ANNUAL ROUTINE MAINTENANCE PLAN

FISCAL YEAR 2014-2015

Prepared by

The Santa Barbara County Flood Control and Water Conservation District

SANTA BARBARA COUNTY FLOOD CONTROL DISTRICT
HISTORY AND PROCESS FOR THE
ANNUAL ROUTINE MAINTENANCE PLAN

ORIGIN OF THE PROGRAM

The Santa Barbara Flood Control District's (District) Annual Routine Maintenance Program was developed after many years of environmental study and coordination with the public, environmental groups, and permitting agencies. In 1987, the Board directed District staff to prepare a Program EIR on routine maintenance activities to: *"… provide a systematic approach to reviewing future flood control activities…offer feasible mitigation and/or alternative maintenance techniques which provide adequate protection against flood damage in the least environmentally damaging way."* In May 1990, a draft Program EIR was issued for public review. A final Program EIR was issued in March 1991 which identified an Environmentally Superior Alternative. The PEIR included numerous mitigation measures (called Standard Maintenance Practices) to avoid or reduce specific impacts to botanical resources, wildlife, water quality, stream geomorphology, cultural resources, and aesthetics.

In June 1991, the Board convened an Interagency and Public Advisory Committee (IPAC) to work with the District to develop a revised Maintenance Program, based on the EIR's Environmentally Superior Alternative. The IPAC met on seven occasions and developed, through a consensus process, a revised list of Standard Maintenance Practices (SMPs) and an annual planning and project approval process. Together, these products represented the revised Environmentally Superior Alternative that was recommended to the Board. The project was ultimately approved in March 1992 when an Addendum to the 1991 Program EIR was completed.

In 2001, after successfully implementing the Maintenance Program for nine years, the District determined that the Program needed revision for the reasons described below.

- Include new information about threatened and endangered species.
- Address water quality impacts in a more sophisticated manner.
- Consider new analytic tools for assessing channel capacity and geomorphology.
- Include the Lower Santa Ynez River maintenance into the annual program.
- Replace the Standard Maintenance Practices with newly written mitigation measures that directly correlate to identify impacts.
- Improve the format and organization of the Program EIR.
- Include a variety of bank and grade stabilization measures in the program.
- Update the Habitat Restoration Plan
- Assess the Impacts of the Los Carneros Mitigation Bank.

Following public review and comment in 2001 a Final Program Environmental Impact Report for the Updated Routine Maintenance Program was approved by the Board of Supervisors on December 11, 2001.

The 2014/2015 Annual Routine Maintenance Plan marks the 23rd Annual Plan that has been implemented since the Program's inception.

The District is providing the following history and process information on the Annual Routine Maintenance Plan to further explain the Program and demonstrate the District's commitment to avoidance, minimization and compensation.

ANNUAL ROUTINE MAINTENANCE PLAN

OBJECTIVES

The objectives of the routine maintenance program are to maintain the capacity of key watercourses in the County, to preserve existing conveyance capacity and prevent the accumulation of obstructing vegetation and sediments that could increase existing flood hazards that could then result in damage to life, and public property and infrastructure. The extent and frequency of maintenance are dependent upon many factors including the availability of funds from individual flood zones, the degree of flood hazard, and the environmental impacts of the maintenance actions. The planning process undertaken to formulate the annual maintenance plan and the maintenance practices that are used by the District first avoid and then minimize environmental impacts to natural habitats, water quality, sensitive species, and natural fluvial processes.

It is extremely important to understand that the implementation of the District's maintenance program, with its approach to avoidance and minimization, avoids the severe environmental impacts of increased flooding, bank erosion, habitat loss, and the associated impacts to water quality that would occur if the District did not provide routine maintenance within key watercourses throughout the county.

PLANNING STEPS AND CRITERIA:

The District's process to determine what maintenance tasks are proposed each year follows the "A*void, Minimize, Compensate*" chain of logic. The process includes field surveys, engineering analysis, natural resource assessment, prioritization, impact assessment, and strategies to modify work methods to balance flood control objectives with environmental protection, riparian habitat health, sensitive species protection, and water quality protection. Also considered are qualitative criteria made by experienced Flood Control staff.

It is important to note that each work site is controlled by many factors, site-specific parameters, anticipated weather events, watershed processes, and overall County budget constraints.

STEP 1: Field Survey.

Each year in February and March, District staff inspects all of the County's maintained drainages. A total of 67 drainages are specifically inspected (36 on the south coast and 31 in North County) for a total of approximately 105 miles of inspected drainages. The staff includes the Maintenance Superintendent, Environmental Manager, District Biologist, Environmental Planner, and Maintenance staff. For difficult situations, engineering staff or consultants may also participate in the field inspections. The staff discuss maintenance needs and objectives in the field, determines what reasonable alternatives exist, and develops avoidance/minimization/compensation measures for each maintenance task. District environmental staff reviews the sites for sensitive habitat or special status species and determine if further surveys are warranted.

For simple maintenance tasks (eg: Brushing), the standard avoid/minimize/compensate practices from the PEIR and Annual Plan Mitigation Measures are applied. For more complex maintenance tasks (eg: earth-moving or operations in sensitive habitat), District staff develop site-specific strategies to avoid/minimize/compensate for incidental impacts, relying on the PEIR mitigation measures but fine-tuning the work method for each specific site.

Each site in the field is evaluated for criteria such as: height and width of open channel, density/height/and roughness of channel vegetation, depth of accumulated sediment, location/size of fallen limbs and trees, location/size of bridges and culverts, adjacent land uses, flood threats, erosion threats, vegetative cover on banks, flow regime, hydraulics, and comparison with previous year's conditions.

> Example: For removal of obstructive vegetation: Criteria for several south-coast streams include the bank full curves developed by URS in 2002, showing the stream width required to maintain channel equilibrium based on the watershed size and geomorphology.
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> Criteria also include: Height of overhanging vegetation (generally woody vegetation hanging below 6 feet within the bank full width can be considered a flood risk as this material can obstruct flows, become dislodged and create debris plugs along the drainage or at culverts or bridges which can lead to flooding and increased erosion along the banks), proximity to culverts or bridges, confined channels in urban areas, known problematic areas—such as undersized culverts, bends in the creek channels, weak spots in creek banks, and areas that frequently accumulate excess sediment. While the District uses the general statement that overhanging vegetation below 6 feet within the bankfull width can be considered a flood risk, not all vegetation within this zone is removed and this type of habitat (overhanging limbs, low canopy, etc) persists within the creeks every year. This type of habitat is not eliminated by the District's maintenance program and the removal of overhanging vegetation depends upon individual drainages' field conditions.
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> Problem areas are known based on extensive District experience walking creeks each year and managing flood hazards that have occurred in the past. In developing a work plan for each site, the District considers the degree of native vs non-native vegetation (or bare soil), sensitive habitats, sensitive species, cultural resources, trail crossings, bridges, and water quality parameters.
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> Example: A sediment bar at a bend in an urban area of the watershed, with only non-native cover, upstream of an undersized culvert, in a reach of the creek that has overtopped its banks in recent history or is severely diverting flows towards a bank increasing erosion and threatening riparian habitat on the bank—This site may be treated by excavating and exporting the excess sediment,
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> A sediment bar with the same dimensions, but with native tree cover in the upper rural watershed with no culvert or bridge within ½ mile downstream—This site may be treated by brushing to remove a strip of vegetation to maintain the bank full width (or may not be treated at all on a given year and simply watched to see how it responds from year to year).

As this example shows, no single criterion can be applied in all cases. For each maintenance site, the whole combination of criteria, impacts, and natural resources are considered in developing a work plan. (MINIMIZATION).

STEP 2: Prioritization.
Once the field surveys are completed for each watershed, District staff compiles a list of all proposed tasks in each watershed. Then staff determines which watersheds are in good-enough condition overall that no maintenance will be performed for the year. In a typical year, approximately ½ of the managed watersheds are omitted from all work (AVOIDANCE) because it is determined that flood threats are minimal enough to allow the drainage to remain unmaintained until at least the following year when it will be re-evaluated. The remaining watersheds are prioritized as "High" or "Medium" priority based upon the amount of proposed work and the associated flood threats that the work would eliminate. High priority watersheds are those in which conditions definitely require maintenance for the year. Medium priority watersheds are those that have several maintenance needs, but may be able to last one more year before maintenance is required.

The District evaluates the priority list in terms of staff resources, budget and workload and decides which watersheds to perform routine maintenance for the year. The remaining watersheds are omitted from maintenance (AVOIDANCE).

STEP 3: Develop Annual Plan/Further Evaluation.

Develop Annual Plan
An Annual Routine Maintenance Plan (Annual Plan) is prepared by the District staff in May and June of each year which includes the following chapters:

1. Introduction; Introduction, List of Creeks by Supervisorial District, and Chronic Maintenance Table.

2. Exempt Facilities; Notice of Exemption and description of exempt drainages.

3. North County Creeks; Individual Project Specific descriptions for each North County drainage to be maintained, including detailed information on the site conditions, biological resources, proposed maintenance actions, impact assessment, mitigation measures, maps, and photographs.

4. South County Creeks; Same as above for South County drainages.

5. CEQA Findings; CEQA Findings for the 2014/2015 Annual Plan.

6. District's Revegetation Plan

7. Impacts and Mitigations; In order to save paper and reduce the size of the Plan, an individualized Impacts/Mitigation Measures Table was developed for each addendum and the complete text of all impacts and mitigation measures is included once under this separate tab.

For those watersheds that are included for maintenance each year, the District then further refines the work methods. All activities that require earth-moving or equipment operating in the creek channel are assessed for access, timing, and the extent of maintenance required (MINIMIZATION). The District Biologist performs a field survey of such sites to determine if sensitive species or habitats are likely to be impacted, and then environmental staff confers with maintenance staff to develop AVOIDANCE and MINIMIZATION measures for each site. At this stage of the process, the District formulates dewatering plans, bio-monitoring requirements, and other BMPs to be applied. The BMPs are derived from the mitigation measures in the PEIR, but are tailored to each specific work site.

Routine maintenance can include brushing vegetation, herbicide application, desilting, shaping, bank protection, repair or creation of check structures, and habitat restoration. Following is a list of general terms used in the project descriptions to describe the vegetation management activities, as required in the 2012 Regional Water Quality Control Board 401B Water Quality Certification:

Brush: The cutting of live vegetation growing in the bottom of the creek within the active flow area. The stumps of the cut vegetation are generally sprayed with herbicide to inhibit regeneration of the live vegetation.
Cut: Same as Brush.
Cut Up: Used to describe cutting up "downed" or fallen (dead) vegetation within the active channel or live vegetation growing in the active channel (as in brush).
Limb: the trimming or pruning (but not complete removal of the whole tree or shrub) of limbs that are projecting into the active flow area of the channel from vegetation that is growing on the creek bank or outside of the bankfull discharge width. Limbing is done to keep the flow area clear while at the same time retaining vegetation on the creek banks for shading and riparian canopy development.
Trim or Trim Back: Same as Limb.
Remove: Refers to the removal of live or dead vegetation from the active channel. Vegetation can be removed and placed on the banks or completely taken out of the channel and hauled away, depending upon access.
Seedling: A tree less than 3 feet tall and 1" DBH.
Sapling: A tree with DBH between 1-3".

At sites where impacts to riparian vegetation within the channel invert cannot be completely avoided, the District calculates the square footage of impacts to native vegetation and then identifies a location for habitat restoration (COMPENSATION). Often, the restoration occurs at the site of temporary disturbance. At some sites, this is not possible or desired (such as vegetation removal from the floor of the channel). In these cases, an alternate restoration site is developed to offset the impacts (COMPENSATION). Restoration occurs on creek banks first at or near the site where vegetation was removed, second at an alternate site along the drainage, thirdly on a nearby drainage as appropriate and lastly by either participating in Watershed based restoration projects led by other entities as these projects become permitted or by using credits from the Los Carneros Mitigation Bank (LCMB) which the District formalized in 2004 with the Army Corps of Engineers and began implementing in 2005. The bank has 28 acres that are slated for restoration with 10 acres of riparian vegetation and 18.41 acres of upland habitat. The LCMB Banking instrument allows for a 1:1 credit ratio for riparian habitat and .75:1 credit ratio for upland habitat for a total of 24 acres of total credit availability for the bank. When 3-year success criteria are met in a given restored

area, ½ of the available credits for that area can become available and once the 5-year success criteria are met, the remaining half of the credits become available. To date, restoration has been implemented on 6 acres The District has only claimed a total of 4432 square feet of credit from the bank for the 2013/2014 Annual Plan.

The details of the protective measures and restoration are written into the project descriptions for the Annual Plan.

Between 2002 and 2013 the District has implemented approximately 25.3 acres of restoration throughout the county directly related to the Annual Routine Maintenance Plan. That is made up of 9.3 acres on the south coast and 16 acres in North County. Within north county 13.5 of the 16 acres is within the Santa Maria River. The 11.8 acres of strictly creek-bank restoration that has been implemented throughout the county, just in the last 11 years, is equivalent to 8.1 miles of creek banks being restored (with an average creek bank site width of 12'). This restoration has occurred in areas that were either devoid of vegetation, were infested with non-natives (giant reed, castor bean, ivy etc.) or were sheer banks that without reshaping and protection, would have remained sheer, unvegetated, and would have continued to erode. This represents a very large improvement to riparian corridor health for water quality, stream shading, wildlife habitat, etc. The District will continue to implement restoration to mitigate temporal impacts to native vegetation for the duration of the Annual Routine Maintenance Program at a 1:1 ratio.

In the past twenty-three years, outside of the Annual Routine Maintenance Plan, and in association with other maintenance activities, the District has also implemented an additional 30+ acres of riparian restoration within Santa Barbara County.

STEP 4: Public Review.
An Annual Plan Summary is posted on the District website during the second week of May and letters are sent to interested individuals, public groups and the regulatory agencies to notify them that the Summary is available for review and comment. Public workshops (one in Santa Maria and one in Santa Barbara) are also held in May. During this period, additional AVOIDANCE/MINIMIZATION measures may be submitted by comment and incorporated into project design.

After initial review and comment, the Annual Plan is finalized and submitted for permits and authorization. The USFWS and NOAA Fisheries review sites which may have listed species present. In some isolated cases, FWS and/or NOAA request additional information, site visits, or plans to further review the projects. The District incorporates agency comments to further AVOID/MINIMIZE impacts to listed species and to ensure that the work falls within the District's Biological Opinions. Specialized biological contractors may be hired to perform survey and relocation work.

Step 5: CEQA Compliance
As noted above, the Annual Plan includes a description of each maintenance project to be conducted in the fall. In addition, it represents the environmental documentation under CEQA. The projects included in the Annual Plan are categorized as follows relative to CEQA:

- The project is exempt from CEQA and therefore no environmental review is necessary (CEQA Guidelines 15300 or 15061)
- No further environmental review is necessary because the project was adequately addressed in the Program EIR (CEQA Guidelines 15162).
- Considered under the 2001 Program EIR, and a project specific write-up is necessary to describe the project and ensure consistency with the Program EIR impact analysis and to apply the appropriate mitigation measures (CEQA Guidelines 15164)

As a CEQA lead agency, the District has the authority to determine which maintenance activities and projects are exempt from CEQA under the following two provisions of the CEQA Guidelines:

1. Under Section 15061(b)(3), a project or discretionary activity is covered by the general rule that CEQA applies only to projects which have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA.

2. The District may also determine that a project qualifies for CEQA Categorical Exemption Class 1 (CEQA Guidelines Section 15301, Existing Facilities):

   "Class 1 consists of the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of use beyond that existing at the time of the lead agency's determination. The types of "existing facilities" itemized below are not intended to be all-inclusive of the types of projects which might fall within Class 1. The key consideration is whether the project involves negligible or no expansion of an existing use. Examples include but are not limited to: … (b) Existing facilities of both investor and publicly-owned utilities used to provide electric power, natural gas, sewerage, or other public utility services…"

   There are exceptions to Categorical Exemptions, which are listed in Section 15300.2 of the CEQA Guidelines. For example, all exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant. In addition, a categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.

Maintenance projects that are exempt from CEQA generally include the following categories of activities, as described by the District in the Annual Plan:

1. **Concrete Channels**. Maintenance activities in fully concrete lined channels without habitat.

2. **Flood Control Devices.** Cleaning, repair, and replacement of such flood control devices as check structures, drop structures, chute structures, culverts, weirs, or stream flow measuring stations.
3. **Access Ways**. Maintenance activities on access ways or roads outside of riparian corridors or estuaries.
4. **Earthen Channels.** Maintenance activities in earthen channels, which have been developed to convey urban stormwater, agricultural stormwater or tail water, and that support little to no vegetation and do not support listed species .
5. **Unvegetated Basins.** Maintenance activities in sediment, debris, and retention basins which have been constructed for such purposes and which support little to no vegetation and do not support listed species.

Non-exempt projects that were considered in the 2001 Program EIR are subject to environmental review in the Annual Plan. A project specific description is prepared by District staff for each drainage needing maintenance and includes the following elements:

Location – A description of the maintenance site is presented.

Setting – A description is presented of the environmental conditions along the drainage, including topography, vegetation, stream channel dimensions, and adjacent land use. District staff conducts a field investigation and records information on site conditions, including vegetation.

Revegetation – This section includes a listing of past restoration that was implemented as mitigation for maintenance since 2002 and a description of any proposed District revegetation associated with the current year's annual routine maintenance. This allows for accurate record keeping of restoration area on an ongoing basis.

Wildlife Surveys – The results of wildlife surveys that are conducted in April or May at the maintenance sites are summarized. The primary objective of these surveys is to identify any sensitive species at the maintenance sites. This section of the Addendum also includes a summary of all wildlife observed at or near the sites.

Engineering Analysis – A description of the site conditions that have caused the need for maintenance including: (1) the nature and extent of channel obstructions or damaged facilities; (2) the flooding and erosion hazards created by these conditions; and (3) the remedy for this situation. The analysis usually is based on visual observations of adverse conditions such as sediment deposits, significant in-stream vegetation, or damaged facilities. The District personnel that conduct the Annual Plan surveys is the same each year; as such, they have first-hand knowledge of site conditions along drainages in the County over many years and under various conditions. Hence, they can readily assess the maintenance needs. The District does not typically conduct quantitative field measurements or hydrologic calculations or modeling to determine the maintenance needs at all sites, however pursuant to the 2012 RWQCB 401B

Technically Conditioned Water Quality Certification, a sheer stress analysis is conducted for all bank protection sites and additional geomorphologic analysis is also completed.

The Engineering Analysis section also includes reference to bankfull calculations that were quantified in 2002 as part of the Updated PEIR. The bankfull widths are used to determine and document the desired clearing width within individual creeks along the south coast in particular. In areas where bankfull calculations are unavailable, District staff use field indicators to determine clearing widths.

Project Description - This section includes a description of the maintenance work to be performed, including descriptions of access. Precise descriptions of the areas to be treated (e.g., sprayed with herbicide or brushed) are provided using features in the field. GIS generated maps are provided to show the limits of work and access points. Photographs of representative maintenance areas are also included in each addendum. Figures showing water diversion, bank protection diagrams, and shaping project are also included.

Impact Analysis and Mitigation Measures - The Addenda refer to the list of impacts associated with specific maintenance activities developed in the 2001 Updated Program EIR. The latter identified numerous significant, unmitigable impacts (Class I), significant, but mitigable to less than significant impacts (Class II), and less than significant impacts (Class III). For maintenance projects proposed and implemented since 1992, the District has been able to avoid significant impacts by designing the projects or activities to avoid such impacts, and/or by implementing appropriate mitigation measures from the Program EIR to mitigate such impacts.

This section contains a list of impacts expected to occur due to the proposed maintenance activity using the impact number, impact description, and issue area presented in the 2001 Updated Program EIR. These issue areas include the following: Water Resources (Hydrology); Water Quality; Wetlands, Riparian Habitats, and Rare Plants; Aquatic Species, Fish; and Wildlife; Air Quality; Noise; Cultural Resources; Recreation, and Visual Resources. Specific impacts are listed under each issue area.

In addition, mitigation measures derived from the Program EIR are listed under each issue area.

Step 6 : Plan Approval

The Annual Plan is revised to respond to public comments, and is then presented to the Board of Directors for approval in June of each year. There is a public hearing to adopt the Annual Plan and the Categorical Exemptions.

PERMITS

Local Land Use and Coastal Development Permits

Most of the maintenance activities occur in unincorporated portions of Santa Barbara County. The District is exempt from the land use permitting requirements of the County in areas outside the Coastal Zone. Section 35.10.040(G)(1)(b)-201 of Article III Zoning Ordinance (Non-Coastal Areas) states that the Zoning Ordinance does not apply to "Development by the County or any district of which the Board is the governing body."

Some maintenance activities occur in the Coastal Zone in unincorporated portions of the County. Under Section 35-51(4) of the Article II Zoning Ordinance (Coastal Areas), the District does not require a Coastal Development Permit for maintenance projects in the Coastal Zone, except when the project occurs in an Environmentally Sensitive Habitat (ESH) area. The latter is defined in the Coastal Act and Coastal Plan and generally includes rivers, streams, wetlands, riparian corridors, and sensitive species habitats. For most work in the Coastal Zone, the County has permit authority and issues Coastal Development Permits (CDP) on individual drainages. However, there are certain areas along the coast where the California Coastal Commission (CCC) retains primary permit authority. Maintenance projects in ESH areas must be designed and implemented in a manner consistent with the development standards in Section 35-97 of the Article II Zoning Ordinance. Work in the Coastal Zone within the cities of Santa Barbara, Goleta, and Carpinteria requires a CDP from these jurisdictions.

State and Federal Permits

Most maintenance activities occur in natural watercourses and involve modification to the channel bed, banks, and in-channel vegetation. These activities are regulated by the California Department of Fish and Wildlife (CDFW) under Section 1601 of the Fish and Game Code. Activities that result in the discharge of dredged or fill material in natural watercourses (such as bank stabilization and channel shaping) are regulated by the Army Corps of Engineers under Section 404 of the Clean Water Act. The District also receives a Section 401B Water Quality Certification from the State Regional Water Quality Control Board for those projects that also require a 404 permit from the Army Corps of Engineers.

The District submits the Annual Plan Summary to the CDFW, ACOE, and RWQCB to satisfy notification requirements in the permits and once the plan is finalized, the ACOE and RWQCB provide a written confirmation that the Annual Plan conforms to their permit. The Corps has the discretion to disallow certain maintenance projects from the programmatic permit and require a separate permit, and to issue new special conditions for each Annual Plan. As early as 2004 the District consulted with the U.S. Fish and Wildlife Service (USFWS) for the California red-legged frog and a Biological Opinion was issued to the Army Corps of Engineers in 2005. Since then, the District has continued to consult on listed species including the California red-legged frog, Tidewater goby, least Bell's vireo, southwester willow flycatcher, La Graciosa thistle and Gambell's watercress. The most recent consultation was initiated with USFWS in 2010 and a finalized Biological Opinion is expected by the end of summer with associated permits from the ACOE issued by the end of 2014.

The District has also consulted with National Marine Fisheries Service since the original listing of endangered steelhead in 1997 with the most recent consultation initiated in 2010. A final Biological Opinion has been issued by NMFS and the District is in the process of evaluating whether the conditions of the Opinion will be acceptable for this Maintenance Program.

The Central Coast Regional Water Quality Control Board (RWQCB) issued a Section 401B Water Quality Certification for the Corps 404 permit in 2005. This 5-year permit was also extended for two years so the RWQCB and ACOE can coordinate for the issuance of the next round of permits. The District received a new RWQCB permit in 2012. Pursuant to new conditions in the 401B Water Quality Certification, the District has made several changes to the Annual Plan in order to provide more detailed information to RWQCB staff. In particular, the District provides more drawings of proposed shaping, bank protection and water diversion sites. Sheer stress and geomorphological analyses will also be performed for bank protection sites. Where bank protection/rebuilding is implemented with a native habitat restoration component, the District would also provide a pre- and post-project analysis to demonstrate increases in habitat function so the restored area can be used as mitigation for future impacts associated with the maintenance program. Additionally, the attached table for Chronic Maintenance locations is in response to the RWQCB's condition to identify chronic maintenance locations associated with the Annual Plan and subsequently pursue strategies to reduce repeat maintenance where feasible.

The CA. Coastal Commission staff will review the Corps permit in order to issue a Coastal Zone Consistency Determination Concurrence for work performed under the Corps permit in the Coastal Zone.

STEP 7: Work in Progress.
Between August 1 and December 15, the maintenance work occurs. This timing allows for AVOIDANCE of the migratory bird breeding season and the wet season for most of the maintained creeks. In creeks with standing water or flowing water, the amount of water is at its lowest for the year and thus impacts to aquatic habitat are MINIMIZED or in most cases, AVOIDED.

As described in in Step 1 above, District staff who participate in creek walks include the Maintenance Superintendent, Environmental Manager, District Biologist, Environmental Planner, Engineer, and Maintenance staff. Project descriptions are also developed with input from maintenance, engineering and environmental personnel. Maintenance personnel receive a copy of the Final Annual Routine Maintenance Plan so they know exactly where and what types of maintenance activities need to occur. The maintenance crews' copy of the Annual Plan contains maps with aerial photography as the background in order for the crew members to more precisely identify maintenance areas. Prior to the commencement of each creek's maintenance, maintenance personnel meet with the Maintenance Superintendent and/or the District Biologist to discuss the overall maintenance tasks identified, limits of work, mitigation measures that will be implemented to reduce any impacts to the furthest extent possible, etc. The District Biologist also actively monitors maintenance activities while they are occurring. For drainages known or suspected to contain listed species, specific direction is given to crew members prior to and during maintenance activities. District personnel are very

familiar with the Annual Plan with most of the personnel having worked at the District for over 10 years, many for more than 20 years. Not only are the personnel very familiar with the District's maintenance practices overall, including listed species identification and protection, they are also very familiar with individual drainages.

If the District hires a contractor to perform routine maintenance work, a training session will be given by the District Biologist that describes the District's maintenance approach, permit requirements, appropriate mitigation measures, sensitive species identification and protection, etc.

A copy of all maintenance permits are kept at each work site as well. .

Bio-monitoring, surveys and relocation, BMPs, and avoidance/mitigation measures are implemented as proposed through the above process. Field modifications are made to further protect environmental resources and water quality. Where unexpected events occur, notes are made to help guide future maintenance efforts.

> Example, in 2009 FWS required dewatering of a reach of Devereux Creek prior to maintenance as part of tidewater goby protective measures. However, during the process it became obvious that dewatering resulted in anoxia and caused fish stress and mortality. The situation was noted in the follow-up report, and dewatering in the system is no longer considered a reasonable protective measure for tidewater goby at this particular location.
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> This is just one example of how the District is committed to long-term adaptive management, not one-time work, and how the process allows for revision of work methods over time to best protect aquatic resources and water quality.
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> Example: Unit II Channel near Guadalupe is an engineered facility that drains into the Santa Maria River through a levee gate. Red-legged frogs are known in this facility. Over many years, the capacity of the channel has decreased as the channel banks have accumulated sediments from desilting operations. In order to re-establish the engineered capacity of this District owned channel, the District phased the regrading of the banks over a two year period so that half of the channel and associated cover and foraging habitat for red-legged frogs that exists at the base of the banks could be retained.
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> This is an example of how the District designs and implements maintenance to protect sensitive species and their associated habitats.

STEP 8: Reporting

Once the Annual Routine Maintenance is completed, the District Biologist provides a Maintenance Report to all regulatory agencies that the District holds permits from. The one Annual Maintenance Report is designed to incorporate all the information that each agency has requested.

SUMMARY

The District's planning process allows staff to determine what type of action is needed at the reach and site scale within the local physical constraints. The environmental aspects of the program identify and protect sensitive habitats and perform compensatory restoration when required and justified. The District minimizes repeat maintenance

whenever feasible, but on-going maintenance is not necessarily problematic. The Annual Routine Maintenance Program involves repeat maintenance at some locations because a minor project each year or every few years may actually have less environmental impact than a single larger project. For example, periodic sediment removal from a flat stream reach is preferable to lining the entire creek channel with concrete. The concrete lining may result in less frequent maintenance, but the environmental impacts are more substantial with that approach. The District's process involves a balance between the need for maintenance, natural creek processes and situations within creeks that the District has no control over.

The District surveys 67 drainage areas making up approximately 105 miles of drainage for potential maintenance. On average only half of these drainages are placed in the Annual Routine Maintenance Plan and of those only a small percentage of the actual drainages are physically touched by actual work. Over all, Santa Barbara County contains over 940 miles of major drainages and the District surveys only 11% of that area for potential routine maintenance to provide important flood protection through urban areas of the County and only approximately 5% of the county-wide major drainage area is even placed in the Annual Plan. To put this into perspective, if the District performs some sort of maintenance on 35% of the drainage area placed in the Annual Plan, this still amounts to only 1.9% of the County's major drainage area receiving, in most cases, very benign maintenance. For the 2014/2015 Annual Routine Maintenance Plan, it is estimated that approximately 8.8% of the maintained drainages length (9.3 miles of the 105 miles of potential maintained drainage length) will receive some level of maintenance or 0.98% of the 940 miles of major drainages within Santa Barbara County.

Supervisorial Districts
2014-2015

First District

Arroyo Burro Creek
Arroyo Paredon Creek
Barger Canyon Creek
Buena Vista Creek
Carpinteria Creek
Montecito Creek
Mission Creek
Oak Creek
San Roque Creek
Romero Creek
San Ysidro Creek
Toro Creek

Second District

Arroyo Burro Creek
Atascadero Creek
Barger Canyon Creek
Fremont Creek
Hospital Creek
Mission Creek
San Jose Creek
San Pedro Creek
Maria Ygnacio Creek
Mission Creek
San Jose Creek
San Pedro Creek
San Roque Creek

Third District

Alamo Pintado Creek
Canada de la Pila Creek
Lower Devereux Creek
Middle Green Canyon Channel
North Green Canyon Channel
Orcutt/Solomon Creek
San Antonio Creek - Los Alamos
Santa Maria River
Santa Ynez River
Tecolote Creek

Fourth District

Airport/Abex Channel
Orcutt/Solomon Creek
San Antonio Creek – Los Alamos

Fifth District

Bradley Canyon Channel
Cat Canyon Creek
Santa Maria River
Unit II/Unit II Tailwater/ West Main

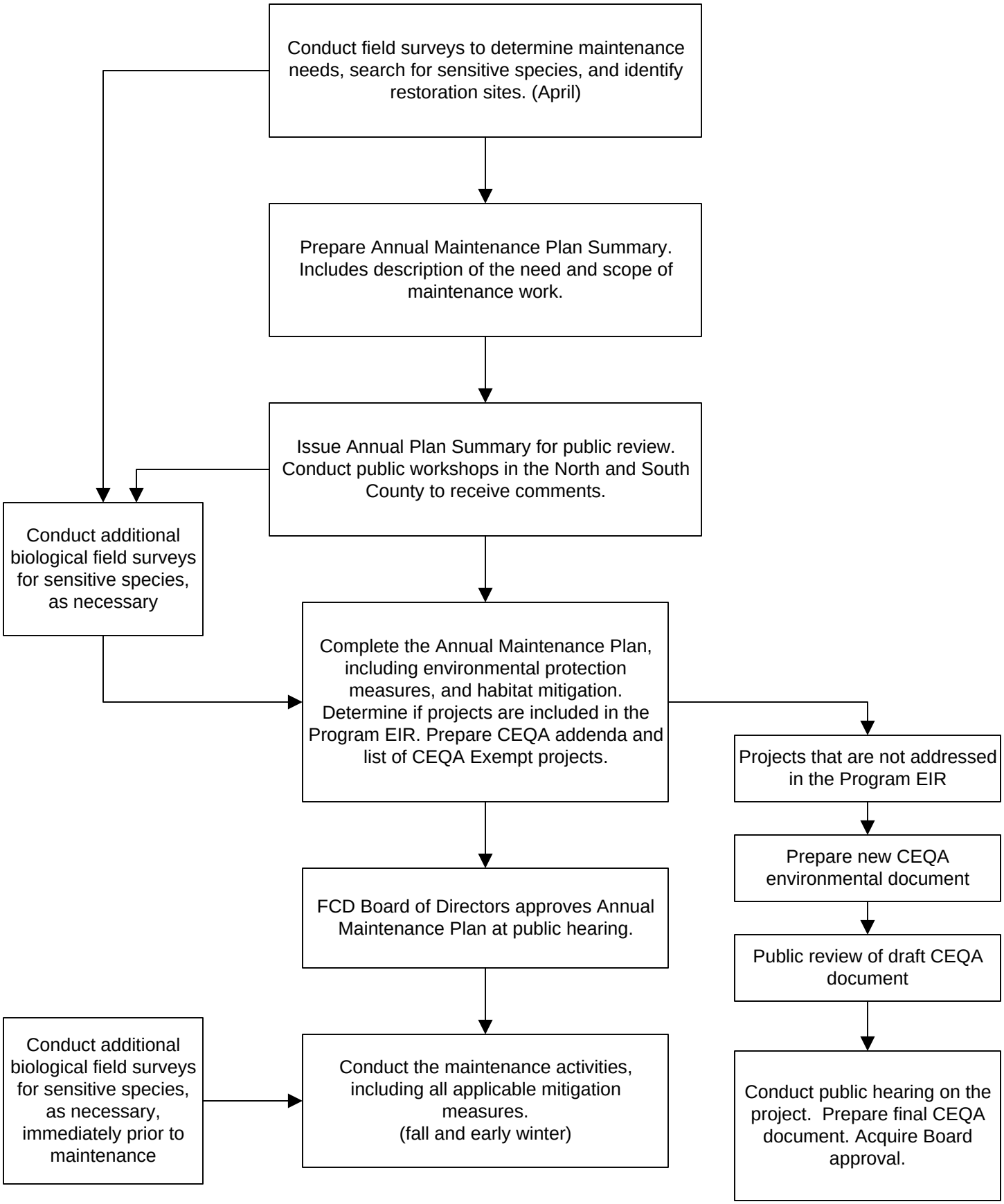


Chart 1. Annual Maintenance Program Process

Santa Barbara County Flood Control District
Annual Routine Maintenance Program
Chronic Maintenance[1]
2014/2015 Annual Plan[2]

Creek Name	Chronic Maintenance Need	Potential Causes of Chronic Maintenance	Potential Strategies to Research for Reducing Chronic Maintenance[3]	Site Owner(s)	Source Site(s) Owner(s)	Year Placed in Table	Rank	Progress
Lower Devereux	Mowing instream bulrush and cattails	1. In 2002, when the channel re-configuration and restoration was originally approved and permitted the Coastal Commission issued a permit that did not allow the use of herbicides for vegetation control thus the vegetation immediately begins to regrow after it is mowed.	2. Pursue herbicide use during Coastal Commission Permit renewal. However, if that is not possible, then the need for Flood Control maintenance at this location is very likely to end in the next several years as this area is part of a large scale restoration project being proposed by UCSB.	Private	Private	2012	Efforts to reduce chronic maintenance completed, however no reduction in chronic maintenance in the short term was achieved.	The California Coastal Commission did not approve the use of herbicides in the District's permit that was issued on October 9, 2013. It is anticipated, though, that when this site is restored by UCSB that the need for maintenance and the use for herbicides will be eliminated in the next several years. The District will continue routine maintenance as needed.
San Pedro	Discing	1. Very flat topography encourages sediment to drop out along this lower stretch of San Pedro Creek. The Channel is disced to break up root masses of in-channel vegetation that would grow and reduce channel capacity. Instream vegetation would also trap sediment and further reduce channel capacity. Channel is disced to facilitate sediment transport to a site downstream of James Fowler Road where the channel is desilted as part of the Goleta Slough Dredging Program. Desilting within these upper reaches of San Pedro Creek is not possible due to vegetated banks and limited access along South Fairview Avenue.	1. Consider not discing every year but instead every other year with spot spraying vegetation every other year. While this would still result in maintenance on a yearly basis, the impacts at the site would not be the same each year.	City of Santa Barbara		2012	1	San Pedro Creek was not disced during the 13/14 Annual Maintenance season and will not be disced during the 14/15 maintenance season. Due to lower than normal rain fall and flows, the only maintenance needed was sporadic spot spraying of vegetation with Aquamaster herbicide which is approved for aquatic use. Note: San Pedro Creek was dry during herbicide application. While herbicide application within the same stretch of channel in consecutive years is still considered chronic maintenance by definition, Spot spraying is less of an impact than discing therefore this would be considered an improvement.
North Green Canyon	Desilting	1. Very flat topography that naturally silts in and turbid agricultural tailwater and vegetation growing in the invert that traps vegetation.	1. The District will experiment by mowing instream sediment trapping vegetation in the 14/15 Annual Plan rather than desilting 2. Reduce turbid tailwater input from surrounding private property. 3. Create an instream sediment	Private	Private	2012	2	

			basin to concentrate desilting location.					
Middle Green Canyon	Desilting	1. Very flat topography that naturally silts in and turbid agricultural tailwater and vegetation growing in the invert that traps sediment.	1. The District will experiment by mowing instream sediment trapping vegetation in the 14/15 Annual Plan rather than desilting 2. Reduce turbid tailwater input from surrounding private property. 3. Create an instream sediment basin to concentrate desilting location.	Private	Private	2012	3	
West Main Channel	Mowing weedy banks and desilting	1. Very narrow road-side drainage area whose capacity is easily overwhelmed by weedy growth and silt.				2012	4	
Unit II Tailwater	Mowing banks	1. No riparian vegetation on the banks to out compete weeds				2012	5	
Unit II Channel	Mowing banks	1. Unit II is an engineered channel with a specific design capacity that requires clean banks for capacity therefore vegetation must be kept low along the banks.				2012	6	
Santa Maria Airport	Mowing banks	1. South bank kept free of vegetation to maintain capacity and allow access from the top of the bank for equipment to reach into the channel.				2012	7	
Abex	Mowing banks and control of bulrush	1. No riparian canopy along steep north bank to block out cattail or bulrush growth. 2. Small but constant amount of urban drainage into the system keeps the channel wet enough to encourage growth of obstructive vegetation. 3. North Bank kept free of vegetation to maintain capacity and allow access from the top of the bank for equipment to reach into the channel.				2012	8	
Bradley Canyon	Desilting low flow channel					2012		Bradley Canyon Channel's desilting requirements have changed over the last few years and the same areas are not requiring desilting every year. Bradley Canyon Channel is also not in the 14/15 Annual Plan. It is no longer meeting the definition of Chronic Maintenance and will be removed from the table after this season.
Cieneguitas	Limbing					2012		Cieneguitas Creek was placed in the table

								for Chronic Maintenance of a section of creek requiring limbing two years in a row. This area is no longer meeting the definition of Chronic Maintenance as the section of creek that had received maintenance two years in a row did not receive maintenance in the 13/14 or this 14/15 Annual Plan. Cieneguitas Creek will be removed from the table after this season.

