

SECTION 4 – INITIAL WATERSHED ACTIVITIES

4.0 INITIAL WATERSHED ACTIVITIES

Based on the Watershed Prioritization and Activity Implementation Strategy presented in the previous sections, the City has identified a set of initial watershed activities to be implemented. These initial watershed activities are further targeted to priority Sectors (Sectors 1 & 2) in these watersheds. The initial LID BMPs here also have been targeted to sites owned by the City. These activities range from Tier I Outreach and Enforcement activities to Tier II aggressive street sweeping and LID pollution Control BMPs activities. The City is implementing the Tier I outreach activities in the target communities and locations where the LID and street sweeping projects will be implemented. These projects meet the permit requirements for watershed activities. These projects are also intended to help reach the TMDL requirements.

The Table 4-1 describes the initial permit activities and the tentative implementation year. This table is to be used as a working document. Based on availability of resources, site conditions, and permitting requirements the type and location of these projects may change. Table 4-1 provides guidance to planning that should be periodically updated to reflect new information and available resources. The table further defines required education activities and special studies leading to the design, operation, maintenance, and effectiveness monitoring of these projects. The maps following the table present the initial watershed activities by watershed. The lists of activities shown on these maps are identified in the Map Activity Index provided before these maps.

These initial watershed activities have been targeted to high priority watersheds and sectors. These include the Chollas Creek, Mission Bay - Tecolote, and Mission Bay - La Jolla ASBS watersheds. These watersheds have been targeted due to defined and anticipated pollutant load reduction goals of the specific TMDLs that exist or are anticipated for these watersheds.

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**Table 4-1. Summary of Current and Potential Future Permit Watershed Activities
City of San Diego**

YEAR	REQUIRED PERMIT ACTIVITIES	REQUIRED PERMIT EDUCATION ACTIVITIES	DESIGN AND O&M ACTIVITIES FOR PERMIT PROJECTS	SPECIAL STUDIES AND EFFECTIVENESS MONITORING ACTIVITIES
San Diego Bay Watershed - Chollas				
2007	<ol style="list-style-type: none"> Increase frequency and use vacuum type sweeping in targeted routes – one new truck and dedicated route in Sector 1 & 2 	<ol style="list-style-type: none"> Conduct Outreach Activities in Target Street Sweeping Areas of Sectors 1 and 2 	<ul style="list-style-type: none"> Design of additional Green Lot – Project #3A - porous pavements and bio-retention area – parking lot and green belt area – Memorial Park Designate inlet(s) – Project #12A- along aggressive street sweeping route in Sector 2 for pilot inlet insert trash separator device and bacteria filter BMP (Abtech) 	<ul style="list-style-type: none"> Conduct Baseline Effectiveness Assessment Monitoring for Street Sweeping
2008	<ol style="list-style-type: none"> Conduct increased inspection and fact finding of top source groups for metals - metal related industries and auto related facilities in Sectors 1 & 2 Conduct Trash Cleanups Implement pilot inlet trash separator device and bacteria filter BMP in area of aggressive street sweeping (Abtech Device) – Project #12A -Sector 2 	<ol style="list-style-type: none"> Conduct pilot programs in residential areas where vacuum assisted street sweeping is being conducted – target behaviors related to bacteria/trash Conduct baseline survey of target residential areas where TMDL and Permit “Green Lot and Green Mall” projects are planned in Sectors 1 and 2. Initiate Pilot Programs for 	<ul style="list-style-type: none"> Continue increased frequency and use of vacuum assisted street sweeper in Sectors 2 and 1. Complete Design of Green Lot Project #3 – porous pavements and bio-retention area – parking lot and green belt area (parking lot next to ocean view and 30th street in Sector 1) 	<ul style="list-style-type: none"> Develop Watershed Activity Assessment Database and Tools. Coordinate with SUSMP Design Standards for LID and City Design Standards Conduct sampling to develop pollutograph for design storm Conduct Baseline Effectiveness Assessment Monitoring for Tier I and II activities Coordinate with Port on source study of auto related facilities Support product substitution campaigns targeting metals

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		<p>priority commercial sources - metal related industries and auto related facilities</p>	<ul style="list-style-type: none"> • Complete Design of trash separation devices in target inlets along aggressive street sweeping route – Project #12- Sector 2 • Complete Design of Restoration and Bioretention Area at 32nd Street Canyon (Ash and Bancroft Streets) – Project #18 	
<p>2009</p>	<ol style="list-style-type: none"> 1. Conduct increased inspection and fact finding of municipal facilities in Sectors 1 & 2 2. Conduct Increase Inspections and fact finding in eating and drinking establishments in Sectors 1 & 2 3. Implement 'Green Lot' Project #3A– Porous pavement and infiltration vault in Memorial park – Sector 1 	<ol style="list-style-type: none"> 1. Continue pilot programs in residential areas where vacuum assisted street sweeping is being conducted – target behaviors related to bacteria/trash 2. Conduct outreach and pilot programs in residential areas where TMDL and Permit “Green Lot and Green Mall” projects are planned in Sectors 1 and 2 – target bacteria/trash. 3. Conduct Pilot Programs for priority commercial sources - metal related industries and auto 	<ul style="list-style-type: none"> • Continue increased frequency and use of vacuum assisted street sweeper in Sectors 2 and 1. • Continue increased inspection of top source groups for metals - metal related industries and auto related facilities in Sectors 1 & 2 • O&M of pilot trash separator device and bacteria filter – Project #12A • Design of additional trash segregation and pilot inlet media filter BMP along route of aggressive street 	<ul style="list-style-type: none"> • Continue development of Database structure, Query tool and reporting tool. • Conduct second year of sampling to develop pollutograph for design storm • Conduct Effectiveness Assessment Monitoring • Conduct source study in residential areas ▪ Continue support of product substitution targeting metals

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		related facilities – target behaviors related to metals	sweeping – Project #12B – Sector 2	
2010	<ol style="list-style-type: none"> 1. Implement Green Lot – Project #3 – porous pavements and bio-retention area – parking lot and green belt area (parking lot next to ocean view and 30th street in Sector 1) 2. Implement trash separation devices in target inlets along aggressive street sweeping route – Project #12 - Sector 2 3. Implement restoration and bioretention area in 30th Street Canyon (Ash & Bancroft Streets). 	<ol style="list-style-type: none"> 1. Conduct outreach and pilot programs in residential areas where TMDL and Permit “Green Lot and Green Mall” projects are planned in Sectors 1 and 2 – target bacteria/trash. 2. Complete Pilot Programs for priority commercial sources - metal related industries and auto related facilities – target behaviors related to metals 3. Complete pilot programs in residential areas where vacuum assisted street sweeping is being conducted – target behaviors related to bacteria/trash 	<ul style="list-style-type: none"> • Continue increased frequency and use vacuum type sweeping in targeted routes – Third Year - one new truck and dedicated route • Continue increased inspection of top source groups for metals - metal related industries and auto related facilities in Sectors 1 & 2 • Continue increased inspection and fact finding of municipal facilities in Sectors 1 & 2 • Continue Increase Inspections and fact finding in eating and drinking establishments in Sectors 1 & 2 • Maintain Green Lot – Project #3 – Memorial Park • O&M of pilot trash separator device and bacteria filter – Project 	<ul style="list-style-type: none"> • Enter data and reformatting • Continue Effectiveness Assessment Monitoring • Continue product substitution initiatives • Complete development of pollutograph for design storm • Complete source study in residential areas (Sector 1)

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			#12A <ul style="list-style-type: none"> • O&M of trash separator devices in Sector 1 – Project #12 	
2011	<ol style="list-style-type: none"> 1. Modify codes to include baseline BMPs for top source groups – metals related industries and commercial auto related facilities – use feedback from Outreach Pilot Programs to emphasize the behaviors that have the highest probability of changing with highest reduction of impact 2. Modified design standards for LID based on SUSMP design standards 3. Add an additional vacuum type sweeper to targeted routes in Sectors 1 and 3 4. Implement additional trash segregation and pilot inlet media filter devices along routes of aggressive street sweeping – Project #12B – Sector 2 	<ol style="list-style-type: none"> 1. Conduct pilot programs in residential areas where vacuum assisted street sweeping is being conducted – target behaviors related to bacteria/trash 2. Initiated Pilot Programs for eating and drinking establishments in Sectors 1 and 2 – target behaviors related to bacteria 3. Initiate Pilot Programs for Municipal facilities – Sectors 1 and 2 – target metals, pesticides 4. Initiate pilot programs in residential areas where green projects implemented – target behaviors related to runoff reduction and pesticide use 	<ul style="list-style-type: none"> • Continue increased inspection of top source groups for metals - metal related industries and auto related facilities in Sectors 1 & 2 • Continue increased inspection and fact finding of municipal facilities in Sectors 1 & 2 • Continue Increase Inspections and fact finding in eating and drinking establishments in Sectors 1 & 2 • Maintain Green Lot – Project #3 – Memorial Park 	<ul style="list-style-type: none"> • Enter data and Reformatting • Continue Effectiveness Assessment Monitoring • Continue – support existing product substitution initiatives and initiate work – groups for additional product substitution legislation. Evaluate potential for localized ban of products that increase trash in waters. • Continue source study in residential areas - Sectors 2 & 4

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Mission Bay Watershed – Tecolote/Rose Canyon/Miramar				
2007		<ul style="list-style-type: none"> ▪ Initiate baseline survey of target residential area for LID projects 	<ul style="list-style-type: none"> ▪ Design of 'Green Street' – Project #1 - infiltration/vegetated strips and porous sidewalk on city street in residential area 	<ul style="list-style-type: none"> • Coordinate with copermittees on source study of eating and drinking establishments • Initiate design and coordination for rain barrels at Rose Canyon Maintenance Yard.
2008	<ol style="list-style-type: none"> 1. Conduct increased inspection of eating and drinking establishment in priority area and fact finding on current practices that may result in bacteria loading. 2. Install Rain Barrels at Rose Canyon Maintenance Yard 3. Trash Cleanups in Canyon Areas 	<ol style="list-style-type: none"> 1. Conduct baseline survey of target residential area for LID project and outreach 2. Conduct baseline survey and initiate pilot program to target residential areas on activities that control bacteria loading 	<ul style="list-style-type: none"> • Design of 2 diversions and flap gates at Visitor's Center and Cudahy Creek – CBI Grant 	<ul style="list-style-type: none"> • Coordinate with copermittees on source study of eating and drinking establishments
2009	<ol style="list-style-type: none"> 1. Conduct increased inspections and fact funding – next 2 top source priorities 2. Implement 'Green Street' – Project #1 - infiltration/vegetated strips and porous sidewalk on city street in residential area 3. Trash Cleanups in Canyon Areas 	<ol style="list-style-type: none"> 1. Continue pilot program to target residential area for new LID project with focus on behaviors related to bacteria and water usage 2. Conduct pilot program on eating and drinking establishments – targeting behaviors related to bacteria loading and water usage 	<ul style="list-style-type: none"> • Design additional 'Green Street' – Project #2 - infiltration/vegetated strips and porous sidewalk on city street in residential area 	<ul style="list-style-type: none"> • Coordinate with copermittees on source study of eating and drinking establishments • Conduct baseline effectiveness monitoring

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2010	<ol style="list-style-type: none"> 1. Conduct increased inspections and fact funding – next 2 top source priorities 2. Increase frequency and use vacuum type sweeping in targeted routes -1 new truck and dedicated route 3. Implement 2 diversions and flap gates at Visitor’s Center and Cudahy Creek – CBI Grant 	<ol style="list-style-type: none"> 1. Continue pilot program to target residential area for new LID project with focus on behaviors related to bacteria and water usage 2. Conduct pilot program on eating and drinking establishments – targeting behaviors related to bacteria loading and water usage Continue pilot program to target residential area for new LID project with focus on behaviors related to bacteria and water usage 	<ul style="list-style-type: none"> ▪ Maintain Existing Green Streets – Project #1 	<ul style="list-style-type: none"> • Coordinate with copermitees on source study of eating and drinking establishments • Conduct effectiveness assessment monitoring
2011	<ol style="list-style-type: none"> 1. Conduct increased inspections and fact finding of the next 2 source priorities (municipal facilities and auto related facilities) 2. Implement additional ‘Green Street’ – Project #2 - infiltration/vegetated strips and porous sidewalk on city street in residential area 	<ol style="list-style-type: none"> 1. Conduct outreach of revised codes to next source priorities –sector 1 2. Conduct outreach of revised codes to next source priorities –Sector 2 	<ul style="list-style-type: none"> ▪ Maintain Existing Green Streets – Project #1 ▪ Second Year of Increase frequency and use vacuum type sweeping in targeted routes -1 new truck and dedicated route 	<ul style="list-style-type: none"> • Conduct effectiveness assessment monitoring

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Mission Bay Watershed – La Jolla Shores ASBS				
2007		<ul style="list-style-type: none"> ▪ Initiate baseline survey of target residential community for LID 	<ul style="list-style-type: none"> ▪ Design of four dry weather diversions per City Engineer Plan (Grant Funded) 	
2008	<ol style="list-style-type: none"> 1. Conduct increased inspection of eating and drinking establishment in priority area and fact finding on current practices that may result in bacteria loading 2. Installation of 4 dry weather diversions – Consolidated Grant 	<ol style="list-style-type: none"> 1. Conduct baseline survey of target residential area for LID project and outreach 2. Conduct baseline survey and outreach to target residential areas on activities that control bacteria loading and water use 	<ul style="list-style-type: none"> ▪ Design remaining 2 diversions of dry weather flow or first flush effective on targeted areas – Project #4 ▪ Design upgrades to Avenida de la Playa outfall and Culvert - Project #5 	<ul style="list-style-type: none"> ▪ Conduct sampling to develop pollutograph for design storm (La Jolla shores ASBS) ▪ Coordinate with copermittees on source study of eating and drinking establishments and auto related facilities ▪ Conduct baseline effectiveness assessment monitoring ▪ Conduct sediment source and characterization study to develop approach to sediment reduction ▪ Conduct air deposition study to determine metals contribution
2009	<ol style="list-style-type: none"> 1. Installation of dry weather diversions – Consolidated Grant 2. Conduct Increased Inspections of Auto-related facilities. 	<ol style="list-style-type: none"> 1. Conduct pilot programs of target residential area for LID project and outreach to target residential areas on activities that control bacteria loading and runoff 2. Conduct pilot programs of eating and drinking establishments on activities that control bacteria loading and runoff 	<ul style="list-style-type: none"> ▪ Maintain Dry Weather Diversions – Project #2 ▪ Continue increased inspection of eating and drinking establishment in priority area and fact finding on current practices that may result in bacteria loading 	<ul style="list-style-type: none"> ▪ Conduct sampling to develop pollutograph for design storm (La Jolla shores ASBS) ▪ Coordinate with copermittees on source study of eating and drinking establishments and auto related facilities ▪ Conduct baseline effectiveness assessment monitoring ▪ Conduct sediment source and characterization study to develop approach to sediment reduction ▪ Continue to conduct air deposition study to determine metals contribution

