THE CITY OF SAN DIEGO

REPORT TO THE PLANNING COMMISSION

DATE ISSUED: May 7, 2010 **REPORT NO.** PC-10-008

ATTENTION: Planning Commission, Agenda of May 13, 2010

SUBJECT: MASTER STORM WATER SYSTEM MAINTENANCE PROGRAM PROJECT NO. 42891. PROCESS 4.

OWNER/ APPLICANT: City of San Diego, Operations and Maintenance Division, Storm Water Department

SUMMARY

Issue: Should the Planning Commission approve a Citywide Site Development Permit and Coastal Development Permit for the proposed Master Storm Water System Maintenance Program?

Staff Recommendations:

1. **CERTIFY** Program Environmental Impact Report No. 42891/SCH No. 200401032, **ADOPT** the Findings and Statement of Overriding Considerations and **ADOPT** the Mitigation, Monitoring and Reporting Program; and

2. **APPROVE** Coastal Development Permit No. 714232 and Site Development Permit No. 714233.

Community Planners Committee Recommendation: On April 27, 2010 the Community Planners Committee (CPC) voted 12:8:2 to approve staff's recommendations with the added requirement to return to CPC and the Land Use and Housing Committee once per year with a report on projects for the year.

Environmental Review: Program Environmental Impact Report No. 42891/SCH No. 200401032, has been prepared for the project in accordance with the California Environmental Quality Act (CEQA) and identifies significant and unmitigated impacts. Approval of the proposed project will require the decision maker to make findings that the project alternatives are infeasible and the overall proposed project is acceptable despite significant impacts because of overriding considerations.

Fiscal Impact Statement: The project is funded by the Storm Water Department, Operations and Maintenance Division (Fund # 100000; Cost Center 2114111213) for the annual maintenance activities related to channel inspections and cleaning.

BACKGROUND

Storm Water Facilities

The City's Operations and Maintenance Division of the Storm Water Department (SWD) manages a system comprised of approximately 50 miles of natural and man-made (concrete/ earthen) channels, detention basins and storm drain outfalls that cover 342.4-square miles of metropolitan area. The City's drainage channels and detention basins occur within drainage basins established by the Regional Water Quality Control Board (RWQCB), referred to as Hydrologic Units (Attachment 1).

The surface runoff transported by the storm water system primarily starts on private property and public roadways. It makes its way to the gutter through surface flows or curbs outlet systems. Larger projects may tie directly into a public storm drain system but a majority of the properties simply drain into the gutter fronting the property. The flow is then carried in the gutter until it becomes large enough to warrant the need for a curb inlet and undergrounding. At this point, the flow drops into the inlet and enters a storm drain pipe (typically reinforced concrete pipe). As the flow moves down the storm water basin, more and more pipes connect and the system gradually gets larger to handle the additional water.

Eventually the storm drain pipes discharge storm water into an open facility which is either public or private. The discharge points for larger storm drain pipes are commonly referred to as outfalls. Outfalls consist of a variety of structures designed to reduce the discharge velocities to minimize erosion. Typical erosion control features include: revetments; rip rap or armored sides; headwalls and endwalls; flow/grade control and drop structures; and dissipation piles. These structures are typically less than 100 square feet.

The larger storm water facilities are drainage channels. They are often armored with concrete-lined bottoms and sides. These facilities are the primary carrier of large flows and ultimately end up discharging into San Diego Bay, Mission Bay, or the Pacific Ocean.

Detention basins are man-made earthen structures intended to help remove sediment from the runoff before it enters creeks, rivers and lagoons. These structures typically range from a few thousand square feet up to two acres. These structures provide short-term impoundment of storm water runoff followed by a controlled release. The primary purposes of these basins are to reduce peak storm water discharges, control floods and prevent downstream scouring. Extended detention or retention basins capture runoff and retain it between storms.

History

During the early 20th century, because of its geography, climate, and low population density, the City relied on natural hydrology, allowing flood waters to flow by gravity through the City's vast

network of naturally occurring gullies, canyons, rivulets, creeks, and streams. The storm water facility maintenance program began in 1933 under the Depression-era federal Works Project Administration. Storm water facilities were manually cleaned using shovels and buckets. During World War II, the City witnessed exponential growth, including the construction of new streets, housing, and other vast changes to its landscape to accommodate war-related facilities. Those activities increased the amount of impervious surface, changing storm water flow patterns, and altering the natural balance between runoff and natural absorption. This, in turn, substantially increased the volume, frequency, and velocity of storm water flows. Although the City constructed storm water facilities, the pace of growth still dictated the need for improved capacity and preventative maintenance. Mechanized maintenance was first introduced after World War II. The City acquired surplus military equipment, such as, power shovels, and farm tractors. Maintenance consisted of grading storm water facilities and pushing the waste material to the sides in a practice called sidecasting.

By the mid-1950s, the City implemented annual inspections, completed the first mapping of its storm water infrastructure, and adopted requirements for private construction of storm water infrastructure associated with new commercial and residential developments. In subsequent decades, the number of storm water structures increased with population. Likewise, the City modernized its equipment to include bulldozers, excavators, backhoes, and skid-steers to provide more efficient and flexible maintenance methods. The practice of sidecasting was also replaced with the disposal of the waste into landfills.

In the mid-1990s, after a state-wide initiative to educate local governments about the environmental regulations associated with maintaining the urban storm water infrastructure, the City embarked on its first application for a master storm water facility maintenance permit. In 2002, this effort was postponed after it was recognized that a programmatic approach to storm water maintenance would provide a more thorough and comprehensive analysis of the environmental impacts of the proposed program.

DISCUSSION

Project Description

The City of San Diego's storm water facilities are designed to convey storm water flows to protect the life and safety of its citizens, and to control stream bank erosion. These facilities also convey urban runoff from development, protect water quality, and support natural resources. The long-term performance of storm water facilities is dependent upon ongoing and proper maintenance. To maintain the effectiveness of storm water facilities the SWD has prepared the Master Storm Water System Maintenance Program (Master Program) (Attachment 2). The purpose of the Master Program is to permit and implement a comprehensive, long-term approach to storm water facilities maintenance.

A Site Development Permit (SDP) and Coastal Development (CDP) Permit (Master Permit) are required because some maintenance activities would occur within the Coastal Zone and/or areas identified as environmentally sensitive lands. The Master Permit would allow: (1) cleaning and maintenance of storm water facilities; (2) maintenance of existing access, potential relocation of

existing access and creation of new access to storm water facilities; and (3) approval of individual, site specific maintenance plans.

Master Program

Table 1 of Appendix A of the Master Program (Attachment 2) identifies the major channels and detention basins subject to the program. The Table identifies the characteristics for each of the channels and basins including facility type (earthen vs. concrete) and maintenance activities anticipated to be carried out for each of the facilities. The Master Program also establishes a series of protocols to be carried out during maintenance activities to minimize impacts related to soil and erosion, water quality and wildlife disruption.

On an annual basis, the SWD would identify specific maintenance activities for the various facilities to be undertaken in the next fiscal year, which would then be subject to a Consistency Determination (CD) process to allow maintenance activities to proceed under the terms of the City's Master Permit. The "CD Package" would include an Individual Maintenance Plan (IMP), Individual Biological Assessment (IBA), Individual Historical Assessment (IHA), Individual Hydrologic and Hydraulic Assessment (IHHA), and Individual Noise Assessment (INA) prepared for each storm water facility to evaluate the current capacity, condition and extent of sensitive resources within the facility, maintenance activity details such as method(s) and equipment to be used, maintenance requirements and schedule.

The Master Program would also serve as a maintenance manual guiding the performance of authorized activities issued by the City's Master Permit, as well as, State and Federal agencies with regulatory authority over aquatic resources that could be affected by maintenance activities.

Consistency Determination (CD)

Based on the CD process, a maintenance activity will be authorized through one of the following processes:

A. **PROCESS 1** would be used for maintenance activities which conform to the assumptions contained in Table 1 of Appendix A in the Master Program and/or the Program Environmental Impact Report (PEIR).

Process 1 will be used for maintenance activities where all of the following four primary criteria are met:

Process 1 Criteria 1 (P1-1) - Maintenance activity will occur in a storm water facility listed in Table 1 of the Master Program;

Process 1 Criteria 2 (P1-2) - Limits of disturbance are equal to or less than identified in Table 1 of the Master Program;

Process 1 Criteria 3 (P1-3) - Type and extent of native vegetation is comparable to that identified in the PEIR; and

Process 1 Criteria 4 (P1-4) - Applicable maintenance protocols identified in this Master Program and/or the PEIR will be implemented as part of the maintenance.

B. **PROCESS 2** would be used when the CD process finds that the proposed maintenance activity would meet criteria P1-1 but would not meet one or more of criteria P1-2 through P1-4.

Process 2 will also be required for any activity that meets one of the following criteria, in addition to conforming to all the assumptions of Process 1 stated above.

Process 2 Criteria 1 (P2-1) - Maintenance activity is located within the Coastal Zone;

Process 2 Criteria 2 (P2-2) - Maintenance activity requires construction of a new access route; is outside the storm water facility limits, that would impact more than 0.1 acre of Tier I, II or III habitat, as defined by the City's Biology G Guidelines.

C. **PROCESS 4** would be used when the CD process finds that proposed maintenance is not included in Table 1.

In order to authorize these maintenance activities, the City's Master Permit may be amended, or a separate SDP or CDP processed. As appropriate, additional environmental review would be conducted.

If emergency work is required, a CD review for the emergency work is required to be submitted within 90 days of the work. If the emergency work is determined not to be consistent, a discretionary permit would be required.

Process One Implementation

1. SWD submits CD package to the Development Services Department (DSD).
2. A copy of the CD package is mailed to the appropriate community planning group(s) as a courtesy.
3. City staff reviews the CD Package based upon the Master Program and Master SDP/CDP Permit using the CD Checklist (Attachment 3). City staff renders the final decision.

Process Two Implementation

1. SWD submits CD package with a Public Notice package to DSD.
2. A copy of the CD package is mailed to the appropriate community planning group(s) for review and formal action.
3. Public Notice is posted on site and is also sent to property owners and occupants within a 300-foot radius of the project site.

4. SWD makes a presentation to the appropriate community planning group(s). The groups meet monthly.
5. City staff reviews the CD package and renders a decision.
6. A Public Notice of Decision is sent to interested parties.
7. The public has 12-days to file appeal to Planning Commission.
8. A Planning Commission hearing will be scheduled approximately 60-days after an appeal is filed.
9. DSD staff prepares Public Notice and Planning Commission Report. The public notice (10 Business days) is mailed to property owners and occupants within a 300-foot radius of the project.
10. Planning Commission makes final decision

Process Four Implementation

1. SWD submits application package for a discretionary permit with a Public Notice package to DSD.
2. A copy of the CD package is mailed to the appropriate community planning group(s) for review and formal action.
3. Public Notice is posted on site and is also sent to property owners and occupants within a 300-foot radius of the project site.
4. SWD makes a presentation to the appropriate community planning group(s). The groups meet monthly.
5. City staff reviews the application a Cycle Issues Report is sent to applicant. If there are issues a resubmittal(s) is required until all issues have been resolved. The environmental review runs concurrently.
6. When all the issues have been resolved the environmental document is prepared and distributed for public review.
7. When public review of the environmental document closes responses to comments are prepared and the document is finaled.
8. Two weeks after the environmental document is finaled the project can be docketed for the public hearing.
9. DSD staff prepares public notice and Planning Commission Report, Permit, Findings and a PowerPoint presentation.
10. The public notice (10 Business days) is mailed to property owners and occupants within a 300-foot radius of the project.
11. Planning Commission renders a decision.
12. The public has 10-days to file appeal to City Council.
13. A City Council hearing will be scheduled approximately 60-days after an appeal is filed.
14. City Clerk staff prepares the public notice. The public notice (10 Business days) is mailed to property owners and occupants within a 300-foot radius of the project.
15. DSD staff prepares City Council Report and PowerPoint addressing the appeal issues
16. City Council makes the final decision.

State and Federal Agencies

Concurrent with the review by the City, the CD package for an IMP would also be submitted to the California Department of Fish and Game (CDFG), California RWQCB and U.S. Army Corps of Engineers (Corps) by the Storm Water Department for approval under the terms of their respective general wetland permits: and to determine whether the proposed maintenance activities are consistent with the analysis contained in the PEIR and the specific terms of the permits issued by the respective agency.

Where a State or Federal agency determines that one or more of the maintenance activities are not consistent, SWD would be required to work with the concerned agency to identify additional measures which would be needed to bring those activities into compliance with the PEIR and their permit conditions.

The City would not implement an IMP without approval from the State or Federal agency with jurisdiction over the biological resources affected by the IMP.

Environmental Analysis

The City, as Lead Agency, has prepared a Program Environmental Impact Report (PEIR) for the Master Program. This PEIR concluded that significant environmental impacts could occur with respect to the following issues: land use; biological resources; historical resources (archaeology) and paleontogical resources; water quality and solid waste.

Land use impacts could occur when local community plans contain goals and objectives to retain naturally vegetated drainages as a visual amenity. The PEIR concluded that there was no feasible means of mitigating the aesthetic impacts of maintenance due to the inability to retain major stands of vegetation while still protecting adjacent property from flooding.

With respect to biological resources, the PEIR concluded that maintenance could have significant impacts on wetlands and associated wildlife. To a lesser degree, upland habitat would also be impacted by the construction of access paths to storm water facilities. Biological resource impacts could be mitigated through wetlands restoration and enhancement as well as acquisition of comparable upland habitat.

Historical (archeology) and paleontological resource impacts could occur if maintenance disturbs archeological and/or paleontological resources which may be associated with storm water facilities. Mitigation measures to reduce the potential impact include monitoring maintenance activities and salvaging significant resources which cannot be avoided.

Impacts to solid waste could occur from disposal of vegetation and sediment removed from the storm water facilities during maintenance. Because of the limitations associated with landfill capacity, the additional vegetation and sediment from maintenance disposal was considered significant. Wherever possible, the City intends to recycle vegetation, but the overall impact is considered unmitigated.

Impacts to water quality could result from the removal of vegetation which, in and of itself, serves to reduce erosion and extract water-borne pollutants. Impacts related to the loss of these functions would be reduced by protocols contained in the Master Program which include downstream devices to slow storm water runoff to non-erosive rates and allow sediment be deposited in a confined area.

Candidate Findings and Statement of Overriding Considerations

The California Environmental Quality Act (CEQA) requires the decision maker 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 a project. If the specific economic, legal, social, technological, or other benefits outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered acceptable. CEQA further requires that when the decision maker approves a project which will result in the occurrence of significant effects identified in the Final EIR, but are not avoided or substantially lessened, the decision maker is required to specify reasons in writing to support its action based on the Final EIR.

Approval of the PEIR, the Mitigation, Monitoring and Reporting Program and the Candidate Findings and Statement of Overriding Considerations (Attachment 5) are recommended due to the following specific considerations which outweigh the unavoidable adverse environmental impacts of the proposed project to Land Use, Aesthetics, Biological, Solid Waste and Water Quality.

Regular maintenance of the City's storm water system will:

- Restore the original capacity of storm water facilities to adequately convey storm water runoff during high rainfall events.
- Reduce flooding risk to life and damages to property associated with inadequate channel capacity caused by the accumulation of vegetation, sediment, trash and debris within these facilities.
- Reduce significant vector problems (e.g. mosquitoes, rats, stagnant waters containing high concentration of pollutants) to address public health and safety concerns in adjacent areas.
- Remove vegetation cover that is frequently occupied by transients to address significant public health and safety concerns to surrounding areas.
- Reduce fire load within channels by removing of invasive plant species (*Arundo donax*) for brush management purposes.
- Improve the appearance of facilities by removing invasive plant species, trash and debris.
- Restore disturbed wetland and upland habitats by the removal of invasive plants species and increase defined functions and values.
- Improve regional water quality by removing pollutant-laden sediments from being transported into downstream areas during high rainfall events. Periodic excavation during maintenance will rejuvenate the natural ability of drainages to filter out water-borne pollutants.

Economic and social benefits associated with the Master Program will:

- •Reduce the City's liability and associated costs of restitution paid to adjacent home and business owners related to flood damage incurred as a result of improper maintenance.
- •Reduce disruption of life and damages associated with the loss of irreplaceable valuables due to water damage caused by flooding.
- •Provide for adequate funding for annual maintenance activities in conjunction with the SWD budget or implemented fees.
- •Partner with non-profit and conservation groups to compensate for maintenance impacts on wetland vegetation by providing the funding necessary to implement wetland restoration plans developed by these groups for which funding may not otherwise be available.
- •Create opportunities to work with other local jurisdictions to maintain an entire conveyance system (up and downstream) and not just parts of the system.

Implementing a programmatic process of review will:

- •Allow the City to plan maintenance efforts within the entire storm water system over a long period of time rather than individual components of the system over a short period of time (e.g. emergency maintenance).
- •Provide a simplified process for local, state, and federal agencies to ensure appropriate mitigation for impacts are implemented at the project-specific level.
- •Provide the necessary checks and balances for subsequent actions.
- •Provide specific hydrologic data for each facility to be maintained to support and justify the need to maintain channel to a standard level of design and carrying capacity.
- •Incorporate standard maintenance protocols to reduce adverse impacts to water quality (Best Management Practices) and sensitive resources (direct and indirect impacts to biological and archeological resources).

Conclusion:

Staff recommends that the Planning Commission approve the Master Program to implement a comprehensive, long-term approach to storm water facilities maintenance that are the responsibility of the Storm Water Department.

ALTERNATIVES

1. **APPROVE** Coastal Development Permit No. 714232 and Site Development Permit No. 714233, with modifications.

2. **Deny** Coastal Development Permit No. 714232 and Site Development Permit No. 714233, if the findings required to approve the project cannot be affirmed.

Respectfully submitted,

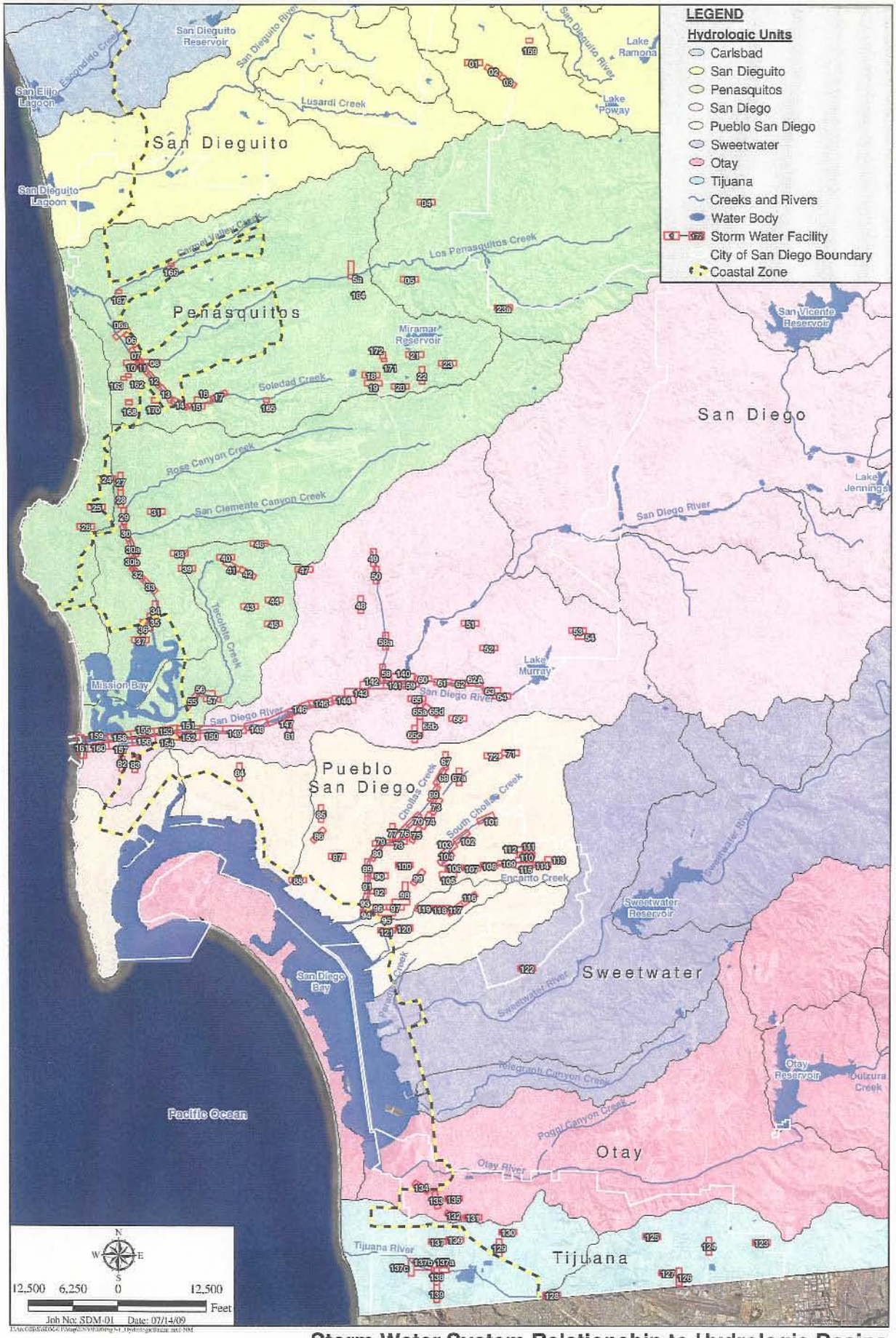
Mike Westlake
Program Manager
Development Services Department

Patricia Grabski
Project Manager
Development Services Department

KGB/PAG

Attachments:

1. Storm Water System Relationship to Hydrologic Basins
2. Master Storm Water System Maintenance Program
3. Draft Permit Resolution with Findings
4. Draft Permit with Conditions
5. Draft Environmental Resolution, MMRP and Candidate Findings and Statement of Overriding Consideration



Storm Water System Relationship to Hydrologic Basins

CITY OF SAN DIEGO MASTER STORM WATER SYSTEM MAINTENANCE PROGRAM

Figure 3-1

ATTACHMENT 2

Master Storm Water System Maintenance Program

Operations and Maintenance Division
Storm Water Department
2781 Caminito Chollas
San Diego, CA 92105

April 2010

Master Storm Water System Maintenance Program

Prepared by:

Operations and Maintenance Division
Storm Water Department
2781 Caminito Chollas
San Diego, CA
92105

June 2009
Revised April 2010

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LIST OF ACRONYMS

BMP - Best Management Practice

CD - Consistency Determination

CDFG - California Department of Fish and Game

CDP - Coastal Development Permit

Corps - U.S. Army Corps of Engineers

dBA - A-weighted decibel

DSD - Development Services Department

HEC - Hydrologic Engineering Center

IMP - Individual Maintenance Plan

IBA - Individual Biological Assessment

IHA - Individual Historical Assessment

IHHA - Individual Hydrologic and Hydraulic Assessment

INA - Individual Noise Assessment

L_{eq} - time-averaged one-hour equivalent level

MC - Maintenance Contractor

MCC - Mitigation Monitoring Coordinator

MM - Maintenance Manager

NPDES - National Pollutant Discharge Elimination System

PEIR - Program Environmental Impact Report

RWQCB - Regional Water Quality Control Board

SDP - Site Development Permit

USFWS - U.S. Fish and Wildlife Service

Executive Summary

Rather than just conveying excess flows to prevent flooding, today's drainage systems must meet multiple purposes including: protecting property from flooding, controlling stream bank erosion, protecting water quality, and sustaining the wildlife that use them. To that end, modern storm water facilities integrate conventional flood control strategies for large, infrequent storms with storm water quality control strategies and natural resource protection.

The City of San Diego's storm water facilities convey storm water flows to protect the life and property of its citizens and control stream bank erosion. They also convey urban runoff from development sources such as irrigation, driveways, and streets that flows into those facilities and ultimately the ocean. The storm water facilities also protect water quality and support natural resources. The long-term performance of those facilities is dependent upon on ongoing and proper maintenance. To maintain their effectiveness, this Master Storm Water System Maintenance Program (Master Program) includes specific maintenance activities. This Master Program has been prepared to provide detailed methods for maintaining storm water system facilities which are the responsibility of the City's Storm Water Department (SWD). In addition, the Master Program serves as the maintenance manual guiding the performance of authorized activities under master permits issued by the City of San Diego as well as state and federal agencies with regulatory authority over aquatic resources that could be affected by maintenance activities.

This Master Program provides a comprehensive approach to storm water system maintenance. It governs future maintenance activities needed to maximize the effectiveness of the City's storm water system to provide for public safety and the protection of property, water quality and the natural resources associated with the storm water facilities. This Master Program establishes the methods and procedures to maintain the storm water system that balance its flood protection and aesthetic and biological values. It includes a Consistency Determination (CD) process that simplifies the authorization process required by the City of San Diego and state and federal regulatory agencies for annual maintenance activities in accordance with the proposed Master Program.

1.0 Introduction

The City of San Diego's storm water facilities convey storm water flows to protect the life and property of its citizens and control stream bank erosion. They also convey urban runoff from development sources such as irrigation, driveways, and streets that flows into those facilities and ultimately the ocean. The storm water facilities also protect water quality and support natural resources. The long-term performance of those facilities is dependent upon on ongoing and proper maintenance. To maintain their effectiveness, this Master Storm Water System Maintenance Program (Master Program) has been formulated to identify specific maintenance activities and frequencies. This Master Program has been prepared to provide detailed methods for maintaining those storm water system facilities which are the responsibility of the City's Storm Water Department (SWD). In addition, the Master Program serves as the maintenance manual to guide performance of activities authorized by master permits issued by the City of San Diego as well as state and federal agencies with regulatory authority over aquatic resources that could be affected by maintenance activities.

Storm water runoff follows rainfall on impervious surfaces such as streets and buildings. Since it cannot infiltrate into the ground, that precipitation flows to the lowest point, collecting contaminants, sediment or debris along the way. Storm water runoff can erode unstable soil, contaminating it with sediment. Urban runoff is the surface water from irrigated landscapes, driveways, and streets that flows through the storm water facilities. Urban runoff results from human activities rather than the natural hydrological cycle. Common urban runoff contaminants include: oil and grease from parking lots; pesticides, herbicides, and fertilizers from lawns and landscaped areas; soapy water from carpet cleaning and vehicle washing; sediment from construction projects; trash such as cigarette butts and soda bottles; and many other sources associated with everyday activities.

The Operations and Maintenance Division of the City's SWD maintains storm water facilities that are located within the City of San Diego and within the public right of way or storm water easement dedicated to the City of San Diego. The City's storm water system is comprised of a number of different facility types which range from curb inlets to large flood control facilities. Not all of these facilities require regular maintenance. The facilities that require regular maintenance, and are the subject of this Master Program, include: channels, detention basins and outfalls. It is estimated that there are approximately 50 miles of storm water facilities, of which approximately 75 percent include some degree of earthen material. There are approximately 12 storm water basins which are maintained by the SWD and nearly 5,000 outfalls.

During the early 20th century, because of its geography, climate, and low population density, the City relied on natural hydrology, allowing flood waters to flow by gravity through the City's vast network of naturally occurring gullies, canyons, rivulets, creeks, and streams. The storm water facility maintenance program began in 1933 under the Depression-era federal Works Project Administration. Storm water facilities were manually cleaned using shovels and buckets. During World War II, the City witnessed exponential growth, including the construction of new streets and housing, and vast changes to its landscape to accommodate war-related facilities. Those activities increased the amount of impervious surface, changed storm water flow patterns, and altered the natural balance between runoff and natural absorption. This, in turn, substantially increased the volume, frequency, and velocity of storm water flows. Although the City constructed storm water facilities, the pace of growth still dictated the need for improved capacity and preventative maintenance.

Mechanized maintenance was first introduced after World War II. The City acquired surplus military equipment, power shovels, and farm tractors. Maintenance consisted of grading storm water facilities and pushing the waste material to the sides in a practice called sidecasting. By the mid-1950s, the City implemented annual inspections, completed the first mapping of its storm water infrastructure, and adopted requirements for private construction of storm water infrastructure associated with new commercial and residential developments. In subsequent decades, the number of storm water structures increased with population. Likewise, the City modernized its equipment to include bulldozers, excavators, backhoes, and skid-steers to provide more efficient and flexible maintenance methods. The practice of sidecasting was also replaced with disposal of waste to landfills.

In the mid-1990s, after a state-wide initiative to educate local governments about the environmental regulations associated with the maintaining of urban storm water infrastructure, the City embarked on its first application for a master storm water facility maintenance permit. In 2002, this effort was postponed after it was recognized that a programmatic approach to storm water maintenance would provide a more thorough and comprehensive analysis of the environmental impacts of the proposed program.

This Master Program has been prepared in response to the goal of providing a comprehensive approach to storm water system maintenance. It is intended to achieve the following major objectives:

- Develop a comprehensive Master Program to govern future maintenance activities needed to maximize the effectiveness of the City's storm water system in order to provide for public safety and protection of property;
- Set forth a series of Maintenance Protocols to be implemented during storm water system maintenance which balance the flood protection function with maintaining, to the greatest degree possible, the aesthetic and biological value of the storm water system;
- Minimize the disruption of adjacent property from storm water system maintenance; and
- Develop a Consistency Determination process to simplify the subsequent authorization process required from the City of San Diego as well as state and federal agencies with regulatory authority over wetlands for annual maintenance activities consistent with the proposed Master Program.

2.0 Storm Water System

The City's storm water system is composed of a variety of structures which ultimately transport surface runoff to the Pacific Ocean or other forms of containment (e.g., lakes). Urban runoff primarily starts on private property and public roadways. It makes its way to the gutter through surface flows or curb outlet systems. Larger projects may tie directly into a public storm drain system but a majority of the properties simply drain into the gutter fronting the property. The flow is then carried in the gutter until it becomes large enough to warrant the need for a curb inlet and undergrounding. At this point, the flow drops into the inlet and enters a storm drain pipe (typically reinforced concrete pipe). As the flow moves down the storm water basin, more and more pipes connect and the system gradually gets larger to handle the additional water.

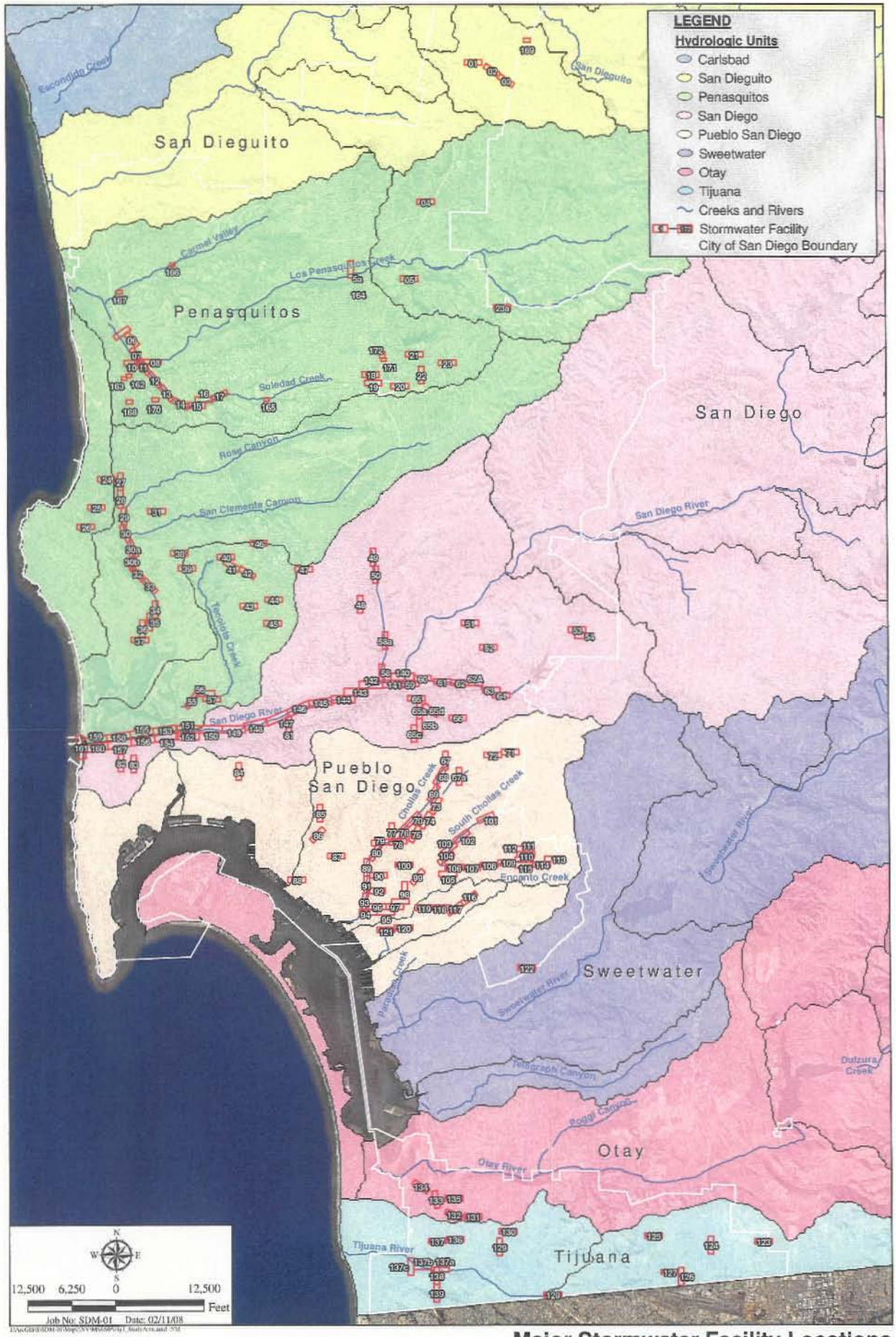
Eventually the storm drain pipes discharge storm water into an open facility which is either public or private. The discharge points for larger storm drain pipes are commonly referred to as outfalls. Outfalls consist of a variety of structures designed to reduce the discharge velocities to minimize erosion. Typical erosion control features include: revetments; rip rap or armored sides; headwalls and endwalls; flow/grade control and drop structures; and dissipation piles.

Most of the larger storm water facilities are public while the smaller facilities tend to be private. Depending on maintenance requirements and the proximity of development, many of the public storm water facilities are armored (the predominant method being concrete-lined bottom and sides). These facilities are the primary carrier of large flows and ultimately end up discharging into San Diego Bay, Mission Bay, or the Pacific Ocean.

Detention basins are incorporated into the storm water system at certain locations to capture and retain runoff temporarily and release it to receiving waters at predevelopment flow rates. These structures provide short-term impoundment of storm water runoff followed by controlled release. The primary purposes of these basins are to reduce peak storm water discharges, control floods and prevent downstream scouring. Detention basins also provide some water quality treatment by removing a limited amount of pollutants.

Extended detention basins, or retention basins, capture runoff and retain it between storms. They contain permanent pools of water between storm events. Water held in the basin is displaced by the next significant rainfall event. Pollutants settle-out of the water column. Because the water remains in the system for a period of time, retention systems benefit from biological and biochemical removal mechanisms provided by their aquatic plants and microorganisms and provide more water quality treatment than detention basins.

As illustrated in Figure 1, the City's major channels and detention basins occur within eight separate storm water basins (referred to as Hydrologic Units) as established by the Regional Water Quality Control Board (RWQCB). Figures 2a through 2e illustrate the location of these storm water facilities on larger scale aerial photographs. Table 1 (see Appendix A) identifies the major channels and detention basins which are subject of this Master Program. This table identifies a variety of characteristics for each major channel or basin including facility type (earthen vs. concrete) and anticipated maintenance procedure. Although the City intends to maintain outfalls, they are too numerous to effectively list in the table or display on a graphic.

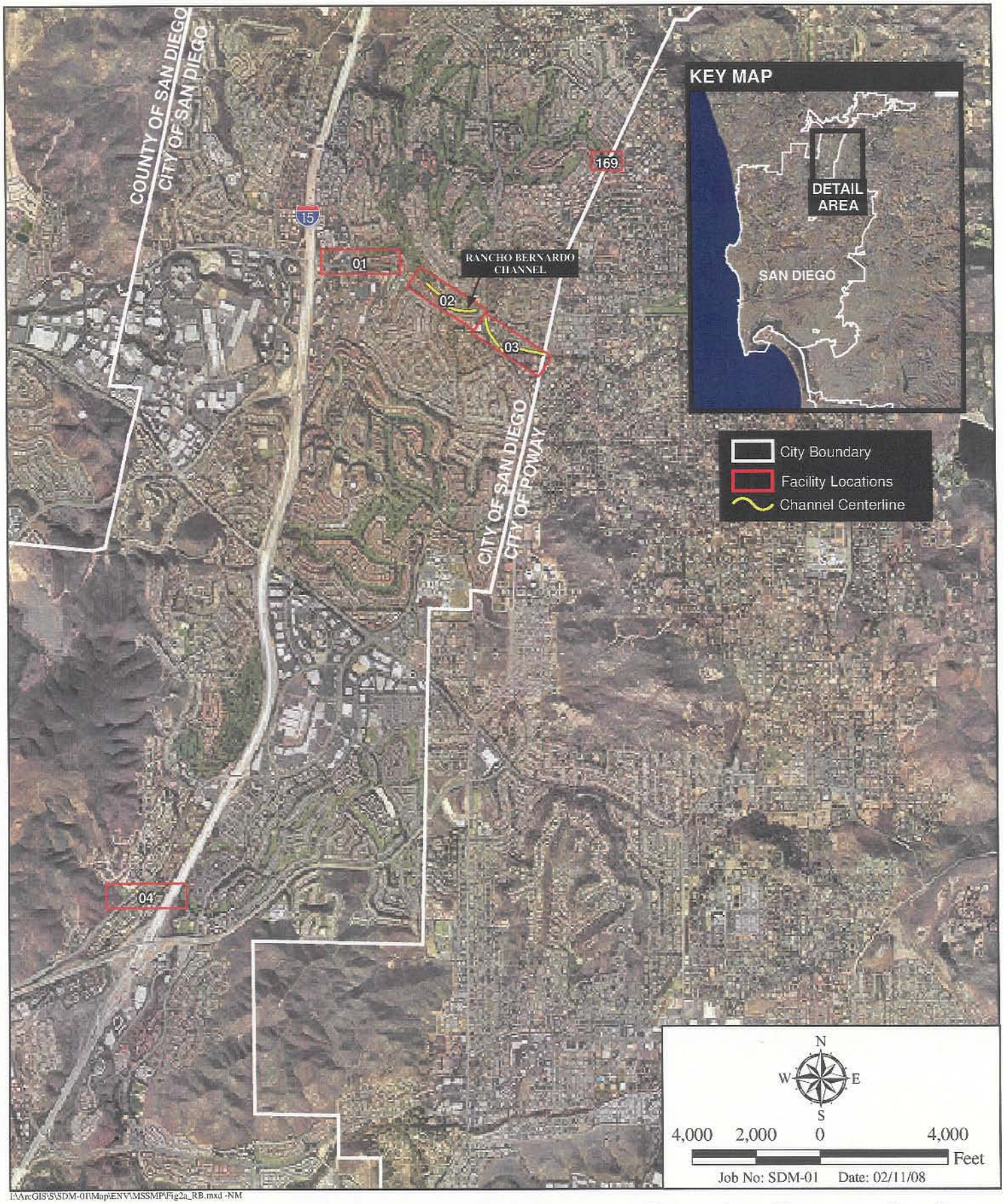


Major Stormwater Facility Locations

CITY OF SAN DIEGO MASTER STORMWATER SYSTEM MAINTENANCE PROGRAM

HELIX

Figure 1



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Stormwater Facilities - Rancho Bernardo Area

CITY OF SAN DIEGO MASTER STORMWATER SYSTEM MAINTENANCE PROGRAM

HELIX

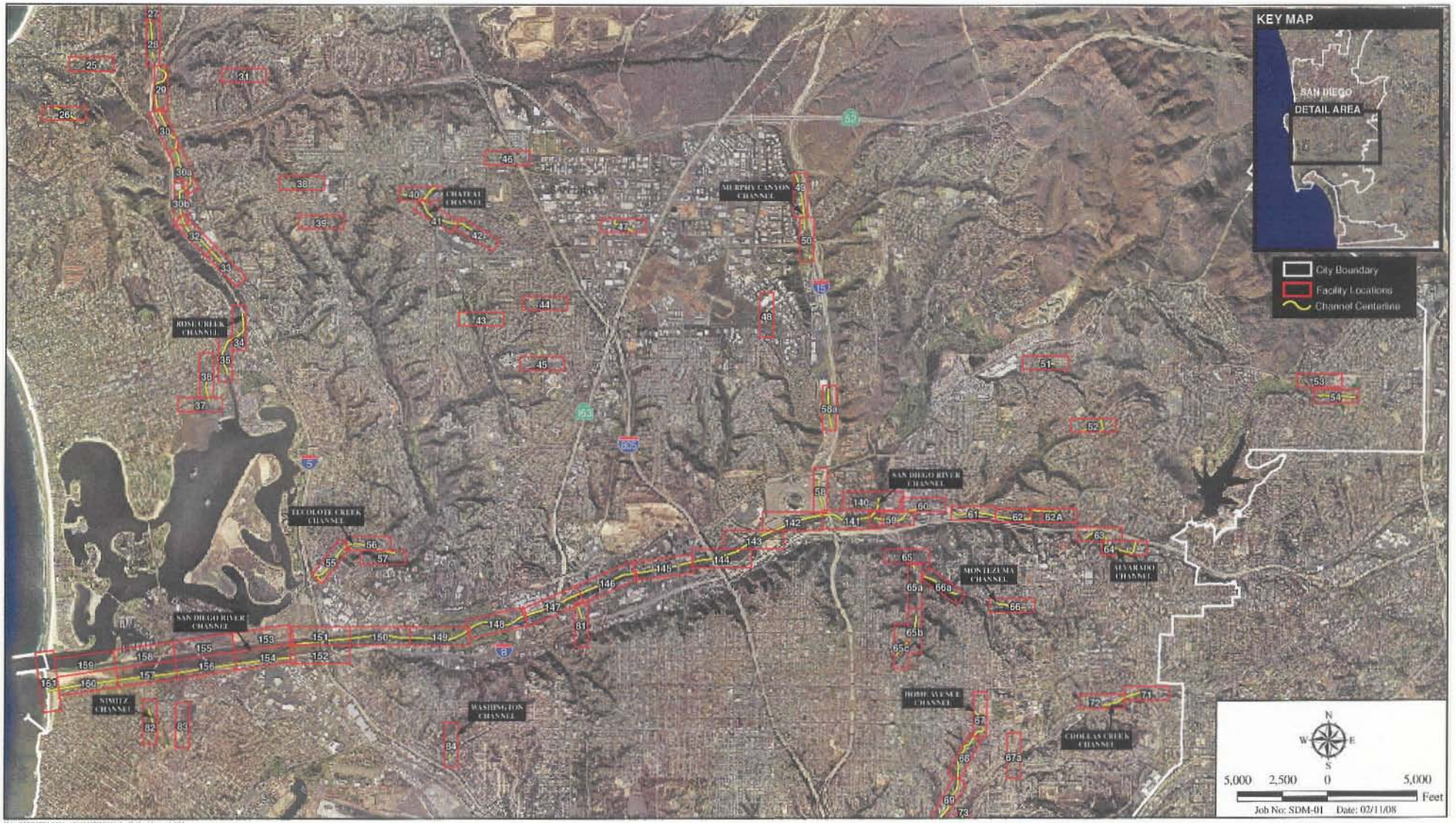
Figure 2a

Stormwater Facilities - Soledad Area

CITY OF SAN DIEGO MASTER STORMWATER SYSTEM MAINTENANCE PROGRAM

HELIX

Figure 2b

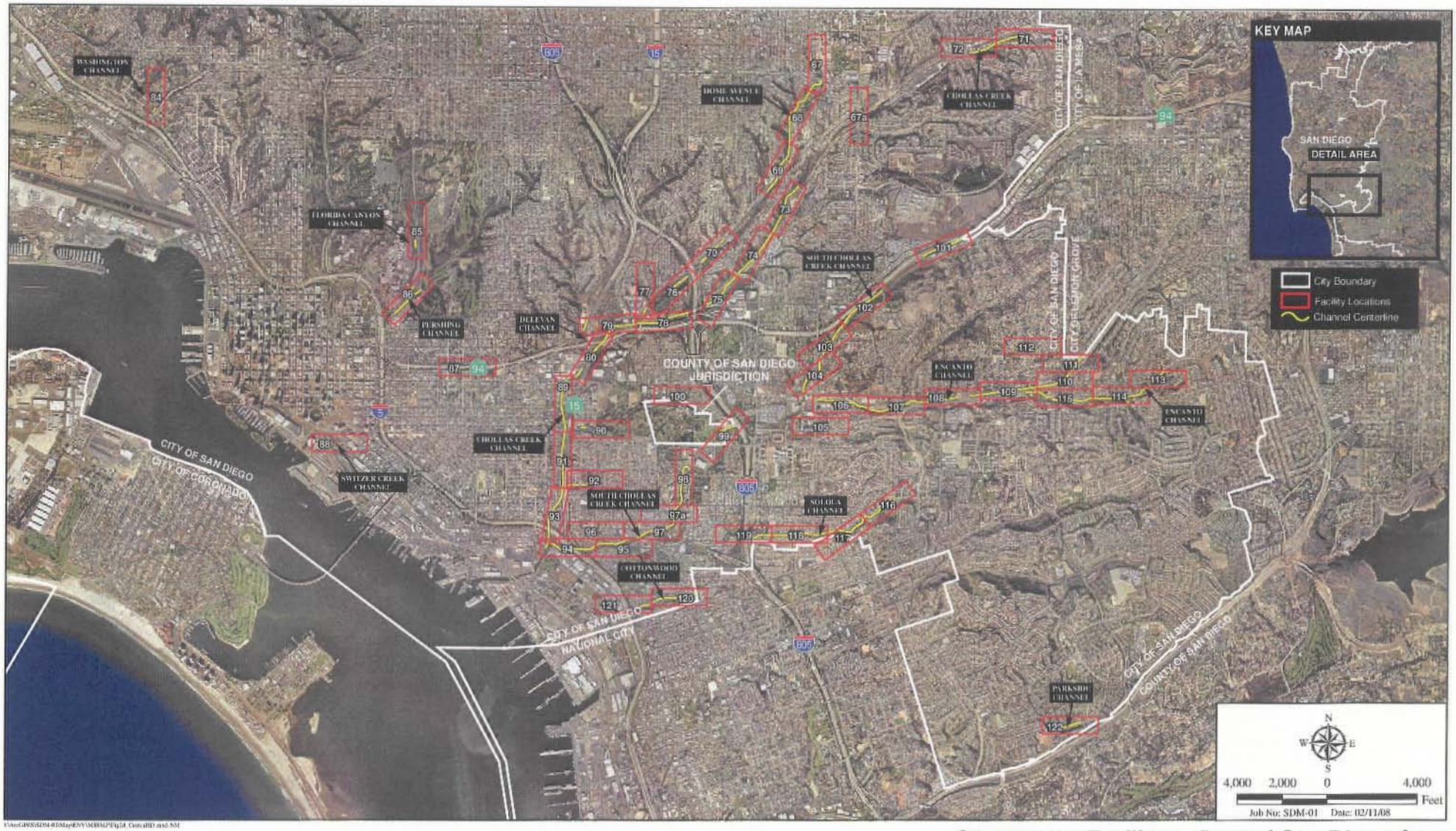


Stormwater Facilities - I-8 Corridor

CITY OF SAN DIEGO MASTER STORMWATER SYSTEM MAINTENANCE PROGRAM

HELIX

Figure 2c



Stormwater Facilites - Central San Diego Area

CITY OF SAN DIEGO MASTER STORMWATER SYSTEM MAINTENANCE PROGRAM

HELIX

Figure 2d

Stormwater Facilities - Otay Mesa Area

CITY OF SAN DIEGO MASTER STORMWATER SYSTEM MAINTNANCE PROGRAM

Figure 2e

HELIX

3.0 Maintenance Methods

This section describes the typical maintenance methods that will be utilized in maintaining the SWD's storm water facilities. Table 1 identifies the four primary methods of maintenance that have occurred historically within the storm water facilities included in the Master Program. The selection of the techniques and equipment to be employed in the course of future maintenance will depend largely on the site-specific characteristics of each storm water facility, including size (width and depth), flow characteristics, surrounding land uses and vegetation, availability of access, and whether the storm water facility is concrete-lined or natural bottom.