[1]Chronic Maintenance is defined by the RWQCB as: Revisiting a site to conduct maintenance for the same issue in two consecutive maintenance years, or more than once per rainy season.

[2] Since Chronic Maintenance was first reported in the 2012/20123 Annual Plan, the District went back three years to determine chronic maintenance areas. Beginning with the 2013/1014 Annual Maintenance Plan, the District will use just the previous two years of maintenance to document chronic maintenance sites.

[3] "Potential Strategies" for reducing chronic maintenance have been determined for the top 3 areas. Beginning with the 12/13 Annual Plan, the District began researching the feasibility of strategy implementation for its highest priority and will continue doing so on an annual basis. If implementation does not result in the control of any sources at the highest priority site, the District will try to implement its strategies for the next highest priority site. This process will continue until reduction in maintenance has occurred at a site or the District has attempted to implement strategies on up to three sites each year depending upon how much time it takes to exhaust efforts on any one site. A summary of the District's efforts for the 2013/2014 maintenance season are included in the Annual Routine Maintenance Report.

Department of Public Works County of Santa Barbara

Green Canyon Ditches Chronic Maintenance

Legend

- Desilt
- Creeks

N W E S

775 387.5 0 775

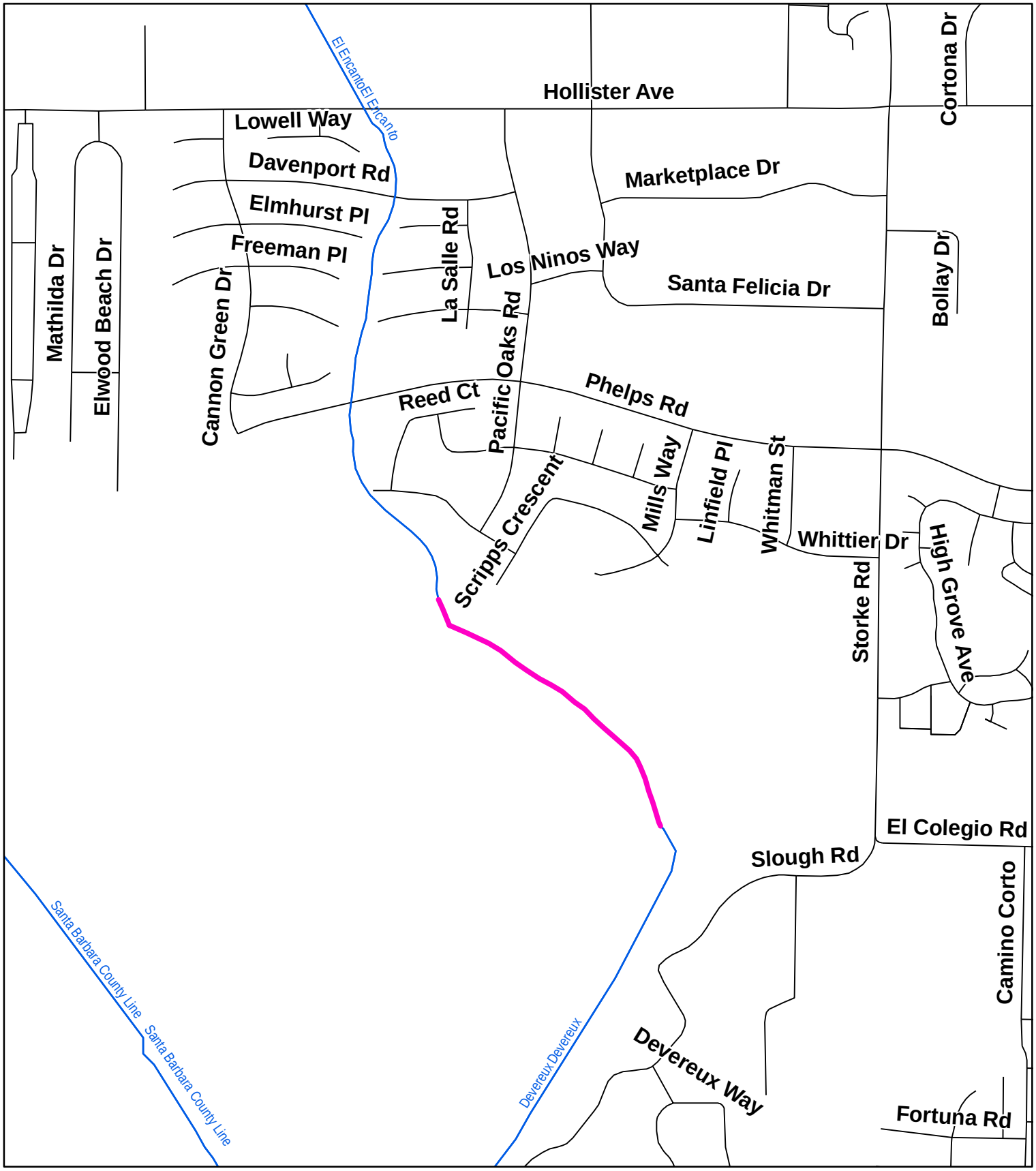
Feet

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in April 2012.



Department of Public Works County of Santa Barbara

Lower Devereux Creek Chronic Maintenance

Legend

- Mowing
- Creeks

This map is for reference only. Although every effort has been made to ensure the accuracy of information, errors and conditions originating from physical sources used to develop the database may be reflected on this map. Santa Barbara County shall not be liable for any errors, omissions, or damages that result from inappropriate use of this document. No level of accuracy is claimed for the boundary lines shown hereon and lines should not be used to obtain coordinate values, bearings or distances.

N W E S

600 300 0 600 Feet

Coordinate System: State Plane California Zone V NAD 1983

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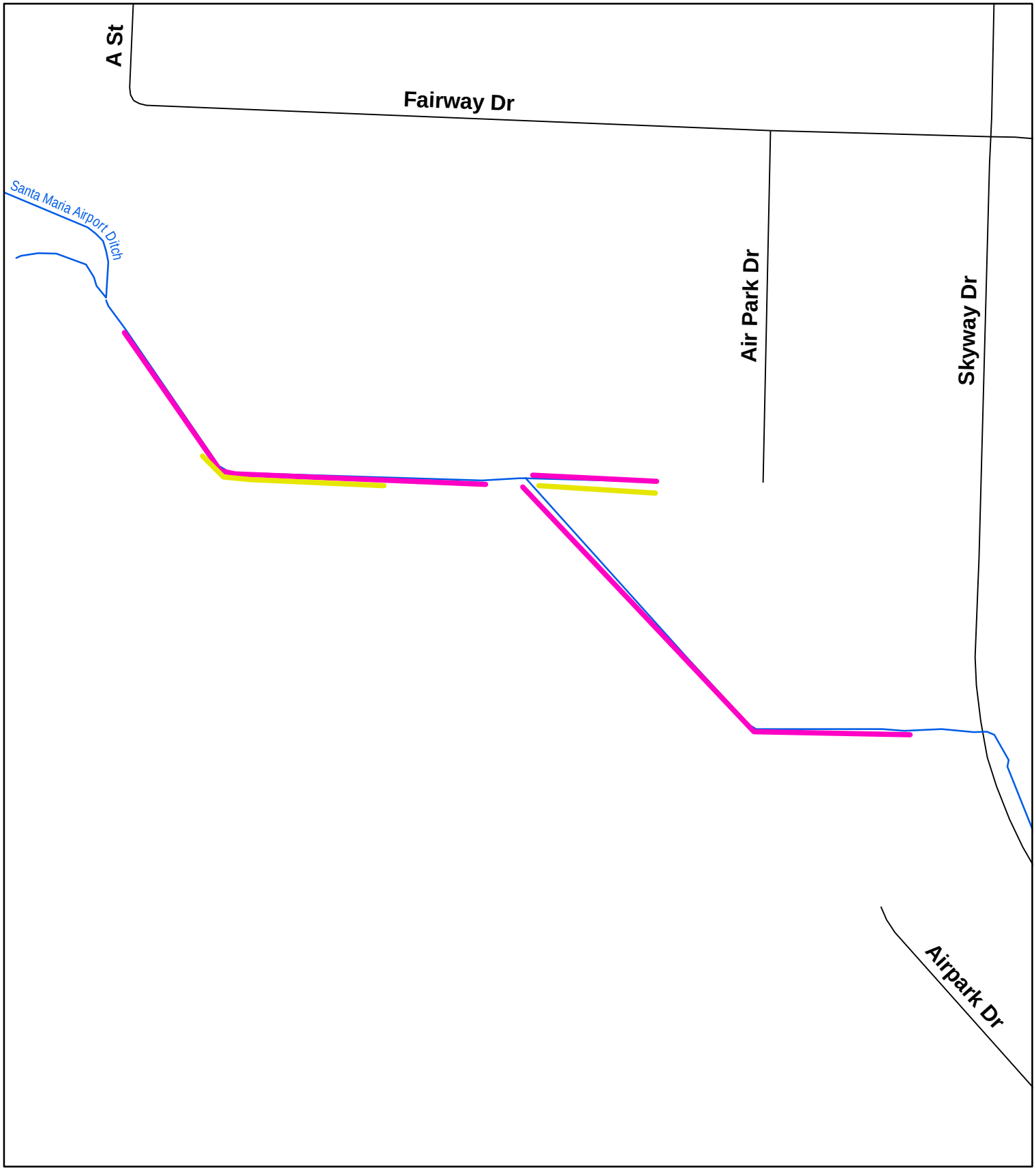

Department of Public Works County of Santa Barbara

Santa Maria Airport/Abex Ditches Chronic Maintenance

Legend

- Desilt
- Mowing
- Creeks

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N W E S

Feet

340 170 0 340

Coordinate System: State Plane California Zone V NAD 1983

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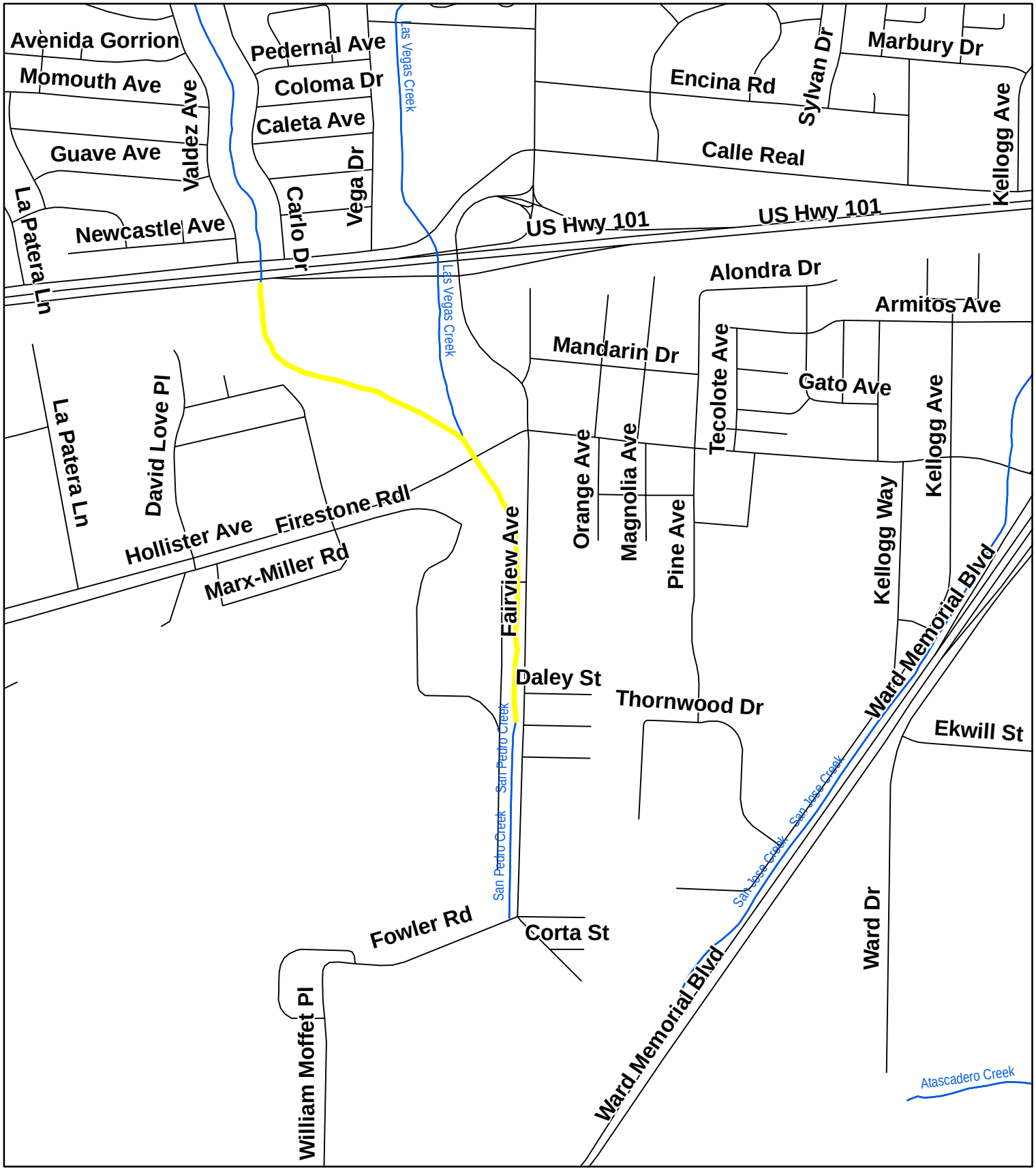

Department of Public Works County of Santa Barbara

San Pedro Creek Chronic Maintenance

Legend

- Discing
- Creeks

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N W E S

690 345 0 690 Feet

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

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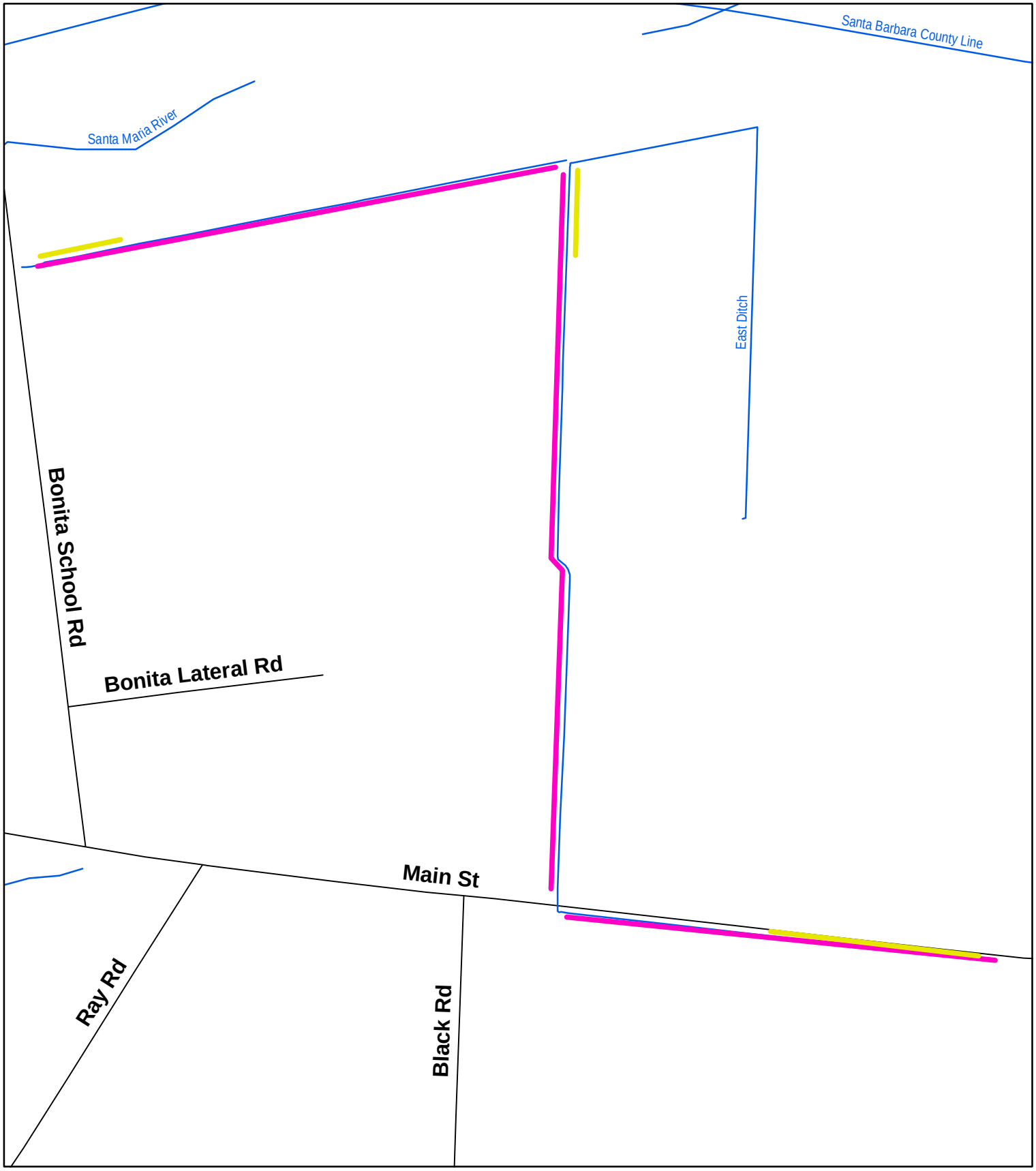
The Santa Barbara County Flood Control and Water Conservation District

Compiled by the Public Works Enterprise GIS in April 2012.



Department of Public Works County of Santa Barbara

Unit II, Tailwater, West Main, Chronic Maintenance

Legend

- Desilting
- Mowing
- Creeks

N W E S

Feet

1,500 750 0 1,500

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in April 2012.

Santa Barbara County Flood Control District
Routine Maintenance in CEQA Exempt Facilities

The following facilities are maintained by the Santa Barbara County Flood Control District (District) on a routine basis. Most facilities are maintained in the summer and fall to prepare them for the winter rains though some facilities occasionally need to be desilted after large storm events to restore capacity lost to siltation. All spoils are either deposited on adjacent farm fields, within nearby erosion holes, used on flood control access roads or made available to the public. Deposited material is placed away from drainages so it cannot re-enter waterways. The District only uses Aquamaster and Roundup herbicides on exempt facilities and these products are used in very low amounts.

CEQA Notices of Exemption will be filed for these facilities. Locations of the projects are included on the attached maps. As indicated by their exempt status under CEQA, these drainages do not contain sensitive species or habitat, are dry for the vast majority of the year, contain no vegetation, very occasional nuisance vegetation or weeds and grasses. In many cases these drainages are concrete channels or dry washes. The maintenance conducted within these drainages is very sporadic. As an example, “spot spraying” is done with a back pack sprayer and in most cases consists of less than twenty seedlings that are sprayed which are most often non-native weedy species. Very little herbicide is used county-wide to conduct this maintenance. It is essential, however, to conduct this type of maintenance so the concrete structures or drainages do not deteriorate or become plugged and unable to convey flows during the winter months. The exempt basins are essentially basins that have been built as part of developments. Most of these basins are within upland areas and are dry weedy depressions or grassy areas that are used as play areas outside of the rainy season.

NOTICE OF EXEMPTION

TO: Santa Barbara County Clerk of the Board of Supervisors

FROM: Public Works Department/Flood Control and Water Conservation District

The project or activity identified below is determined to be exempt from further environmental review requirements of the California Environmental Quality Act (CEQA) of 1970, as defined in the State and County Guidelines for the implementation of CEQA.

APN(s) : Various Case No.: Not Applicable

Location: See project descriptions under the Exempt Facilities tab in the 2014/2015 Annual Routine Maintenance Plan.

(Include street address and cross street (if urbanized area) or attach specific location map)

Project Title: Routine operation and maintenance of existing public structures, facilities, or topographical features, involving negligible or no expansion of use beyond that which presently exists

Project Description: See project descriptions in the 2014/2015 Annual Routine Maintenance Plan.

(Include nature, purpose, and beneficiaries of project)

Name of Public Agency Approving Project: County of Santa Barbara

Name of Person or Agency Carrying Out Project: Flood Control District

Exempt Status: (Check one)

___ Ministerial
___ Statutory Exemption
_X_ Categorical Exemption
___ Emergency Project
___ Declared Emergency

Cite specific CEQA and/or CEQA Guideline Section: 15301 Existing Facilities

Reasons to support exemption findings (attach additional material, if necessary)

The projects constitute operation and routine maintenance of man-made facilities and existing topographic features and the environment will not be adversely impacted.

Lead Agency Contact Person: Tom Fayram Phone #: (805) 568-3436

Department/Division Representative: Maureen Spencer Date: May 23, 2014

Signature: Maureen Spencer

Acceptance Date: _____

Note: A copy of this form must be posted at P&D 6 days prior to a decision on the project. Upon project approval, this form must be filed with the County Clerk of the Board and posted by the Clerk of the Board for a period of 30 days to begin a 35 day statute of limitations on legal challenges.

POSTED

MAY 23 2014

SB County
Planning and Development

Date Filed with Planning & Development

Date Filed by County Clerk

North County Facilities

The North County exempt facilities include concrete channels, earthen road-side ditches, earthen channels, basins within developments, grassy swales, and facilities that are part of the Santa Maria Valley drainage network which include retention and recharge basins. General maintenance includes periodic silt management and the control of weeds. Over the past several years the District has been utilizing mowing for weed and fire control rather than the use of herbicides, although herbicides are still used, but in much lower amounts. The most common weeds that are controlled are Russian thistle, cat ear, wild radish, cape ivy, rape seed weed, myoporum, oleander, fennel, tree tobacco, and mustard. Non-native grasses are also mowed for fire control purposes. Occasionally, the District will remove cattail or bulrush seedlings if they begin to colonize wetted areas near the outlet of a basin. Also, occasional mulefat or coyote bush seedlings are sprayed.

Santa Maria/Guadalupe Area:

Ditches:

1. **Blosser Ditch:** This is an asphalt or concrete ditch from Fessler Road downstream to Blosser Basin, a distance of approximately 1.5 miles. The earthen portion of this channel begins downstream of the basin and continues downstream to the Santa Maria River where it enters a flap gate through the Santa Maria River Levee. Between Alvin Road and Donavan Road (a distance of approximately 2,600 feet) the channel is asphalt and sediment tends to settle out requiring annual desilting. Additionally, weep holes in the concrete lines section and cracks in both the concrete lined and asphalt sections are spot sprayed with herbicide on an annual basis so the cracks don't get larger from the weeds growing in them and the weep holes remain functional. The cracks and weep holes will be spot sprayed this maintenance season. Desilting is done on a biannual basis. Refer to Page 4 for the location of this facility. Potential Area of impact for the 14/15 AP is less than 100 square feet from spot spraying.

2. **Bradley Ditch:** This ditch is approximately 3.5 miles long and is approximately 75% concrete and 25% earthen. From Main Street upstream to Battles Street, portions of the channel are desilted annually with equipment working from the top of the bank and within the concrete channel. From Main Street downstream to Donavan Street portions of the concrete channel are desilted approximately every 3 years. The earthern channel is sprayed on a biannual basis to control silt trapping weeds and is not desilted. Refer to Page 5 for the location of this facility. Potential Area of impact for the 14/15 AP for desilting will be approximately .7 acres (500 cubic yards) and less than 100 square feet from spot spraying.

3. **California Street Ditch:** This is a concrete V-ditch with earthen sides above the concrete V. This ditch flows into Foxenwood 3 Basin in the Foxenwood Subdivision. On a biannual basis portions of the ditch are desilted and the banks are mowed for fire suppression purposes. Additionally, on a biannual basis, seedlings are sprayed in the concrete V-ditch to keep the ditch from deteriorating. Refer to Page 6 for the location of this facility. Potential Area of Impact for the 14/15 AP from mowing is .17 acres, approximately .01 acres (8 cubic yards) desilted, and less than 50 square feet for spot spraying seedlings in the V-ditch.

4. **Crescent Avenue Ditch:** This is a concrete V-ditch with earthern sides. It is approximately .75 miles long. On a biannual basis a Kubota is used to desilt portions of the V-ditch. There are also eucalyptus trees adjacent to the ditch that occasionally begin to grow too near the concrete ditch and have to be removed so they don't damage the concrete. Refer to Page 8 for the location of this facility. Potential Area of Impact for the 14/15 AP for desilting will be approximately .01 acres (10 cubic yards).

5. **Lake Marie Ditch:** This is an earthen ditch vegetated with grasses, herbaceous weeds and occasional woody weed species and is approximately 1,000 feet long. The District mows this ditch on an annual basis to reduce silt trapping vegetation (non-native weeds) and The District only desilts approximately 250' of this ditch on a biannual basis. Refer to Page 13 for the location of this facility. Potential area of impact for the 14/15 AP is .2 acres from mowing the grass/weeds along the banks and .01 acres (10 cubic yards) for desilting.

6. **Santa Maria River Levee:** The U.S. Army Corps of Engineers constructed this levee and the District is mandated to maintain it. Maintenance consists of annually spot spraying the river side of the levee rock area. The backside of the levee (which does not contain rock like the front of the levee does) and the lower levee roads are mowed annually for weed control. Refer to Page 21 for the location of this facility. The backside of the levee and access roads are completely outside of the drainage. Impact from mowing this area outside of the channel is 130 acres. Potential area of impact is less than 200 square feet for spot spraying. The District applies pre-emergent herbicide on the front side of the levee and impacts associated with pre-emergent application are 81 acres.

7. **Texaco Ditch:** This is an earthen channel approximately 2,300' long. The District spot sprays this ditch on an annual basis to reduce silt trapping vegetation (weeds) and desilts portions of the channel approximately every 5 years. Refer to Page 9 for the location of this facility. Potential area of impacts for the 14/15 AP are approximately 50 cubic yards of desilting and less than 100 square feet for spot spraying.

1. **Thornberg Ditch:** This is a concrete ditch approximately 200 feet long. This ditch is spot sprayed with herbicide on an annual basis. Portions of this ditch require desilting on a very occasional basis, hasn't been desilted in the past 5 years. Refer to Page 11 for the location of this facility. Potential area of impact for the 14/15 AP is less than 50 square feet from spot spraying.

Basins

1. **Blosser Basin:** The upper access road around this basin in mowed annually for fire control and volunteer woody vegetation is spot sprayed biannually. See Page 4 for the location of this facility. Potential area of impact for the 14/15 AP is .18 acres from mowing the access road around the top of the basin.

2. **Bradley Basin:** The outlet structure on this basin is spot sprayed annually. Refer to Page 5 for the location of this facility. Potential area of impact for the 14/15 AP is less than 50 square feet for spot spraying.

3. **Diani Basin:** The banks of this basin are mowed on an annual basis for weed and fire control. The bottom of this basin is spot sprayed on an annual basis. Refer to Page 11 for the location of this facility. Potential area of impact for the 14/15 AP is less than 50 square feet from spot spraying and .25 acres from mowing.

4. **Foxen Woods Basin #2:** This basin a grassy Park within a subdivision that acts to retard runoff during the winter months but is otherwise a grassy play area. The District maintains the inlet and outlet pipes on a biannual basis by removing any accumulated sediment immediately blocking the pipes. Refer to Page 6 for the location of this facility. Potential Area of Impact for the 14/15 AP from desilting around the inlet pipes is 150 square feet.

5. **Getty Basin:** This is a recharge basin. The area along the fence line on the upper banks of the basin is sprayed on a biannual basis and the slopes of the basin are disced on a biannual basis to retain the recharge capacity of this facility. The fence line will be sprayed this year but no discing is scheduled. Refer to Page 11 for the location of this facility. Potential area of impact for the 14/15 AP is .35 acres from spraying the fence line.

6. **Hobbs Fee Retention Basin:** Weeds in this basin are mowed every year for weed and fire control, and the area immediately adjacent to the inlet structure is sprayed to keep it from becoming blocked by cattails. Refer to Page 11 for the location of this facility. Potential area of impact for the 14/15 AP is .28 acres for mowing.

7. **K-Mart Basin:** Herbaceous non-native weeds/grasses in this basin are mowed on an annual basis for fire and weed control. The bottom of the basin is also spot sprayed on an annual basis to eliminate the woody vegetation (i.e. tumbleweeds) that may begin to colonize in the basin, and the basin is desilted approximately every 7 years. Mowing and spraying are scheduled for this maintenance season. Refer to Page 12 for the location of this facility. Potential area of impact for the 14/15 AP is .2 acres from mowing and less than 30 square feet for spot spraying.

8. **Oak Knoll Basin:** On an annual basis, this basin is mowed for weed and fire control. The bottom of the basin is also spot sprayed on an annual basis to eliminate the woody vegetation that may begin to colonize the basin. Refer to Page 18 for the location of this facility. Potential area of impact for the 14/15 AP is .28 acres for mowing and less than 50 square feet for spot spraying.

9. **Orcutt-Solomon Basin (also known as California Street Basin):** This is a sediment basin that is desilted approximately every two years. Non-native grasses and herbaceous weeds on the basin banks are mowed on an annual basis for fire and weed control. See Page 19 for the location of this facility. The basin will be desilted this year. Desilting area is sparsley vegetated with non-native herbaceous weeds. Potential area of impact for the 14/15 AP is 1.8 acres from mowing and 1.3 acres for desilting (3,000 cubic yards).

10. **Prell Street Basin:** Non-native grasses on the banks of this basin are mowed on an annual basis for weed and fire control. An 8'-wide pilot channel through the bottom of the basin is maintained vegetation free with annual spot spray or scraped with a small dozer. Non-native grasses on the basin floor outside of the pilot channel are also mowed The basin is desilted approximately every 7 years but will not be desilted this year. Refer to Page 20 for the location of this facility. Potential area of impact for the 14/15 AP is .23 acres for mowing and less than 50 square feet for spot spraying.

11. **Tanglewood Basin:** Non-native herbaceous and occasional woody vegetation within the ditch running through the middle of the basin are spot sprayed on a 1-2 year basis and the basin is desilted approximately every 3-5 years. This basin will be spot sprayed this season. See Page 22 for the location of this facility. Potential area of impact for the 14/15 AP is less than 20 square feet for spot spraying.

Los Alamos:

Ditches:

1. **Los Alamos East Side Ditch:** This grassy swale is mowed annually. Refer to Page 14 for the location of this facility. Potential area of impact for the 14/15 AP is 1.5 acres from mowing the ditch.

Santa Ynez/Lompoc:

Ditches

1. **Airy-Skytt Channel:** This is a half concrete/half earthen channel. The earthen channel is spot sprayed annually to reduce non-native herbaceous weeds and grasses that trap silt. Refer to Page 2 for the location of this facility. Potential area of impact for the 14/15 AP is less than 50 square feet for spot spraying.

2. **Amby Ditch:** This is an earthen ditch approximately 900 feet long and the District spot sprays non-native herbaceous and woody weeds that grow in the channel bottom on an annual basis. Portions of the channel are desilted approximately every 3-5 years. This ditch is scheduled for spot spraying this maintenance season but will not be desilted. Refer to Page 3 for the location of this facility. Potential area of impact for the 14/15 AP is less than 50 square feet for spot spraying.

3. **Calvert Ditch:** This earthern ditch runs parallel to Lompoc-Casmalia Road for approximately 1000 feet and then turns to the south and flows through cultivated fields to the Santa Ynez River, a total distance of 2,240 feet. The District spot sprays the invert and periodically mows approximately 1250 linear feet of the east bank to control non-native herbaceous and woody weeds for fire control. Refer to Page 16 for the location of this facility. Mowing is not scheduled for this season. Potential area of impact for the 14/15 AP is less than 100 square feet for spot spraying.

4. **Cebada Canyon Channel:** This is a concrete channel approximately 1 mile long that has portions of the length desilted on an annual basis. Refer to Page 7 for the location of this facility. Portions of the channel will be desilted this season. Potential area of impact for the 14/15 AP is .10 acres from desilting (150 cubic yards).

5. **Hoag-Santa Rita Ditch:** This is an earthen ditch, approximately .75 miles long, containing 4 concrete check structures. The District only maintains the check structures which is needed on a very infrequent basis. Maintenance, when needed, is usually fixing erosion along the edges of the structure. Refer to Page 7 for the location of this facility. Potential area of impact for the 14/15 AP is .01 acres from desilting (5 cubic yards).

6. **Lilley-Hayes Ditch:** This is an earthen road-side ditch approximately 4,400 feet long that is a tributary to Cebada Channel. The District spot sprays the channel and mows the banks on an annual basis for weed and fire control. Refer to Page 7 for the location of this facility. Potential area of impact for the 14/15 AP is .34 acres from mowing and less than 50 square feet for spot spraying.

7. **Miguelito Channel:** This is a concrete channel that runs through the City of Lompoc and is a tributary to the Santa Ynez River. The lower 500 feet of the channel is earthen and is spot sprayed on a biannual basis to remove obstructive vegetation clumps so they don't block the channel. Garbage and other debris are periodically removed from the concrete channel with a loader on an as needed basis, sometimes several times a year. Garbage or debris removal will most likely be needed this maintenance season. Refer to Page 15 for the location of this facility. Potential Area of Impact for the 14/15 AP from spot spraying is less than 100 square feet. No estimate on amount of garbage as it is periodically tossed in by residents and cannot be predicted.

8. **Mission Hills Channel:** This is an earthen channel that runs through the Mission Hills Subdivision and is approximately 1.6 miles. The District maintains 4 check structures on a very occasional basis. Maintenance of the check structures would be erosion repair around the structure. The District also mows non-native weeds along the access road for fire control on an annual basis and occasionally spot sprays the invert if it begins to become colonized with non-native or occasional woody vegetation (such as coyote bush seedlings). Besides mowing the access road, maintenance is not scheduled within the channel this season. Refer to Page 16 for the location of this facility. Potential area of impact for the 14/15 AP is 1.5 acres from mowing the access road along the top of the channel

9. **Rodeo-San Pasqual Channel:** This is a concrete channel, approximately 2.73 miles long, that runs across the Lower Lompoc Valley and is a tributary to the Santa Ynez River. On an annual basis, small deposits of sediment are removed from the channel with a loader so sediment does not accumulate. Refer to Page 15 for the location of this facility. Potential area of impact for the 14/15 AP is 6 acres from driving the loader down the channel.

10. **Thumbelina Ditch:** This is a concrete channel approximately 650 feet long with a short (120 feet) earthen channel portion. The concrete lined channel requires

desilting approximately every 5-7 years and non-native grasses and herbaceous vegetation within the earthen channel is occasionally spot sprayed. This ditch is scheduled for spot spraying this maintenance season but will not be desilted Refer to Page 23 for the location of this facility. Potential area of impact for the 14/15 AP is less than 50 square feet for spot spraying.