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2010	<ol style="list-style-type: none"> 1. Increase frequency and use vacuum type sweeping in targeted routes – 1 new truck and dedicated routes (La Jolla shores drive and collectors) 2. Installation of dry weather diversions and upgrades to Ave. del la Playa diversion – CBI Grants 	<ol style="list-style-type: none"> 1. Conduct pilot programs of target residential area for LID project and outreach to target residential areas on activities that control bacteria loading and runoff 2. Conduct pilot programs of eating and drinking establishments on activities that control bacteria loading and runoff 	<ul style="list-style-type: none"> ▪ Maintain Dry Weather Diversions – Project #2 ▪ Continue increased inspection of eating and drinking establishment in priority area and fact finding on current practices that may result in bacteria loading 	<ul style="list-style-type: none"> ▪ Coordinate with copermittees on source study of eating and drinking establishments and auto related facilities ▪ Conduct effectiveness assessment monitoring
2011	<ol style="list-style-type: none"> 1. Implement runoff reduction incentive program – rebate on smart irrigation systems 2. Implement runoff reduction program and bacteria reduction program along Avenida del la Playa based on source study and pilot outreach activities – coordinate with businesses and provide incentives to reduce 	<ol style="list-style-type: none"> 1. Conduct pilot programs of target residential area for LID project and outreach to target residential areas on activities that control bacteria loading and runoff 2. Conduct pilot programs of eating and drinking establishments on activities that control bacteria loading and runoff 	<ul style="list-style-type: none"> ▪ Maintain Dry Weather Diversions – Project #2 ▪ Continue increased inspection of eating and drinking establishment in priority area and fact finding on current practices that may result in bacteria loading ▪ Second Year - Increase frequency and use vacuum type sweeping in targeted routes – 1 new truck and dedicated routes (La Jolla shores drive and collectors) 	<ul style="list-style-type: none"> ▪ Coordinate with copermittees on source study of eating and drinking establishments and auto related facilities ▪ Conduct effectiveness assessment monitoring

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San Diego River Watershed				
2007		<ul style="list-style-type: none"> ▪ Initiate baseline surveys of target residential areas 		
2008	<ol style="list-style-type: none"> 1. Conduct Increased Inspections and Fact Finding of Eating and Drinking Establishments in prioritized area to identify and address practices that may result in bacteria loading. 2. Conduct increased inspection of animal facilities in priority area to identify and address practices that may result in bacteria loading. 3. Trash Cleanups 	<ol style="list-style-type: none"> 1. Conduct Baseline Surveys of Target Residential Areas for activities that may result in bacteria loading 2. Conduct baseline surveys of target community and businesses for sediment 	<ul style="list-style-type: none"> ▪ Design Erosion and sediment control Hydromodification BMPs for erosion control – Project #2. 	<ul style="list-style-type: none"> ▪ Conduct Source Survey and update inventory Coordinate with other Copermittees on Source Studies ▪ Initiate sediment source study and integrate with hydro-modification program ▪ Identify restoration opportunities that can be linked to sediment control and hydro-modification projects.
2009	<ol style="list-style-type: none"> 1. Conduct Increased Inspection and Fact Finding of Commercial Landscaping and Golf Courses – target sediment 2. Conduct Increased Inspection and Fact Finding of Projects Subject to SUSMPS and Municipal Facilities (parks) – target sediment 3. Trash Cleanups 	<ol style="list-style-type: none"> 1. Continue to Conduct Baseline Surveys of Target Residential Areas for bacteria loading 2. Continue to Conduct baseline surveys of target community and businesses for sediment 	<ul style="list-style-type: none"> ▪ Continue Increased Inspections and Fact Finding of Eating and Drinking Establishments in prioritized areas to identify and address practices that may result in bacteria loading. ▪ Continue increased inspection of animal facilities in priority area to identify and address practices that may result in bacteria 	<ul style="list-style-type: none"> ▪ Conduct Source Survey and update inventory Coordinate with other Copermittees on Source Studies ▪ Conduct sediment source study and integrate with hydro-modification program ▪ Identify restoration opportunities that can be linked to sediment control and hydro-modification projects.

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			loading. <ul style="list-style-type: none"> ▪ Design Green Mall – Project #3 	
2010	<ol style="list-style-type: none"> 1. Expand Increased Inspection of Commercial Landscaping, Golf Courses, Projects Subject to SUSMPs and Municipal Facilities – target sediment 2. Install 2 Erosion and sediment control Hydromodification BMPs for erosion control – Project #2. 3. Implement Runoff Reduction program in target community and commercial area - Provide incentives for use of weather-based irrigations systems and zero-scapes 	<ol style="list-style-type: none"> 1. Conduct outreach of Target Residential Area where runoff reduction program will be initiated – target behaviors that lead to over-irrigation and urban runoff 2. Conduct pilots on golf courses, parks, and commercial landscaping – target behaviors that lead to sediment loading 3. Outreach to Community for "Green Mall" – target behaviors that lead to over irrigation. 	<ul style="list-style-type: none"> ▪ Continue Increased Inspections and Fact Finding of Eating and Drinking Establishments in prioritized area to identify and address practices that may result in bacteria loading. ▪ Continue increased inspection of animal facilities in priority area to identify and address practices that may result in bacteria loading. ▪ Continue Increased Inspection and Fact Finding of Commercial Landscaping and Golf Courses – target sediment ▪ Continue Increased Inspection and Fact Finding of Projects Subject to SUSMPS and Municipal Facilities (parks) – target sediment 	<ul style="list-style-type: none"> ▪ Conduct Source Survey and update inventory ▪ Coordinate with other Copermittees on Source Studies ▪ Conduct sediment source study and integrate with hydro-modification program ▪ Identify additional restoration opportunities that can be linked to sediment control and hydro-modification projects.

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			<ul style="list-style-type: none"> ▪ Design of restoration project that also addresses sediment control and hydro-modification. 	
2011	<ol style="list-style-type: none"> 1. Expand Increased Inspection of Commercial Landscaping, projects subject to SUSMPS, Golf Courses and Municipal Facilities 2. Implement Green Mall – porous pavement and Bioretention area – Project #3 	<ol style="list-style-type: none"> 1. Conduct pilots at eating and drinking establishments and animal facilities that target behaviors that lead to bacteria loading 2. Conduct outreach of Target Residential Area where runoff reduction program will be initiated – target behaviors that lead to over-irrigation and urban runoff 3. Conduct pilots on golf courses, parks and commercial landscaping – target behaviors that lead to sediment loading 4. Outreach to Community for "Green Mall" – target behaviors that lead to over irrigation. 	<ul style="list-style-type: none"> ▪ Maintain the Erosion and sediment control Hydromodification BMPs for erosion control – Project #1. ▪ Continue Increased Inspections where effective ▪ Continue runoff reduction program – incentives for weather-based irrigation systems and zero-scapes 	<ul style="list-style-type: none"> ▪ Complete Source Survey and update inventory ▪ Coordinate with other Copermittees on Source Studies ▪ Complete sediment source study and integrate with hydro-modification program ▪ Identify additional restoration opportunities that can be linked to sediment control and hydro-modification projects.

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Los Peñasquitos Watershed				
2007		<ul style="list-style-type: none"> ▪ Initiate baseline survey of priority residential area for bacteria related activities (dog waste, landscaping, trash management, nuisance flows) 		
2008	<ol style="list-style-type: none"> 1. Conduct increased inspection of eating and drinking establishment in priority area and fact finding on current practices that may result in bacteria loading 2. Conduct increased inspection of animal related facilities in priority area and fact finding on current practices that may result in bacteria loading 3. Trash Cleanups 	<ol style="list-style-type: none"> 1. Conduct baseline survey of priority residential area for bacteria related activities (dog waste, landscaping, trash management, nuisance flows) 2. Conduct baseline survey of commercial landscaping and conduct outreach in priority drainage area of planned sediment control BMPs targeting activities that lead to sediment loading 	<ul style="list-style-type: none"> ▪ Design Erosion and sediment control Hydromodification BMP Projects (2) in prioritized area – Project #1 	<ul style="list-style-type: none"> ▪ Conduct survey and update source inventory of eating and drinking facilities and animal related facilities in priority areas – data entry ▪ Coordination w/ other Copermittees on Source Studies – Animal Related Facilities ▪ Study of Sedimentation sources and coordination with hydro-modification program to prioritize projects ▪ Development of Erosion and Sediment Control and Peak Flow Management Program – Include study of restoration opportunities that can be combined with peak flow management projects
2009	<ol style="list-style-type: none"> 1. Conduct Increase Inspections of Commercial Landscaping, Golf Courses, and Municipal facilities in priority area and fact finding on current practices that may result in sediment loading 	<ol style="list-style-type: none"> 1. Continue baseline and conduct pilot studies to residence in prioritized area for bacteria related activities (dog waste, landscaping, trash management, nuisance flows) 	<ul style="list-style-type: none"> ▪ Design of “Green Mall” Project #5 	<ul style="list-style-type: none"> ▪ Conduct Survey and update inventory of eating and drinking facilities, animal related facilities, commercial landscape facilities in priority areas ▪ Source Study for Bacteria Loading to Verify Prioritized Sources ▪ Continue Study of Sedimentation

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	2. Trash Cleanups	2. Continue baseline survey of residences and commercial landscaping and conduct pilots in priority drainage area for behaviors that lead to sediment load.		<p>Issues and Prelim. Design of Erosion and Sediment Control and Peak Flow Management Project to address sediment load to creek – stabilize areas of canyons and provide retention basin within City property – combine with possible restoration opportunities</p> <ul style="list-style-type: none"> ▪ Conduct Baseline Effectiveness Monitoring of Community targeted for Rain Barrel Project and outreach for bacteria and sediment load activities ▪ Conduct baseline effectiveness monitoring of Erosion and sediment control Hydromodification BMP to measure sediment removal and to assess bacteria re-growth addressed.
2010	<p>1. Install Erosion and sediment control Hydromodification BMP Projects (2) in prioritized area to reduce sediment load – device and maintenance to also address bacteria re-growth issues – Project #1</p> <p>2. Expand Increased Inspections of Animal Facilities, Eating and Drinking Establishments in additional prioritized areas</p>	<p>1. Conduct outreach in targeted residential community on low impact approaches using rain barrels and low impact gardening</p> <p>2. Conduct outreach to eating and drinking establishments and Commercial Landscaping on new codes and program of increased inspections</p> <p>3. Conduct outreach to</p>		<ul style="list-style-type: none"> ▪ Continue to conduct Survey and update inventory of priority sources -eating and drinking facilities, animal related facilities, commercial landscape facilities, municipal facilities in priority areas ▪ Conduct Effectiveness Assessment Monitoring of Community targeted for Rain Barrel Project and outreach for bacteria and sediment load activities

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	3. to reduce bacteria loading Implement Rain Barrels/Low Impact Garden Project in Target Residential Area (approximately 250 residences) to reduce flows (peak discharge) and sediment/ bacteria loading – Project #3	community for proposed “Green Mall” project		
2011	1. Expand increased inspection of commercial landscaping, municipal facilities and golf courses in additional target areas to reduce sediment load 2. Implementation of “Green Mall” project in prioritized area at a location that includes commercial development – Project #5	1. Continue to conduct outreach in targeted residential community on low impact approaches using rain barrels and low impact gardening 2. Continue to conduct outreach to eating and drinking establishments and Commercial Landscaping on new codes and program of increased inspections	1. Maintain Erosion and sediment control Hydromodification BMP Projects (2) in prioritized area to reduce sediment load – device and maintenance to also address bacteria re-growth issues – Project #1	<ul style="list-style-type: none"> ▪ Conduct Effectiveness Assessment Monitoring of Community targeted for Rain Barrel Project (Project #3) and outreach for bacteria and sediment load activities ▪ Conduct Effectiveness Assessment Monitoring of Sediment Control Project #4 to measure load reduction achieved.

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San Dieguito Watershed				
2007		<ul style="list-style-type: none"> ▪ Initiate baseline survey of priority residential area for bacteria related activities (dog waste, landscaping, trash management, nuisance flows) 		
2008	<ol style="list-style-type: none"> 1. Conduct increased inspection of eating and drinking establishment in priority area and fact finding on current practices that may result in bacteria loading 2. Trash Cleanups 	<ol style="list-style-type: none"> 1. Conduct baseline survey of priority residential area for bacteria related activities (dog waste, landscaping, trash management, nuisance flows) 2. Conduct baseline survey of commercial landscaping regarding behaviors that lead to sediment loading and conduct outreach in priority drainage area of planned sediment control BMPs 	<ul style="list-style-type: none"> ▪ Conduct study and design bacteria load reduction project in target drainage area – debris and Trash segregation devices with Aggressive street Sweeping and increased removal from streets – Project #1 ▪ Design of Bacteria treatment BMP Project #2 to address Bacteria to creek 	<ul style="list-style-type: none"> ▪ Conduct survey and update source inventory of eating and drinking facilities and animal related facilities in priority areas – data entry ▪ Coordination w/ other Copermittees on Source Studies – Eating and Drinking Establishment ▪ Prelim. Design of Bacteria Treatment BMP Project
2009	<ol style="list-style-type: none"> 1. Conduct Increase Inspections of Commercial Landscaping, Golf Courses, and Municipal facilities in priority area and fact finding on current practices that may result in sediment loading 2. Expand Increased Inspections of Animal Facilities, Eating and 	<ol style="list-style-type: none"> 1. Continue baseline and conduct pilots in prioritized residential areas for bacteria related activities (dog waste, landscaping, trash management, nuisance flows) 2. Conduct baseline survey of commercial landscaping and conduct 		<ul style="list-style-type: none"> ▪ Conduct Survey and update inventory of eating and drinking facilities, animal related facilities, commercial landscape facilities in priority areas ▪ Data Entry for Effectiveness Assessment of Outreach Programs ▪ Data Entry for Effectiveness of Increased Inspections. ▪ Conduct Study of runoff reduction