Depending on the conditions associated with each storm water facility, different types of equipment will be utilized using different maintenance techniques. The decision as to which technique and/or equipment will be used will ultimately be based upon the density and volume of accumulated material, the size of the storm water facility, its flow characteristics, and access conditions.

3.1 Equipment Types

The types of equipment used in the course of maintenance will include, but not be limited to, skid-steers, backhoes, gradalls, excavators, loaders, dump trucks, and bulldozers. Smaller equipment such as skid-steers is typically used for drainage ditches, with the larger equipment used in storm water facilities.

In most cases, equipment such as a skid-steer or bulldozer will operate within the storm water facility itself. Equipment will enter the storm water facility via an access road and/or lowered into the facility from the bank using a crane or gradall. The equipment will push the accumulated material with a bucket to a central site within the facility. From there, the material will be scooped up with a loader operating in the facility, and loaded into a dump truck which will also be located in the facility. The loaded dump truck will then leave the facility and transport the material to an approved offsite disposal area.

Where access exists or can be constructed along the edge of the storm water facility, maintenance activities will rely on a gradall or excavator that will scoop up the accumulated material from outside the facility. This method will be limited by the width and depth of the facility, which may exceed the reach of the equipment.

3.2 Maintenance Techniques

Depending on the characteristics of the storm water facility to be maintained, maintenance will affect the entire facility including bottom and banks (referred to as "full maintenance") or affect only that portion of the facility required to achieve the necessary flood control capacity (referred to as "selective maintenance"). A description of each of these techniques, including a discussion of the conditions under which they would be appropriate follows.

Full-width Maintenance

Many of the storm water facilities in the urbanized areas are not able to support vegetation. As a result, retention of any amount of vegetation could impede the flow of flood water and cause flooding on adjacent property. In these circumstances, full removal of vegetation on the banks and bottom may be the only way to avoid or, at least, minimize the risk of flooding along these storm water facilities. In these cases, mechanized equipment will be used to remove above-ground vegetation and sediment will be excavated from the facility. In most cases, the root systems of vegetation would likely be removed in the course of full facility maintenance. This would be particularly true on the bottoms because the root systems are commonly associated with the sediment that must also be removed to restore flood conveyance capacity. Scraping will be limited to the amount of excavation required to remove plant material and sediment needed restore the original storm water facility condition.

Selective Maintenance

Selective maintenance will be based on a combination of empirical evidence and hydraulic analysis. These two methods will be used to determine the minimum amount of sediment and vegetation which must be removed to enable a storm water facility to safely convey flood water. A number of approaches may be used achieve the necessary flood capacity. These are described below.

Parallel-strip Selective Maintenance

This approach will rely on clearing a strip of vegetation along the centerline of the storm water facility parallel to the direction of flow; this area is commonly referred to as a "pilot channel." Mechanized equipment will remove the quantity of vegetation and sediment which is necessary to transport flood water. This form of maintenance will optimize the flow of flood water by creating sufficient area free of vegetation and sediment. While portions of the storm water facility cleared of vegetation would promote the capacity of the storm water facility to convey flood water, under certain circumstances, the removal of plant material and the root system could encourage scouring which could cause downstream sedimentation.

Perpendicular-strip Selective Maintenance

This approach will involve removing strips of vegetation perpendicular to the direct of flow. Mechanized equipment will excavate vegetation and sediment in alternating strips ranging in width from 10 to25 feet. As with the parallel maintenance approach, the width of the strips will be designed to provide adequate flood control capacity. Each strip will be excavated to a depth required to remove vegetation and accumulated sediment. This technique would create a series of depressions that would function as individual sediment basins. The intervening vegetation will intercept debris and trash carried in runoff. Implementation of this approach will be limited to storm water facilities where access allows equipment to create these strips while not impacting intervening vegetation. Normally, this would require continuous access from at least one bank of the storm water facility.

Half and Half Selective Maintenance

Under this approach, storm water facilities will be cleared parallel to the direction of flow. However, in this case, half of the facility will be cleared in alternating sequence using mechanized equipment. Although the amount of vegetation and sediment to be removed would be essentially the same as parallel-strip technique, the half and half approach would affect different sides of the storm water facilities during maintenance rather than constantly affecting the centerline of the facility.

Above-Ground Vegetation Removal Selective Maintenance

This approach will be used in storm water facilities where the primary reason for decreased flood control capacity is related to vegetation rather than sediment accumulation. In these circumstances, the above-ground vegetation will be periodically mowed with mechanized equipment or removed by hand where mowing equipment access is unavailable. If the cut vegetation would not interfere with flood capacity, it would be left within the storm water facility unless it is determined that the cut vegetation is invasive in nature (e.g., *Arundo donax*) and leaving it within the facility will jeopardize downstream habitat. In this event, the invasive vegetation would be collected and disposed in a suitable, pre-approved off-site location. With mowing or hand clearing, the root system would remain in place to hold the substrate. Thus, above-ground removal will not be used to remove invasive plants species when leaving the roots in place could promote the growth of invasive plants. Determination as to the invasiveness of a plant species shall be based on the most current California Invasive Plant Council's Invasive Plant Inventory.

3.3 Access

The majority of storm water system maintenance segments have existing access such as utility roads and/or concrete or earthen ramps. However, in some cases, new access could be required. While hand clearing would only require footpaths, more substantial access would be required for equipment. Access for smaller equipment would require a minimum width of four feet while the heaviest equipment will require a width of up to 18 feet. Initial access (external) will be required from a public street to reach the storm water facility. The terrain and vegetation through which the access road would pass determines the amount of grading and vegetation removal necessary to achieve the necessary access. Whenever new access roads would be required, efforts will be made to select routes which minimize the disturbance to biological and historical resources as well as minimize grading. The location of new access will be identified on the Individual Maintenance Plans (IMPs) developed for each maintenance activity (discussed in Section 5.1 of this Master Program) and subject to City and Resource Agency approval.

In addition to external access, internal access will be required within and around the maintenance area. Internal access requirements will be determined by whether the maintenance will be carried out partially or entirely within the facility or from its edge, as described earlier.

Access for "in-facility" maintenance could require construction of a permanent or temporary ramp into the storm water facility from the external access. Where possible, access to a storm water maintenance segment, which may include a combination of natural and concrete-lined areas, will be taken within the concrete-lined area to avoid and/or minimize impacts to sensitive habitat. Internal

access for "edge" maintenance will require a pathway for equipment adjacent to the storm water facility.

3.4 Stockpiling

Maintenance operations that include the removal of soils will utilize existing stockpile sites, whenever possible. New stockpile sites will be located in areas with low biological resource value and away from residential areas. Stockpile sites will be used for dewatering and processing of spoils prior to transport. Processing will include removal of tires, large rocks, trash, and other debris. BMPs identified in Chapter 4.0 of this Master Program will be carried out around the perimeter of stockpile sites.

3.5 Runoff Control

Although maintenance activities will typically occur during the dry months, a few storm water facilities, such as Sorrento Creek, carry sufficient amounts of urban runoff during the dry months to preclude or hinder maintenance. In those few cases, temporary by-pass operations may be necessary. Maintenance activities that cannot be contained by simple best management practices (BMPs), such as gravel bags or silt fencing, may require temporary check-dams. Check-dams may consist of a combination of water bladders, sand bags, straw bails, and other materials. When required, they will be installed at the upstream and downstream boundaries of the segment to be maintained. The check-dams will prevent the flow of water, sediment, vegetation, and debris into and out of the maintenance area. Depending upon the flow within the storm water facility, water pumps may be used to transport water from the upstream check-dam to below the downstream check-dam. Dewatering of the site may also be necessary to permit equipment operations within the maintenance area. All temporary runoff and erosion control features implemented during maintenance shall be removed upon completion of the maintenance.

4.0 Maintenance Guidelines

In order to minimize the impact of storm water maintenance on the environment, the following design and implementation measures will carried out and incorporated into individual maintenance activities, as appropriate.

4.1 Maintenance Protocols

The maintenance activities will incorporate the following protocols, as appropriate.

Water Quality Protocols

#1 Minimize new ground disturbance to the maximum extent feasible, through efforts such as limiting grading to the minimum area required, and restricting vehicle access and maneuvering to designated areas (with an emphasis on using existing roads).

#2 Minimize maintenance operations during the rainy season (October 1 to April 30).

#3 When maintenance cannot be avoided during the rainy season, prepare and implement a "weather triggered" action plan for activities to provide enhanced erosion and sediment control measures prior to predicted storm events (i.e., 40 percent or greater chance of rain).

#4 Schedule grading, earth disturbing and restoration activities as far in advance of the start of the rainy season as feasible, to maximize the opportunity for vegetation to reestablish prior to the advent of storm runoff.

#5 Stabilize access roads (or other graded areas) proposed to be permanently retained through the use of measures such as permeable protective surfacing (e.g., grasscrete), storm water diversion structures (e.g., brow ditches or berms), or crossing structures (e.g., culverts).

#6 During maintenance, use sediment controls within storm water facilities, access paths and staging areas to prevent off-site sediment transport, including measures such as silt fence, fiber rolls, gravel bags, temporary sediment basins, stabilized construction access points (e.g., shaker plates), containment barriers (e.g., silt fence, fiber rolls and/or berms) for material stockpiles, and properly fitted covers for material transport vehicles. Remove temporary erosion control measures upon completion of maintenance.

#7 Store BMP materials on-site to provide "standby" capacity adequate to provide complete protection of exposed areas and prevent off-site sediment transport.

#8 Provide appropriate training for personnel responsible for BMP installation and maintenance.

#9 As appropriate, implement revegetation efforts on all slopes, access paths and staging areas using native or naturalized, non-invasive plant material as soon as feasible during or

after maintenance operations. Revegetated areas shall be monitored and maintained for a period of not less than 25 months.

#10 Monitor erosion control measures during the rainy season to ensure their effectiveness.

#11 Implement sampling and analysis, monitoring and reporting, and post-construction management programs per National Pollutant Discharge Elimination System (NPDES) and/or City requirements.

#12 Comply with local dust control requirements, including measures such as material stockpile and transport vehicle control (as noted above), regular watering or use of soil binders, and restriction of grading during high winds.

#13 Minimize the amount of hazardous materials stored on-site, and restrict storage and use locations to areas at least 50 feet from storm drains and surface waters.

#14 Store construction-related trash in areas at least 50 feet from storm drains and surface waters, and implement regular (at least weekly) removal of trash by a licensed operator for disposal at an approved site.

#15 Cover and/or enclose storage facilities for hazardous materials and trash, and maintain accurate and up-to-date written hazardous material inventories.

#16 Store hazardous materials off the ground surface (e.g., on pallets) and in their original containers, with the legibility of labels protected. Replace damaged labels.

#17 Use berms, ditches and/or impervious liners (or other applicable methods) in material storage and vehicle/equipment maintenance and fueling areas to provide a containment volume of 1.5 times the volume of stored materials and prevent discharge in the event of a spill.

#18 Place warning and information signs in areas of hazardous material use or storage to identify the types of materials present, as well as applicable use restrictions and containment and clean-up procedures.

#19 Mark storm drains (or other appropriate locations) to discourage inappropriate hazardous material or trash disposal.

#20 Provide training for applicable employees in the proper use, handling and disposal of hazardous materials, as well as appropriate action to take in the event of a spill.

#21 Store readily accessible absorbent and clean-up materials in applicable locations such as hazardous material storage and vehicle and equipment maintenance areas.

#22 Post regulatory agency telephone numbers and a summary guide of clean-up procedures in a conspicuous location at or near the job site trailer.

#23 Monitor and maintain hazardous material use and storage facilities and operations to ensure proper working order on at least a monthly basis.

#24 Install a check dam or other comparable mechanism at the downstream end when maintenance involves the removal of substantial amounts of vegetation along the bottom of a storm water facility, when determined to be appropriate by segment-specific hydrology and hydraulic analysis. These structures may be removed when vegetation growth has reached a point where the structure is no longer required.

#25 Inspect earthen-bottom storm water facilities within 30 days of the first 2-year storm following maintenance. Implement erosion control measures, as appropriate, to remediate any erosion which has occurred and minimize future erosion.

Biological Resource Protection Protocols

#26 Retain wetland vegetation during maintenance when retention would not interfere with the goal of facilitating the conveyance of floodwaters, and protecting adjacent life and property.

#27 Vehicles shall use existing and/or approved access roads to access storm water facilities.

#28 The size and number of equipment used for maintenance shall be selected to minimize disturbance.

#29 All sensitive biological resource areas shall be flagged in the field prior to initiation of maintenance activities. Where necessary, a qualified biologist shall be present to monitor the work to ensure impacts to the resource are avoided.

#30 Physical erosion control measures (e.g., fiber mulch, rice straw, etc.) shall not introduce seed from invasive species.

#31 Maintenance activities within areas potentially supporting sensitive wildlife should be avoided, whenever possible. Preconstruction surveys shall be conducted to determine the presence of any sensitive animal species and to determine appropriate protection measures to be implemented during maintenance.

#32 Maintenance activities that involve removal of *Arundo donax* (arundo) shall occur through one, or a combination, of the following methods: (1) foliar spray (spraying herbicide on leaves and stems without cutting first) when arundo occurs in monotypic stands, or (2) cut and paint (cutting stems close to the ground and spraying or painting herbicide on cut stem surface) when arundo is intermixed with native plants. When sediment supporting arundo must be removed, the sediment shall be excavated to a depth sufficient to remove the rhizomes, wherever feasible. Following removal of sediment containing rhizomes, loose rhizome material shall be removed from the channel and disposed offsite. After the initial treatment, the area of removal shall be inspected on a quarterly basis for up two years, or until no resprouting is observed during an inspection. If resprouting is observed, the cut and paint method shall be applied to all resprouts.

#33 If mechanized maintenance activities must occur near active raptor nests, necessary setbacks must be maintained during active nest use.

Historical Resource Protection

#34 All historical resource areas shall be flagged, capped or fenced, as appropriate, prior to initiation of maintenance activities. Where necessary, a qualified historical resource specialist shall be present to monitor the work to ensure that impacts are avoided.

Waste Management

#35 Compostable green waste material shall be taken to an approved composting facility, if available.

#36 Soil, sand and silt shall be screened to remove waste debris and, wherever possible, re-used as fill material, aggregate or other raw material.

#37 Waste tires shall be separated and transported to an appropriate disposal facility. If more than nine tires are in a vehicle or waste bin at any one time, they shall be transported under a completed Comprehensive Trip Log (CTL) to document that the tires were taken to an appropriate disposal facility.

#38 Hazardous materials encountered during maintenance shall be logged and transported under a hazardous materials manifest to an approved hazardous waste storage, recycling, treatment or disposal facility. Personnel handling hazardous materials shall have appropriate training. Hazardous materials (e.g., machine oil, mercury switches and refrigerant gases) shall be removed from appliances and disposed in accordance with this protocol.

4.2 PEIR Mitigation Measures

Appendix B lists mitigation measures from the Program Environmental Impact Report (PEIR) prepared for the Master Program which are applicable to the proposed maintenance activities. These measures shall be incorporated into individual maintenance activities and/or carried out by the City.

5.0 Maintenance Program

5.1 Annual Maintenance

On an annual basis, the SWD shall determine which storm water facilities require maintenance in the coming year and identify them in an Annual Maintenance Needs Assessment report. Once the facilities have been identified, the SWD shall undertake the following series of actions for each proposed maintenance activity during the design and subsequent implementation of maintenance activities.

Design Phase

Prior to preparing IMPs for affected storm water facilities, the City will complete a series of studies aimed at determining the best way to maximize flood control while minimizing impacts to biological and cultural resources as well as water quality. As described below, the City will conduct baseline studies related to biology, cultural resources, hydrology, and noise. Based on the results of these studies, the City will prepare an IMP for each proposed maintenance activity. Upon completion of these IMPs, the City will evaluate the potential impacts of the proposed maintenance on any significant biological or cultural resources as well as water quality associated with the affected storm water facility. Based upon the potential impacts, the City will identify appropriate mitigation measures. The results of the baseline studies, impact analysis and mitigation identification will be summarized in individual reports for each storm water facility.

A description of the individual assessments and individual maintenance plan follows.

Individual Biological Assessment

Before preparation of an IMP, the site of each proposed maintenance activity shall be inspected by a qualified biologist to determine whether sensitive biological resources could be affected by the proposed maintenance. Upon completion of this inspection, the biologist shall identify significant biological resources and discuss potential ways to reduce impacts to those resources with SWD staff responsible for preparing the IMP. Once an IMP has been completed, the biologist shall determine the potential impact of the proposed maintenance on significant biological resources and define mitigation needed to adequately compensate for those impacts.

An Individual Biological Assessment (IBA), using the form contained in Appendix C, shall be prepared for each storm water facility where the biologist determines that the proposed maintenance could affect sensitive biological resources. The IBA will include: a summary of the biological resources associated with the storm water facility, quantification of impacts to sensitive biological resources, and the nature of mitigation measures required to compensate for those impacts. The IBA shall also identify which Master Program maintenance protocols and PEIR mitigation measures will be incorporated into the proposed maintenance activity.

Individual Historical Assessment

Before preparation of an IMP, each proposed maintenance activity shall be evaluated by a qualified archaeologist to determine the potential for cultural resources to be impacted by maintenance. If the archaeologist concludes that there is a moderate to high potential for significant cultural resources to be impacted, the archaeologist shall conduct a foot survey of the maintenance area to determine whether historic or prehistoric resources could be impacted by the proposed maintenance. Upon completion of this inspection, the archaeologist shall identify significant historical resources and discuss potential ways to reduce impacts to those resources with SWD staff responsible for preparing the IMP. Once an IMP has been completed, the archaeologist shall determine the potential impact of the proposed maintenance on significant historical resources and define mitigation needed to adequately compensate for those impacts.

An Individual Historical Assessment (IHA), using the form in Appendix D, shall be prepared for each storm water facility that the archaeologist determines to have a moderate to high potential for significant historical resources. The IHA will include: a description of the potential historical resources and the mitigation measures needed to reduce adverse impacts.

Individual Hydrologic and Hydraulic Assessment

Before preparing an IMP, a qualified hydrologist shall assess the ability of the affected storm water facility to convey storm water in its present state using Hydrologic Engineering Center (HEC) or comparable computer modeling software. Based on this analysis, the hydrologist shall identify the amount of sediment and/or vegetation that must be removed to maximize flood conveyance. Wherever possible, the hydrologist shall identify areas of native vegetation that may remain within the affected storm water facility, based on input from the biologist.

An Individual Hydrology and Hydraulic Assessment (IHHA), using the form in Appendix E, shall be prepared for each facility. The IHHA will specifically determine whether any vegetation within the storm water facility can be retained without substantially interfering with the conveyance of flood waters. It will also determine if any structures or mechanisms are required to control erosion during or after maintenance.

Individual Noise Assessment

A baseline noise survey shall be conducted by a qualified acoustician for any maintenance that could impact a sensitive bird species, as determined by the biologist. This survey shall determine the ambient noise levels and the 60 A-weighted decibel (dBA) time-averaged one hour equivalent level (L_{eq}) noise contour in relationship to sensitive bird habitat. Based on the results, the acoustician shall identify the limits of noise that could impact sensitive species and identify measures to reduce noise impacts during the designated breeding seasons for potentially affected species. Mitigation measures may include noise attenuation barriers, equipment noise reducers and/or restrictions on the timing of maintenance.

An Individual Noise Assessment (INA), using the form in Appendix F, will be prepared for each storm water facility where noise could impact sensitive species. The INA shall include: existing noise conditions, identification of potential noise impacts to nesting/breeding sensitive bird species, and recommended noise reduction measures.

Individual Maintenance Plan

Once the individual assessments have been completed and the results discussed with SWD staff responsible for formulating maintenance plans, an IMP shall be prepared for each maintenance activity. The IMP shall identify the following aspects of the proposed maintenance: width of facility clearing; maintenance method(s) to be used; equipment type; access roads/paths; staging areas; spoils storage sites; and schedule. As appropriate, the IMP shall incorporate construction BMPs required by the RWQCB to prevent pollutants from further conveyance by the storm system as well as protocols defined in Section 5.1 of this Master Program. The goal of the IMP shall be to, wherever possible, minimize the amount of clearing in order to reduce impacts on biological resources while providing adequate flood control capacity.

Pursuant to Council Policies 700-13 and 14, the IMP shall utilize existing access paths within environmentally sensitive lands which serve other utilities including sewer, water, natural gas, and power to minimize the need for creating new access paths. As an alternative, the IMP may propose alternative access to replace existing utility access paths when that new access can reduce effects on environmentally sensitive lands.

Implementation Phase

IMP Plan Approval

Prior to commencing any maintenance activity that has been determined in the IBA, IHA or INA to potentially impact biological or historical resources, the City's Development Services Department (DSD) shall review the IMP, IBA, INA, IHA, and/or IHHA. DSD shall verify that the proposed impacts and mitigation measures are consistent with the analysis contained in the PEIR for the Master Program before maintenance commences.

Prior to commencing any maintenance activity, the Engineering and Capital Projects Department, Park and Recreation Department, Real Estate Assets Department, Metropolitan Wastewater Division, and Water Utilities Department shall also review the IMPs to determine if the maintenance activities may adversely impact land or facilities within their jurisdiction. No maintenance will be undertaken until these departments have indicated their approval of the relevant IMP.

Environmental Resource Protection

Prior to commencing any maintenance activity that has been determined in the IBA, IHA or INA to potentially impact biological or historical resources, the boundaries of sensitive biology or historical resources which are to be avoided shall be clearly delineated with flagging, signage and/or fencing.

Pre-Maintenance Meeting

Prior to commencing any maintenance activity that has been determined in the IBA, IHA or INA to potentially impact biological or historical resources, a pre-maintenance meeting will be held on site with the following representatives: SWD staff, Mitigation Monitoring Coordinator (MCC), Maintenance Manager (MM), and/or Maintenance Contractor (MC). As appropriate, the biologist and/or historical specialist selected to monitor the activities also will be present. At this meeting the monitoring biologist and/or historical specialist will discuss the Master Program maintenance protocols and PEIR mitigation measures that apply to the maintenance activities.

Environmental Monitoring

As required, qualified biologists and archaeologists shall be onsite during maintenance activities, when these resources are determined to be present, to assure that required mitigation measures are followed. At the end of the monitoring, the specialist(s) shall prepare a letter report summarizing the results of the monitoring and any remedial actions which were carried out.

Post-Maintenance Reporting

Following completion of maintenance, a maintenance activity report shall be prepared using the form included in Appendix G.

Annual Reporting

The SWD shall prepare an annual report for designated City departments and state and federal agencies with jurisdiction over storm water facilities that are maintained during the past year. This report shall include the following:

- Tabular summary of the acreage of sensitive vegetation lost by the storm water facility that was maintained;
- Scaled map of each affected storm water facility illustrating pre- and post-maintenance vegetation;
- Updated master storm water facility list to reflect the storm water facilities which have been mitigated and, for which no additional mitigation shall be required;
- Summary of the status of mitigation which has been carried out during the current and previous years to compensate for impacts to upland and wetland vegetation, as well as sensitive species;
- Two digital, date-stamped photographs of each of the areas that were maintained in the current year; and
- Description of any remedial actions and the outcome of their implementation for each affected storm water facility.

5.2 Emergency Maintenance

When a major storm event is considered imminent, the SWD may undertake maintenance activities which are not included in the Annual Maintenance Needs Assessment report in order to avoid or minimize a potential threat to life and/or loss of property.

Whenever possible, a qualified biologist and/or archaeologist will inspect emergency maintenance areas prior to conducting maintenance activities. The purpose of these inspections will be to: (1) identify significant resources to be avoided, wherever feasible, (2) identify measures to reduce impacts, and (3) establish a baseline for evaluating the impact of emergency maintenance and the appropriate mitigation measures to compensate for those impacts. Where insufficient time exists to complete pre-maintenance inspections, the pre-existing condition shall be based on previous surveys conducted for the PEIR as well as current aerial photographs. If time allows, the biologist and/or archaeologist shall bring significant resources to the attention of the SWD and discuss ways to minimize impacts caused by emergency maintenance.

Immediately following the completion of emergency maintenance, a qualified biologist and/or archaeologist will re-inspect emergency maintenance areas to quantify any impacts to significant resources that may have occurred and identify appropriate compensation actions.

The results of these inspections and evaluation shall be summarized in reports using the forms contained in Appendix H. Compensation for wetland impacts resulting from emergency maintenance would be included in the next annual mitigation program.

6.0 Consistency Determination Process

City of San Diego

The City shall compile the IMPs, IBAs, IHAs, IHHAs, and any other relevant information into a single package of information referred to as the "CD Package". A CD checklist (Appendix I) shall also be completed as a part of the CD process and included in the CD Package. The CD Package shall be submitted to the following City Departments for review and comment: Development Services, Engineering and Capital Projects, Park and Recreation, Real Estate Assets, Public Utilities, and the Pollution Prevention Division of the SWD.

Based on the information provided with the CD Package, each consulted City department shall provide the SWD written comments or concerns regarding the proposed maintenance. If a consulted City department fails to respond within 30 days, the SWD will consider the annual maintenance proposal confirmed. If a City department has concerns, the SWD shall work with the concerned department to reach a consensus on the approach to maintenance.

Based on the CD process, a maintenance activity will be authorized through one of the following processes:

- Process 1 Decision (San Diego Municipal Code, Chapter 11, Article 2, Division 5, Decision Process, Section 112.0502);
- Process 2 Decision (San Diego Municipal Code, Chapter 11, Article 2, Division 5, Decision Process, Section 112.0503); or
- Process 4 Decision (San Diego Municipal Code, Chapter 11, Article 2, Division 5, Decision Process, Section 112.0507)

Process 1 shall be used for maintenance activities which conform to the assumptions contained in Table 1 included as Appendix A of this Master Program and the accompanying PEIR. Process 1 shall be used for maintenance activities where all of the following four primary criteria are met:

P1-1. Maintenance activity will occur in a storm water facility listed in Table 1 of the Master Program;
P1-2. Limits of disturbance are equal to or less than identified in Table 1 of the Master Program;
P1-3. Type and extent of native vegetation is comparable to that assumed in the PEIR; and
P1-4. Applicable maintenance protocols identified in this Master Program and/or the PEIR will be implemented as part maintenance.

Process 2 shall be used when the CD process finds that the proposed maintenance activity would meet criteria P1-1 but would not meet one or more of criteria P1-2 through P1-4. Process 2 shall also be required for any activity that meets one of the following criteria, in addition to conforming the all the assumptions of Process 1 stated above.

P2-1. Maintenance activity is located within the Coastal Zone; or
P2-2. Maintenance activity requires construction of a new access route, outside the storm water facility limits, that would impact more than 0.1 acre of Tier I, II or III habitat, as defined by the City's Biology Guidelines.

Process 4 will be used when the CD process finds that proposed maintenance is not included in Table 1. In order to authorize these maintenance activities, the Master Site Development Permit (SDP) and/or Master Coastal Development Permit (CDP) may be amended, or a separate SDP or CDP processed. As appropriate, additional environmental review will be conducted.

If emergency work is required as discussed in Section 5.2, a consistency determination for the emergency work shall be submitted with 90 days of the work. If the emergency work is determined not to be consistent, a discretionary permit shall be required.

State and Federal Agencies

Concurrent with the review by City departments, the CD Package shall be submitted to the California Department of Fish and Game (CDFG), California RWQCB, and U.S. Army Corps of Engineers (Corps) for approval under the terms of their respective general wetland permits. As appropriate, the Corps may request input from the U.S. Fish and Wildlife Service (USFWS). The CD process shall be in accordance with the procedure established by each agency as part of its master permit approval.

State and federal agencies shall review the CD Package to determine whether the proposed maintenance activities are consistent with the analysis contained in the PEIR and the specific terms of the master permit issued by the respective agency. Where a state or federal agency determines that one or more of the maintenance activities are not consistent, the SWD shall work with the concerned agency to identify additional measures which would be needed to bring those activities into compliance with the PEIR and the master permit conditions.

The City shall not implement an IMP without approval through the City's Process One and a favorable CD from the state or federal agency with jurisdiction over the biological resources affected by the IMP.

APPENDIX A

STORM WATER FACILITIES

Table 1
STORM WATER SYSTEM FACILITIES AND DETENTION BASINS

Facility	City Equipment No.	Hydrologic Unit	Storm water facility Description	Type	Maintenance Method	Estimated Disturbance Width (feet)
1	88000504	San Dieguito	Rancho Bernardo Rd & Bernardo Center Dr	C	4	12
2-3	88000192 88000194 88000196 88000198	San Dieguito	Rancho Bernardo	C	2	10
4	88000505	Peñasquitos	11044 Via San Marco	C	2	4
5	NA	Peñasquitos	Scripps Poway Pkwy & Scripps Summit Dr	C	1	10
6	88000321	Peñasquitos	11689 Sorrento Valley Rd	C	2	20
6a	NA	Peñasquitos	3000 Industrial Court	C	1	12
7-8	88000138 88000317	Peñasquitos	Los Peñasquitos Facility	E	3	50
9	88000251	Peñasquitos	11000 Roselle St / 11100 Flinkote Ave	C	1/2	8
10	88000250	Peñasquitos	Dunhill St & Roselle St	E	4	4
11-12	88000247 88000249 88000250 88000251	Peñasquitos	Soledad Creek Facility	Part E, Part C	1	20
13-17	88000247 88000249 88000250 88000251	Peñasquitos	Soledad Creek Facility	E	1	20
18	88000321	Peñasquitos	Maya Linda & Via Pasar	E	4/1	8
19	88000502	Peñasquitos	Candida & Via Pasar	C	2	8
20	88000502	Peñasquitos	10205 Pomerado Rd	C	4	10
21	88000502	Peñasquitos	10249 Pinetree Dr	C	3	20
22	88000321	Peñasquitos	NE Corner Pomerado Rd & Scripps Ranch Blvd	C	1	4
23	NA	Peñasquitos	Pomerado Rd & Avenida Magnifica	C	1	6
24	88000748	Peñasquitos	Scenic Pl & Cliff Ridge	E	1	10

Table 1
STORM WATER SYSTEM FACILITIES AND DETENTION BASINS

Facility	City Equipment No.	Hydrologic Unit	Facility Description	Type	Maintenance Method	Estimated Disturbance Width (feet)
25	88000321	Peñasquitos	Ardath Rd from Esterel to Ardath Ln	C	4	4
26	88000321	Peñasquitos	Hillside Dr from Rue Adriane to Via Capri	C	4	4
27	88000199	Peñasquitos	Rose Creek Facility	E	None	None
28	88000199 88000201	Peñasquitos	Rose Creek Facility	E except south of Gilman is C	None	None
29-30 30a-30b	88000203 88000205 88000206 88000207	Peñasquitos	Rose Creek Facility	½ E, ½ C	None	None
31	88000321	Peñasquitos	3053 Renault Way	C	4	7.5
32	88000207 88000208	Peñasquitos	Rose Creek Facility	E west of railroad, remainder is C	1	90
33	88000209	Peñasquitos	Rose Creek Facility	C	1	100-130
34	88000210 88000211	Peñasquitos	Rose Creek Facility	Approx 375 linear feet C, remainder is E	1	50-150
35	88000211	Peñasquitos	Rose Creek Facility	E	1	80
36	88000502	Peñasquitos	Mission Bay High School	C	2	4
37	88000321	Peñasquitos	Pacific Beach Dr & Olney St	E	4	10
38	80025515	Peñasquitos	Drain Structures – Lakehurst Ave	E	1	9
39	80025600	Peñasquitos	Drain Structures – Clairemont Dr	E	4	15
40-42	88000024 88000026 88000029 88000031 88000033	Peñasquitos	Chateau Facility	C	2	30
43	88000502	Peñasquitos	Thornwood St & Mario Pl	C	2	5
44	80025801	Peñasquitos	Drain Structures – Beal St	E	1	9
45	80025988	Peñasquitos	Drain Structures – Mesa College Way	E	3	2
46	NA	Peñasquitos	Clairemont Mesa & 805 behind Hotel	E	4	2
47	88000321	San Diego	7969 & 7971 Engineer Rd	E in middle; C	2	3

Table 1
STORM WATER SYSTEM FACILITIES AND DETENTION BASINS

Facility	City Equipment No.	Hydrologic Unit	Facility Description	Type	Maintenance Method	Estimated Disturbance Width (feet)
				either end		
48	NA	San Diego	3860 Calle Fortunada	E	1	4
49-50	88000146 880001481	San Diego	Murphy Canyon Facility	E	3	80
51	NA	San Diego	Red River Dr & Conestoga Dr	C	1	50
52	88000321	San Diego	Camino del Arroyo	C	1/2	4
53	88000065	San Diego	Cowles Mtn Facility	C	2	15
54	88000212 88000214	San Diego	San Carlos Facility	C	1 & 2	30
55	80031810	Peñasquitos	West Morena Blvd	E	1 & 2	40-50
55-57	88000295 88000296 88000298	Peñasquitos	Tecolote Creek Facility	C	2	40-50
58	88000155 88000156	San Diego	Murphy Canyon Facility	E	1	70
58a	88000150	San Diego	Murphy Canyon	E	2	40
58a	88000151	San Diego	Murphy Canyon	E	1	40
58a	88000152	San Diego	Murphy Canyon	C	3	30
59-60	88000019 88000020 88000022	San Diego	Alvarado Facility	½ E, ½ C	1	45
61-62	88000009 88000011 88000013 88000015 88000016	San Diego	Alvarado Facility	C	1	60
62a	88000008	San Diego	Alvarado Facility	E	1	70
63	88000004	San Diego	Alvarado Facility	E	4	12-40
64	88000002 88000003 88000004	San Diego	Alvarado Facility	½ E, ½ C	1 & 2	12-35
65	88000085	San Diego	Fairmont Facility	E	2	8
65a	88000087	San Diego	Fairmont Facility	C	1	10

Table 1
STORM WATER SYSTEM FACILITIES AND DETENTION BASINS

Facility	City Equipment No.	Hydrologic Unit	Facility Description	Type	Maintenance Method	Estimated Disturbance Width (feet)
65a	88000089	San Diego	Fairmont Facility	C	2	5
65b	88000091	San Diego	Fairmont Facility	E	2	20
65b	88000093	San Diego	Fairmont Facility	C	3	5
65b-c	88000095	San Diego	Fairmont Facility	E	3	4
66	88000142 88000143 88000145	San Diego	Montezuma Facility	C	1 & 2	20
66a	88000140	San Diego	Montezuma Facility	E	1	16
67	88000104 88000106	Pueblo San Diego	Home Avenue Facility	E	1	8
67a	88000044 88000046	Pueblo San Diego	Chollas Creek	E	1	10
68	88000108 88000110 88000112	Pueblo San Diego	Home Avenue Facility	½ E, ½ C	2	12
69	88000112 88000114	Pueblo San Diego	Home Avenue Facility	C	1	20
70	88000117 88000119	Pueblo San Diego	Home Avenue Facility	Approx. 994 linear ft E, 430 linear ft C	1	40
71-72	88000037 88000039 88000041 88000042	Pueblo San Diego	Chollas Creek Facility	Approx 806 linear ft E, remainder C	2	40
73-75	88000048	Pueblo San Diego	Chollas Creek Facility	E	3	20-70

Table 1
STORM WATER SYSTEM FACILITIES AND DETENTION BASINS

Facility	City Equipment No.	Hydrologic Unit	Facility Description	Type	Maintenance Method	Estimated Disturbance Width (feet)
76-77	88000121 88000123 88000125	Pueblo San Diego	Home Avenue Facility	E	2 & 3	40
78-80	88000050 88000051	Pueblo San Diego	Chollas Creek Facility	C, except approx 1200 linear ft on Map 80 is E	2	70
79	88000066	Pueblo San Diego	Delevan Dr	E	1	30
81	88000502	San Diego	Camino de la Reina & Camino del Arroyo	C	4	4
82	88000181 88000182	San Diego	Nimitz Facility	Approx 188 linear ft earthen bottom, 320 linear ft C	4	10
82	88000183	San Diego	Nimitz Facility	E	1	5
83	88000183	San Diego	Famosa Blvd & Valeta St	C	2	10
84	88000312 88000313 88000314	Pueblo San Diego	Washington Facility	Approx. 150 linear ft E, 56 linear ft C	1	15
85	88000102 88000103	Pueblo San Diego	Florida Canyon Facility	E	1	50
86	88000189 88000190 88000191	Pueblo San Diego	Pershing Facility	C	2	35
87	80028073	Pueblo San Diego	Drain Structures – between 26th St and 27th St	E	4	12
88	88000293	Pueblo San Diego	Switzer Creek Facility	C	1	50
89	88000051 88000053	Pueblo San Diego	Chollas Creek Facility	C	2	70
90	NA	Pueblo San Diego	Imperial Ave & Gillette St	E	4	12
91	88000053	Pueblo San Diego	Chollas Creek Facility	C	1	70
92	80039275	Pueblo San Diego	35th St & Martin Ave	E	4	12

Table 1
STORM WATER SYSTEM FACILITIES AND DETENTION BASINS

Facility	City Equipment No.	Hydrologic Unit	Facility Description	Type	Maintenance Method	Estimated Disturbance Width (feet)
93	88000053 88000054 88000055	Pueblo San Diego	Chollas Creek Facility	Part E, part C	1	60
94-95	88000055 88000292	Pueblo San Diego	South Chollas Creek Facility	Concrete sides, E bottom	1	70
96	80028356	Pueblo San Diego	Drain Structures – Boston Ave & Z St	E	1	15
97a, 97-99	88000282 88000285 88000287 88000288 88000289 88000290 88000291 88000292	Pueblo San Diego	South Chollas Creek Facility	Concrete sides, E bottom	1	50
100	88000321	Pueblo San Diego	42nd & J St	E	4	3
101-104	88000261 88000262 88000266 88000268 88000270 88000272 88000274 88000276	Pueblo San Diego	South Chollas Creek Facility	Part E, part C	2 & 3	20-50
105	NA	Pueblo San Diego	Euclid & Castana	E	4	12
106-107	88000079 88000080 88000081	Pueblo San Diego	Encanto Facility	Part E, part C	1 & 2	30-65

Table 1
STORM WATER SYSTEM FACILITIES AND DETENTION BASINS

Facility	City Equipment No.	Hydrologic Unit	Facility Description	Type	Maintenance Method	Estimated Disturbance Width (feet)
108-111	88000069 88000071 88000073 88000075 88000077 88000079	Pueblo San Diego	Encanto Facility	C	2	20
109	88000136	Pueblo San Diego	Jamacha Facility	E	4	15
112	880038398	Pueblo San Diego	Madera & Broadway	C	2	20
113-115	88000126 88000128 88000130 88000132 88000134 88000136	Pueblo San Diego	Jamacha Facility	E	1 & 2	30
116	88000253 88000255	Pueblo San Diego	Solola Facility	E	1	30
117	88000255 88000256 88000258	Pueblo San Diego	Solola Facility	Part E, part C	2	30
118-119	88000258 88000260	Pueblo San Diego	Solola Facility	C	2	30
120-121	88000056 88000058 88000060 88000062 88000064	Pueblo San Diego	Cottonwood Facility	C	2	30
122	88000188	Sweetwater	Parkside Facility	C	2	35
123	88000229	Tijuana	Sanyo Facility	C	2	50
124	NA	Tijuana	La Media & Airway	E	4	25
125	NA	Tijuana	Camino Maquiladora & Cactus	C	2 & 4	20
126	88000321 88000502	Tijuana	Siempre Viva & Bristow	E	4	12-25

Table 1
STORM WATER SYSTEM FACILITIES AND DETENTION BASINS

Facility	City Equipment No.	Hydrologic Unit	Facility Description	Type	Maintenance Method	Estimated Disturbance Width (feet)
127	NA	Tijuana	Britannia & Bristow	E	4	20
128	88000308 88000309 88000311	Tijuana	Virginia Facility	E	2 & 4	15
129	88000238 88000239 88000240 88000242 88000244	Tijuana	Smythe Facility	C, except southernmost 110 linear ft is E	2	30-50
130	88000233	Tijuana	Smythe Facility	E	2	60
131	88000157 88000159 88000160 88000163	Otay	Nestor Creek Facility	Part E, part C	1 & 2	30
132-133	88000167 88000169 88000174 88000176	Otay	Nestor Creek Facility	E	1 & 2	30-50
134	88000178 88000180	Otay	Nestor Creek Facility	C	1 & 2	30-50
135	88000322	Otay	Elm & Harris	C	4	4
136-137	88000301 88000303 88000305	Tijuana	Tocayo Facility	C except for westernmost 55 linear ft	2	35
137a-c	88000300	Tijuana	Tijuana River	E	1	24
138-139	88000232	Tijuana	Smugglers Gulch Facility	E	1	50
140-161	88000217 88000219 88000221 88000223 88000225 88000227 88000228	San Diego	San Diego River	E	None	None

Table 1
STORM WATER SYSTEM FACILITIES AND DETENTION BASINS

Facility	City Equipment No.	Hydrologic Unit	Facility Description	Type	Maintenance Method	Estimated Disturbance Width (feet)
Basins						
162-163	NA	Peñasquitos	Tower Road	E	1	100
164	NA	Peñasquitos	Black Mountain Road south of Westview	E	1	80
5a	NA	Peñasquitos	12350 Black Mountain Road n/o Mercy Road	E	1	50
165	NA	Peñasquitos	9262 Camino Santa Fe	E	1	10
166	NA	Peñasquitos	Carmel Country Rd Bridge south of SR 56	E	1	200
167	NA	Peñasquitos	Westside El Camino Real south of SR 56	E	1	50
168	NA	Peñasquitos	Northside Genesee east of Science Center Dr	E	1	100
169	NA	San Dieguito	13153 Paseo del Verano	C	1	140
170	NA	Peñasquitos	Roselle Street (Deadend)	E	1	100
171-172	NA	Peñasquitos	Scripps Lake Drive west of Treena Street	E	1	15-20
23a	NA	Peñasquitos	12660 Legacy Road	E	1	100
131	NA	Otay	30th & Del Sol Blvd	E	1	300

C - Concrete lined

E - Earthen

NA - Unknown or not applicable.