Basins:

1. **Buellton Basins 1 & 2:** Grasses and herbaceous weeds on the banks of these basins are mowed on an annual basis for weed and fire control and the basins are desilted approximately every 3-5 years. These basins are scheduled for mowing this maintenance season. Refer to Page 3 for the location of these basins. Potential area of impact for the 14/15 AP is 2 acres for mowing.

2. **Cemetary Debris Basin:** Due to the Miguelito Fire in May 2014, this basin may experience a higher than normal sediment load during the upcoming winter rains. The basin may be desilted on or more times during the winter months of 2014/15. This basin is mowed on an annual basis and spot sprayed occasionally to remove woody vegetation (mainly fennel and mustard) if it becomes established. Refer to Page 17 for the location of this facility. Potential area of impact for the 14/15 AP is .04 acres from mowing the basin.

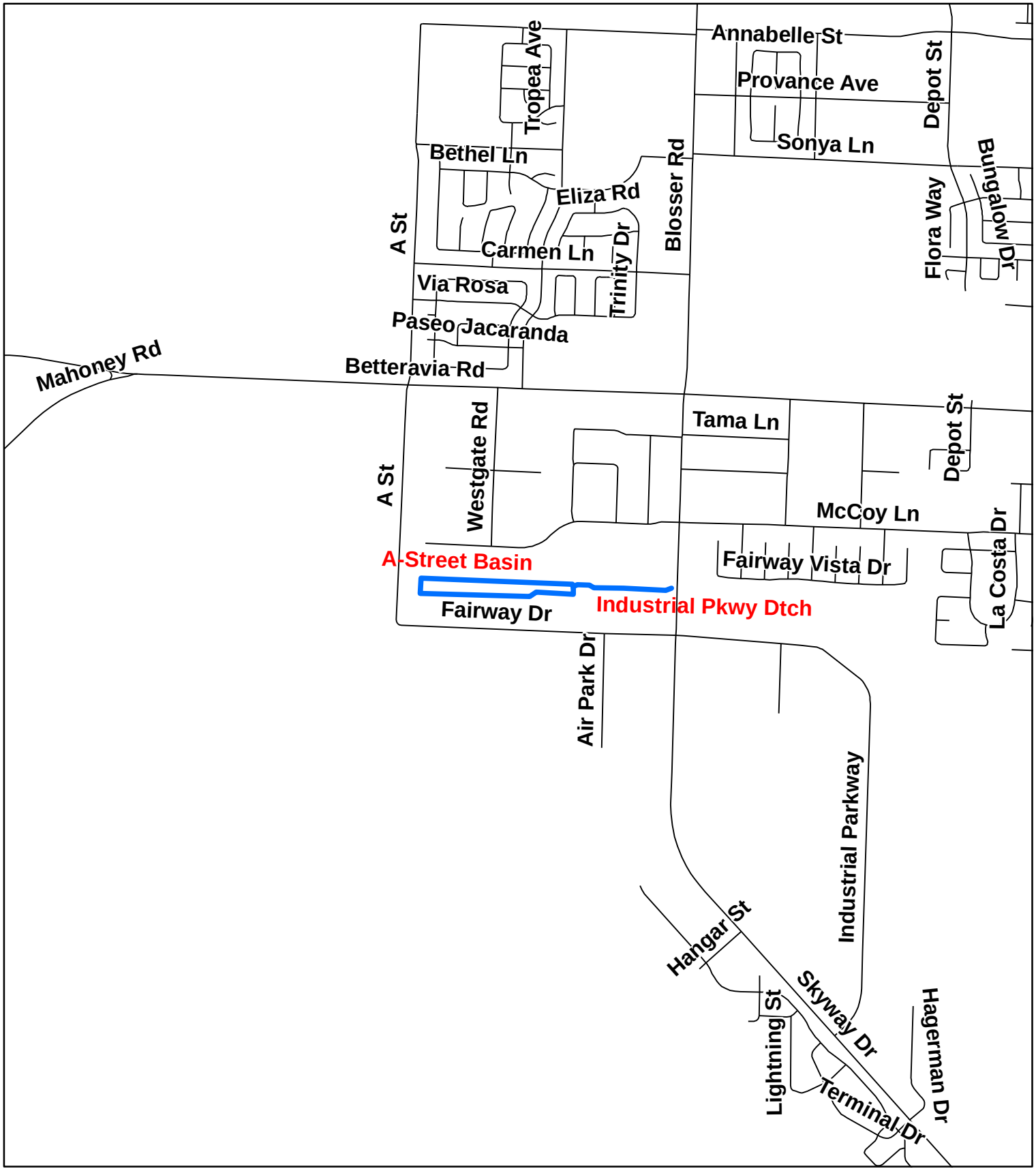
3. **Fault Canyon Basin:** Due to the Miguelito Fire in May 2014, this basin may experience a higher than normal sediment load during the upcoming winter rains. The basin may be desilted on or more times during the winter months of 2014/15. Weeds (fennel, telegraph weed, and mustard mainly) and grasses are mowed on an annual basis in the basin and the basin is desilted every 7-10 years. Mowing is scheduled for this season. Refer to Page 17 for the location of this facility. Potential area of impact for the 14/15 AP is .04 acres from mowing in the basin.

4. **Miguelito Basin:** Due to the Miguelito Fire in May 2014, this basin may experience a higher than normal sediment load during the upcoming winter rains. The basin may be desilted on or more times during the winter months of 2014/15. The edge of the basin is spot sprayed on a biannual basin so it doesn't become colonized with bulrush. The basin is desilted approximately every 5-10 years. Desilting is not scheduled for this season. Refer to Page 15 for the location of this facility. Potential area of impact for the 14/15 AP from spot spraying is less than 100 square feet.

5. **Mission Hills Basin:** Mustard and poison hemlock are mowed annually within the basin for weed and fire control. Refer to Page 16 for the location of this facility. Potential Area of Impact for the 14/15 AP is 1.5 acres from mowing the basin.

6. **Mormon Canyon Basin:** Non-native woody and herbaceous weeds and grasses are mowed on an annual basis in the basin and the basin is desilted every 7-10 years. Mowing is scheduled for this season. Refer to Page 17 for the location of this facility. Potential area of impact for the 14/15 AP is .04 acres from mowing the basin.

7. **R Street Basin:** Mustard and poison hemlock are mowed annually within the basin for weed and fire control. The basin is also spot sprayed every other year if woody vegetation begins to colonize the basin. Mowing is scheduled for this season. Refer to Page 15 for the location of this facility. Potential area of impact for the 14/15 AP is .04 acres from mowing the basin.



Department of Public Works County of Santa Barbara

A-Street Basin
Industrial Parkway Ditch

Page 1

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N W E S

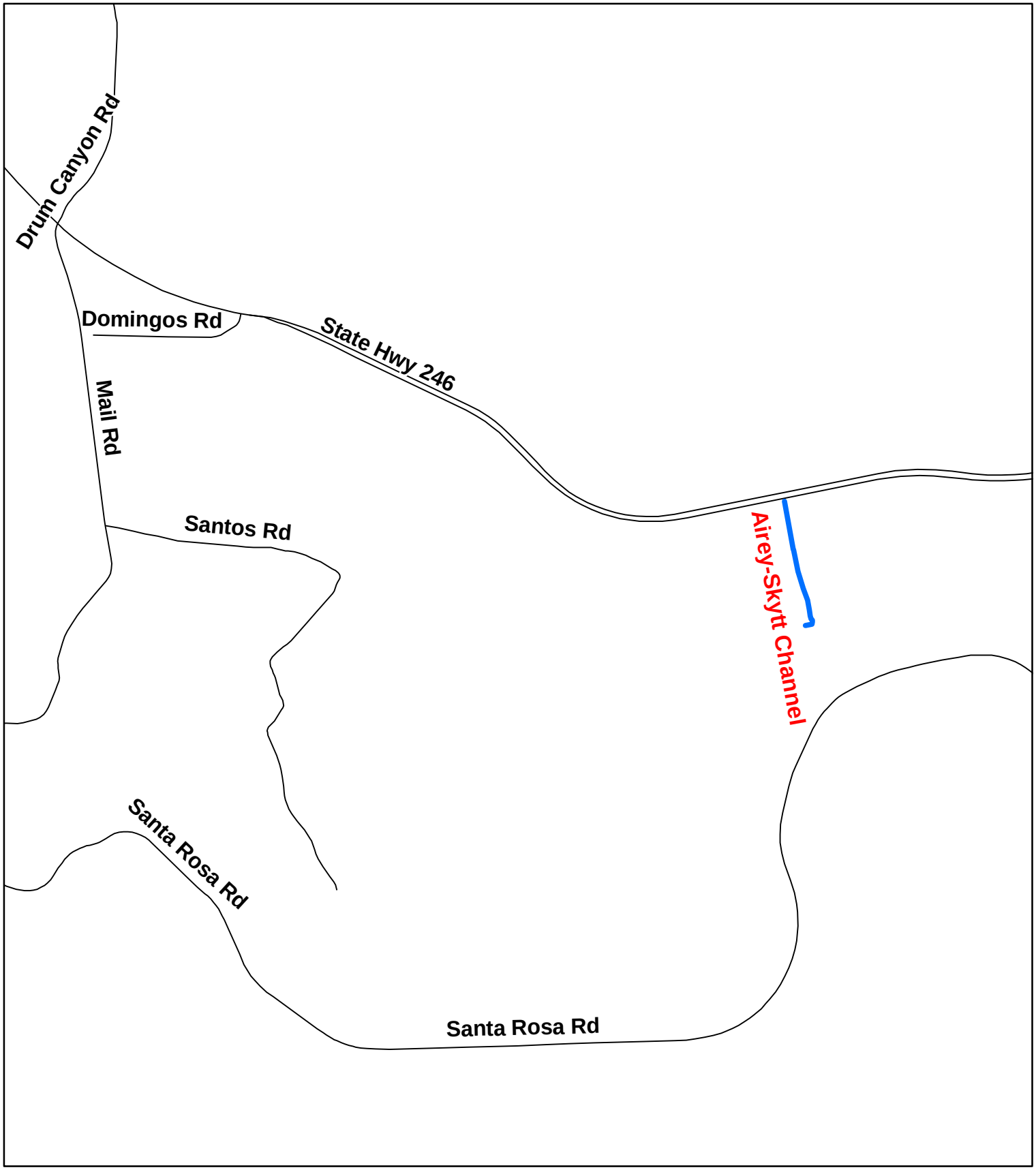
1,250 625 0 1,250
Feet

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in April 2011.



Department of Public Works County of Santa Barbara

Airey-Skytt Channel

Page 2

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N W E S

1,900 950 0 1,900

Feet

Coordinate System: State Plane California Zone V NAD 1983

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Santa Barbara County, California

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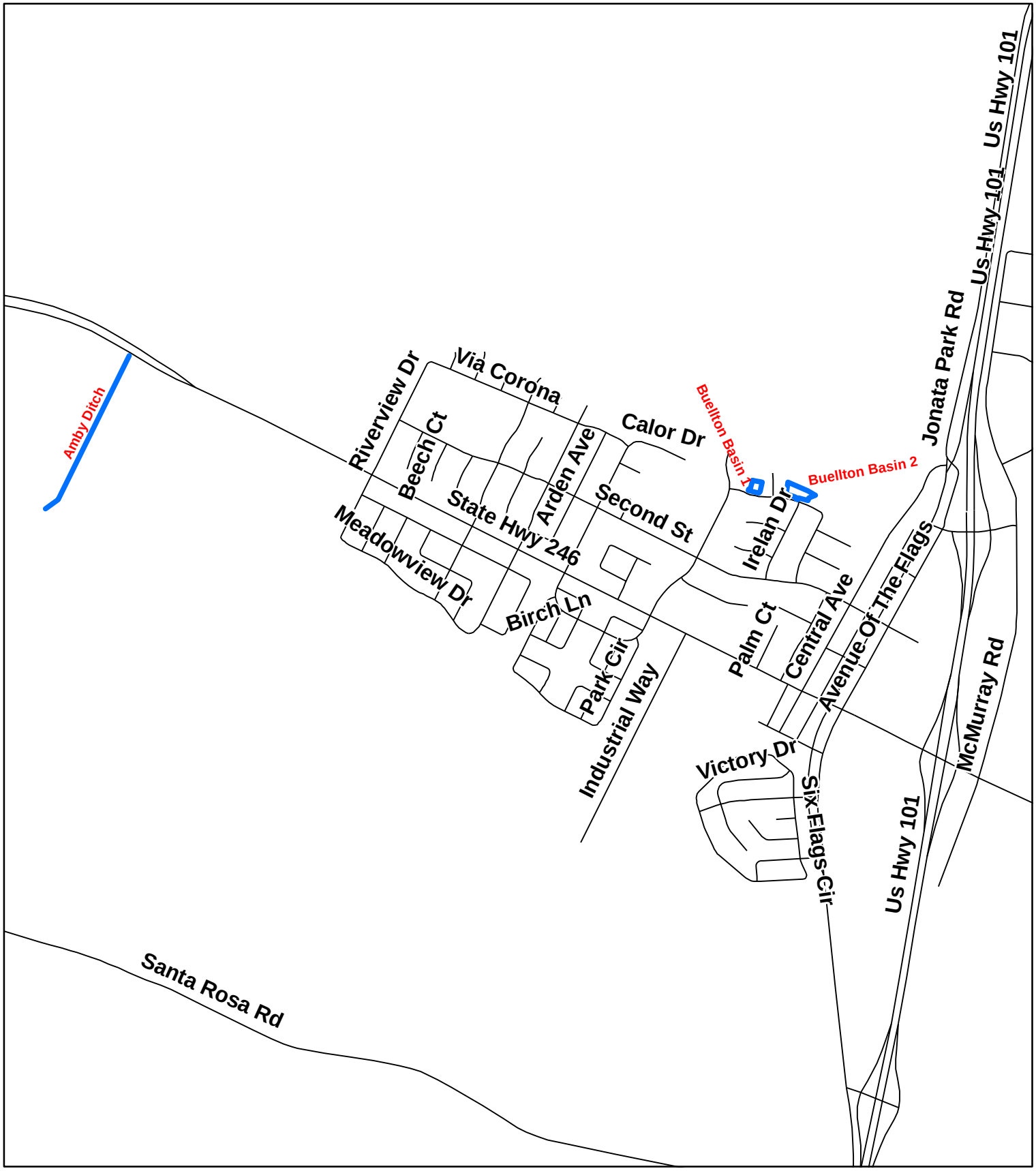

Department of Public Works County of Santa Barbara

Amby Ditch
Buellton Basins 1&2

N W E S

1,100 550 0 1,100

Feet

Coordinate System: State Plane California Zone V NAD 1983

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Santa Barbara County, California

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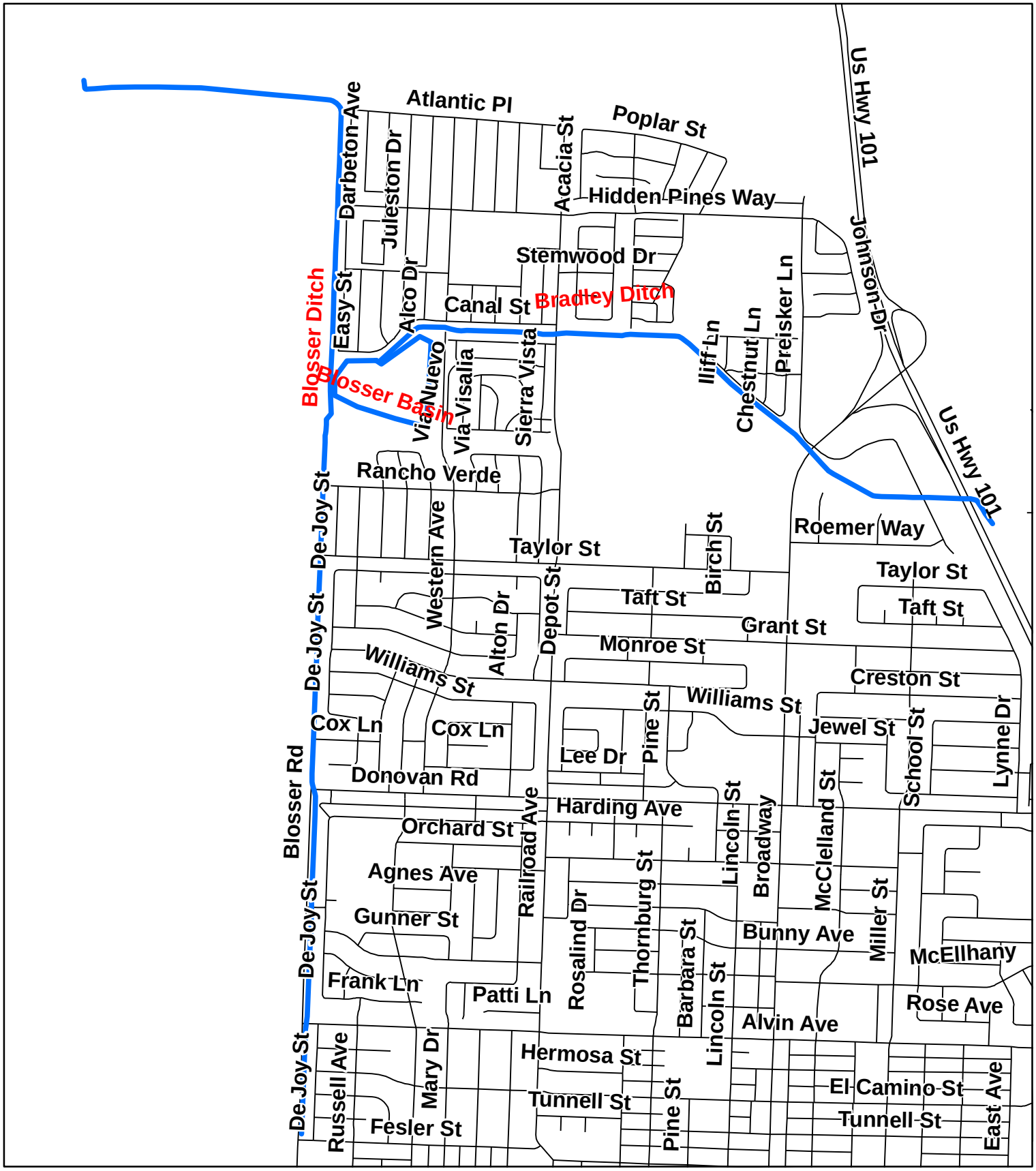

Department of Public Works County of Santa Barbara

Blosser Basin
Blosser Ditch

N W E S

Feet

1,250 625 0 1,250

Coordinate System: State Plane California Zone V NAD 1983

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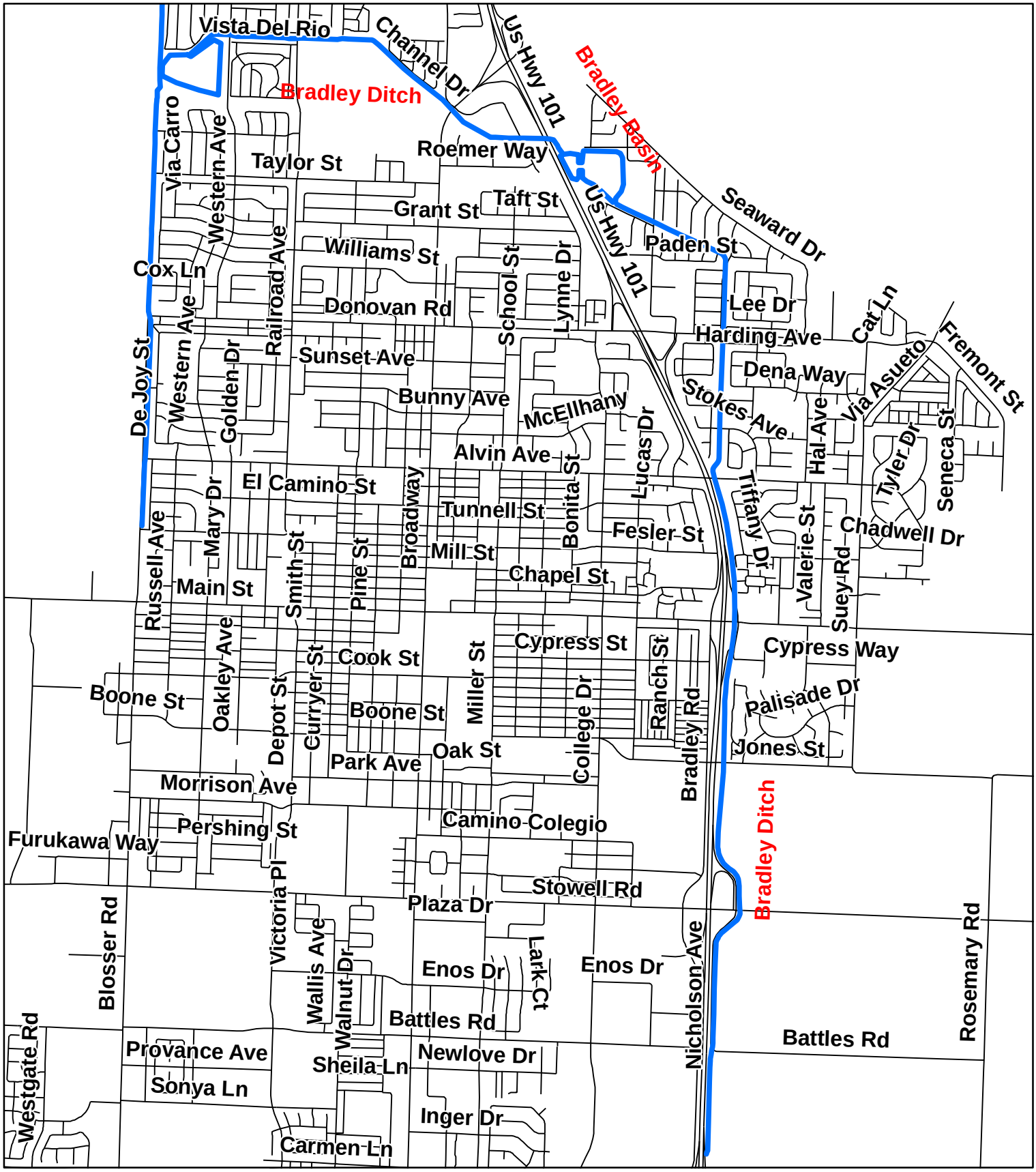

Department of Public Works County of Santa Barbara

Bradley Ditch
Bradley Basin

N W E S

2,100 1,050 0 2,100
Feet

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

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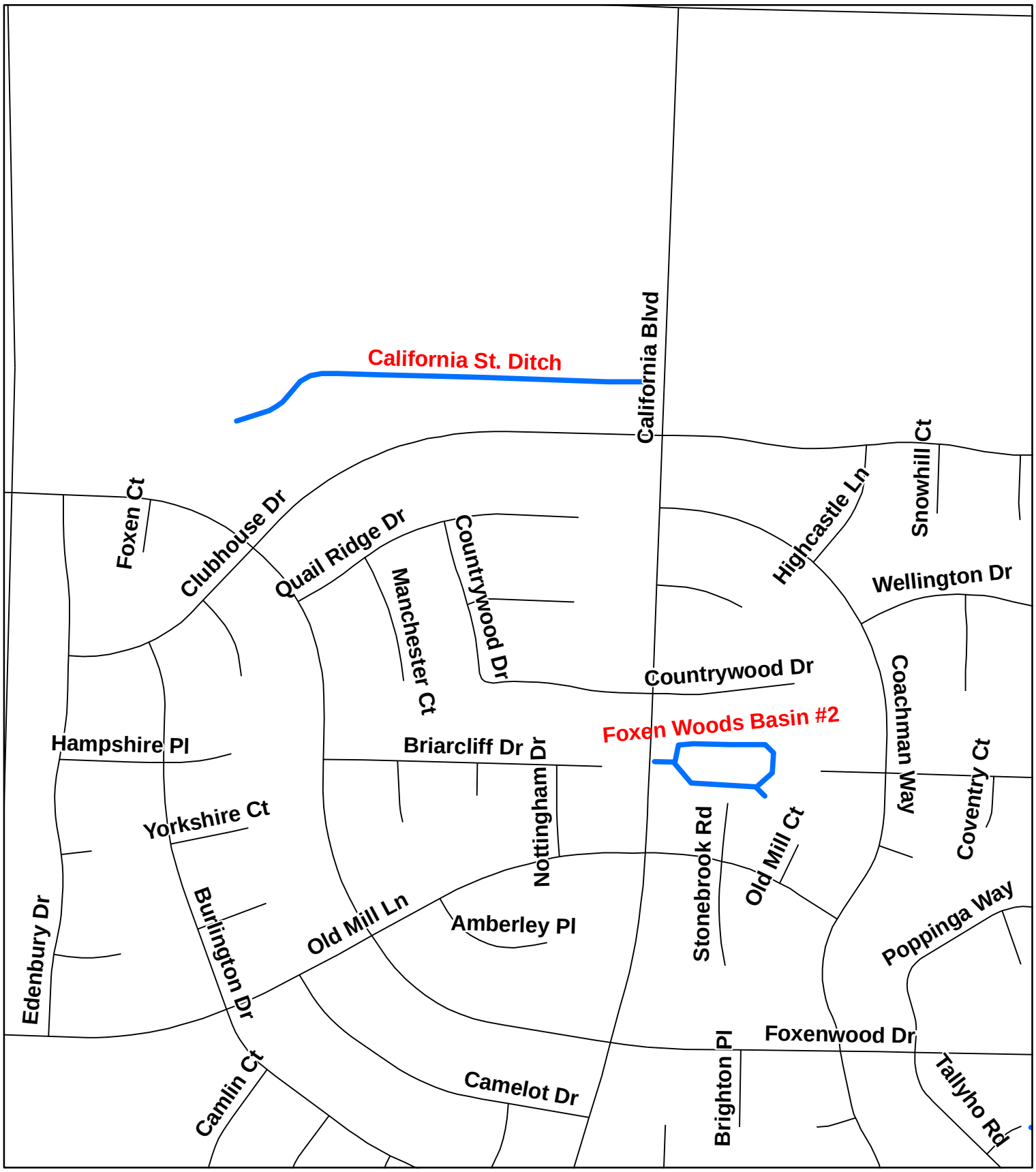

Department of Public Works County of Santa Barbara

California St. Ditch
Foxen Woods Basin #2

N
W E
S
Feet
425 212.5 0 425

Coordinate System: State Plane California Zone V NAD 1983

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Santa Barbara County, California

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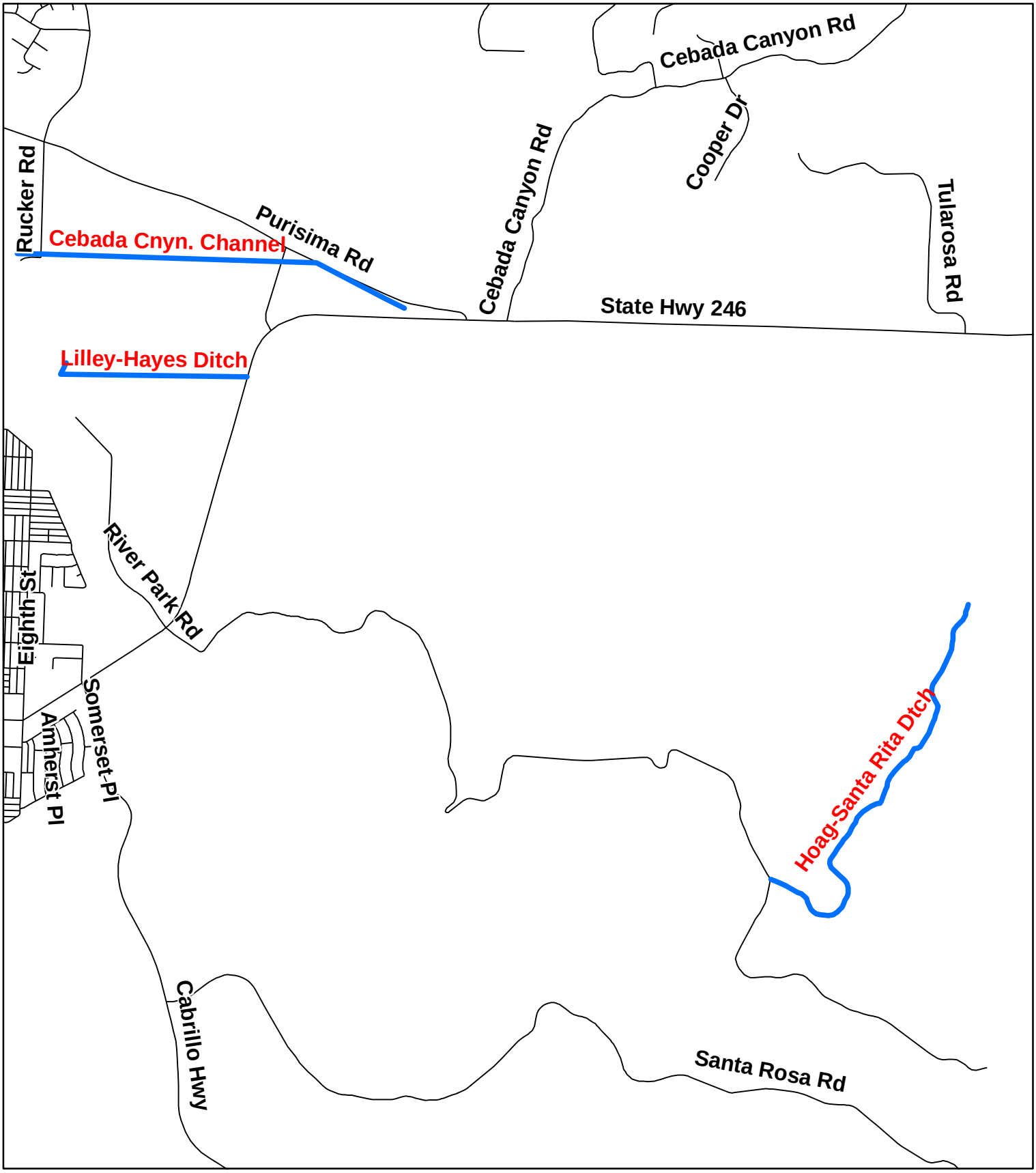

Department of Public Works County of Santa Barbara

Cebada Canyon Channel
Lilley-Hayes Ditch
Hoag-Santa Rita Ditch

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N W E S

Feet

2,500 1,250 0 2,500

Coordinate System: State Plane California Zone V NAD 1983

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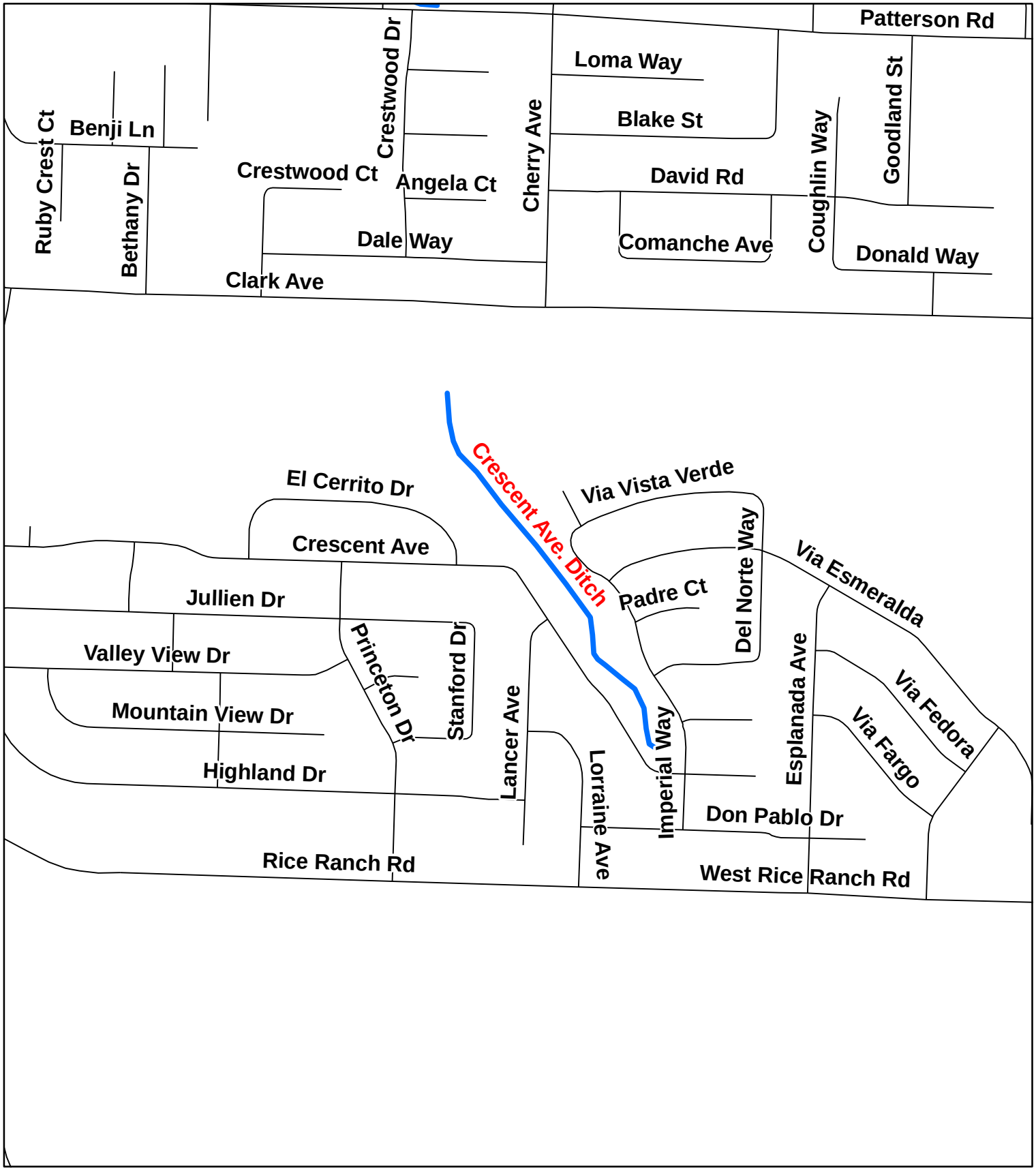

Department of Public Works County of Santa Barbara

Crescent Avenue Ditch

N W E S

Feet

510 255 0 510

Coordinate System: State Plane California Zone V NAD 1983

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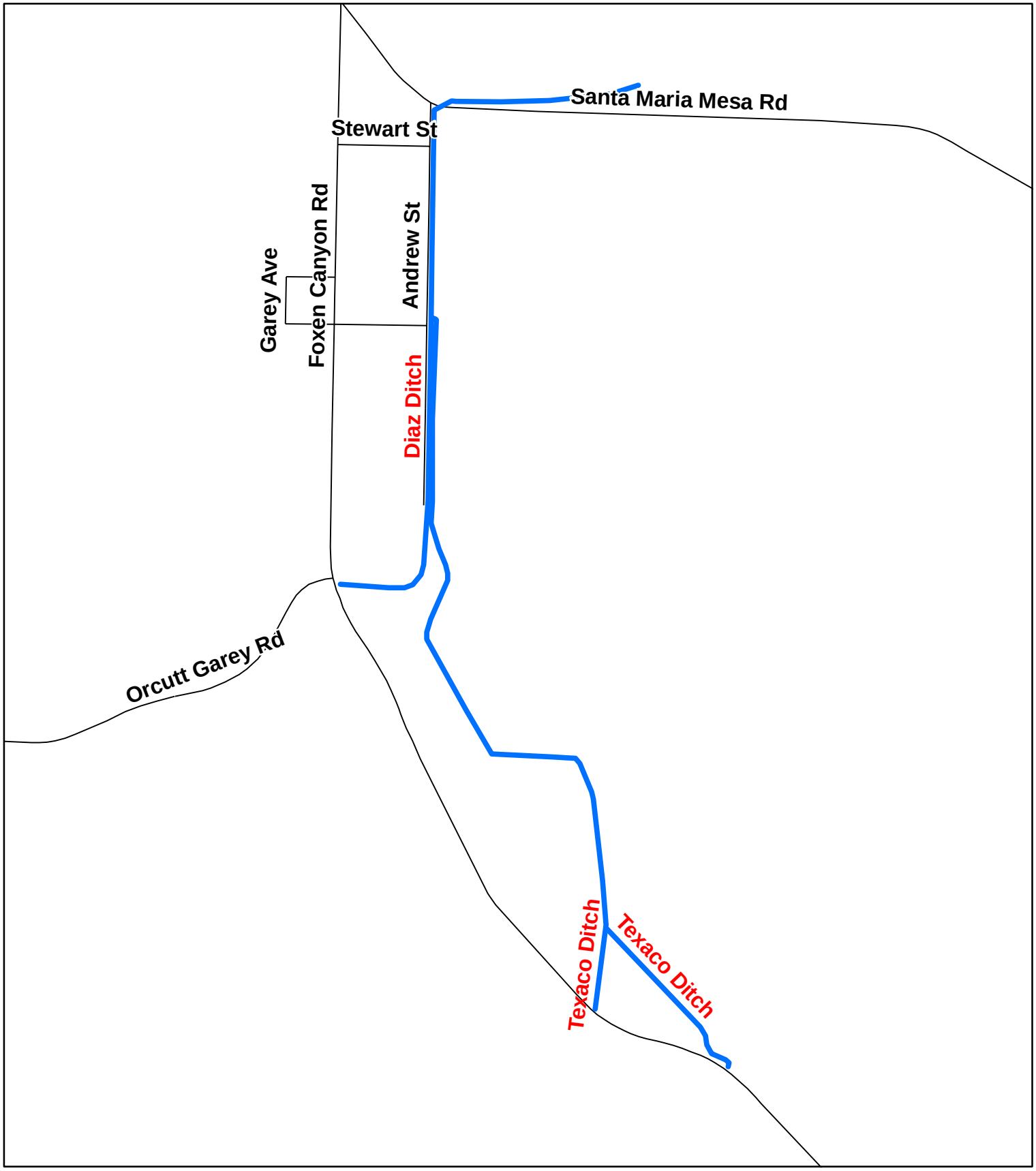

