-hazardous materials, on a surface that prevents spills from permeating the ground surface, and in an area secure from unauthorized entry at all times. Incompatible materials shall be stored separately from each other.	Metropolitan	During construction	Metropolitan Construction Management/ Construction Contractor Metropolitan Design Engineering	• CIP Projects (all) • O&M Activities (all)
APM-HAZ-2: Previously Unidentified Hazardous Materials. Should hazardous materials previously not identified be discovered during construction and/or grading activities, Metropolitan and/or its contractor shall stop work in the area immediately and notify the health and safety representative, who will assess the situation and take appropriate actions, including but not limited to clearing the work area, posting signs and securing the area from unauthorized entry, and notifying the appropriate local authorities. Metropolitan and contractor personnel shall ensure that on-site workers are trained to identify and recognize potentially hazardous materials (e.g., unmarked containers, stained soils, suspicious odors, refuse from illegal dumping).	Metropolitan	During construction	Metropolitan Construction Management/ Construction Contractor Environmental Monitor Metropolitan Safety and Environmental Services	• CIP Projects (all) • O&M Activities (all)
APM-HAZ-3: Health and Safety Procedures for Lead-Contaminated Soil. Metropolitan has standard procedures to manage potential hazards related to lead-contaminated soil: Exposure Assessments and Patrol Road Maintenance Guidelines. These standard procedures have been established by the Metropolitan Safety Regulatory Services (SRS) as follows: • **Exposure Assessments.** In the event work activities may expose C&D and/or construction service unit (CSU) employees to lead (or other heavy metals), an exposure assessment will be conducted in the potentially contaminated area. The employees will wear an air pump with sampling cassette throughout the work day. The sampling cassette	Metropolitan	During construction	Metropolitan Construction Management/ Construction Contractor Environmental Monitor Metropolitan Safety and Environmental Services	• CIP Projects (all) • O&M Activities (all)

Table 5-1. Mitigation Monitoring and Reporting Program for CIP Projects and O&M Activities