Method 1 - Equipment such as a skid-steer or bulldozer enters the storm water facility using existing access and pushes the accumulated material with a bucket to a site within the facility. The material is scooped up with a loader in the storm water facility or a Gradall along the top of the drainage bank, and loaded into a dump truck. Alternatively, a loader enters the storm water facility, scoops up material, and loads it into a dump truck.

Method 2 - This method is the same as Method 1 except that no access ramp is available. Equipment is lowered into the facility with a larger piece of equipment (crane or Gradall).

Method 3 - This method is the same as Method 1 except that a temporary ramp is constructed and removed after maintenance.

Method 4 - No equipment enters the storm water facility. A Gradall or excavator operates from the bank to scoop up the accumulated material from outside the facility and load it onto dump trucks for offsite disposal.

APPENDIX B

PROGRAM EIR MITIGATION MEASURES

General Mitigation

General Mitigation 1: Prior to commencement of work, the Environmental Designee of the Entitlements Division shall verify that mitigation measures for impacts to biological resources (Mitigation Measures 4.3.1 through 4.3.20), historical resources (Mitigation Measures 4.4.1 and 4.4.2), land use (Mitigation Measures 4.1.1 through 4.1.13), and paleontological resources (Mitigation Measure 4.7.1) have been included in entirety on the submitted maintenance documents and contract specifications, and included under the heading, "Environmental Mitigation Requirements." In addition, the requirements for a Pre-maintenance Meeting shall be noted on all maintenance documents.

General Mitigation 2: Prior to the commencement of work, a Pre-maintenance Meeting shall be conducted and include, as appropriate, the MMC, SWD Project Manager, Biological Monitor, Historical Monitor, Paleontological Monitor, and Maintenance Contractor, and other parties of interest.

General Mitigation 3: Prior to the commencement of work, evidence of compliance with other permitting authorities is required, if applicable. Evidence shall include either copies of permits issued, letters of resolution issued by the Responsible Agency documenting compliance, or other evidence documenting compliance and deemed acceptable by the Assistant Deputy Director (ADD) Environmental Designee.

General Mitigation 4: Prior to commencement of work and pursuant to Section 1600 et seq. of the State of California Fish & Game Code, evidence of compliance with Section 1602 is required, if applicable. Evidence shall include either copies of permits issued, letters of resolution issued by the Responsible Agency documenting compliance, or other evidence documenting compliance and deemed acceptable by the ADD Environmental Designee.

Biological Resources

Mitigation Measure 4.3.1: Prior to commencement of any activity within a specified annual maintenance program, the SWD shall identify all proposed maintenance activities. An IMP shall be prepared for each activity. The IMP shall identify the following: maintenance method(s) to be used, equipment type, appropriate BMPs, proposed access, staging areas, spoils storage sites, and schedule. In addition, the IMP shall incorporate relevant maintenance protocols as well as specific mitigation measures identified in the IBA for the activity.

Mitigation Measure 4.3.2: Prior to commencement of any activity within a specific annual maintenance program, a qualified biologist shall prepare an IBA for each area proposed to be maintained. Based on the IMP, the biologist shall determine the extent of impact which would occur to sensitive biological resources. The biologist also shall specify compensation which shall be required to mitigate impacts to biological resources (e.g., invasives removal, wetland creation/enhancement/restoration, or off-site upland habitat acquisition). The results of this survey shall be summarized in an IBA. At a minimum, the IBA shall include:

- Description of maintenance to be performed including length, width, and depth;
- Protocol surveys, as needed;

- Detailed vegetation mapping;
- Wetland delineation in compliance with applicable local, state, and federal regulations;
- Location of sensitive plant species;
- Connectivity functions for wildlife will be evaluated and opportunities for improvements noted;
- Quantification of impacts to all sensitive biological resources;
- Two, digital, date-stamped photos of affected area;
- Specific maintenance protocols from the Master Program which should be implemented as part of the IMP;
- Specific measures to be taken to avoid downstream dispersal of invasive species during maintenance;
- Specific biological monitoring required during maintenance; and
- Specific compensation which would be required to mitigate impacts to biological resources (e.g., wetland creation/enhancement/restoration or offsite upland habitat acquisition).

***Mitigation Measure** 4.3.3*: Wherever feasible, compensation for wetland impacts shall occur within the same watershed as the impact. Wetland mitigation plans shall be consistent with the Conceptual Wetland Mitigation Plan contained in Appendix H of the Biological Technical Report, included as Appendix B.3 of the PEIR and shall include:

- Conceptual planting plan including planting zones, grading, and irrigation;
- Seed mix/planting palette;
- Planting specifications;
- Monitoring program including success criteria; and
- Long-term maintenance and preservation plan.

Mitigation which involves habitat acquisition and preservation shall include the following:

- Location of proposed acquisition;
- Description of the biological resources to be acquired including support for the conclusion that the acquired habitat compensates for the specific maintenance impact; and
- Documentation that the mitigation area would be adequately preserved and maintained in perpetuity.

Mitigation which involves the use of mitigation credits shall include the following:

- Location of the mitigation bank;
- Description of the credits to be acquired including support for the conclusion that the acquired habitat compensates for the specific maintenance impact; and
- Documentation that the credits are associated with a mitigation bank which has been approved by the appropriate Resource Agencies.

Mitigation which involves payment of funds into the City's Habitat Acquisition Fund would be based on the required per acre cost in effect at the time of the project impact plus a 10 percent administration fee.

Mitigation Measure 4.3.4: Loss of habitat for the coastal California gnatcatcher shall be mitigated through the acquisition of suitable habitat or mitigation credits at a ratio of 1:1. Mitigation shall take place within the Multi-Habitat Planning Area (MHPA) and shall be accomplished within six months of the date maintenance is completed.

Mitigation for gnatcatcher impacts shall be considered initiated if one of the following conditions is met:

- A mitigation plan (e.g., habitat creation, enhancement with planting, and/or restoration plan) is submitted to DSD for review. Additionally, work must be initiated within 3 months (weather permitting) of mitigation plan approval.
- Debiting credits from an appropriate mitigation bank. If mitigation occurs via debiting credits from an appropriate mitigation bank, all money initially deposited as part of the project submittal shall be rolled-over for use by subsequent projects.
- Withdrawing an appropriate sum of money from the mitigation account to pay into the Habitat Acquisition Fund.

Mitigation Measure 4.3.5: High frequency maintenance wetland impacts shall be compensated with "permanent" wetland mitigation (restoration and/or enhancement or mitigation credits) in accordance with ratios in Table 4.3-10. Restoration/enhancement with planting/creation activities that include an endowment for long-term management are included as a type of permanent mitigation. Mitigation through up-front establishment of the mitigation or through purchase of mitigation credits shall be at a 1:1 ratio. No maintenance shall commence until the following has occurred:

- A mitigation plan (e.g., enhancement with planting and/or restoration plan), consistent with Appendix H of the Biological Technical Report contained in Appendix B.3 of the PEIR, has been approved by DSD and sufficient evidence exists for DSD to conclude that the mitigation shall commence within six months of the date that the related maintenance has been completed; and/or
- Debiting credits have been obtained from an appropriate mitigation bank.

Table 4.3-10 WETLAND MITIGATION RATIOS	
WETLAND TYPE	**MITIGATION RATIO[1]**
Southern riparian forest	3:1
Southern sycamore riparian woodland	3:1
Riparian woodland	3:1
Coastal saltmarsh	4:1
Coastal brackish marsh	4:1
Southern willow scrub	2:1
Mule fat scrub	2:1
Riparian scrub	2:1
Freshwater marsh	1:1
Cismontane alkali marsh	4:1
Disturbed wetland	1:1
Streambed/natural flood facility	NA

[1]Mitigation done in advance or through purchase of mitigation credits would be at a 1:1 ratio.

Mitigation Measure 4.3.6: Low frequency maintenance wetland impacts shall be compensated through enhancement without planting which would consist of an invasives removal program at the ratios noted in Table 4.3-10 each time the maintenance occurs. In accordance with the Conceptual Wetland Mitigation Plan contained in Appendix H of the Biological Technical Report contained in Appendix B.3 of the PEIR, removal of invasives (e.g., giant reed, pampas grass) shall be followed by a maintenance program, which would assure that invasives would not re-establish for a period of two years after the removal has occurred. The initial removal of invasive plant material shall be completed within six months of the date the related maintenance has been completed.

In the event that maintenance must occur within three years of any maintenance activity using enhancement without planting as compensation, the City shall undertake "permanent" mitigation pursuant to Mitigation Measure 4.3.5 for the next maintenance event. A credit shall be established for the acreage which was originally enhanced as compensation for use by the City as mitigation for low frequency maintenance on other storm water facilities.

Mitigation Measure 4.3.7: Upland impacts shall be compensated through payment into the City's Habitat Acquisition Fund or acquisition and preservation of specific land in accordance with the ratios identified in Table 4.3-11. Upland mitigation shall be completed within six months of the date the related maintenance has been completed.

Table 4.3-11 UPLAND HABITAT MITIGATION RATIOS[1]			
Vegetation Type	Tier	Location of Impact with Respect to the MHPA	
		Inside	Outside
Coast live oak woodland	I	2:1	1:1
Scrub oak chaparral	I	2:1	1:1
Southern foredunes	I	2:1	1:1
Beach	I	2:1	1:1
Diegan coastal sage scrub	II	1:1	1:1
Coastal sage-chaparral scrub	II	1:1	1:1
Broom baccharis scrub	II	1:1	1:1
Southern mixed chaparral	IIA	1:1	0.5:1
Non-native grassland	IIIB	1:1	0.5:1
Eucalyptus woodland	IV	--	--
Non-native vegetation/ornamental	IV	--	--
Disturbed habitat/ruderal	IV	--	--
Developed	IV	--	--

[1]Assumes mitigation occurs within an MHPA

Mitigation Measure 4.3.8: No maintenance activities within a proposed annual maintenance program shall be initiated before the City's Assistant Deputy Director (ADD) Environmental Designee and state and federal agencies with jurisdiction over maintenance activities have approved the IMPs and IBAs including proposed mitigation for each of the proposed activities. In their review, the ADD Environmental Designee and agencies shall confirm that the appropriate maintenance protocols have been incorporated into each IMP.

Mitigation Measure 4.3.9: No maintenance activities within a proposed annual maintenance program shall be initiated until the City's ADD Environmental Designee and MMC have approved the qualifications for biologist(s) who shall be responsible for monitoring maintenance activities which may impact sensitive biological resources.

Mitigation Measure 4.3.10: Within six months of the end of an annual storm water facility maintenance program, the monitoring biologist shall complete an annual report which shall be distributed to the following agencies: the City of San Diego DSD, California Department of Fish and Game (CDFG), Regional Water Quality Control Board (RWQCB), U.S. Fish and Wildlife Service (USFWS), and U.S. Army Corps of Engineers (Corps). At a minimum, the report shall contain the following information:

- Tabular summary of the biological resources impacted during maintenance and the mitigation carried out as compensation;
- Master table containing the following information for each individual storm water facility or segment which is regularly maintained;
- Date and type of most recent maintenance;

- Description of mitigation which has occurred; and
- Description of the status of mitigation which has been implemented for past maintenance activities.

Mitigation Measure 4.3.11: Impacts to floodplains within the MHPA shall be minimized, to the greatest extent practicable, through project design and coordination with the regulating agencies.

Mitigation Measure 4.3.12: Placement of new riprap, concrete, or other unnatural material into facilities in the MHPA would be minimized to the maximum extent practicable. These materials would be used only in the event of severe erosion of earthen banks that cannot feasibly be repaired with the use of natural materials.

Mitigation Measure 4.3.13: Construction of temporary access and staging along facilities shall be restricted to those areas where no such facilities currently exist. Impacts to sensitive habitat and/or sensitive species shall be minimized to the greatest extent practicable through project design measures, such as locating the facilities in the least sensitive habitat possible.

Mitigation Measure 4.3.14: Prior to commencing any activity where the IBA indicates significant impacts to biological resources may occur, a pre-maintenance meeting shall be held on site with following in attendance: Storm Water Department MM, MMC, and MC. The biologist selected to monitor the activities shall be present. At this meeting the monitoring biologist shall review the maintenance protocols that apply to the maintenance activities, and review the monitoring protocol to be followed.

At the pre-maintenance meeting, the monitoring biologist shall submit to the MMC and MC a copy of the site/grading plan (reduced to 11"x17") that identifies areas to be protected, fenced, and monitored. This data shall include all planned locations and design of noise attenuation walls or other devices. The monitoring biologist also shall submit a construction schedule to the MMC and MC indicating when and where monitoring is to begin and shall notify the MMC of the start date for monitoring.

Mitigation Measure 4.3.15: Prior to commencing any maintenance activity which may impact sensitive biological resources, the monitoring biologist shall verify that the following actions have been taken, as appropriate:

- Fencing, flagging, signage, or other means to protect sensitive resources have been implemented;
- Noise attenuation measures needed to protect sensitive wildlife are in place and effective; and/or
- Nesting raptors have been identified and necessary maintenance setbacks have been established if maintenance is to occur between January 15 and August 31.

The designated biological monitor shall be present throughout the first full day of maintenance whenever mandated by the associated IBA. Thereafter, through the duration of the maintenance activity, the monitoring biologist shall visit the site weekly to confirm that measures required to protect sensitive resources (e.g., flagging, fencing, noise barriers) continue to be effective. The

monitoring biologist shall document monitoring events via a Consultant Site Visit Record. This record shall be sent to the MM each month. The MM will forward copies to MMC.

***Mitigation Measure** 4.3.16*: Within three months following the completion of mitigation monitoring, two copies of a written draft report summarizing the monitoring shall be prepared by the monitoring biologist and submitted to the MMC for approval. The draft monitoring report shall describe the results including any remedial measures that were required. Within 90 days of receiving comments from the MMC on the draft monitoring report, the biologist shall submit one copy of the final monitoring report to the MMC.

***Mitigation Measure** 4.3.17*: Prior to commencing any activity that could impact wetlands, evidence of compliance with other permitting authorities is required, if applicable. Evidence shall include copies of permits issued, letters of resolution issued by the Responsible Agency documenting compliance, or other evidence documenting compliance and deemed acceptable by the ADD Environmental Designee.

***Mitigation Measure** 4.3.18*: Access roads and staging areas shall be monitored for presence of exotic species, and exotic species would be removed as appropriate. Maintenance clearing of storm water facilities also would remove non-native species. Mitigation for direct impacts from the proposed project also may involve the removal of invasive non-native species in and adjacent to storm water facilities within the MHPA.

***Mitigation Measure** 4.3.19*: Physical erosion control measures such as fiber mulch, hay bales, etc., shall not harbor seeds from invasive species.

***Mitigation Measure** 4.3.20:* Removal of invasive plant species shall occur prior to the beginning of proposed maintenance activities.

***Mitigation Measure** 4.3.21*: Prior to undertaking any maintenance activity included in an annual maintenance program, the SWD shall create a mitigation account to provide sufficient funds to implement all biological mitigation associated with the proposed maintenance activities. The fund amount shall be determined by the ADD Environmental Designee. The account shall be managed by the SWD, with quarterly status reports submitted to DSD. The status reports shall separately identify upland and wetland account activity. Based upon the impacts identified in the IBAs, money shall be deposited into the account, as part of the project submittal, to ensure available funds for mitigation.

***Mitigation Measure** 4.3.22*: Impacts to listed or endemic sensitive plant species shall be offset through implementation of one or a combination of the following actions:

- Impacted plants would be salvaged and relocated;
- Seeds from impacted plants would be collected for use at an off-site location;
- Off-site habitat that supports the species impacted shall be enhanced and/or supplemented with seed collected onsite; and/or
- Comparable habitat at an off-site location shall be preserved.

Mitigation which involves relocation, enhancement or transplanting sensitive plants shall include the following:

- Conceptual planting plan including grading and, if appropriate, temporary irrigation;
- Planting specifications;
- Monitoring Program including success criteria; and
- Long-term maintenance and preservation plan.

Mitigation Measure 4.3.23: Wherever possible, maintenance activities shall not occur within the following areas:

- 300 feet from any nesting site of Cooper's hawk (*Accipiter cooperii*);
- 1,500 feet from known locations of the southern pond turtle (*Clemmys marmorata pallida*);
- 900 feet from any nesting sites of northern harriers (*Circus cyaneus*);
- 4,000 feet from any nesting sites of golden eagles (*Aquila chrysaetos*); or
- 300 feet from any occupied burrow or burrowing owls (*Athene cunicularia*).

Mitigation Measure 4.3.24: If evidence indicates the potential is high for a listed species to be present based on historical records or site conditions, then clearing, grubbing, or grading (inside and outside the MHPA) shall be restricted during the breeding season where development may impact the following species:

- Western snowy plover (between March 1 and September 15);
- Least tern (between April 1 and September 15);
- Cactus wren (between February 15 and August 15); or
- Tricolored black bird (between March 1 and August 1.

When other sensitive species, including, but not limited to, the arroyo toad, burrowing owl, or Quino checkerspot butterfly are known or suspected to be present all appropriate protocol surveys and mitigation measures shall be implemented.

Mitigation Measure 4.3.25: If a subject species is not detected during the protocol survey, the qualified biologist shall submit substantial evidence to the ADD and an applicable resource agency which demonstrates whether or not mitigation measures such as noise walls are necessary between the dates stated above for each species. If this evidence concludes that no impacts to this species are anticipated, no mitigation measures would be necessary.

Mitigation Measure 4.3.26: If the City chooses not to do the required surveys, then it shall be assumed that the appropriate avian species are present and all necessary protection and mitigation measures shall be required as described in Mitigation Measure 4.3.26.

Mitigation Measure 4.3.27: If no surveys are completed and no sound attenuation devices are installed, it will be assumed that the habitat in question is occupied by the appropriate species and that maintenance activities would generate more than 60 dB(A) L_{eq} within the habitat requiring protection. All such activities adjacent to the protected habitat shall cease for the duration of the breeding season of the appropriate species and a qualified biologist shall establish a limit of work.

Mitigation Measure 4.3.28: If maintenance occurs during the raptor breeding season (January 15 to August 31), a pre-maintenance survey for active raptor nests shall be conducted in areas supporting suitable habitat. If active raptor nests are found, maintenance shall not occur within 300 feet of a Cooper's hawk nest, 900 feet of a northern harrier's nest, or 500 feet of any other raptor's nest until any fledglings have left the nest.

Mitigation Measure 4.3.29: If removal of any eucalyptus trees or other trees used by raptors for nesting within a maintenance area is proposed during the raptor breeding season (January 15 through August 31), a qualified biologist shall ensure that no raptors are nesting in such trees. If maintenance occurs during the raptor breeding season, a pre-maintenance survey shall be conducted and no maintenance shall occur within 300 feet of any nesting site of Cooper's hawk or other nesting raptor until the young fledge. Should the biologist determine that raptors are nesting, the trees shall not be removed until after the breeding season. In addition, if removal of grassland or other habitat appropriate for nesting by northern harriers, a qualified biologist shall ensure that no harriers are nesting in such areas. If maintenance occurs during the raptor breeding season, a pre-maintenance survey shall be conducted and no maintenance shall occur within 900 feet of any nesting site of northern harrier until the young fledge.

Mitigation Measure 4.3.30: If maintenance activities would occur at known localities for listed fish species, a biologist shall determine the presence/absence of flowing/standing water and/or the presence/absence of the species. If flowing/standing water is present, a biological monitor would accompany the maintenance crew and supervise the activities. If maintenance activities must occur within suitable habitat for other highly sensitive aquatic species (i.e., southwestern pond turtle) avoidance or minimization measures (i.e., exclusionary fencing, dewatering of the activity area, live-trapping, and translocation to suitable habitat) must be implemented.

Mitigation Measure 4.3.31: If maintenance activities will occur within areas supporting listed and/or narrow endemic plants, the boundaries of the plant populations designated sensitive by the resource agencies will be clearly delineated with flagging or temporary fencing that must remain in place for the duration of the activity. Whenever possible, flagged or fenced areas must be avoided. Where these areas cannot be avoided, proper rehabilitation of the impact area will occur.

Mitigation Measure 4.3.32: In order to avoid impacts to nesting avian species, including those species not covered by the Multiple Species Conservation Program (MSCP), maintenance within or adjacent to avian nesting habitat shall occur outside of the avian breeding season (January 15 to August 31) unless postponing maintenance would result in a threat to human life or property.

Historical Resources

Mitigation Measure 4.4.1: Prior to commencement of the first occurrence of maintenance activity within a storm water facility included in the Master Program, an archaeologist, meeting the qualifications specified by the City's Historical Resources Guidelines (HRG), shall determine the potential for significant historical resources to occur in the maintenance area. If the archaeologist determines that the potential is moderate to high, an IHA shall be prepared. Based on the IMP for the proposed maintenance activity, the archaeologist shall determine the Area of Potential Effects (APE), which shall include access, staging, and maintenance areas. The IHA shall include a field survey of the APE with a Native American monitor, using the standards of the City's HRG. In

addition, the archaeologist shall request a record search from the South Coastal Information Center (SCIC). Based on the results of the field survey and record search, the archaeologist shall conduct an archaeological testing program for any identified historical resources, using the standards of the City's HRG. If significant historical resources are identified, they shall be taken to the Historical Resources Board for designation as Historic Sites. Avoidance or implementation of an Archaeological Data Recovery Program (ADRP) and Archaeological Monitoring Program shall be required to mitigate project impacts to significant historical resources. The archaeologist shall prepare a report in accordance with City guidelines. At a minimum, the IHA report shall include:

- Description of maintenance to be performed, including length, width, and depth;
- Prehistory and History Background Discussion;
- Results of Record Search;
- Survey Methods;
- Archaeological Testing Methods;
- Impact Analysis; and
- Mitigation Recommendations, including avoidance or implementation of an ADRP and archaeological monitoring program.

In the event that the IHA indicates that no significant historical resources occur within the APE, or have the potential to occur within the APE, no further action shall be required.

Mitigation Measure 4.4.2: Prior to initiating any maintenance activity where the IHA identifies existing significant historical resources within the APE, the following actions shall be taken.

4.4.2.1. The SWD shall select a Principal Investigator (PI), who shall be approved by the ADD Environmental Designee. The PI must meet the requirements of the City's HRG.

4.4.2.2. Mitigation recommendations from the IHA shall be incorporated into the IMP to the satisfaction of the PI and the ADD Environmental Designee. Typical mitigation measures shall include but not be limited to: delineating resource boundaries on maintenance plans; implementing protective measures such as fencing, signage or capping; and selective monitoring during maintenance activities.

4.4.2.3. If impacts to significant historical resources cannot be avoided, the PI shall prepare an Archaeological Research Design and Data Recovery Program (ARDDRP) for the affected resources, with input from a Native American consultant, and the ARDDRP shall be approved by the ADD Environmental Designee. Based on the approved research design, a phased excavation program shall be conducted, which will include the participation of a Native American. The sample size to be excavated shall be determined by the PI, in consultation with City staff. The sample size shall vary with the nature and size of the archaeological site, but need not exceed 15 percent of the overall resource area. The area involved in the ARDDRP shall be surveyed, staked and flagged by the archaeological monitor, prior to commencing maintenance activities which could affect the identified resources.

4.4.2.4. A pre-maintenance meeting shall be held on-site prior to commencing any maintenance that may impact a significant historical resource. The meeting shall include representatives from the PI, the Native American consultant, SWD, MMC, Resident Engineer (RE), and MC. The PI shall

explain mitigation measures which must be implemented during maintenance. The PI shall also confirm that all protective measures (e.g. fencing, signage or capping) are in place.

4.4.2.5. If human remains are discovered in the course of conducting the ARDDRP, work shall be halted in that area and the following procedures set forth in the California Public Resources Code (PRC) (Sec. 5097.98) and State Health and Safety Code (Sec. 7050.5) will be taken:

- The PI shall notify the RE, and the MMC. The MMC will notify the appropriate Senior Planner in the Environmental Analysis Section (EAS).
- The PI shall notify the Medical Examiner, after consultation with the RE, either in person or via telephone.
- Work will be redirected away from the location of the discovery and any nearby area reasonably suspected to overlay adjacent human remains until a determination can be made by the Medical Examiner, in consultation with the PI, concerning the provenience of the remains.
- The Medical Examiner, in consultation with the PI, shall determine the need for a field examination to determine the provenience.
- If a field examination is not warranted, the Medical Examiner shall determine, with input from the PI, if the remains are or are most likely to be of Native American origin.
- If Human Remains are determined to be Native American, the Medical Examiner shall notify the Native American Heritage Commission (NAHC). The NAHC shall contact the PI within 24 hours after the Medical Examiner has completed coordination. The NAHC will identify the person or persons determined to be the Most Likely Descendent (MLD) and provide contact information. The PI will coordinate with the MLD for additional coordination. Disposition of Native American human remains will be determined between the MLD and the PI. If (1) the NAHC is unable to identify the MLD, or the MLD fails to make a recommendation within 24 hours after being notified by the Commission; or (2) the landowner or authorized representative rejects the recommendation of the MLD and mediation in accordance with PRC 5097.94 (k) by the NAHC fails to provide measures acceptable to the landowner, the landowner or their authorized representative shall re-inter the human remains and all associated grave goods with appropriate dignity, on the property in a location not subject to subsurface disturbance. Information on this process will be provided to the NAHC.
- If Human Remains are not Native American, the PI shall contact the Medical Examiner and notify them of the historic era context of the burial. The Medical Examiner shall determine the appropriate course of action with the PI and City staff (PRC 5097.98). If the remains are of historic origin, they shall be appropriately removed and conveyed to the Museum of Man for analysis. The decision for reinterment of the human remains shall be made in consultation with MMC, EAS, the landowner, and the Museum.

4.4.2.6. The PI shall be responsible for ensuring: (1) that all cultural materials collected are cleaned, catalogued and permanently curated with an appropriate institution; (2) that a letter of acceptance from the curation institution has been submitted to MMC; (3) that all artifacts are analyzed to identify function and chronology as they relate to the history of the area; (4) that faunal material is identified as to species; and (5) that specialty studies are completed, as appropriate. Curation of artifacts associated with the survey, testing and/or data recovery for this project shall be completed in consultation with LDR and the Native American representative, as applicable.

4.4.2.7. The Archaeologist shall be responsible for updating the appropriate State of California Department of Park and Recreation forms-DPR 523 A/B associated with the ARDDRP in accordance with the City's HRG, and submittal of such forms to the SCIC with the Final Results Report.

4.4.2.8. The PI shall prepare a Draft Results Report (even if negative) that describes the results, analysis and conclusions of the ARDDRP (with appropriate graphics). The MMC shall return the Draft Results Report to the PI for revision or for preparation of the Final Report. The PI shall submit the revised Draft Results Report to MMC for approval. The MMC shall provide written verification to the PI of the approved report. The MMC shall notify the RE of receipt of all Draft Result Report submittals and approvals. The MMC shall notify the RE of receipt of the Final Results Report.

Mitigation Measure 4.4.3: Prior to initiating any maintenance activity where the IHA identifies a moderate to high potential for the occurrence of significant historical resources within the APE, the following actions shall be taken:

4.4.3.1. Prior to Permit Issuance or Bid Opening/Bid Award

A. Entitlements Plan Check
   1. Prior to permit issuance or Bid Opening/Bid Award, whichever is applicable, the ADD Environmental Designee shall verify that the requirements for Archaeological Monitoring and Native American monitoring have been noted on the appropriate construction documents.

B. Letters of Qualification have been submitted to ADD
   1. Prior to Bid Award, the applicant shall submit a letter of verification to MMC identifying the PI for the project and the names of all persons involved in the archaeological monitoring program, as defined in the City of San Diego HRG. If applicable, individuals involved in the archaeological monitoring program must have completed the 40-hour HAZWOPER training with certification documentation.
   2. MMC will provide a letter to the applicant confirming the qualifications of the PI and all persons involved in the archaeological monitoring of the project.
   3. Prior to the start of work, the applicant must obtain approval from MMC for any personnel changes associated with the monitoring program.

4.4.3.2. Prior to Start of Construction

A. Verification of Records Search
   1. The PI shall provide verification to MMC that a site specific records search (1/4 mile radius) has been completed. Verification includes, but is not limited to a copy of a confirmation letter from SCIC, or, if the search was in-house, a letter of verification from the PI stating that the search was completed.
   2. The letter shall introduce any pertinent information concerning expectations and probabilities of discovery during trenching and/or grading activities.
   3. The PI may submit a detailed letter to MMC requesting a reduction to the ¼ mile radius.

B. PI Shall Attend Precon Meetings
   1. Prior to beginning any work that requires monitoring; the Applicant shall arrange a Precon Meeting that shall include the PI, Construction Manager (CM) and/or Grading Contractor, RE, Building Inspector (BI), if appropriate, and MMC. The qualified Archaeologist and Native American monitor shall attend any grading/excavation

related Precon Meetings to make comments and/or suggestions concerning the Archaeological Monitoring program with the Construction Manager and/or Grading Contractor.

a. If the PI is unable to attend the Precon Meeting, the Applicant shall schedule a focused Precon Meeting with MMC, the PI, RE, CM or BI, if appropriate, prior to the start of any work that requires monitoring.

2. Acknowledgement of Responsibility for Curation (Capital Improvement Projects or Other Public Projects)

a. The applicant shall submit a letter to MMC acknowledging their responsibility for the cost of curation associated with all phases of the archaeological monitoring program.

3. Identify Areas to be Monitored

a. Prior to the start of any work that requires monitoring, the PI shall submit an Archaeological Monitoring Exhibit (AME) based on the appropriate construction documents (reduced to 11"x17") to MMC for approval identifying the areas to be monitored including the delineation of grading/excavation limits.

b. The AME shall be based on the results of a site specific records search as well as information regarding the age of existing pipelines, laterals and associated appurtenances and/or any known soil conditions (native or formation).

c. MMC shall notify the PI that the AME has been approved.

4. When Monitoring Will Occur

a. Prior to the start of any work, the PI shall also submit a construction schedule to MMC through the RE indicating when and where monitoring will occur.

b. The PI may submit a detailed letter to MMC prior to the start of work or during construction requesting a modification to the monitoring program. This request shall be based on relevant information such as review of final construction documents which indicate conditions such as age of existing pipe to be replaced, depth of excavation and/or site graded to bedrock, etc., which may reduce or increase the potential for resources to be present.

5. Approval of AME and Construction Schedule

a. After approval of the AME by MMC, the PI shall submit to MMC written authorization of the AME and Construction Schedule from the CM.

4.4.3.3. During Construction

A. Monitor Shall be Present During Grading/Excavation/Trenching

1. The Archaeological monitor shall be present full-time during grading/excavation/ trenching activities including, but not limited to mainline, laterals, jacking and receiving pits, services and all other appurtenances associated with underground utilities as identified on the AME and as authorized by the CM. The Native American monitor shall determine the extent of their presence during construction related activities based on the AME and provide that information to the PI and MMC. **The Construction Manager is responsible for notifying the RE, PI, and MMC of changes to any construction activities such as in the case of a potential safety concern within the area being monitored. In certain circumstances OSHA safety requirements may necessitate modification of the PME.**

2. The monitor shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR's shall be faxed by the CM to the RE the first day of monitoring, the last

day of monitoring, monthly (**Notification of Monitoring Completion**), and in the case of ANY discoveries. The RE shall forward copies to MMC.

3. The PI may submit a detailed letter to the MMC during construction requesting a modification to the monitoring program when a field condition such as modern disturbance post-dating the previous trenching activities, presence of fossil formations, or when native soils are encountered may reduce or increase the potential for resources to be present.

B. Discovery Notification Process

1. In the event of a discovery, the Archaeological Monitor shall direct the contractor to temporarily divert trenching activities in the area of discovery and immediately notify the RE or BI, as appropriate.
2. The Monitor shall immediately notify the PI (unless Monitor is the PI) of the discovery.
3. The PI shall immediately notify MMC by phone of the discovery, and shall also submit written documentation to MMC within 24 hours by fax or email with photos of the resource in context, if possible.

C. Determination of Significance

1. The PI and Native American monitor shall evaluate the significance of the resource. If Human Remains are involved, follow protocol in Section 4.4.2.4 below.
   a. The PI shall immediately notify MMC by phone to discuss significance determination and shall also submit a letter to MMC indicating whether additional mitigation is required.
   b. If the resource is significant, the PI shall submit an Archaeological Data Recovery Program (ADRP) and obtain written approval of the program from MMC, CM and RE. ADRP and any mitigation must be approved by MMC, RE and/or CM before ground disturbing activities in the area of discovery will be allowed to resume.
      (1) Note: For pipeline trenching projects only, the PI shall implement the Discovery Process for Pipeline Trenching projects identified below under "D."
   c. If resource is not significant, the PI shall submit a letter to MMC indicating that artifacts will be collected, curated, and documented in the Final Monitoring Report. The letter shall also indicate that that no further work is required.
      (1) Note: For Pipeline Trenching Projects Only. If the deposit is limited in size, both in length and depth; the information value is limited and is not associated with any other resource; and there are no unique features/artifacts associated with the deposit, the discovery should be considered not significant.
      (2) Note: for Pipeline Trenching Projects Only: If significance cannot be determined, the Final Monitoring Report and Site Record (DPR Form 523A/B) shall identify the discovery as Potentially Significant.

D. Discovery Process for Significant Resources - Pipeline Trenching Projects

The following procedure constitutes adequate mitigation of a significant discovery encountered during pipeline trenching activities including but not limited to excavation for jacking pits, receiving pits, laterals, and manholes to reduce impacts to below a level of significance:

1. Procedures for documentation, curation and reporting
   a. One hundred percent of the artifacts within the trench alignment and width shall be documented in-situ, to include photographic records, plan view of the trench and profiles of side walls, recovered, photographed after cleaning and analyzed and curated. The remainder of the deposit within the limits of excavation (trench walls) shall be left intact.
   b. The PI shall prepare a Draft Monitoring Report and submit to MMC via the RE as indicated in Section VI-A.
   c. The PI shall be responsible for recording (on the appropriate State of California Department of Park and Recreation forms-DPR 523 A/B) the resource(s) encountered during the Archaeological Monitoring Program in accordance with the City's HRG. The DPR forms shall be submitted to the SCIC for either a Primary Record or SDI Number and included in the Final Monitoring Report.
   d. The Final Monitoring Report shall include a recommendation for monitoring of any future work in the vicinity of the resource.

4.4.3.4. **Discovery of Human Remains**

If human remains are discovered, work shall halt in that area and the following procedures as set forth in the California PRC (Sec. 5097.98) and State Health and Safety Code (Sec. 7050.5) shall be undertaken:

A. Notification
   1. Archaeological Monitor shall notify the RE or BI as appropriate, MMC, and the PI, if the Monitor is not qualified as a PI. MMC will notify the appropriate Senior Planner in the EAS.
   2. The PI shall notify the Medical Examiner after consultation with the RE, either in person or via telephone.

B. Isolate discovery site
   1. Work shall be directed away from the location of the discovery and any nearby area reasonably suspected to overlay adjacent human remains until a determination can be made by the Medical Examiner in consultation with the PI concerning the provenience of the remains.
   2. The Medical Examiner, in consultation with the PI, will determine the need for a field examination to determine the provenience.
   3. If a field examination is not warranted, the Medical Examiner will determine with input from the PI, if the remains are or are most likely to be of Native American origin.

C. If Human Remains **ARE** determined to be Native American
   1. The Medical Examiner will notify the NAHC within 24 hours. By law, **ONLY** the Medical Examiner can make this call.
   2. NAHC will immediately identify the person or persons determined to be the MLD and provide contact information.
   3. The MLD will contact the PI within 24 hours or sooner after the Medical Examiner has completed coordination, to begin the consultation process in accordance with the California PRC and Health and Safety Codes.
   4. The MLD will have 48 hours to make recommendations to the property owner or representative, for the treatment or disposition with proper dignity, of the human remains and associated grave goods.
   5. Disposition of Native American Human Remains shall be determined between the

MLD and the PI, IF:

a. The NAHC is unable to identify the MLD, OR the MLD failed to make a recommendation within 48 hours after being notified by the Commission; OR;
b. The landowner or authorized representative rejects the recommendation of the MLD and mediation in accordance with PRC 5097.94 (k) by the NAHC fails to provide measures acceptable to the landowner.
c. To protect these sites, the landowner shall do one or more of the following:
   (1) Record the site with the NAHC;
   (2) Record an open space or conservation easement; or
   (3) Record a document with the County.
d. Upon the discovery of multiple Native American human remains during a ground disturbing land development activity, the landowner may agree that additional conferral with descendants is necessary to consider culturally appropriate treatment of multiple Native American human remains. Culturally appropriate treatment of such a discovery may be ascertained from review of the site utilizing cultural and archaeological standards. Where the parties are unable to agree on the appropriate treatment measures the human remains and buried with Native American human remains shall be reinterred with appropriate dignity, pursuant to Section 5.c., above.

D. If Human Remains are **NOT** Native American
   1. The PI shall contact the Medical Examiner and notify them of the historic era context of the burial.
   2. The Medical Examiner will determine the appropriate course of action with the PI and City staff (PRC 5097.98).
   3. If the remains are of historic origin, they shall be appropriately removed and conveyed to the Museum of Man for analysis. The decision for interment of the human remains shall be made in consultation with MMC, EAS, the applicant department and/or Real Estate Assets Department (READ) and the Museum of Man.