Department of Public Works County of Santa Barbara

Diaz Ditch
Texaco Ditch

N W E S

870 435 0 870

Feet

Coordinate System: State Plane California Zone V NAD 1983

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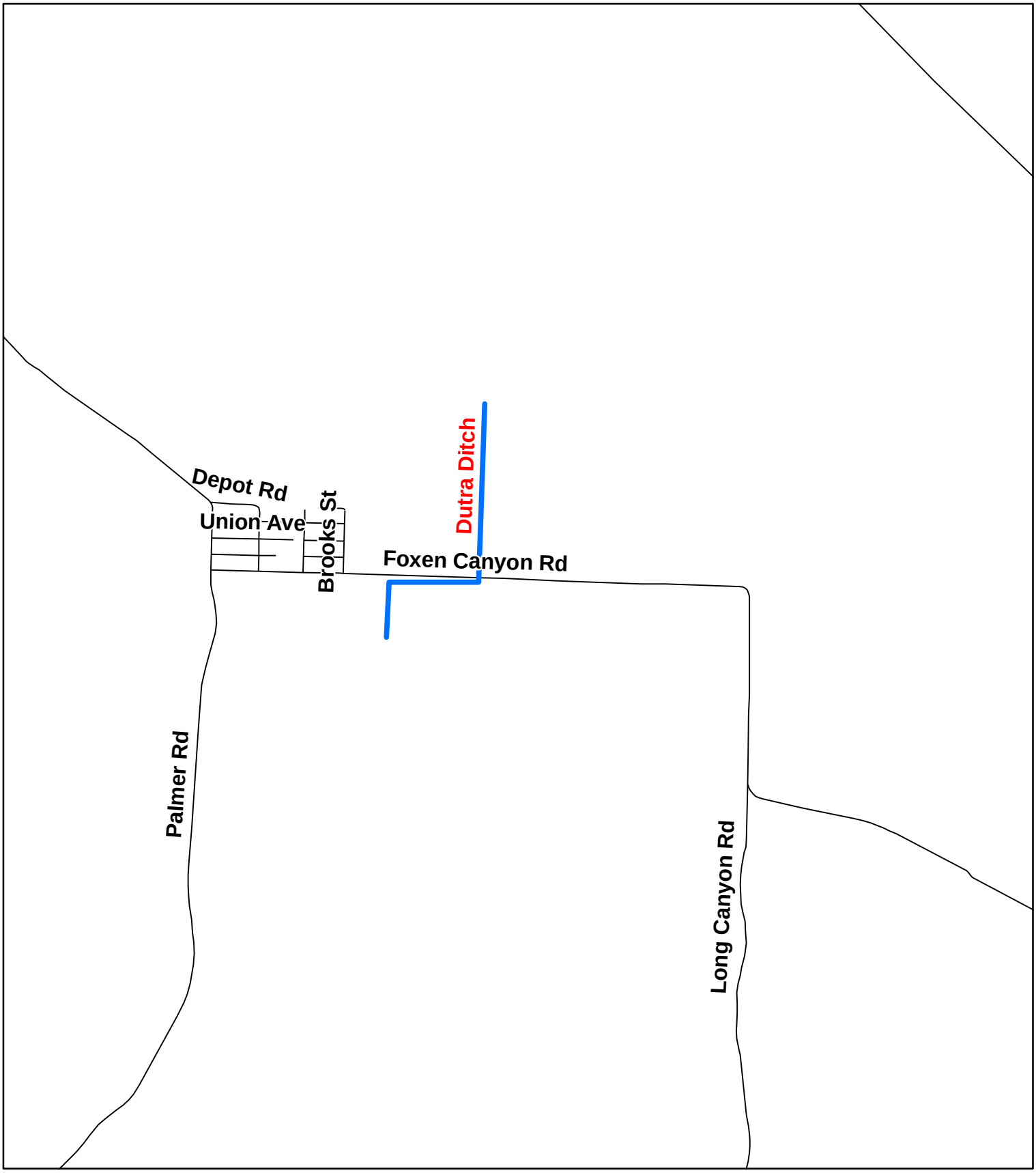

Department of Public Works County of Santa Barbara

Dutra Ditch

N W E S

Feet

1,100 550 0 1,100

Coordinate System: State Plane California Zone V NAD 1983

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Santa Barbara County, California

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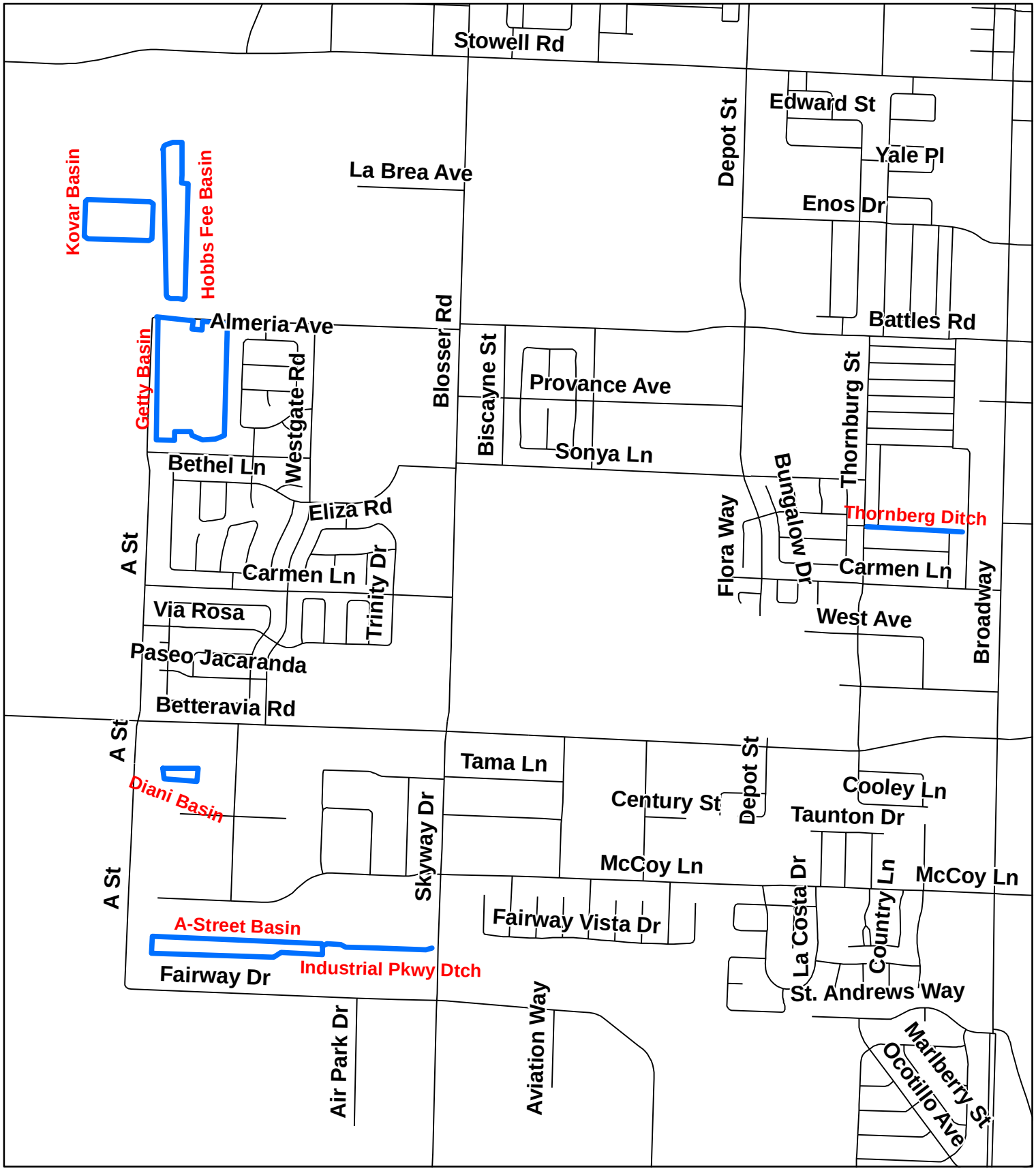

Department of Public Works County of Santa Barbara

Page 11

Getty Basin
Hobbs Fee Retention Basin
Kovar Basin
Thornberg Ditch
A-Street Basin
Industrial Parkway Ditch
Diani Basin

PUBLIC WORKS ENTERPRISE GIS

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N W E S

1,100 550 0 1,100

Feet

Coordinate System: State Plane California Zone V NAD 1983

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Santa Barbara County, California

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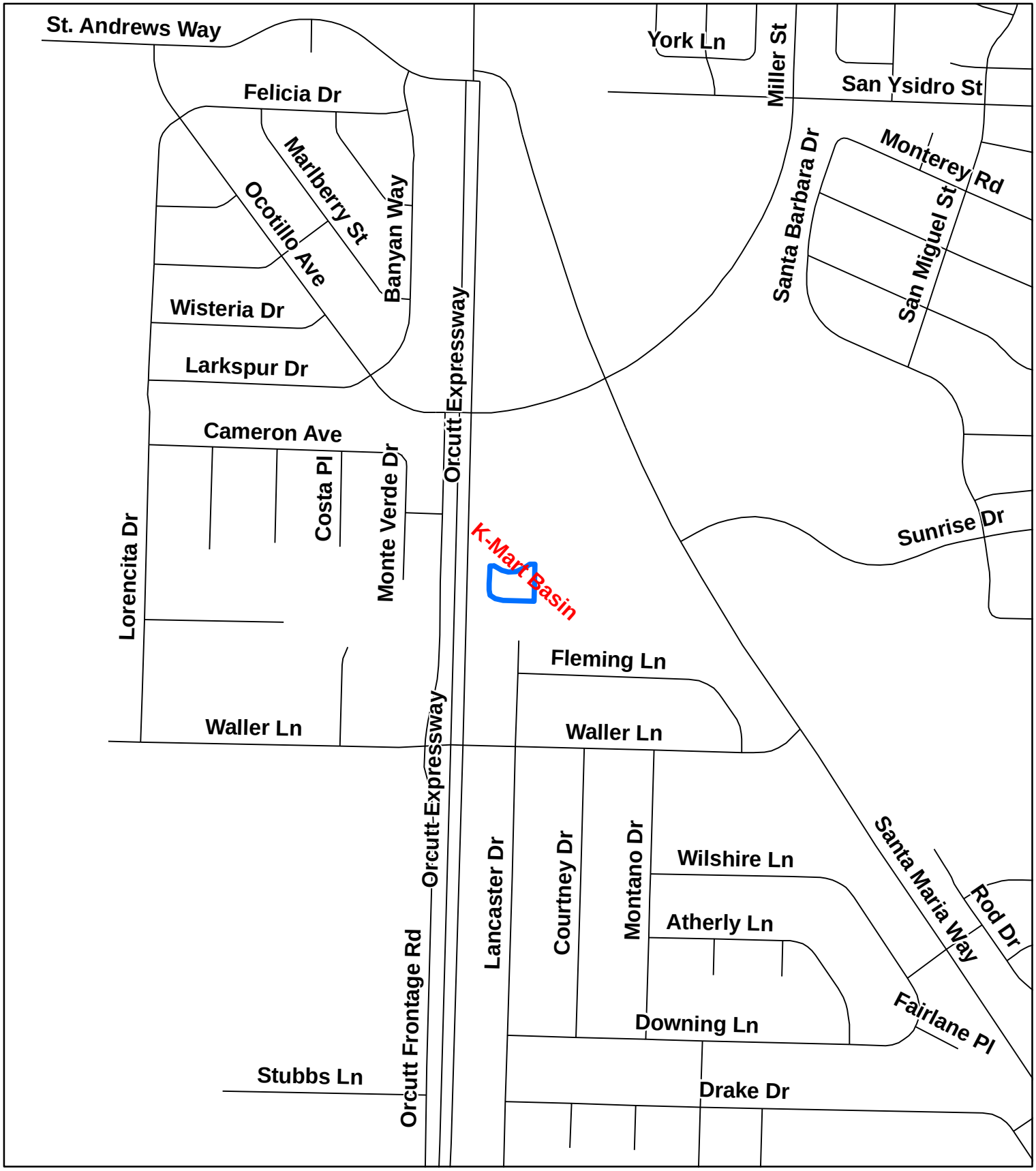

Department of Public Works County of Santa Barbara

K-Mart Basin

N W E S

460 230 0 460

Feet

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

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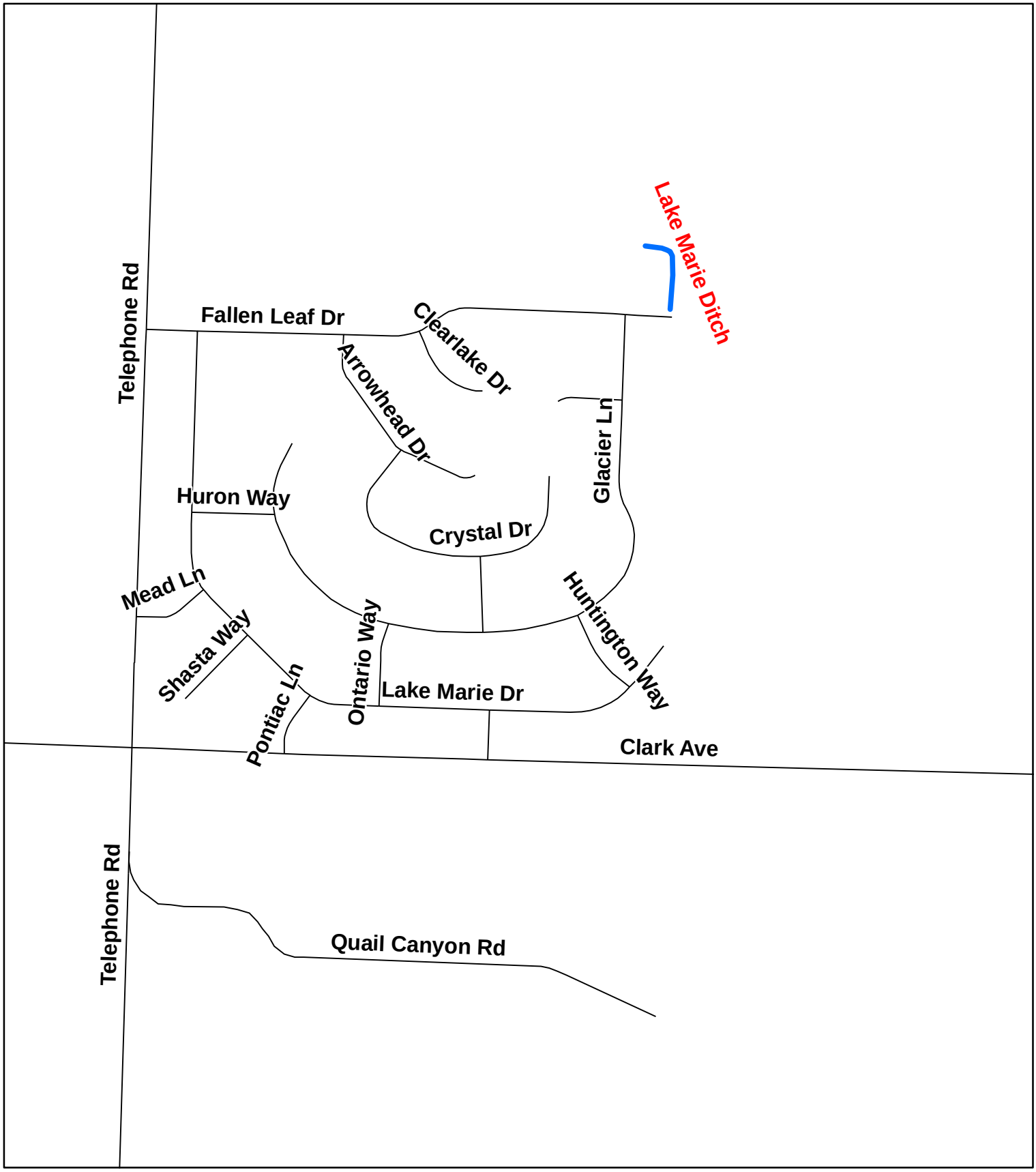

Department of Public Works County of Santa Barbara

Lake Marie Ditch

N W E S

560 280 0 560

Feet

Coordinate System: State Plane California Zone V NAD 1983

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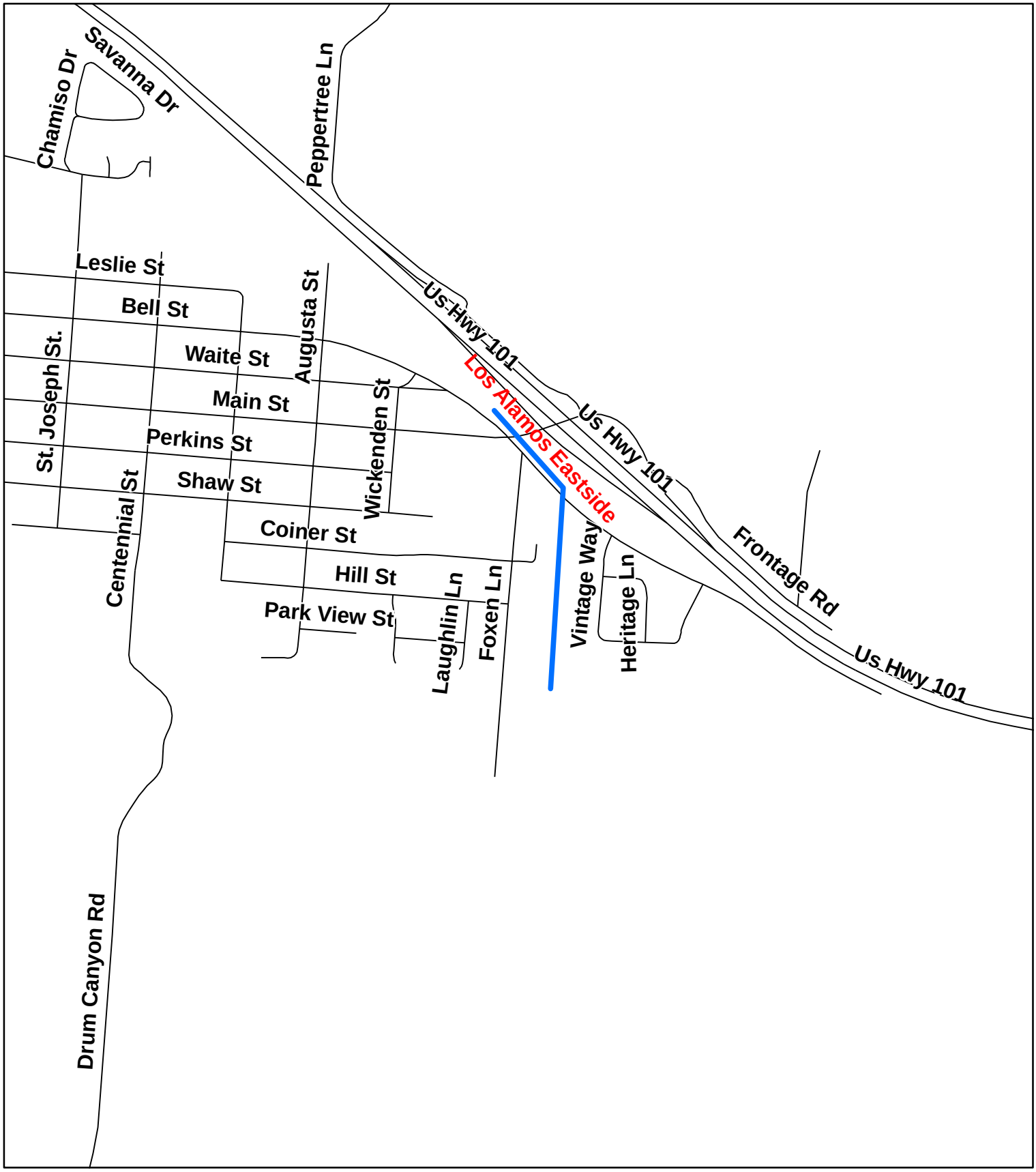

Department of Public Works County of Santa Barbara

Los Alamos Eastside Ditch

N W E S

Feet

725 362.5 0 725

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

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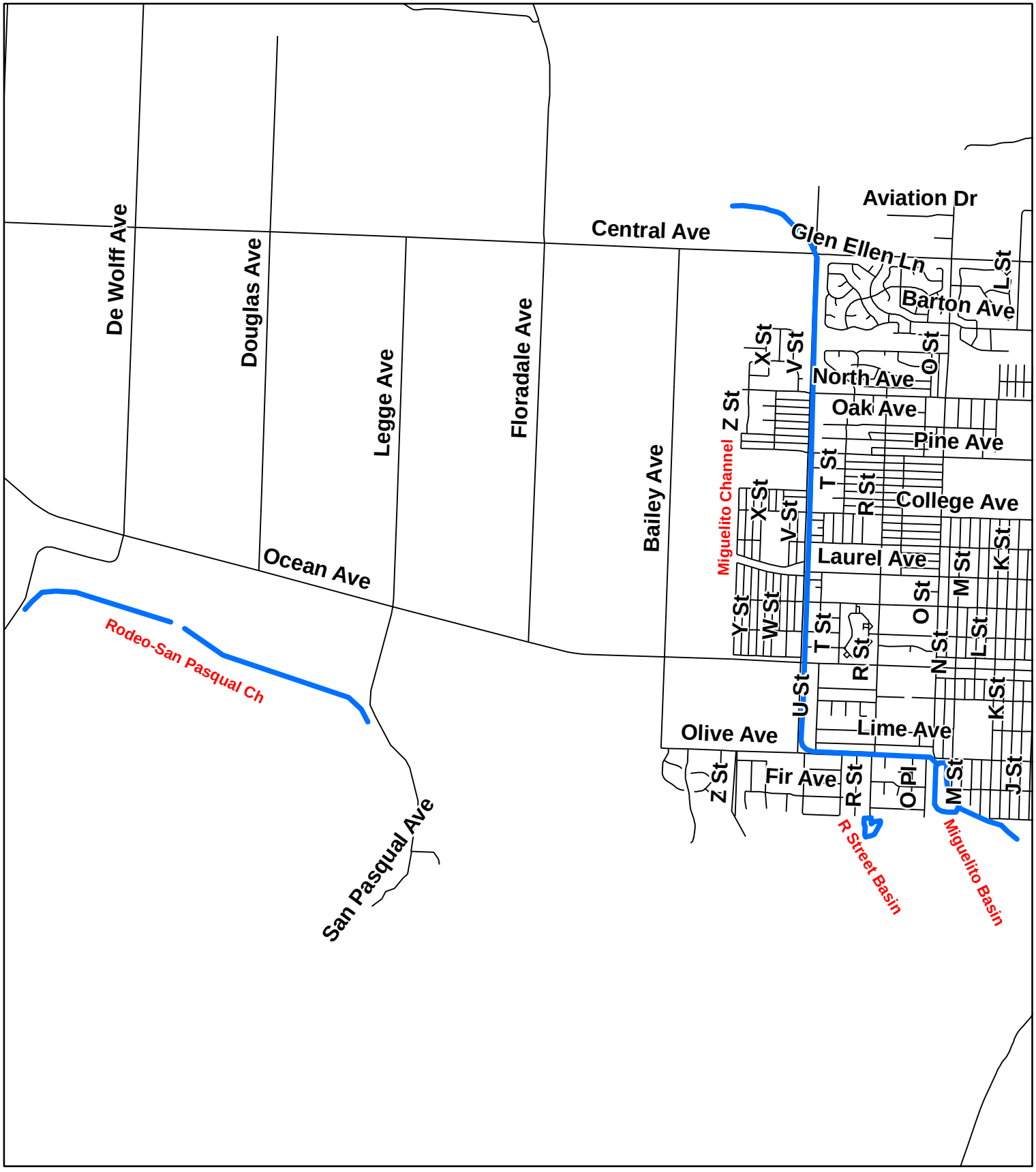

Department of Public Works County of Santa Barbara

Miguelito Channel
Miguelito Basin
R Street Basin
Rodeo-San Pascual Channel

N W E S

2,200 1,100 0 2,200 Feet

Coordinate System: State Plane California Zone V NAD 1983

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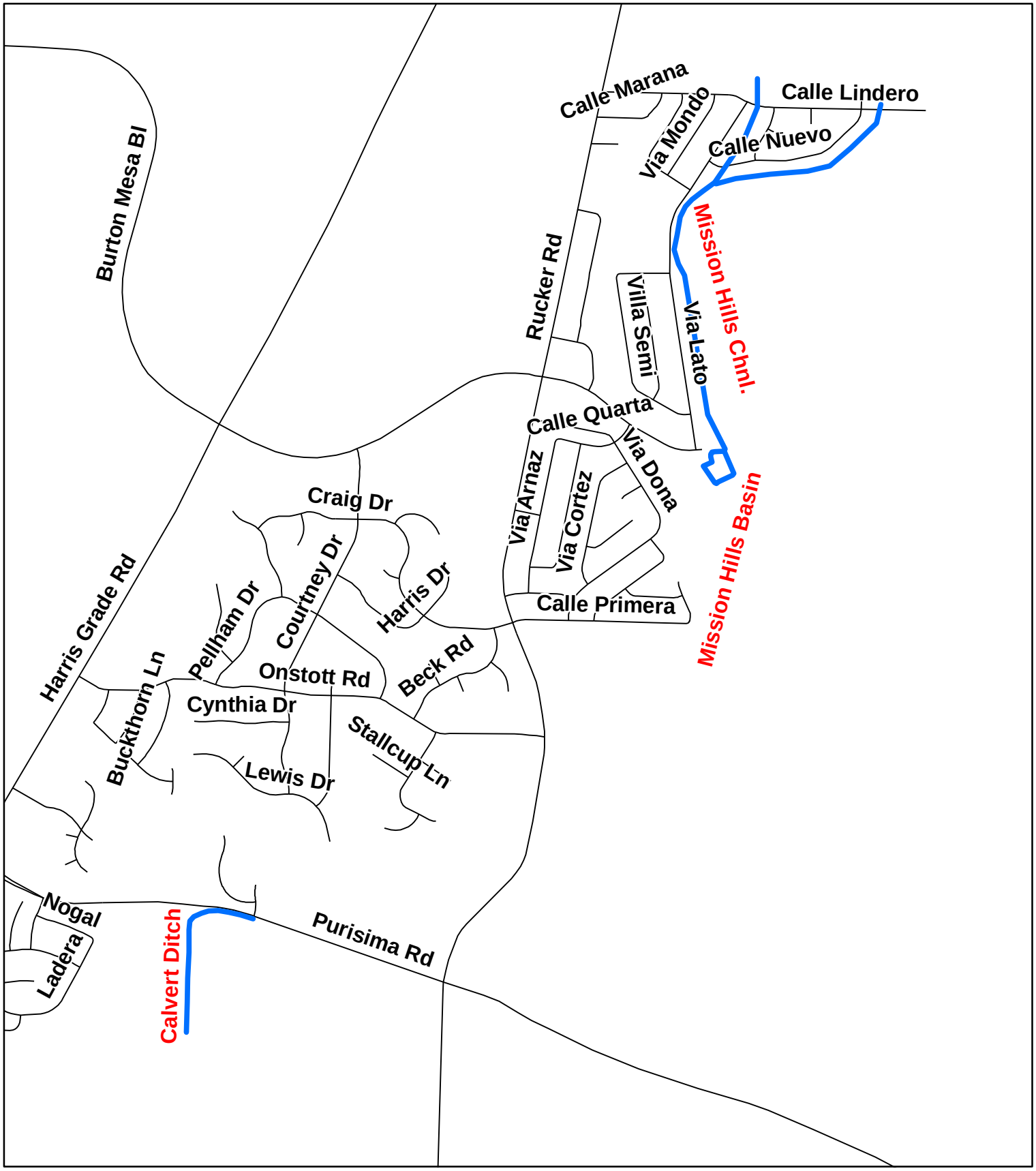

Department of Public Works County of Santa Barbara

Mission Hills Channel
Mission Hills Basin
Calvert Ditch

Page 16

N W E S

1,200 600 0 1,200 Feet

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

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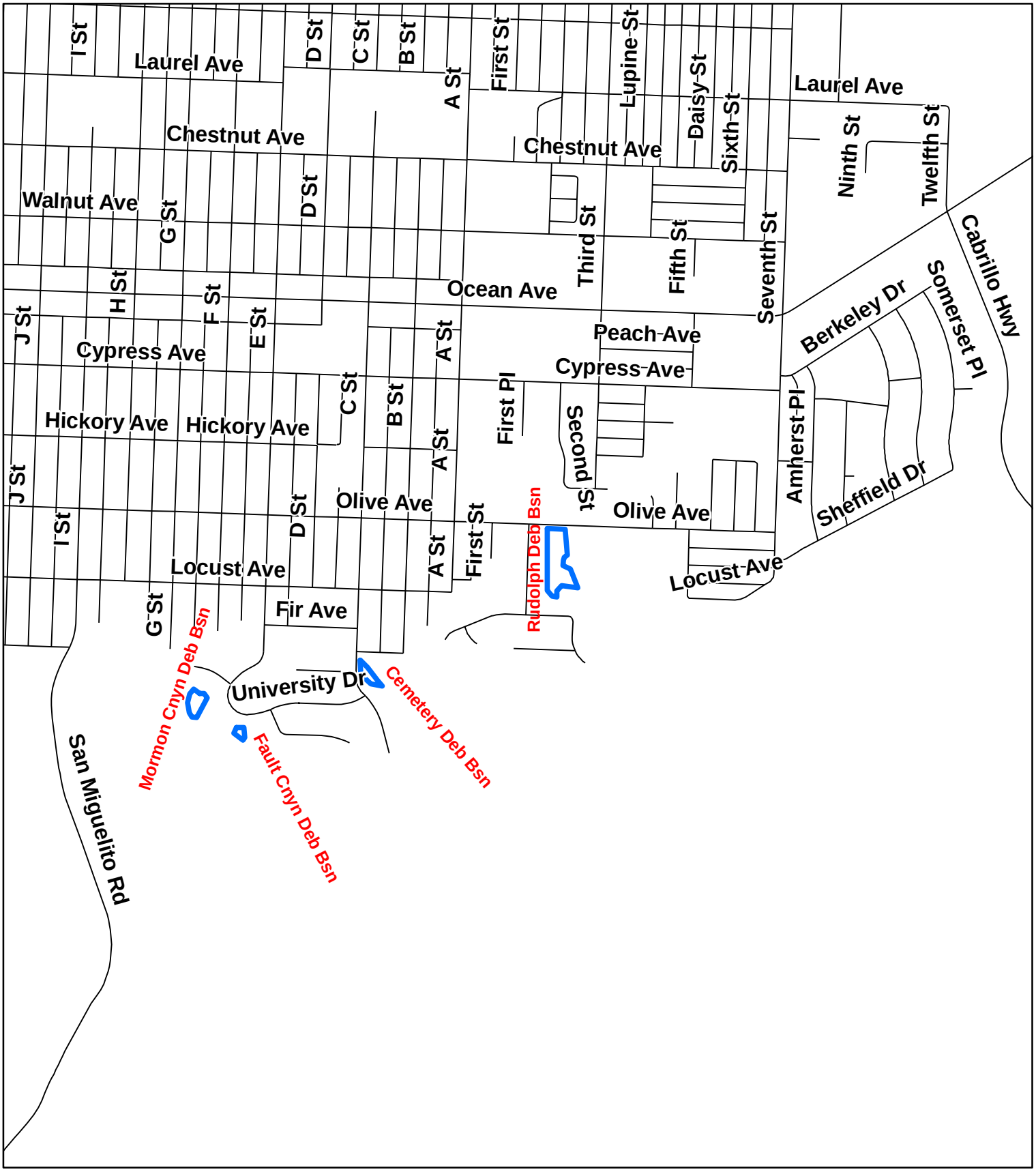

Department of Public Works County of Santa Barbara

Mormon Canyon Debris Basin
Fault Canyon Debris Basin
Cemetery Debris Basin
Rudolph Debris Basin

N
W E
S
Feet
950 475 0 950

Coordinate System: State Plane California Zone V NAD 1983

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Santa Barbara County, California

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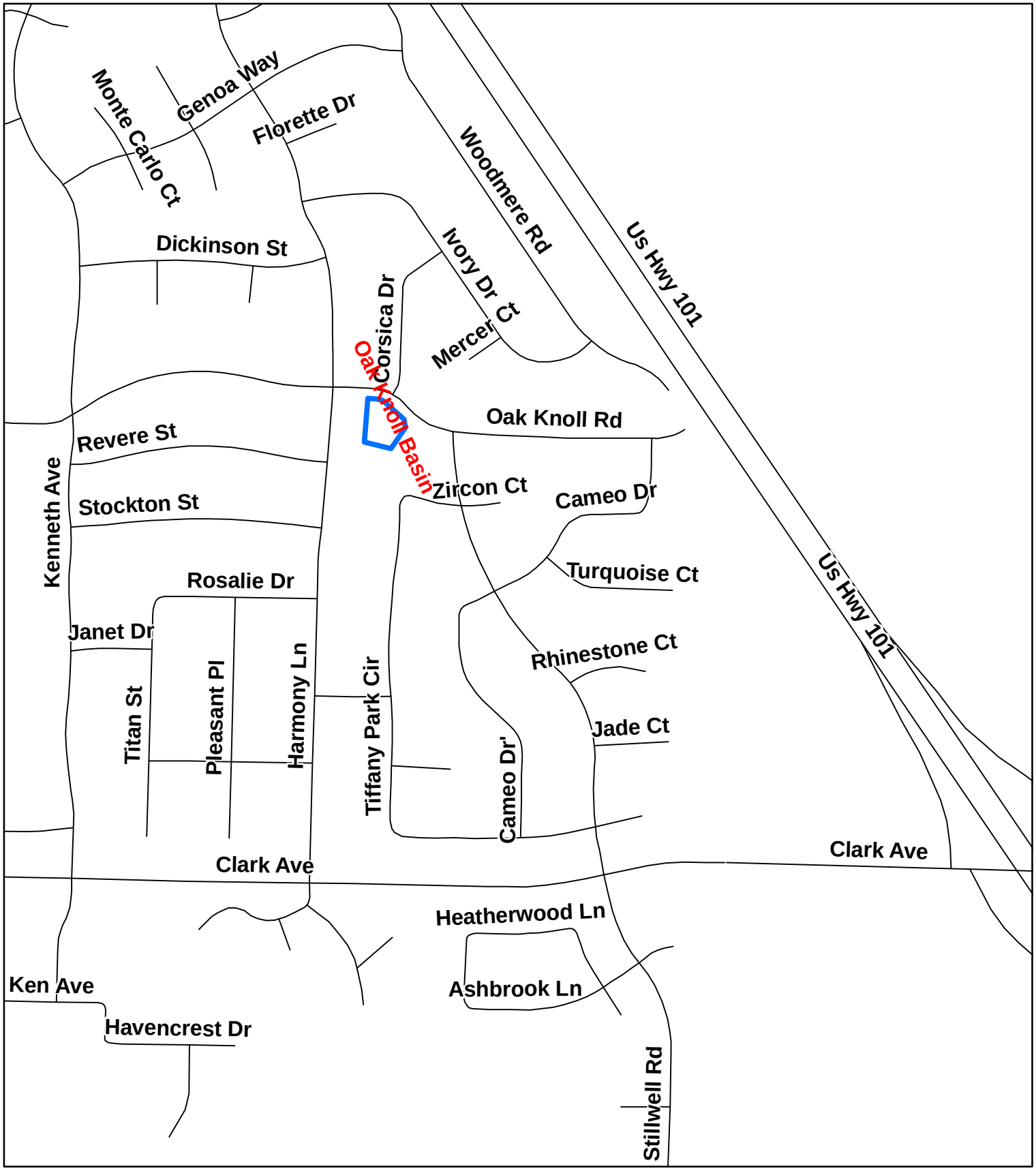