SECTION 4 – INITIAL WATERSHED ACTIVITIES

**Table 4-1. Summary of Current and Potential Future Permit Watershed Activities
City of San Diego**

YEAR	REQUIRED PERMIT ACTIVITIES	REQUIRED PERMIT EDUCATION ACTIVITIES	DESIGN AND O&M ACTIVITIES FOR PERMIT PROJECTS	SPECIAL STUDIES AND EFFECTIVENESS MONITORING ACTIVITIES
	Drinking Establishments in additional prioritized areas to reduce bacteria loading	pilots studies in priority drainage area of planned sediment control BMP Conduct outreach – target behaviors that lead to sediment loading and over-irrigation		program to be initiated in 2011 – Project #3. <ul style="list-style-type: none"> ▪ Conduct Baseline Effectiveness Monitoring of Community targeted for Runoff Reduction program using weather-based irrigation controls and zero-scapes.
2010	<ol style="list-style-type: none"> 1. Implement bacteria load reduction project in target drainage area – debris and Trash segregation devices with Aggressive street Sweeping and increased removal from streets – Project #1 2. Install Bacteria treatment BMP Project #2 in prioritized area to reduce bacteria load. 	<ol style="list-style-type: none"> 1. Conduct outreach in targeted residential community on low impact approaches using low impact gardening and weather-based irrigation controllers. 2. Conduct pilot programs for eating and drinking establishments targeting behaviors that lead to bacteria loading and nuisance flows 	<ul style="list-style-type: none"> ▪ Design of Project #4 - Bacteria treatment BMP Project to address bacteria load to creek 	<ul style="list-style-type: none"> ▪ Continue to conduct Survey and update inventory of priority sources -eating and drinking facilities, animal related facilities, commercial landscape facilities, municipal facilities in priority areas ▪ Data Entry for Effectiveness Assessment of Outreach Programs ▪ Data Entry for Effectiveness of Increased Inspections. ▪ Conduct Effectiveness Assessment Monitoring of Bacteria Control (Project #2) to measure load reduction achieved.
2011	<ol style="list-style-type: none"> 1. Expand increased inspection of commercial landscaping, municipal facilities and golf courses in additional target areas 2. Implement Runoff Reduction Program – Provide \$500 Rebate on Weather-Based Irrigation Systems – IT Controllers – Approx. 100 homes to reduce dry weather flows 	<ol style="list-style-type: none"> 1. Continue to conduct outreach in targeted residential community on low impact approaches using weather-based irrigation controller and low impact gardening 2. Continue to conduct pilot programs for eating and drinking establishments targeting behaviors that lead to bacteria loading 	<ul style="list-style-type: none"> ▪ Maintain Projects #1 and #2 – Trash segregation devices with Aggressive street Sweeping and Bacteria treatment BMP Projects 	<ul style="list-style-type: none"> ▪ Conduct Effectiveness Assessment Monitoring of Community targeted for Runoff Reduction program using weather-based irrigation controls and zero-scapes – Project #3 ▪ Conduct Effectiveness Assessment Monitoring of Bacteria treatment BMP Project #2 to measure load reduction achieved. ▪ Data Entry for Effectiveness Assessment of Outreach

SECTION 4 – INITIAL WATERSHED ACTIVITIES

**Table 4-1. Summary of Current and Potential Future Permit Watershed Activities
City of San Diego**

YEAR	REQUIRED PERMIT ACTIVITIES	REQUIRED PERMIT EDUCATION ACTIVITIES	DESIGN AND O&M ACTIVITIES FOR PERMIT PROJECTS	SPECIAL STUDIES AND EFFECTIVENESS MONITORING ACTIVITIES
	and bacteria loading – Project #3	and nuisance flows 3. Conduct pilots on Commercial Landscaping on new codes and program of increased inspections		Programs <ul style="list-style-type: none"> ▪ Data Entry for Effectiveness of Increased Inspections.

SECTION 4 – INITIAL WATERSHED ACTIVITIES

**Table 4-1. Summary of Current and Potential Future Permit Watershed Activities
City of San Diego**

YEAR	REQUIRED PERMIT ACTIVITIES	REQUIRED PERMIT EDUCATION ACTIVITIES	DESIGN AND O&M ACTIVITIES FOR PERMIT PROJECTS	SPECIAL STUDIES AND EFFECTIVENESS MONITORING ACTIVITIES
Tijuana Watershed				
2007				
2008	<ol style="list-style-type: none"> 1. Conduct Increased Inspections and Fact Finding of Auto-Related Facilities in Prioritized Area to determine potential source and identify and address practices that are resulting in pollutant loading (metals & TSS). 3. Conduct Increased Inspections and Fact Finding of Eating and Drinking Establishments in prioritized area to identify and address practices that may result in bacteria loading. 	<ol style="list-style-type: none"> 1. Conduct baseline and outreach to community where aggressive street sweeping planned. 2. Conduct baseline survey of priority residential area for bacteria related activities (dog waste, landscaping, trash management, nuisance flows) 	<ul style="list-style-type: none"> • Design of Trash segregation devices with Aggressive street Sweeping on select section of proposed aggressive street sweeping - Project #1 	<ul style="list-style-type: none"> ▪ Conduct survey and update source inventory of Auto-related facilities in priority areas – data entry ▪ Conduct survey and update source inventory of eating and drinking establishments – data entry ▪ Data Entry for Effectiveness Assessment of Outreach Programs ▪ Data Entry for Effectiveness of Increased Inspections.
2009	<ol style="list-style-type: none"> 1. Expand Increased Inspections and Fact Finding of Auto-related facilities in Prioritized Area to determine potential source and identify and address practices that are resulting in pollutant loading (metals and TSS). 2. Expand Increased Inspections and Fact Finding of Eating and Drinking Establishments in prioritized area to identify and address practices that 	<ol style="list-style-type: none"> 1. Continue to conduct baseline and outreach to community where aggressive street sweeping planned. 2. Continue to conduct baseline survey of priority residential area for bacteria related activities (dog waste, landscaping, trash management, nuisance flows) 	<ul style="list-style-type: none"> • Design of “Green Mall” project located in industrial area – targeted at auto-related businesses and reduction of metals.- Project #2 	<ul style="list-style-type: none"> ▪ Conduct survey and update source inventory of Auto-related facilities in priority areas – data entry ▪ Conduct survey and update source inventory of eating and drinking establishments – data entry ▪ Data Entry for Effectiveness Assessment of Outreach Programs ▪ Data Entry for Effectiveness of Increased Inspections.

SECTION 4 – INITIAL WATERSHED ACTIVITIES

**Table 4-1. Summary of Current and Potential Future Permit Watershed Activities
City of San Diego**

YEAR	REQUIRED PERMIT ACTIVITIES	REQUIRED PERMIT EDUCATION ACTIVITIES	DESIGN AND O&M ACTIVITIES FOR PERMIT PROJECTS	SPECIAL STUDIES AND EFFECTIVENESS MONITORING ACTIVITIES
	may result in bacteria loading.			
2010	<ol style="list-style-type: none"> 1. Implement Aggressive Street Sweeping in Prioritized Sector – Project #4 2. Install trash segregation devices on select section of proposed aggressive street sweeping – Project #1 	<ol style="list-style-type: none"> 1. Continue outreach to community where aggressive street sweeping implemented and conduct outreach of priority residential area for bacteria related activities (dog waste, landscaping, trash management, nuisance flows 2. Conduct pilot on auto-related facilities targeting behavior that leads to metals loading 		<ul style="list-style-type: none"> ▪ Conduct survey and update source inventory of Auto-related facilities in priority areas – data entry ▪ Conduct survey and update source inventory of eating and drinking establishments – data entry ▪ Data Entry for Effectiveness Assessment of Outreach Programs ▪ Data Entry for Effectiveness of Increased Inspections.
2011	<ol style="list-style-type: none"> 1. Implementation of “Green Mall” project – Project #2 2. Conduct increase inspections of Municipal facilities 	<ol style="list-style-type: none"> 1. Conduct outreach to community and businesses where the “green mall” project located in industrial area – targeted at auto-related businesses and reduction of metals. 2. Implement outreach to auto-related facilities, eating and drinking establishments and municipal facilities of new codes. 	<ul style="list-style-type: none"> • O&M of trash segregation devices – Project #1 • Continue aggressive street sweeping- Project #4 	<ul style="list-style-type: none"> ▪ Data Entry for Effectiveness Assessment of Outreach Programs ▪ Data Entry for Effectiveness of Increased Inspections. ▪ Data Entry for Green Mall and Street Sweeping Activities.

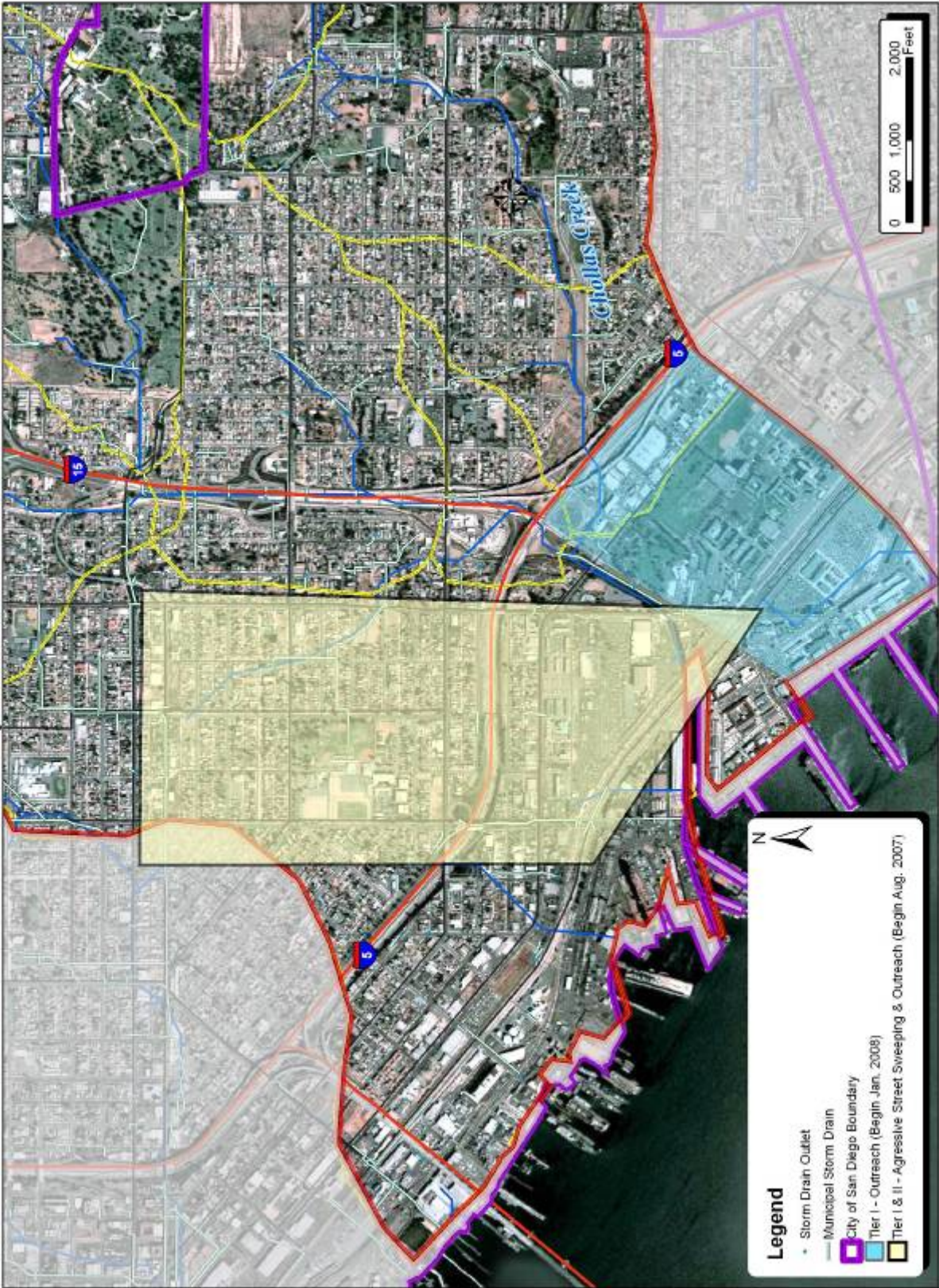
**San Diego Bay Watershed
Management Area - Chollas Creek
Watershed**

SECTION 4 – INITIAL WATERSHED ACTIVITIES

San Diego Bay Watershed - Chollas Creek - Map Activity Index							
Tier	Map	Project #	Type of Project	Address	Property owner	Current Use	Start Year
Tier I	4.1		Outreach for Green Mall	Sector 1			2007
Tier I	5.1		Outreach for Trash Segregation	Sector 1			2010
Tier I	5.3		Outreach for Green Mall and Green Lot	Sector 1			2010
Tier I	5.1		Outreach for Trash Segregation	Sector 1			2010
Tier I	5.1		Outreach for Green Mall and Green Lot	Sector 2			2010
Tier II	4.1		Street Sweeping	Sector 1	NA	Street	2007
Tier II	4.5		Street Sweeping	Sector 2	NA	Street	2007
Tier II	5.1		Street Sweeping	Sector 1	NA	Street	2010
Tier II	5.4	1	Green Lot	41st, University - Polk (Sector 2)		Parking Lot	2010
Tier II	4.2	2	Green Mall	Dalbergia St. (Sector 1)	City	Street	2009
Tier II	4.2	3A	LID Infiltration Project	Oceanview & 30th (Sector 1)	City	Memorial Park	2009
Tier II	4.2	3	Green Lot	Oceanview & 30th (Sector 1)	City	Parking Lot	2010
Tier II	5.4	4	Green Street	Highland Ave. (Sector 2)	City	Street	2010
Tier II	5.4	5	Green Mall	54th St (Sector 2)		Commercial	2010
Tier II	5.4	8	Green Lot	54th St. (Sector 2)	City	Parking Lot	2011
Tier II	5.4	9	Green Street	Myrtle Ave (Sector 2)	City	Street	2011
Tier II	5.4	10	Green Mall	North 54th St. (Sector 2)		Commercial	2011
Tier II	5.3	12B	Street Sweeping (New Vac Truck)	Sector 2	City	Street	2011
Tier II	5.2	13	Green Lot	National Ave (Sector 1)	City	Parking Lot	2011
Tier II	5.4	14	Green Street	University Ave (Sector 2)	City	Street	2011
Tier II	5.2	15	Green Mall	National Ave (Sector 1)	City	Commercial	2011
Tier III	5.2	6	Diversions	Sector 1	NA	Storm Drain	2010
Tier III	5.4	6	Diversions	Sector 2	NA	Storm Drain	2010
Tier II	5.2	7	Trash Segregation	National & 28th (Sector 1)	City	Street	2010
Tier III	5.2	11	Diversions	Sector 1	NA	Storm Drain	2011
Tier III	5.2	11	Diversions	Sector 2	NA	Storm Drain	2011
Tier II	5.4	12	Trash Segregation	Orange Ave (Sector 2)		Street	2010
Tier II	5.4	12A	Trash Segregation	Abtech(Hilcrest Avenue) Sector 2	City	Street	2008
Tier III	5.2	16	Diversions	Sector 1	NA	Storm Drain	2011
Tier III	5.4	16	Diversions	Sector 2	NA	Storm Drain	2011
Tier II	5.4	17	Trash Segregation	Fairmount Ave. (Sector 2)	City	Street	2011
Tier II	5.2	18	LID Infiltration Project	Ash & Bancroft St	City	Commercial	2010
* Yellow Highlighted Projects indicate Permit Activities							
* Non Highlighted Zone indicate TMDL Activities							
*Green Highlighting indicates Initial Activities							
*Orange Highlighting indicates Future Potential Activities							