4.4.3.5. Night and/or Weekend Work

A. If night and/or weekend work is included in the contract
   1. When night and/or weekend work is included in the contract package, the extent and timing shall be presented and discussed at the Precon Meeting.
   2. The following procedures shall be followed.
      a. No Discoveries
         In the event that no discoveries were encountered during night and/or weekend work, the PI shall record the information on the CSVR and submit to MMC via fax by 8AM of the next business day.
      b. Discoveries
         All discoveries shall be processed and documented using the existing procedures detailed in Sections 4.4.2.3 – During Construction, and 4.4.2.4 – Discovery of Human Remains.
      c. Potentially Significant Discoveries
         If the PI determines that a potentially significant discovery has been made, the procedures detailed under Section 4.4.2.3 – During Construction shall be followed.
      d. The PI shall immediately contact the RE and MMC, or by 8AM of the next business day to report and discuss the findings as indicated in Section 4.4.2.3-B,

unless other specific arrangements have been made.

B. If night and/or weekend work becomes necessary during the course of construction
   1. The Construction Manager shall notify the RE or BI, as appropriate, a minimum of 24 hours before the work is to begin.
   2. The RE or BI, as appropriate, shall notify MMC immediately.

C. All other procedures described above shall apply, as appropriate.

4.4.3.6. **Post Construction**

A. Submittal of Draft Monitoring Report
   1. The PI shall submit two copies of the Draft Monitoring Report (even if negative), prepared in accordance with the HRG (Appendix D) which describes the results, analysis, and conclusions of all phases of the Archaeological Monitoring Program (with appropriate graphics) to MMC via the RE for review and approval within 90 days following the completion of monitoring.
      a. For significant archaeological resources encountered during monitoring, the basis for determining archaeological significance and ADRP or Pipeline Trenching Discovery Process shall be included in the Draft Monitoring Report.
      b. Recording Sites with State of California Department of Parks and Recreation
         The PI shall be responsible for recording (on the appropriate State of California Department of Park and Recreation forms-DPR 523 A/B) any significant or potentially significant resources encountered during the Archaeological Monitoring Program in accordance with the City's HRG, and submittal of such forms to the SCIC with the Final Monitoring Report.
   2. MMC shall return the Draft Monitoring Report to the PI via the RE for revision or, for preparation of the Final Report.
   3. The PI shall submit revised Draft Monitoring Report to MMC via the RE for approval.
   4. MMC shall provide written verification to the PI of the approved report.
   5. MMC shall notify the RE or BI, as appropriate, of receipt of all Draft Monitoring Report submittals and approvals.

B. Handling of Artifacts
   1. The PI shall be responsible for ensuring that all cultural remains collected are cleaned and catalogued
   2. The PI shall be responsible for ensuring that all artifacts are analyzed to identify function and chronology as they relate to the history of the area; that faunal material is identified as to species; and that specialty studies are completed, as appropriate.

C. Curation of artifacts: Accession Agreement and Acceptance Verification
   1. The PI shall be responsible for ensuring that all artifacts associated with the survey, testing and/or data recovery for this project are permanently curated with an appropriate institution. This shall be completed in consultation with MMC and the Native American representative, as applicable.
   2. The PI shall submit the Accession Agreement and catalogue record(s) to the RE or BI, as appropriate for donor signature with a copy submitted to MMC.
   3. The RE or BI, as appropriate shall obtain signature on the Accession Agreement and shall return to PI with copy submitted to MMC.
   4. The PI shall include the Acceptance Verification from the curation institution in the Final Monitoring Report submitted to the RE or BI and MMC.

D. Final Monitoring Report(s)
   1. The PI shall submit one copy of the approved Final Monitoring Report to the RE or BI as appropriate, and one copy to MMC (even if negative), within 90 days after notification from MMC of the approved report.
   2. The RE shall, in no case, issue the Notice of Completion until receiving a copy of the approved Final Monitoring Report from MMC which includes the Acceptance Verification from the curation institution.

Land Use

Mitigation Measure 4.1.1: Prior to the commencing maintenance on any storm water facility within, or immediately adjacent to, a MHPA, the ADD Environmental Designee shall verify that all MHPA boundaries and limits of work have been delineated on all maintenance documents.

Mitigation Measure 4.1.2: A qualified biologist (possessing a valid Endangered Species Act Section 10(a)(1)(a) recovery permit) shall survey those habitat areas inside and outside the MHPA suspected to serve as habitat (based on historical records or site conditions) for the coastal California gnatcatcher, least Bell's vireo and/or other listed species. Surveys for the appropriate species shall be conducted pursuant to the protocol survey guidelines established by the USFWS. (Appendix C.1 MM 7.2.3a) When other sensitive species, including, but not limited to, the arroyo toad, burrowing owl, or Quino checkerspot butterfly are known or suspected to be present all appropriate protocol surveys and mitigation measures identified in Section 4.3, Biological Resources, of the PEIR required shall be implemented.

Mitigation Measure 4.1.3: If a listed species is located within 500 feet of a proposed maintenance activity and maintenance would occur during the associated breeding season, an analysis of the noise generated by maintenance activities shall be completed by a qualified acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the ADD. The analysis shall identify the location of the 60 dB(A) L_{eq} noise contour on the maintenance plan. The report shall also identify measures to be undertaken during maintenance to reduce noise levels.

Mitigation Measure 4.1.4: Based on the location of the 60 dB(A) L_{eq} noise contour and the results of the protocol surveys, the Project Biologist shall determine if maintenance has the potential to impact breeding activities of listed species. If one or more of the following species are determined to significantly impacted by maintenance, then maintenance (inside and outside the MHPA) shall, whenever possible, be restricted during the breeding season as follows:

- Coastal California gnatcatcher (between March 1 and August 15 inside the MHPA only; no restrictions outside MHPA);
- Least Bell's vireo (between March 15 and September 15); and
- Southwestern willow flycatcher (between May 1 and September 1).

Mitigation Measure 4.1.5: If maintenance cannot be avoided during an identified breeding season for a listed bird which is determined to be potentially significantly affected by maintenance, then the following conditions must be met:

- At least two weeks prior to the commencement of maintenance activities, under the direction of a qualified acoustician, noise attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from maintenance activities shall not exceed 60 dB(A) hourly average at the edge of occupied habitat. Concurrent with the commencement of maintenance activities and the maintenance of necessary noise attenuation facilities, noise monitoring shall be conducted at the edge of the occupied habitat area to ensure that noise levels do not exceed 60 dB(a) hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the qualified acoustician or biologist, then the associated maintenance activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season of the subject species, as noted above.

- Maintenance noise shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the maintenance activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dB(A) hourly average. If not, other measures shall be implemented in consultation with the biologist and the ADD, as necessary, to reduce noise levels to below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. Such measures may include, but are not limited to, limitations on the placement of maintenance equipment and the simultaneous use of equipment.

- Prior to the commencement of maintenance activities that would disturb sensitive resources during the breeding season, the biologist shall insure that all fencing, staking and flagging identified as necessary on the ground have been installed properly in the areas restricted from such activities.

- If noise attenuation walls or other devices are required to assure protection to identified wildlife, then the biologist shall make sure such devices have been properly constructed, located and installed.

***Mitigation Measure** 4.1.6*: A pre-maintenance meeting shall be held with the Maintenance Contractor, City representative and the Project Biologist. The Project Biologist shall discuss the sensitive nature of the adjacent habitat with the crew and subcontractor. Prior to the pre-maintenance meeting, the following shall be completed:

- The SWD shall provide a letter of verification to the Mitigation Monitoring Coordination Section stating that a qualified biologist, as defined in the City of San Diego Biological Resources Guidelines, has been retained to implement the projects MSCP monitoring Program. The letter shall include the names and contact information of all persons involved in the Biological Monitoring of the project. At least thirty days prior to the pre-maintenance meeting, the qualified biologist shall submit all required documentation to MMC, verifying that any special reports, maps, plans and time lines, such as but not limited to, revegetation plans, plant relocation requirements and timing, MSCP requirements, avian or other wildlife protocol surveys, impact avoidance areas or other such information has been completed and updated.

- The limits of work shall be clearly delineated. The limits of work, as shown on the approved maintenance plan, shall be defined with orange maintenance fencing and checked by the biological monitor before initiation of maintenance. All native plants or species of special concern, as identified in the biological assessment, shall be staked, flagged and avoided within Brush Management Zone 2, if applicable.

Mitigation Measure 4.1.7: Maintenance plans shall be designed to accomplish the following.

- Invasive non-native plant species shall not be introduced into areas adjacent to the MHPA. Landscape plans shall contain non-invasive native species adjacent to sensitive biological areas, as shown on approved the maintenance plan.

- All lighting adjacent to, or within, the MHPA shall be shielded, unidirectional, low pressure sodium illumination (or similar) and directed away from sensitive areas using appropriate placement and shields. If lighting is required for nighttime maintenance, it shall be directed away from the preserve and the tops of adjacent trees with potentially nesting raptors, using appropriate placement and shielding.

- All maintenance activities (including staging areas and/or storage areas) shall be restricted to the disturbance areas shown on the approved maintenance plan. The project biologist shall monitor maintenance activities, as needed, to ensure that maintenance activities do not encroach into biologically sensitive areas beyond the limits of work as shown on the approved maintenance plan.

- No trash, oil, parking or other maintenance-related activities shall be allowed outside the established maintenance areas including staging areas and/or storage areas, as shown on the approved maintenance plan. All maintenance related debris shall be removed off-site to an approved disposal facility.

Mitigation Measure 4.1.8: Prior to commencing any maintenance in, or within 500 feet of any area determined to support coastal California gnatcatchers, the ADD Environmental Designee shall verify that the MHPA boundaries and the following project requirements regarding the coastal California gnatcatcher are shown on the maintenance plans:

NO MAINTENANCE ACTIVITIES SHALL OCCUR BETWEEN MARCH 1 AND AUGUST 15, THE BREEDING SEASON OF THE COASTAL CALIFORNIA GNATCATCHER, UNTIL THE FOLLOWING REQUIREMENTS HAVE BEEN MET TO THE SATISFACTION OF THE CITY MANAGER:

a. A QUALIFIED BIOLOGIST (POSSESSING A VALID ENDANGERED SPECIES ACT SECTION 10(a)(1)(A) RECOVERY PERMIT) SHALL SURVEY THOSE HABITAT AREAS <u>WITHIN THE MHPA</u> THAT WOULD BE SUBJECT TO MAINTENANCE NOISE LEVELS EXCEEDING 60 DECIBELS [dB(A)] HOURLY AVERAGE FOR THE PRESENCE OF THE COASTAL CALIFORNIA GNATCATCHER. SURVEYS FOR THE COASTAL CALIFORNIA GNATCATCHER SHALL BE CONDUCTED PURSUANT TO THE PROTOCOL SURVEY GUIDELINES ESTABLISHED BY THE U.S. FISH AND WILDLIFE SERVICE WITHIN THE BREEDING SEASON PRIOR

TO THE COMMENCEMENT OF ANY MAINTENANCE. IF GNATCATCHERS ARE PRESENT, THEN THE FOLLOWING CONDITIONS MUST BE MET:

1. BETWEEN MARCH 1 AND AUGUST 15, MAINTENANCE OF OCCUPIED GNATCATCHER HABITAT SHALL BE PERMITTED. AREAS RESTRICTED FROM SUCH ACTIVITIES SHALL BE STAKED OR FENCED UNDER THE SUPERVISION OF A QUALIFIED BIOLOGIST; AND

2. BETWEEN MARCH 1 AND AUGUST 15, NO MAINTENANCE ACTIVITIES SHALL OCCUR WITHIN ANY PORTION OF THE SITE WHERE MAINTENANCE ACTIVITIES WOULD RESULT IN NOISE LEVELS EXCEEDING 60 dB(A) HOURLY AVERAGE AT THE EDGE OF OCCUPIED GNATCATCHER HABITAT. AN ANALYSIS SHOWING THAT NOISE GENERATED BY MAINTENANCE ACTIVITIES WOULD NOT EXCEED 60 dB(A) HOURLY AVERAGE AT THE EDGE OF OCCUPIED HABITAT MUST BE COMPLETED BY A QUALIFIED ACOUSTICIAN (POSSESSING CURRENT NOISE ENGINEER LICENSE OR REGISTRATION WITH MONITORING NOISE LEVEL EXPERIENCE WITH LISTED ANIMAL SPECIES) AND APPROVED BY THE CITY MANAGER AT LEAST TWO WEEKS PRIOR TO THE COMMENCEMENT OF MAINTENANCE ACTIVITIES. PRIOR TO THE COMMENCEMENT OF MAINTENANCE ACTIVITIES DURING THE BREEDING SEASON, AREAS RESTRICTED FROM SUCH ACTIVITIES SHALL BE STAKED OR FENCED UNDER THE SUPERVISION OF A QUALIFIED BIOLOGIST; OR

3. AT LEAST TWO WEEKS PRIOR TO THE COMMENCEMENT OF MAINTENANCE ACTIVITIES, UNDER THE DIRECTION OF A QUALIFIED ACOUSTICIAN, NOISE ATTENUATION MEASURES (e.g., BERMS, WALLS) SHALL BE IMPLEMENTED TO ENSURE THAT NOISE LEVELS RESULTING FROM MAINTENANCE ACTIVITIES WILL NOT EXCEED 60 dB(A) HOURLY AVERAGE AT THE EDGE OF HABITAT OCCUPIED BY THE COASTAL CALIFORNIA GNATCATCHER. CONCURRENT WITH THE COMMENCEMENT OF MAINTENANCE ACTIVITIES AND THE CONSTRUCTION OF NECESSARY NOISE ATTENUATION FACILITIES, NOISE MONITORING* SHALL BE CONDUCTED AT THE EDGE OF THE OCCUPIED HABITAT AREA TO ENSURE THAT NOISE LEVELS DO NOT EXCEED 60 dB(A) HOURLY AVERAGE. IF THE NOISE ATTENUATION TECHNIQUES IMPLEMENTED ARE DETERMINED TO BE INADEQUATE BY THE QUALIFIED ACOUSTICIAN OR BIOLOGIST, THEN THE ASSOCIATED MAINTENANCE ACTIVITIES SHALL CEASE UNTIL SUCH TIME THAT ADEQUATE NOISE ATTENUATION IS ACHIEVED OR UNTIL THE END OF THE BREEDING SEASON (AUGUST 16).

* Maintenance noise shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the maintenance activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. If not, other measures shall be implemented in consultation with the biologist and the City Manager, as necessary, to reduce noise levels to below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. Such measures may include, but are not limited to, limitations on the placement of maintenance equipment and the simultaneous use of equipment.

b. IF COASTAL CALIFORNIA GNATCATCHERS ARE NOT DETECTED DURING THE PROTOCOL SURVEY, THE QUALIFIED BIOLOGIST SHALL SUBMIT SUBSTANTIAL EVIDENCE TO THE CITY MANAGER AND APPLICABLE RESOURCE AGENCIES WHICH DEMONSTRATES WHETHER OR NOT MITIGATION MEASURES SUCH AS NOISE WALLS ARE NECESSARY BETWEEN MARCH 1 AND AUGUST 15 AS FOLLOWS:

1. IF THIS EVIDENCE INDICATES THE POTENTIAL IS HIGH FOR COASTAL CALIFORNIA GNATCATCHER TO BE PRESENT BASED ON HISTORICAL RECORDS OR SITE CONDITIONS, THEN CONDITION A.III SHALL BE ADHERED TO AS SPECIFIED ABOVE.

2. IF THIS EVIDENCE CONCLUDES THAT NO IMPACTS TO THIS SPECIES ARE ANTICIPATED, NO MITIGATION MEASURES WOULD BE NECESSARY.

Paleontological Resources

Mitigation Measure 4.7.1: Prior to initiating any maintenance activity where the IHA identifies existing significant cultural resources within the APE, the following actions shall be taken.

4.7.1.1 **Prior to Permit Issuance or Bid Opening/Bid Award**

A. Entitlements Plan Check
   1. Prior to permit issuance or Bid Opening/Bid Award, whichever is applicable, the ADD Environmental designee shall verify that the requirements for Paleontological Monitoring have been noted on the appropriate construction documents.

B. Letters of Qualification have been submitted to ADD
   1. Prior to Bid Award, the applicant shall submit a letter of verification to MMC identifying the PI for the project and the names of all persons involved in the paleontological monitoring program, as defined in the City of San Diego Paleontology Guidelines.
   2. MMC will provide a letter to the applicant confirming the qualifications of the PI and all persons involved in the paleontological monitoring of the project.
   3. Prior to the start of work, the applicant shall obtain approval from MMC for any personnel changes associated with the monitoring program.

4.7.1.2 **Prior to Start of Construction**

A. Verification of Records Search
   1. The PI shall provide verification to MMC that a site specific records search has been completed. Verification includes, but is not limited to a copy of a confirmation letter from San Diego Natural History Museum, other institution or, if the search was in-house, a letter of verification from the PI stating that the search was completed.
   2. The letter shall introduce any pertinent information concerning expectations and probabilities of discovery during trenching and/or grading activities.

B. PI Shall Attend Precon Meetings
   1. Prior to beginning any work that requires monitoring, the Applicant shall arrange a Precon Meeting that shall include the PI, CM and/or Grading Contractor, RE, BI, if

appropriate, and MMC. The qualified paleontologist shall attend any grading/excavation related Precon Meetings to make comments and/or suggestions concerning the Paleontological Monitoring program with the Construction Manager and/or Grading Contractor.

a. If the PI is unable to attend the Precon Meeting, the Applicant shall schedule a focused Precon Meeting with MMC, the PI, RE, CM or BI, if appropriate, prior to the start of any work that requires monitoring.

2. Acknowledgement of Responsibility for Curation (Capital Improvement Projects or Other Public Projects)
   The applicant shall submit a letter to MMC acknowledging their responsibility for the cost of curation associated with all phases of the paleontological monitoring program.
3. Identify Areas to be Monitored
   a. Prior to the start of any work that requires monitoring, the PI shall submit a Paleontological Monitoring Exhibit (PME) based on the appropriate construction documents (reduced to 11" x 17") to MMC for approval identifying the areas to be monitored including the delineation of grading/excavation limits. Monitoring shall begin at depths below 10 feet from existing grade or as determined by the PI in consultation with MMC. The determination shall be based on site specific records search data which supports monitoring at depths less than ten feet.
   b. The PME shall be based on the results of a site specific records search as well as information regarding existing known soil conditions (native or formation).
   c. MMC shall notify the PI that the PME has been approved.
4. When Monitoring Will Occur
   a. Prior to the start of any work, the PI shall also submit a construction schedule to MMC through the RE indicating when and where monitoring will occur.
   b. The PI may submit a detailed letter to MMC prior to the start of work or during construction requesting a modification to the monitoring program. This request shall be based on relevant information such as review of final construction documents which indicate conditions such as depth of excavation and/or site graded to bedrock, presence or absence of fossil resources, etc., which may reduce or increase the potential for resources to be present.
5. Approval of PME and Construction Schedule
   After approval of the PME by MMC, the PI shall submit to MMC written authorization of the PME and Construction Schedule from the CM.

4.7.1.3 During Construction

A. Monitor Shall be Present During Grading/Excavation/Trenching
   1. The monitor shall be present full-time during grading/excavation/trenching activities including, but not limited to mainline, laterals, jacking and receiving pits, services and all other appurtenances associated with underground utilities as identified on the PME and as authorized by the CM that could result in impacts to formations with high and/or moderate resource sensitivity at depths of 10 feet or greater and as authorized by the construction manager. **The Construction Manager is responsible for notifying the RE, PI, and MMC of changes to any construction activities such as in the case of a potential safety concern within the area being monitored. In certain circumstances OSHA safety requirements may necessitate modification of the PME.**
   2. The monitor shall document field activity via the CSVR. The CSVR's shall be faxed

by the CM to the RE the first day of monitoring, the last day of monitoring, monthly (**Notification of Monitoring Completion**), and in the case of ANY discoveries. The RE shall forward copies to MMC.

3. The PI may submit a detailed letter to the MMC during construction requesting a modification to the monitoring program when a field condition such as trenching activities that do not encounter formational soils as previously assumed, and/or when unique/unusual fossils are encountered, which may reduce or increase the potential for resources to be present.

B. Discovery Notification Process
   1. In the event of a discovery, the Paleontological Monitor shall direct the contractor to temporarily divert trenching activities in the area of discovery and immediately notify the RE or BI, as appropriate.
   2. The Monitor shall immediately notify the PI (unless Monitor is the PI) of the discovery.
   3. The PI shall immediately notify MMC by phone of the discovery, and shall also submit written documentation to MMC within 24 hours by fax or email with photos of the resource in context, if possible.

C. Determination of Significance
   1. The PI shall evaluate the significance of the resource.
      a. The PI shall immediately notify MMC by phone to discuss significance determination and shall also submit a letter to MMC indicating whether additional mitigation is required. The determination of significance for fossil discoveries shall be at the discretion of the PI.
      b. If the resource is significant, the PI shall submit a Paleontological Recovery Program (PRP) and obtain written approval of the program from MMC, MC and/or RE. PRP and any mitigation must be approved by MMC, RE and/or CM before ground disturbing activities in the area of discovery will be allowed to resume.
         (1) Note: For pipeline trenching projects only, the PI shall implement the Discovery Process for Pipeline Trenching projects identified below under "D."
      c. If resource is not significant (e.g., small pieces of broken common shell fragments or other scattered common fossils) the PI shall notify the RE, or BI as appropriate, that a non-significant discovery has been made. The Paleontologist shall continue to monitor the area without notification to MMC unless a significant resource is encountered.
      d. The PI shall submit a letter to MMC indicating that fossil resources will be collected, curated, and documented in the Final Monitoring Report. The letter shall also indicate that no further work is required.
         (1) Note: For Pipeline Trenching Projects Only. If the fossil discovery is limited in size, both in length and depth; the information value is limited and there are no unique fossil features associated with the discovery area, then the discovery should be considered not significant.
         (2) Note: for Pipeline Trenching Projects Only. If significance cannot be determined, the Final Monitoring Report and Site Record shall identify the discovery as Potentially Significant.

D. Discovery Process for Significant Resources - Pipeline Trenching Projects
   The following procedure constitutes adequate mitigation of a significant discovery encountered during pipeline trenching activities including but not limited to excavation

for jacking pits, receiving pits, laterals, and manholes to reduce impacts to below a level of significance.

1. Procedures for documentation, curation and reporting
   a. One hundred percent of the fossil resources within the trench alignment and width shall be documented in-situ photographically, drawn in plan view (trench and profiles of side walls), recovered from the trench and photographed after cleaning, then analyzed and curated consistent with Society of Invertebrate Paleontology Standards. The remainder of the deposit within the limits of excavation (trench walls) shall be left intact and so documented.
   b. The PI shall prepare a Draft Monitoring Report and submit to MMC via the RE as indicated in Section VI-A.
   c. The PI shall be responsible for recording (on the appropriate forms for the San Diego Natural History Museum) the resource(s) encountered during the Paleontological Monitoring Program in accordance with the City's Paleontological Guidelines. The forms shall be submitted to the San Diego Natural History Museum and included in the Final Monitoring Report.
   d. The Final Monitoring Report shall include a recommendation for monitoring of any future work in the vicinity of the resource.

4.7.1.4 **Night and/or Weekend Work**

A. If night and/or weekend work is included in the contract
   1. When night and/or weekend work is included in the contract package, the extent and timing shall be presented and discussed at the Precon Meeting.
   2. The following procedures shall be followed.
      a. No Discoveries
         In the event that no discoveries were encountered during night and/or weekend work, The PI shall record the information on the CSVR and submit to MMC via the RE via fax by 8AM on the next business day.
      b. Discoveries
         All discoveries shall be processed and documented using the existing procedures detailed in Sections III - During Construction.
      c. Potentially Significant Discoveries
         If the PI determines that a potentially significant discovery has been made, the procedures detailed under Section III - During Construction shall be followed.
      d. The PI shall immediately contact the RE and MMC, or by 8AM on the next business day to report and discuss the findings as indicated in Section III-B, unless other specific arrangements have been made.
B. If night and/or weekend work becomes necessary during the course of construction
   1. The Construction Manager shall notify the RE or BI, as appropriate, a minimum of 24 hours before the work is to begin.
   2. The RE or BI, as appropriate, shall notify MMC immediately.
C. All other procedures described above shall apply, as appropriate.

4.1.7.5 **Post Construction**

A. Preparation and Submittal of Draft Monitoring Report
   1. The PI shall submit two copies of the Draft Monitoring Report (even if negative), prepared in accordance with the Paleontological Guidelines which describes the results, analysis, and conclusions of all phases of the Paleontological Monitoring

Program (with appropriate graphics) to MMC via the RE for review and approval within 90 days following the completion of monitoring.

a. For significant paleontological resources encountered during monitoring, the Paleontological Recovery Program or Pipeline Trenching Discovery Process shall be included in the Draft Monitoring Report.
b. Recording Sites with the San Diego Natural History Museum
The PI shall be responsible for recording (on the appropriate forms) any significant or potentially significant fossil resources encountered during the Paleontological Monitoring Program in accordance with the City's Paleontological Guidelines, and submittal of such forms to the San Diego Natural History Museum with the Final Monitoring Report.

2. MMC shall return the Draft Monitoring Report to the PI via the RE for revision or, for preparation of the Final Report.
3. The PI shall submit revised Draft Monitoring Report to MMC via the RE for approval.
4. MMC shall provide written verification to the PI of the approved report.
5. MMC shall notify the RE or BI, as appropriate, of receipt of all Draft Monitoring Report submittals and approvals.

B. Handling of Fossil Remains
1. The PI shall be responsible for ensuring that all fossil remains collected are cleaned and catalogued.

C. Curation of artifacts – Deed of Gift and Acceptance Verification
1. The PI shall be responsible for ensuring that all fossil remains associated with the monitoring for this project are permanently curated with an appropriate institution.
2. The PI shall submit the Deed of Gift and catalogue record(s) to the RE or BI, as appropriate for donor signature with a copy submitted to MMC.
3. The RE or BI, as appropriate shall obtain signature on the Deed of Gift and shall return to PI with copy submitted to MMC.
4. The PI shall include the Acceptance Verification from the curation institution in the Final Monitoring Report submitted to the RE or BI and MMC.

D. Final Monitoring Report(s)
1. The PI shall submit two copies of the Final Monitoring Report to MMC (even if negative), within 90 days after notification from MMC of the approved report.
2. The RE shall, in no case, issue the Notice of Completion until receiving a copy of the approved Final Monitoring Report from MMC which includes the Acceptance Verification from the curation institution.

APPENDIX C

INDIVIDUAL BIOLOGICAL ASSESSMENT REPORT FORM

INDIVIDUAL BIOLOGICAL ASSESSMENT REPORT

Site Name/Facility: _____

PEIR Map No: _____

Date: _____

Biologist Name: _____

Instructions: This form must be completed for each facility following the completion of the Individual Maintenance Plan (IMP) report form and prior to any work being conducted in the facility. Attach additional sheets if needed.

Habitat description (vegetation communities present, including adjacent uplands; general habitat quality/level of disturbance):

Animal species observed/detected during the field visit, including habitat in which they were detected:

Amount of wetland vegetation to be removed (determine amount of impact in acres or square feet):

Riparian Forest or Riparian Woodland: _____

Riparian Scrub, including Southern Willow Scrub and Mule Fat Scrub: _____

Freshwater Marsh or Emergent Wetland: _____

Cismontane Alkali Marsh: _____

Coastal Salt Marsh or Coastal Brackish Marsh: _____

Giant Reed-dominated Disturbed Wetland: _____

Other Disturbed Wetland: _____

Streambed/Unvegetated Drainage: _____

Type/amount of upland vegetation to be removed/disturbed for facility access:

Sensitive Plant Species Observed: Yes ☐ No ☐ **If yes, what species were observed and where?**	**Sensitive Animal Species Observed/Detected:** Yes ☐ No ☐ **If yes, what species were observed/detected and where?**

Is there moderate or high potential for listed animal species to occur in or adjacent to the impact area:
Yes ☐ No ☐

If yes, which species (check all that apply):

_____ Least Bell's vireo
_____ Southwester willow flycatcher
_____ Arroyo toad
_____ Coastal California gnatcatcher
_____ San Diego fairy shrimp
_____ Riverside fairy shrimp
_____ California least tern
_____ Light-footed clapper rail
_____ Western snowy plover
_____ Other: _____

Could work be conducted during the avian breeding season (January 15 – August 31) without the need for pre-construction nesting surveys: Yes ☐ No ☐

If yes, provide justification:

Maintenance Protocols (list the applicable maintenance protocols based on the biological resources occurring or likely to occur on site):

Habitat Compensation Requirements (including wetland enhancement, restoration, creation, and/or purchase of wetland credits in a mitigation bank, or off-site upland habitat acquisition/payment into the City's habitat acquisition fund):

Additional Biologist Recommendations:

Additional Comment:

SITE PHOTOS

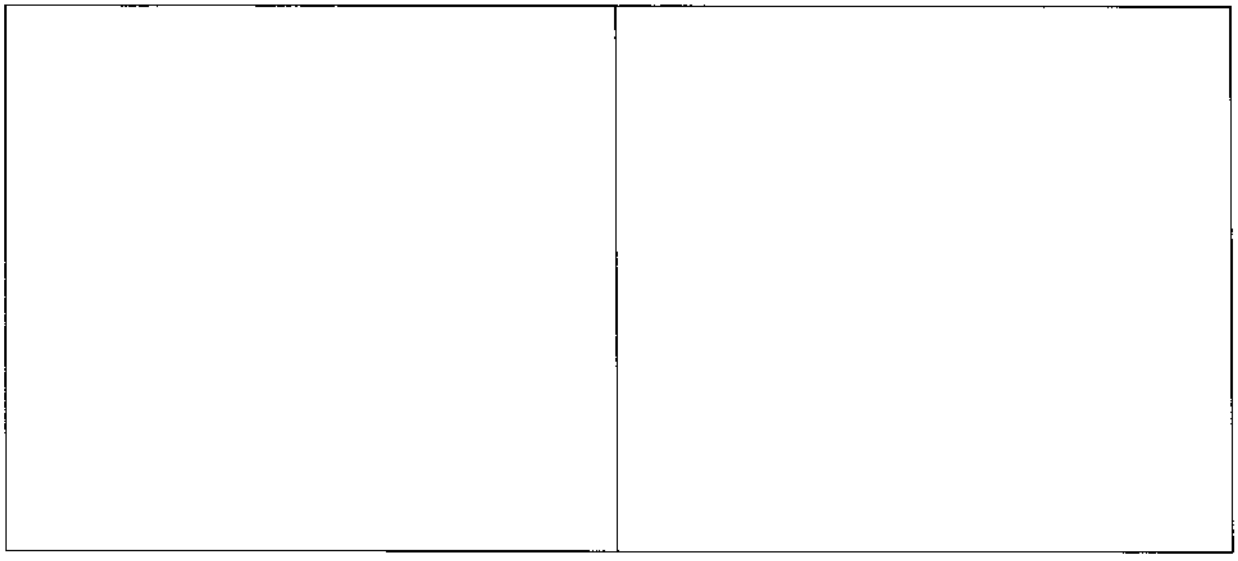


PHOTO NOTES:

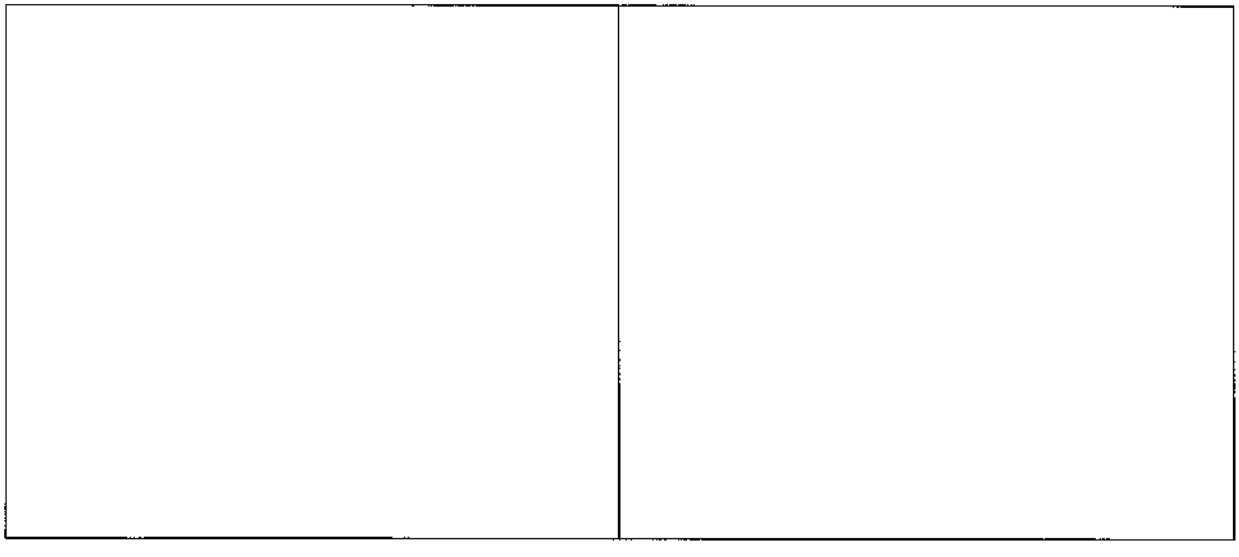


PHOTO NOTES:

APPENDIX D

INDIVIDUAL HISTORICAL ASSESSMENT REPORT FORM

INDIVIDUAL HISTORICAL ASSESSMENT REPORT

Site Name/Facility: _____

PEIR Map No: _____

Archaeologist Name: _____

Native American Monitor Name: _____

Instructions: This form must be completed for each facility identified in the Annual Maintenance Needs Assessment report and prior to any work on site. Attach additional sheets as needed.

Site Conditions:
Survey Methods and Date:
Record Search Results:
Archaeological Survey Results:

Is there a moderate or high potential for archaeological resources to occur in or adjacent to the impact area: Yes ☐ No ☐
Environmental Mitigation Requirements: **What, if any, PEIR mitigation measures are applicable?** **What, if any, other measures are required?**
Additional Comments or Recommendations:

APPENDIX E

INDIVIDUAL HYDROLOGIC AND HYDRAULIC ASSESSMENT REPORT FORM

INDIVIDUAL HYDROLOGIC & HYDRAULIC ASSESSMENT REPORT

Site Name/Facility: _____

PEIR Map No: _____

Civil Engineer (name, company phone number): _____

Register Civil Engineer Number & Expiration Date (place stamp here):

Instructions: This form must be completed for each facility prior to the completion of the Individual Maintenance Plan and prior to any work being conducted in the facility. Attach additional sheets if needed.

Description of creek/channel (limits of reach, surrounding land use and area, creek/channel geometry and vegetative condition):
Hydrologic information (source of hydrologic information, summary of flow rates and return frequencies):
Hydraulic analyses (description of hydraulic models created for project):
Current Vegetated Condition: Note: Attach Model Output & Workmap
Ultimate Vegetated Condition: Note: Attach Model Output & Workmap
Maintained Condition - No sediment removed: Note: Attach Model Output & Workmap
Maintained Condition - Sediment removed (if applicable): Note: Attach Model Output & Workmap

Hydraulics Results (Describe capacity of channel for each condition):

Note: Reference Profile

Ultimate Vegetated Condition:

Note: Reference Profile

Maintained Condition - No sediment removed:

Note: Reference Profile

Maintained Condition - Sediment removed (if applicable):

Note: Reference Profile

Are there areas of native vegetation identified in the IBA that can be retained during maintenance?
Yes ☐ No ☐
If so, identify location and any thinning or other modifications which must be made in the retained area.

Is a downstream check dam or comparably mechanism required pursuant to Water Quality Protocol # 24?
Yes ☐ No ☐
If not, explain why. If so, describe what mechanism should be included in the IMP?

Conclusion/Recommendations (Describe the limits of recommended maintenance, degree to which native vegetation within the facility can be retained, and capacity of maintained channel):

Additional Comments:

LIST OF ATTACHMENTS (Check All That Apply):

- ☐ Site Photos
- ☐ Hydraulic Profiles for Current Vegetated Condition Model
- ☐ Hydraulic Profiles for Ultimate Vegetated Condition Model
- ☐ Hydraulic Profiles for Maintained Condition Model (No Sediment Removed)
- ☐ Hydraulic Profiles for Maintained Condition Model (Sediment Removed)
- ☐ Hydraulic Workmap
- ☐ Detailed Hydraulic Results for Current Vegetated Condition Model
- ☐ Detailed Hydraulic Results for Ultimate Vegetated Condition Model
- ☐ Detailed Hydraulic Results for Maintained Condition Model (No Sediment Removed)
- ☐ Detailed Hydraulic Results for Maintained Condition Model (Sediment Removed)

SITE PHOTOS

Date of Site Visit:

See Hydraulic Workmap for picture locations and orientation.

1.	2.

3.	4.

Notes:

SITE PHOTOS

Date of Site Visit:

See Hydraulic Workmap for picture locations and orientation.

5.	6.

7.	8.

Notes:

SITE PHOTOS

Date of Site Visit:

See Hydraulic Workmap for picture locations and orientation.

5.	6.

7.	8.

Notes:

HYDRAULIC PROFILE FOR
CURRENT VEGETATED CONDITION MODEL

HYDRAULIC PROFILE FOR
ULTIMATE VEGETATED CONDITION MODEL

HYDRAULIC PROFILE FOR
MAINTAINED CONDITION MODEL (NO SEDIMENT REMOVED)

HYDRAULIC PROFILE FOR
MAINTAINED CONDITION MODEL (SEDIMENT REMOVED)

HYDRAULIC WORKMAP

DETAILED HYDRAULIC RESULTS FOR CURRENT VEGETATED CONDITION MODEL

DETAILED HYDRAULIC RESULTS FOR ULTIMATE VEGETATED CONDITION MODEL

DETAILED HYDRAULIC RESULTS FOR MAINTAINED CONDITION MODEL (NO SEDIMENT REMOVED)

DETAILED HYDRAULIC RESULTS FOR MAINTAINED CONDITION MODEL (SEDIMENT REMOVED)

APPENDIX F

INDIVIDUAL NOISE ASSESSMENT REPORT FORM

INDIVIDUAL NOISE ASSESSMENT REPORT

Site Name/Facility: _____

PEIR Map No: _____

Date: _____

Acoustician Name: _____

Instructions: This form must be completed for each facility when the IBA indicates that equipment noise could significantly impact a sensitive animal species. Attach additional sheets if needed.

Existing Ambient Noise Levels and Measurement Method(s):

Anticipated Maintenance Equipment Use and Estimated Noise Levels:

☐ Skidsteer(s)	_____ dBA L_{eq}	☐ Dump truck(s)	_____ dBA L_{eq}
☐ Backhoe(s)	_____ dBA L_{eq}	☐ Bulldozers(s)	_____ dBA L_{eq}
☐ Gradall(s)	_____ dBA L_{eq}	☐ _____	_____ dBA L_{eq}
☐ Excavator(s)	_____ dBA L_{eq}	☐ _____	_____ dBA L_{eq}
☐ Loader(s)	_____ dBA L_{eq}	☐ _____	_____ dBA L_{eq}

Distance of 60 dBA L_{eq} noise contour from maintenance activity (include figure(s) as applicable):

Is there moderate or high potential for listed animal species to occur within the 60 dBA L_{eq} impact area:
Yes ☐ No ☐

If yes, which species (check all that apply):

☐ Least Bell's vireo	☐ Cooper's hawk
☐ Southwester willow flycatcher	☐ Northern harrier
☐ Coastal California gnatcatcher	☐ Other nesting raptor

Maintenance Protocols (list the applicable maintenance protocols based on the biological resources occurring or likely to occur on site):

Recommended Noise Abatement Measures:

Additional Comments:

APPENDIX G

INDIVIDUAL MAINTENANCE PLAN REPORT FORM

MAINTENANCE ACTIVITY REPORT

Site Name/Facility: _____

PEIR Map No: _____

Date: _____

Preparer Name: _____

Instructions: This form must be completed following any work done at a storm water facility. Attach additional sheets if needed.

Description of Work (e.g., routine, re-occurring; also note general frequency maintenance at this site):	
Street Name: _____ **Latitude:** _____ **Longitude:** _____	**Work Orientation from Street (N, S, E, W):** **Location Between Street** _____ **and Street** _____
Maintenance Facility Type: ☐ Stream ☐ Roadside Ditch ☐ Spillway ☐ Culvert ☐ Detention Basin ☐ Other: _____	**Additional Description:**
Work within drainage/creek: Length:_____ (How many linear feet were cleared)	**Name of drainage/creek:** **Width (FT):** _____ **Area (SQ FT):**_____ **Depth (FT):** _____
Is the creek lined: Yes ☐ No ☐ **Notes:**	**Lining Type:** ☐ Concrete lined both sides, bottom ☐ Earthen, both sides, bottom ☐ Riprap sides, earth bottom ☐ Concrete sides, earth bottom ☐ Other type: _____
Silt/Sand Removal: Length:_____ (How many linear feet were cleared of silt/sand)	**Describe cause of silt/sand:**
Debris Removal: Length:_____ (How many linear feet were cleared of debris)	**Describe debris and cause:**
Were any toxic materials found: Yes ☐ No ☐ **List toxics:** **Hazardous Material Manifest:**	**Were more than 9 tires recovered?** Yes ☐ No ☐ **CTL Number:** _____
Access via previously disturbed area: Yes ☐ No ☐	**Access route:** **Maintenance Equipment Used:**
Vegetation Removal: Length:_____ (How many linear feet were cleared of vegetation)	**Types of Vegetation Removed:** (Indicate bush, trees, plants, grasses, list diameter of trunk at 4' height)

Ground Disturbing Activities: Length:_____ (How many linear feet were disturbed by activity)	**Upland Vegetation Removed - Types & Area:**
Were erosion controls necessary? Yes ☐ No ☐	**Describe interim erosion control measures:**
Did work occur within nesting breeding season (January 15 – August 31)?: Yes ☐ No ☐	**Biologist/Monitor/Archaeologist present:** Yes ☐ No ☐ **Names:**
Was any water quality sampling required?: Yes ☐ No ☐	
Additional Maintenance Description:	
Describe surrounding land use within work area (assume 500-foot buffer area):	
Identify temporary/permanent impacts to habitat by area (acres/square footage) as determined by Biologist:	
Additional Comments (Describe any unusual conditions, situations or special requirements needed to do the work such as diversion of water, construction of staging area, replacement of bank material, presence of utilities, etc.):	

SITE PHOTOS

Attach 1st of 2 pictures **BEFORE** work, include upstream and downstream views. **Note:** if resources at site are flagged or staked to limit impacts to sensitive areas, also include pictures showing the measures that were installed.	Attach 2nd of 2 pictures **BEFORE** work, include upstream and downstream views.