Department of Public Works County of Santa Barbara

Oak Knoll Basin

N W E S

460 230 0 460

Feet

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

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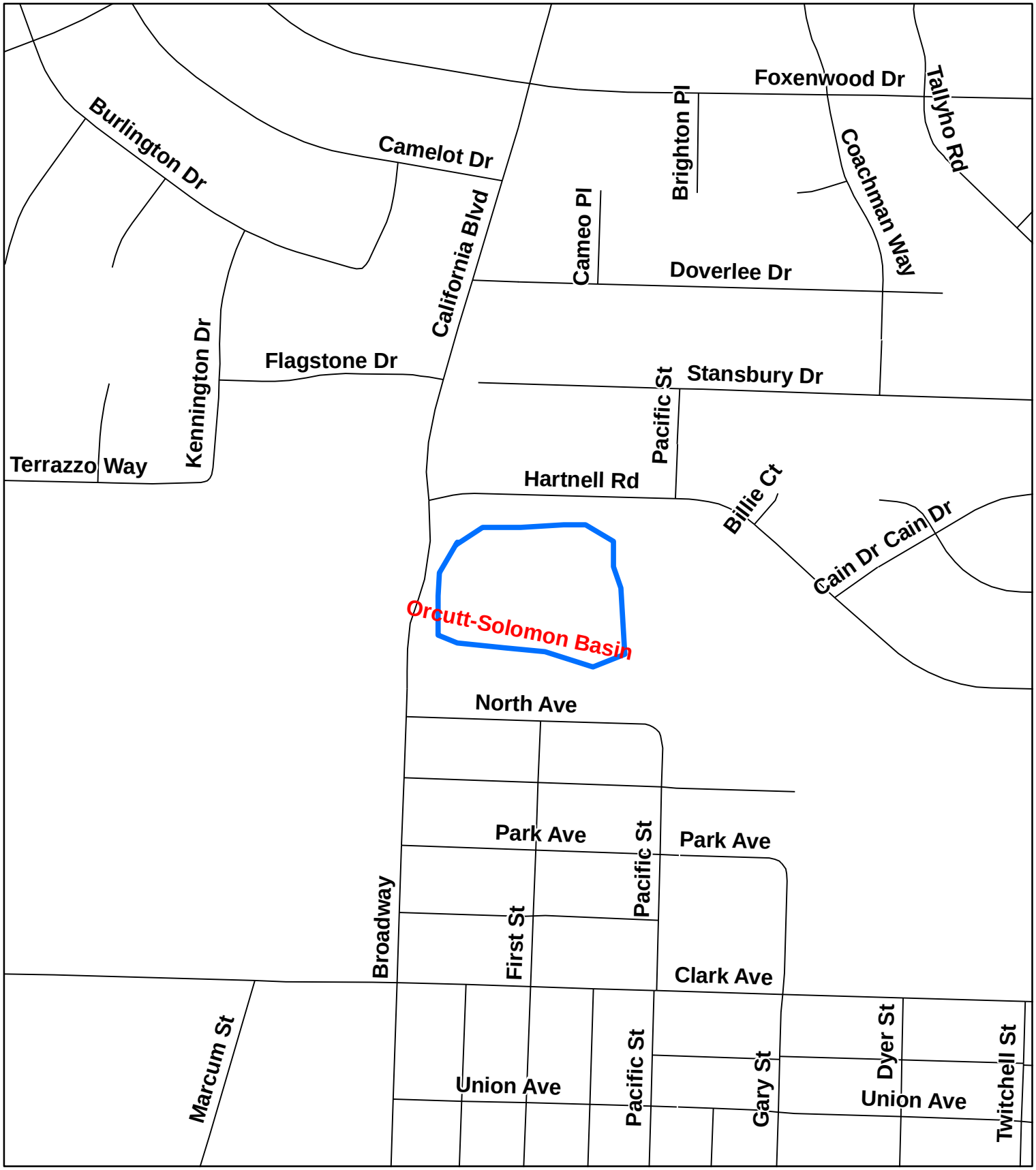

Department of Public Works County of Santa Barbara

Orcutt-Solomon Basin

N W E S

Feet

325 162.5 0 325

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

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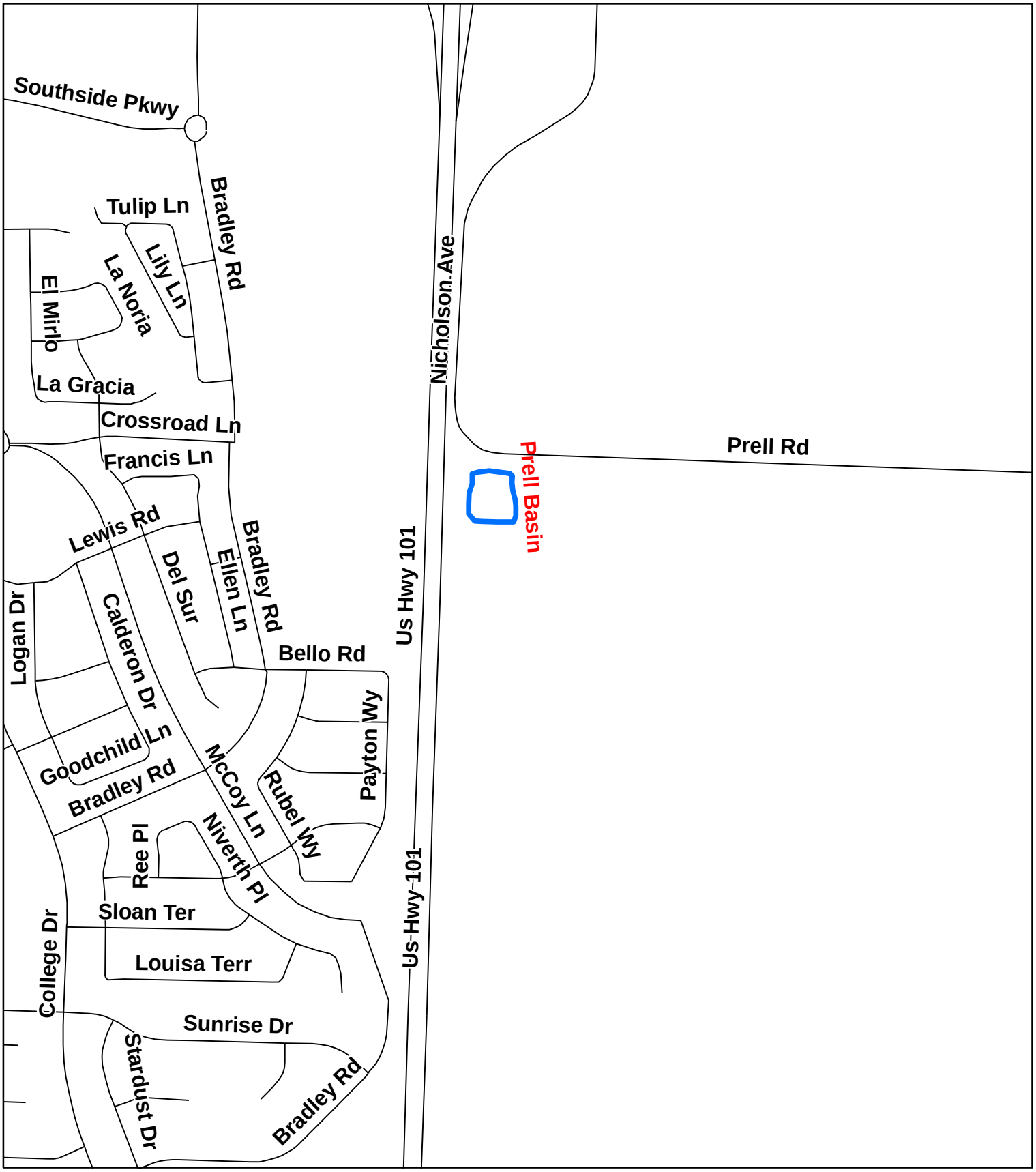

Department of Public Works County of Santa Barbara

Prell Basin

N W E S

Feet

525 262.5 0 525

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

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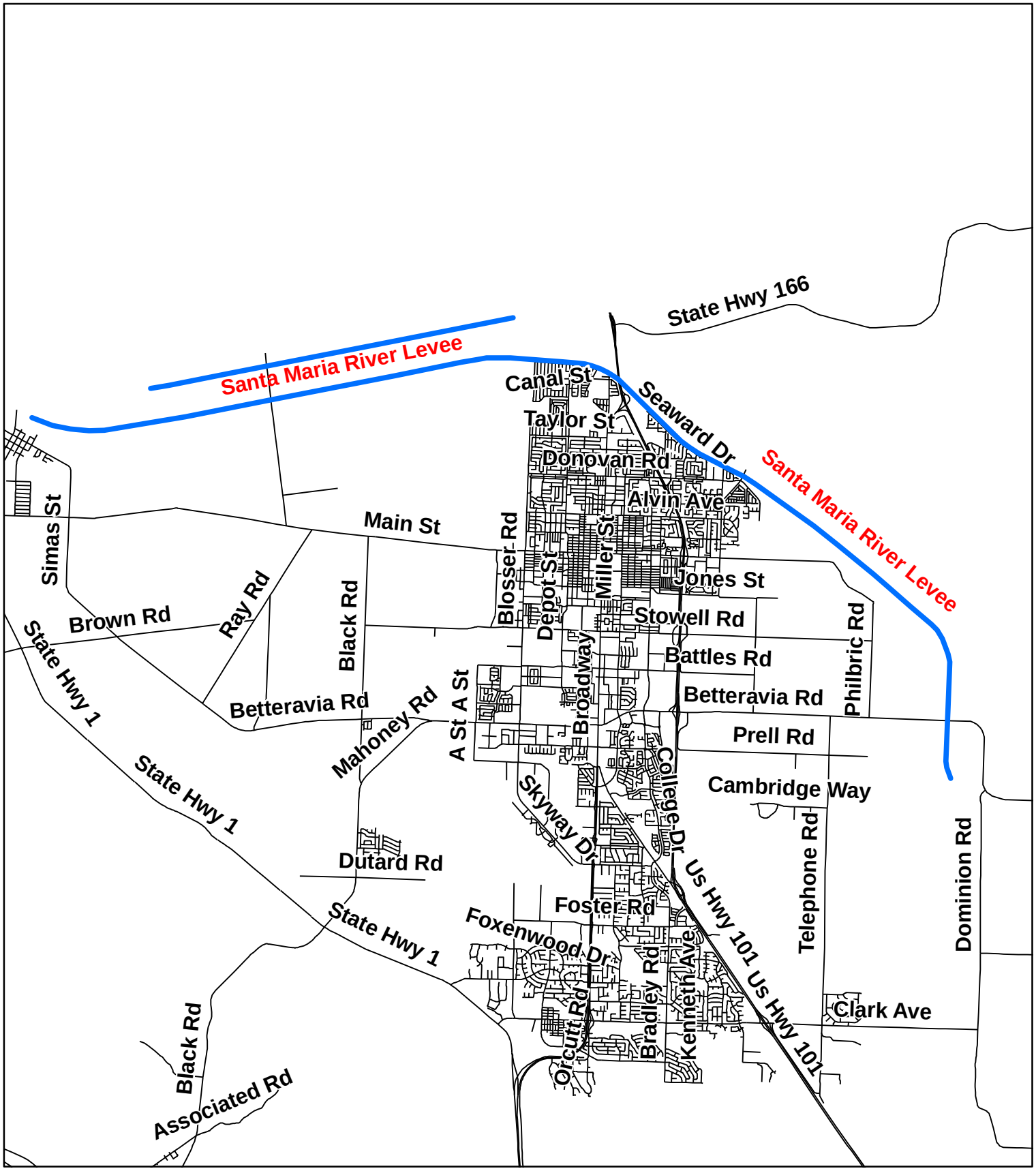

Department of Public Works County of Santa Barbara

Santa Maria River Levee

N W E S

Feet

7,300 3,650 0 7,300

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

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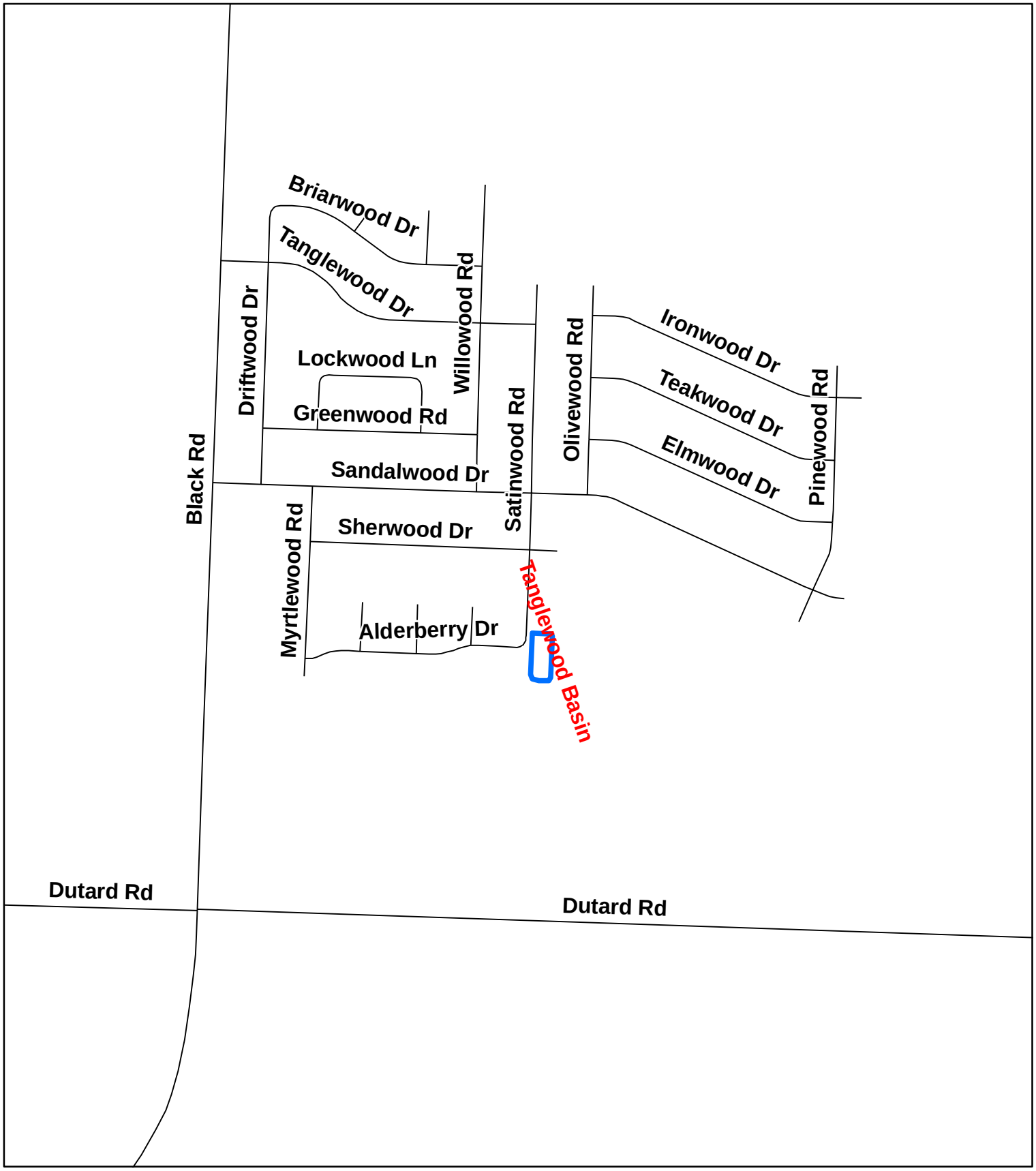

Department of Public Works County of Santa Barbara

Tanglewood Basin

N
W E
S
Feet
510 255 0 510

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

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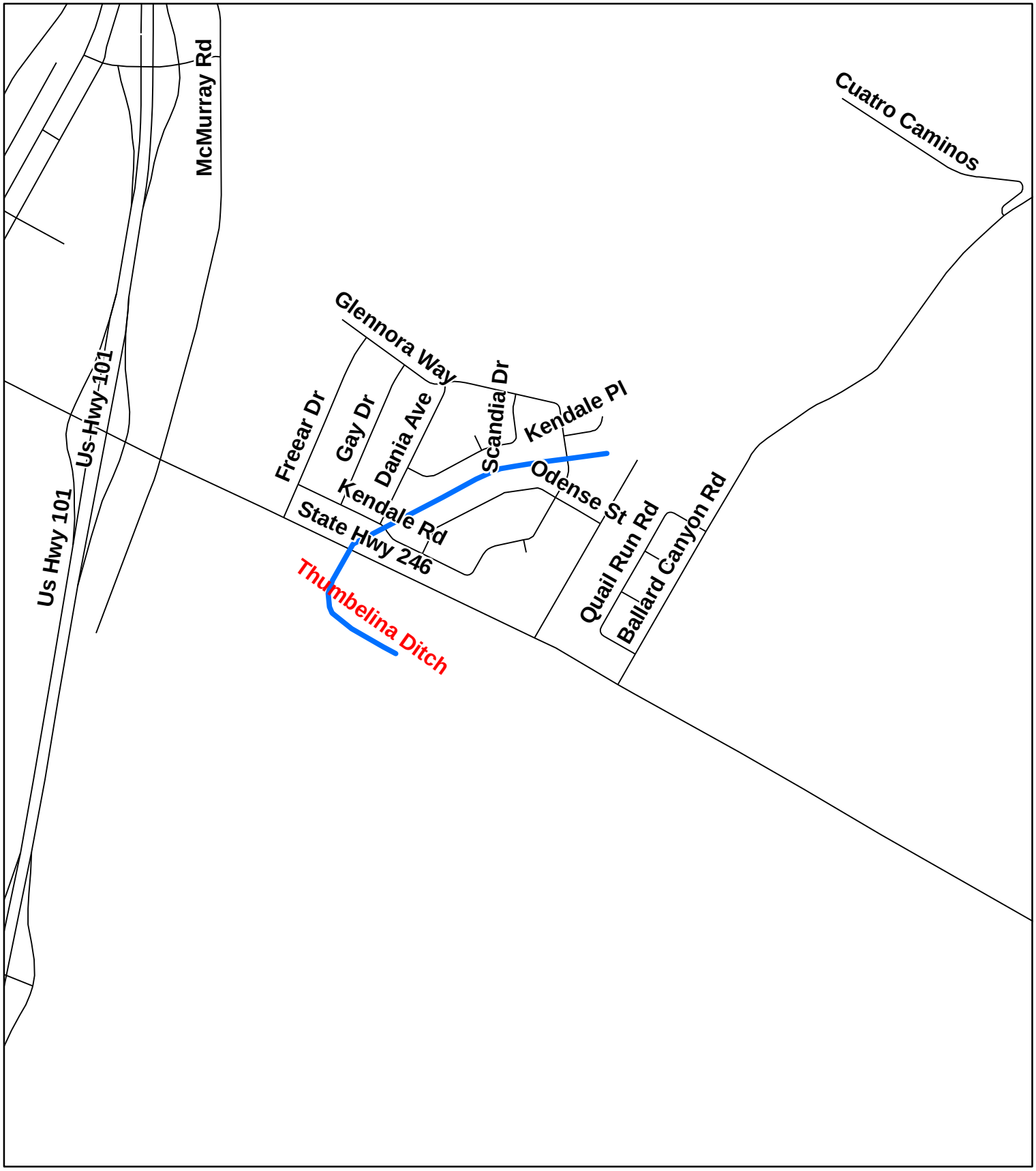

Thumbelina Ditch

Department of Public Works County of Santa Barbara

N
W E
S
Feet
680 340 0 680

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

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South Coast Facilities:

Most of the South Coast facilities are concrete channels that require minor maintenance. Maintenance mainly consists of periodic inspection of the weep holes and cracks between concrete panels along the concrete channel, trimming of vegetation that overhangs the channel from adjacent back yards and along access roads, and trimming vegetation such as ivy that grows down the concrete itself. The District also paints over graffiti.

Concrete Channels:

1. **Atascadero Channel:** From Arroyo Road downstream to the confluence with Hospital Channel, a distance of 2,170 feet, the weep holes and joints between the concrete panels are spot sprayed to eliminate weeds that can cause damage to the structure. Graffiti is painted over as well. Refer to Page 2 for the location of this facility. Potential impacts for the 14/15 AP are less than 50 square feet from spot spraying and 0.2 acres for graffiti removal.

2. **Cieneguitas Channel:** From the Union Pacific railroad tracks downstream to Modoc Road, a distance of 500 feet. The bottom of the channel is spot sprayed to eliminate vegetation that may begin to colonize the channel, along with graffiti removal on an annual basis. Refer to Page 3 for the location of the facility. Potential impacts for the 14/15 AP are less than 50 square feet from spot spraying and .02 acres for graffiti removal.

3. **Derbiano Drain:** From the confluence with Hospital Creek upstream 1000', maintenance in this channel consists of cutting back overhanging shrubs that protrude into the active channel. Refer to Page 2 for the location of this facility. Potential impacts for the 14/15 AP are less than 200 square feet from removal of overhanging vegetation.

4. **El Encanto Channel:** From Hollister Avenue to Phelps Road, a distance of 1,700 feet, the weep holes and joints between the concrete panels are spot sprayed to eliminate weeds that can cause damage to the structure. Graffiti is painted over as well. Refer to Page 5 for the location of this facility. Potential impacts for the 14/15 AP are less than 50 square feet from spot spraying and .01 acres from graffiti removal.

5. **Encina Drain:** From Cathedral Oaks Road to Berkeley Road, a distance of 371 feet, the weep holes and joints between the concrete panels are spot sprayed to eliminate weeds that can cause damage to the structure. Graffiti is painted over as well. The channel is desilted every 3 to 5 years. Spot spraying along with graffiti removal is scheduled for this season. Refer to Page 6 for the location of this facility. Potential impacts for the 14/15 AP are less than 50 square feet from spot spraying and .01 acres for graffiti removal.

6. **Fremont Channel:** From Queen Anne Road downstream 125 feet. Every 3-5 years sediment is removed from the channel. The bottom of the channel is spot sprayed along with graffiti removal on an annual basis. Sediment will not be removed this year. Potential Impacts for the 14/15 AP are less than 50 square feet for spot spraying.

7. **High School Drain:** On the east side of Carpinteria High School from Foothill Road upstream 500', the weep holes and joints between the concrete panels are spot sprayed to eliminate weeds that can cause damage to the structure. Refer to Page 7 for the location of this facility. Potential impacts for the 14/15 AP are less than 50 square feet from spot spraying and .01 acres for graffiti removal.

8. **Hospital Channel:** From Hollister Avenue downstream to the confluence with Atascadero Creek, a distance of 2,060', the weep holes and joints between the concrete panels are spot sprayed to eliminate weeds that can cause damage to the structure. Garbage or debris and graffiti removal will most likely be needed this maintenance season. Refer to Page 2 for the location of this facility. Potential impacts for the 14/15 AP are less than 50 square feet for spot spraying and .02 acres for graffiti removal.

9. **Las Positas Channel:** From Veronica Springs Road upstream 1000', the weep holes and joints between the concrete panels are spot sprayed to eliminate weeds that can cause damage to the structure. Graffiti is also painted over. The channel is desilted every 3 to 5 years Spot spraying along with graffiti removal is scheduled for this season. Refer to Page 9 for the location of this facility. Potential impacts for the 14/15 AP are less than 50 square feet for spot spraying and .01 acres for graffiti removal.

10. **Los Carneros Channel:** From Los Carneros Road downstream to Hollister Avenue, a distance of 227', the weep holes and joints between the concrete panels are spot sprayed to eliminate weeds that can cause damage to the structure. Refer to Page 10 for the location of this facility. Potential impacts for the 14/15 AP are less than 50 square feet for spot spraying.

11. **Mission Channel:** From Los Olivos to Pedregosa St and from Valerio Street to Canon Perdido, a total distance of 5,641', the weep holes and joints between the concrete panels are spot sprayed to eliminate weeds that can cause damage to the structure. Garbage or debris, along with graffiti removal will most likely be needed this maintenance season. This channel is going to construction in mid-2013 to incorporate a fish passage element from Arrellaga to Canon Perdido Street, a distance of approximately 3500'. The City of Santa Barbara is in charge of the fish passage project. Refer to Page 11 for the location of this facility. Potential impacts for the 14/15 AP are less than 100 square feet for spot spraying and .45 acres for graffiti removal.

12. **Pace Park Drain:** Between Highway 101 and Pace Park Subdivision, a distance of 1,000', the weep holes and joints between the concrete panels are spot sprayed to eliminate weeds that can cause damage to the structure. Graffiti is also painted over. The channel is desilted every 3 to 5 years. Spot spraying along with graffiti removal is scheduled for this season. Refer to Page 7 for the location of this

facility. Potential impacts for the 14/15 AP are less than 50 square feet for spot spraying and .02 acres for graffiti removal.

13. **Robin Hill Drain:** On the west side of Robin Hill Road from Hollister Avenue upstream 500', the weep holes and joints between the concrete panels are spot sprayed to eliminate weeds that can cause damage to the structure. Graffiti is also painted over. The channel is desilted every 3 to 5 years. Spot spraying along with graffiti removal is scheduled for this season. Refer to Page 10 for the location of this facility. Potential impacts for the 14/15 AP are less than 50 square feet for spot spraying and .01 acres for graffiti removal.

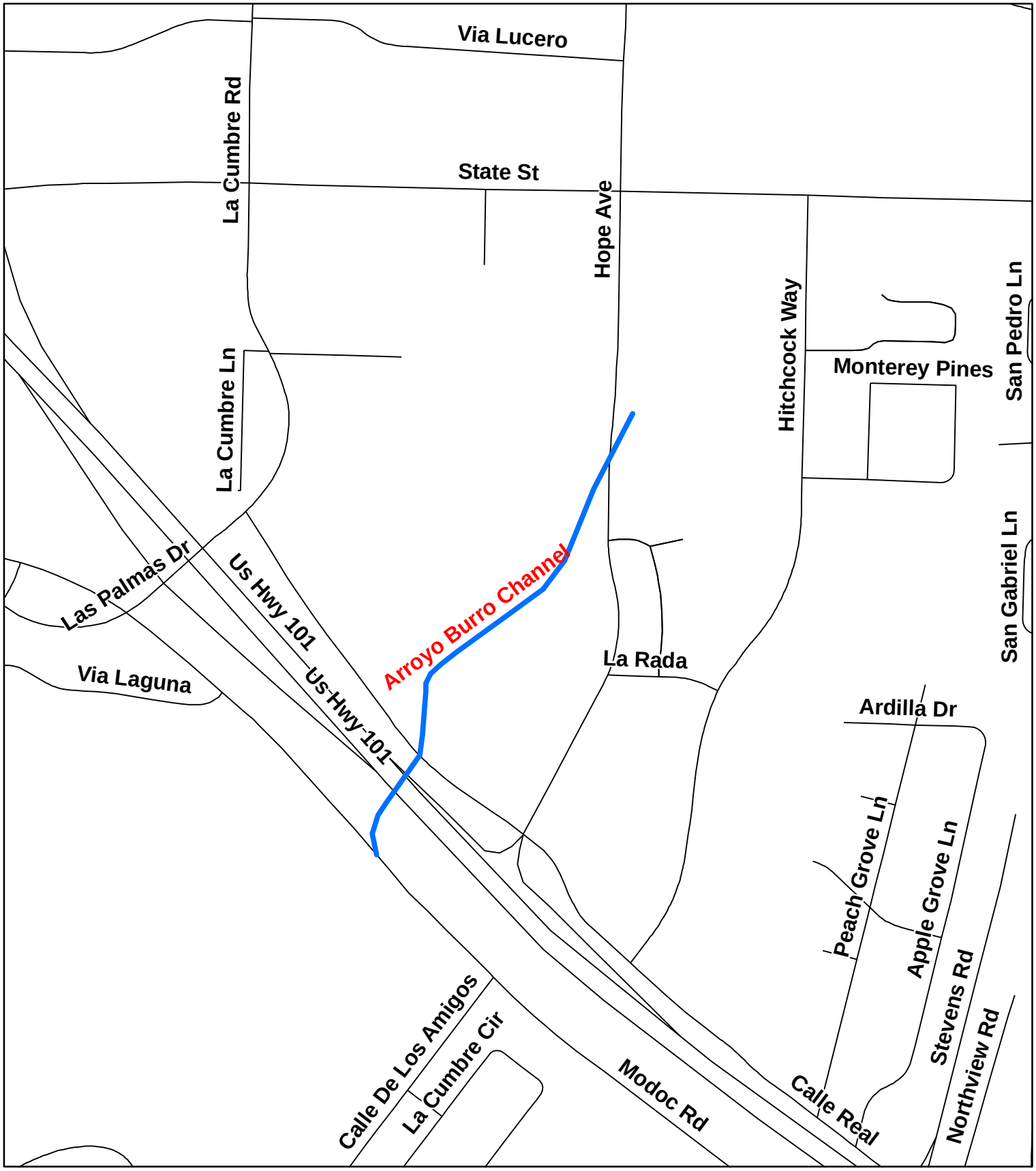
14. **San Jose Channel:** From Hollister Avenue downstream 4,000' to Goleta Slough. The District coordinated with the City of Goleta to change the dimensions of this channel to increase its capacity and also include fish passage elements to eliminate the barrier to steelhead. Construction of this new design was completed in Spring 2014. This ditch is scheduled for spot spraying this maintenance season but will not be desilted. Refer to Page 14. Potential impacts for the 14/15 AP are less than 50 square feet for spot spraying and .02 acres for graffiti removal.

15. **Santa Monica Channel:** This channel runs from the Santa Monica Debris basin downstream approximately 1.2 miles to Carpinteria Salt Marsh. The weep holes and joints between the concrete panels are spot sprayed to eliminate weeds that can cause damage to the structure. Graffiti is also painted over and garbage or debris removal will most likely be needed this maintenance season. Watercress growing along the channel bottom will be sprayed this season. Refer to Page 7 for the location of this facility. Potential impacts for the 14/15 AP are less than 100 square feet for spot spraying, less than 1500 square feet for vegetation trimming and 1.2 acres for graffiti removal.

Basins:

1. **Franciscan Sediment Basin:** At the upstream end of Franciscan Culvert, 1360 Cravens Lane in Carpinteria. This basin requires desilting approximately every 5 years to remove approximately 500 cubic yards of sediment and occasional spot spraying for weeds or cattails (approximately 25 square feet of cattails). Refer to Page 7 for the location of this facility. Potential impacts for the 14/15 AP are 25 square feet for spot spraying.

2. **Hospital Basin:** Immediately north of Goleta Valley Little League fields on Hollister Avenue, Goleta. This basin requires desilting approximately every 5 years to remove between 100-200 cubic yards of sediment. Mustard and weedy vegetation are mowed annually within the basin for weed and fire control. The basin is also spot sprayed every other year if woody vegetation begins to colonize the basin. Mowing is scheduled for this season. Refer to Page 2 for the location of this facility. Potential impacts for the 14/15 AP are .45 acres for mowing weeds.



Department of Public Works County of Santa Barbara

Arroyo Burro Channel

Page 1

PUBLIC WORKS ENTERPRISE GIS

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N W E S

Feet

380 190 0 380

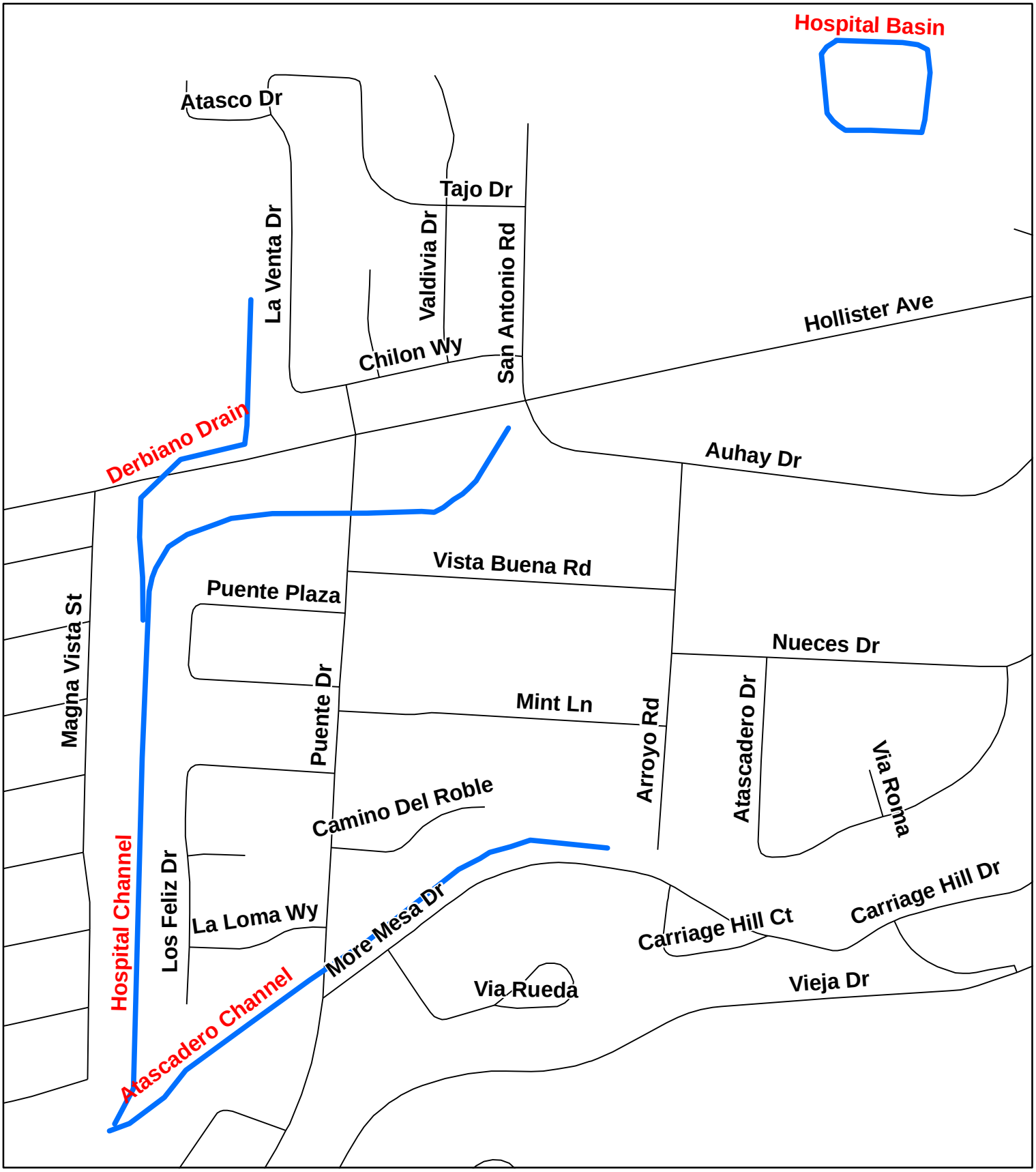
Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District

Compiled by the Public Works Enterprise GIS in April 2011.