SECTION 4 – INITIAL WATERSHED ACTIVITIES

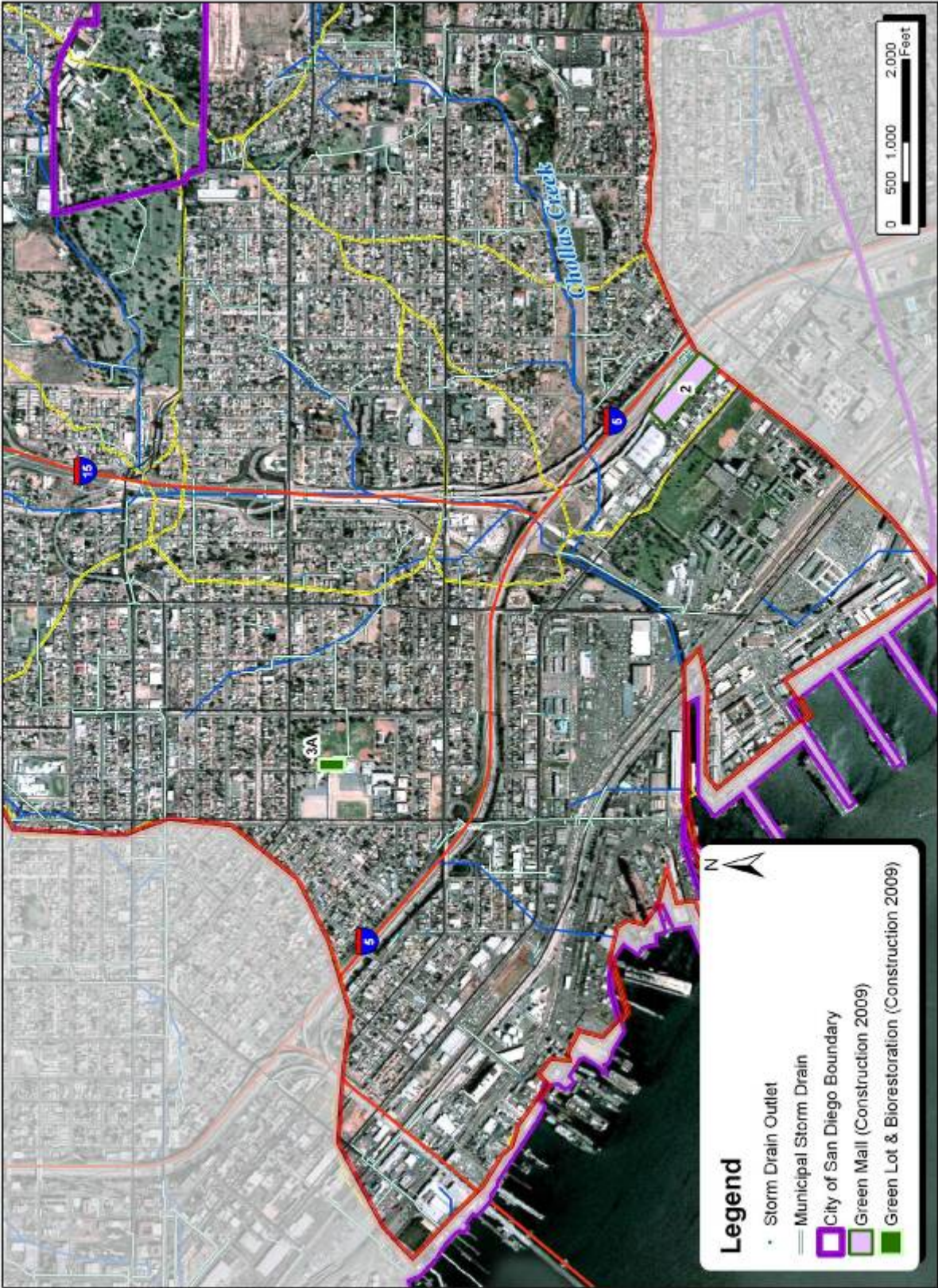
Chollas Creek Watershed - Priority Sector I - Tier I & II - Initial Permit Activities



Map 4.1

SECTION 4 – INITIAL WATERSHED ACTIVITIES

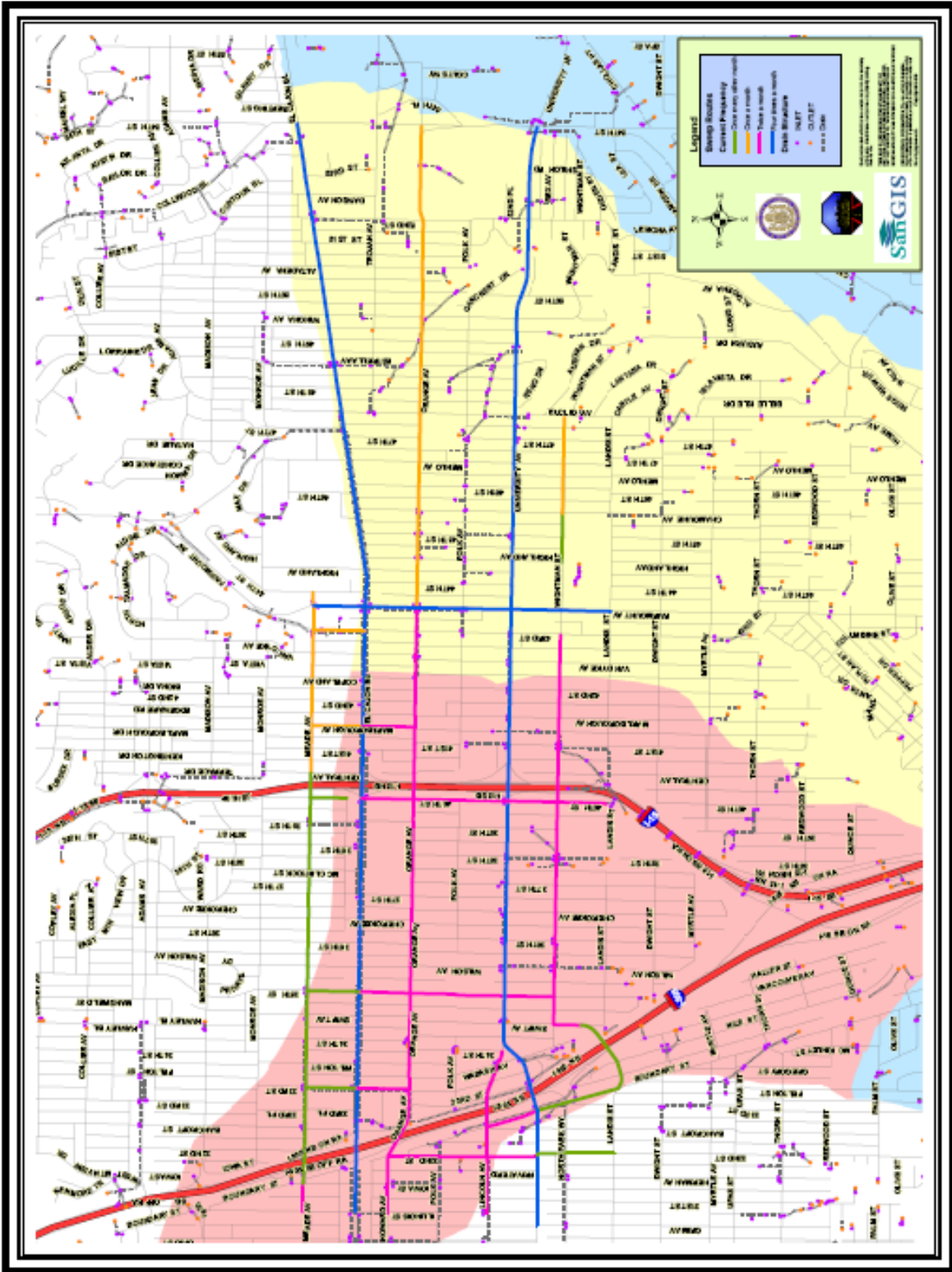
Chollas Creek Watershed – Priority Sector I – Tier II & III – Initial TMDL Activities



Map 4.2

SECTION 4 – INITIAL WATERSHED ACTIVITIES

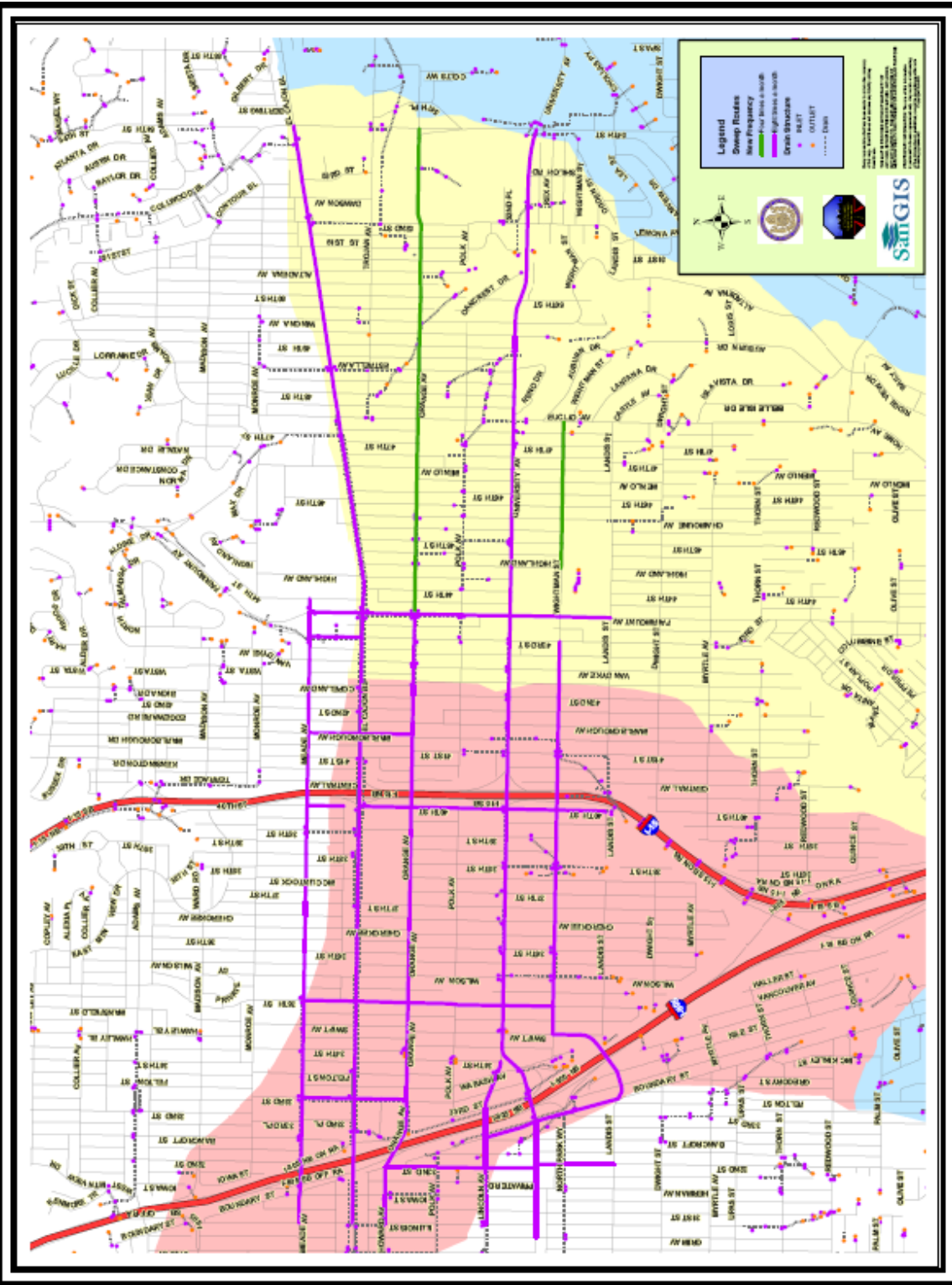
Aggressive Street Sweeping Project – Chollas Creek Watershed – Priority Sector 2 –Begin FY 2008 – Current Frequency