Applicant Proposed Measures/Mitigation Measures	Responsible Party	Timing of Implementation	Implementing Party	CIP Project/O&M Activity Type
will be taken to a lab to determine the amount of airborne lead (or other metal) exposure. Based on the lab results, Metropolitan SRS will implement personal protective measures for employees required to work in the exposure area. • **Patrol Road Maintenance Guidelines.** Special safety precautions procedures are required for maintenance work on the Inland Feeder at the approximate location of the Highland Site. These procedures include driving with windows up, driving at slow speeds to reduce airborne dust, not causing airborne dirt while working, rinsing footwear prior to entering a vehicle, and using Lead-Off wet wipes to wipe down hands and other exposed skin areas before re-entering a vehicle.				
APM-HAZ-4: Fire Protection and Fire Safety. Metropolitan or Metropolitan's contractor shall provide fire safety measures during construction activities in compliance with Chapter 14 of the California Fire Code. Gasoline-powered or diesel-powered machinery used during construction shall be equipped with standard exhaust controls and muffling devices that will also act as spark arrestors. Fire containment and extinguishing equipment shall be located on site and shall be accessible during construction activities. Construction workers shall be trained in use of the fire suppression equipment and shall not be permitted to idle vehicles on the job site when not in use. Where hot work is necessary, it shall be performed in compliance with the California Fire Code's Chapter 35, "Welding and other Hot Work," and the National Fire Protection Association's 51-B, "Fire Prevention During Welding, Cutting and other Hot Work."	Metropolitan	During construction	Metropolitan Construction Management Team/ Construction Contractor Environmental Monitor	• CIP Projects (all) • O&M Activities (all)
Hydrology and Water Quality				
APM-HYD-1: Implementation of a Stormwater Pollution Prevention Plan (SWPPP) or Water Pollution Control Plan, as Applicable. For projects or activities subject to the State Water Resources Control Board (SWRCB) Construction General Permit (i.e., where construction disturbances would exceed 1 acre), mobilization or construction shall not begin on the project/activity site until Metropolitan has submitted permit registration documents, including a SWPPP, to the SWRCB and obtained a waste discharge ID number.	Metropolitan	Prior to and during construction	Metropolitan Construction Management Team/ Construction Contractor Metropolitan Design Engineering Team Environmental Monitor	• CIP Projects (all) • Single-Occurrence O&M Activities (O&M Activity Code No. 15)
APM-HYD-2: Grading of Patrol Roads. Patrol roads will be graded in a manner that minimizes the channelization and ponding of stormwater and maximizes the dispersion of runoff via sheet flow (rather than erosive, high-velocity flows). Metropolitan's Patrol Road Maintenance Guidelines, which are used by Metropolitan staff during road grading, call for creation of a cross-slope on the road bed of 0.25 inches per foot of road width toward the outside edge, with crowning of the road to be done only on double-lane roads. Where outsloping the road is not possible due to land contours, ditches shall be created along the side of the road to contain water and direct it away from the road. The bank of the ditch from the edge of the road to the bottom of the ditch shall be at an angle of no less than 3 inches per foot, and shall be a minimum of 1 foot wide and 1 foot deep. In high runoff areas, the ditch shall be larger. Modifications to these guidelines may be made based on specific site conditions. Grade dips shall be installed where necessary to direct water across the road. Arizona crossings shall be constructed with materials that will not degrade water quality (e.g., concrete, coarse rock, riprap, and/or gabions).	Metropolitan	During construction	Metropolitan Construction Management Team/ Construction Contractor Metropolitan Construction Services Unit	• CIP Projects (all) • O&M Activities (all)
APM-HYD-3: Dewatering. If program activities require dewatering to provide a dry work area, dewatering systems will be used to remove and dispose of accumulated surface water and/or manage groundwater seepage. As needed, groundwater will be pumped into truck-mounted storage tanks and either discharged to land in accordance with Regional Water Quality Control Board (RWQCB) regulations, or transported to an authorized discharge location. Discharges of non-stormwater from a trench or excavation that contain sediment or other pollutants directly to a sanitary sewer, storm drain, creek bed, or other receiving water shall be prohibited without first obtaining special authorization or permit from the RWQCB or local jurisdiction.	Metropolitan	During construction	Metropolitan Construction Management Team/ Construction Contractor Environmental Monitor Metropolitan Water Systems Operations	• CIP Projects (all) • O&M Activities (all)
APM-HYD-4: Avoidance of Spills and Leaks. All equipment operating in and near a watercourse must be maintained in good working condition and free of leaks. No equipment maintenance or refueling shall occur in a channel or basin bottom. All maintenance crews working with heavy equipment shall be trained in spill containment and response procedures.	Metropolitan	During construction	Metropolitan Construction Management Team/ Construction Contractor Environmental Monitor	• CIP Project (all) • O&M Activities (all)
APM-HYD-5: Equipment Servicing and Fueling. All equipment will be serviced and fueled off site. Washing down heavy equipment on the job site shall be permitted only when limited to washing mud or dirt from equipment (engine cleaning or oily parts cleaning is not permitted), and when wash water would drain to an enclosed area where water could percolate	Metropolitan	During construction	Metropolitan Construction Management Team/ Construction Contractor	• CIP Project (all) • O&M Activities (all)

Table 5-1. Mitigation Monitoring and Reporting Program for CIP Projects and O&M Activities