Department of Public Works County of Santa Barbara

Atascadero Channel
Derbiano Drain
Hospital Channel
Hospital Basin

N W E S

Feet

375 187.5 0 375

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

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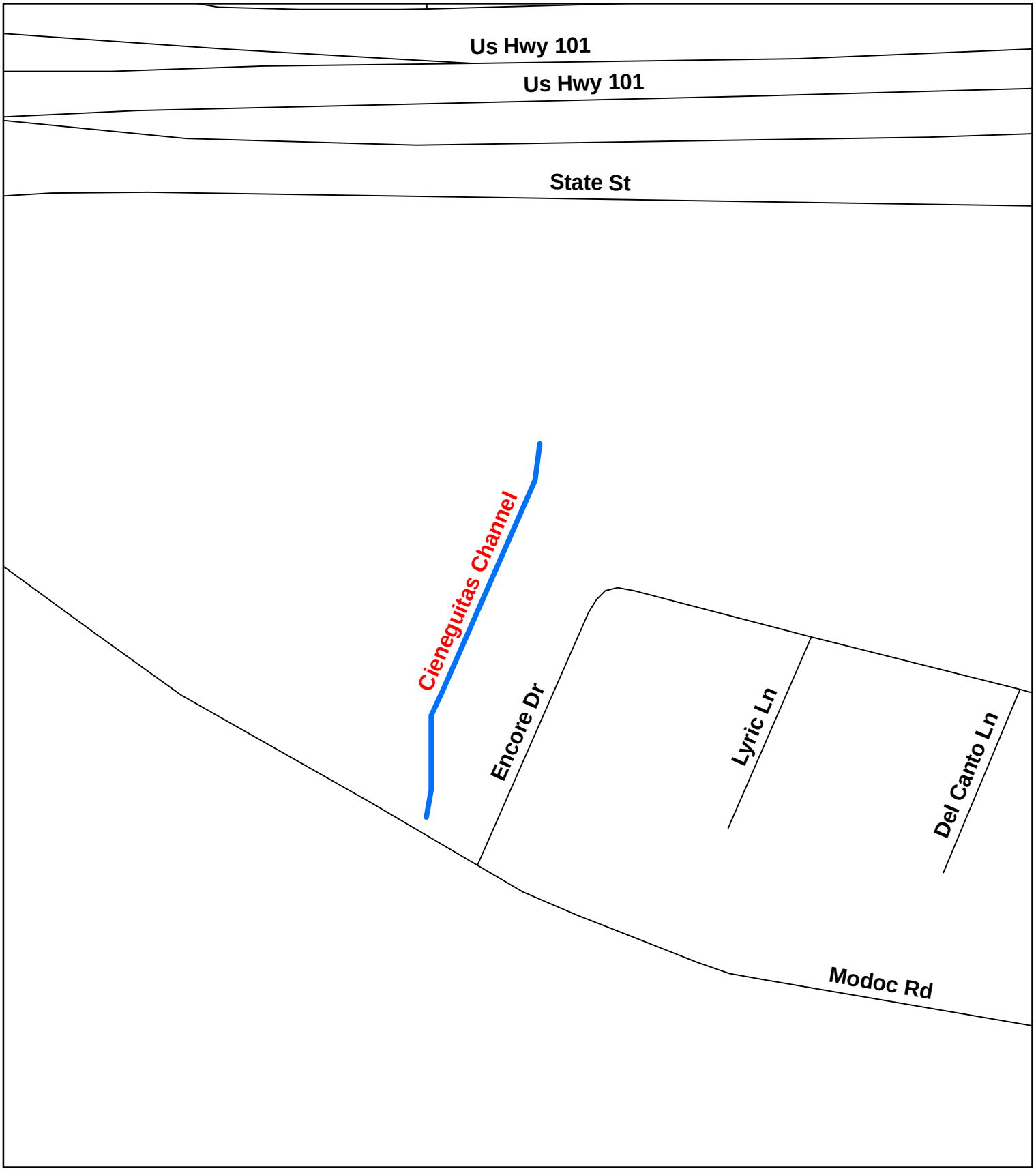

Department of Public Works County of Santa Barbara

Cieneguitas Channel

N W E S

Feet

140 70 0 140

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

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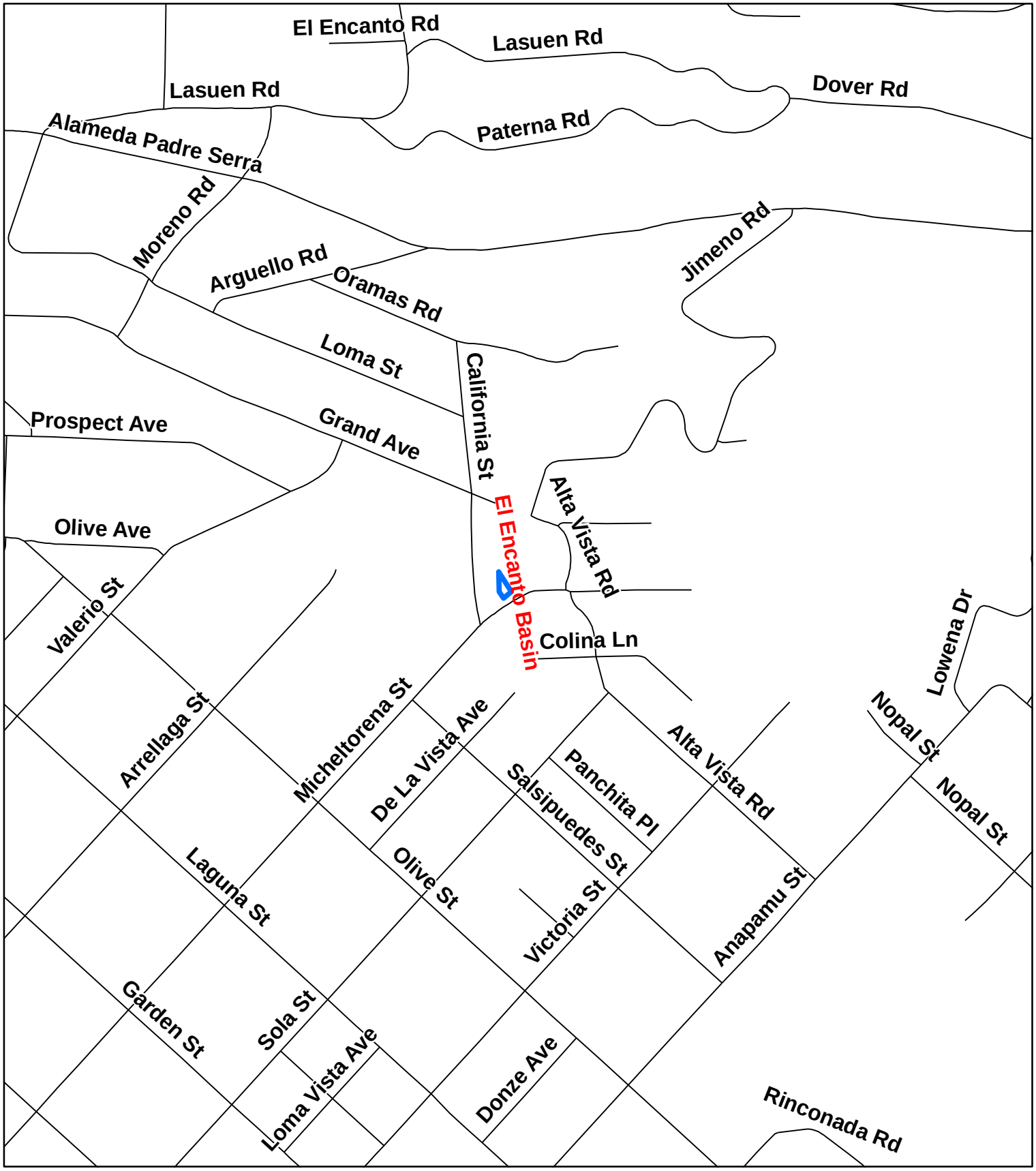

Department of Public Works County of Santa Barbara

El Encanto Basin

Page 4

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N W E S

Feet

390 195 0 390

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

Prepared By:
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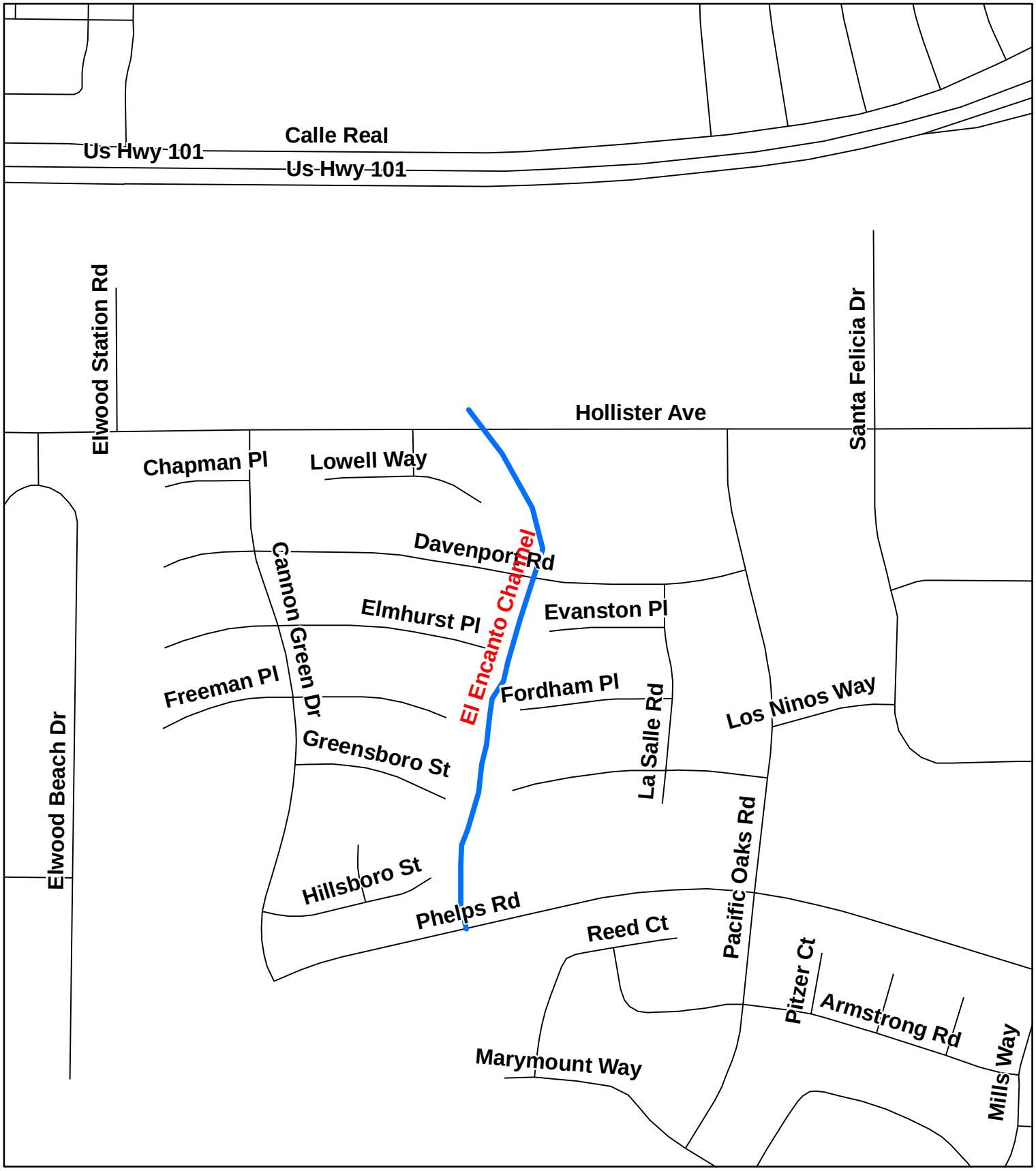
Compiled by the Public Works Enterprise GIS in April 2011.



Department of Public Works County of Santa Barbara

El Encanto Channel

N W E S

Feet 400 200 0 400

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

Prepared By:
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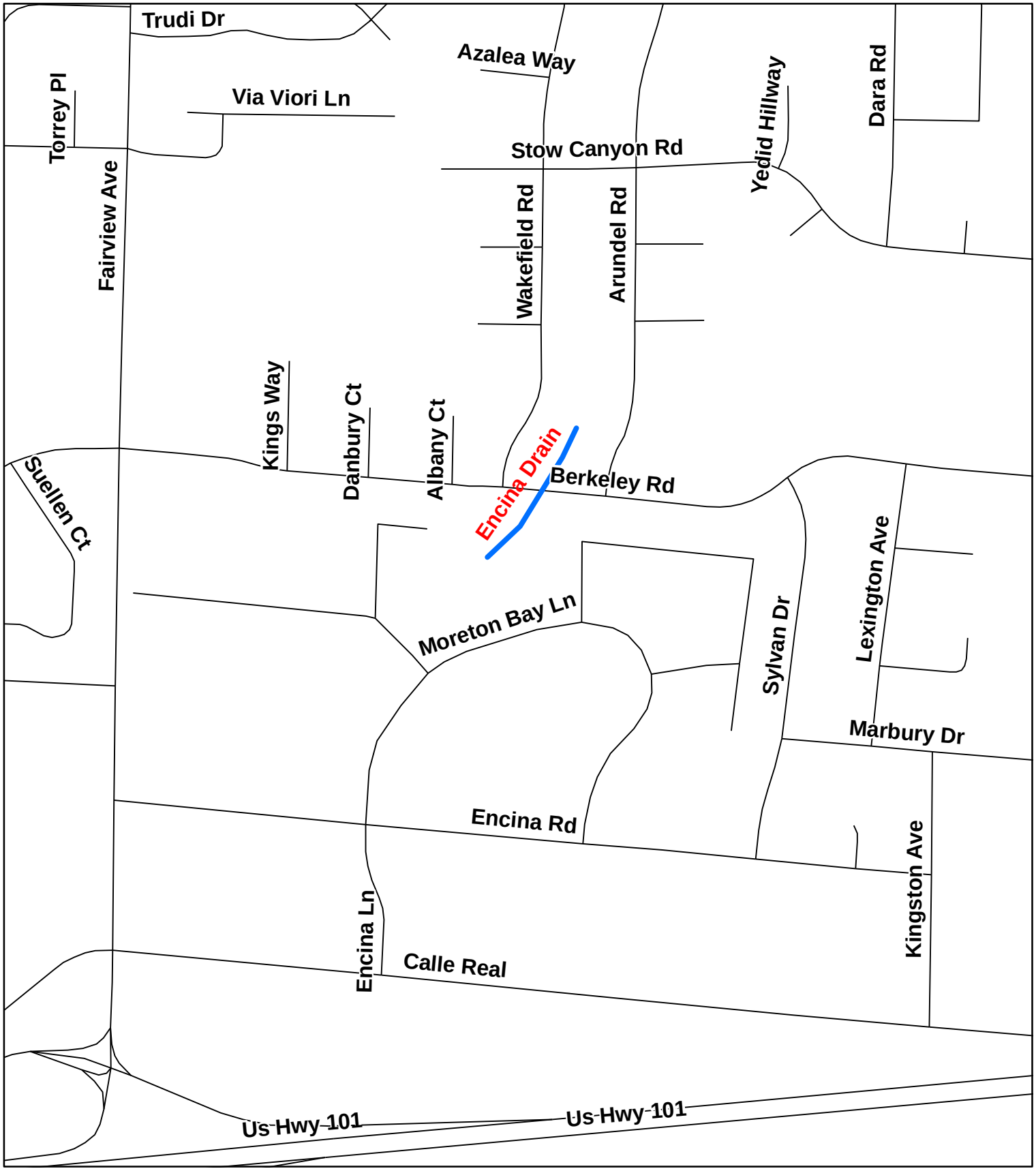

Department of Public Works County of Santa Barbara

Encina Drain

Page 6

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N W E S

Feet

350 175 0 350

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

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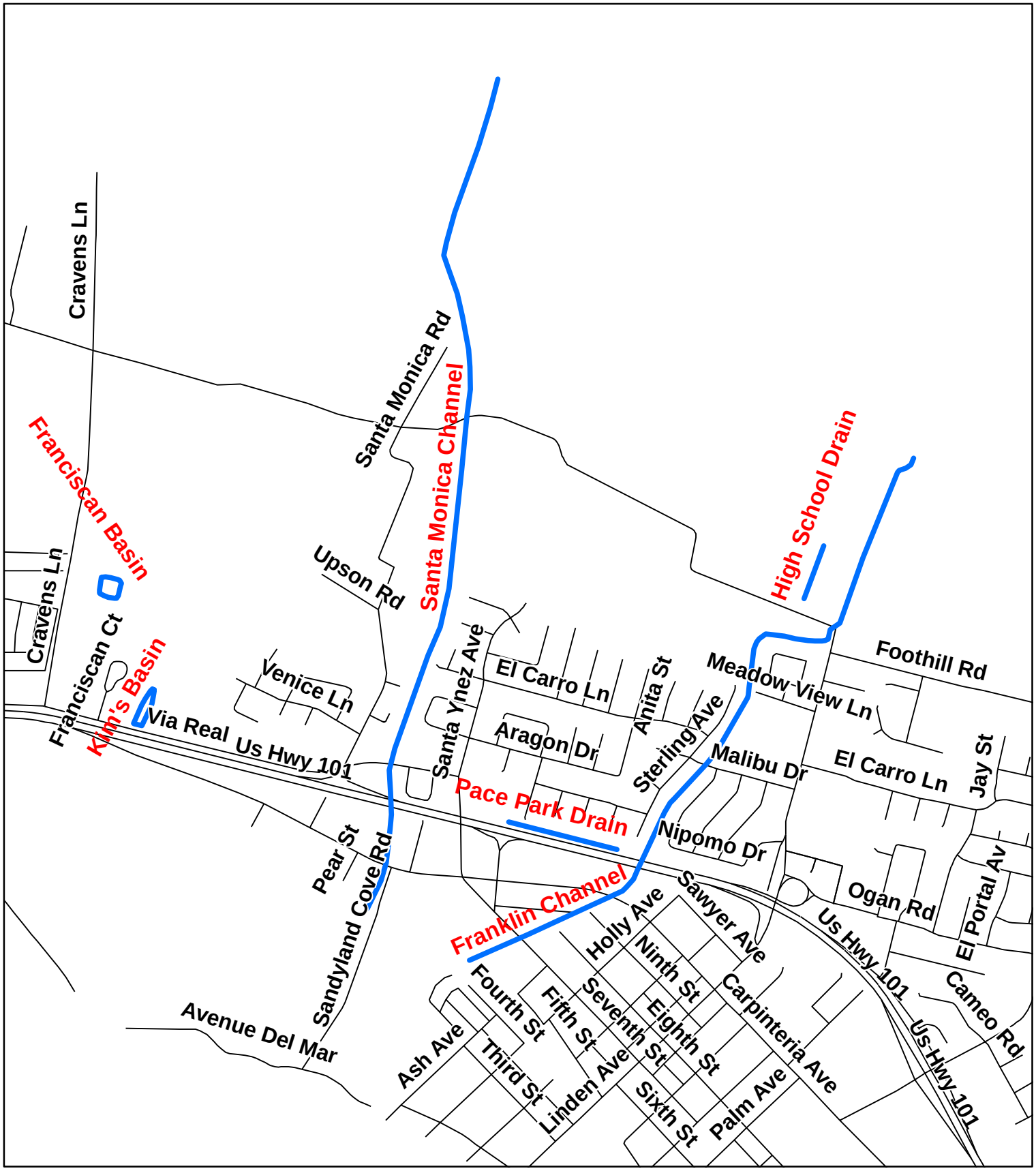

Department of Public Works County of Santa Barbara

Page 7

Franciscan Basin
Kim's Basin
Santa Monica Channel
Pace Park Drain
High School Drain
Franklin Channel

N W E S

Feet

1,000 500 0 1,000

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

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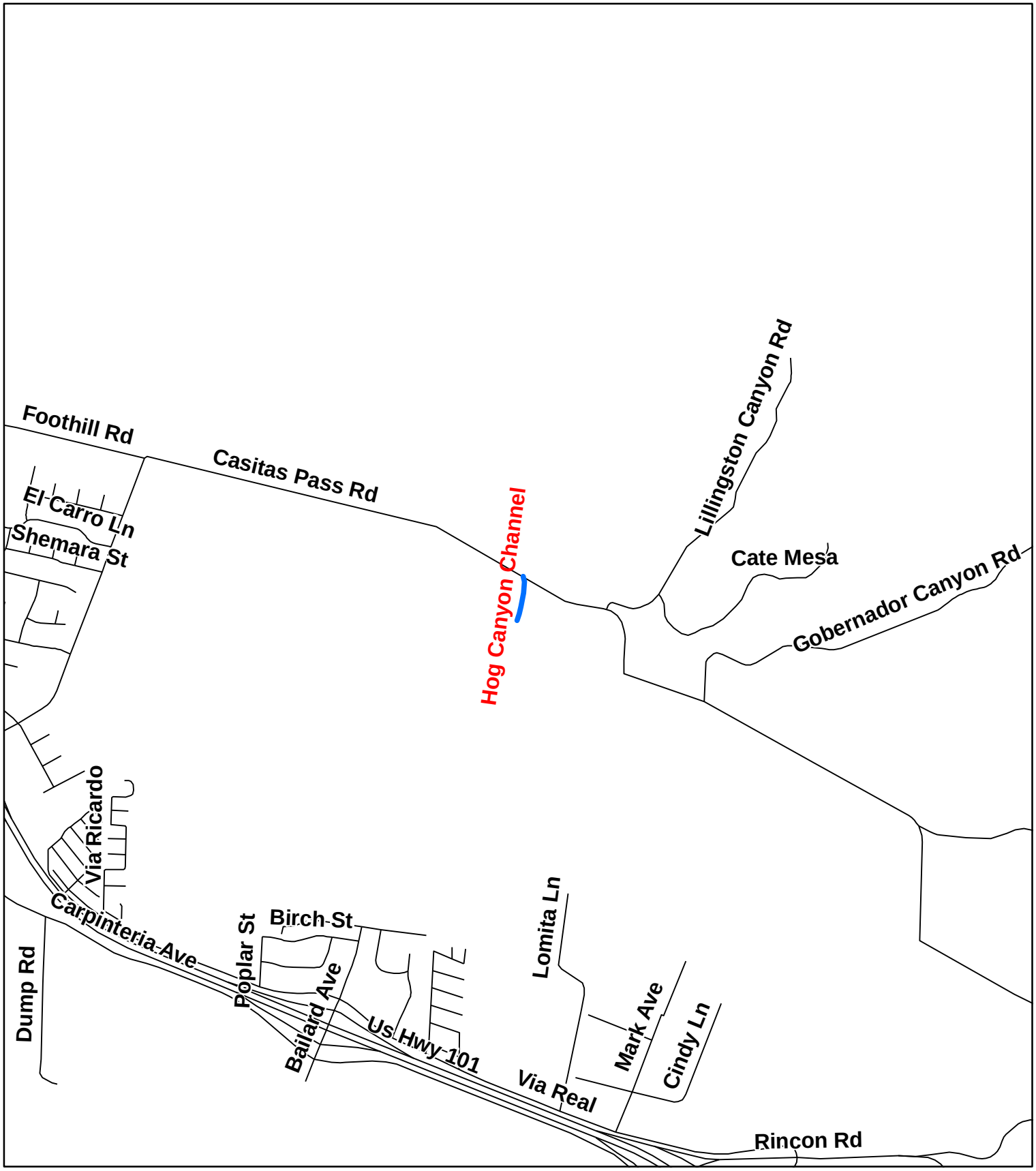

Department of Public Works County of Santa Barbara

Hog Canyon Channel

N W E S

Feet

1,200 600 0 1,200

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

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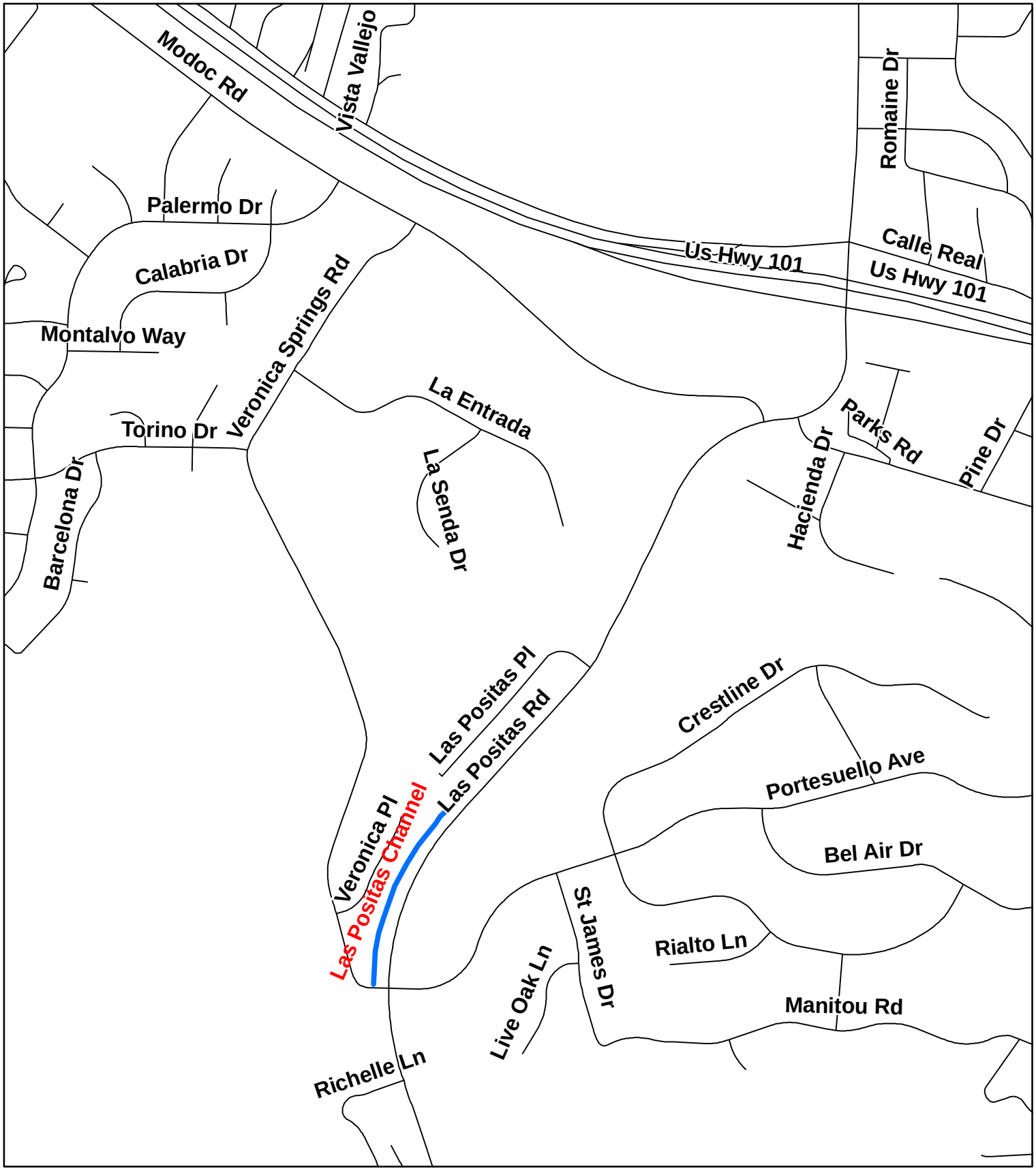

Department of Public Works County of Santa Barbara

Las Positas Channel

N W E S

Feet

550 275 0 550

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

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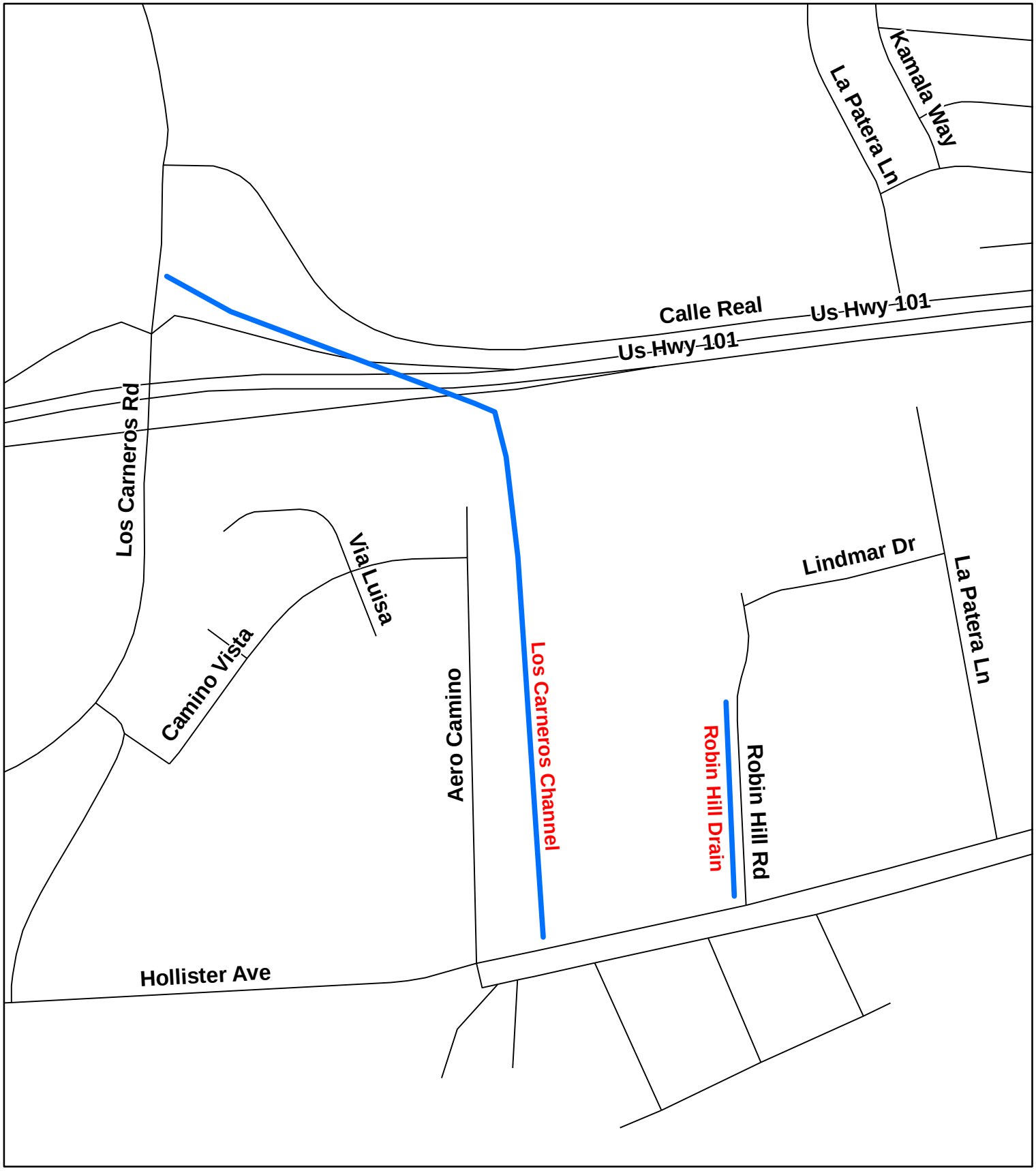

Department of Public Works County of Santa Barbara

Los Carneros Channel
Robin Hill Drain

N W E S

Feet

440 220 0 440

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

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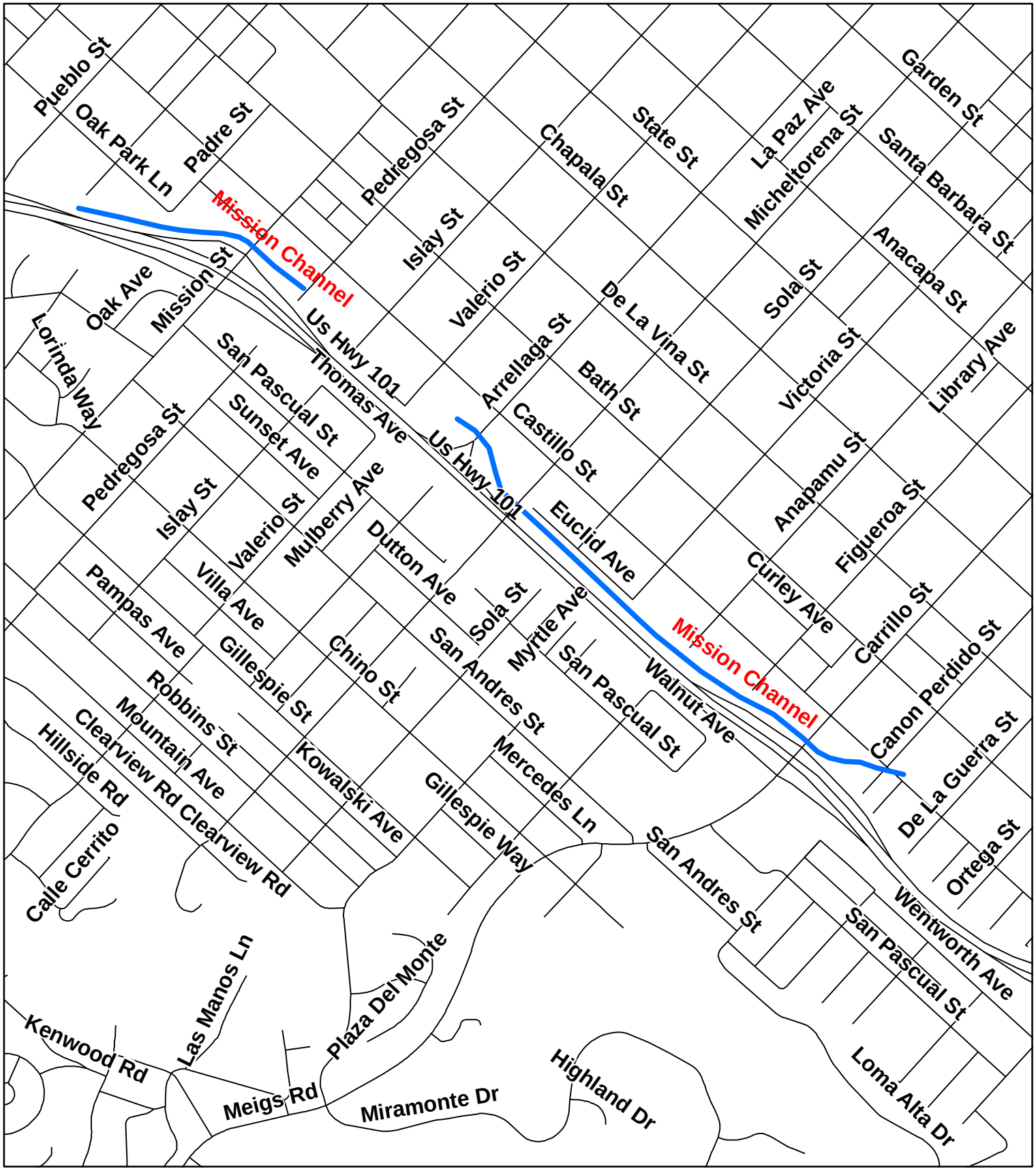

Department of Public Works County of Santa Barbara

Mission Channel

N W E S

Feet

730 365 0 730

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

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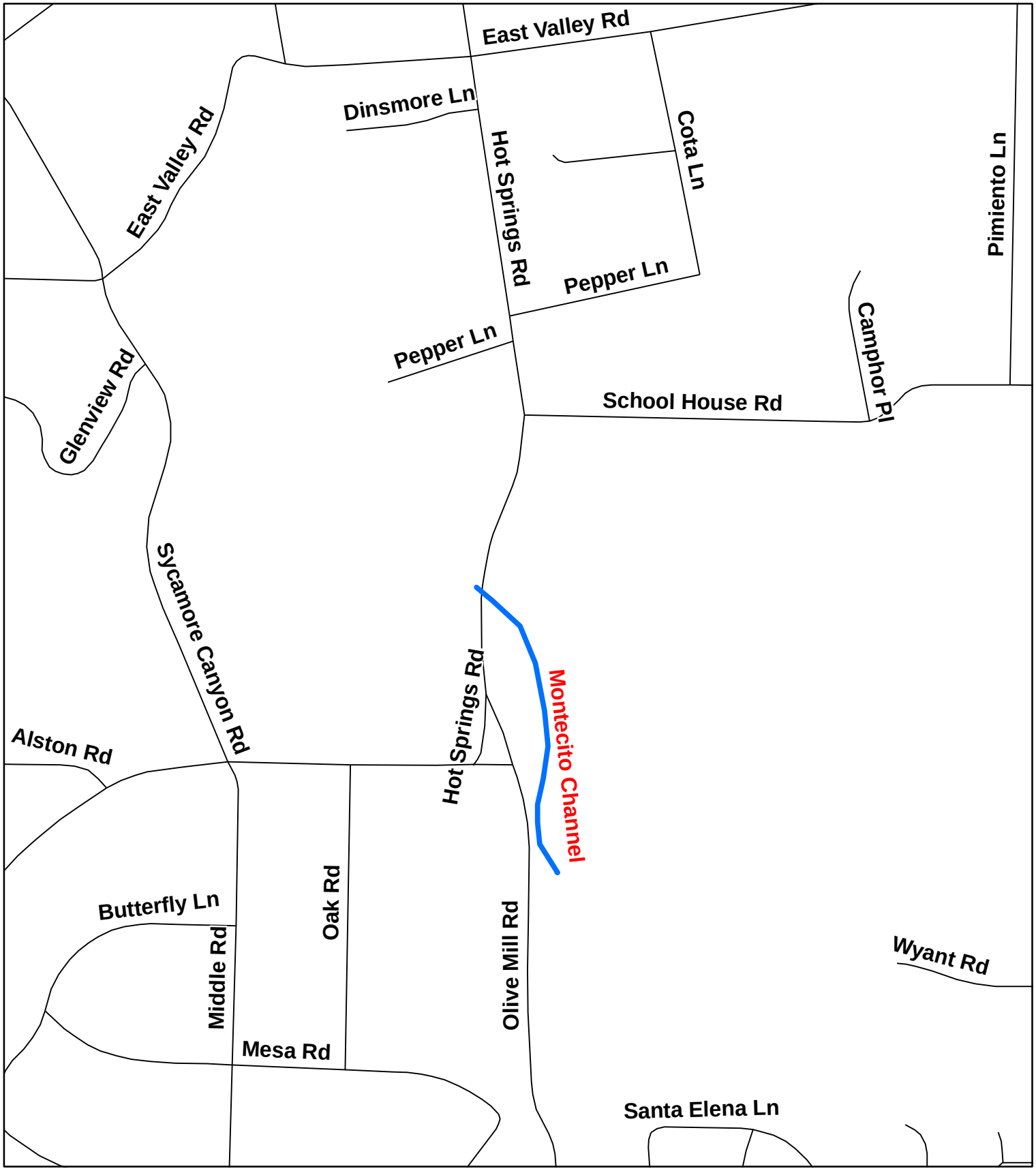