Map 4.3

SECTION 4 – INITIAL WATERSHED ACTIVITIES

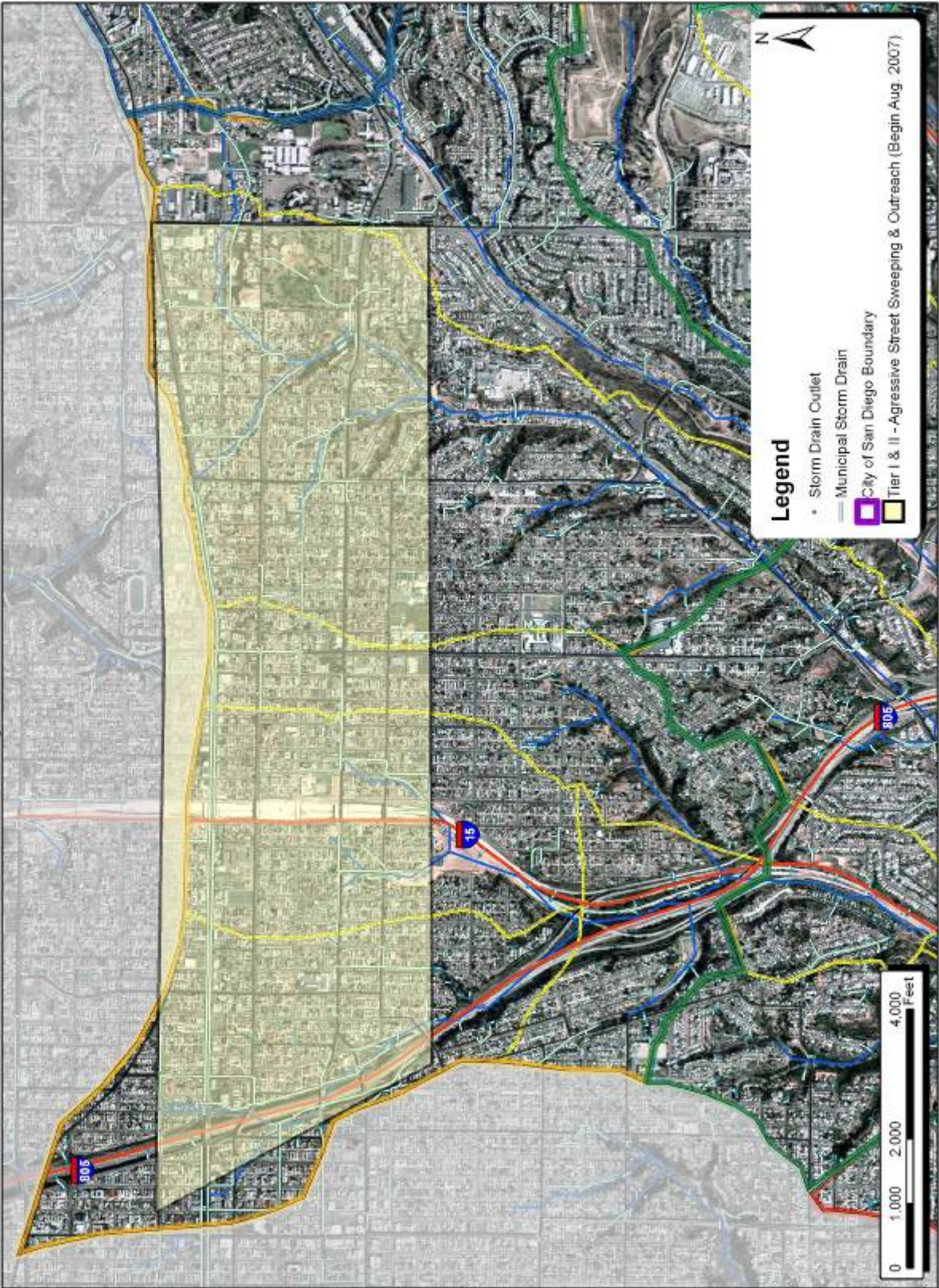
Aggressive Street Sweeping Project – Chollas Creek Watershed – Priority Sector 2 – Begin FY 2008 – New Frequency



Map 4.4

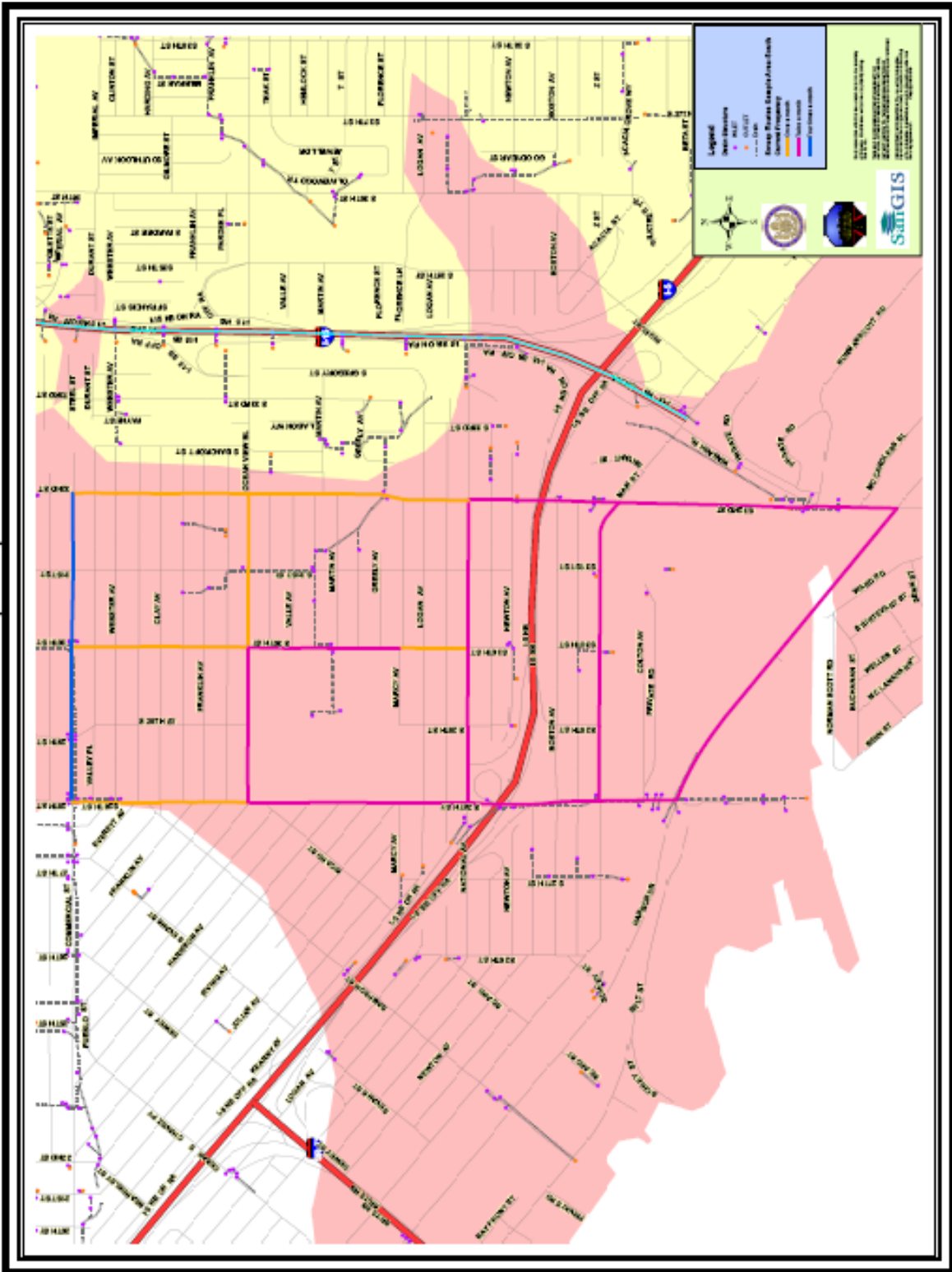
SECTION 4 – INITIAL WATERSHED ACTIVITIES

Chollas Creek Watershed - Priority Sector II - Tier I & II - Initial Permit Activities



SECTION 4 – INITIAL WATERSHED ACTIVITIES

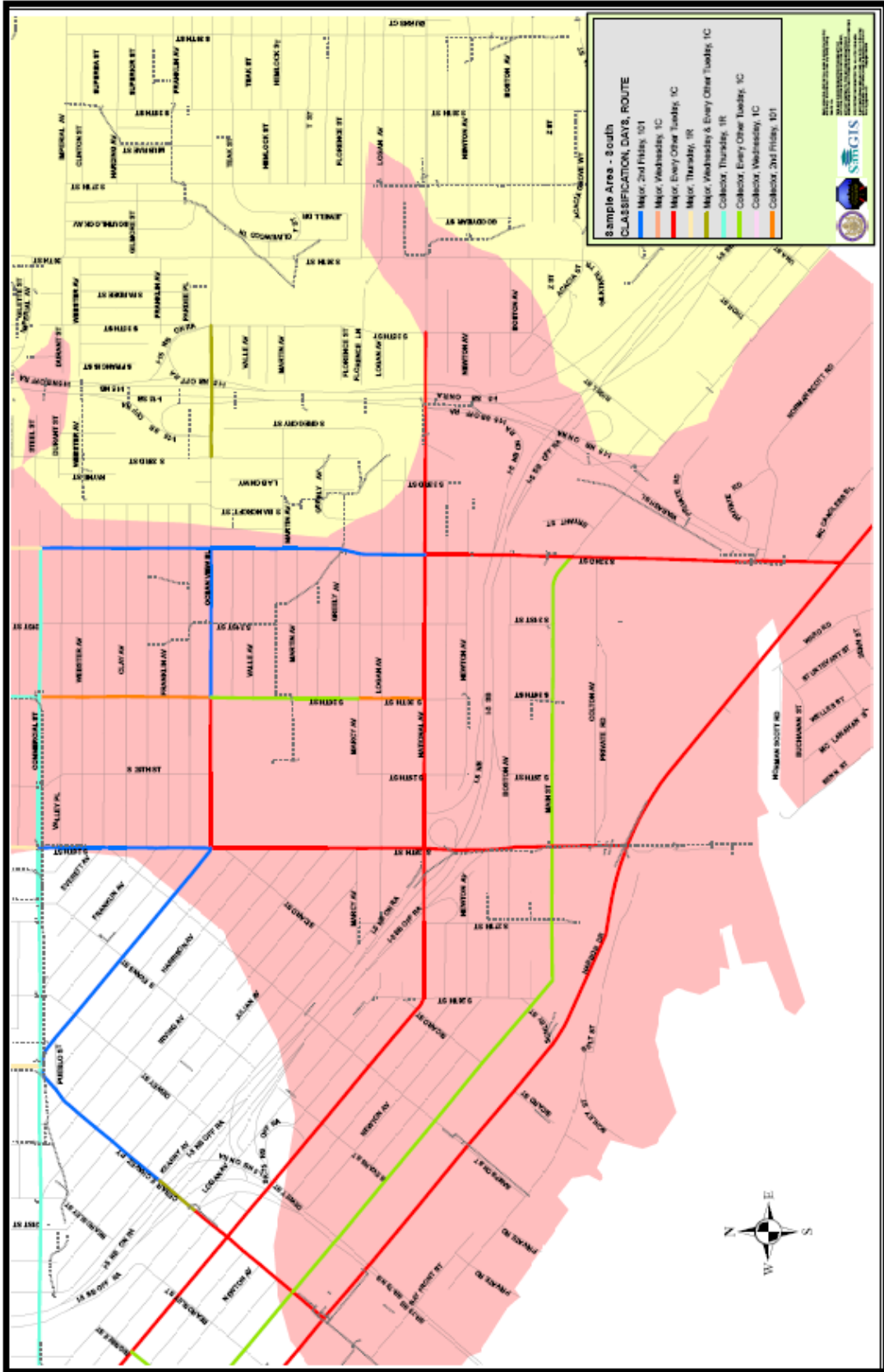
Aggressive Street Sweeping Project – Chollas Creek Watershed – Priority Sector 1 –Begin FY 2008 – Current Frequency



Map 4.6

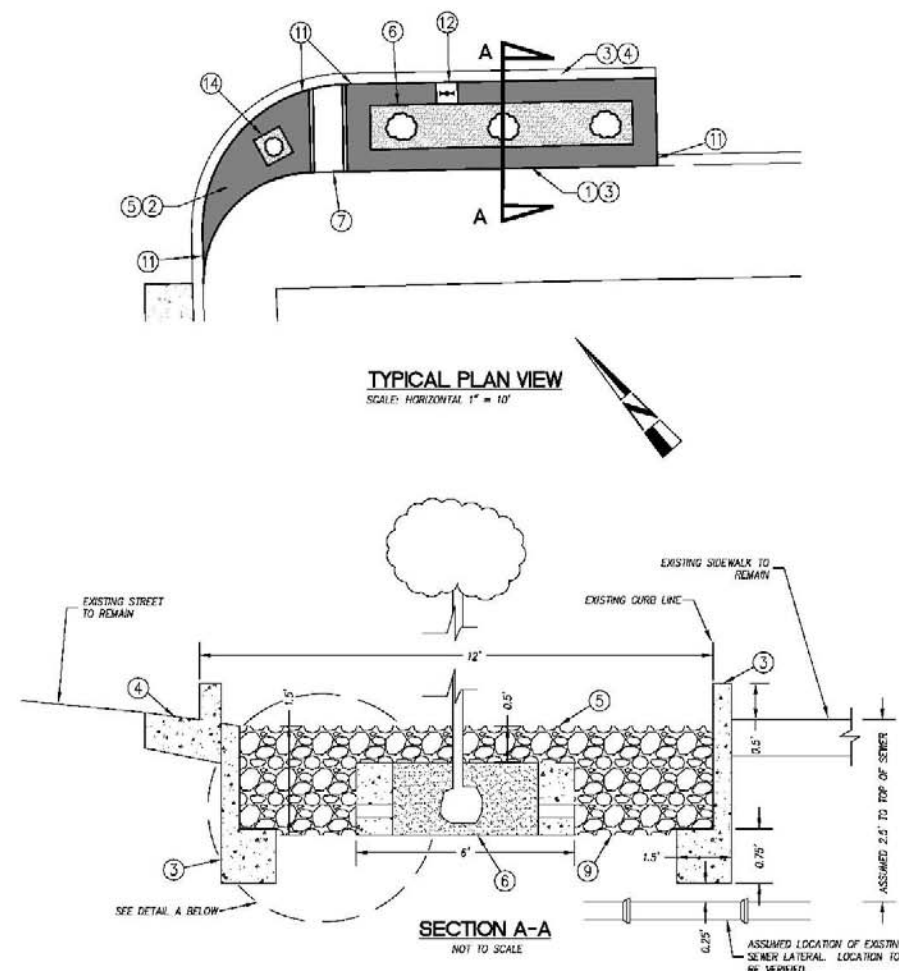
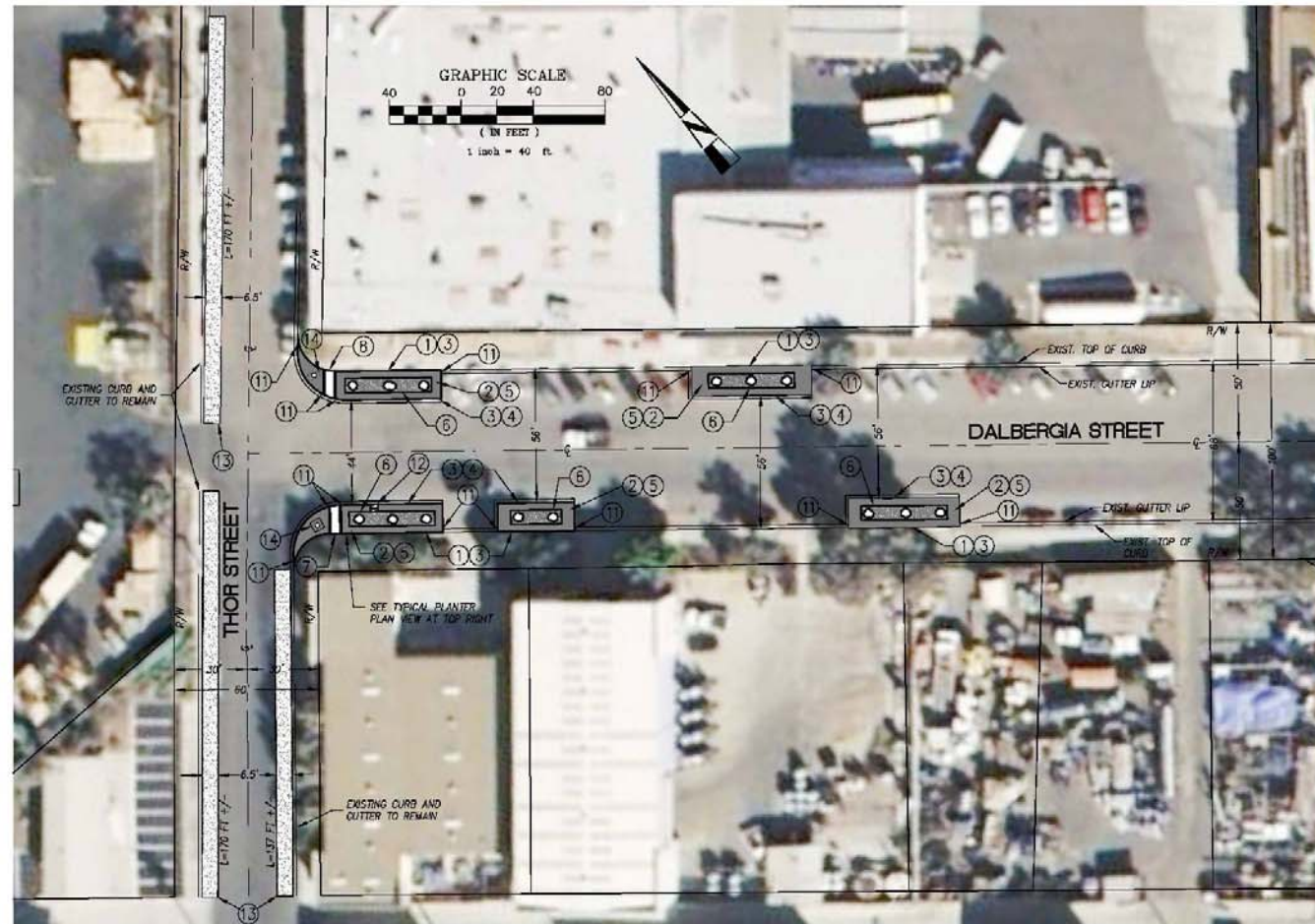
SECTION 4 – INITIAL WATERSHED ACTIVITIES