Applicant Proposed Measures/Mitigation Measures	Responsible Party	Timing of Implementation	Implementing Party	CIP Project/O&M Activity Type
or evaporate. Wash water shall not be allowed to enter city or county storm drain systems, and no soaps or chemicals shall be used for equipment washing on the job site.			Environmental Monitor Metropolitan Water Systems Operations	
APM-HYD-6: Concrete Work. For proposed CIP projects requiring concrete work, all concrete washouts shall be conducted either into excavations where the concrete was poured or within designated concrete washout stations, or shall be captured using a washout recycling system. Crews shall not be allowed to dispose of concrete directly onto the ground.	Metropolitan	During construction	Metropolitan Construction Management Team/ Construction Contractor Environmental Monitor	• CIP Projects (all)
APM-HYD-7: Maintenance of Existing Hydrology. Stream crossing structures shall be designed to maintain water depths and water velocities comparable to those found in natural areas upstream and downstream of the crossing.	Metropolitan	Prior to and during construction	Metropolitan Construction Management Team/ Construction Contractor Metropolitan Design Engineering	• CIP Projects (all) • Single-Occurrence O&M Activities (O&M Activity Code No. 15)
APM-HYD-8: Avoidance of Channel Work during the Rainy Season. Activities in earthen channels and in channels with soft bottoms and bank protection shall be avoided during the rainy season to the extent feasible to avoid work when water could be present in the drainage.	Metropolitan	During construction	Metropolitan Construction Management Team/ Construction Contractor Environmental Monitor	• CIP Projects (all) • O&M Activities (all)
APM-HYD-9: Materials in Waterways. No brush, loose soils, or other construction materials/waste shall be deposited on or below the ordinary high-water mark of waterways (streams, creeks, canals, ditches). (This BMP does not apply to the use of packed earth or the planting of vegetation to repair and stabilize earthen channels.)	Metropolitan	During construction	Metropolitan Construction Management Team/ Construction Contractor Environmental Monitor	• CIP Projects (all) • O&M Activities (all)
APM-HYD-10: Temporary Stream Diversions. Sandbags or other approved methods that avoid and minimize in-stream impacts and effects on wildlife shall be used if temporary stream diversions are required.	Metropolitan	During construction	Metropolitan Construction Management Team/ Construction Contractor Metropolitan Design Engineering Environmental Monitor	• CIP Projects (all) • Single-Occurrence O&M Activities (O&M Activity Code No. 15)
APM-HYD-11: Herbicide Use. Any pesticide or herbicide applications shall occur under the direction of a professional pesticide applicator with either a Qualified Applicator License or an Agricultural Pest Control Adviser License in California. Label instructions and all applicable laws and regulations are to be strictly followed in the application of pesticides and herbicides and in the disposal of excess materials and containers. Only those materials registered by the U.S. Environmental Protection Agency (EPA) for the specific purpose are authorized for use, and they shall be used only when weather conditions will minimize drift and impacts on non-target sites. Before applying any pesticides or herbicides in parks or on federal or state land, Metropolitan shall obtain approval from the appropriate agency for all pesticides and herbicides proposed for use on these lands. Only pesticides on the Metropolitan "Approved Pesticide List" and registered with the EPA and the California Environmental Protection Agency will be used.	Metropolitan	During construction	Professional pesticide applicator with either a Qualified Applicator License or an Agricultural Pest Control Adviser License in California Metropolitan Landscape Maintenance	• CIP Projects (all) • O&M Activities (all)
Noise				
APM-NOI-1: Compliance with Noise Output Regulations. All mobile or fixed noise-producing equipment used on the proposed program that is regulated for noise output by a federal, state, or local agency shall comply with such regulation while in the course of proposed program activity.	Metropolitan	During construction	Metropolitan Construction Management Team/ Construction Contractor Environmental Monitor	• CIP Projects (all) • O&M Activities (all)
APM-NOI-2: Use of Electric Equipment. Electrically powered equipment shall be used instead of pneumatic or internal-combustion-powered equipment, where feasible.	Metropolitan	During construction	Metropolitan Construction Management Team/ Construction Contractor Environmental Monitor	• CIP Projects (all) • O&M Activities (all)

Table 5-1. Mitigation Monitoring and Reporting Program for CIP Projects and O&M Activities