Department of Public Works County of Santa Barbara

Montecito Channel

N W E S

Feet

390 195 0 390

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

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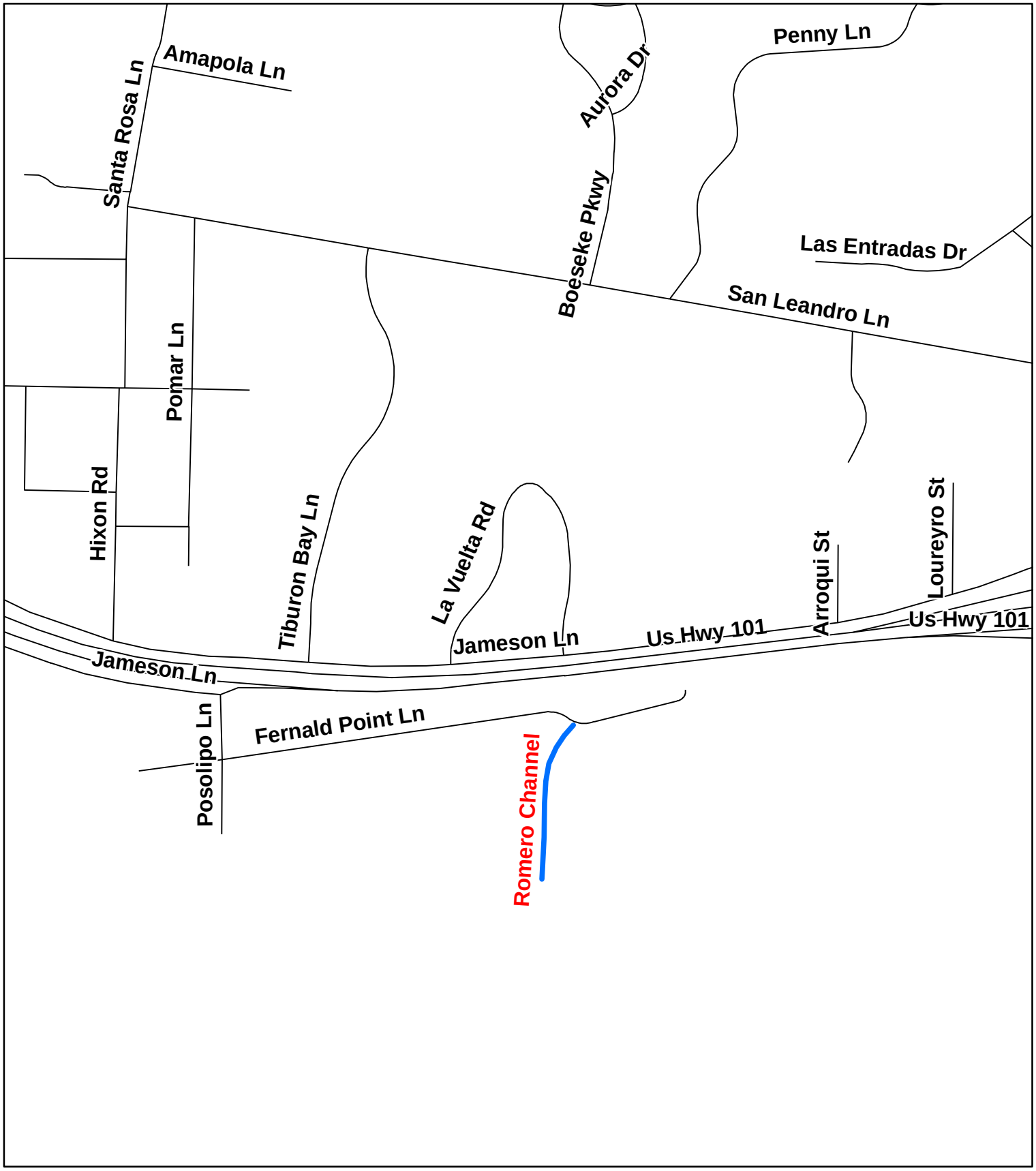

Department of Public Works County of Santa Barbara

Romero Channel

N
W E
S
Feet
420 210 0 420

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

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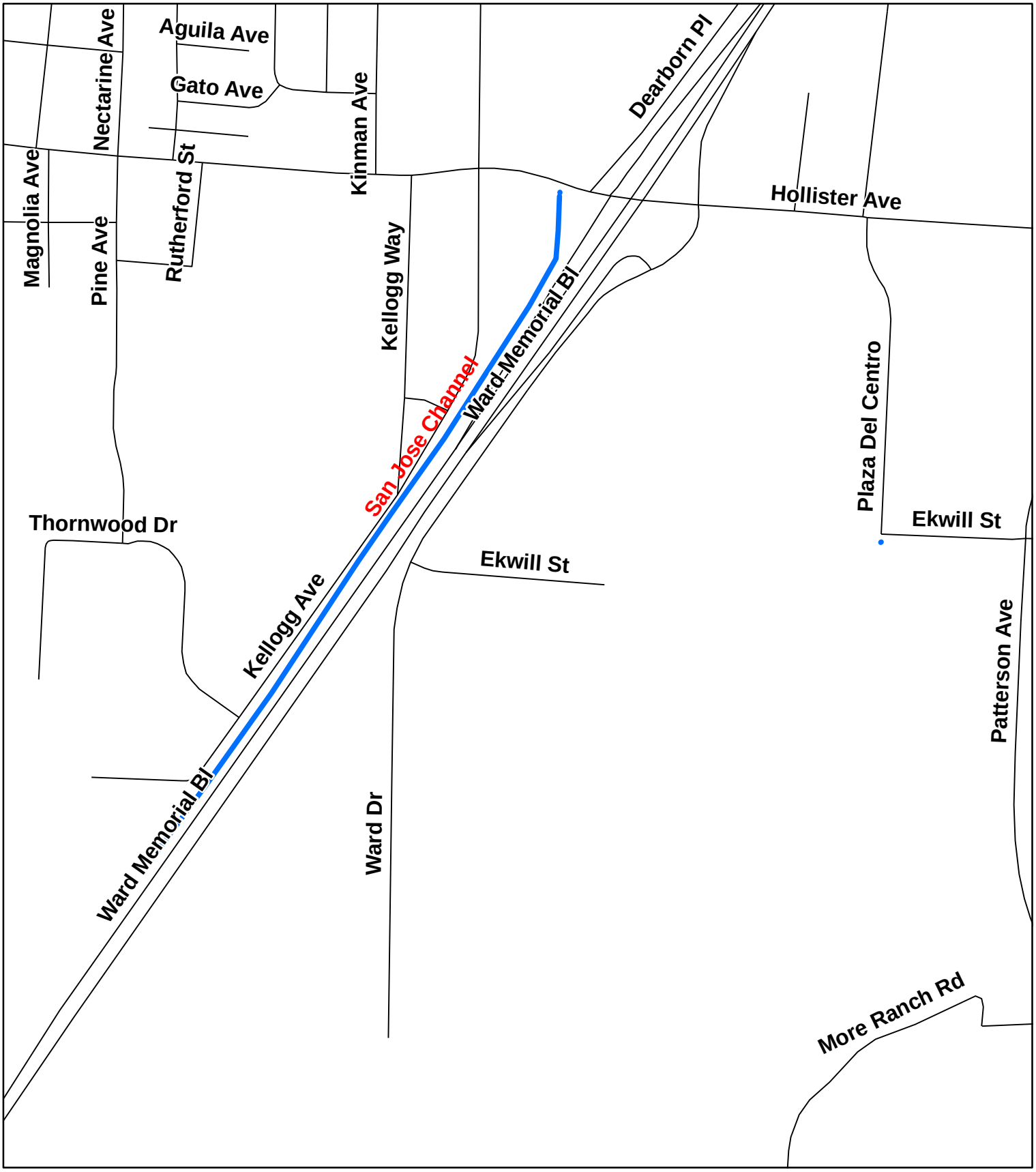

Department of Public Works County of Santa Barbara

San Jose Channel

N W E S

Feet

550 275 0 550

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
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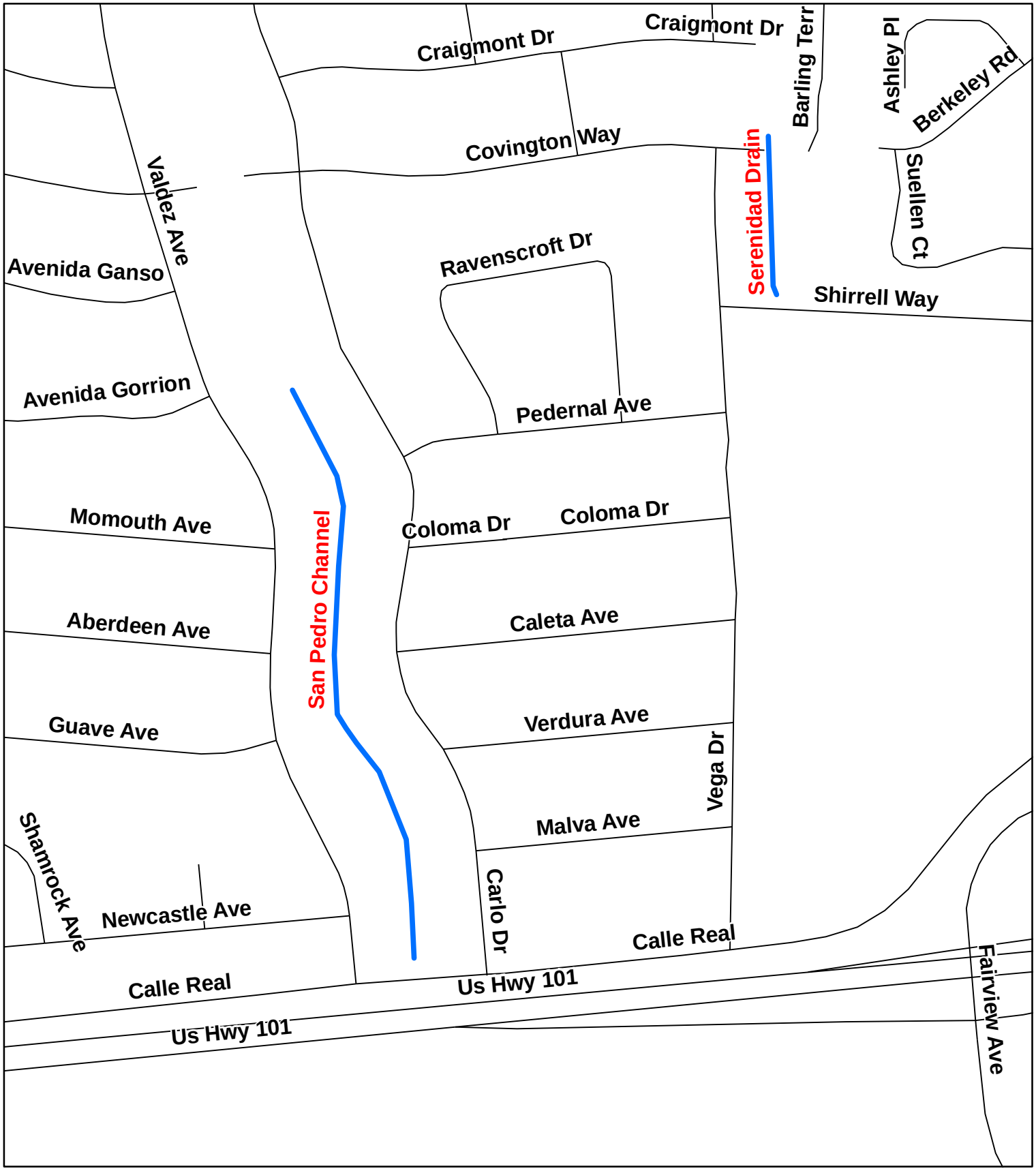

Department of Public Works County of Santa Barbara

San Pedro Channel
Serenidad Drain

N W E S

Feet

275 137.5 0 275

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

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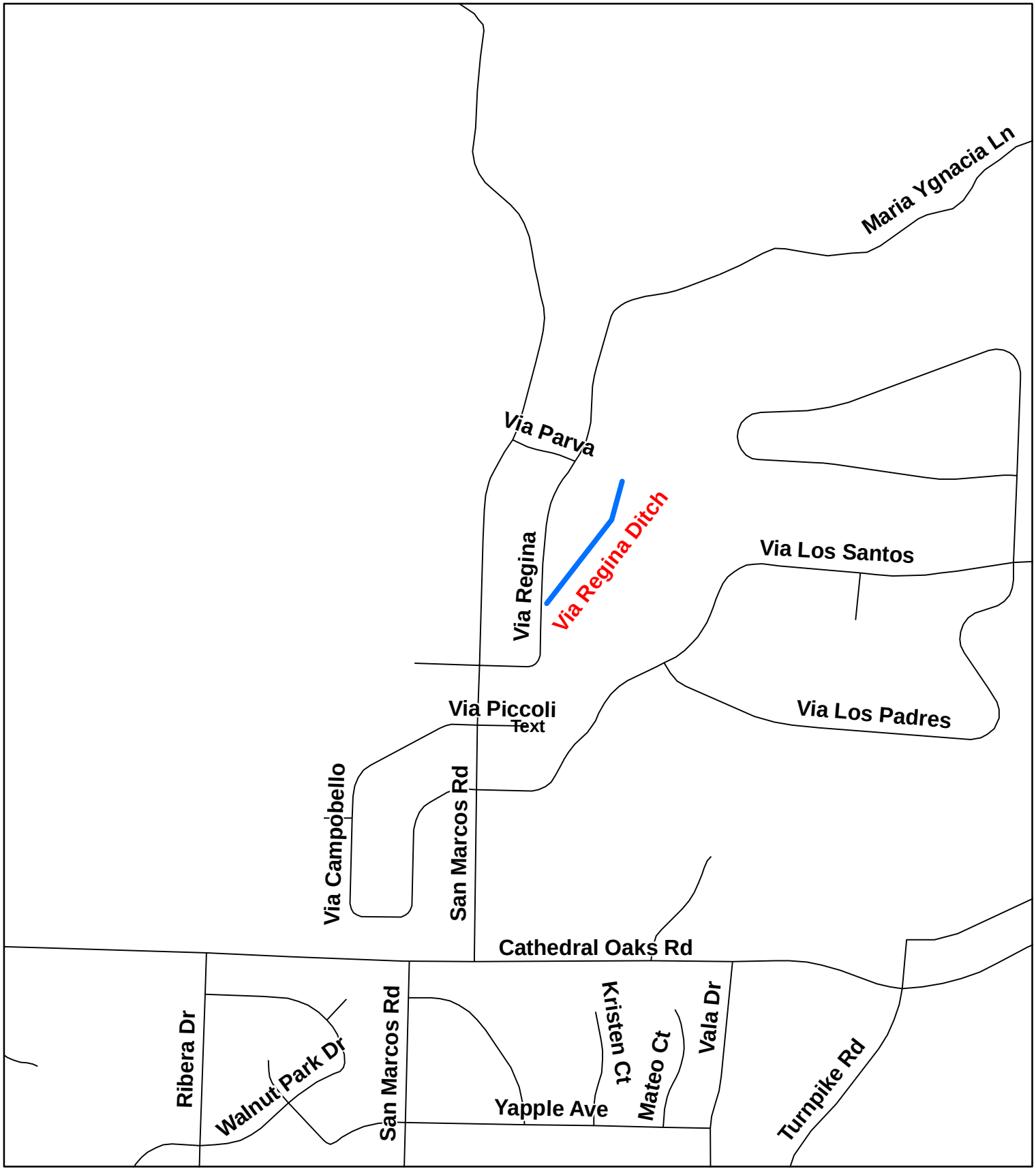

Department of Public Works County of Santa Barbara

Via Regina Ditch

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N W E S

Feet

450 225 0 450

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District

Compiled by the Public Works Enterprise GIS in April 2011.

ADOBE CANYON CREEK ROUTINE MAINTENANCE
ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:
The project is located in the City of Solvang, running from north of the City and along residential areas to Hans Christian Andersen Park.

Setting:
Inspected on March 25, 2014.

Adobe Canyon Creek is a tributary to the Santa Ynez River which runs southward along Fredensborg Canyon and continues through Solvang. The upper reach is mostly a roadside ditch along a narrow suburban road, leading into a dense riparian/oak ravine running under several roads and bridges. The banks are well vegetated with mature coast live oak trees that are prone to dropping limbs. The understory is shaded and vegetated with a mix of native shrubs, weedy grasses, and oak sprouts.

Revegetation:
Since the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District has been tracking and reporting the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. The following table is being included in the 2011/2012 Annual Routine Maintenance Plan addenda to more easily display and track the District's restoration efforts.

Adobe Canyon Creek				
Annual Plan Year	New Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2004/2005	500	500	500	0
2011/2012	70	0	0	-70
2012/2013	50	0	0	-120
2014/2015	50	0	0	-170

Engineering Analysis:
Obstructive vegetation impedes flows and adds to the debris load generated during high runoff. This drainage passes very close by several homes that are accessed by individual private bridges across the creek. This debris can plug these bridges and downstream culverts and cause flooding to adjacent properties. Additionally, since Adobe Creek generally has a narrow channel (approximately 4'-6'-wide through the residential areas), obstructive vegetation can direct flows against the banks and increase erosion and sedimentation. Removing obstructive vegetation and debris from the active channel can reduce the potential for flooding.

Project Description:

Section 1:

A clump of willow sprouts and mulefat are growing in the floor of the active channel on both sides of a culvert under the intersection of Del Prado Road and Fredensborg Road. The vegetation has the potential to obstruct flows and block the culvert. A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel and haul away the material. A follow up application of herbicide may be used to inhibit regeneration. This area of the drainage is a roadside ditch running through mostly developed suburban lots with marginal habitat value. The same task was performed in 2012/13; impacts and mitigation have already been tabulated.

Section 2:

Fallen willow material and woody debris can collected here in a narrow section of the creek among suburban housing. The debris plug poses a risk of blockage to bridges and culverts downstream. The District crew will cut apart the woody material and debris. The material will be removed from the active channel and hauled away for offsite disposal, or stashed within the vegetation on the upper banks, depending on access. The project will not result in impact to native vegetation.

Section 3:

At this site, a willow tree (6" dbh) with several large branches has fallen into the creek channel. The District crew will cut up the tree into manageable pieces. Woody material will be hauled out of the channel for offsite disposal or and stashed on the upper banks, depending on access. The project will not result in impact to native vegetation.

Section 4:

This site is within Hans Christian Andersen Park. The creek makes a sharp turn. Two colonies of mulefat are emerging on the floor of the channel and a dense thicket of sandbar willow is forming along the toe of the channel. The District will likely pursue a biotechnical stabilization project at this location in the future; in anticipation of the future project, the District will perform light brushing this year to improve drainage during the interim period.

The District crew will brush the mulefat colonies in the center of the channel with hand tools. The crew will *not* spray herbicide, so that the root material will remain alive to be re-used in next year's revegetation. If necessary, the sandbar willows may be limbed lightly to maintain adequate flow conveyance within an 8-foot wide corridor, but the majority of these willows will remain in place to armor the banks. This site was brushed in 2012/13 and impacts and mitigation have already been tabulated.

Section 5:

At this site, a shrubby willow branch has fallen into the creek channel. The District crew will cut up the woody material into manageable pieces. Woody material will be hauled out of the channel for offsite disposal or and stashed on the upper banks, depending on access. The project will not result in impact to native vegetation.

Section 6:

This Section is just downstream of an access road and low bridge crossing within Andersen Park. The creek corridor was dry during the spring maintenance inspection and a willow cluster is

emerging from the floor of the channel, threatening to form a blockage or diversion. The District crew will brush the willow thicket on the floor of the channel and apply a spot-spray with herbicide to inhibit regrowth. The task will result in 50 square feet of impact to native vegetation.

Impact Analysis and Mitigation Measures:

Listed below are the impacts and associated mitigation for each of the issue areas impacted by this project as identified in the Updated Program EIR. See the Section entitled "Impacts and Mitigation Measures" for definitions of the specific impacts and mitigation measures.

Impacts:

Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the impacts listed below are considered Class I (unavoidable significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

Mitigation Measures:

Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

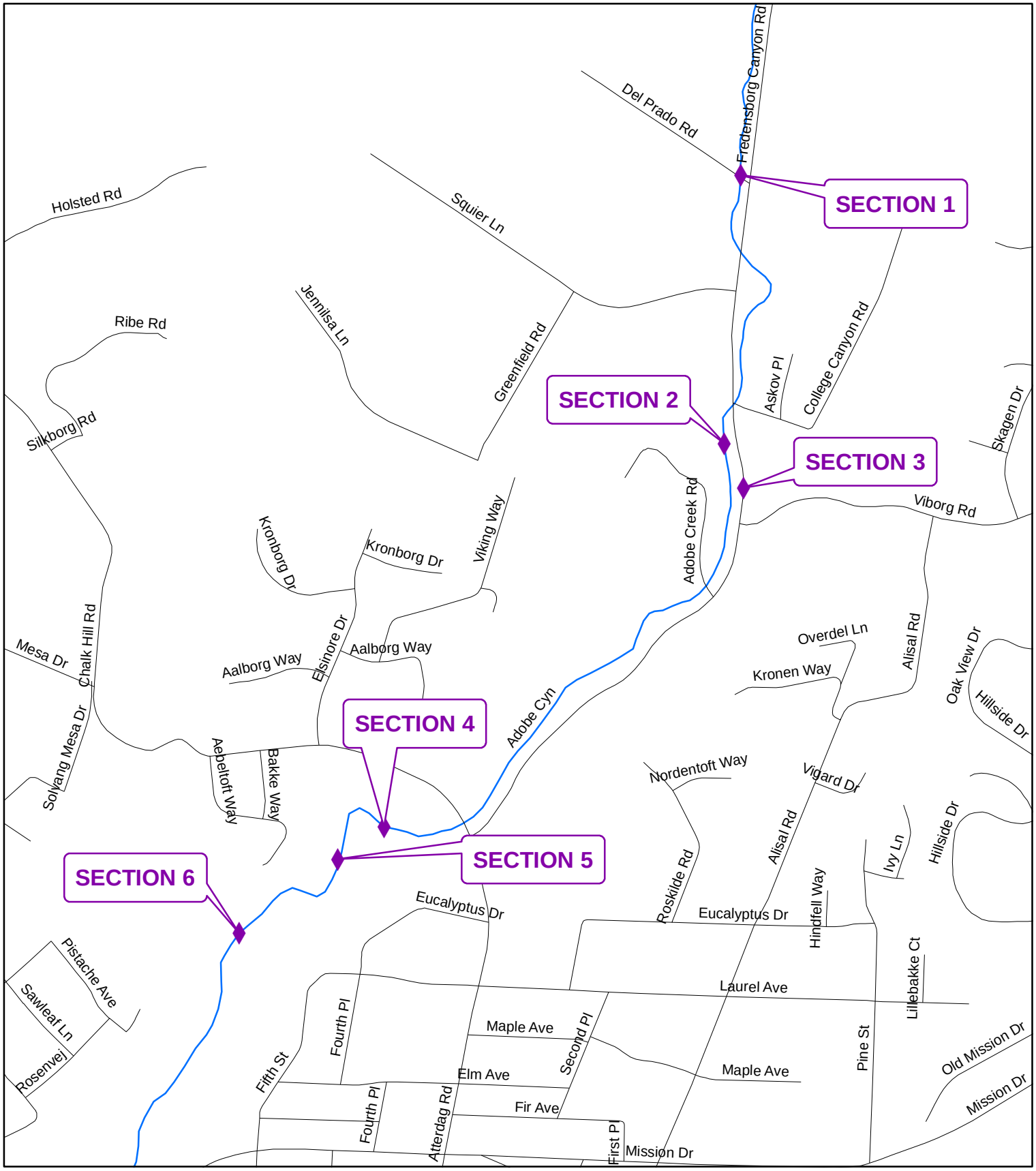
Resource	Impacts	Mitigation Measures*
Hydrology EIR sections 5.1.2, 5.1.3	H-A,	H-1,
Water Quality EIR sections 5.2.2, 5.2.3	WQ-A, WQ-B	H-1, B-2, W-2, W-4, W-8
Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	WRR-A	B-1, B-2
Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	FAW-A, FAW-I	B-1, B-2, B-5, H-1, B-5, W-2, W-1
Air Quality EIR sections 5.5.2, 5.5.3	AQ-A	A-1
Noise EIR sections 5.6.2, 5.6.3	N-A	N-1

*Residual Impacts:

Incorporation of the above mitigation measures would reduce the impacts to all resource categories to less than significant levels.

Project Specifics:

This project will take 2-4 days to complete.



Department of Public Works County of Santa Barbara

Adobe Canyon

Legend

Sites

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N W E S

Feet

540 270 0 540

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District

Compiled by the Public Works Enterprise GIS in Mayl 2014.

Adobe Canyon Creek

Adobe Canyon Creek: Section 1

Adobe Canyon Creek: Section 2

Adobe Canyon Creek

Adobe Canyon Creek: Section 4

Adobe Canyon Creek: Section 6

ADOBE CANYON CREEK
VASCULAR PLANT LIST

SCIENTIFIC NAME	COMMON NAME	ORIGIN
AMARANTHACEAE		
Amaranthus sp.	Amaranth	I
ANACARDIACEAE		
Toxicodendron diversilobum	Poison Oak	N
APIACEAE		
Apium graveloens	Celery	I
APOCYNACEAE		
Vinca major	Periwinkle	I
ARALIACEAE		
Hedera helix	English Ivy	I
ASTERACEAE		
Artemisia douglasiana	Mugwort	N
Baccharis salicifolia	Mulefat	N
Baccharis pilularis	Coyote Bush	N
Centaurea melitensis	Tocalote	
Cirsium vulgare	Bull Thistle	I
Gnaphalium sp.	Everlasting	I
Picris echioides	Ox Tongue	I
Senecio mikanioides	German Ivy	I
Silybum marianum	Milk Thistle	I
Xanthium strumarium	Cocklebur	I
BETULACEAE		
Alnus rhombifolia	White Alder	N
BRASSICACEAE		
Brassica nigra	Black Mustard	I
Raphanus sativus	Wild Radish	I
Rorippa nasturtium -aquaticum	Watercress	I

CAPRIFOLIACEAE		
Lonicera sp.	Garden Honeysuckle	I
Sambucus mexicana	Elderberry	N
CHENOPODIACEAE		
Chenopodium murale	Nettle-Leaved Goosefoot	I
RUBIACEAE		
Galium trifidum	Bedstraw	I
SALICACEAE		
Populus fremontii	Fremont Cottonwood	N
Salix exigua	Narrowleaf Willow	N
Salix laevigata	Red Willow	N
Salix lasiolepis	Arroyo Willow	N
SAURURACEAE		
Anemopsis californica	Yerba Mansa	N
TYPHACEAE		
Typha sp.	Cattail	N
URTICACEAE		
Urtica holosericea	Giant Nettle	N
VERBENACEAE		
Verbena lasiostachys	Verbena	N

ALAMO PINTADO CREEK ROUTINE MAINTENANCE ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:
Maintenance on Alamo Pintado Creek begins 200 feet upstream of Alamo Pintado Avenue and terminates approximately 100 feet upstream of Highway 246 in the City of Solvang.

Setting:
Inspected on April 1, 2014.

Alamo Pintado Creek originates in the San Rafael Mountains and flows southward through pasture, cultivated fields and the towns of Los Olivos, Ballard and Solvang before flowing into the Santa Ynez River. Alamo Pintado Creek drains a 19,000 acre watershed along the western boundary of the Santa Ynez Valley capable of producing 7,400 cfs at Highway 246 during a 100-year return period precipitation event.

Surrounding land uses within the management area vary from suburban, agriculture, pasture, and open space. In some areas, the riparian corridor is wide with minimal disturbance; other reaches are degraded with almost no riparian buffer. From the Highway 154 bridge and downstream approximately 0.5 miles, the creek was dry. The remaining length down to Highway 246 in Santa Ynez/Solvang was wetted with flowing water. Low herbaceous vegetation such as watercress, blackberry, and poison oak was present throughout. The creek channel was mostly open under a dense willow canopy. Other characteristic tree species include sycamore and walnut. However, several downed limbs and trees occurred in several locations. Based on the District's observations, downed tree and limbs are relatively common in Alamo Pintado Creek in most years. The dense canopy tends to drop limbs and trees frequently in this system, creating a potential flood risk.

Revegetation:
Since the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District has been tracking and reporting the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. The following table is being included in the Annual Routine Maintenance Plan addenda to more easily display and track the District's restoration efforts.

Alamo Pintado Creek				
Annual Plan Year	New Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2002/2003	200	200	200	0
2004/2005	700	4,000	0	-700
2005/2006	700	3,000	3,000	1,600
2007/2008	1,500 (Roads) 150 (District)	0	0	-1,500 (Roads) 1,450 (District)*
2008/2009	0	5,300	0	-1,500 (Roads) 1,450 (District)

2009/2010	0	5,300	5,000	4,950
2010/2011	0	0	0	4,950
2011/2012	0	0	0	4,950
2012/2013	0	0	0	4,950
2013/2014	100	0	0	4,850
2014/2015	0	0	0	4,850

*1,650 square feet of impact calculated from: 500 square feet of permanent impact at 3:1 replacement ratio for weir construction by Public Works/Roads Division; plus 150 square feet of temporal impacts to native vegetation by the District.

Engineering Analysis:

There are many downed trees in various places along the channel. There are several public and private bridges along the course of the creek which are susceptible to plugging from this downed vegetation. Removal of downed trees as well as trimming back tree limbs hanging into the active channel is necessary to prevent plugging of bridges, to prevent local scour due to diversion of flow, and to prevent debris plugs from forming on the downed vegetation.

The bankfull width as determined by field indicators is approximately 12 feet. Therefore, removal of obstructive vegetation should result in a cleared cross-section that mimics the stable channel geometry found in the vicinity of the proposed project.

Project Description:

Section 1:

A large downed locust trees has fallen into active channel. The material will be cut up and hauled out of the creek or left on the upper banks depending on access at this location. Work in this section has no impact to native vegetation.

Section 2:

A downed willow tree (dbh 5") has fallen into the active channel creating a debris plug. The material will be cut up and hauled out of the creek or left on the upper banks depending on access at this location. Work in this section has no impact to native vegetation.

Section 3:

There are downed willow branches in the active channel creating a debris plug. The material will be cut up and hauled out of the creek or left on the upper banks depending on access at this location. Work in this section has no impact to native vegetation.

Section 4:

A downed willow tree (dbh 4") has fallen into the creek channel. The willow tree will be cut into smaller pieces and removed from the channel. The woody pieces will be stashed on the upper banks, blended into the existing riparian vegetation. Work in this section has no impact to native vegetation.

Section 5:

A downed willow tree (dbh 6") has fallen over the creek channel. The main trunk is suspended higher than 6 feet, but many lower branches are hanging into the active flow corridor. The lower branches and hanging material will be removed and cut into smaller pieces and removed from the

channel. The woody pieces will be stashed on the upper banks, blended into the existing riparian vegetation. Work in this section has no impact to native vegetation.

Section 6:
A downed willow tree (dbh 6") has fallen into the creek channel. The willow tree will be cut into smaller pieces and removed from the channel. The woody pieces will be stashed on the upper banks, blended into the existing riparian vegetation. Work in this section has no impact to native vegetation

Section 7:
A downed willow tree (dbh 3") has fallen into the creek channel. The willow tree will be cut into smaller pieces and removed from the channel. The woody pieces will be stashed on the upper banks, blended into the existing riparian vegetation. Work in this section has no impact to native vegetation.

Section 8:
A downed sycamore tree (dbh 4") has fallen into the creek channel. The tree will be cut into smaller pieces and removed from the channel. The woody pieces will be stashed on the upper banks, blended into the existing riparian vegetation. Work in this section has no impact to native vegetation.

Section 9:
A large limb has fallen from a willow tree and is trapped in the center of the creek channel. The material will be cut up and hauled out of the creek or left on the upper banks depending on access at this location. Work in this section has no impact to native vegetation.

Section 10:
A downed willow tree (dbh 4") has fallen into the creek channel. The willow tree will be cut into smaller pieces and removed from the channel. The woody pieces will be stashed on the upper banks, blended into the existing riparian vegetation. Work in this section has no impact to native vegetation.

Section 11:
A downed willow tree (dbh 5") has fallen into the creek channel. The willow tree will be cut into smaller pieces and removed from the channel. The woody pieces will be stashed on the upper banks, blended into the existing riparian vegetation. Work in this section has no impact to native vegetation.

Section 12:
A downed willow tree (dbh 3") has fallen into the creek channel. The willow tree will be cut into smaller pieces and removed from the channel. The woody pieces will be stashed on the upper banks, blended into the existing riparian vegetation. Work in this section has no impact to native vegetation.

Section 13:
Through this reach of the creek, there are several small downed willow trees (dbh 2-7") in the channel. The trees will be cut into smaller pieces and removed from the channel. The woody pieces will be stashed on the upper banks, blended into the existing riparian vegetation. Work in this section has no impact to native vegetation.

Section 14:
A downed willow tree (dbh 3") has fallen into the creek channel. The willow tree will be cut into smaller pieces and removed from the channel. The woody pieces will be stashed on the upper banks, blended into the existing riparian vegetation. Work in this section has no impact to native vegetation.

Section 15:
A downed willow tree (dbh 3") has fallen into the creek channel. The willow tree will be cut into smaller pieces and removed from the channel. The woody pieces will be stashed on the upper banks, blended into the existing riparian vegetation. Work in this section has no impact to native vegetation.

Section 16:
A downed cottonwood tree (dbh 5") and debris have fallen into the creek channel. The tree will be cut into smaller pieces and removed from the channel. The woody pieces will be stashed on the upper banks, blended into the existing riparian vegetation. Work in this section has no impact to native vegetation.

Section 17
A large dead tree (dbh 11") has fallen into the creek channel. The tree will be cut into smaller pieces and removed from the channel. The woody pieces will be stashed on the upper banks, blended into the existing riparian vegetation. Work in this section has no impact to native vegetation.

Section 18:
A downed dead tree (dbh 4") and debris have fallen into the creek channel. The tree will be cut into smaller pieces and removed from the channel. The woody pieces will be stashed on the upper banks, blended into the existing riparian vegetation. Work in this section has no impact to native vegetation.

Section 19:
A downed willow tree (dbh 4") has fallen into the creek channel. The willow tree will be cut into smaller pieces and removed from the channel. The woody pieces will be stashed on the upper banks, blended into the existing riparian vegetation. Work in this section has no impact to native vegetation.

Section 20:
A limb has fallen from a willow tree and is tangled in the center of the creek channel. The woody material will be cut up and hauled out of the creek or left on the upper banks depending on access at this location. Work in this section has no impact to native vegetation.

Section 21:
Willow limbs are falling and projecting into the active channel. The woody material will be cut up and hauled out of the creek or left on the upper banks depending on access at this location. Work in this section has no impact to native vegetation.

Section 22:
A downed willow tree (dbh 5") has fallen into the creek channel and is suspended overhead and dangling into the creek. The willow tree will be cut into smaller pieces and removed from the

channel. The woody pieces will be stashed on the upper banks, blended into the existing riparian vegetation. Work in this section has no impact to native vegetation.

Section 23:
A small willow limb has fallen from a tree and is caught in the center of the creek channel. The woody material will be cut up and hauled out of the creek or left on the upper banks depending on access at this location. Work in this section has no impact to native vegetation.