Aggressive Street Sweeping Project – Chollas Creek Watershed – Priority Sector 1 –Begin FY 2008 – Proposed



Map 4.7

DALBERGIA AND THOR STREETS BMP RETROFIT - CONCEPTUAL DESIGN



NOTES

1. VERIFY EXISTING SEWER LATERALS DO NOT CONFLICT WITH PLANTER AND WALL SECTION PRIOR TO FINAL DESIGN. RELOCATE OTHER EXISTING SERVICE UTILITIES AS NEEDED FOR PLANTER CONSTRUCTION.
2. STRUCTURAL SECTION OF PCC WALLS AND FOOTINGS TO BE DETERMINED DURING FINAL DESIGN. DIMENSIONS SHOWN ARE FOR COST ESTIMATING PURPOSES ONLY.
3. STRUCTURAL SECTION OF PERVIOUS CONCRETE AND BASE MATERIAL TO BE DETERMINED DURING FINAL DESIGN. SECTION AS CALLED OUT IS ONLY FOR COST ESTIMATING PURPOSES.
4. TREE SIZE CALLED OUT ONLY FOR COST ESTIMATING PURPOSES. LANDSCAPE ARCHITECT TO DETERMINE FINAL PLANTING AND SPACING.
5. INFILTRATION NOT TO BE USED IN EXPANSIVE SOILS. GEOTECHNICAL EVALUATION TO BE CONDUCTED OF SITE IN ORDER TO VERIFY EXPANSIVE SOILS ARE NOT PRESENT. SOIL REMEDIATION OR SELECTION OF AN ALTERNATE SITE MAY BE REQUIRED IF EXPANSIVE SOILS ARE PRESENT.
6. PLANTER LOCATIONS TO BE VERIFIED DURING FINAL DESIGN IN ORDER TO AVOID BLOCKING EXISTING DRIVEWAYS.

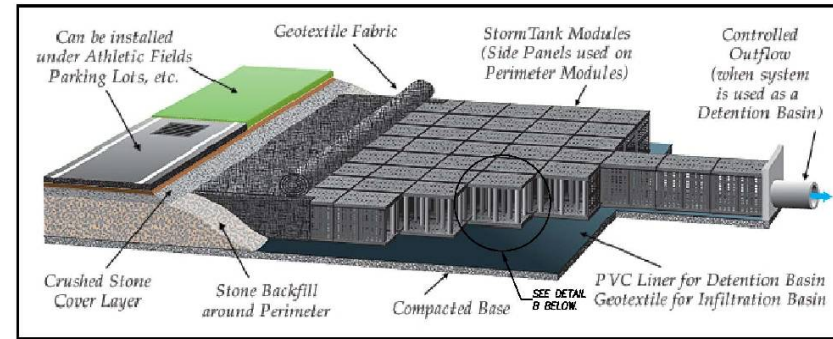
WORK TO BE DONE

1. REMOVE EXISTING CURB AND GUTTER WITHIN THE PROPOSED PLANTER AREAS.
2. REMOVE EXISTING AC STREET SECTION AND SOIL WITHIN THE PROPOSED PLANTER AREAS TO DEPTH OF 1.7 FEET BELOW GUTTER FL.
3. PLACE 8 INCH THICK REINFORCED PCC WALL AND FOOTING PER SECTION A-A.
4. PLACE 6-INCH CURB AND GUTTER PER SORSO C-2.
5. PLACE 3-INCH TO 6-INCH CRUSHED ROCK 1.5 FEET THICK.
6. PLACE 30 GALLON TREE AND OPEN CONCRETE 6 FEET WIDE X 1 FOOT HIGH X 8 INCH THICK PLANTER BOX - SCALE PLANTER LENGTH PER PLAN AND ADJUST TO MEET FIELD CONDITIONS. TOP OF PLANTER BOX TO BE 6 INCHES BELOW TOP OF ROCK ELEVATION. BACKFILL PLANTER WITH EXCAVATED SOILS AS AVAILABLE.
7. REMOVE EXISTING DISABLED ACCESS RAMP AND SIDE WALK, AND CONSTRUCT NEW RAMP AND SIDEWALK PER SORSO G-28 TYPE A-1 AND G-7.
8. CONSTRUCT NEW DISABLED ACCESS RAMP.
9. PLACE MIRAFI 1100K/15/300 FILTER BLANKET OR EQUIVALENT.
10. PLACE 3-INCH PVC PIPE THROUGH PLANTER SIDE AT 10 FEET ON CENTER.
11. CONSTRUCT 18 INCH WIDE OPENING IN PLANTER WALL - SET OPENING FINISHING ELEVATION EQUAL TO ADJACENT STREET OR GUTTER FINISHED SURFACE ELEVATION IN ORDER TO ALLOW DRAINAGE INTO AND OUT OF PLANTER AREA. CONSTRUCT 3 FOOT SQUARE SEDIMENT FOREBAY AT INFLOW OPENING - TO BE DESIGNED DURING FINAL ENGINEERING.
12. RELOCATE EXISTING FIRE HYDRANT PER SORSO W-11 AND W-12 ON NEW 6 INCH THICK REINFORCED PCC SLAB. SLAB TO HAVE 6 INCH PCC WALL AND FOOTING ON ALL FOUR SIDES PER ITEM 3 ABOVE.
13. SAWCUT EXISTING AC PAVEMENT AND PLACE 6.5 FEET WIDE 8 INCH THICK PERVIOUS CONCRETE PAVEMENT OVER 9 INCHES OF PERMEABLE CRUSHED AGGREGATE BASE - LENGTH PER PLAN.
14. PLACE 30 GALLON TREE AND OPEN CONCRETE 4 FEET SQUARE X 1 FOOT HIGH X 8 INCH THICK PLANTER BOX. TOP OF PLANTER BOX TO BE 6 INCHES BELOW TOP OF ROCK ELEVATION. BACKFILL PLANTER WITH EXCAVATED SOILS AS AVAILABLE.

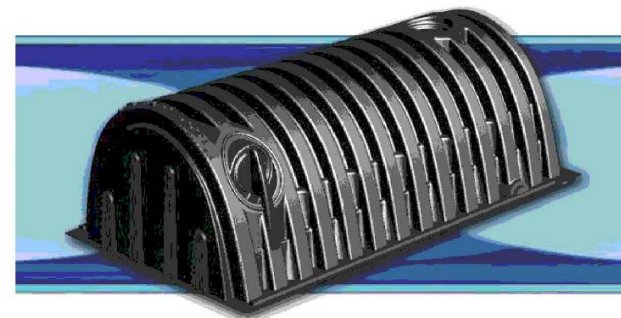
CVALDO CORPORATION
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 4801 MIRAMIA BLVD, SUITE 1110
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 (P) 858 866 0128 (F) 858 866 0131

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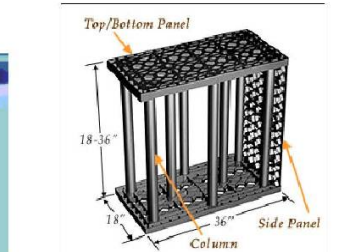
MEMORIAL PARK STORMWATER INFILTRATION- CONCEPTUAL DESIGN



OPTION 1: DETAIL A - STORM TANK
NOT TO SCALE



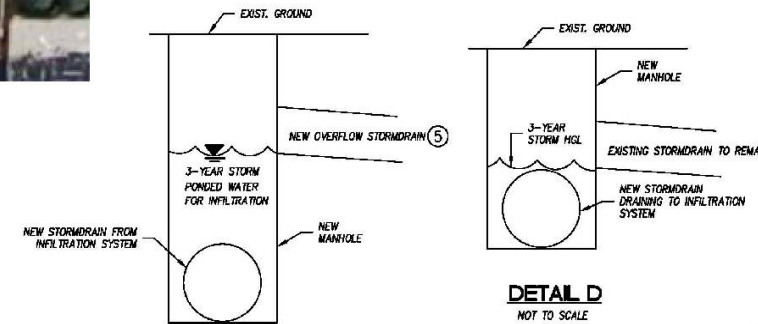
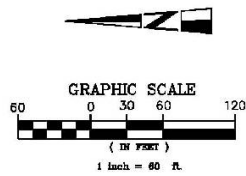
OPTION 2 - STORM CHAMBERS
NOT TO SCALE



OPTION 1: DETAIL B - STORM TANK
NOT TO SCALE

WORK TO BE DONE

1. INSTALL UNDERGROUND STORMWATER INFILTRATION SYSTEM PER DETAIL A OPTION 1 OR OPTION 2. DIMENSIONS SHOWN ON PLANS ARE CONCEPTUAL AND MAY BE MODIFIED. STORAGE VOLUME TO BE APPROXIMATELY 4,600 CF. RESTORE PLAYING FIELD LINES AND GRADES TO EXISTING CONDITIONS.
2. INSTALL 180± LF PVC STORMDRAIN
3. INSTALL STORMDRAIN MANHOLE
4. INSTALL HYDRODYNAMIC SEPARATOR UNIT - PRECAST CCS MANHOLE MODEL PMS300_30 OR EQUIVALENT
5. INSTALL 55± LF PVC STORMDRAIN
6. INSTALL 35± LF PVC STORMDRAIN

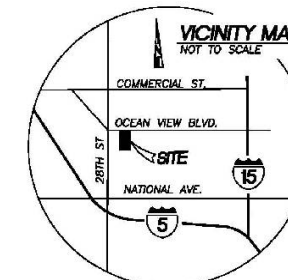


DETAIL C
NOT TO SCALE

DETAIL D
NOT TO SCALE

STORMWATER STORAGE DATA TABLE

PRODUCT NAME	MANUFACTURER	Dimensions			CALCULATED PRODUCT VOLUME (CF) PER UNIT	VOID RATIO	LOAD CAPACITY	CALCULATED WATER STORAGE VOL. (CF) PER UNIT	UNITS REQUIRED FOR STORAGE CAPACITY
		LENGHT (FT)	WIDTH (FT)	HEIGHT (FT)					
STORM TANK	BRENTWOOD INDUSTRIES	3	1.5	1.5	6.75	97%	H-25	6.55	705
STORM TANK	BRENTWOOD INDUSTRIES	3	1.5	3	13.5	97%	H-25	13.01	355
STORM CHAMBERS	HYDROLOGIC SOLUTIONS	8.5	5.0	2.83	120.42		H-20	75.0	62



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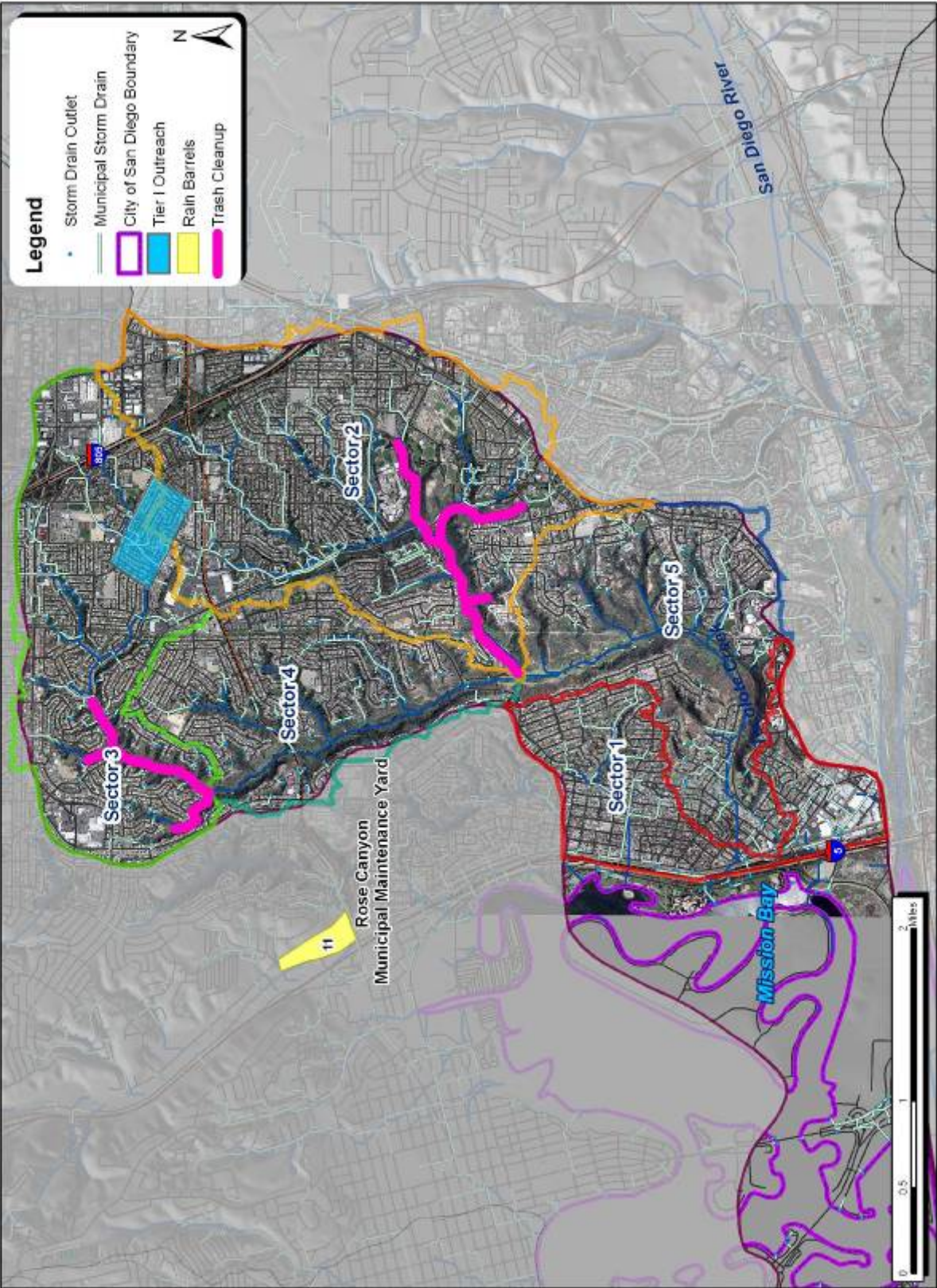
**Mission Bay Watershed Management
Area- Tecolote Creek Watershed**