PHOTO NOTES:

Attach 1st of 2 pictures **AFTER** work, include upstream and downstream views.	Attach 2nd of 2 pictures **AFTER** work, include upstream and downstream views.

PHOTO NOTES:

APPENDIX H

EMERGENCY MAINTENANCE ASSESSMENT FORMS

MAINTENANCE ACTIVITY REPORT
Emergency Maintenance

Site Name/Facility: _____

PEIR Map No: _____

Date: _____

Preparer Name: _____

Instructions: This form must be completed whenever any work is done at a storm water facility. Attach additional sheets if needed.

Description of Work (e.g., routine, re-occurring; also note general frequency maintenance at this site):	
Street Name: _____ **Latitude:** _____ **Longitude:** _____	**Work Orientation from Street (N, S, E, W):** **Location Between Street** _____ **and Street** _____
Maintenance Facility Type: ☐ Stream ☐ Roadside Ditch ☐ Spillway ☐ Culvert ☐ Detention Basin ☐ Other:	**Additional Description:**
Work within drainage/creek: Length:_____ (How many linear feet were cleared)	**Name of drainage/creek:** **Width (FT):** _____ **Area (SQ FT):**_____ **Depth (FT):**_____
Is the creek lined: Yes ☐ No ☐ **Notes:**	**Lining Type:** ☐ Concrete lined both sides, bottom ☐ Earthen, both sides, bottom ☐ Riprap sides, earth bottom ☐ Concrete sides, earth bottom ☐ Other type:
Silt/Sand Removal: Length:_____ (How many linear feet were cleared of silt/sand)	**Describe cause of silt/sand:**
Debris Removal: Length:_____ (How many linear feet were cleared of debris)	**Describe debris and cause:**
Were any toxic materials found: Yes ☐ No ☐ **List toxics:** **Hazardous Material Manifest:**	**Were more than 9 tires recovered?** Yes ☐ No ☐ **CTL Number:** _____
Access via previously disturbed area: Yes ☐ No ☐	**Access route:** **Maintenance Equipment Used:**
Vegetation Removal: Length:_____ (How many linear feet were cleared of vegetation)	**Types of Vegetation Removed:** (Indicate bush, trees, plants, grasses, list diameter of trunk at 4' height)

Ground Disturbing Activities: Length:_____ (How many linear feet were disturbed by activity)	**Upland Vegetation Removed - Types & Area:**
Were erosion controls necessary? Yes ☐ No ☐	**Describe interim erosion control measures:**
Did work occur within nesting breeding season (January 15 – August 31)?: Yes ☐ No ☐	**Biologist/Monitor/Archaeologist present:** Yes ☐ No ☐ **Names:**
Was any water quality sampling required?: Yes ☐ No ☐	
Additional Maintenance Description:	
Describe surrounding land use within work area (assume 500-foot buffer area):	
Identify temporary/permanent impacts to habitat by area (acres/square footage) as determined by Biologist:	
Additional Comments (Describe any unusual conditions, situations or special requirements needed to do the work such as diversion of water, construction of staging area, replacement of bank material, presence of utilities, etc.):	

SITE PHOTOS

Attach 1st of 2 pictures **BEFORE** work, include upstream and downstream views. **Note**: if resources at site are flagged or staked to limit impacts to sensitive areas, also include pictures showing the measures that were installed.	Attach 2nd of 2 pictures **BEFORE** work, include upstream and downstream views.

PHOTO NOTES:

Attach 1st of 2 pictures **AFTER** work, include upstream and downstream views.	Attach 2nd of 2 pictures **AFTER** work, include upstream and downstream views.

PHOTO NOTES:

INDIVIDUAL BIOLOGICAL ASSESSMENT REPORT

Emergency Maintenance

Site Name: _____

PEIR Map No.: _____

Date: _____

Biologist Name: _____ **Cell #:** _____

Instructions: This form must be completed for each storm water facility determined to require emergency maintenance. The existing conditions information shall be collected prior to commencing any maintenance activities on a facility. When not possible, the existing conditions shall be based on previous surveys or a review of aerial photographs prior to maintenance. The remaining sections shall be completed after the maintenance has occurred. Attach additional sheets as needed.

EXISTING CONDITIONS

Survey Conditions:

Date: _____

Day:	M	T	W	TH	F	SA	SU

Weather:	SUNNY	CLOUDY	OVERCAST	RAIN

Temperature: (degrees Fahrenheit)	< 55	55-70	70-85	> 85

Survey Methods:

Biological Resources:

Jurisdictional Areas:

U.S. Army Corps of Engineers

Wetland Waters of the U.S. (WUS):

Non-wetland WUS:

California Department of Fish and Game/City of San Diego

Wetlands:

Streambed/Unvegetated Waters:

Sensitive Plant Species Observed:	**Sensitive Animal Species Observed/Detected:**
Yes ☐ No ☐	Yes ☐ No ☐
If yes, what species were observed and where?	If yes, what species were observed/detected and where?

Is there moderate or high potential for listed animal species to occur in or adjacent to the impact area?
Yes ☐ No ☐

If yes, which species (check all that apply):

- ☐ Least Bell's vireo
- ☐ Southwester willow flycatcher
- ☐ Arroyo toad
- ☐ Coastal California gnatcatcher
- ☐ San Diego fairy shrimp
- ☐ Riverside fairy shrimp
- ☐ California least tern
- ☐ Light-footed clapper rail
- ☐ Western snowy plover
- ☐ Other: _____

MAINTENANCE IMPACTS

Maintenance Performed:

Vegetation Impacts:

Wetland

Upland

Jurisdictional Areas:

U.S. Army Corps of Engineers
Wetland Waters of the U.S. (WUS):
Non-wetland WUS:

California Department of Fish and Game/City of San Diego
Wetlands:
Streambed/Unvegetated Waters:

Were any listed animal species impacted? Yes ☐ No ☐

If yes, which species (check all that apply):

- ☐ Least Bell's vireo
- ☐ Southwester willow flycatcher
- ☐ Arroyo toad
- ☐ Coastal California gnatcatcher
- ☐ San Diego fairy shrimp
- ☐ Riverside fairy shrimp
- ☐ California least tern
- ☐ Light-footed clapper rail
- ☐ Western snowy plover
- ☐ Other: _____

Estimated Total Acreage of Impacts:

Access:

Maintenance Area:

Other:

MITIGATION REQUIREMENTS

Mitigation Description/Location:

ADDITIONAL COMMENTS OR RECOMMENDATIONS

INDIVIDUAL HISTORICAL ASSESSMENT REPORT

Emergency Maintenance

Site Name/Facility: _____

PEIR Map No.: _____

Date: _____

Historical Specialist Name: _____

Native American Monitor Name: _____

Instructions: This form must be completed for each storm water facility determined to require emergency maintenance. Whenever possible, the existing conditions information shall be collected prior to commencing any maintenance activities on a facility. When not possible, the existing conditions shall be based on previous surveys or a review of aerial photographs prior to maintenance. The remaining sections shall be completed after the maintenance has occurred. Attach additional sheets as needed.

Site Conditions:
Survey Methods and Date:
Record Search Results:

Archaeological Survey Results:
Is there a moderate or high potential for archaeological resources to occur in or adjacent to the impact area: Yes ☐ No ☐
Additional Comments or Recommendations:

APPENDIX I

CONSISTENCY DETERMINATION CHECKLIST

PTS#_____

CONSISTENCY DETERMINATION CHECKLIST

MASTER STORM WATER SYSTEM MAINTENANCE PROGRAM

Purpose: This Consistency Determination Checklist is intended to be used by Development Services Staff as an aid in reviewing storm water system maintenance projects for consistency with the Master Site Development Permit based on conformance with the Mitigation, Monitoring and Reporting Program (MMRP); the Maintenance Protocols contained in the Master Program; and the Master Site Development Permit Conditions.

Date: _____

Name of Preparer: _____

Phone Number: _____

Email: _____

ACTIVITY INFORMATION

PEIR Map No(s): _____

City Equipment No(s): _____

Creek Name: _____

Watershed(s): _____

Location: _____

_____

DOCUMENTS INCLUDED IN CONSISTENCY DETERMINATION PACKAGE

Included	NA	Document
☐	☐	Individual Maintenance Plan (IMP)
☐	☐	Individual Biological Assessment (IBA)
☐	☐	Individual Historical Assessment (IHA)
☐	☐	Individual Hydrologic and Hydraulic Assessment Analysis (IHHA)
☐	☐	Individual Noise Assessment (INA)
☐	☐	
☐	☐	
☐	☐	

PTS#_____

CONSISTENCY DETERMINATION CHECKLIST

MASTER STORM WATER SYSTEM MAINTENANCE PROGRAM

No.	Measure/Criteria	Y/N/NA	Basis for Determination (attach separate sheet(s) as necessary)
Master Program PEIR Mitigation, Monitoring, and Reporting Program			
General Mitigation			
1	Have mitigation measures for impacts to biological resources, historical resources, land use, and paleontological resources, as appropriate, been included in entirety on the submitted maintenance documents and contract specifications, under the heading, "Environmental Mitigation Requirements"? (General Mitigation Measure 1)		
2	Are the requirements for a Pre-maintenance Meeting noted on all maintenance documents? (General Mitigation Measure 1)		
3	Is a Pre-maintenance Meeting required, including, as appropriate, the Mitigation Monitoring Coordinator (MMC), Storm Water Department (SWD) Project Manager, Biological Monitor, Historical Monitor, Paleontological Monitor, and Maintenance Contractor (MC), and other parties of interest? (General Mitigation Measure 2)		
4	Is there documented evidence of compliance with other permitting authorities (e.g., copies of permits issued, letters of resolution issued by the Responsible Agency documenting compliance, or other evidence documenting compliance and deemed acceptable by the Assistant Deputy Director [ADD] Environmental Designee), as applicable? (General Mitigation Measure 3, Mitigation Measure 4.3.17)		

PTS#_____

CONSISTENCY DETERMINATION CHECKLIST

MASTER STORM WATER SYSTEM MAINTENANCE PROGRAM

No.	Measure/Criteria	Y/N/NA	Basis for Determination (attach separate sheet(s) as necessary)
General Mitigation (cont.)			
5	Is there documented evidence of compliance with Section 1602 of the State of California Fish & Game Code (e.g., copies of permits issued, letters of resolution issued by the Responsible Agency documenting compliance, or other evidence documenting compliance and deemed acceptable by the ADD Environmental Designee), as applicable? (General Mitigation Measure 4)		
Biological Resources			
6	Has an Individual Maintenance Plan been prepared for the maintenance activity, identifying the maintenance method(s) to be used, equipment type, appropriate best management practices (BMPs), proposed access, staging areas, spoils storage sites, schedule, and relevant maintenance protocols and specific mitigation measures? (Mitigation Measure 4.3.1)		
7	Has an Individual Biological Assessment been prepared by a qualified biologist for each proposed maintenance activity, including the required contents as described in Mitigation Measure 4.3.2?		
8	Have wetland mitigation plans and enhancement and/or restoration plans been prepared and submitted to the DSD pursuant to the requirements described in Mitigation Measure 4.3.3; consistent with Appendix H of the Biological Technical Report (BTR) contained in Appendix C.3 of the PEIR?		

PTS#_____

CONSISTENCY DETERMINATION CHECKLIST

MASTER STORM WATER SYSTEM MAINTENANCE PROGRAM

No.	Measure/Criteria	Y/N/NA	Basis for Determination (attach separate sheet(s) as necessary)
Biological Resources (cont.)			
9	If the maintenance activity would result in loss of habitat for the coastal California gnatcatcher, is mitigation planned as described in Mitigation Measure 4.3.4 (i.e., through the acquisition of suitable habitat or mitigation credits within the MHPA at a ratio of 1:1, to be accomplished within six months of the date of maintenance completion)?		
10	Would high frequency maintenance wetland impacts be compensated with "permanent" wetland mitigation (restoration and/or enhancement or mitigation credits) in accordance with the ratios and requirements identified in Mitigation Measure 4.3.5 and Table 4.3-10 of the MMRP for each maintenance activity?		
11	Would low frequency maintenance wetland impacts be compensated through an invasives removal program at the ratios identified in Table 4.3-10 and as described in Mitigation Measure 4.3.6 of the MMRP for each maintenance activity?		
12	Would upland impacts be compensated through payment into the City's Habitat Acquisition Fund or acquisition and preservation of land in accordance with the ratios and requirements identified in Mitigation Measure 4.3.7 and Table 4.3-11 of the MMRP for each maintenance activity?		
13	Have the IMP(s), IBA(s), proposed mitigation, and maintenance protocols for each of the annual maintenance activities been approved by the City's ADD Environmental Designee and state and federal agencies with jurisdiction over maintenance activities? (Mitigation Measure 4.3.8)		

PTS#_____

CONSISTENCY DETERMINATION CHECKLIST

MASTER STORM WATER SYSTEM MAINTENANCE PROGRAM

No.	Measure/Criteria	Y/N/NA	Basis for Determination (attach separate sheet(s) as necessary)
Biological Resources (cont.)			
14	Have the qualifications for biologist(s) who shall be responsible for monitoring maintenance activities which may impact sensitive biological resources been approved by the City's ADD Environmental Designee and MMC? (Mitigation Measure 4.3.9)		
15	Does project coordination and design include measures to minimize impacts to floodplains within the MHPA, to the greatest extent practicable? (Mitigation Measure 4.3.11)		
16	Would construction of temporary access and staging along channels be restricted to those areas where no such facilities currently exist and in the least sensitive habitat possible? (Mitigation Measure 4.3.13)		
17	If sensitive biological resources may be impacted, would the monitoring biologist be able to verify that the following actions have been taken: • Has fencing, flagging, signage, or other means to protect sensitive resources been implemented? • Are noise attenuation measures needed to protect sensitive wildlife in place and effective? • Have nesting raptors been identified and necessary maintenance setbacks have been established if maintenance is to occur between February 1 and August 1? (Mitigation Measure 4.3.15)		
18	Does the IMP include plans to monitor access roads and staging areas for presence of exotic species and remove exotic and non-native species as appropriate? (Mitigation Measure 4.3.18)		

PTS#_____

CONSISTENCY DETERMINATION CHECKLIST

MASTER STORM WATER SYSTEM MAINTENANCE PROGRAM

No.	Measure/Criteria	Y/N/NA	Basis for Determination (attach separate sheet(s) as necessary)
Biological Resources (cont.)			
19	Does the IMP ensure that physical erosion control measures such as fiber mulch, hay bales, etc. would not harbor seeds from invasive species? (Mitigation Measure 4.3.19)		
20	Have invasive plant species been removed prior to the beginning of proposed maintenance activities? (Mitigation Measure 4.3.20)		
21	Has a mitigation account been created to provide sufficient funds (determined by the ADD Environmental Designee) to implement all biological mitigation associated with the proposed maintenance activities? (Mitigation Measure 4.3.21)		
22	Does the IBA discuss actions indicated in Mitigation Measure 4.3.22 to offset impacts to listed or endemic sensitive plant species?		
23	Would maintenance activities meet setback requirements for sensitive species as identified in Mitigation Measure 4.3.23?		
24	Would clearing, grubbing, or grading (inside and outside the MHPA) be restricted during the breeding season of the listed species identified in Mitigation Measure 4.3.24?		
25	Has a qualified biologist submitted substantial evidence to the ADD and an applicable resource agency which demonstrates whether or not mitigation measures are necessary for subject species not detected during the protocol survey(s)? (Mitigation Measure 4.3.25)		
26	If the required surveys would not be performed, does the IMP stipulate that all necessary protection and mitigation measures for avian species would be performed as described in Mitigation Measure 4.3.27 of the MMRP? (Mitigation Measure 4.3.26)		

PTS#_____

CONSISTENCY DETERMINATION CHECKLIST

MASTER STORM WATER SYSTEM MAINTENANCE PROGRAM

No.	Measure/Criteria	Y/N/NA	Basis for Determination (attach separate sheet(s) as necessary)
Biological Resources (cont.)			
27	If no surveys would be completed and no sound attenuation devices would be installed, does the IMP stipulate that all maintenance activities adjacent to protected habitat would cease for the duration of the appropriate avian breeding season and a qualified biologist would establish a limit of work? (Mitigation Measure 4.3.27)		
28	If maintenance would occur during the raptor breeding season (January 15 to August 31), has a pre-maintenance survey for active raptor nests been planned and/or conducted in areas supporting suitable habitat? (Mitigation Measure 4.3.28)		
29	Would removal of any eucalyptus trees or other trees used by raptors for nesting be proposed within the maintenance area? If yes, would maintenance proceed as described in Mitigation Measure 4.3.29?		
30	Would maintenance activities occur at known localities for listed fish species? If yes, would maintenance proceed as described in Mitigation Measure 4.3.30?		
31	Would maintenance activities occur within areas supporting listed and/or narrow endemic plants? If yes, would maintenance proceed as described in Mitigation Measure 4.3.31?		
32	Would maintenance within or adjacent to avian nesting habitat occur outside the avian breeding season (January 15 to August 31), unless postponing maintenance would result in a threat to human life or property (Mitigation Measure 4.3.32)?		

PTS#_____

CONSISTENCY DETERMINATION CHECKLIST

MASTER STORM WATER SYSTEM MAINTENANCE PROGRAM

No.	Measure/Criteria	Y/N/NA	Basis for Determination (attach separate sheet(s) as necessary)
Historical Resources			
33	Has a qualified archaeologist determined the potential for significant historical resources to occur in the maintenance area? (Mitigation Measure 4.4.1)		
34	Has an Individual Historical Assessment (IHA) been prepared for the proposed maintenance, including the requirements detailed in Mitigation Measure 4.4.1?		
35	If required, has a field survey of the maintenance activity APE been performed by a qualified archaeologist and a Native American monitor? (Mitigation Measure 4.4.1)		
36	Has a record search been requested from the South Coastal Information Center (SCIC)? (Mitigation Measure 4.4.1)		
37	Has an archaeological testing program been performed based on the City's Historical Resources Guidelines? (Mitigation Measure 4.4.1)		
38	Have significant historical resources been identified within the proposed maintenance activity APE? If yes, address criteria numbers 36 through 42. If no, proceed to criteria number 43. (Mitigation Measures 4.4.1 and 4.4.2)		
39	Has a Principal Investigator (PI) been selected and approved by the SWD and ADD Environmental Designee? (Mitigation Measure 4.4.2.1)		
40	Have mitigation recommendations from the IHA been incorporated into the IMP to the satisfaction of the PI and the ADD Environmental Designee? (Mitigation Measure 4.4.2.2)		

PTS#_____

CONSISTENCY DETERMINATION CHECKLIST

MASTER STORM WATER SYSTEM MAINTENANCE PROGRAM

No.	Measure/Criteria	Y/N/NA	Basis for Determination (attach separate sheet(s) as necessary)
Historical Resources (cont.)			
41	If impacts to significant historical resources cannot be avoided, has the PI prepared and implemented an Archaeological Research Design and Data Recovery Program (ARDDRP) for the affected resources, with input from a Native American consultant (approved by the ADD Environmental Designee), as described in Mitigation Measure 4.4.2.3?		
42	Has a pre-maintenance meeting been planned and/or conducted on site, including representatives from the PI, Native American consultant, SWD, MMC, Resident Engineer (RE), and MC, per Mitigation Measure 4.4.2.4?		
43	If human remains have been discovered in the course of conducting the ARDDRP, would the procedures set forth in the California Public Resources Code (Sec. 5097.98) and State Health and Safety Code (Sec. 7050.5) as described in Mitigation Measure 4.4.2.5 be taken?		
44	Has the PI followed all responsibilities described in Mitigation Measures 4.4.2.6 and 4.4.2.8?		
45	Has the Archaeologist followed all responsibilities described in Mitigation Measure 4.4.2.6?		
46	Prior to permit issuance or bid opening/bid award for maintenance activities where the IHA identifies a moderate to high potential for the occurrence of significant historical resources within the APE, would the requirements described in Mitigation Measure 4.4.3.1 be followed?		

PTS#_____

CONSISTENCY DETERMINATION CHECKLIST

MASTER STORM WATER SYSTEM MAINTENANCE PROGRAM

No.	Measure/Criteria	Y/N/NA	Basis for Determination (attach separate sheet(s) as necessary)
Historical Resources (cont.)			
47	Prior to the start of maintenance activities where the IHA identifies a moderate to high potential for the occurrence of significant historical resources within the APE, would the requirements described in Mitigation Measure 4.4.3.2 be followed?		
48	During construction/maintenance activities where the IHA identifies a moderate to high potential for the occurrence of significant historical resources within the APE, would the requirements described in Mitigation Measure 4.4.3.3 be followed?		
49	If human remains are discovered within the APE of maintenance activities where the IHA identifies a moderate to high potential for the occurrence of significant historical resources, would the requirements described in Mitigation Measure 4.4.3.4 be followed?		
50	If night and/or weekend work is included in the IMP for maintenance activities where the IHA identifies a moderate to high potential for the occurrence of significant historical resources within the APE, would the requirements described in Mitigation Measure 4.4.3.4 be followed?		
Land Use			
51	Has the ADD Environmental Designee verified that all MHPA boundaries and limits of work have been delineated on all maintenance documents? (Mitigation Measure 4.1.1)		

PTS#_____

CONSISTENCY DETERMINATION CHECKLIST

MASTER STORM WATER SYSTEM MAINTENANCE PROGRAM

No.	Measure/Criteria	Y/N/NA	Basis for Determination (attach separate sheet(s) as necessary)
Land Use (cont.)			
52	Has a qualified biologist (possessing a valid Endangered Species Act Section 10(a)(1)(a) recovery permit) surveyed habitat areas inside and outside the MHPA suspected to serve as habitat for the coastal California gnatcatcher, least Bell's vireo and/or other listed species, based on the guidelines and conditions described in Mitigation Measure 4.1.2 (as necessary)?		
53	Has a qualified acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) performed a noise analysis for the proposed maintenance activity, based on the guidelines and conditions described in Mitigation Measure 4.1.3 (as necessary)?		
54	Would the proposed maintenance have the potential to impact breeding activities of listed species? If yes, would maintenance activities be restricted to the breeding season as described in Mitigation Measure 4.1.1?		
55	If maintenance cannot be avoided during an identified breeding season for a listed bird which is determined to be potentially significantly affected by maintenance, would the conditions identified in Mitigation Measure 4.1.5 be met?		
56	Has a pre-maintenance meeting been planned and/or conducted, including the MC, Project Biologist, and City representative, per Mitigation Measure 4.1.6?		
57	Does the IMP include maintenance designs as described in Mitigation Measure 4.1.7?		
58	Has the ADD Environmental Designee verified that the MHPA boundaries and the requirements regarding coastal California gnatcatcher been included in the IMP and/or IBA, per Mitigation Measure 4.1.8?		

PTS#_____

CONSISTENCY DETERMINATION CHECKLIST

MASTER STORM WATER SYSTEM MAINTENANCE PROGRAM

No.	Measure/Criteria	Y/N/NA	Basis for Determination (attach separate sheet(s) as necessary)
Master Program Protocols			
Water Quality			
59	Does the proposed maintenance minimize new ground disturbance to the maximum extent feasible (e.g., limiting grading to the minimum area required, restricting vehicle access and maneuvering to designated areas, etc.)? (Protocol #1)		
60	Has a "weather triggered" action plan been prepared for the proposed activities, as necessary? (Protocol #3)		
61	Have grading, earth disturbing and restoration activities been scheduled as far in advance of the start of the rainy season as feasible? (Protocol #4)		
62	Would access roads (or other graded areas) proposed to be permanently retained through the use of measures such as permeable protective surfacing (e.g., grasscrete), storm water diversion structures (e.g., brow ditches or berms), or crossing structures (e.g., culverts) be stabilized? (Protocol #5)		
63	Does the IMP include information regarding sediment controls to be used during maintenance within channels, access paths and staging areas to prevent off-site sediment transport? (Protocol #6)		
64	Does the IMP include measures regulating the storage of BMP materials on site? (Protocol #7)		
65	Has appropriate training been planned and/or provided for personnel who would be responsible for BMP installation and maintenance? (Protocol #8)		

PTS#_____

CONSISTENCY DETERMINATION CHECKLIST

MASTER STORM WATER SYSTEM MAINTENANCE PROGRAM

No.	Measure/Criteria	Y/N/NA	Basis for Determination (attach separate sheet(s) as necessary)
Water Quality(cont.)			
66	Does the IMP provide details regarding revegetation efforts to be implemented on all slopes, access paths, and staging areas using native or naturalized vegetation/ non-invasive plant material as soon as feasible during or after maintenance operations, as appropriate? (Protocol #9)		
67	Would erosion control measures be monitored during the rainy season to ensure their effectiveness? (Protocol #10)		
68	Does the IMP call for sampling and analysis, monitoring and reporting, and post-construction management programs be implemented per NPDES and/or City requirements? (Protocol #11)		
69	Does the IMP comply with local dust control requirements, including measures such as material stockpile and transport vehicle control (as noted above), regular watering or use of soil binders, and restriction of grading during high winds? (Protocol #12)		
70	Does the IMP include measures to minimize the amount of hazardous materials stored on-site, and restrict storage and use locations to areas at least 50 feet from storm drains and surface waters? (Protocol #13)		
71	Does the IMP call for storage of construction-related trash in areas at least 50 feet from storm drains and surface waters, and implementation of regular (at least weekly) removal of trash by a licensed operator for disposal at an approved site? (Protocol #14)		
72	Does the IPM call for storage facilities for hazardous materials and trash to be covered/enclosed, and maintenance of accurate and up-to-date written hazardous material inventories? (Protocol #15)		

PTS#_____

CONSISTENCY DETERMINATION CHECKLIST

MASTER STORM WATER SYSTEM MAINTENANCE PROGRAM

No.	Measure/Criteria	Y/N/NA	Basis for Determination (attach separate sheet(s) as necessary)
Water Quality(cont.)			
73	Does the IMP call for storage of hazardous materials off the ground surface (e.g., on pallets) and in their original containers, with the legibility of labels protected (including the replacement of damaged labels)? (Protocol #16)		
74	Does the IMP stipulate the use of berms, ditches and/or impervious liners (or other applicable methods) in material storage and vehicle/equipment maintenance and fueling areas to provide a containment volume of 1.5 times the volume of stored materials and prevent discharge in the event of a spill? (Protocol #17)		
75	Does the IMP call for the placement of warning and information signs in areas of hazardous material use or storage to identify the types of materials present, as well as applicable use restrictions and containment and clean-up procedures? (Protocol #18)		
76	Does the IMP call for storm drains (or other appropriate locations) to be marked to discourage inappropriate hazardous material or trash disposal? (Protocol #19)		
77	Does the IMP call for the storage of readily accessible absorbent and clean-up materials in applicable locations such as hazardous material storage and vehicle and equipment maintenance areas? (Protocol #21)		
78	Does the IMP stipulate that regulatory agency telephone numbers and a summary guide of clean-up procedures must be posted in a conspicuous location at or near the job site trailer? (Protocol # 22)		
79	Does the IMP include measures to monitor and maintain hazardous material use and storage facilities and operations to ensure proper working order on at least a monthly basis? (Protocol #23)		

PTS#_____

CONSISTENCY DETERMINATION CHECKLIST

MASTER STORM WATER SYSTEM MAINTENANCE PROGRAM

No.	Measure/Criteria	Y/N/NA	Basis for Determination (attach separate sheet(s) as necessary)
Water Quality(cont.)			
80	Does the IMP call for the installation of a check dam or other comparable mechanism at the downstream end when maintenance involves the removal of substantial amounts of vegetation along the bottom of a storm water facility? (Protocol #24)		
81	Does the IMP call for the inspection of earthen-bottom storm water facilities within 30 days of the first 2-year storm following maintenance, and the implementation of erosion control measures, as appropriate? (Protocol #25)		
Biological Resource Protection			
82	Has vehicle access to storm water facilities been restricted to existing and/or approved access roads, as indicated in the IMP? (Protocol # 27)		
83	Does the IMP call for flagging of all sensitive biological resource areas in the field prior to initiation of maintenance activities in the presence of a qualified biologist, as necessary)? (Protocol #29)		
84	Does the IMP call for the use of physical erosion control measures that would not introduce seed from invasive species? (Protocol #30)		
85	Does the IMP call for pre-maintenance surveys to be conducted to determine the presence of any sensitive animal species and appropriate protection measures to be implemented during maintenance? (Protocol #31)		
86	Does the IMP call for the appropriate arundo removal techniques? (Protocol #32)		

PTS#_____

CONSISTENCY DETERMINATION CHECKLIST

MASTER STORM WATER SYSTEM MAINTENANCE PROGRAM

No.	Measure/Criteria	Y/N/NA	Basis for Determination (attach separate sheet(s) as necessary)
87	Does the IMP establish necessary setbacks to be maintained during if mechanized maintenance activities must occur near active raptor nests? (Protocol # 33)		
Historical Resource Protection			
88	Does the IMP call for flagging, capping, or fencing of all historical resource areas in the field prior to initiation of maintenance activities in the presence of a qualified historical resource specialist, as necessary)? (Protocol #34)		
Waste Management			
89	Does the IMP call for disposable of compostable green waste material at an approved composting facility, if available? (Protocol #35)		
90	Does the IMP call for screening of soil, sand, and silt to remove waste debris and, wherever possible, to be re-used as fill material, aggregate, or other raw material? (Protocol #36)		
91	Does the IMP call for separation and transport of waste tires to an appropriate disposal facility, including the completion of a Comprehensive Trip Log (CTL) if more than nine tires are in a vehicle or waste bin at any one time? (Protocol #37)		
912	Does the IMP require hazardous materials encountered during maintenance to be logged under a hazardous materials manifest and transported to an approved hazardous waste storage, recycling, treatment or disposal facility? (Protocol #38)		
Master Site Development Permit Conditions			

PLANNING COMMISSION RESOLUTION NO.
COASTAL DEVELOPMENT PERMIT NO. 714232
SITE DEVELOPMENT PERMIT NO. 714233

MASTER STORM WATER SYSTEM MAINTENANCE PROGRAM
PROJECT NO. 42891- [MMRP]

WHEREAS, THE CITY OF SAN DIEGO STORM WATER DEPARTMENT, Owner/Permittee, filed an application with the City of San Diego for a permit to clean and maintain existing storm water facilities as described in and by reference to the approved Exhibits "A" and corresponding conditions of approval for the associated Coastal Development Permit No. 714232 and Site Development Permit No. 714233;

WHEREAS, the project site is located within the City's 342.4-square mile metropolitan area and within portions of the Coastal Overlay, Open Space, Agricultural, Residential, Commercial and Industrial zones and Community Planning areas;

WHEREAS, the project site is legally described as attached Exhibit "A", Master Storm Water System Maintenance Program (March 2010);

WHEREAS, on May 13, 2010, the Planning Commission of the City of San Diego considered Coastal Development Permit No. 714232 and Site Development Permit No. 714233 pursuant to the Land Development Code of the City of San Diego;

BE IT RESOLVED by the Planning Commission of the City of San Diego as follows:

That the Planning Commission adopts the following written Findings, dated May 13, 2010.

FINDINGS:

Site Development Permit - Section 126.0504

A. Findings for all Site Development Permits

1. The proposed development will not adversely affect the applicable land use plan;

The City of San Diego's storm water facilities are designed to convey storm water flows in order to protect the life and safety of its citizens, and to control flooding. These facilities also convey urban runoff from development, protect water quality, and support natural resources. The long-term performance of storm water facilities is dependent upon ongoing and proper maintenance. To maintain the effectiveness of storm water facilities the Storm Water Department (SWD) has prepared the Master Storm Water System Maintenance Program (Master Program). The purpose of the Master Program is to permit and implement a comprehensive, annual approach to the maintenance of existing storm water facilities.

The proposed Master Program maintenance activities are subject to the City's General Plan (March 2008), 26 community plans; Chollas Creek Enhancement Plan; Famosa Slough Enhancement Plan; Otay

Valley Regional Park Concept Plan; the Multiple Species Conservation Program Plan (MSCP), and six Local Coastal Programs.

A major component of the Master Program is removal of vegetation from existing storm water facilities. Removal of vegetation could potentially conflict with the goals and polices of the applicable land plans because vegetation is recognized, in some plans, to be a desirable feature of open space areas. However, this vegetation diminishes the ability of the storm water facility to safely transport floodwaters. As a result, there is an inherent conflict between the open space/conversation goals of some community plans and those of the Master Program. To address these potential conflicts the Master Program has been designed to allow processes to review maintenance activities based on the City's needs to protect life and property from flooding while also requiring implementation of appropriate mitigation and protocols to minimize impacts to the natural environment. The Master Program and Program Environmental Impact Report (PEIR) No. 42891/SCH No. 200401032 contain specific mitigation and protocols that would reduce potential impacts to conservation areas and open space. Therefore the Master Program would not adversely affect any applicable land use plans.

2. The proposed development will not be detrimental to the public health, safety, and welfare;

The Master Program addresses the need to protect life and property by preventing flooding and assuring storm water is adequately conveyed downstream. Maintenance of concrete-lined and earthen channels, storm drain outlets/inlets, and detention basins may include the removal of vegetation (cover), sedimentation, stagnant waters, and trash/debris that attract vagrants, high concentrations of pollutants, and other vector-controlled insects/mammals such as mosquitoes and rats. The SWD receives numerous documented telephone calls and several risk management claims against the City from property owners and businesses adjacent to unmaintained channels that are directly affected by associated storm event flooding, vectors, odors, and vagrancy nuisances. Regulatory constraints have limited maintenance activities within the City on an emergency basis necessitating special actions by the City, such as the recent Tijuana River Valley Emergency Action taken by the City Council in October 2009.

In cooperation with non-governmental organizations (NGOs), the Master Program would allow right-of-entry to help remove trash and debris that attract vectors and non-native invasive vegetation (such as palm trees and arundo) that also block up the channels. The removal of the debris would also assist with mitigation wetland enhancement efforts by the City. Flooding due to increased storm water flows within unmaintained channels has historically and currently creates significant traffic hazards throughout the City where streets are barricaded off; residents having to move out due to unsafe living conditions (e.g. mold); and the loss of property. Implementation of the Master Program will inherently protect and promote the public's health, safety, and welfare by providing the means to eliminate detrimental health and safety concerns that currently exist.

3. The proposed development will comply with the applicable regulations of the Land Development Code.

Some of the storm water maintenance activities are subject to the Environmentally Sensitive Lands (ESL) regulations, Section 143.0101 of the Land Development Code because they will occur in areas with steep hillsides, sensitive biological resources, wetlands, or within a floodplain.

Outside the Coastal Overlay Zone, City linear utility projects, such as the proposed storm water maintenance activities, are exempt from the ESL regulations for steep hillside and sensitive biological

resources. In addition, Section 142.011(i) of the ESL regulations specifically exempt encroachment into steep slopes and biological resources associated with public maintenance activities. Within the Coastal Overlay Zone, the ESL regulations permit a 25 percent allowable development in steep hillside area for certain types of development, including public utility systems.

ESL also requires that impacts to wetlands be avoided unless the activities meet specific exemption criteria established in the ESL ordinance. For projects occurring within the Coastal Overly Zone impacts are allowed for incidental public service projects. The ESL regulations for development occurring within the Coastal Overly Zone also require a 100-foot buffer be maintained around all wetlands, as appropriate, to protect the functions and values of the wetlands. The 100-foot buffer cannot be met because the facilities to be cleaned are located directly in the wetlands.

While, some of the proposed maintenance activities could affect sensitive biological resources and wetlands, subsequent review of each maintenance activity described in the Master Program and PEIR would minimize the impacts. Therefore, implementation of the Master Program and PEIR will ensure compliance with the applicable regulations of the Land Development Code. The SWD will do this on an annual basis, when the SWD identifies specific maintenance activities to be undertaken the next fiscal year. A Hydrology Study would be conducted for each storm water facility to determine the minimum amount of vegetation and sediment removal needed to achieve the desired flood conveyance capacity. Once this is determined, an Individual Maintenance Plan (IMP) would be prepared to define the limits, approach to maintenance and appropriate protocols to control impacts of the maintenance on biological resources and water quality. Based on the IMP, biology, historic, and noise studies would be conducted to determine what, if any, mitigation would be required to offset impacts associated with the proposed maintenance.

These activities would then be subject to a Consistency Determination (CD) process to allow maintenance activities to proceed under the terms of the Master Site Development, Coastal Development Permits and the PEIR. The "CD Package" would include an Individual Maintenance Plan (IMP); Individual Biological Assessment (IBA); Individual Historical Assessment (IHA); Individual Hydrologic and Hydraulic Assessment (IHHA); and an Individual Noise Assessment (INA). The CD package would be prepared for each storm water facility prior to maintenance to evaluate the current capacity and the condition and extent of sensitive resources within the facility, and maintenance activity details such as method(s) and equipment to be used, maintenance requirements, and schedule. The CD Package would be evaluated by designated City departments as well as State and Federal agencies to confirm that the proposed maintenance activities would be consistent with the Land Development Code (LDC), the Master Program and that environmental impacts would be mitigated pursuant to the Mitigation Monitoring and Reporting Program of the PEIR.

B. Supplemental Findings--Environmentally Sensitive Lands

1. The site is physically suitable for the design and siting of the proposed development and the development will result in minimum disturbance to environmentally sensitive lands;

Implementation of the Master Plan will ensure that the design and siting of future storm water maintenance activities will result in minimum disturbance to environmentally sensitive lands. On an annual basis, the SWD would identify specific maintenance activities to be undertaken the next fiscal year. A Hydrology Study would be conducted for each storm water facility to determine the minimum amount of vegetation and sediment removal needed to achieve the desired flood conveyance capacity.

Once this is determined, an Individual Maintenance Plan (IMP) would be prepared to define the limits, approach to maintenance and appropriate protocols to control impacts of the maintenance on biological resources and water quality. Based on the IMP, biology, historic, and noise studies would be conducted to determine what, if any, mitigation would be required to offset impacts associated with the proposed maintenance.

These activities would then be subject to a Consistency Determination (CD) process to allow maintenance activities to proceed under the terms of the Site Development and Coastal Development Permits and the PEIR. The "CD Package" would include an Individual Maintenance Plan (IMP); Individual Biological Assessment (IBA); Individual Historical Assessment (IHA); Individual Hydrologic and Hydraulic Assessment (IHHA); and an Individual Noise Assessment (INA). The CD package would be prepared for each storm water facility prior to maintenance to evaluate the current capacity and the condition and extent of sensitive resources within the facility, and maintenance activity details such as method(s) and equipment to be used, maintenance requirements, and schedule. The CD Package would be evaluated by designated City departments, as well as, State and Federal agencies to confirm that the proposed maintenance activities would be consistent with the Master Program and that environmental impacts would be mitigated pursuant to the Mitigation Monitoring and Reporting Program.

2. The proposed development will minimize the alteration of natural land forms and will not result in undue risk from geologic and erosional forces, flood hazards, or fire hazards;

The proposed Master Program only covers the cleaning of existing storm water facilities, no new construction or redesign is proposed. Therefore, the proposed maintenance activities will not alter the natural landform or geology. The Master Program also establishes a series of protocols to be carried out during maintenance activities to minimize impacts related to soil and erosion. Therefore, the maintenance activities will not result in undue geologic or erosional forces.

Implementation of the Master Program would also prevent flood hazards within the affected areas by removing sedimentation often carrying pollutants that have either dropped within the channel bottoms from impervious surface run-off and/or wetland vegetation that has grown over the years because the channel has not been maintained or cleared of vegetation growth within the confines of the channel. Further, removal of vegetation, under the Master Program, may also prevent fire hazards to residents and businesses adjacent to channels that could be prone to fire hazards because of the fire load (vegetation).

3. The proposed development will be sited and designed to prevent adverse impacts on any adjacent environmentally sensitive lands;

Implementation of the Master Plan will ensure future storm water maintenance activities will be sited and designed to prevent adverse impacts on any adjacent environmentally sensitive lands. On an annual basis, the SWD would identify specific maintenance activities to be undertaken the next fiscal year. A Hydrology Study would be conducted for each storm water facility to determine the minimum amount of vegetation and sediment removal needed to achieve the desired flood conveyance capacity. Once this is determined, an Individual Maintenance Plan (IMP) would be prepared to define the limits, approach to maintenance and appropriate protocols to control impacts of the maintenance on biological resources and water quality. Based on the IMP, biology, historic, and noise studies would be conducted to determine what, if any, mitigation would be required to offset impacts associated with the proposed maintenance. These activities would then be subject to a Consistency Determination (CD) process to allow maintenance activities to proceed under the terms of the Site Development and Coastal Development

Permits and the PEIR. The "CD Package" would include an Individual Maintenance Plan (IMP); Individual Biological Assessment (IBA); Individual Historical Assessment (IHA); Individual Hydrologic and Hydraulic Assessment (IHHA); and an Individual Noise Assessment (INA). The CD package would be prepared for each storm water facility prior to maintenance to evaluate the current capacity and the condition and extent of sensitive resources within the facility, and maintenance activity details such as method(s) and equipment to be used, maintenance requirements, and schedule. The CD Package would be evaluated by designated City departments, as well as, State and Federal agencies to confirm that the proposed maintenance activities would be consistent with the Master Program and that environmental impacts would be mitigated pursuant to the Mitigation Monitoring and Reporting Program.

4. The proposed development will be consistent with the City of San Diego's Multiple Species Conservation Program (MSCP) Subarea Plan;

While the MSCP allows for the maintenance of drainage facilities, some of the proposed storm water maintenance activities could potentially result in conflicts with the City's MSCP Subarea Plan in regards to sensitive species and habitat. Removal of vegetation could result in impacts to associated wildlife.

Indirect impacts could also arise from noise impacts to nesting/ breeding species if maintenance activities create noise in the excess of 60 dB (A) in occupied habitat during the breeding season of each species. These potential impacts would be mitigated through implementation of mitigation measures in the PEIR for biological resources and noise. Impacts to sensitive biological resources would also be mitigated in accordance with the City's MSCP ratios.

5. The proposed development will not contribute to the erosion of public beaches or adversely impact local shoreline sand supply;

The storm water facilities covered under the Master Program are not located within any sensitive coastal bluffs or coastal beaches. A series of protocols designed to reduce the potential for downstream erosion during and after maintenance. Therefore, the maintenance activities of the Master Program would not contribute to the erosion of public beaches or adversely impact local shoreline sand supply.

6. The nature and extent of mitigation required as a condition of the permit is reasonably related to, and calculated to alleviate, negative impacts created by the proposed development.