Applicant Proposed Measures/Mitigation Measures	Responsible Party	Timing of Implementation	Implementing Party	CIP Project/O&M Activity Type
APM-NOI-3: Location of Stockpiles and Other Noise-Producing Activities. Material stockpiles and mobile equipment staging, parking, and maintenance areas shall be located as far as practicable from noise-sensitive receptors.	Metropolitan	During construction	Metropolitan Construction Management Team/ Construction Contractor Environmental Monitor	• CIP Projects (all) • O&M Activities (all)
APM-NOI-4: Construction-Related Speed Limits. Construction site and haul-road speed limits shall be established and enforced during the construction period.	Metropolitan	During construction	Metropolitan Construction Management Team/ Construction Contractor Environmental Monitor	• CIP Projects (all) • O&M Activities (all)
APM-NOI-5: Construction Hours Restrictions. As feasible, the hours of construction, including all spoils and material transport, shall be restricted to the time periods and days permitted by the local noise ordinance or other applicable ordinance. As necessary, Metropolitan shall coordinate with the applicable local jurisdiction regarding activities that are not consistent with local ordinances to avoid/minimize impacts.	Metropolitan	During construction	Metropolitan Construction Management Team/ Construction Contractor Environmental Monitor Metropolitan External Affairs	• CIP Projects (all) • O&M Activities (all)
APM-NOI-6: Limits on Noise-Producing Signals. The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.	Metropolitan	During construction	Metropolitan Construction Management Team/ Construction Contractor Environmental Monitor	• CIP Projects (all) • O&M Activities (all)
APM-NOI-7: Pre-Construction Coordination. As necessary, Metropolitan shall voluntarily coordinate with local jurisdictions and sensitive receptors regarding the proposed program to address any potential program-specific noise-related issues prior to commencement of construction activities.	Metropolitan	Prior to construction	Metropolitan Construction Management Team Metropolitan External Affairs	• CIP Projects (all) • O&M Activities (all)
APM-NOI-8: Noise Complaints Response and Resolution. The on-site construction supervisor shall have the responsibility and authority to receive and resolve noise complaints.	Metropolitan	During construction	Metropolitan Construction Management Team	• CIP Projects (all) • O&M Activities (all)
Traffic and Circulation				
APM-TR-1: Traffic Control Plan. a. Where appropriate for work on public roadways and as required by the local jurisdiction, prior to the start of the construction phase, Metropolitan or Metropolitan's contractor shall submit a Traffic Control Plan to the appropriate local jurisdiction for review and approval. The plan shall be consistent with the California Department of Transportation (Caltrans) Traffic Manual, Chapter 5. Traffic control shall be in accordance with California Code of Regulations (CCR) Title 8. b. Where appropriate for work on public roadways, Metropolitan shall submit a set of proposed construction plans to agencies with jurisdiction over the roadways to allow them to comment on the proposed plans. c. During construction on public roadways, Metropolitan shall implement traffic management measures as deemed necessary and applicable by a properly licensed engineer. Measures could include the following, as appropriate: i. Temporary traffic lanes shall be marked and barricades and lights shall be provided at excavations and crossings per the Manual of Traffic Controls for Construction and Maintenance Work Zones. ii. Construction activities shall affect the least number of travel lanes possible, with both directions of traffic flow being maintained at all times to the extent feasible. iii. Construction shall avoid the morning and evening peak traffic periods to the extent feasible. iv. Construction across on- and off-street bikeways shall be done in a manner that allows for safe bicycle access, or bicycle traffic will be safely rerouted. v. Private driveways located within construction areas shall remain open to maintain access to the maximum extent feasible. Should construction be required that prevents access to a private driveway, Metropolitan shall coordinate with the owners and shall implement measures such as installation of metal plates to provide access.	Metropolitan	Prior to and during construction	Metropolitan Construction Management Team/ Construction Contractor Metropolitan Design Engineering	• CIP Projects (all) • O&M Activities (all)

Table 5-1. Mitigation Monitoring and Reporting Program for CIP Projects and O&M Activities

Applicant Proposed Measures/Mitigation Measures	Responsible Party	Timing of Implementation	Implementing Party	CIP Project/O&M Activity Type
d. During construction of projects that would impact emergency or public access, Metropolitan shall notify all affected fire, police, and paramedic departments/services as well as any affected public transportation agencies of the schedule and duration of construction activities. e. During construction of projects that would impact underlying or adjacent property owners, Metropolitan shall send notification to and coordinate with these owners about the construction activity and duration.				
Utilities and Service Systems				
APM-UTL-1: Waste Reduction and Recycling. Metropolitan has established a goal to reuse or recycle a minimum of 50 percent of the construction and demolition debris generated by construction activities, including proposed program activities. At a minimum, the waste generated by the proposed program shall meet local waste management regulations specifying minimum percentages of reuse or recycling of construction and demolition waste and debris. Waste shall be recycled whenever possible. Materials that cannot be reused or recycled shall be either incinerated or disposed of at a properly permitted landfill.	Metropolitan	During construction	Metropolitan Construction Management Team/ Construction Contractor	• CIP Projects (all) • O&M Activities (all)

5.2 References

14 CCR 15000–15387 and Appendices A–L. Guidelines for Implementation of the California Environmental Quality Act, as amended.

California Public Resources Code, Section 21000–21177. California Environmental Quality Act, as amended.

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