SECTION 4 – INITIAL WATERSHED ACTIVITIES

Mission Bay Watershed - Tecolote Creek - Map Activity Index							
Tier	Map	Project #	Type of Project	Address	Property owner	Current Use	Start Year
Tier I	4.8		Outreach for Green Street	Sector 2			2008
Tier I	5.15		Outreach for Green Street	Sector 2			2010
Tier I	5.15		Outreach for Trash Segregation	Sector 1			2010
Tier I	5.15		Outreach for Green Mall	Sector 1			2010
Tier I	5.15		Outreach for Green Street	Sector 1			2010
Tier I	4.8	11	Rain Barrels	Rose Canyon	City	Maintenance Yard	2008
Tier II	5.15		Street Sweeping	Sector 1	City	Street	2010
Tier II	5.15		Street Sweeping	Sector 2	City	Street	2011
Tier II	4.9	1	Green Street	Mt. Abernathy	City	Street	2009
Tier II	5.16	2	Green Street	Auberdale Ave (sector 2)	City	Street	2011
Tier II	5.16	3	Green Street	Mt. Aguilar Ave (sector 2)	City	Street	2010
Tier II	5.16	4	Green Mall	Balboa & Genesee (sector 2)		Commercial	2010
Tier II	5.16	6	Green Street	Chicago (sector 1)	City	Street	2011
Tier II	5.16	7	Green Mall	Balboa & Genesee N (sector 2)		Commercial	2011
Tier III	5.16	8	Erosion and Sediment Control	Sector 1	NA	Storm Drain	2011
Tier III	4.9		Trash Cleanups	Sector 2	NA		2009
Tier III	5.16	5	Erosion and Sediment Control	Sector 2	NA	Storm Drain	2010
Tier III	5.16	9	Diversions	Visitors Center	NA	Storm Drain	2010
Tier III	5.16	9	Diversions	Cudahy Creek	NA	Storm Drain	2010
Tier III	5.16	10	Trash Segregation	Huxley (sector 1)	City	Street	2011
* Yellow Highlighted Projects indicate Permit Activities							
* Non Highlighted Zone indicate TMDL Activities							
*Green Highlighting indicates Initial Activities							
*Orange Highlighting indicates Future Potential Activities							

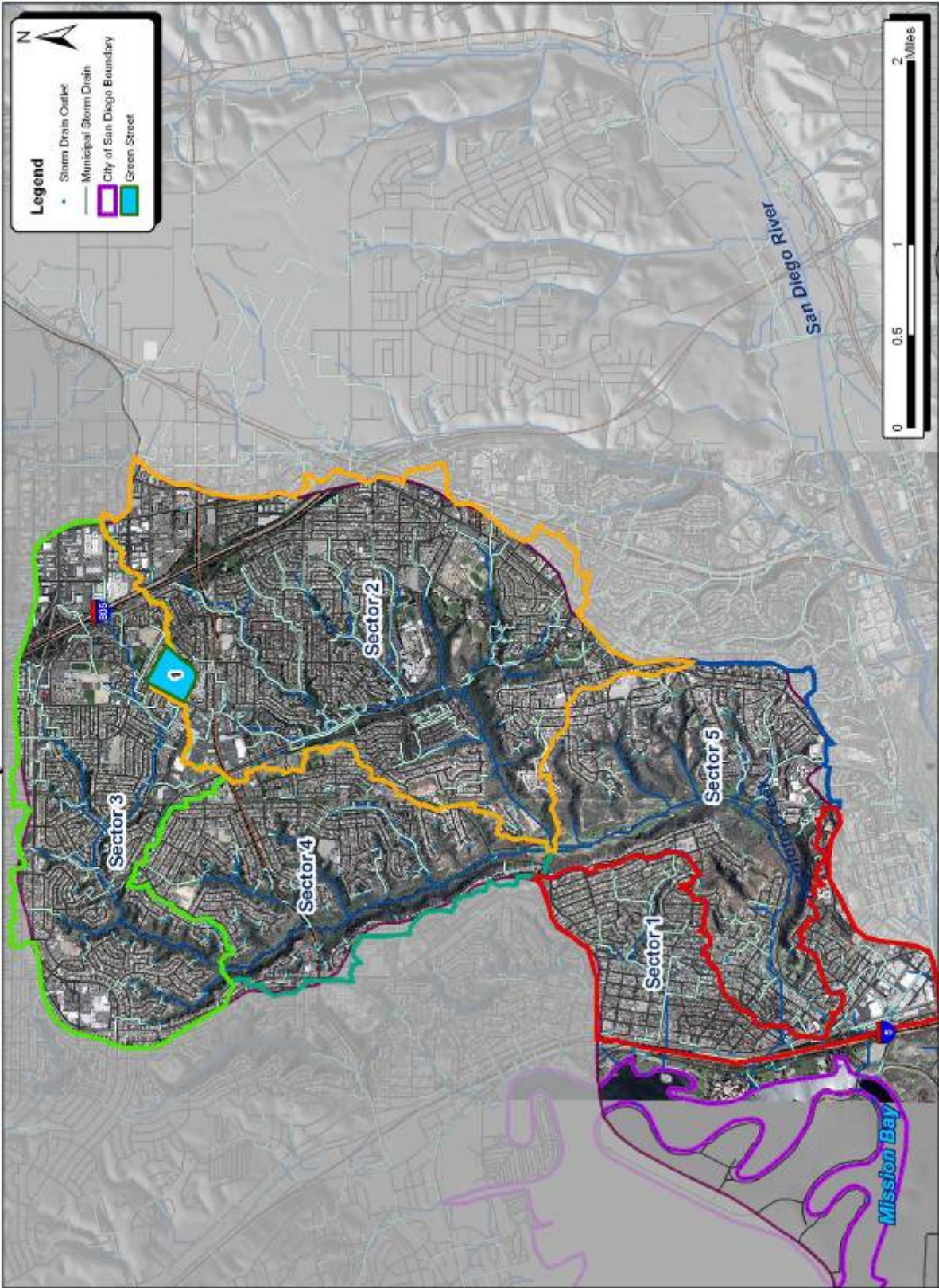
SECTION 4 – INITIAL WATERSHED ACTIVITIES

Tecolote Creek and Rose Canyon Watersheds - Priority Sectors I & II - Tier I & II - Initial Permit Activities



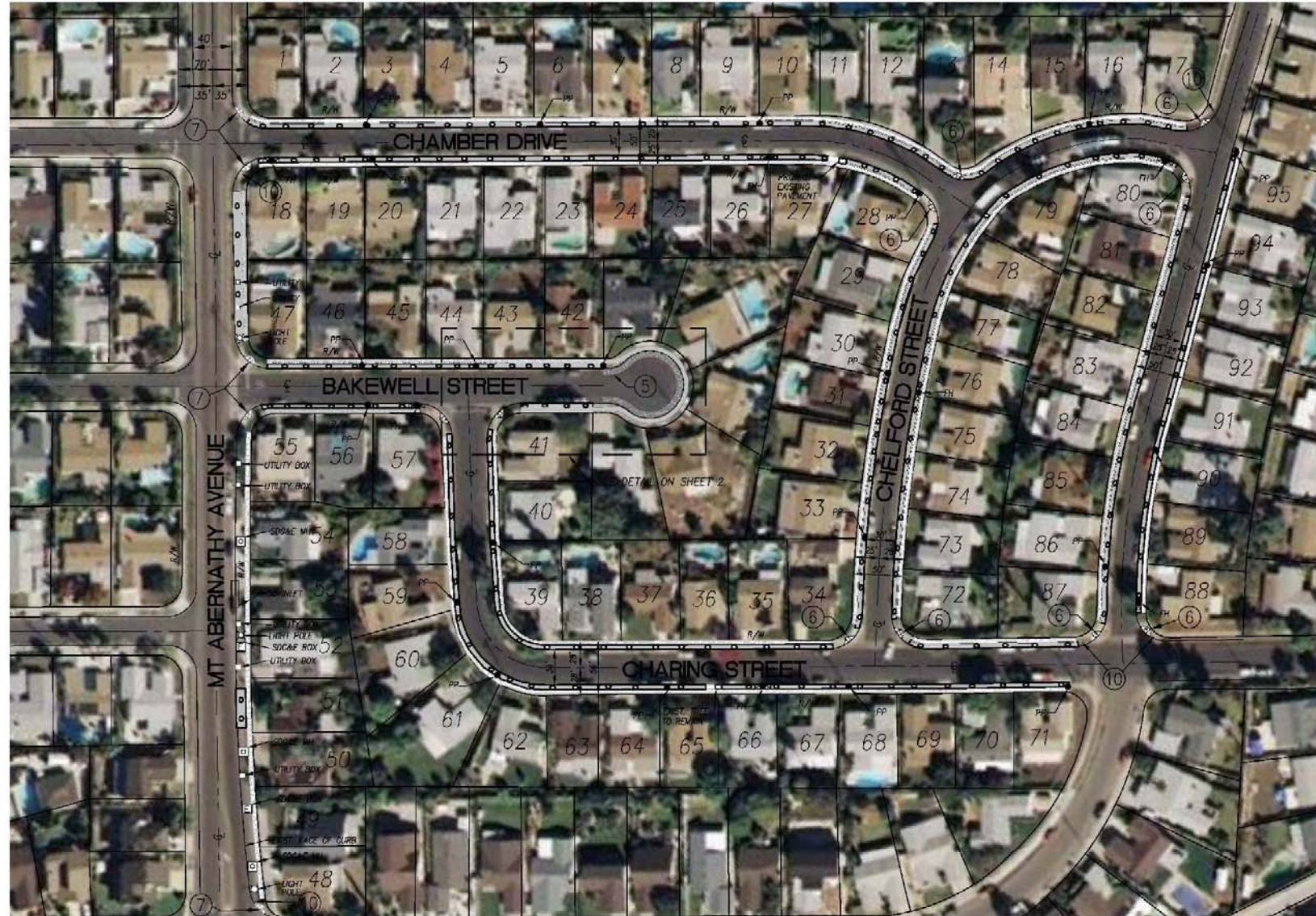
SECTION 4 – INITIAL WATERSHED ACTIVITIES

Tecolote Creek Watershed - Priority Sectors I & II - Tier II & III - Initial TMDL Activities



Map 4.9

TECOLOTE CREEK SUBWATERSHED BMP RETROFIT – CONCEPTUAL DESIGN



LEGEND

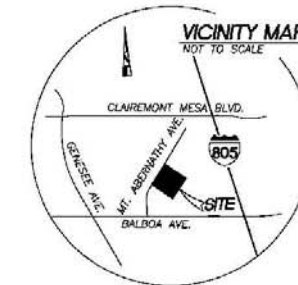
- EXISTING FIRE HYDRANT
- EXISTING LIGHT POLE
- EXISTING SOGAE MANHOLE
- EXISTING UTILITY BOX
- EXISTING SOGAE BOX
- EXISTING DISABLED ACCESS RAMP
- EXISTING POWER POLE
- PROPOSED PLANTER BOX
- PROPOSED TREE
- PROPOSED PERVIOUS CONCRETE SIDEWALK AND STREET SECTION
- PROPOSED PCC DISABLED ACCESS RAMP

WORK TO BE DONE

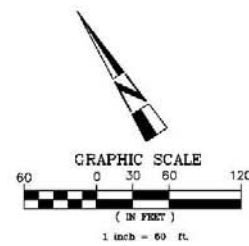
- ⑤ SAWCUT EXISTING AC PAVEMENT AND PLACE 6.5 FOOT WIDE 8 INCH THICK PERVIOUS CONCRETE PAVEMENT OVER 9 INCHES OF PERMEABLE CRUSHED AGGREGATE BASE.
- ⑥ CONSTRUCT NEW DISABLED ACCESS RAMP AND SIDEWALK PER SCPSD G-28 TYPE A-1 AND G-7.
- ⑦ PROTECT EXISTING DISABLED ACCESS RAMPS IN PLACE.
- ⑩ POTENTIAL LOCATION FOR GREEN STREETS NEIGHBORHOOD INFORMATIONAL SIGNAGE.

NOTES

1. STRUCTURAL SECTION OF PERVIOUS CONCRETE AND BASE MATERIAL TO BE DETERMINED DURING FINAL DESIGN. SECTION AS CALLED OUT IS ONLY FOR COST ESTIMATING PURPOSES.
2. TREE SIZE CALLED OUT ONLY FOR COST ESTIMATING PURPOSES. CITY LANDSCAPE ARCHITECT TO DETERMINE FINAL PLANTING AND SPACING.
3. INFILTRATION NOT TO BE USED IN EXPANSIVE SOILS. GEOTECHNICAL EVALUATION TO BE CONDUCTED OF SITE IN ORDER TO VERIFY EXPANSIVE SOILS ARE NOT PRESENT. SOIL REMEDIATION OR SELECTION OF AN ALTERNATE SITE MAY BE REQUIRED IF EXPANSIVE SOILS ARE PRESENT.
4. ALL EXISTING UTILITIES NAMED SHALL BE PROTECTED IN PLACE.