The PEIR identifies specific mitigation measures designed to assure adequate compensation for impacts to biological resources associated with storm water facility maintenance. Specific compensation ratios are established for the various vegetation types that could be affected. These ratios are based on those contained in the City Biology Guidelines and MSCP. On an annual basis, the City will determine the amount of vegetation impacts based on the final IMPs. Based on these calculations, the City will define and implement compensation actions in accordance with the mitigation measures identified in the PEIR. The mitigation program will also be reviewed by the State and Federal regulatory agencies as part of the CD process to assure that adequate compensation is carried out.

C. Supplemental Findings--Environmentally Sensitive Lands Deviations

1. There are no feasible measures that can further minimize the potential adverse effects on environmentally sensitive lands;

In 2002, the State and Federal regulatory agencies suggested the City take a programmatic approach to cleaning and maintaining their storm water infrastructure, rather than submitting for individual permits to each of the agencies whose permit time limits range from three years to five years. Because storm water facilities need to convey the City's storm water to prevent flooding, impacts to wetland habitats that have grown within storm water conveyance systems will occur from the maintenance activities needed to protect and address varied public health and safety concerns. The majorities of affected facilities are partially or fully concrete-lined and are located within urbanized areas, such as the Mid-City community and Chollas Creek. Specific measures as described in the Master Program's MMRP and maintenance protocols will be implemented and adhered to by the SWD to minimize potential adverse effects on ESL, including but not limited to sensitive biological resources. Structural and non-structural alternatives that would reduce potentially significant environmental impacts, as required by the California Environmental Quality Act, have been discussed in the PEIR for the Master Program. Although the Master Program would minimize impacts to ESL, there are no feasible measures to avoid impacts to wetlands that have not already been discussed and vetted with the regulatory agencies that are economically viable (property acquisition) for a Department that is currently funded by the General Fund.

2. The proposed deviation is the minimum necessary to afford relief from special circumstances or conditions of the land, not of the applicant's making.

Within the Coastal Overlay Zone two deviations from the ESL regulations are requested. A deviation to the 100-foot buffer around all wetlands and to sensitive biological resources is requested because storm water facilities by their very natural and function are located within wetlands and the removal of vegetation to clean them could potential impact sensitive biological resources. Therefore, the proposed deviations are the minimum necessary to afford relief from special circumstances or conditions of the land, not the applicant's making.

A. Coastal Development Permit - Section 126.0708

1. The proposed coastal development will not encroach upon any existing physical access way that is legally used by the public or any proposed public accessway identified in a Local Coastal Program land use plan; and the proposed coastal development will enhance and protect public views to and along the ocean and other scenic coastal areas as specified in the Local Coastal Program land use plan;

The proposed Master Program includes access paths to storm water facilities. These access paths would not result in the obstruction of views to scenic resources from public viewing areas, as identified in the Local Coastal Program Land Use Plan. Nor would the proposed Master Program encroach upon any existing physical access way that is legally used by the general public or any other public accessway as identified in the Local Coastal Program Land Use Plan. The majority of the maintenance activities will occur within existing dedicated storm water easements and channels that already have access via existing rights-of-way, utility roads, and/or concrete/earthen access ramps. For the few channels that do not have existing access; temporary access would be designed to minimize impacts to public views to and along the ocean and other scenic coastal areas identified in the Local Coastal Program Land Use Plan.

2. The proposed coastal development will not adversely affect environmentally sensitive lands;

The Master Program provides for a comprehensive review and environmental mitigation approach that would reduce adverse affects to environmentally sensitive lands, in this case, biological resources and

special flood hazard areas. While some of the annual maintenance activities may remove sensitive biological resources within or adjacent to storm water facilities channels, they will appropriately mitigate any impacts by restoration, enhancement and/or mitigation credit acquisition. Further, removal and eradication of exotic plants species, such as giant reed (*Arundo donax*), could also compensate for the potential loss of sensitive biological resources by enhancing a degraded wetland habitat with the removal of non-native invasive species. Special flood hazard areas would not be adversely affected because a majority of the storm water channels within the Coastal Overlay Zone are naturally located within low-lying areas delineated as flood hazard areas as a means to convey storm water downstream.

3. The proposed coastal development is in conformity with the certified Local Coastal Program land use plan and complies with all regulations of the certified Implementation Program;

The policies and recommendations that make up the City's various adopted community Local Coastal Program (LCP) land use plans are included and incorporated into the goals, objectives, and recommendations of the community plans and/or other area planning documents for the areas within the Master Program. Thus, consistency of the Master Program with the relevant LCP land use plans are addressed in Program Environmental Impact Report (PEIR) No. 42891/SCH No. 200401032.

A site-specific analysis to determine conformance of the individual maintenance activities with the relevant goals, objectives, and other recommendations of the LCP would be conducted during the more detailed planning and analysis of each site-specific maintenance activity. Determination of conformance with the LCP land use plans would be determined during the Consistency Determination review of the Master Program's individual site-specific projects. Appropriate mitigation measures tailored to the specific characteristics of the project site and design will be recommended at that time. Projects that do not conform would be required to amend or process a separate Coastal Development Permit and as appropriate, additional environmental review would be conducted.

4. For every Coastal Development Permit issued for any coastal development between the nearest public road and the sea or the shoreline of any body of water located within the Coastal Overlay Zone the coastal development is in conformity with the public access and public recreation policies of Chapter 3 of the California Coastal Act.

None of the Master Program's proposed maintenance activities are located between the nearest public road, the sea or the shoreline of any body of water within the Coastal Overlay Zone. Therefore, the Master Program is in conformity with the public access and public recreation policies of Chapter 3 of the California Coastal Act.

B. Supplemental Findings--Environmentally Sensitive Lands Within the Coastal Overlay Zone

1. Based on the economic information provided by the applicant, as well as any other relevant evidence, each use provided for in the Environmentally Sensitive Lands Regulations would not provide any economically viable use of the applicant's property;

Pursuant to Section 143.0130(d) of the LDC, incidental public service projects, such as storm water facilities, are permitted uses; therefore a viable use of the applicant's property is allowed.

2. Application of the Environmentally Sensitive Lands Regulations would interfere with the applicant's reasonable investment-backed expectations;

Strict application of the ESL regulations would not allow for maintenance of existing storm water facilities when they are located within wetlands or impact sensitive biological resources within the Coastal Overlay Zone. Because the City has made the investment of constructing storm water facilities strict application of ESL would prelude maintenance and would therefore, interfere with their reasonable investment-back expectations, as well as protecting life and property from flooding.

3. The use proposed by the applicant is consistent with the applicable zoning;

Pursuant to Section 143.0130(d) of the LDC, incidental public service projects, such as storm water facilities, are permitted uses; therefore the proposed use is consistent with the applicable zoning.

4. The use and project design, siting, and size are the minimum necessary to provide the applicant with an economically viable use of the premises;

The proposed storm water maintenance activities will utilize the mitigation measures described in the MMRP of the PEIR to minimize potential environmental impacts. Therefore, the uses, project design, siting and size of the Master Program's maintenance activities will be the minimum necessary to provide the applicant with a viable use of their premises.

5. The project is the least environmentally damaging alternative and is consistent with all provisions of the certified Local Coastal Program with the exception of the provision for which the deviation is requested.

Individual hydrology studies will be performed prior to finalizing maintenance plans for individual facilities. These hydrology studies will define the minimum amount of vegetation and sediment required to be removed to achieve adequate flood conveyance. In this way, the City will be able to minimize impacts to native vegetation and achieve the goal of conducting maintenance in the least-damaging manner.

BE IT RESOLVED by the Planning Commission of the City of San Diego as follows:

That the Planning Commission adopts the following written Findings, May 13, 2010.

BE IT FURTHER RESOLVED that, based on the findings hereinbefore adopted by the Planning Commission, Coastal Development Permit No. 714232 and Site Development Permit No. 714233 is hereby GRANTED by the Planning Commission to the referenced Owner/Permittee, in the form, exhibits, terms and conditions as set forth in Permits No. 714232 and No. 714233, a copy of which is attached hereto and made a part hereof.

Patricia Grabski
Development Project Manager

Development Services

Adopted on: May 13, 2010

SAP No. 21000287

cc: Planning Commission Secretary, Development Services Department

RECORDING REQUESTED BY

PROJECT MANAGEMENT
PERMIT CLERK
MAIL STATION 501

SPACE ABOVE THIS LINE FOR RECORDER'S USE

Internal Order No. 21000287

COASTAL DEVELOPMENT PERMIT NO. 714232
SITE DEVELOPMENT PERMIT NO. 714233
MASTER STORM WATER SYSTEM MAINTENANCE PROGRAM
PROJECT NO. 42981 (MMRP)
PLANNING COMMISSION

This Coastal Development Permit No. 714232 and Site Development Permit No. 714233 is granted by the Planning Commission of the City of San Diego to the City of San Diego Storm Water Department, Owner and Permittee, pursuant to San Diego Municipal Code [SDMC] sections 126.0501 and 126.0701. The approximate 50 miles of natural and man-made (concrete/earthen) channels, detention basins and storm drain outfalls are located with the City's 342.4-square mile metropolitan area, and within the City's public right-of-way or storm water easements dedicated to the City of San Diego and maintained by the City of San Diego's Storm Water Department. These storm water facilities are also located within portions of the Coastal Overlay, Open Space, Agricultural, Residential, Commercial and Industrial Zones and Community Planning areas within the City of San Diego.

Subject to the terms and conditions set forth in this Permit, permission is granted to the Owner and Permittee for cleaning and maintenance of storm water facilities including; maintenance of existing access; relocation of access points or creation of new access to storm water facilities consistent with the City of San Diego's Storm Water Standards; Storm Water Management and Discharge Control Ordinance; Land Development Code and Master Storm Water System Maintenance Program. The facilities to be maintained under these permits are described on the approved exhibits [Exhibit "A"] dated May 13, 2010, and on file in the Development Services Department, identified as the Master Storm Water System Maintenance Program (March, 2010).

This Permit provides the City of San Diego's Storm Water Department the authority to:

a. Implement a comprehensive Master Program to govern long-term maintenance activities needed to maximize the effectiveness of the City's storm water system in order to provide for public safety and protection of property;

b. Establish maintenance protocols to be implemented during storm water system maintenance which balances the flood protection functions while maintaining, to the greatest degree possible, the aesthetic and biological value of the storm water system;

c. Minimize the disruption of adjacent property from storm water system maintenance;

d. Implement a "consistency determination process" to simplify the subsequent authorization process required from the City of San Diego, as well as, state and federal agencies with regulatory authority over wetlands for annual maintenance activities consistent with the Master Program; and

e. Accessory improvements determined by the Development Services Department to be consistent with the land use and development standards in effect for the site per the adopted community plan, California Environmental Quality Act Guidelines, public and private improvement requirements of the City Engineer, the underlying zone(s), conditions of this Permit, and any other applicable regulations of the SDMC in effect for the site.

STANDARD REQUIREMENTS:

1. This Coastal Development Permit shall become effective on the eleventh working day following receipt by the California Coastal Commission of the Notice of Final Action, or following all appeals.

2. Unless this Permit has been revoked by the City of San Diego the property included by reference within this Permit shall be used only for the purposes and under the terms and conditions set forth in this Permit unless otherwise authorized by the Development Services Department.

3. This Permit is a covenant running with the subject property and shall be binding upon the Owner/Permittee and any successor or successors, and the interests of any successor shall be subject to each and every condition set out in this Permit and all referenced documents.

4. The continued use of this Permit shall be subject to the regulations of this and any other applicable governmental agency.

5. Issuance of this Permit by the City of San Diego does not authorize the Owner/Permittee for this permit to violate any Federal, State or City laws, ordinances, regulations or policies including, but not limited to, the Endangered Species Act of 1973 [ESA] and any amendments thereto (16 U.S.C. § 1531 et seq.).

6. In accordance with authorization granted to the City of San Diego from the United States Fish and Wildlife Service [USFWS] pursuant to Section 10(a) of the ESA and by the California

Department of Fish and Game [CDFG] pursuant to Fish and Game Code section 2835 as part of the Multiple Species Conservation Program [MSCP], the City of San Diego through the issuance of this Permit hereby confers upon Owner/Permittee the status of Third Party Beneficiary as provided for in Section 17 of the City of San Diego Implementing Agreement [IA], executed on July 16, 1997, and on file in the Office of the City Clerk as Document No. OO-18394. Third Party Beneficiary status is conferred upon Owner/Permittee by the City: (1) to grant Owner/Permittee the legal standing and legal right to utilize the take authorizations granted to the City pursuant to the MSCP within the context of those limitations imposed under this Permit and the IA, and (2) to assure Owner/Permittee that no existing mitigation obligation imposed by the City of San Diego pursuant to this Permit shall be altered in the future by the City of San Diego, USFWS, or CDFG, except in the limited circumstances described in Sections 9.6 and 9.7 of the IA. If mitigation lands are identified but not yet dedicated or preserved in perpetuity, maintenance and continued recognition of Third Party Beneficiary status by the City is contingent upon Owner/Permittee maintaining the biological values of any and all lands committed for mitigation pursuant to this Permit and of full satisfaction by Owner/Permittee of mitigation obligations required by this Permit, as described in accordance with Section 17.1D of the IA.

7. All of the conditions contained in this Permit have been considered and have been determined to be necessary in order to make the findings required for this Permit. It is the intent of the City that the holder of this Permit be required to comply with each and every condition in order to be afforded the special rights which the holder of the Permit is entitled as a result of obtaining this Permit.

In the event that any condition of this Permit, on a legal challenge by the Owner/Permittee of this Permit, is found or held by a court of competent jurisdiction to be invalid, unenforceable, or unreasonable, this Permit shall be void. However, in such an event, the Owner/Permittee shall have the right, by paying applicable processing fees, to bring a request for a new permit without the "invalid" conditions(s) back to the discretionary body which approved the Permit for a determination by that body as to whether all of the findings necessary for the issuance of the proposed permit can still be made in the absence of the "invalid" condition(s). Such hearing shall be a hearing de novo and the discretionary body shall have the absolute right to approve, disapprove, or modify the proposed permit and the condition(s) contained therein.

ENVIRONMENTAL/MITIGATION REQUIREMENTS:

8. Mitigation requirements are tied to the environmental document, specifically the Mitigation, Monitoring, and Reporting Program (MMRP). These MMRP conditions are incorporated into the permit by reference or authorization for the project.

9. The mitigation measures specified in the Mitigation Monitoring and Reporting Program, and outlined in Program Environmental Impact Report (PEIR) No. 42891/SCH No. 200401032, shall be noted on the maintenance plans and specifications under the heading ENVIRONMENTAL/MITIGATION REQUIREMENTS.

10. The Permittee shall comply with the Mitigation, Monitoring, and Reporting Program (MMRP) as specified in PEIR No. 42891/SCH No. 200401032, satisfactory to the Development

Services Department and the City Engineer. Prior to the issuance of the "Notice to Proceed" with maintenance, all conditions of the MMRP shall be adhered to, to the satisfaction of the City Engineer. All mitigation measures as specifically outlined in the MMRP shall be implemented for the following issue areas:

Aesthetics/Neighborhood Character; Biological Resources; Historical Resources; Hydrology/Water Quality; Land Use; Noise; Paleontological Resources and Solid Waste.

CONSISTENCY DETERMINATION REQUIREMENTS:

11. The Permittee shall comply with Exhibit "A", the Master Storm Water System Maintenance Program satisfactory to the Development Services Department.

12. Prior to the Development Services Department approval of any work, other than emergency actions, the Permittee shall submit an application for a Consistency Determination to the Development Services Department for proposed site specific work consistent with Exhibit "A", the Master Storm Water System Maintenance Program.

INFORMATION ONLY:

- Any party on whom fees, dedications, reservations, or other exactions have been imposed as conditions of approval of this development permit, may protest the imposition within ninety days of the approval of this development permit by filing a written protest with the City Clerk pursuant to California Government Code §66020.

APPROVED by the Planning Commission of the City of San Diego on May 13, 2010 [date and resolution number] .

Permit Type/PTS Approval No.:
Date of Approval:

AUTHENTICATED BY THE CITY OF SAN DIEGO DEVELOPMENT SERVICES DEPARTMENT

_____
NAME
TITLE

NOTE: Notary acknowledgment must be attached per Civil Code section 1189 et seq.

The undersigned Owner/Permittee, by execution hereof, agrees to each and every condition of this Permit and promises to perform each and every obligation of Owner/Permittee hereunder.

[NAME OF COMPANY]
Owner/Permittee

By _____
NAME
TITLE

[NAME OF COMPANY]
Owner/Permittee

By _____
NAME
TITLE

NOTE: Notary acknowledgments must be attached per Civil Code section 1189 et seq.

RESOLUTION NUMBER R- _____

ADOPTED ON _____

WHEREAS, on June 23, 2004, the City of San Diego Storm Water Department submitted an application to Development Services Department for Coastal Development Permit No. 714232 and Site Development Permit No. 714233;

WHEREAS, the permit was set for a public hearing to be conducted by the Planning Commission of the City of San Diego; and

WHEREAS, the issue was heard by the Planning Commission on May 13, 2010; and

WHEREAS, the Planning Commission of the City of San Diego considered the issues discussed in Environmental Impact Report No. 42891 (SCH No. 2004101032); NOW THEREFORE,

BE IT RESOLVED, by the Planning Commission that it be, and it is hereby certified, that Environmental Impact Report No. 42891 (SCH No. 2004101032), in connection with Coastal Development Permit No. 714232 and Site Development Permit No. 714233 has been completed in compliance with the California Environmental Quality Act of 1970 (California Public Resources Code Section 21000 et seq.), as amended, and the State guidelines thereto (California Administrative Code Section 15000 et seq.), that the report reflects the independent judgment of the City of San Diego as Lead Agency and that the information contained in said Report, together with any comments received during the public review process, has been reviewed and considered by the Planning Commission.

BE IT FURTHER RESOLVED, that pursuant to California Public Resources Code Section 21081 and Administrative Code Section 15091, the Planning Commission hereby adopts the Candidate Findings, made with respect to the project, a copy of which is attached hereto and incorporated herein by reference.

BE IT FURTHER RESOLVED, that pursuant to California Administrative Code, Section 15093 the Planning Commission hereby adopts the Statement of Overriding Considerations, a copy of which is attached hereto and incorporated herein by reference, with respect to the project.

BE IT FURTHER RESOLVED, that pursuant to California Public Resources Code Section 21081.6, the Planning Commission hereby adopts the Mitigation Monitoring and Reporting Program, or alterations to implement the changes to the project as required by this body in order to mitigate or avoid significant effects on the environment, a copy of which is attached hereto and incorporated herein by reference.

APPROVED:

By: _____
Patricia Grabski, Development Project Manager

ATTACHMENT(S): Exhibit A, Candidate Findings
Exhibit B, Statement of Overriding Considerations
Exhibit C, Mitigation Monitoring and Reporting Program

EXHIBIT C

MITIGATION MONITORING AND REPORTING PROGRAM
FOR THE
MASTER STORM WATER SYSTEM MAINTENANCE PROGRAM
PROJECT NO. 42891
COASTAL DEVELOPMENT PERMIT NO. 714232
SITE DEVELOPMENT PERMIT NO. 714233

This Mitigation Monitoring and Reporting Program (MMRP) is designed to ensure compliance with Public Resources Code Section 21081.6 during implementation of mitigation measures. This program identifies at a minimum: the department responsible for the monitoring, what is to be monitored, how the monitoring shall be accomplished, the monitoring and reporting schedule, and completion requirements. A record of the Mitigation Monitoring and Reporting Program will be maintained at the offices of the Entitlements Division, 1222 First Avenue, Fifth Floor, San Diego, CA, 92101. All mitigation measures contained in the Environmental Impact Report No.42891 (SCH No. 2004101032) shall be made conditions of Coastal Development Permit No. 714232 and Site Development Permit No. 714233 as may be further described in the attached MMRP:

DRAFT
CANDIDATE FINDINGS AND STATEMENT OF OVERRIDING CONSIDERATIONS
for the
MASTER STORM WATER SYSTEM MAINTENANCE PROGRAM
Project No. 42891
SCH No. 2004101032

I. INTRODUCTION

The following Findings and Statement of Overriding Considerations are made for the Master Storm Water System Maintenance Plan (MSWSMP) (hereinafter referred to as the "PROJECT"). The environmental effects of the PROJECT are addressed in a Final Program Environmental Impact Report (PEIR) dated March 17, 2010, which is incorporated by reference herein.

The California Environmental Quality Act (CEQA) [§21081(a)] and the CEQA Guidelines [§15091(a)] require that no public agency shall approve or carry out a project for which an environmental impact report has been completed which identifies one or more significant effects thereof, unless such public agency makes one or more of the following findings:

(1) Changes or alterations have been required in, or incorporated into, the project which mitigate or avoid the significant environmental effects on the environment;
(2) Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been or can or should be adopted by that other agency; or
(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the environmental impact report.

CEQA also requires that the findings made pursuant to §15091 be supported by substantial evidence in the record (§15091(b) of the State CEQA Guidelines). Under CEQA, substantial evidence means enough relevant information has been provided (and reasonable inferences from this information may be made) that a fair argument can be made to support a conclusion, even though other conclusions might also be reached. Substantial evidence must include facts, reasonable assumptions predicted upon facts, and expert opinion supported by facts (§15384 of the State CEQA Guidelines).

CEQA further 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 effects 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" (§15093(a) of the State CEQA Guidelines).

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 actions based on the final EIR and/or other information in the record. This Statement of Overriding Considerations shall be supported by substantial evidence in the record, and does not substitute for, and shall be in addition to, findings required pursuant to §15091 (§15093(b) and (c) of the State CEQA Guidelines).

The following Findings and Statement of Overriding Considerations have been submitted by the City of San Diego Storm Water Department as candidate findings to be made by the decision making body. The Development Services Department, Environmental Analysis Section does not recommend that the discretionary body either adopt or reject these findings. They are attached to allow readers of this report an opportunity to review the applicant's position on this matter. It is the exclusive discretion of the decision maker certifying the EIR to determine the adequacy of the proposed candidate findings. It is the role of staff to independently evaluate the proposed candidate findings and to make a recommendation to the decision maker regarding their legal adequacy.

II. PROJECT DESCRIPTION AND PURPOSE

The Master Storm Water System Maintenance Program (MSWSMP) is proposed by the City of San Diego to assure that the municipal storm water system provides adequate flood control. The stated objectives of the Master Program are:

- Develop a comprehensive program to govern future maintenance activities needed to maximize the effectiveness of the City's existing storm water system;
- Minimize the disruption of adjacent property from storm water system maintenance;
- Set forth a series of BMPs to be implemented during storm water system maintenance which balance the flood protection function while maintaining, to the greatest degree possible, the aesthetic and biological value of the system; and
- Develop a process to simplify the authorization required from local, state and federal agencies with regulatory power over wetlands for annual maintenance activities consistent with the proposed Master Program.

The City's storm water system is comprised of a number of different types of facilities designed to transport storm runoff through the metropolitan area including storm water channels, detention basins and outfalls. Storm water channels include man-made structures (concrete and/or earthen) created specifically for the conveyance of storm water as well as natural drainage channels which carry water through urbanized areas. Detention basins are man-made earthen structures intended to help remove sediment from the runoff before it enters creeks, rivers, and lagoons. Outfalls form the transition point between the storm water system and natural drainage courses or bodies of water. Outfalls are typically composed of riprap and are intended to decrease the velocity of runoff discharged to minimize potential erosion.

In order to maximize the ability of the storm water conveyance systems to convey flood water, these facilities must be regularly maintained to remove sediment and vegetation which interferes with their conveyance function. Sediment removal is accomplished with equipment operating within the facility or along the bank. Vegetation removal is also performed by equipment within the facility as well as along the bank. In addition, on a limited basis, vegetation is removed by hand. Sediment and vegetation removed from storm water conveyance systems are disposed offsite in an approved manner.

The Master Program includes a process, referred to as a Consistency Determination (CD), through which storm water facility maintenance would be authorized on an annual basis by local, state and federal agencies with regulatory authority over these facilities. Under the CD process, the City would prepare Individual Maintenance Plans (IMPs) for each proposed maintenance activity. Prior to finalizing an IMP, the City would conduct an Individual Hydrologic and Hydraulic Assessment (IHHA). The purpose of the IHHA is to determine the minimum amount of maintenance needed to achieve the flood control goals. Based on the IMPs, site-specific assessments would be performed to determine if these activities would impact sensitive biological or historical resources; these studies are referred to as Individual Biological Assessment (IBAs), Individual Historical Assessments (IHAs), and Individual Noise Assessments (INAs). Where potential impacts could occur, the associated IBA, IHA, or INA would describe the measures to be implemented to minimize impacts. The IMPs, IBAs, IHAs, INAs, and IHAAs would be submitted with any other relevant information as a single "CD Package" to designated City departments as well as state and federal agencies.

The Master Program includes a series of 37 protocols designed to minimize the effects of maintenance on water quality by controlling erosion and hazardous materials.

III. ISSUES ADDRESSED IN EIR

The Final PEIR contains an environmental analysis of the potential impacts associated with implementing the PROJECT. The City of San Diego Development Services, located at 1222 First Avenue, MS 501, San Diego, CA 92101, is the custodian of the Final PEIR and other materials.

The major issues that are addressed in the PEIR include land use, aesthetics/neighborhood character, biological resources, historical resources, hydrology/water quality, noise and paleontological resources. The Final PEIR concluded that significant direct impacts could potentially occur with respect to the following issues:

- Aesthetics/Neighborhood Character (Loss of Mature Trees and Riparian Habitat)
- Biological Resources (Loss of Sensitive Plants, Animal and Habitat)
- Historical Resources (Loss of Important Historical Resources)
- Land Use (Conflicts with Biological and Cultural Resource Protection Policies)
- Land Use (Conflicts with Conservation Element of the City's General Plan)
- Paleontological Resources (Loss of Important Paleontological Resources)
- Water Quality (Increased Transport of Urban Runoff Pollutants)

The Final PEIR concluded that significant cumulative impacts could potentially occur with respect to the following issue:

- Solid Waste (Contribution to Landfill Capacity Limitations)

The Final PEIR evaluated the following issues and concluded that no significant impact would occur:

- Hydrology (Effect on Rate and Volume of Surface Runoff)
- Noise (Exceedance of City Noise Standards)

Hydrology effects are not considered significant because maintenance activities carried out pursuant to the proposed PROJECT would improve the ability of the storm water facilities to convey floodwaters.

Maintenance activities would comply with the City's Noise Abatement and Control Ordinance. Conformance with this Ordinance would avoid significant noise impacts on adjacent sensitive receptors.

The Final PEIR also analyzes the alternatives to the proposed PROJECT. These alternatives fall into two general categories: Non-structural and Structural Alternatives. Non-structural alternatives focus on management of vegetation within existing facilities. Non-structural alternatives include: (1) No Project and (2) No Maintenance. The No Project Alternative assumes that the City's current practice of limiting maintenance activities to emergency situations would continue. The No Maintenance Alternative assumes that the City would halt all maintenance of storm water facilities.

Structural alternatives focus on increasing the capacity of the storm water facilities to convey flood water without regular removal of vegetation. Structural alternatives include: (1) Raising the Channel Banks, (2) Diverting Storm Water, and (3) Widening Storm Water Facilities.

Based on the analysis contained in the Final PEIR, the No Maintenance Alternative would be the environmentally-preferred alternative because it would eliminate all impacts associated with the proposed PROJECT.

IV. FINDINGS

IV.A. FINDINGS REGARDING IMPACTS THAT CAN BE MITIGATED TO BELOW A LEVEL OF SIGNIFICANCE

The City, having reviewed and considered the information contained in the Final PEIR, finds pursuant to CEQA §21081(a)(1) and CEQA Guidelines §15091(a)(1) that changes or alterations have been required in, or incorporated into, the PROJECT which would mitigate, avoid, or substantially lessen to below a level of significance potential significant direct environmental effects related to: conflicts with land use policies

protecting sensitive biological and historical resources, historical resources (archaeology), and paleontological resources. The basis for this conclusion follows.

1. LAND USE (CONFLICTS WITH BIOLOGICAL AND HISTORICAL RESOURCE PROTECTION POLICIES) (DIRECT IMPACT)

Impact: Maintenance activities could result in a significant conflict with land use policies and regulations designed to protect sensitive biological and historical resources. With respect to biological resource protection policies, impacts to sensitive biological resources including sensitive species as well as sensitive habitats would conflict with the City's Multiple Species Conservation Program (MSCP) and Environmentally Sensitive Lands (ESL) regulations. Removal of vegetation would result in the loss of sensitive vegetation and the associated wildlife protected by the City's Environmentally Sensitive Lands (ESL) regulations as well as the MSCP. Indirect impacts could arise from noise impacts to nesting/breeding coastal California gnatcatchers, least Bell's vireo, or raptors, if maintenance activities create noise in excess of 60 dB(A) L_{eq} in occupied habitat during the breeding season of each species.

Impacts to important historical resources would result in a significant conflict with the Historical Resources Regulations intended to protect important historical resources.

Finding: Significant but Mitigated.

Facts in support of Finding: Potential impacts to land use policies and regulations intended to protect important biological would be mitigated through implementation of Mitigation Measures 4.1.1 through 4.1.8, found in Subsection 4.1, Biological Resources, of the Final PEIR. These mitigation measures are feasible and are made binding via the Master Site Development Permit conditions and MMRP. Implementation of these measures would reduce land use policy impacts related to protection of important biological resources to below a level of significance.

Mitigation Measure 4.1.1 requires verification that all MHPA boundaries and limits of work have been delineated on all maintenance documents.

Mitigation Measure 4.1.2 requires a qualified biologist to survey areas suspected to serve as habitat (based on historical records or site conditions) for sensitive birds covered by the MSCP.

Mitigation Measure 4.1.3 requires, if a listed species is located within 500 feet of a proposed maintenance activity and maintenance would occur during the associated breeding season, an analysis of the noise generated by maintenance activities to identify the location of the 60 dB(A) Leq noise contour and identify measures to be undertaken during maintenance to reduce noise levels.

Mitigation Measure 4.1.4 requires the Project Biologist to determine if maintenance has the potential to impact breeding activities of listed species. If impacts could occur,

maintenance, whenever possible, maintenance would be restricted during the breeding season.

Mitigation Measure 4.1.5 requires, if maintenance cannot be avoided during the breeding season for a listed bird, monitoring the nearby breeding bird activities by a qualified acoustician and biologist to determine the effectiveness of noise attenuation measures. If the noise attenuation is determined to be inadequate, the associated maintenance activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season of the subject species.

Mitigation Measure 4.1.6 requires a pre-maintenance meeting where the Project Biologist to discuss the sensitive nature of the adjacent habitat with the crew and subcontractor. The limits of work would be clearly delineated before the meeting.

Mitigation Measure 4.1.7 requires maintenance plans be designed to avoid the use of invasive plants, control lighting, and manage trash.

Mitigation Measure 4.1.8 requires the MHPA boundaries and measures to protect coastal California gnatcatchers be shown on the maintenance plans.

Potential impacts to land use policies and regulations intended to protect important historical resources would be mitigated through implementation of Mitigation Measures 4.4.1 and 4.4.2 found in Subsection 4.2, Historical Resources, of the Final PEIR. These mitigation measures are feasible and are made binding via the Master Site Development Permit conditions and MMRP. Implementation of these measures would reduce land use policy impacts related to protection of important historical resources to below a level of significance.

Mitigation Measure 4.4.1 requires an Individual Historical Assessment (IHA) prior to any maintenance activity for any maintenance area determined to have a moderate to high potential for the occurrence of important historical resources. If such a potential exists, an IHA would be prepared to determine if significant historic resources could be affected and define appropriate preservation or salvage actions.

Mitigation Measure 4.4.2 would require preparation of a phased research design and data recovery program (up to 15 percent sample) for any significant historical resources which may be impacted by maintenance, and summarized in a final results report.

Mitigation Measure 4.4.3 would require monitoring and implementation of historical protection or mitigation measures set forth in the IHA for specific maintenance activities.

2. HISTORICAL RESOURCES (LOSS OF IMPORTANT HISTORICAL RESOURCES) (DIRECT IMPACT)

Impact: Impacts to historical resources and Native American values may occur as a result of the maintenance activities carried out in accordance with the proposed PROJECT. The proposed PROJECT includes access and staging, and maintenance

activities within areas that have a high to moderate potential for historical resources or previously identified historical resources. Clearing and excavating required to maintain storm water facilities could have a substantial impact on any important historical resources that occur within the disturbance area.

Finding: Significant but Mitigated.

Facts in support of Finding: Potential impacts to historical resources would be mitigated through implementation of Mitigation Measures 4.4.1 through 4.4.3 found in Subsection 4.4, Historical Resources, of the Final PEIR. These mitigation measures are feasible and are made binding via the Master Site Development Permit conditions and MMRP. Implementation of these measures would reduce impacts related to important historical resources to below a level of significance.

Mitigation Measure 4.4.1 requires an Individual Historical Assessment (IHA) prior to any maintenance activity for any maintenance area determined to have a moderate to high potential for the occurrence of important historical resources. If such a potential exists, an IHA would be prepared to determine if significant historic resources could be affected and define appropriate preservation or salvage actions.

Mitigation Measure 4.4.2 would require preparation of a phased research design and data recovery program (up to 15 percent sample) for any significant historical resources which may be impacted by maintenance, and summarized in a final results report.

Mitigation Measure 4.4.3 would require monitoring and implementation of historical protection or mitigation measures set forth in the IHA for specific maintenance activities.

3. PALEONTOLOGICAL RESOURCES (LOSS OF IMPORTANT PALEONTOLOGICAL RESOURCES) (DIRECT IMPACT)

Impact: Impacts to paleontological resources may occur as a result of the maintenance activities carried out in accordance with the proposed PROJECT. The proposed PROJECT includes access and staging within areas that have a high to moderate potential for paleontological resources. Excavation to construct access roads could have a substantial impact on any important paleontological resources that occur within the disturbance area.

Finding: Significant but Mitigated.

Facts in support of Finding: Potential impacts to paleontological resources would be mitigated through implementation of Mitigation Measure 4.7.1 found in Subsection 4.7, Paleontological Resources, of the Final PEIR. This mitigation measures is feasible and is made binding via the Master Site Development Permit conditions and MMRP. Implementation of this measure would reduce impacts related to important paleontological resources to below a level of significance.

Mitigation Measure 4.7.1 would require monitoring during maintenance activities where the potential exists for subsurface paleontological resources. The monitoring paleontologist will have the authority to redirect maintenance away from any subsurface resources which are encountered to allow recovery of important scientific information associated with those resources. Draft and final reports will be submitted to summarize the results of any recovery programs.

IV.B. FINDINGS REGARDING INFEASIBLE MITIGATION MEASURES AND ALTERNATIVES (CEQA §21081(a)(3))

The decision maker, having independently reviewed and considered the information contained in the Final PEIR for the project and the public record, finds, pursuant to CEQA §21081(a)(2) and CEQA Guidelines §15091(a)(2) that there are no changes or alterations to the project that avoid or substantially lessen the significant environmental impacts that are within the responsibility and jurisdiction of another public agency.

IV.C. FINDINGS REGARDING INFEASIBLE MITIGATION MEASURES AND ALTERNATIVES

The City, having reviewed and considered the information contained in the Final PEIR, finds pursuant to CEQA §21081(a)(3) and CEQA Guidelines §15091(a)(3) that (i) the EIR considers a reasonable range of PROJECT alternatives, and (ii) specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the project alternatives identified in the Final PEIR as well as other alternatives or mitigation measures which would reduce the following impact to below a level of significance. The basis for this conclusion follows.

IV.C.1 Infeasibility of Mitigation for Significant Unmitigated Impacts

1. LAND USE (CONFLICTS WITH CONSERVATION ELEMENT OF THE CITY'S GENERAL PLAN) (DIRECT IMPACT)

Impact: Removal of mature riparian vegetation in drainage courses would conflict with the goals and policies of the Conservation Element of the City's General Plan due to the fact that the vegetation within the storm water facilities, which is recognized as a desirable feature of open space areas in the Conservation Element, must often be removed to provide adequate flood protection to adjacent property. As a result, there is an inherent conflict between the open space/conservation goals of the City's General and Community Plans and the goals of the proposed PROJECT.

Finding: Significant and Not Mitigated.

Facts in support of Finding: No mitigation measures are available because retention of vegetation within storm water facilities would be contrary to the overall goal of the PROJECT to provide adequate flood control in urban areas.

2. AESTHETICS/NEIGHBORHOOD CHARACTER (LOSS OF MATURE TREES AND RIPARIAN HABITAT) (DIRECT IMPACT)

Impact: Aesthetic/neighborhood character impacts related to the proposed maintenance activities would be associated with the loss of large stands of trees and the aesthetic value to the surrounding area associated with those large stands of trees. Although the City would retain mature trees wherever they would not interfere with the flood control function (as required by Protocol #26 of the Master Program), it is anticipated that most of the large trees would be required to be removed. Where these stands of trees are large enough that they represent a major visual element, their removal would adversely affect the aesthetic/neighborhood character of the surrounding area. Thus, the proposed maintenance activities would have a potentially significant aesthetic/neighborhood character impact.

Finding: Significant and Not Mitigated.

Facts in support of Finding: No feasible mitigation measures are available because retention of vegetation within storm water facilities would be contrary to the overall goal of the PROJECT to provide adequate flood control in urban areas.

3. BIOLOGICAL RESOURCES (LOSS OF SENSITIVE PLANTS, ANIMAL AND HABITAT) (DIRECT IMPACT)

Impact: Maintenance activities would result in direct impacts to uplands and wetlands. As the maintenance would primarily occur within drainage courses, wetland communities would be the most impacted. Up to an estimated 70.40 acres of different wetland vegetation types and 24.63 acres of unvegetated channel bottom would be impacted by maintenance. Impacted wetland/riparian vegetation communities would include southern riparian forest, southern sycamore riparian woodland, southern willow scrub, riparian woodland, mule fat scrub, riparian scrub, freshwater marsh, cismontane alkali marsh, southern coastal saltmarsh, coastal brackish marsh, and disturbed wetland. Up to an estimated 19.4 acres of sensitive upland vegetation communities would be impacted including coast live oak woodland, scrub oak chaparral, southern foredunes, beach, Diegan coastal sage scrub, coastal sage-chaparral scrub, broom baccharis scrub, southern mixed chaparral, and non-native grassland. The impacts to these vegetation communities are considered significant.

Maintenance may also have significant direct impacts on wildlife due to the loss of urban pollutant removal capabilities associated with vegetated storm water facilities. Where conditions are favorable for vegetation to remove urban pollutants, the removal of that vegetation in the course of maintenance would eliminate this capability and potentially expose downstream wildlife to increased exposure to urban pollutants as well as increased sedimentation.

Implementation of the proposed maintenance would significantly impact sensitive plant species. Four sensitive plant species were observed within the study area: single-whorl burrobush, San Diego marsh-elder, southwestern spiny rush, and San Diego sunflower.

Additionally, several listed and/or narrow endemic plant species have the potential to occur within the PROJECT study area.

Maintenance also has the potential to significantly impact the federally-listed, threatened coastal California gnatcatcher; the federally-listed, endangered least Bell's vireo; nesting raptors such as the Cooper's hawk and the northern harrier; and other sensitive animal species. Maintenance activities during the nesting/breeding of sensitive birds including the coastal California gnatcatchers, least Bell's vireo, or raptors would have direct and indirect impact on these species resulting from direct mortality, loss of habitat and/or disruption of breeding/nesting activities.

Indirect impacts on sensitive birds would result from maintenance activities. Equipment noise has the potential to disrupt reproductive and feeding activities, communication, and sleep patterns of sensitive avian species. Disruption of breeding activities of sensitive birds would constitute a significant indirect impact.

Finding: Significant and Not Mitigated.

Facts in support of Finding: Direct impacts to biological resources would be reduced through implementation of Mitigation Measures 4.3.1 through 4.3.32 found in Subsection 4.3, Biological Resources, of the Final PEIR. These mitigation measures are feasible and are made binding via the Master Site Development Permit conditions and MMRP. However, the ability of these mitigation measures to mitigate potential impacts is dependent on the IMPs developed on an annual basis. In the absence of specific impacts and ability to implement appropriate mitigation, the impacts are considered unmitigated. Mitigation for the loss of vegetation that serves to remove urban pollutants is not feasible. Retention of vegetation within channels would conflict with the primary goal of maintenance to provide flood protection to adjacent development. Implementation of these measures would reduce impacts related to biological resources but not to below a level of significance.

Mitigation Measure 4.3.1 requires an Individual Maintenance Plan (IMP) be prepared and approved prior to commencing any maintenance activity to determine the amount of disturbance and the best management practices to be followed during maintenance.

Mitigation Measure 4.3.2 requires an Individual Biological Assessment (IBA) be prepared based on the IMP prior to commencing maintenance to quantify the impacts to biological resources and define mitigation prior to commencing maintenance.

Mitigation Measure 4.3.3 requires compensation for wetland impacts to occur within the same watershed as the impact, whenever feasible. In addition, mitigation plans must be prepared prior to any maintenance activity that could impact significant biological resources. These plans must identify success criteria and include a maintenance and monitoring program to assure that the success criteria are met.

Mitigation 4.3.4 requires impacted, occupied coastal California gnatcatcher habitat be compensated through preservation of offsite habitat within the MHPA or acquisition of

credits equal to a ratio of 1:1. The compensation shall occur within six months of completion of maintenance.

Mitigation Measure 4.3.5 requires impacts to wetland vegetation from high frequency maintenance (occurring more often than every three years) to be compensated through a combination of restoration, enhancement or mitigation credit acquisition. Specific mitigation ratios are established based on wetland vegetation type, as identified in Table 4.3-10. Mitigation areas shall be required to be maintained for the life of MSWSMP, pursuant to specified success criteria. The initial restoration, enhancement or purchase of mitigation credits shall occur within six months of the date the related maintenance is completed.

Mitigation Measure 4.3.6 requires impacts to wetland vegetation from low frequency maintenance (occurring less often than every three years) to be compensated through a program of exotic species removal (e.g. giant reed) each time the maintenance occurs. Specific mitigation ratios are established based on wetland vegetation type, as identified in Table 4.3-10. The initial removal of invasives would occur within six months of the date the related maintenance is completed. Control of invasives within mitigation areas would continue for a period of two years following the initial control effort.

Mitigation Measure 4.3.7 requires impacts to upland vegetation be compensated through habitat preservation or purchase of suitable mitigation credits. Specific mitigation ratios are established based on upland vegetation type, as identified in Table 4.3-11. The upland mitigation would occur within six months of the date the related maintenance is completed.