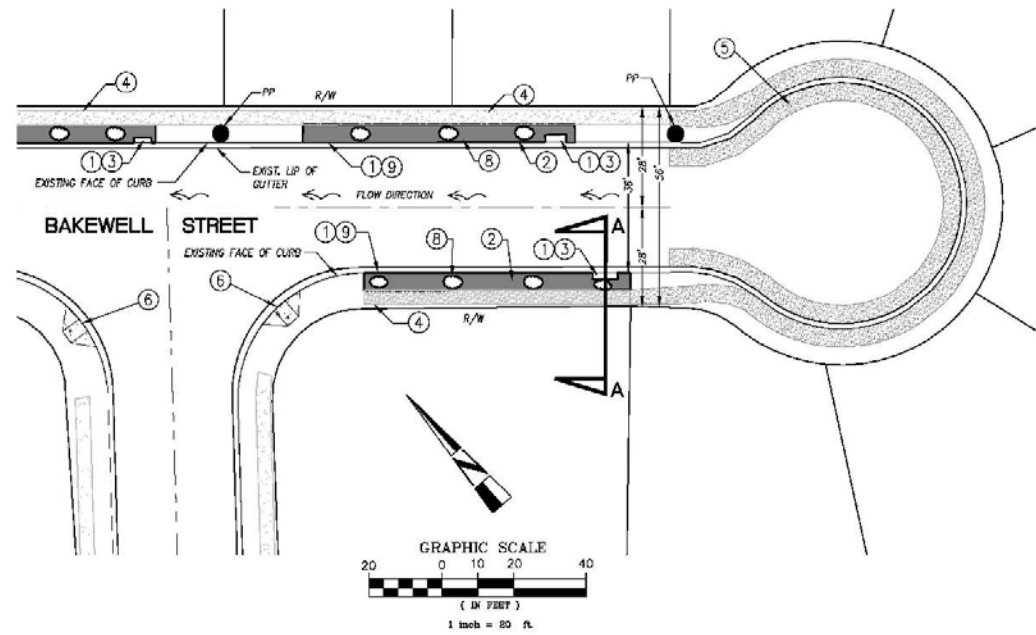


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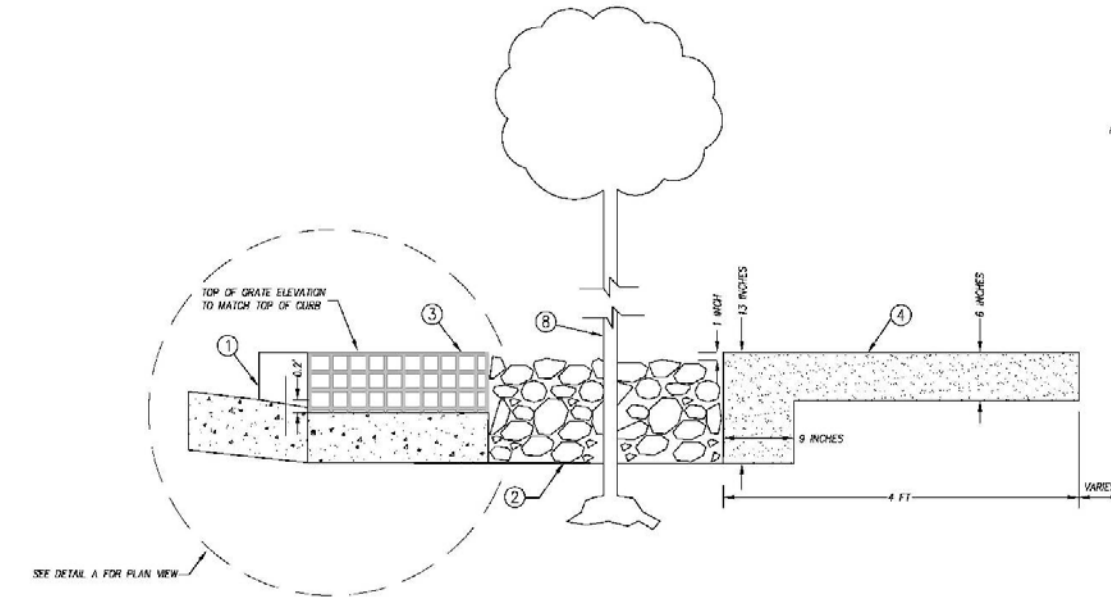


SHEET 1 OF 2

TECOLOTE CREEK SUBWATERSHED BMP RETROFIT – CONCEPTUAL DESIGN



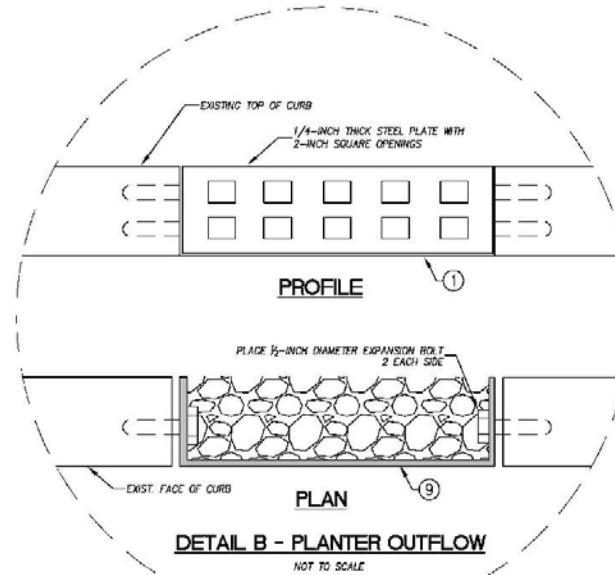
TYPICAL PLAN VIEW



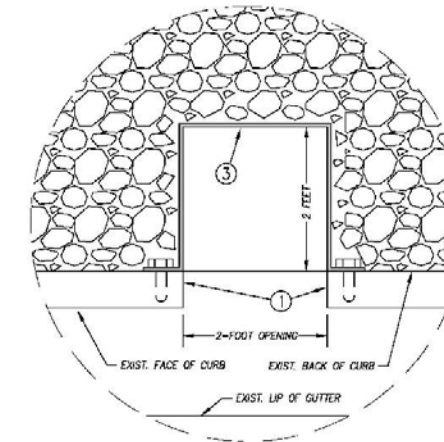
SECTION A-A
NOT TO SCALE

WORK TO BE DONE

- ① CUT AND REMOVE 2-FOOT SECTION OF POC CURB. GRIND REMAINING GUTTER 0.1 FEET TO DRAIN TOWARD PLANTER ON INFLOW OPENING ONLY.
- ② PLACE 3-INCH TO 6-INCH CRUSHED ROCK 1 FOOT THICK.
- ③ PLACE 2-FOOT SQUARE 4-INCH THICK CONCRETE PAD WITH 1/4-INCH THICK CORROSION RESISTANT STEEL GRATE – NO GALVANIZING PERMITTED. TOP OF PAD TO BE 0.2 FEET BELOW GUTTER FLOWLINE. REINFORCE CONCRETE WITH 10-GAUGE W/M. GRATE OPENINGS TO BE 2-INCH SQUARE. ATTACH GRATE TO CURB WITH 1/2-INCH EXPANSION BOLTS – 2 EACH SIDE. SEE DETAIL A.
- ④ PLACE 6 INCH THICK PERVIOUS CONCRETE SIDEWALK – 4 FEET WIDE.
- ⑤ SAWCUT EXISTING AC PAVEMENT AND PLACE 6.5 FOOT WIDE 8 INCH THICK PERVIOUS CONCRETE PAVEMENT OVER 9 INCHES OF PERMEABLE CRUSHED AGGREGATE BASE. SECTION AS CALLED OUT IS ONLY FOR COST ESTIMATING PURPOSES.
- ⑥ CONSTRUCT NEW UNASPALED ACCESS RAMP AND SIDEWALK PER SDCSD 9-26 TYPE A-1 AND 9-7.
- ⑦ PLACE 15-GALLON TREE PER SECTION A-A
- ⑧ PLACE 1/4-INCH THICK CORROSION RESISTANT STEEL GRATE – NO GALVANIZING PERMITTED. GRATE OPENINGS TO BE 2-INCH SQUARE. ATTACH GRATE TO CURB WITH 1/2-INCH DIAMETER EXPANSION BOLTS – 2 EACH SIDE. SEE DETAIL B.



DETAIL B - PLANTER OUTFLOW
NOT TO SCALE



DETAIL A - PLANTER INFLOW
SCALE: 1" = 1'

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**Mission Watershed Management Area –
La Jolla Shores ASBS Watershed**

SECTION 4 – INITIAL WATERSHED ACTIVITIES

Mission Bay Watershed - La Jolla Shores - Map Activity Index							
Tier	Map	Project #	Type of Project	Address	Property owner	Current Use	Start Year
Tier I	4.10		Outreach for Green Lot				2008
Tier I	5.17		Outreach for Green Street				2010
Tier II	5.17		Street Sweeping (New Vac truck)	La Jolla	NA	Street	2010
Tier II	5.17		Street Sweeping	La Jolla	NA	Street	2011
Tier II	4.11	1	Green Lot	First Half Kellogg parking lot	City	Parking Lot	2008
Tier II	5.18	3	Green Lot	Second Half Kellogg parking lot	City	Parking Lot	2009
Tier II	5.18	6	Green Street	La Jolla Shores/Torrey Pines	City	Street	2010
Tier II	5.18	9	Green Street	La Jolla Shores - North	City	Street	2011
Tier II	5.18	12	Runoff Reduction Project	TBD	Residential Community	Residences	2011
Tier II	5.18	13	Runoff Reduction Project	Avenida De La Playa	Residential Community	Residences	2011
Tier III	4.11	2	Diversions	1624 Torrey Pines Rd	NA	Storm Drain	2008
Tier III	4.11	2	Diversions	Torrey Pines Rd & Charlotte St	NA	Storm Drain	2008
Tier III	4.11	2	Diversions	La Jolla Beach & Tennis Club	NA	Storm Drain	2008
Tier III	4.11	2	Diversions	Camino Del Oro	NA	Storm Drain	2008
Tier III	5.18	4	Diversions	La Jolla Shores	NA	Storm Drain	2009
Tier III	5.18	4	Diversions	La Jolla Shores (North)	NA	Storm Drain	2009
Tier III	5.18	5	Diversions	Avenida De La Playa (Upgrade)	NA	Storm Drain	2010
Tier III	5.18	7	Erosion and Sediment Control	TBD	City	Storm Drain	2010
Tier II	5.18	8	Trash Segregation	Avenida De La Playa	City	Street	2010
Tier II	5.18	10	Trash Segregation	TBD	City	Street	2011
Tier II	5.18	11	Trash Segregation	Cliffridge	City	Street	2011
* Yellow Highlighted Projects indicate Permit Activities							
* Non Highlighted Zone indicate TMDL Activities							
* Green Highlighting indicates Initial Activities							
* Orange Highlighting indicates Future Potential Activities							

SECTION 4 – INITIAL WATERSHED ACTIVITIES

La Jolla Shores Watershed - Tier I & II - Initial Permit Activities



Map 4.10

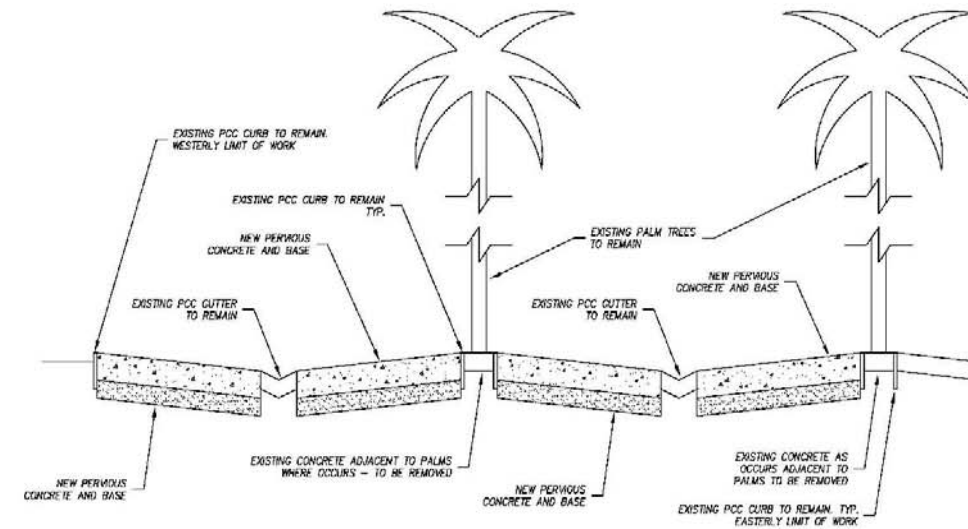
SECTION 4 – INITIAL WATERSHED ACTIVITIES

La Jolla Shores Watershed - Tier II & III - Initial TMDL Activities



Map 4.11

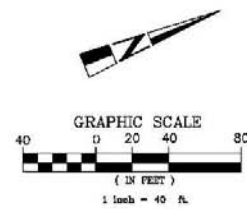
KELLOGG PARK PARKING LOT BMP RETROFIT – CONCEPTUAL DESIGN



SECTION A-A
NOT TO SCALE

WORK TO BE DONE

- ① REMOVE EXISTING AC PAVING IN SHADED AREA – PROTECT EXISTING PCC CURBS AND CUTTERS IN PLACE.
- ② REMOVE EXISTING CONCRETE BETWEEN EASTERLY AND WESTERLY PLANTER CURBS – PROTECT EXISTING PALMS IN PLACE.
- ③ PLACE NEW 8 INCH THICK PERVIOUS CONCRETE PAVEMENT OVER 4 INCHES OF PERMEABLE CRUSHED AGGREGATE BASE IN SHADED AREA – MAINTAIN EXISTING LINES AND GRADES. PERVIOUS CONCRETE THICKNESS AND BASE THICKNESS PROVIDED FOR COST ESTIMATING PURPOSES ONLY. FINAL PERVIOUS CONCRETE AND BASE THICKNESS TO BE DETERMINED DURING FINAL DESIGN.
- ④ PLANT 5 GALLON DROUGHT TOLERANT NATIVE SHRUBS AT 8 FEET ON CENTER – PROTECT EXISTING PALMS IN PLACE. FINAL PLANTING PALETTE AND SPACING TO BE DETERMINED DURING BY CITY LANDSCAPE ARCHITECT.
- ⑤ STRIPE NEW PERVIOUS CONCRETE PAVEMENT TO MATCH EXISTING PARKING LOT STRIPING.



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