Mitigation Measure 4.3.8 prohibits initiation of maintenance activities before the City's Assistant Deputy Director (ADD) Environmental Designee and appropriate Resource Agencies have approved the IMPs and IBAs including proposed mitigation for each of the proposed activities.

Mitigation Measure 4.3.9 prohibits any maintenance activities until the City's Assistant Deputy Director (ADD) Environmental Designee and MMC have approved the qualifications of the Biological Consultant.

Mitigation Measure 4.3.10 requires the monitoring biologist to submit an annual summary of the monitoring activities and any remedial measures taken to minimize biological impacts.

Mitigation Measure 4.3.11 requires minimizing impacts to floodplains, to the greatest extent practicable, through project design and coordination with the regulating agencies.

Mitigation Measure 4.3.12 requires minimizing the use of new riprap, concrete, or other unnatural material within channels located within the Multi-Habitat Planning Area (MHPA), to the maximum extent practicable.

Mitigation Measure 4.3.13 requires temporary access and staging along channels be restricted to those areas where no such facilities currently exist. Impacts to sensitive habitat and/or sensitive species would be minimized, to the greatest extent practicable, through project design measures, such as locating the facilities in the least sensitive habitat possible.

Mitigation Measure 4.3.14 requires a pre-maintenance meeting be held with the maintenance workers and the monitoring biologist to review mitigation measures included in the IBA.

Mitigation Measure 4.3.15 requires the monitoring biologist to confirm that mitigation actions (e.g. sensitive resource fencing, noise attenuation measures and equipment setbacks) have been adequately implemented before maintenance begins and monitor maintenance activities, when required.

Mitigation Measure 4.3.16 requires the monitoring biologist to submit a letter report within 90 days of the end of maintenance describing the monitoring activities and any remedial measures taken to minimize biological impacts associated with each maintenance activity. Within 90 days of receiving comments on the draft monitoring report, one copy of the final monitoring report.

Mitigation Measure 4.3.17 requires evidence of compliance with other permitting authorities, if applicable, before maintenance begins.

Mitigation Measure 4.3.18 requires monitoring of access roads and staging areas for presence of exotic species, and exotic species removal, as appropriate. Removal of exotics in the course of maintenance activities would also be required.

Mitigation Measure 4.3.19 prohibits physical erosion control measures such as fiber mulch, hay bales, etc. from harboring seeds from invasive species.

Mitigation Measure 4.3.20 requires creation of a mitigation account to provide sufficient funds to implement all biological mitigation associated with the proposed maintenance activities.

Mitigation Measure 4.3.21 requires impacts to listed or endemic sensitive plant species to be offset through implementation of one or combination of: salvage and relocation; seed collection and replanting off site; and/or preservation of offsite populations.

Mitigation Measure 4.3.22 requires specific distance setbacks for maintenance activities from habitat and/or nests associated with sensitive animals.

Mitigation Measure 4.3.23 controls maintenance noise in excess of 60 dB(A) L_{eq} during the breeding season of sensitive birds.

Mitigation Measure 4.3.24 requires surveys of adjacent habitat suspected to support sensitive birds prior to maintenance that would occur during the breeding season for the potentially present bird species.

Mitigation Measure 4.3.25 requires the presence of sensitive birds be assumed if suitable habitat may be affected by maintenance noise but specific surveys are not conducted. In this event, the City would comply with Mitigation Measure 4.2-26.

Mitigation Measure 4.3.26 specifies that, if no surveys are completed and no sound attenuation devices are installed, maintenance activities that would generate more than 60dB(A) L_{eq} within the habitat requiring protection shall cease for the duration of the breeding season of the appropriate species and a qualified biologist shall establish a limit of work.

Mitigation Measure 4.3.27 requires a pre-maintenance survey for raptor nests if maintenance occurs during the raptor breeding season (February 1 to August 1). If active raptor nests are found, maintenance is prohibited within distances which are specific to the affected raptor until any fledglings have left the nest or until after August 1.

Mitigation Measure 4.3.28 requires trees and/or grasslands supporting active raptor nests not be removed until after the breeding season or until the young have fledged.

Mitigation Measure 4.3.29 requires surveys be conducted to determine the existence of listed fish species prior to maintenance. Appropriate mitigation measures (e.g., exclusionary fencing, dewatering of the activity area, live-trapping, and translocation to suitable habitat) would be required, as necessary, before maintenance.

Mitigation Measure 4.3.30 requires delineation and fencing of areas supporting listed and/or narrow endemic plants which can be avoided during maintenance.

Mitigation Measure 4.3.31 requires maintenance within or adjacent to avian nesting habitat to occur outside of the avian breeding season (January 15 to August 31) unless postponing maintenance would result in a threat to human life or property.

Mitigation Measure 4.3.32 precludes maintenance within or adjacent to avian nesting habitat during breeding season (January 15 to August 31) unless postponing maintenance would result in a threat to human life or property.

5. WATER QUALITY (INCREASED TRANSPORT OF URBAN RUNOFF POLLUTANTS) (DIRECT IMPACT)

Impact: Impacts to water quality could occur as a result of removal of vegetation in the course of maintenance. Vegetation helps removes pollutants from storm water in three basic ways. First, vegetation tends to slow down flood water increasing the time available for pollutants to bond to substrate sediments. Second, reduced velocity allows sediments more time to drop out of suspension and decrease downstream sedimentation. Third, the root systems of certain wetland vegetation are able to extract pollutants from storm water.

Removal of vegetation as a result of maintenance would temporarily eliminate the role of vegetation plays in intercepting water-borne pollutants and the associated benefits to water quality. The effect is considered temporary because wetland vegetation would begin to re-establish within the first year following maintenance and would once again function to reduce storm water pollutants until maintenance re-occurs.

Finding: Significant and Not Mitigated

Facts in support of Finding: Implementation of the downstream velocity-control structures or the equivalent, pursuant to maintenance protocol #24 and as dictated by hydrology studies, would help compensate for the loss of vegetative functions following maintenance. This protocol is feasible and is mandated by the MSWSMP. However, these downstream structures or equivalent may not be feasible or fully effective. The ability of downstream structures or the equivalent to fully mitigate water quality impacts resulting from removal of vegetation cannot be determined until a hydrology study has been completed prior to undertaking maintenance of individual facilities.

In addition, it is infeasible to further reduce the impacts of vegetation loss on water quality by retaining substantial amounts of vegetation within storm water facilities. The presence of major stands of vegetation is one of the primary reasons maintenance is required in the City's storm water facilities. The benefits to water quality which result from the role of vegetation in slowing storm water velocities is often the reason many of the storm water facilities are unable to safely convey flood waters. Decreased velocity is inversely proportional to the depth of water in storm water facilities. With decreased velocities, storm water cannot move as quickly through the affected facility and the volume of storm water increases. Depending on the capacity of the storm water facility, this increased volume may cause the facility to overflow and flood adjacent property.

6. SOLID WASTE (CONTRIBUTION TO LANDFILL CAPACITY LIMITATIONS) (CUMULATIVE IMPACT)

Impact: Disposal of sediment and vegetation removed in the course of maintenance, in combination with solid waste generated by other development in the metropolitan area, would add to the capacity problem anticipated to occur at landfills serving the metropolitan area. The majority of the solid waste materials generated by maintenance are anticipated to be transported to the Miramar Landfill for disposal. According to the City's ESD, as of April 18, 2008, the Miramar Landfill had a remaining capacity of approximately 87.76 million cubic yards of solid waste. It is anticipated that the Miramar Landfill will reach its maximum capacity by the year 2017. The demand for landfill space, in combination with other development in the metropolitan area, would result in a cumulatively significant impact on solid waste disposal.

Finding: Significant and Not Mitigated

Facts in support of Finding: The City intends to recycle excavated materials whenever possible through implementation of protocols contained in the MSWSMP. These protocols

include: (1) composting green waste material in an approved composting facility, if available (Protocol #34), (2) screening soil, sand, and silt to remove waste debris and, wherever possible, to re-use as fill material, aggregate, or other raw material usage (Protocol #35), and (3) separating waste tires and transporting them to an appropriate disposal facility (Protocol #36). Although these protocols would be anticipated to reduce the impact of maintenance on landfill capacity, one of the major components of the vegetation expected to be removed during maintenance (giant reed) is not easily recycled due its high fibrous content.

IV.C.2 Infeasibility of Project Alternatives to Reduce or Avoid Significant Impacts

The Final PEIR examines project alternatives in terms of their ability to meet the primary flood control objectives of the PROJECT and eliminate or further reduce significant environmental effects. Based on these two parameters, the EIR analyzes alternatives that fall into the following two categories: non-structural and structural. Non-structural alternatives focus on management of vegetation within the existing configuration of storm water facilities while structural alternatives focus on increasing the capacity of the storm water facilities to convey flood water without regular removal of vegetation. Non-structural alternatives include: (1) No Project (Emergency Maintenance) and (2) No Maintenance. Structural Alternatives included (1) Raising Channel Banks, (2) Diverting Storm Water, and (3) Widening Storm Water Facilities.

A brief description of each of the alternatives and the basis for concluding their infeasibility follows. Although, as concluded below, the alternatives are infeasible substitutes for the overall maintenance program comprising the proposed PROJECT, the concepts associated with the structural alternatives may be feasible on a case by case basis and will be considered at the time hydrology studies and IMPs are generated in accordance with the Consistency Determination process contained in the MSWSMP.

1. NO PROJECT (EMERGENCY MAINTENANCE)

Description: In accordance with Section 15126.6(e)(3)(A) of the CEQA Guidelines, the PEIR addresses an alternative that would likely take place in the event the proposed PROJECT is not implemented. Thus, this alternative assumes that maintenance would primarily occur during periods of high rainfall when individual storm water facilities fail to safely convey storm water. Maintenance in response to emergency situations is the primary form of maintenance that has occurred over the last 5-10 years due to the resistance from state and federal resource agencies to granting the City authorization to maintain channels on a case by case basis. This resistance is one of the primary reasons for the City to develop and process the MSWSMP.

Finding: Although this alternative would potentially impact less wetlands, have less impact on the natural ability of storm water facilities to remove urban pollutants, and create less solid waste, the City rejects the No Project Alternative because it would not fulfill the basic objective to protect life and property from flooding. Maintenance in response to emergencies is not an effective way to protect life and property. Corrective

actions are very difficult, if not impossible, once a storm water facility is unable to safely transport storm water. Operating equipment during periods of high rainfall is difficult; particularly if remedial actions involve operation of equipment within the storm water facility. Waiting until rainfall has subsided would be ineffective because the flooding impacts will have already taken place.

2. NO MAINTENANCE

Description: Under this alternative, the City would not conduct any maintenance activities within the storm water system. Vegetation would grow unchecked within the channels and sediment would not be removed.

Finding: Although the No Maintenance Alternative would avoid all impacts of the proposed PROJECT, the City rejected the alternative because it would not fulfill the basic objective to protect life and property from flooding. The overgrowth within the storm water facilities that would occur from lack of maintenance would impede flood waters and cause flooding.

3. RAISING CHANNEL BANKS

Description: Under this alternative, structures (e.g., walls or levees) would be constructed along the top of channels to allow them to contain vegetation without compromising their ability to transport flood waters. The structures would offset the need to remove vegetation and sediment by allowing water elevations to increase without spilling out into adjacent areas.

Finding: Although the Raised Bank Alternative would potentially impact less wetlands, allow natural removal of urban pollutants to continue, and generate less solid waste, the City rejected the alternative for factors related to wildlife habitat, cost, visual quality, and the temporary nature of the solution. With respect to wildlife habitat, the structures along storm water facilities would have an adverse impact on wildlife by making it more difficult for upland wildlife to access the channels for water, food and cover. Walling off the storm water facilities would also have an adverse visual impact. Drainage courses which support varying degrees of vegetation are considered a visual amenity in urban areas. Hiding storm water facilities behind walls would reduce the aesthetic value of the drainage courses by hiding them from the view of adjacent development.

The cost of designing and constructing walls or levees along existing drainage facilities would be substantial. In addition, the cost would be increased by the need to acquire private property to accommodate the structures. The cost of designing and constructing a six-foot high wall along both sides of a 100-foot drainage channel is estimated to be $40,000. The minimum cost of purchasing a 20-foot easement for a distance of 100 feet is estimated to be another $40,000. Given the number of miles of drainage channels within the City, the cost of increasing flood capacity through construction of structures is considered infeasible.

Lastly, this alternative would not be effective in the long-term because accumulation of sediment would likely eventually offset the additional capacity created by the structures.

4. DIVERTING STORM WATER

Description: This alternative would involve construction of underground pipes that would divert some or all of the storm water flow around a channel segment to allow the channel to be naturally vegetated.

Finding: Although this alternative would potentially impact less wetlands, allow natural removal of urban pollutants to continue, and generate less solid waste, the City rejected the alternative as financially infeasible and posing a burden on adjacent property owners. The cost of constructing the by-pass pipes would be high. In addition to the cost of pipeline construction, the City would incur additional costs related to acquiring private property through which the pipes would pass. Beyond the cost of acquiring easements, adjacent development would make it difficult to construct by-pass pipes without impacting structures including homes and businesses. Condemning structures would further add to the cost of the by-pass alternative. In addition, this alternative would not be effective in the long-term because accumulation of sediment in the main channel would likely eventually offset the additional capacity created by the by pass.

5. WIDENING STORM WATER FACILITIES

Description: Under this alternative, the configuration of channels would be modified to increase the volume capacity of the channel. The goal of increasing the channel volume capacity would be to enable vegetation to exist in the channel without causing flooding. In order to promote wetland habitat, the modified channels would be completely earthen, and any pre-existing concrete or other impermeable forms of channel protection would be removed. In most cases, the capacity would be increased by widening the cross-section of the channel. Increasing the depth of the channel would also increase capacity but would be difficult to achieve in many cases due to constraints imposed by the slope limitations on the channel banks and maintaining downstream gradients.

Finding: Although this alternative would potentially result in a substantial reduction in long-term impacts related to wetlands, allow natural removal of urban pollutants to continue, and generate less solid waste by allowing vegetation to remain in the widened channels, the City rejected the alternative for factors related to cost and impacts on adjacent development. The cost of designing and constructing wider channels along existing drainage facilities would be substantial. In addition, the cost would be increased by the need to acquire private property and/or remove structures to accommodate the widening. Acquisition of adjacent property and removal of structures would not achieve the project objective to "Minimize the disruption of adjacent property from storm water system maintenance". Adjacent homes and businesses would require relocation which would pose a substantial burden on home and business owners. The loss of housing could also adversely affect the City's ability to provide adequate housing and potentially affect the affordable housing stock in the City. In addition, disposal of concrete removed from the drainage facilities would impact local landfills.

Although this alternative would reduce wetland impacts by allowing vegetation to remain over some portion of the widened channels, the initial widening would impact the same amount of vegetation as the full maintenance approach. Maintenance frequency and extent would be considerably reduced with this alternative; however, the cost of periodic maintenance would not necessarily be eliminated, as no natural drainage course can be maintenance-free. Periodic removal of sediment, debris and, possibly, invasive plant material (e.g., giant reed) would still be required to maintain the effectiveness of the channel to safely convey flood water.

V. STATEMENT OF OVERRIDING CONSIDERATIONS

Pursuant to CEQA Guidelines §15093, 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, including considerations for the provision of employment opportunities for highly trained workers outweigh the unavoidable adverse environmental effects, outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered acceptable pursuant to Public Resources Code §21081. CEQA further requires that 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 decision-making body, having considered all of the foregoing, finds that the following specific overriding economic, legal, social, technological, or other benefits associated with the proposed Master Program outweigh unavoidable adverse impacts to Land Use, Aesthetics, Biological and Water Quality impacts; and has adopted all feasible mitigation measures with respect to these significant and unmitigable impacts. Each of the separate benefits of the proposed project, as stated herein, is determined to be, unto itself and independent of the other project benefits, a basis for overriding all unavoidable adverse environmental impacts identified in these Findings. The decision-making body also has examined alternatives to the proposed project, none of which is both environmentally preferable to the proposed project and meets the basic project objectives.

Therefore the decision-making body expressly finds that the following benefits would be considered "acceptable" due to the following specific considerations which outweigh the unavoidable adverse environmental impacts of the proposed project:

Regular maintenance of the City's storm water system will:

- Restore the original capacity of storm water facilities to adequately convey storm water runoff during high rainfall events.
- Reduce flooding risk to life and damages to property associated with inadequate channel capacity caused by the accumulation of vegetation, sediment, trash and debris within these facilities.
- Reduce significant vector problems (e.g. mosquitoes, rats, stagnant waters containing high concentration of pollutants) to address public health and safety concerns in adjacent areas.
- Remove vegetation cover that is frequently occupied by transients to address significant public health and safety concerns to surrounding areas.
- Reduce fire load within channels by removing of invasive plant species (*Arundo donax*) for brush management purposes.

- Improve the appearance of facilities by removing invasive plant species, trash and debris.
- Restore disturbed wetland and upland habitats by the removal of invasive plants species and increase defined functions and values.
- Improve regional water quality by removing pollutant-laden sediments from being transported into downstream areas during high rainfall events. Periodic excavation during maintenance will rejuvenate the natural ability of drainages to filter out water-borne pollutants.

Economic and social benefits associated with the Master Program will:

- Reduce the City's liability and associated costs of restitution paid to adjacent home and business owners related to flood damage incurred as a result of improper maintenance.
- Reduce disruption of life and damages associated with the loss of irreplaceable valuables due to water damage caused by flooding.
- Provide for adequate funding for annual maintenance activities in conjunction with the Storm Water Department budget or implemented fees.
- Partner with non-profit and conservation groups to compensate for maintenance impacts on wetland vegetation would provide the funding necessary to implement wetland restoration plans developed by these groups for which funding may not otherwise be available.
- Create opportunities to work with other local jurisdictions to maintain an entire conveyance system (up and downstream) and not just parts of the system. Legal action, such as a Notice of Liability could be provided to affected parties since the majority of the receiving storm water system lies within the urbanized areas within the City's jurisdiction and therefore the monetary and physical burden is put on the City taxpayers.

Implementing a programmatic process of review will:

- Allow the City to plan maintenance efforts within the entire storm water system over a long period of time rather than individual components of the system over a short period of time (e.g. emergency maintenance).
- Provide a simplified process for local, state, and federal to ensure appropriate mitigation for impacts are implemented at the project-specific level.
- Provide the necessary checks and balances for subsequent actions.
- Provide specific hydrologic data for each facility to be maintained to support and justify the need to maintain channel to a standard level of design and carrying capacity.
- Incorporate standard maintenance protocols to reduce adverse impacts to water quality (Best Management Practices) and sensitive resources (direct and indirect impacts to biological and archeological resources).

CHAPTER 11.0 – MITIGATION MONITORING AND REPORTING PROGRAM

Section 21081.6 of the State of California Public Resources Code requires a Lead or Responsible Agency that approves or carries out a project where an environmental impact report (EIR) has identified significant environmental effects to adopt a "reporting or monitoring program for adopted or required changes to mitigate or avoid significant environmental effects." The City of San Diego is the lead Agency for the MSWSMP PEIR, and, therefore, is responsible for implementation of the Mitigation Monitoring and Reporting Program (MMRP). Because the PEIR recommends measures to mitigate these impacts, a MMRP is required to ensure that adopted mitigation measures are implemented.

As Lead Agency for the proposed project under CEQA, the City of San Diego will administer the MMRP for the following environmental issue areas: biological resources, historical resources, land use policies encouraging conservation of wetlands, and paleontological resources.

GENERAL

General Mitigation 1: Prior to commencement of work, the Environmental Designee of the Entitlements Division shall verify that mitigation measures for impacts to biological resources (Mitigation Measures 4.3.1 through 4.3.20), historical resources (Mitigation Measures 4.4.1 and 4.4.2), land use (Mitigation Measures 4.1.1 through 4.1.13), and paleontological resources (Mitigation Measure 4.7.1) have been included in entirety on the submitted maintenance documents and contract specifications, and included under the heading, "Environmental Mitigation Requirements." In addition, the requirements for a Pre-maintenance Meeting shall be noted on all maintenance documents.

General Mitigation 2: Prior to the commencement of work, a Pre-maintenance Meeting shall be conducted and include, as appropriate, the MMC, SWD Project Manager, Biological Monitor, Historical Monitor, Paleontological Monitor, and Maintenance Contractor, and other parties of interest.

General Mitigation 3: Prior to the commencement of work, evidence of compliance with other permitting authorities is required, if applicable. Evidence shall include either copies of permits issued, letters of resolution issued by the Responsible Agency documenting compliance, or other evidence documenting compliance and deemed acceptable by the ADD Environmental Designee.

General Mitigation 4: Prior to commencement of work and pursuant to Section 1600 et seq. of the State of California Fish & Game Code, evidence of compliance with Section 1602 is required, if applicable. Evidence shall include either copies of permits issued, letters of resolution issued by the Responsible Agency documenting compliance, or other evidence documenting compliance and deemed acceptable by the ADD Environmental Designee.

BIOLOGICAL RESOURCES

Potential impacts to biological resources would be reduced to below a level of significance through implementation of the following mitigation measures as well as Mitigation Measures 4.1-1 through 4.1-30.

Mitigation Measure 4.3.1: Prior to commencement of any activity within a specified annual maintenance program, the SWD shall identify all proposed maintenance activities. An IMP shall be prepared for each activity. The IMP shall identify the following: maintenance method(s) to be used, equipment type, appropriate BMPs, proposed access, staging areas, spoils storage sites, and schedule. In addition, the IMP shall incorporate relevant maintenance protocols as well as specific mitigation measures identified in the IBA for the activity.

Mitigation Measure 4.3.2: Prior to commencement of any activity within a specific annual maintenance program, a qualified biologist shall prepare an IBA for each area proposed to be maintained. Based on the IMP, the biologist shall determine the extent of impact which would occur to sensitive biological resources. The biologist also shall specify compensation which shall be required to mitigate impacts to biological resources (e.g., invasives removal, wetland creation/enhancement/restoration, or off-site upland habitat acquisition). The results of this survey shall be summarized in an IBA. At a minimum, the IBA shall include:

- Description of maintenance to be performed including length, width, and depth;
- Protocol surveys, as needed;
- Detailed vegetation mapping;
- Wetland delineation in compliance with applicable local, state, and federal regulations;
- Location of sensitive plant species;
- Connectivity functions for wildlife will be evaluated and opportunities for improvements noted;
- Quantification of impacts to all sensitive biological resources;
- Two, digital, date-stamped photos of affected area;

- Specific maintenance protocols from the MSWSMP which should be implemented as part of the IMP;
- Specific measures to be taken to avoid downstream dispersal of invasive species during maintenance;
- Specific biological monitoring required during maintenance; and
- Specific compensation which would be required to mitigate impacts to biological resources (e.g., wetland creation/enhancement/restoration or offsite upland habitat acquisition).

Mitigation Measure 4.3.3: Wherever feasible, compensation for wetland impacts shall occur within the same watershed as the impact. Wetland mitigation plans shall be consistent with the Conceptual Wetland Mitigation Plan contained in Appendix H of the Biological Technical Report, included as Appendix C.3 of the PEIR and shall include:

- Conceptual planting plan including planting zones, grading, and irrigation;
- Seed mix/planting palette;
- Planting specifications;
- Monitoring program including success criteria; and
- Long-term maintenance and preservation plan.

Mitigation which involves habitat acquisition and preservation shall include the following:

- Location of proposed acquisition;
- Description of the biological resources to be acquired including support for the conclusion that the acquired habitat compensates for the specific maintenance impact; and
- Documentation that the mitigation area would be adequately preserved and maintained in perpetuity.

Mitigation which involves the use of mitigation credits shall include the following:

- Location of the mitigation bank;
- Description of the credits to be acquired including support for the conclusion that the acquired habitat compensates for the specific maintenance impact; and
- Documentation that the credits are associated with a mitigation bank which has been approved by the appropriate Resource Agencies.

Mitigation which involves payment of funds into the City's Habitat Acquisition Fund would be based on the required per acre cost in effect at the time of the project impact plus a 10 percent administration fee.

Mitigation Measure 4.3.4: Loss of habitat for the coastal California gnatcatcher shall be mitigated through the acquisition of suitable habitat or mitigation credits at a ratio of 1:1. Mitigation shall take place within the MHPA and shall be accomplished within six months of the date maintenance is completed. (Appendix C.1 MM 7.1.5a)

Mitigation for gnatcatcher impacts shall be considered initiated if one of the following conditions is met:

- A mitigation plan (e.g., habitat creation, enhancement with planting, and/or restoration plan) is submitted to DSD for review. Additionally, work must be initiated within 3 months (weather permitting) of mitigation plan approval.
- Debiting credits from an appropriate mitigation bank. If mitigation occurs via debiting credits from an appropriate mitigation bank, all money initially deposited as part of the project submittal shall be rolled-over for use by subsequent projects.
- Withdrawing an appropriate sum of money from the mitigation account to pay into the Habitat Acquisition Fund.

Mitigation Measure 4.3.5: High frequency maintenance wetland impacts shall be compensated with "permanent" wetland mitigation (restoration and/or enhancement or mitigation credits) in accordance with ratios in Table 4.3-10. Restoration/enhancement with planting/creation activities that include an endowment for long-term management are included as a type of permanent mitigation. Mitigation through up-front establishment of the mitigation or through purchase of mitigation credits shall be at a 1:1 ratio. No maintenance shall commence until the following has occurred:

- A mitigation plan (e.g. enhancement with planting and/or restoration plan), consistent with Appendix H of the Biological Technical Report contained in Appendix C.3 of the PEIR, has been approved by DSD and sufficient evidence exists for DSD to conclude that the mitigation shall commence within six months of the date that the related maintenance has been completed; and/or
- Debiting credits have been obtained from an appropriate mitigation bank.

Table 4.3-10
WETLAND MITIGATION RATIOS

WETLAND TYPE	MITIGATION RATIO[1]
Southern riparian forest	3:1
Southern sycamore riparian woodland	3:1
Riparian woodland	3:1
Coastal saltmarsh	~~3~~4:1
Coastal brackish marsh	~~3~~4:1
Southern willow scrub	2:1
Mule fat scrub	2:1
Riparian scrub	2:1
Freshwater marsh	1:1
Cismontane alkali marsh	~~1~~4:1
Disturbed wetland	1:1
Streambed/natural flood channel	NA

[1]Mitigation done in advance or through purchase of mitigation credits would be at a 1:1 ratio.

Mitigation Measure 4.3.6: Low frequency maintenance wetland impacts shall be compensated through enhancement without planting which would consist of an invasives removal program at the ratios noted in Table 4.3-10 each time the maintenance occurs. In accordance with the Conceptual Wetland Mitigation Plan contained in Appendix H of the Biological Technical Report contained in Appendix C.3 of the PEIR, removal of invasives (e.g., giant reed, pampas grass) shall be followed by a maintenance program, which would assure that invasives would not re-establish for a period of two years after the removal has occurred. The initial removal of invasive plant material shall be completed within six months of the date the related maintenance has been completed. (Appendix C.3 MM 7.1.3b)

In the event that maintenance must occur within three years of any maintenance activity using enhancement without planting as compensation, the City shall undertake "permanent" mitigation pursuant to Mitigation Measure 4.3.5 for the next maintenance event. A credit shall be established for the acreage which was originally enhanced as compensation for use by the City as mitigation for low frequency maintenance on other storm water facilities.

Mitigation Measure 4.3.7: Upland impacts shall be compensated through payment into the City's Habitat Acquisition Fund or acquisition and preservation of specific land in accordance with the ratios identified in Table 4.3-11. Upland mitigation shall be completed within six months of the date the related maintenance has been completed. (Appendix C.1 MM 7.1.2a)

Table 4.3-11
UPLAND HABITAT MITIGATION RATIOS[1]

Vegetation Type	Tier	Location of Impact with Respect to the MHPA	
		Inside	Outside
Coast live oak woodland	I	2:1	1:1
Scrub oak chaparral	I	2:1	1:1
Southern foredunes	I	2:1	1:1
Beach	I	2:1	1:1
Diegan coastal sage scrub	II	1:1	1:1
Coastal sage-chaparral scrub	II	1:1	1:1
Broom baccharis scrub	II	1:1	1:1
Southern mixed chaparral	IIA	1:1	0.5:1
Non-native grassland	IIIB	1:1	0.5:1
Eucalyptus woodland	IV	--	--
Non-native vegetation/ornamental	IV	--	--
Disturbed habitat/ruderal	IV	--	--
Developed	IV	--	--

[1]Assumes mitigation occurs within an MHPA

Mitigation Measure 4.3.8: No maintenance activities within a proposed annual maintenance program shall be initiated before the City's Assistant Deputy Director (ADD) Environmental Designee and state and federal agencies with jurisdiction over maintenance activities have approved the IMPs and IBAs including proposed mitigation for each of the proposed activities. In their review, the ADD Environmental Designee and agencies shall confirm that the appropriate maintenance protocols have been incorporated into each IMP.

Mitigation Measure 4.3.9: No maintenance activities within a proposed annual maintenance program shall be initiated until the City's ADD Environmental Designee and Mitigation Monitoring Coordinator (MMC) have approved the qualifications for biologist(s) who shall be responsible for monitoring maintenance activities which may impact sensitive biological resources.

Mitigation Measure 4.3.10: Within six months of the end of an annual storm water facility maintenance program, the monitoring biologist shall complete an annual report which shall be distributed to the following agencies: the City of San Diego DSD, CDFG, RWQCB, USFWS, and Corps. At a minimum, the report shall contain the following information:

- Tabular summary of the biological resources impacted during maintenance and the mitigation carried out as compensation;
- Master table containing the following information for each individual storm water facility or segment which is regularly maintained;
- Date and type of most recent maintenance;
- Description of mitigation which has occurred; and
- Description of the status of mitigation which has been implemented for past maintenance activities.

Mitigation Measure 4.3.11: Impacts to floodplains within the MHPA shall be minimized, to the greatest extent practicable, through project design and coordination with the regulating agencies.

Mitigation Measure 4.3.12: Placement of new riprap, concrete, or other unnatural material into channels in the MHPA would be minimized to the maximum extent practicable. These materials would be used only in the event of severe erosion of earthen banks that cannot feasibly be repaired with the use of natural materials.

Mitigation Measure 4.3.13: Construction of temporary access and staging along channels shall be restricted to those areas where no such facilities currently exist. Impacts to sensitive habitat and/or sensitive species shall be minimized to the greatest extent practicable through project design measures, such as locating the facilities in the least sensitive habitat possible. (Appendix C.1 MM 7.1.6c)

Mitigation Measure 4.3.14: Prior to commencing any activity where the IBA indicates significant impacts to biological resources may occur, a pre-maintenance meeting shall be held on site with following in attendance: SWD Maintenance Manager (MM), MMC, and Maintenance Contractor (MC). The biologist selected to monitor the activities shall be present. At this meeting the monitoring biologist shall review the maintenance protocols that apply to the maintenance activities, and review the monitoring protocol to be followed.

At the pre-maintenance meeting, the monitoring biologist shall submit to the MMC and MC a copy of the site/grading plan (reduced to 11"x17") that identifies areas to be protected, fenced,

and monitored. This data shall include all planned locations and design of noise attenuation walls or other devices. The monitoring biologist also shall submit a construction schedule to the MMC and MC indicating when and where monitoring is to begin and shall notify the MMC of the start date for monitoring.

Mitigation Measure 4.3.15: Prior to commencing any maintenance activity which may impact sensitive biological resources, the monitoring biologist shall verify that the following actions have been taken, as appropriate:

- Fencing, flagging, signage, or other means to protect sensitive resources have been implemented;
- Noise attenuation measures needed to protect sensitive wildlife are in place and effective; and/or
- Nesting raptors have been identified and necessary maintenance setbacks have been established if maintenance is to occur between ~~February 1~~January 15 and August 31.

The designated biological monitor shall be present throughout the first full day of maintenance whenever mandated by the associated IBA. Thereafter, through the duration of the maintenance activity, the monitoring biologist shall visit the site weekly to confirm that measures required to protect sensitive resources (e.g., flagging, fencing, noise barriers) continue to be effective. The monitoring biologist shall document monitoring events via a Consultant Site Visit Record. This record shall be sent to the MM each month. The MM will forward copies to MMC.

Mitigation Measure 4.3.16: Within three months following the completion of mitigation monitoring, two copies of a written draft report summarizing the monitoring shall be prepared by the monitoring biologist and submitted to the MMC for approval. The draft monitoring report shall describe the results including any remedial measures that were required. Within 90 days of receiving comments from the MMC on the draft monitoring report, the biologist shall submit one copy of the final monitoring report to the MMC.

Mitigation Measure 4.3.17: Prior to commencing any activity that could impact wetlands, evidence of compliance with other permitting authorities is required, if applicable. Evidence shall include copies of permits issued, letters of resolution issued by the Responsible Agency documenting compliance, or other evidence documenting compliance and deemed acceptable by the ADD Environmental Designee.

Mitigation Measure 4.3.18: Access roads and staging areas shall be monitored for presence of exotic species, and exotic species would be removed as appropriate. Maintenance clearing of

storm water facilities also would remove non-native species. Mitigation for direct impacts from the proposed project also may involve the removal of invasive non-native species in and adjacent to storm water facilities within the MHPA. (Appendix C.1 MM 7.2.1a)

Mitigation Measure 4.3.19: Physical erosion control measures such as fiber mulch, hay bales, etc., shall not harbor seeds from invasive species. (Appendix C.1 MM 7.2.1b)

Mitigation Measure 4.3.20: Removal of invasive plant species shall occur prior to the beginning of proposed maintenance activities.

Mitigation Measure 4.3.210: Prior to undertaking any maintenance activity included in an annual maintenance program, the SWD shall create a mitigation account to provide sufficient funds to implement all biological mitigation associated with the proposed maintenance activities. The fund amount shall be determined by the ADD Environmental Designee. The account shall be managed by the SWD, with quarterly status reports submitted to DSD. The status reports shall separately identify upland and wetland account activity. Based upon the impacts identified in the IBAs, money shall be deposited into the account, as part of the project submittal, to ensure available funds for mitigation.

Mitigation Measure 4.3.221: Impacts to listed or endemic sensitive plant species shall be offset through implementation of one or a combination of the following actions:

- Impacted plants would be salvaged and relocated;
- Seeds from impacted plants would be collected for use at an off-site location;
- Off-site habitat that supports the species impacted shall be enhanced and/or supplemented with seed collected onsite; and/or
- Comparable habitat at an off-site location shall be preserved.

Mitigation which involves relocation, enhancement or transplanting sensitive plants shall include the following:

- Conceptual planting plan including grading and, if appropriate, temporary irrigation;
- Planting specifications;
- Monitoring Program including success criteria; and
- Long-term maintenance and preservation plan. (Appendix C.1 MM 7.1.4a)

Mitigation Measure 4.3.232: Wherever possible, maintenance activities shall not occur within the following areas:

- 300 feet from any nesting site of Cooper's hawk (*Accipiter cooperii*);
- 1,500 feet from known locations of the southern pond turtle (*Clemmys marmorata pallida*);
- 900 feet from any nesting sites of northern harriers (*Circus cyaneus*);
- 4,000 feet from any nesting sites of golden eagles (*Aquila chrysaetos*); or
- 300 feet from any occupied burrow or burrowing owls (*Athene cunicularia*). (Appendix C.1 MM 7.1.5b)

Mitigation Measure 4.3.243: If evidence indicates the potential is high for a listed species to be present based on historical records or site conditions, then clearing, grubbing, or grading (inside and outside the MHPA) shall be restricted during the breeding season where development may impact the following species:

- Western snowy plover (between March 1 and September 15);
- Least tern (between April 1 and September 15);
- Cactus wren (between February 15 and August 15); or
- Tricolored black bird (between March 1 and August 1.

When other sensitive species, including, but not limited to, the arroyo toad, burrowing owl, or Quino checkerspot butterfly are known or suspected to be present all appropriate protocol surveys and mitigation measures shall be implemented. (Appendix C.1 MM 7.1.5d)

Mitigation Measure 4.3.254: If a subject species is not detected during the protocol survey, the qualified biologist shall submit substantial evidence to the ADD and an applicable resource agency which demonstrates whether or not mitigation measures such as noise walls are necessary between the dates stated above for each species. If this evidence concludes that no impacts to this species are anticipated, no mitigation measures would be necessary. (Appendix C.1 MM 7.2.3c)

Mitigation Measure 4.3.265: If the City chooses not to do the required surveys, then it shall be assumed that the appropriate avian species are present and all necessary protection and mitigation measures shall be required as described in Mitigation Measure 4.3.2627. (Appendix C.1 MM 7.2.3d)

Mitigation Measure 4.3.276: If no surveys are completed and no sound attenuation devices are installed, it will be assumed that the habitat in question is occupied by the appropriate species and that maintenance activities would generate more than 60dB(A) L_{eq} within the habitat

requiring protection. All such activities adjacent to the protected habitat shall cease for the duration of the breeding season of the appropriate species and a qualified biologist shall establish a limit of work. (Appendix C.1 MM 7.2.3e)

Mitigation Measure 4.3.2~~8~~7: If maintenance occurs during the raptor breeding season (~~February 1~~January 15 to August 31), a pre-maintenance survey for active raptor nests shall be conducted in areas supporting suitable habitat. If active raptor nests are found, maintenance shall not occur within 300 feet of a Cooper's hawk nest, 900 feet of a northern harrier's nest, or 500 feet of any other raptor's nest until any fledglings have left the nest~~ or until after August 1~~. (Appendix C.1 MM 7.2.3g)

Mitigation Measure 4.3.2~~9~~8: If removal of any eucalyptus trees or other trees used by raptors for nesting within a maintenance area is proposed during the raptor breeding season (~~February 1~~January 15 through August 31), a qualified biologist shall ensure that no raptors are nesting in such trees. If maintenance occurs during the raptor breeding season, a pre-maintenance survey shall be conducted and no maintenance shall occur within 300 feet of any nesting site of Cooper's hawk or other nesting raptor until the young fledge. Should the biologist determine that raptors are nesting, the trees shall not be removed until after the breeding season. In addition, if removal of grassland or other habitat appropriate for nesting by northern harriers, a qualified biologist shall ensure that no harriers are nesting in such areas. If maintenance occurs during the raptor breeding season, a pre-maintenance survey shall be conducted and no maintenance shall occur within 900 feet of any nesting site of northern harrier until the young fledge. (Appendix C.1 MM 7.1.5c)

Mitigation Measure 4.3.3~~0~~29: If maintenance activities would occur at known localities for listed fish species, a biologist shall determine the presence/absence of flowing/standing water and/or the presence/absence of the species. If flowing/standing water is present, a biological monitor would accompany the maintenance crew and supervise the activities. If maintenance activities must occur within suitable habitat for other highly sensitive aquatic species (i.e., southwestern pond turtle) avoidance or minimization measures (i.e., exclusionary fencing, dewatering of the activity area, live-trapping, and translocation to suitable habitat) must be implemented. (Appendix C.1 MM 7.1.5e)

Mitigation Measure 4.3.3~~1~~0: If maintenance activities will occur within areas supporting listed and/or narrow endemic plants, the boundaries of the plant populations designated sensitive by the resource agencies will be clearly delineated with flagging or temporary fencing that must remain in place for the duration of the activity. Whenever possible, flagged or fenced areas must

be avoided. Where these areas cannot be avoided, proper rehabilitation of the impact area will occur. (Appendix C.1 MM 7.2.2a)

Mitigation Measure 4.3.32: In order to avoid impacts to nesting avian species, including those species not covered by the MSCP, maintenance within or adjacent to avian nesting habitat shall occur outside of the avian breeding season (January 15 to August 31) unless postponing maintenance would result in a threat to human life or property.

HISTORICAL RESOURCES

Potential impacts to historical resources would be reduced to below a level of significance through implementation of the following mitigation measures.

Mitigation Measure 4.4.1: Prior to commencement of the first occurrence of maintenance activity within a drainage facility included in the MSWSMP, an archaeologist, meeting the qualifications specified by the City's HRG, shall determine the potential for significant historical resources to occur in the maintenance area. If the archaeologist determines that the potential is moderate to high, an IHA shall be prepared. Based on the IMP for the proposed maintenance activity, the archaeologist shall determine the APE, which shall include access, staging, and maintenance areas. The IHA shall include a field survey of the APE with a Native American monitor, using the standards of the City's HRG. In addition, the archaeologist shall request a record search from the SCIC. Based on the results of the field survey and record search, the archaeologist shall conduct an archaeological testing program for any identified historical resources, using the standards of the City's HRG. If significant historical resources are identified, they shall be taken to the Historical Resources Board for designation as Historic Sites. Avoidance or implementation of an Archaeological Data Recovery Program (ADRP) and Archaeological Monitoring Program shall be required to mitigate project impacts to significant historical resources. The archaeologist shall prepare a report in accordance with City guidelines. At a minimum, the IHA report shall include:

- Description of maintenance to be performed, including length, width, and depth;
- Prehistory and History Background Discussion;
- Results of Record Search;
- Survey Methods;
- Archaeological Testing Methods;
- Impact Analysis; and
- Mitigation Recommendations, including avoidance or implementation of an ADRP and archaeological monitoring program.

In the event that the IHA indicates that no significant historical resources occur within the APE, or have the potential to occur within the APE, no further action shall be required.

Mitigation Measure 4.4.2: Prior to initiating any maintenance activity where the IHA identifies existing significant historical resources within the APE, the following actions shall be taken.

4.4.2.1. The Storm Water Department shall select a Principal Investigator (PI), who shall be approved by the ADD Environmental Designee. The PI must meet the requirements of the City's HRG.

4.4.2.2. Mitigation recommendations from the IHA shall be incorporated into the IMP to the satisfaction of the PI and the ADD Environmental Designee. Typical mitigation measures shall include but not be limited to: delineating resource boundaries on maintenance plans; implementing protective measures such as fencing, signage or capping; and selective monitoring during maintenance activities.

4.4.2.3. If impacts to significant historical resources cannot be avoided, the PI shall prepare an Archaeological Research Design and Data Recovery Program (ARDDRP) for the affected resources, with input from a Native American consultant, and the ARDDRP shall be approved by the ADD Environmental Designee. Based on the approved research design, a phased excavation program shall be conducted, which will include the participation of a Native American. The sample size to be excavated shall be determined by the PI, in consultation with City staff. The sample size shall vary with the nature and size of the archaeological site, but ~~shall~~ need not exceed 15 percent of the overall resource area. The area involved in the ARDDRP shall be surveyed, staked and flagged by the archaeological monitor, prior to commencing maintenance activities which could affect the identified resources.

4.4.2.4. A pre-maintenance meeting shall be held on-site prior to commencing any maintenance that may impact a significant historical resource. The meeting shall include representatives from the PI, the Native American consultant, Storm Water Department, Mitigation Monitoring Coordinator (MMC), Resident Engineer (RE), and Maintenance Contractor (MC). The PI shall explain mitigation measures which must be implemented during maintenance. The PI shall also confirm that all protective measures (e.g. fencing, signage or capping) are in place.

4.4.2.5. If human remains are discovered in the course of conducting the ARDDRP, work shall be halted in that area and the following procedures set forth in the California Public Resources Code (Sec. 5097.98) and State Health and Safety Code (Sec. 7050.5) will be taken:

- The PI shall notify the RE, and the MMC. The MMC will notify the appropriate Senior Planner in the Environmental Analysis Section (EAS).
- The PI shall notify the Medical Examiner, after consultation with the RE, either in person or via telephone.
- Work will be redirected away from the location of the discovery and any nearby area reasonably suspected to overlay adjacent human remains until a determination can be made by the Medical Examiner, in consultation with the PI, concerning the provenience of the remains.
- The Medical Examiner, in consultation with the PI, shall determine the need for a field examination to determine the provenience.
- If a field examination is not warranted, the Medical Examiner shall determine, with input from the PI, if the remains are or are most likely to be of Native American origin.
- If Human Remains are determined to be Native American, the Medical Examiner shall notify the Native American Heritage Commission (NAHC). The NAHC shall contact the PI within 24 hours after the Medical Examiner has completed coordination. The NAHC will identify the person or persons determined to be the Most Likely Descendent (MLD) and provide contact information. The PI will coordinate with the MLD for additional coordination. Disposition of Native American human remains will be determined between the MLD and the PI. If (1) the NAHC is unable to identify the MLD, or the MLD fails to make a recommendation within 24 hours after being notified by the Commission; or (2) the landowner or authorized representative rejects the recommendation of the MLD and mediation in accordance with PRC 5097.94 (k) by the NAHC fails to provide measures acceptable to the landowner, the landowner or their authorized representative shall re-inter the human remains and all associated grave goods with appropriate dignity, on the property in a location not subject to subsurface disturbance. Information on this process will be provided to the NAHC.
- If Human Remains are not Native American, the PI shall contact the Medical Examiner and notify them of the historic era context of the burial. The Medical Examiner shall determine the appropriate course of action with the PI and City staff (PRC 5097.98). If the remains are of historic origin, they shall be appropriately removed and conveyed to the Museum of Man for analysis. The decision for reinterment of the human remains shall be made in consultation with MMC, EAS, the landowner, and the Museum.

4.4.2.6. The PI shall be responsible for ensuring: (1) that all cultural materials collected are cleaned, catalogued and permanently curated with an appropriate institution; (2) that a letter of acceptance from the curation institution has been submitted to MMC; (3) that all artifacts are analyzed to identify function and chronology as they relate to the history of the area; (4) that faunal material is identified as to species; and (5) that specialty studies are completed, as appropriate. Curation of artifacts associated with the survey, testing and/or data recovery for this project shall be completed in consultation with LDR and the Native American representative, as applicable.

4.4.2.7. The Archaeologist shall be responsible for updating the appropriate State of California Department of Park and Recreation forms-DPR 523 A/B associated with the ARDDRP in accordance with the City's Historical Resources Guidelines, and submittal of such forms to the SCIC with the Final Results Report.

4.4.2.8. The PI shall prepare a Draft Results Report (even if negative) that describes the results, analysis and conclusions of the ARDDRP (with appropriate graphics). The MMC shall return the Draft Results Report to the PI for revision or for preparation of the Final Report. The PI shall submit the revised Draft Results Report to MMC for approval. The MMC shall provide written verification to the PI of the approved report. The MMC shall notify the RE of receipt of all Draft Result Report submittals and approvals. The MMC shall notify the RE of receipt of the Final Results Report.

Mitigation Measure 4.4.3: Prior to initiating any maintenance activity where the IHA identifies a moderate to high potential for the occurrence of significant historical resources within the APE, the following actions shall be taken:

4.4.3.1. Prior to Permit Issuance or Bid Opening/Bid Award

A. Entitlements Plan Check
   1. Prior to permit issuance or Bid Opening/Bid Award, whichever is applicable, the Assistant Deputy Director (ADD) Environmental designee shall verify that the requirements for Archaeological Monitoring and Native American monitoring have been noted on the appropriate construction documents.

B. Letters of Qualification have been submitted to ADD
   1. Prior to Bid Award, the applicant shall submit a letter of verification to Mitigation Monitoring Coordination (MMC) identifying the Principal Investigator (PI) for the project and the names of all persons involved in the archaeological monitoring program, as defined in the City of San Diego Historical Resources Guidelines (HRG). If applicable, individuals involved in the archaeological monitoring

program must have completed the 40-hour HAZWOPER training with certification documentation.

2. MMC will provide a letter to the applicant confirming the qualifications of the PI and all persons involved in the archaeological monitoring of the project.
3. Prior to the start of work, the applicant must obtain approval from MMC for any personnel changes associated with the monitoring program.

4.4.3.2. Prior to Start of Construction

A. Verification of Records Search

1. The PI shall provide verification to MMC that a site specific records search (1/4 mile radius) has been completed. Verification includes, but is not limited to a copy of a confirmation letter from South Coast Information Center, or, if the search was in-house, a letter of verification from the PI stating that the search was completed.
2. The letter shall introduce any pertinent information concerning expectations and probabilities of discovery during trenching and/or grading activities.
3. The PI may submit a detailed letter to MMC requesting a reduction to the ¼ mile radius.

B. PI Shall Attend Precon Meetings

1. Prior to beginning any work that requires monitoring; the Applicant shall arrange a Precon Meeting that shall include the PI, Construction Manager (CM) and/or Grading Contractor, Resident Engineer (RE), Building Inspector (BI), if appropriate, and MMC. The qualified Archaeologist and Native American monitor shall attend any grading/excavation related Precon Meetings to make comments and/or suggestions concerning the Archaeological Monitoring program with the Construction Manager and/or Grading Contractor.
   a. If the PI is unable to attend the Precon Meeting, the Applicant shall schedule a focused Precon Meeting with MMC, the PI, RE, CM or BI, if appropriate, prior to the start of any work that requires monitoring.
2. Acknowledgement of Responsibility for Curation (CIP or Other Public Projects)
   a. The applicant shall submit a letter to MMC acknowledging their responsibility for the cost of curation associated with all phases of the archaeological monitoring program.
3. Identify Areas to be Monitored
   a. Prior to the start of any work that requires monitoring, the PI shall submit an Archaeological Monitoring Exhibit (AME) based on the appropriate construction documents (reduced to 11x17) to MMC for approval identifying

the areas to be monitored including the delineation of grading/excavation limits.

b. The AME shall be based on the results of a site specific records search as well as information regarding the age of existing pipelines, laterals and associated appurtenances and/or any known soil conditions (native or formation).

c. MMC shall notify the PI that the AME has been approved.

4. When Monitoring Will Occur

a. Prior to the start of any work, the PI shall also submit a construction schedule to MMC through the RE indicating when and where monitoring will occur.

b. The PI may submit a detailed letter to MMC prior to the start of work or during construction requesting a modification to the monitoring program. This request shall be based on relevant information such as review of final construction documents which indicate conditions such as age of existing pipe to be replaced, depth of excavation and/or site graded to bedrock, etc., which may reduce or increase the potential for resources to be present.

5. Approval of AME and Construction Schedule

a. After approval of the AME by MMC, the PI shall submit to MMC written authorization of the AME and Construction Schedule from the CM.

4.4.3.3. During Construction

A. Monitor Shall be Present During Grading/Excavation/Trenching

1. The Archaeological monitor shall be present full-time during grading/excavation/trenching activities including, but not limited to mainline, laterals, jacking and receiving pits, services and all other appurtenances associated with underground utilities as identified on the AME and as authorized by the CM. The Native American monitor shall determine the extent of their presence during construction related activities based on the AME and provide that information to the PI and MMC. **The Construction Manager is responsible for notifying the RE, PI, and MMC of changes to any construction activities such as in the case of a potential safety concern within the area being monitored. In certain circumstances OSHA safety requirements may necessitate modification of the PME.**

2. The PI may submit a detailed letter to MMC during construction requesting a modification to the monitoring program when a field condition such as modern disturbance post-dating the previous grading/trenching activities, presence of fossil formations, or when native soils are encountered may reduce or increase the potential for resources to be present.

3. The monitor shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR's shall be faxed by the CM to the RE the first day of

monitoring, the last day of monitoring, monthly (**Notification of Monitoring Completion**), and in the case of ANY discoveries. The RE shall forward copies to MMC.

~~2. The monitor shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR's shall be faxed by the CM to the RE the first day of monitoring, the last day of monitoring, monthly (**Notification of Monitoring Completion**), and in the case of ANY discoveries. The RE shall forward copies to MMC.~~

~~3. The PI may submit a detailed letter to the CM and/or RE for concurrence and forwarding to MMC during construction requesting a modification to the monitoring program when a field condition such as modern disturbance post-dating the previous trenching activities, presence of fossil formations, or when native soils are encountered may reduce or increase the potential for resources to be present.~~

B. Discovery Notification Process
   1. In the event of a discovery, the Archaeological Monitor shall direct the contractor to temporarily divert trenching activities in the area of discovery and immediately notify the RE or BI, as appropriate.
   2. The Monitor shall immediately notify the PI (unless Monitor is the PI) of the discovery.
   3. The PI shall immediately notify MMC by phone of the discovery, and shall also submit written documentation to MMC within 24 hours by fax or email with photos of the resource in context, if possible.

C. Determination of Significance
   1. The PI and Native American monitor shall evaluate the significance of the resource. If Human Remains are involved, follow protocol in Section 4.4.2.4 below.
      a. The PI shall immediately notify MMC by phone to discuss significance determination and shall also submit a letter to MMC indicating whether additional mitigation is required.
      b. If the resource is significant, the PI shall submit an Archaeological Data Recovery Program (ADRP) and obtain written approval of the program from MMC, CM and RE. ADRP and any mitigation must be approved by MMC, RE and/or CM before ground disturbing activities in the area of discovery will be allowed to resume.

(1) Note: For pipeline trenching projects only, the PI shall implement the Discovery Process for Pipeline Trenching projects identified below under "D."

c. If resource is not significant, the PI shall submit a letter to MMC indicating that artifacts will be collected, curated, and documented in the Final Monitoring Report. The letter shall also indicate that that no further work is required.

(1) Note: For Pipeline Trenching Projects Only. If the deposit is limited in size, both in length and depth; the information value is limited and is not associated with any other resource; and there are no unique features/artifacts associated with the deposit, the discovery should be considered not significant.

(2) Note: for Pipeline Trenching Projects Only: If significance can-not be determined, the Final Monitoring Report and Site Record (DPR Form 523A/B) shall identify the discovery as Potentially Significant.

D. Discovery Process for Significant Resources - Pipeline Trenching Projects
The following procedure constitutes adequate mitigation of a significant discovery encountered during pipeline trenching activities including but not limited to excavation for jacking pits, receiving pits, laterals, and manholes to reduce impacts to below a level of significance:

1. Procedures for documentation, curation and reporting
   a. One hundred percent of the artifacts within the trench alignment and width shall be documented in-situ, to include photographic records, plan view of the trench and profiles of side walls, recovered, photographed after cleaning and analyzed and curated. The remainder of the deposit within the limits of excavation (trench walls) shall be left intact.
   b. The PI shall prepare a Draft Monitoring Report and submit to MMC via the RE as indicated in Section VI-A.
   c. The PI shall be responsible for recording (on the appropriate State of California Department of Park and Recreation forms-DPR 523 A/B) the resource(s) encountered during the Archaeological Monitoring Program in accordance with the City's Historical Resources Guidelines. The DPR forms shall be submitted to the South Coastal Information Center for either a Primary Record or SDI Number and included in the Final Monitoring Report.
   d. The Final Monitoring Report shall include a recommendation for monitoring of any future work in the vicinity of the resource.

4.4.3.4. Discovery of Human Remains

If human remains are discovered, work shall halt in that area and the following procedures as set forth in the California Public Resources Code (Sec. 5097.98) and State Health and Safety Code (Sec. 7050.5) shall be undertaken:

A. Notification
   1. Archaeological Monitor shall notify the RE or BI as appropriate, MMC, and the PI, if the Monitor is not qualified as a PI. MMC will notify the appropriate Senior Planner in the Environmental Analysis Section (EAS).
   2. The PI shall notify the Medical Examiner after consultation with the RE, either in person or via telephone.

B. Isolate discovery site
   1. Work shall be directed away from the location of the discovery and any nearby area reasonably suspected to overlay adjacent human remains until a determination can be made by the Medical Examiner in consultation with the PI concerning the provenience of the remains.
   2. The Medical Examiner, in consultation with the PI, will determine the need for a field examination to determine the provenience.
   3. If a field examination is not warranted, the Medical Examiner will determine with input from the PI, if the remains are or are most likely to be of Native American origin.

C. If Human Remains **ARE** determined to be Native American
   1. The Medical Examiner will notify the Native American Heritage Commission (NAHC) within 24 hours. By law, **ONLY** the Medical Examiner can make this call.
   2. NAHC will immediately identify the person or persons determined to be the Most Likely Descendent (MLD) and provide contact information.
   3. The MLD will contact the PI within 24 hours or sooner after the Medical Examiner has completed coordination, to begin the consultation process in accordance with the California Public Resource and Health & Safety Codes.
   4. The MLD will have 48 hours to make recommendations to the property owner or representative, for the treatment or disposition with proper dignity, of the human remains and associated grave goods.
   5. Disposition of Native American Human Remains shall be determined between the MLD and the PI, IF:
      a. The NAHC is unable to identify the MLD, OR the MLD failed to make a recommendation within 48 hours after being notified by the Commission; OR;

b. The landowner or authorized representative rejects the recommendation of the MLD and mediation in accordance with PRC 5097.94 (k) by the NAHC fails to provide measures acceptable to the landowner.

c. To protect these sites, the landowner shall do one or more of the following:
   (1) Record the site with the NAHC;
   (2) Record an open space or conservation easement; or
   (3) Record a document with the County.

d. Upon the discovery of multiple Native American human remains during a ground disturbing land development activity, the landowner may agree that additional conferral with descendants is necessary to consider culturally appropriate treatment of multiple Native American human remains. Culturally appropriate treatment of such a discovery may be ascertained from review of the site utilizing cultural and archaeological standards. Where the parties are unable to agree on the appropriate treatment measures the human remains and buried with Native American human remains shall be reinterred with appropriate dignity, pursuant to Section 5.c., above.

D. If Human Remains are **NOT** Native American

1. The PI shall contact the Medical Examiner and notify them of the historic era context of the burial.
2. The Medical Examiner will determine the appropriate course of action with the PI and City staff (PRC 5097.98).
3. If the remains are of historic origin, they shall be appropriately removed and conveyed to the Museum of Man for analysis. The decision for interment of the human remains shall be made in consultation with MMC, EAS, the applicant department and/or Real Estate Assets Department (READ) and the Museum of Man.

4.4.3.5. Night and/or Weekend Work

A. If night and/or weekend work is included in the contract

1. When night and/or weekend work is included in the contract package, the extent and timing shall be presented and discussed at the ~~p~~Precon ~~m~~Meeting.
2. The following procedures shall be followed.
   a. No Discoveries
      In the event that no discoveries were encountered during night and/or weekend work, the PI shall record the information on the CSVR and submit to MMC via fax by 8AM of the next business day.

b. Discoveries
All discoveries shall be processed and documented using the existing procedures detailed in Sections 4.4.2.3 – During Construction, and 4.4.2.4 – Discovery of Human Remains.

c. Potentially Significant Discoveries
If the PI determines that a potentially significant discovery has been made, the procedures detailed under Section 4.4.2.3 – During Construction shall be followed.

d. The PI shall immediately contact the RE and MMC, or by 8AM of the next business day to report and discuss the findings as indicated in Section 4.4.2.3-B, unless other specific arrangements have been made.

B. If night and/or weekend work becomes necessary during the course of construction
1. The Construction Manager shall notify the RE or BI, as appropriate, a minimum of 24 hours before the work is to begin.
2. The RE or BI, as appropriate, shall notify MMC immediately.

C. All other procedures described above shall apply, as appropriate.

4.4.3.6. Post Construction

A. Submittal of Draft Monitoring Report
1. The PI shall submit two copies of the Draft Monitoring Report (even if negative), prepared in accordance with the Historical Resources Guidelines (Appendix D) which describes the results, analysis, and conclusions of all phases of the Archaeological Monitoring Program (with appropriate graphics) to MMC via the RE for review and approval within 90 days following the completion of monitoring.
   a. For significant archaeological resources encountered during monitoring, the basis for determining archaeological significance and ADRP or Pipeline Trenching Discovery Process shall be included in the Draft Monitoring Report.
   b. Recording Sites with State of California Department of Parks and Recreation
   The PI shall be responsible for recording (on the appropriate State of California Department of Park and Recreation forms-DPR 523 A/B) any significant or potentially significant resources encountered during the Archaeological Monitoring Program in accordance with the City's Historical Resources Guidelines, and submittal of such forms to the South Coastal Information Center with the Final Monitoring Report.
2. MMC shall return the Draft Monitoring Report to the PI via the RE for revision or, for preparation of the Final Report.

3. The PI shall submit revised Draft Monitoring Report to MMC via the RE for approval.
4. MMC shall provide written verification to the PI of the approved report.
5. MMC shall notify the RE or BI, as appropriate, of receipt of all Draft Monitoring Report submittals and approvals.

B. Handling of Artifacts
1. The PI shall be responsible for ensuring that all cultural remains collected are cleaned and catalogued
2. The PI shall be responsible for ensuring that all artifacts are analyzed to identify function and chronology as they relate to the history of the area; that faunal material is identified as to species; and that specialty studies are completed, as appropriate.

C. Curation of artifacts: Accession Agreement and Acceptance Verification
1. The PI shall be responsible for ensuring that all artifacts associated with the survey, testing and/or data recovery for this project are permanently curated with an appropriate institution. This shall be completed in consultation with MMC and the Native American representative, as applicable.
2. The PI shall submit the Accession Agreement and catalogue record(s) to the RE or BI, as appropriate for donor signature with a copy submitted to MMC.
3. The RE or BI, as appropriate shall obtain signature on the Accession Agreement and shall return to PI with copy submitted to MMC.
4. The PI shall include the Acceptance Verification from the curation institution in the Final Monitoring Report submitted to the RE or BI and MMC.

D. Final Monitoring Report(s)
1. The PI shall submit one copy of the approved Final Monitoring Report to the RE or BI as appropriate, and one copy to MMC (even if negative), within 90 days after notification from MMC of the approved report.
2. The RE shall, in no case, issue the Notice of Completion until receiving a copy of the approved Final Monitoring Report from MMC which includes the Acceptance Verification from the curation institution.

LAND USE

Potential impacts to land use policies in the City's General Plan would be reduced to below a level of significance through implementation of the following mitigation measures.

Mitigation Measure 4.1.1: Prior to the commencing maintenance on any storm water facility within, or immediately adjacent to, a Multi-Habitat Planning Area (MHPA), the ADD

Environmental Designee shall verify that all MHPA boundaries and limits of work have been delineated on all maintenance documents.

Mitigation Measure 4.1.2: A qualified biologist (possessing a valid Endangered Species Act Section 10(a)(1)(a) recovery permit) shall survey those habitat areas inside and outside the MHPA suspected to serve as habitat (based on historical records or site conditions) for the coastal California gnatcatcher, least Bell's vireo and/or other listed species. Surveys for the appropriate species shall be conducted pursuant to the protocol survey guidelines established by the U.S. Fish and Wildlife Service. (Appendix C.1 MM 7.2.3a) When other sensitive species, including, but not limited to, the arroyo toad, burrowing owl, or Quino checkerspot butterfly are known or suspected to be present all appropriate protocol surveys and mitigation measures identified in Section 4.3, Biological Resources, required shall be implemented. (Appendix C.1 MM 7.1.5d)

Mitigation Measure 4.1.3: If a listed species is located within 500 feet of a proposed maintenance activity and maintenance would occur during the associated breeding season, an analysis of the noise generated by maintenance activities shall be completed by a qualified acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the ADD. The analysis shall identify the location of the 60 dB(A) L_{eq} noise contour on the maintenance plan. The report shall also identify measures to be undertaken during maintenance to reduce noise levels.

Mitigation Measure 4.1.4: Based on the location of the 60 dB(A) L_{eq} noise contour and the results of the protocol surveys, the Project Biologist shall determine if maintenance has the potential to impact breeding activities of listed species. If one or more of the following species are determined to significantly impacted by maintenance, then maintenance (inside and outside the MHPA) shall, whenever possible, be restricted during the breeding season as follows:

- Coastal California gnatcatcher (between March 1 and August 15 inside the MHPA only; no restrictions outside MHPA);
- Least Bell's vireo (between March 15 and September 15); and
- Southwestern willow flycatcher (between May 1 and September 1).

Mitigation Measure 4.1.5: If maintenance cannot be avoided during an identified breeding season for a listed bird which is determined to be potentially significantly affected by maintenance, then the following conditions must be met:

- At least two weeks prior to the commencement of maintenance activities, under the direction of a qualified acoustician, noise attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from maintenance activities shall not exceed 60 dB(A) hourly average at the edge of occupied habitat. Concurrent with the commencement of maintenance activities and the maintenance of necessary noise attenuation facilities, noise monitoring shall be conducted at the edge of the occupied habitat area to ensure that noise levels do not exceed 60 dB(a) hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the qualified acoustician or biologist, then the associated maintenance activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season of the subject species, as noted above.

- Maintenance noise shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the maintenance activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dB(A) hourly average. If not, other measures shall be implemented in consultation with the biologist and the ADD, as necessary, to reduce noise levels to below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. Such measures may include, but are not limited to, limitations on the placement of maintenance equipment and the simultaneous use of equipment.

- Prior to the commencement of maintenance activities that would disturb sensitive resources during the breeding season, the biologist shall insure that all fencing, staking and flagging identified as necessary on the ground have been installed properly in the areas restricted from such activities.

- If noise attenuation walls or other devices are required to assure protection to identified wildlife, then the biologist shall make sure such devices have been properly constructed, located and installed. (Appendix C.1 MM 7.2.3b)

Mitigation Measure 4.1.6: A pre-maintenance meeting shall be held with the Maintenance Contractor, City representative and the Project Biologist. The Project Biologist shall discuss the sensitive nature of the adjacent habitat with the crew and subcontractor. Prior to the pre-maintenance meeting, the following shall be completed:

- The Storm Water Department (SWD) shall provide a letter of verification to the Mitigation Monitoring Coordination Section stating that a qualified biologist, as defined in the City of San Diego Biological Resources Guidelines, has been retained to

implement the projects MSCP monitoring Program. The letter shall include the names and contact information of all persons involved in the Biological Monitoring of the project. At least thirty days prior to the pre-maintenance meeting, the qualified biologist shall submit all required documentation to MMC, verifying that any special reports, maps, plans and time lines, such as but not limited to, revegetation plans, plant relocation requirements and timing, MSCP requirements, avian or other wildlife protocol surveys, impact avoidance areas or other such information has been completed and updated.

- The limits of work shall be clearly delineated. The limits of work, as shown on the approved maintenance plan, shall be defined with orange maintenance fencing and checked by the biological monitor before initiation of maintenance. All native plants or species of special concern, as identified in the biological assessment, shall be staked, flagged and avoided within Brush Management Zone 2, if applicable.

Mitigation Measure 4.1.7: Maintenance plans shall be designed to accomplish the following.

- Invasive non-native plant species shall not be introduced into areas adjacent to the MHPA. Landscape plans shall contain non-invasive native species adjacent to sensitive biological areas, as shown on approved the maintenance plan.

- All lighting adjacent to, or within, the MHPA shall be shielded, unidirectional, low pressure sodium illumination (or similar) and directed away from sensitive areas using appropriate placement and shields. If lighting is required for nighttime maintenance, it shall be directed away from the preserve and the tops of adjacent trees with potentially nesting raptors, using appropriate placement and shielding.

- All maintenance activities (including staging areas and/or storage areas) shall be restricted to the disturbance areas shown on the approved maintenance plan. The project biologist shall monitor maintenance activities, as needed, to ensure that maintenance activities do not encroach into biologically sensitive areas beyond the limits of work as shown on the approved maintenance plan.

- No trash, oil, parking or other maintenance-related activities shall be allowed outside the established maintenance areas including staging areas and/or storage areas, as shown on the approved maintenance plan. All maintenance related debris shall be removed off-site to an approved disposal facility.

Mitigation Measure 4.1.8: Prior to commencing any maintenance in, or within 500 feet of any area determined to support coastal California gnatcatchers, the ADD Environmental Designee shall verify that the Multi-Habitat Planning Area (MHPA) boundaries and the following project requirements regarding the coastal California gnatcatcher are shown on the maintenance plans:

NO MAINTENANCE ACTIVITIES SHALL OCCUR BETWEEN MARCH 1 AND AUGUST 15, THE BREEDING SEASON OF THE COASTAL CALIFORNIA GNATCATCHER, UNTIL THE FOLLOWING REQUIREMENTS HAVE BEEN MET TO THE SATISFACTION OF THE CITY MANAGER:

a. A QUALIFIED BIOLOGIST (POSSESSING A VALID ENDANGERED SPECIES ACT SECTION 10(a)(1)(A) RECOVERY PERMIT) SHALL SURVEY THOSE HABITAT AREAS WITHIN THE MHPA THAT WOULD BE SUBJECT TO MAINTENANCE NOISE LEVELS EXCEEDING 60 DECIBELS [dB(A)] HOURLY AVERAGE FOR THE PRESENCE OF THE COASTAL CALIFORNIA GNATCATCHER. SURVEYS FOR THE COASTAL CALIFORNIA GNATCATCHER SHALL BE CONDUCTED PURSUANT TO THE PROTOCOL SURVEY GUIDELINES ESTABLISHED BY THE U.S. FISH AND WILDLIFE SERVICE WITHIN THE BREEDING SEASON PRIOR TO THE COMMENCEMENT OF ANY MAINTENANCE. IF GNATCATCHERS ARE PRESENT, THEN THE FOLLOWING CONDITIONS MUST BE MET:

   1. BETWEEN MARCH 1 AND AUGUST 15, MAINTENANCE OF OCCUPIED GNATCATCHER HABITAT SHALL BE PERMITTED. AREAS RESTRICTED FROM SUCH ACTIVITIES SHALL BE STAKED OR FENCED UNDER THE SUPERVISION OF A QUALIFIED BIOLOGIST; AND

   2. BETWEEN MARCH 1 AND AUGUST 15, NO MAINTENANCE ACTIVITIES SHALL OCCUR WITHIN ANY PORTION OF THE SITE WHERE MAINTENANCE ACTIVITIES WOULD RESULT IN NOISE LEVELS EXCEEDING 60 dB(A) HOURLY AVERAGE AT THE EDGE OF OCCUPIED GNATCATCHER HABITAT. AN ANALYSIS SHOWING THAT NOISE GENERATED BY MAINTENANCE ACTIVITIES WOULD NOT EXCEED 60 dB(A) HOURLY AVERAGE AT THE EDGE OF OCCUPIED HABITAT MUST BE COMPLETED BY A QUALIFIED ACOUSTICIAN (POSSESSING CURRENT NOISE ENGINEER LICENSE

OR REGISTRATION WITH MONITORING NOISE LEVEL EXPERIENCE WITH LISTED ANIMAL SPECIES) AND APPROVED BY THE CITY MANAGER AT LEAST TWO WEEKS PRIOR TO THE COMMENCEMENT OF MAINTENANCE ACTIVITIES. PRIOR TO THE COMMENCEMENT OF MAINTENANCE ACTIVITIES DURING THE BREEDING SEASON, AREAS RESTRICTED FROM SUCH ACTIVITIES SHALL BE STAKED OR FENCED UNDER THE SUPERVISION OF A QUALIFIED BIOLOGIST; OR

3. AT LEAST TWO WEEKS PRIOR TO THE COMMENCEMENT OF MAINTENANCE ACTIVITIES, UNDER THE DIRECTION OF A QUALIFIED ACOUSTICIAN, NOISE ATTENUATION MEASURES (e.g., BERMS, WALLS) SHALL BE IMPLEMENTED TO ENSURE THAT NOISE LEVELS RESULTING FROM MAINTENANCE ACTIVITIES WILL NOT EXCEED 60 dB(A) HOURLY AVERAGE AT THE EDGE OF HABITAT OCCUPIED BY THE COASTAL CALIFORNIA GNATCATCHER. CONCURRENT WITH THE COMMENCEMENT OF MAINTENANCE ACTIVITIES AND THE CONSTRUCTION OF NECESSARY NOISE ATTENUATION FACILITIES, NOISE MONITORING* SHALL BE CONDUCTED AT THE EDGE OF THE OCCUPIED HABITAT AREA TO ENSURE THAT NOISE LEVELS DO NOT EXCEED 60 dB(A) HOURLY AVERAGE. IF THE NOISE ATTENUATION TECHNIQUES IMPLEMENTED ARE DETERMINED TO BE INADEQUATE BY THE QUALIFIED ACOUSTICIAN OR BIOLOGIST, THEN THE ASSOCIATED MAINTENANCE ACTIVITIES SHALL CEASE UNTIL SUCH TIME THAT ADEQUATE NOISE ATTENUATION IS ACHIEVED OR UNTIL THE END OF THE BREEDING SEASON (AUGUST 16).

* Maintenance noise shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the maintenance activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. If not, other measures shall be implemented in consultation with the biologist and the City Manager, as necessary, to reduce noise levels to below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. Such measures may include, but are not limited to, limitations on the placement of maintenance equipment and the simultaneous use of equipment.

b. IF COASTAL CALIFORNIA GNATCATCHERS ARE NOT DETECTED DURING THE PROTOCOL SURVEY, THE QUALIFIED BIOLOGIST SHALL SUBMIT SUBSTANTIAL EVIDENCE TO THE CITY MANAGER AND APPLICABLE RESOURCE AGENCIES WHICH DEMONSTRATES WHETHER OR NOT MITIGATION MEASURES SUCH AS NOISE WALLS ARE NECESSARY BETWEEN MARCH 1 AND AUGUST 15 AS FOLLOWS:

1. IF THIS EVIDENCE INDICATES THE POTENTIAL IS HIGH FOR COASTAL CALIFORNIA GNATCATCHER TO BE PRESENT BASED ON HISTORICAL RECORDS OR SITE CONDITIONS, THEN CONDITION A.III SHALL BE ADHERED TO AS SPECIFIED ABOVE.

2. IF THIS EVIDENCE CONCLUDES THAT NO IMPACTS TO THIS SPECIES ARE ANTICIPATED, NO MITIGATION MEASURES WOULD BE NECESSARY.

PAELONTOLOGICAL RESOURCES

***Mitigation Measure* 4.7.1**: Prior to initiating any maintenance activity where the IHA identifies existing significant cultural resources within the APE, the following actions shall be taken.

4.7.1.1 Prior to Permit Issuance or Bid Opening/Bid Award

A. Entitlements Plan Check
   1. Prior to permit issuance or Bid Opening/Bid Award, whichever is applicable, the Assistant Deputy Director (ADD) Environmental designee shall verify that the requirements for Paleontological Monitoring have been noted on the appropriate construction documents.

B. Letters of Qualification have been submitted to ADD
   1. Prior to Bid Award, the applicant shall submit a letter of verification to Mitigation Monitoring Coordination (MMC) identifying the Principal Investigator (PI) for the project and the names of all persons involved in the paleontological monitoring program, as defined in the City of San Diego Paleontology Guidelines.
   2. MMC will provide a letter to the applicant confirming the qualifications of the PI and all persons involved in the paleontological monitoring of the project.
   3. Prior to the start of work, the applicant shall obtain approval from MMC for any personnel changes associated with the monitoring program.

4.7.1.2 Prior to Start of Construction

A. Verification of Records Search
   1. The PI shall provide verification to MMC that a site specific records search has been completed. Verification includes, but is not limited to a copy of a confirmation letter from San Diego Natural History Museum, other institution or, if the search was in-house, a letter of verification from the PI stating that the search was completed.
   2. The letter shall introduce any pertinent information concerning expectations and probabilities of discovery during trenching and/or grading activities.

B. PI Shall Attend Precon Meetings
   1. Prior to beginning any work that requires monitoring, the Applicant shall arrange a Precon Meeting that shall include the PI, Construction Manager (CM) and/or Grading Contractor, Resident Engineer (RE), Building Inspector (BI), if appropriate, and MMC. The qualified paleontologist shall attend any grading/excavation related Precon Meetings to make comments and/or suggestions concerning the Paleontological Monitoring program with the Construction Manager and/or Grading Contractor.
      a. If the PI is unable to attend the Precon Meeting, the Applicant shall schedule a focused Precon Meeting with MMC, the PI, RE, CM or BI, if appropriate, prior to the start of any work that requires monitoring.
   2. Acknowledgement of Responsibility for Curation (CIP or Other Public Projects) The applicant shall submit a letter to MMC acknowledging their responsibility for the cost of curation associated with all phases of the paleontological monitoring program.
   3. Identify Areas to be Monitored
      a. Prior to the start of any work that requires monitoring, the PI shall submit a Paleontological Monitoring Exhibit (PME) based on the appropriate construction documents (reduced to 11" x 17") to MMC for approval identifying the areas to be monitored including the delineation of grading/excavation limits. Monitoring shall begin at depths below 10 feet from existing grade or as determined by the PI in consultation with MMC. The determination shall be based on site specific records search data which supports monitoring at depths less than ten feet.
      b. The PME shall be based on the results of a site specific records search as well as information regarding existing known soil conditions (native or formation).
      c. MMC shall notify the PI that the PME has been approved.

4. When Monitoring Will Occur
   a. Prior to the start of any work, the PI shall also submit a construction schedule to MMC through the RE indicating when and where monitoring will occur.
   b. The PI may submit a detailed letter to MMC prior to the start of work or during construction requesting a modification to the monitoring program. This request shall be based on relevant information such as review of final construction documents which indicate conditions such as depth of excavation and/or site graded to bedrock, presence or absence of fossil resources, etc., which may reduce or increase the potential for resources to be present.
5. Approval of PME and Construction Schedule
   After approval of the PME by MMC, the PI shall submit to MMC written authorization of the PME and Construction Schedule from the CM.

4.7.1.3 During Construction

A. Monitor Shall be Present During Grading/Excavation/Trenching
   1. The monitor shall be present full-time during grading/excavation/trenching activities including, but not limited to mainline, laterals, jacking and receiving pits, services and all other appurtenances associated with underground utilities as identified on the PME and as authorized by the CM that could result in impacts to formations with high and/or moderate resource sensitivity at depths of 10 feet or greater and as authorized by the construction manager. The monitor shall be present full-time during grading/excavation/trenching activities including, but not limited to mainline, laterals, jacking and receiving pits, services and all other appurtenances associated with underground utilities as identified on the PME and as authorized by the CM that could result in impacts to formations with high and/or moderate resource sensitivity at depths of 10 feet or greater and as authorized by the construction manager. **The Construction Manager is responsible for notifying the RE, PI, and MMC of changes to any construction activities such as in the case of a potential safety concern within the area being monitored. In certain circumstances OSHA safety requirements may necessitate modification of the PME.**
   2. The PI may submit a detailed letter to MMC during construction requesting a modification to the monitoring program when a field condition such as trenching activities that do not encounter formational soils as previously assumed, and/or when unique/unusual fossils are encountered, which may reduce or increase the potential for resources to be present.
   3. The monitor shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR's shall be faxed by the CM to the RE the first day of

monitoring, the last day of monitoring, monthly **(Notification of Monitoring Completion)**, and in the case of ANY discoveries. The RE shall forward copies to MMC.

4. The monitor shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR's shall be faxed by the CM to the RE the first day of monitoring, the last day of monitoring, monthly **(Notification of Monitoring Completion)**, and in the case of ANY discoveries. The RE shall forward copies to MMC.
5. The PI may submit a detailed letter to the ~~CM and/or RE~~MMC ~~for concurrence and forwarding to MMC~~ during construction requesting a modification to the monitoring program when a field condition such as trenching activities that do not encounter formational soils as previously assumed, and/or when unique/unusual fossils are encountered, which may reduce or increase the potential for resources to be present.

B. Discovery Notification Process
   1. In the event of a discovery, the Paleontological Monitor shall direct the contractor to temporarily divert trenching activities in the area of discovery and immediately notify the RE or BI, as appropriate.
   2. The Monitor shall immediately notify the PI (unless Monitor is the PI) of the discovery.
   3. The PI shall immediately notify MMC by phone of the discovery, and shall also submit written documentation to MMC within 24 hours by fax or email with photos of the resource in context, if possible.

C. Determination of Significance
   1. The PI shall evaluate the significance of the resource.
      a. The PI shall immediately notify MMC by phone to discuss significance determination and shall also submit a letter to MMC indicating whether additional mitigation is required. The determination of significance for fossil discoveries shall be at the discretion of the PI.
      b. If the resource is significant, the PI shall submit a Paleontological Recovery Program (PRP) and obtain written approval of the program from MMC, MC and/or RE. PRP and any mitigation must be approved by MMC, RE and/or CM before ground disturbing activities in the area of discovery will be allowed to resume.
         (1) Note: For pipeline trenching projects only, the PI shall implement the Discovery Process for Pipeline Trenching projects identified below under "D."
      c. If resource is not significant (e.g., small pieces of broken common shell fragments or other scattered common fossils) the PI shall notify the RE, or BI

as appropriate, that a non-significant discovery has been made. The Paleontologist shall continue to monitor the area without notification to MMC unless a significant resource is encountered.

d. The PI shall submit a letter to MMC indicating that fossil resources will be collected, curated, and documented in the Final Monitoring Report. The letter shall also indicate that no further work is required.

(1) Note: For Pipeline Trenching Projects Only. If the fossil discovery is limited in size, both in length and depth; the information value is limited and there are no unique fossil features associated with the discovery area, then the discovery should be considered not significant.

(2) Note: for Pipeline Trenching Projects Only. If significance can-not be determined, the Final Monitoring Report and Site Record shall identify the discovery as Potentially Significant.

D. Discovery Process for Significant Resources - Pipeline Trenching Projects

The following procedure constitutes adequate mitigation of a significant discovery encountered during pipeline trenching activities including but not limited to excavation for jacking pits, receiving pits, laterals, and manholes to reduce impacts to below a level of significance.

1. Procedures for documentation, curation and reporting

a. One hundred percent of the fossil resources within the trench alignment and width shall be documented in-situ photographically, drawn in plan view (trench and profiles of side walls), recovered from the trench and photographed after cleaning, then analyzed and curated consistent with Society of Invertebrate Paleontology Standards. The remainder of the deposit within the limits of excavation (trench walls) shall be left intact and so documented.

b. The PI shall prepare a Draft Monitoring Report and submit to MMC via the RE as indicated in Section VI-A.

c. The PI shall be responsible for recording (on the appropriate forms for the San Diego Natural History Museum) the resource(s) encountered during the Paleontological Monitoring Program in accordance with the City's Paleontological Guidelines. The forms shall be submitted to the San Diego Natural History Museum and included in the Final Monitoring Report.

d. The Final Monitoring Report shall include a recommendation for monitoring of any future work in the vicinity of the resource.

4.7.1.4 Night and/or Weekend Work

A. If night and/or weekend work is included in the contract
   1. When night and/or weekend work is included in the contract package, the extent and timing shall be presented and discussed at the ~~p~~Precon ~~m~~Meeting.
   2. The following procedures shall be followed.
      a. No Discoveries
         In the event that no discoveries were encountered during night and/or weekend work, The PI shall record the information on the CSVR and submit to MMC via the RE via fax by 8AM on the next business day.
      b. Discoveries
         All discoveries shall be processed and documented using the existing procedures detailed in Sections III - During Construction.
      c. Potentially Significant Discoveries
         If the PI determines that a potentially significant discovery has been made, the procedures detailed under Section III - During Construction shall be followed.
      d. The PI shall immediately contact the RE and MMC, or by 8AM on the next business day to report and discuss the findings as indicated in Section III-B, unless other specific arrangements have been made.

B. If night and/or weekend work becomes necessary during the course of construction
   1. The Construction Manager shall notify the RE or BI, as appropriate, a minimum of 24 hours before the work is to begin.
   2. The RE or BI, as appropriate, shall notify MMC immediately.

C. All other procedures described above shall apply, as appropriate.

4.1.7.5 Post Construction

A. Preparation and Submittal of Draft Monitoring Report
   1. The PI shall submit two copies of the Draft Monitoring Report (even if negative), prepared in accordance with the Paleontological Guidelines which describes the results, analysis, and conclusions of all phases of the Paleontological Monitoring Program (with appropriate graphics) to MMC via the RE for review and approval within 90 days following the completion of monitoring.
      a. For significant paleontological resources encountered during monitoring, the Paleontological Recovery Program or Pipeline Trenching Discovery Process shall be included in the Draft Monitoring Report.

b. Recording Sites with the San Diego Natural History Museum
The PI shall be responsible for recording (on the appropriate forms) any significant or potentially significant fossil resources encountered during the Paleontological Monitoring Program in accordance with the City's Paleontological Guidelines, and submittal of such forms to the San Diego Natural History Museum with the Final Monitoring Report.

2. MMC shall return the Draft Monitoring Report to the PI via the RE for revision or, for preparation of the Final Report.
3. The PI shall submit revised Draft Monitoring Report to MMC via the RE for approval.
4. MMC shall provide written verification to the PI of the approved report.
5. MMC shall notify the RE or BI, as appropriate, of receipt of all Draft Monitoring Report submittals and approvals.

B. Handling of Fossil Remains

1. The PI shall be responsible for ensuring that all fossil remains collected are cleaned and catalogued.

C. Curation of artifacts – Deed of Gift and Acceptance Verification

1. The PI shall be responsible for ensuring that all fossil remains associated with the monitoring for this project are permanently curated with an appropriate institution.
2. The PI shall submit the Deed of Gift and catalogue record(s) to the RE or BI, as appropriate for donor signature with a copy submitted to MMC.
3. The RE or BI, as appropriate shall obtain signature on the Deed of Gift and shall return to PI with copy submitted to MMC.
4. The PI shall include the Acceptance Verification from the curation institution in the Final Monitoring Report submitted to the RE or BI and MMC.

D. Final Monitoring Report(s)

1. The PI shall submit two copies of the Final Monitoring Report to MMC (even if negative), within 90 days after notification from MMC of the approved report.
2. The RE shall, in no case, issue the Notice of Completion until receiving a copy of the approved Final Monitoring Report from MMC which includes the Acceptance Verification from the curation institution.

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