Section 24:
A downed dead tree (dbh 6") and debris have fallen into the creek channel. The tree will be cut into smaller pieces and removed from the channel. The woody pieces will be stashed on the upper banks, blended into the existing riparian vegetation. Work in this section has no impact to native vegetation.

Section 25:
A downed willow tree (dbh 4") has fallen into the creek channel. The tree will be cut into smaller pieces and removed from the channel. The woody pieces will be stashed on the upper banks, blended into the existing riparian vegetation. Work in this section has no impact to native vegetation.

Section 26:
A downed willow tree (dbh 5") has fallen into the creek channel. The tree will be cut into smaller pieces and removed from the channel. The woody pieces will be stashed on the upper banks, blended into the existing riparian vegetation. Work in this section has no impact to native vegetation.

Section 27:
Two downed willow trees (dbh 4-5") have fallen into the creek channel. The trees will be cut into smaller pieces and removed from the channel. The woody pieces will be stashed on the upper banks, blended into the existing riparian vegetation. Work in this section has no impact to native vegetation.

Impact Analysis and Mitigation Measures:
Listed below are the impacts and associated mitigation measures for each of the issue areas impacted by this project as identified in the Updated Program EIR. See the Section entitled "Impacts and Mitigation Measures" for definitions of the specific impacts and mitigation measures.

Impacts:
Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the impacts listed below are considered Class I (unavoidable significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

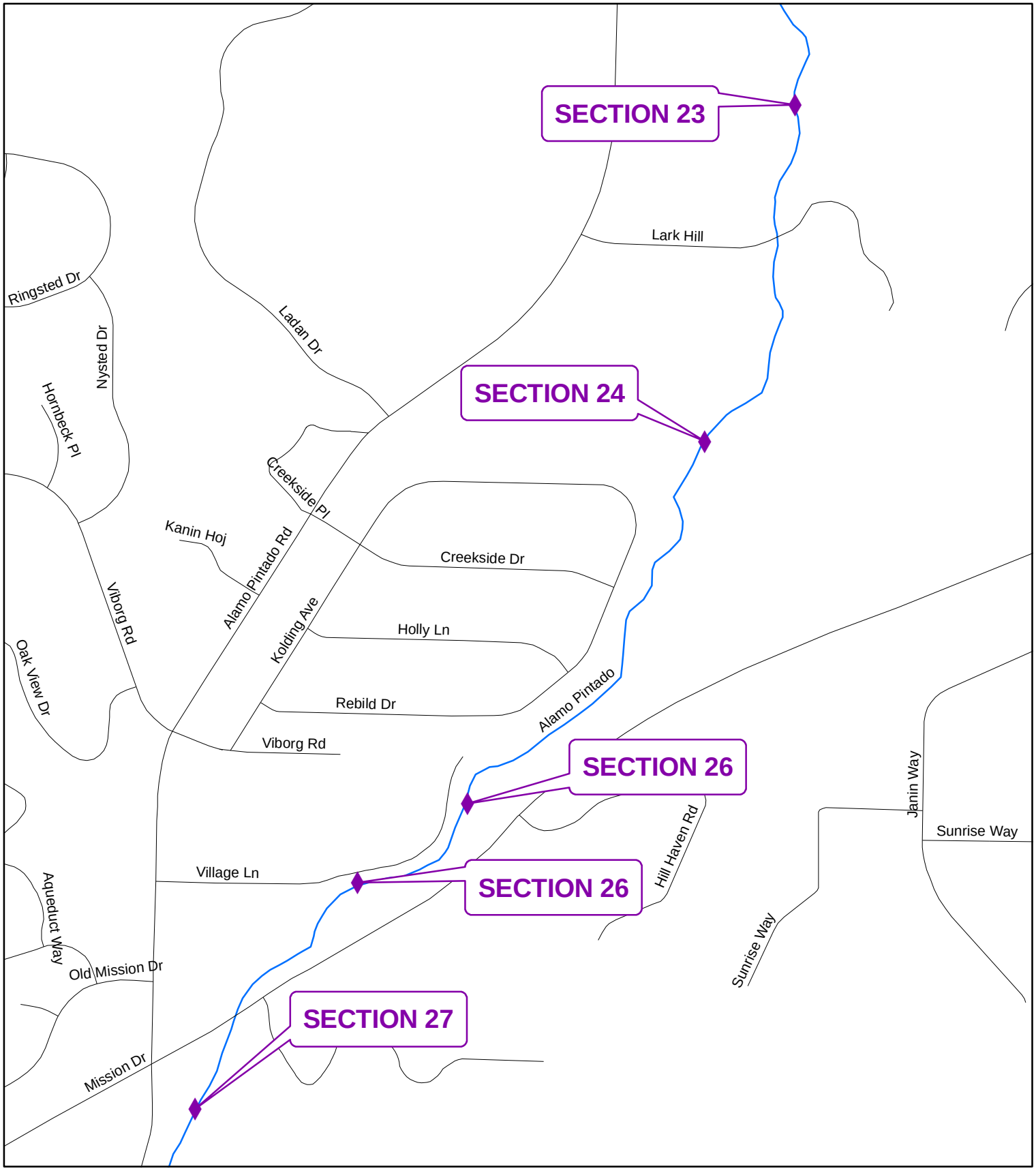
Mitigation Measures:
Mitigation measures are the Adopted Standard Practices which were derived from the Preferred

Alternative section of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Resource	**Impacts**	**Mitigation Measures***
Hydrology EIR sections 5.1.2, 5.1.3	H-A	H-1
Water Quality EIR sections 5.2.2, 5.2.3	WQ-A, WQ-B	H-1, B-2, W-2, W-6, W-7, W-8, W-4
Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	WRR-A	B-1, B-2, B-3
Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	FAW-A, FAW-F, FAW-I, FAW-J	B-1, B-2, B-3, H-1, W-2, W-1, W-4
Public Health EIR section 5.10	PH-A	W-2

*Residual Impacts:
Incorporation of the above mitigation measures would reduce the impacts to all resource categories to less than significant levels.

Project Specifics:
The project will take 4 days to complete.



Department of Public Works County of Santa Barbara

Alamo Pintado Creek - E

Legend

Sites

This map is for reference only. Although every effort has been made to ensure the accuracy of information, errors and conditions originating from physical sources used to develop the database may be reflected on this map. Santa Barbara County shall not be liable for any errors, omissions, or damages that result from inappropriate use of this document. No level of accuracy is claimed for the boundary lines shown hereon and lines should not be used to obtain coordinate values, bearings or distances.

N W E S

Feet

440 220 0 440

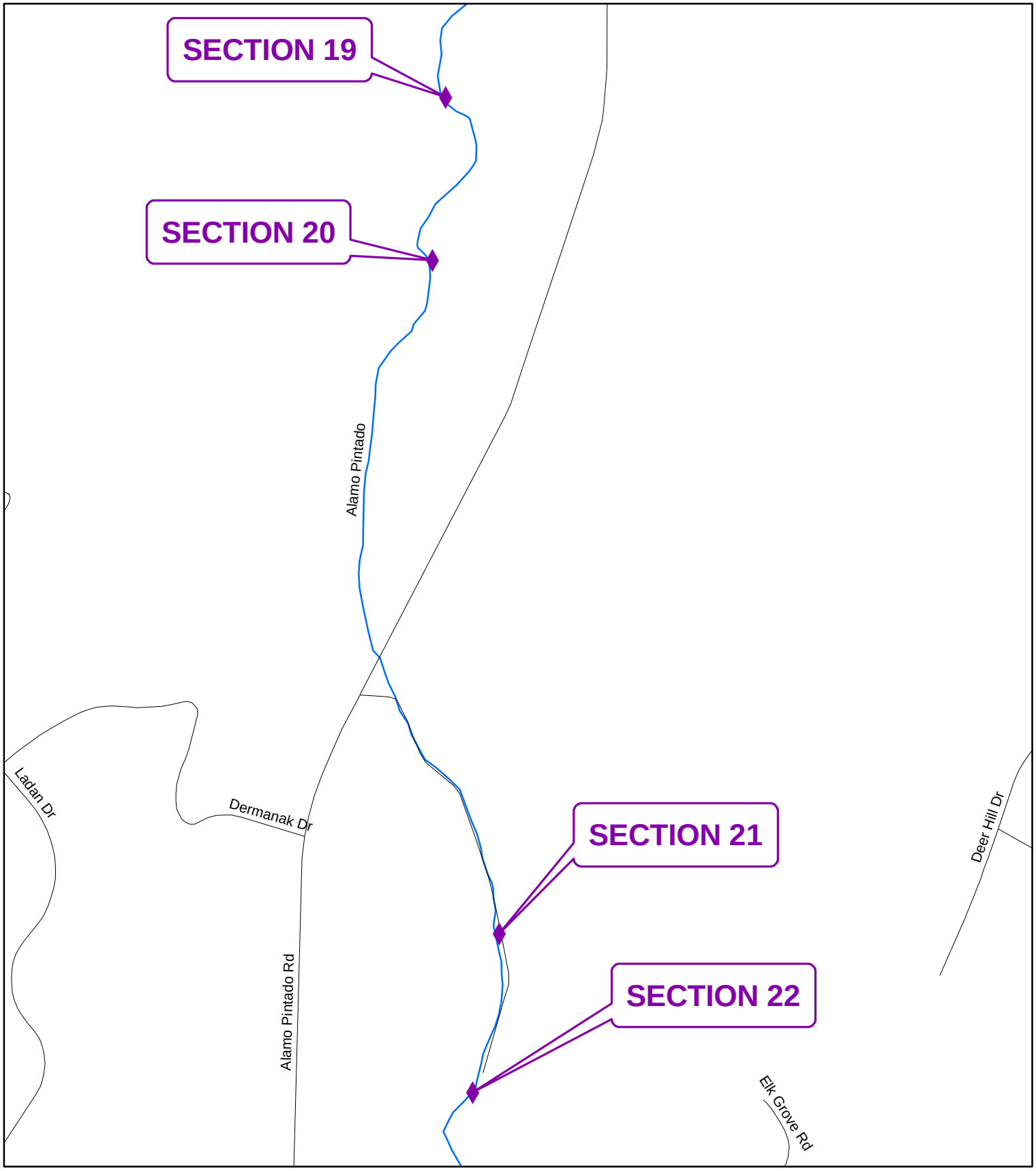
Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District

Compiled by the Public Works Enterprise GIS in Mayl 2014.



Department of Public Works County of Santa Barbara

Alamo Pintado Creek - D

Legend

♦ Sites

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N W E S

440 220 0 440

Feet

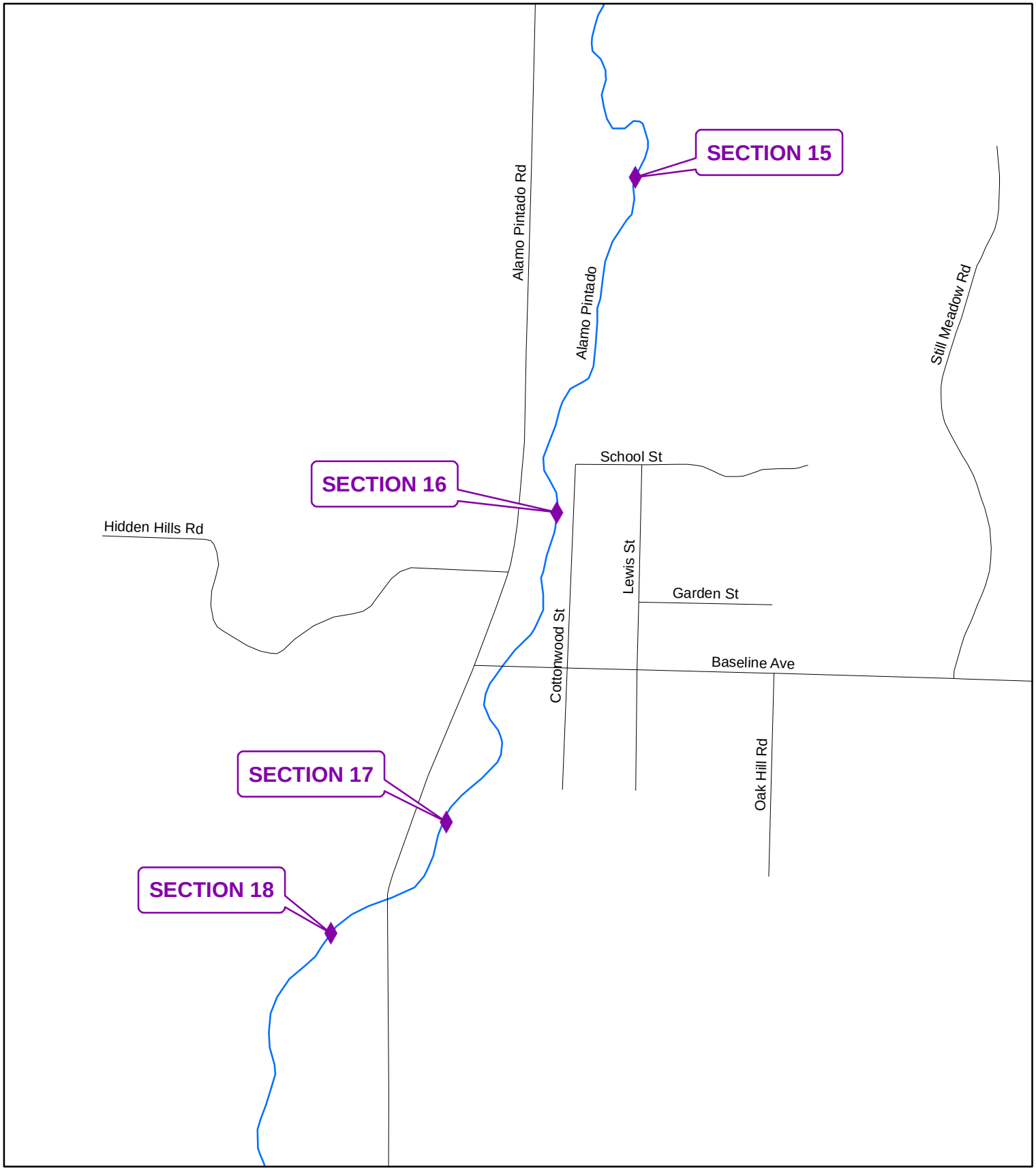
Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District

Compiled by the Public Works Enterprise GIS in Mayl 2014.



Department of Public Works County of Santa Barbara

Alamo Pintado Creek - C

Legend

Sites

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N W E S

Feet

510 255 0 510

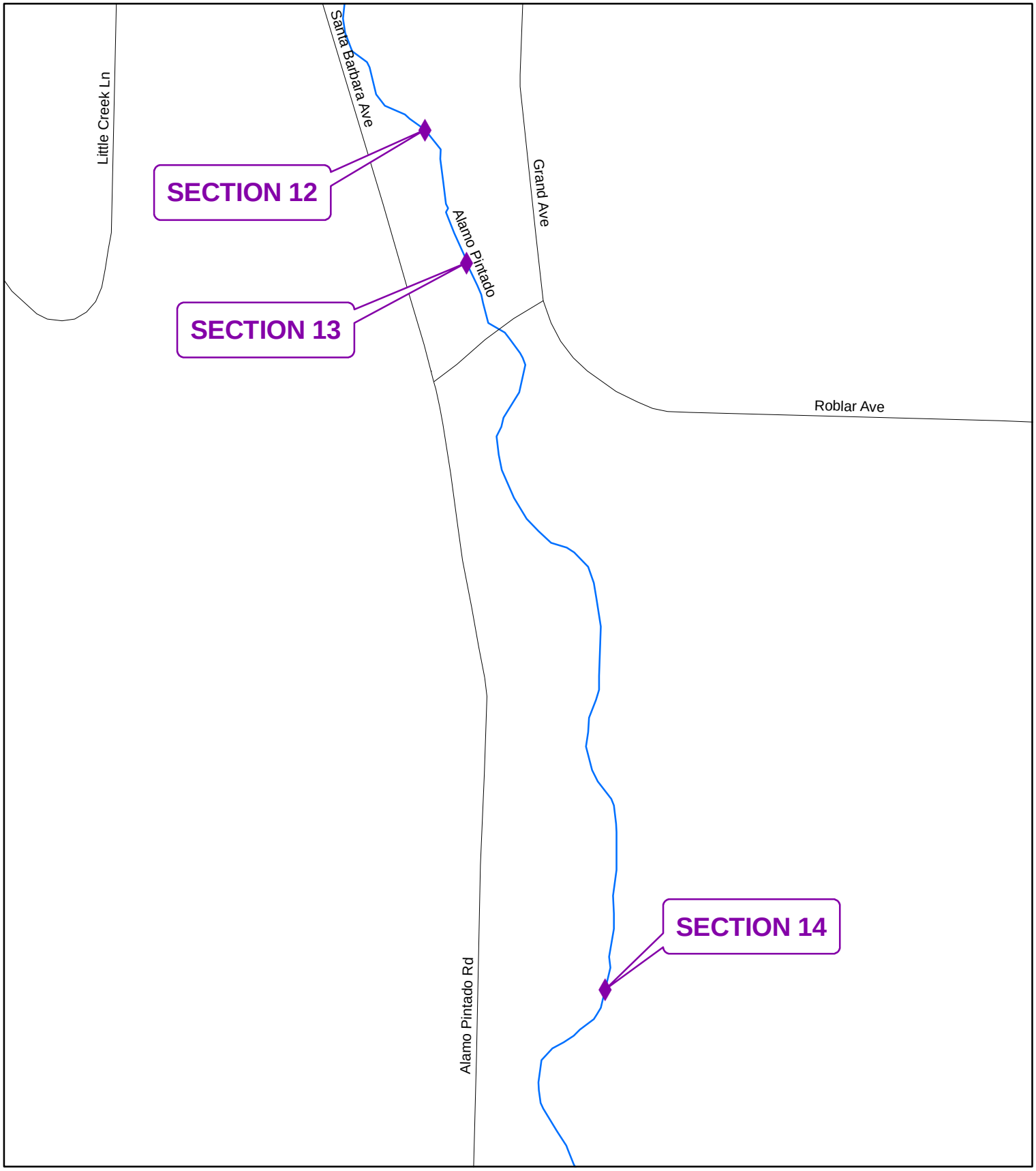
Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District

Compiled by the Public Works Enterprise GIS in Mayl 2014.



Alamo Pintado Creek - B

Department of Public Works County of Santa Barbara

Legend

Sites

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N W E S

Feet

340 170 0 340

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District

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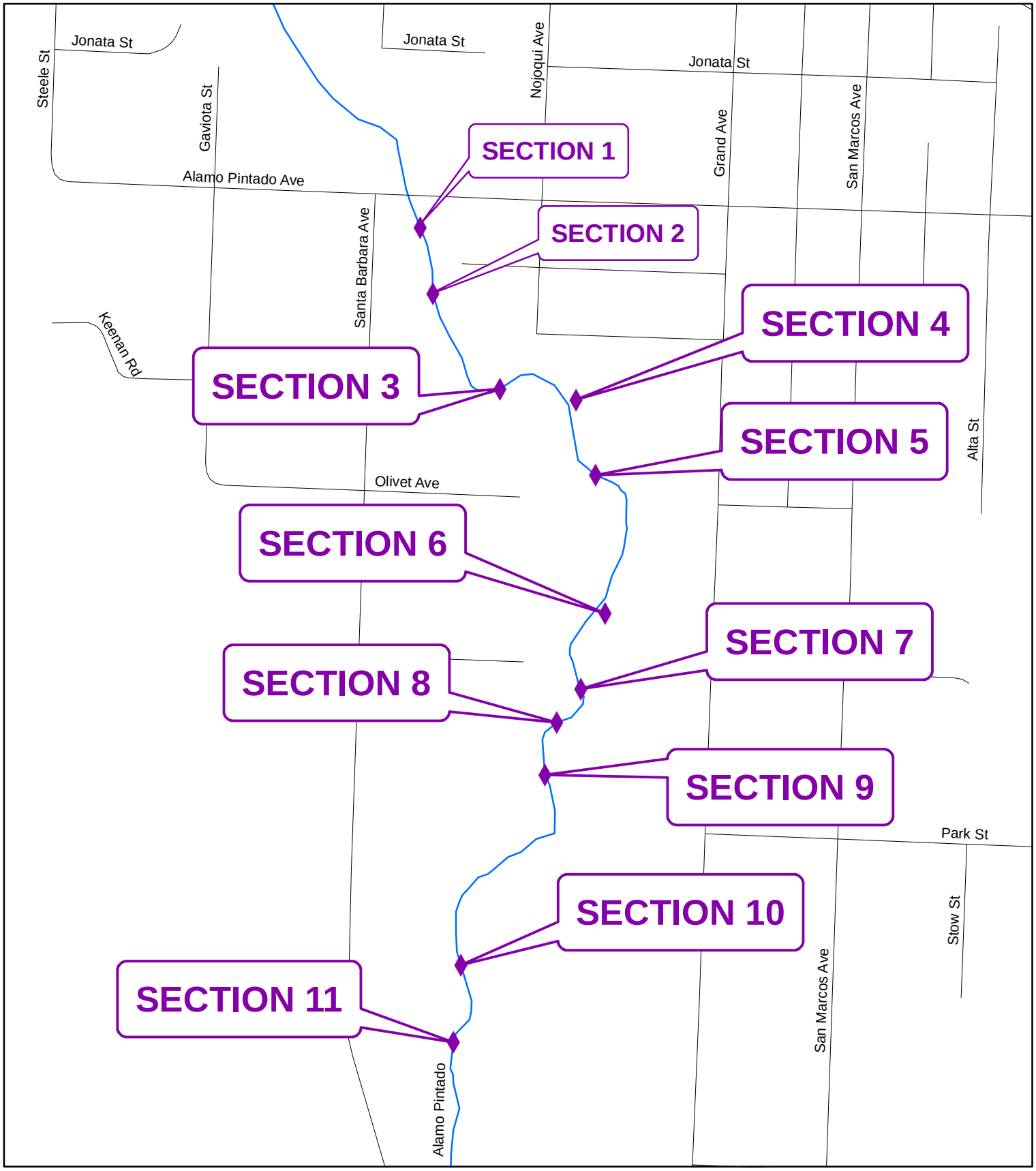

Department of Public Works County of Santa Barbara

Alamo Pintado Creek - A

Legend

♦ Sites

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N W E S

Feet

275 137.5 0 275

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District

Compiled by the Public Works Enterprise GIS in Mayl 2014.

Alamo Pintado Creek

Alamo Pintado Creek: Section 1

Alamo Pintado Creek: Section 4

Alamo Pintado Creek

Alamo Pintado Creek: Section 6

Alamo Pintado Creek: Section 15

VASCULAR PLANT LIST
ALAMO PINTADO CREEK

SCIENTIFIC NAME	COMMON NAME	ORIGIN*
AMARANTHACEAE		
Amaranthus albus	Tumbleweed	I
Amaranthus deflexus	Low Amaranth	I
ANACARDIACEAE		
Toxicodendron diversilobum	Poison Oak	N
APIACEAE		
Apium graveolens	Celery	I
Conium maculatum	Poison Hemlock	I
APOCYNACEAE		
Vinca major	Periwinkle	I
ARALIACEAE		
Hedera helix	English Ivy	I
ASTERACEAE		
Artemisia californica	California Sagebrush	N
Artemisia douglasiana	Mugwort	N
Baccharis pilularis ssp. consanguinea	Coyote Bush	N
Calendula officinalis	Pot-Marigold	I
Centaurea solstitalis	Barnaby's Thistle	I
Conyza canadensis	Horseweed	I
Gnaphalium luteo-album	Weedy Everlasting	I
Gnaphalium palustre	Wooly Everlasting	N
Hapbpapus squarrosus	Sawtooth Golden bush	N
Helianthus sp.	Garden Sunflower	I
Lactuca serriola	Prickly Lettuce	I
Senecio mikanioides	German Ivy	I
Silybum marianum	Milk Thistle	I
Solidago occidentalis	Western Goldenrod	N
Sonchus oleraceus	Sow Thistle	I
Xanthium strumarium	Cocklebur	I
BETULACEAE		
Alnus rhombifolia	White Alder	N

BRASSICACEAE		
Brassica nigra	Black Mustard	I
Raphanus sativus	Wild Radish	I
Rorippa nasturtium -aquaticum	Watercress	I
CACTACEAE		
Opuntia sp.	Beavertail Cactus	I
CAPRIFOLIACEAE		
Sambucus mexicana	Elderberry	N
JUGLANDACEAE		
Juglans californica	California Walnut	N
PLATANACEAE		
Platanus racemosa	Western Sycamore	N
POACEAE		
Arundo donax	Giant Reed	I
Avena barbata	Slender Wild Oats	I
Bromus diandrus	Rupgut	I
Cynodon dactylon	Bermuda Grass	I
Elymus condensatus	Giant Rye	N
Lolium perenne	Italian Ryegrass	I
Oryzopsis miliacea	Rice Grass	I
Polypogon interruptus	Beard Grass	I
Polypogon monspeliensis	Rabbitsfoot Grass	I
POLYGONACEAE		
Polygonum capitatum	Common Knotweed	I
Polygonum lapathifolium	Willow Smartweed	N
Rumex crispus	Curly Dock	I
RANUNCULACEAE		
Clematis ligusticifolia	Creek Clematis	N
ROSACEAE		
Rosa californica	Wild Rose	N
Rubus ursinus	California Blackberry	N
SALICACEAE		
Populus fremontii	Fremont Cottonwood	N
Populus balsamifera	Black Cottonwood	N

Salix laevigata	Red Willow	N
Salix lasiolepis	Arroyo Willow	N
SCROPHULARIACEAE		
Mimulus guttatus	Marsh Monkey Flower	N
Veronica americana	Speedwell	N
SOLANACEAE		
Datura meteloides	Jimson Weed	I
Nicotiana glauca	Tobacco Tree	I
TYPHACEAE		
Typha sp.	Cattail	N
URTICACEAE		
Urtica holosericea	Giant Nettle	N
VERBENACEAE		
Verbena lasiostachys	Verbena	N
VISCACEAE		
Phorandendron villosum	Oak Mistletoe	N

* I = Introduced
N = Native

CEBADA CANYON CREEK ROUTINE MAINTENANCE ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:
The project begins near the intersection of Purisima Road and State Highway 246 and terminates downstream approximately 1,000 feet.

Setting:
Inspected on April 3, 2014.

Cebada Canyon Creek originates in the Purisima Hills approximately 2 miles north of the end of Cebada Canyon Road northeast of Lompoc. The drainage is a natural creek until the last approximately 1.6 miles of the drainage where is turns into a concrete U-shaped channel and eventually drains into the Santa Ynez River near the south end of Rucker Road. The channel contains flows for a limited time after a rain event but usually quickly dries up and contains no persistent pools within the maintenance reach.

The creek was inspected by District staff March 26, 2010 to determine the necessity and extent of maintenance. The stretch of creek proposed for maintenance runs parallel to and immediately south of Purisima Road. Surrounding land use is open space and agriculture. Substrate in the creek invert is sand and gravel with evidence of sediment transport from the adjacent agricultural property. The creek banks are very well vegetated mainly with shrubby willows but also with coyote brush, elderberry, blackberries and poison oak, along with many non-native weedy species.

Revegetation:
Since the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District has been tracking and reporting the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. The following table is being included in the Annual Routine Maintenance Plan addenda to more easily display and track the District's restoration efforts.

Cebada Canyon Creek				
Annual Plan Year	New Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2006/2007	0	0	0	0
2007/2008	4,800	4,800	0	-4,800
2009/2010	200	5,000	5,000	0
2010/2011	0	0	0	0
2014/2015	0	0	0	0

Engineering Analysis:
Obstructive vegetation within the channel invert has restricted flows causing sediment to drop out and begin to fill in the channel. Removal of the obstructive vegetation is needed to regain channel capacity, prevent flows from being diverted against the banks, and protect the downstream channel. An engineered concrete channel exists downstream of Section 1 and obstructive vegetation dislodged from Section 1 can reduce the capacity of the lined channel section. Flood overflows could damage the lined section by eroding the earth around the lined channel if the flows break out and attempt to re-enter the lined channel from above. Flow break-outs can also severely erode adjacent agriculture land and roads.

Project Description:

Section 1:
This reach of the creek is infested with a dense layer of iceplant along the floor of the channel and poison hemlock and fennel along the edges of the banks. The weedy vegetation is becoming especially dense since the channel has not had scouring flows for the past 2 years. The District crew will use hand-held mowers and/or weed whackers to cut through the dense weeds and follow up with an herbicide application. A secondary spot-spray may be necessary in the spring or summer to inhibit regeneration. The work will not impact native vegetation.

Section 2:
This site has a collection of illegally dumped wood scraps, pallets, and debris on the south bank. If the District crews schedule and funding allow, the debris will be collected and removed for offsite disposal. The upper bank will be revegetation with a blend of native riparian species, including arroyo willow, coyotebrush, blackberry, elderberry, and mugwort. The area includes up to 1000 square feet.

Impact Analysis and Mitigation Measures:
Listed below are the impacts and associated mitigation for each of the issue areas impacted by this project as identified in the Updated Program EIR. See the Section entitled “Impacts and Mitigation Measures” for definitions of the specific impacts and mitigation measures.

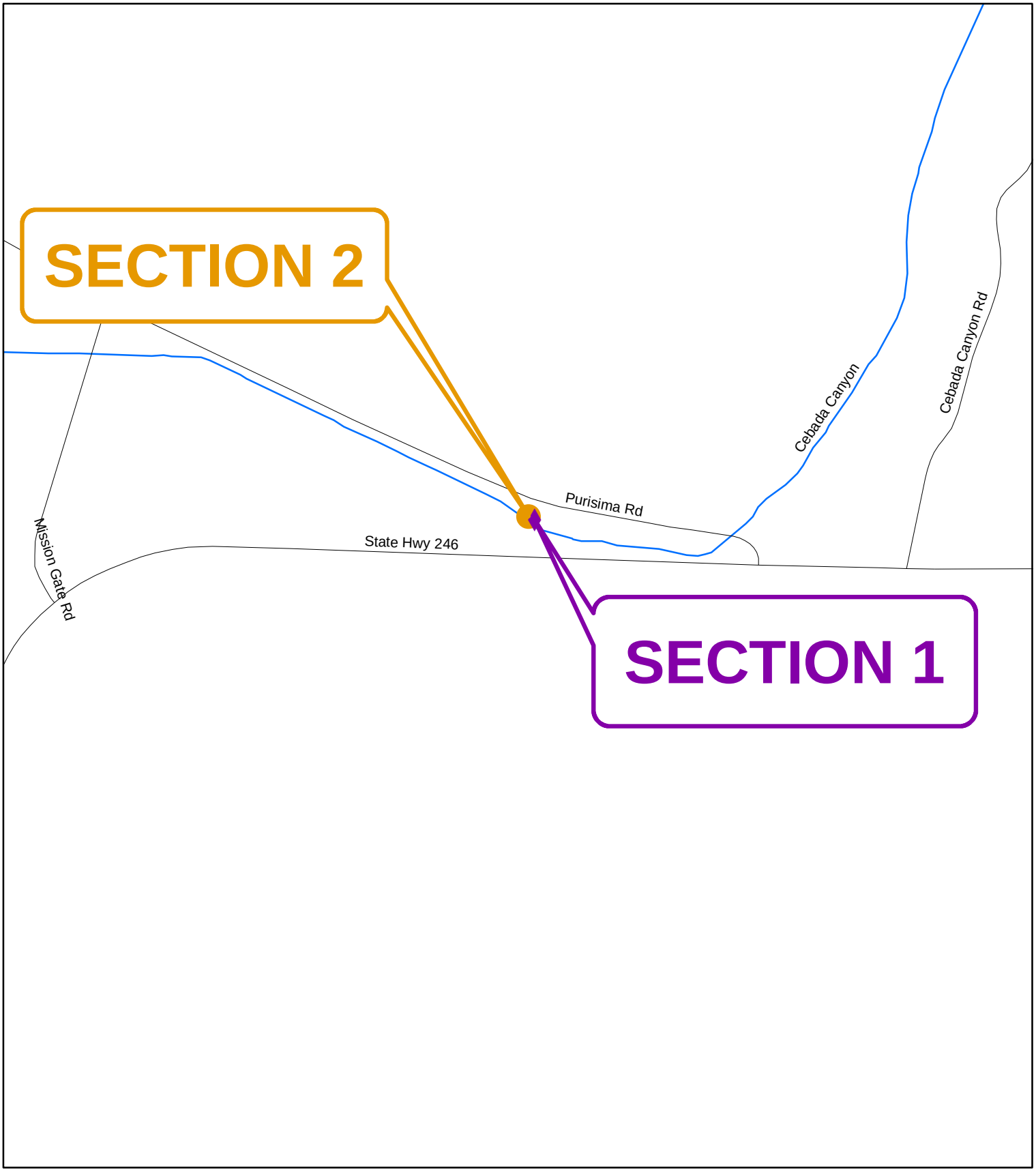
Impacts:
Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the impacts listed below are considered Class I (unavoidable significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

Mitigation Measures:
Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Resource	Impacts	Mitigation Measures*
Hydrology EIR sections 5.1.2, 5.1.3	H-A, H-B	H-1, H-6
Water Quality EIR sections 5.2.2, 5.2.3	WQ-A, WQ-C	H-1, B-2, W-6, W-7, W-4
Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	WRR-A	B-1, B-2, B-3
Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	FAW-A, FAW-B, FAW-I	B-1, B-2, B-3, H-1, B-5, W-2, W-1
Air Quality EIR sections 5.5.2, 5.5.3	AQ-A	A-1
Noise EIR sections 5.6.2, 5.6.3	N-A	N-1
Visual EIR sections 5.9.2, 5.9.3	V-A	V-1

*Residual Impacts:
Incorporation of the above mitigation measures would reduce the impacts to all resource categories to less than significant levels.

Project Specifics:
The project will take 2 days to complete.



Department of Public Works County of Santa Barbara

Cebada Canyon

Legend

- Sites
- Revegetation Sites

N W E S

Feet

620 310 0 620

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in Mayl 2014.

Cebada Canyon

Cebada Canyon: Section 1

Cebada Canyon: Section 2

CEBADA CANYON CHANNEL
VASCULAR PLANT LIST

SCIENTIFIC NAME	COMMON NAME	ORIGIN*
ANACARDIACEAE		
Toxicodendron diversilobum	Poison Oak	N
APIACEAE		
Conium maculatum	Poison Hemlock	I
ASTERACEAE		
Artemisia california	Calif. Sagebrush	N
Artemisia douglasiana	Mugwort	N
Baccharis pilularis ssp. consanguinea	Coyote Bush	N
Gnaphalium californicum	Pearly Everlasting	N
Lactuca serriola	Prickly Lettuce	I
Xanthium strumarium	Cocklebur	N
BRASSICACEAE		
Brassica nigra	Black Mustard	I
Raphanus sativus	Wild Radish	I
CAPRIFOLIACEAE		
Sambucus mexicana	Elderberry	N
FABACEAE		
Robinia pseudoacacia	Black Locust	I
FAGACEAE		
Quercus agrifolia	Coast Live Oak	N
MALVACEAE		
Malva parviflora	Cheeseweed	I
POACEAE		
Avena fatua	Wild Oaks	I
Bromus diandrus	Ripgut Grass	I
Oryzopsis sp.	Rice grass	I
Pennisetum setaceum	Fountaingrass	I
Polypogon monspeliensis	Rabbitfoot Grass	I
POLYGONACEAE		
Rumex crispus	Curly Dock	I

PRUMULACEAE		
Angallis arvensis	Scarlet Pimpernel	I
ROSACEAE		
Rubus ursinus	Calif. Blackberry	N
Rubus discolor	Himalayan Blackberry	I
SOLANACEAE		
Nicotiana glauca	Tree tobacco	I
SALICACEAE		
Salix lasiolepis	Arroyo Willow	N
URTICACEAE		
Urtica holosericea	Giant Nettle	N

* I = Introduced
N = Native

CORRALITOS CREEK ROUTINE MAINTENANCE
ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:
The project begins where Corralitos Canyon enters an agricultural ditch near Highway 1 and continues downstream 2,400 feet to the confluence with Solomon Creek.

Setting:
Inspected on: March 20, 2014.

Corralitos Creek originates in the Casmalia Hills and drains a 2,800 acre watershed. The creek flows through agricultural fields and undeveloped land in the Santa Maria Valley, joining Orcutt/Soloman Creek west of Highway 1.

Near the beginning of the maintenance area, the creek is very similar to an agriculture tailwater ditch that flows only when the landowner irrigates or during storms. The streambed is mostly bare sandy substrate with sprouts of tree tobacco, hemlock, mustard, annual grasses, and willow saplings along the banks.

Further downstream in the maintenance reach, the west bank is well vegetated with willows and a healthy understory of blackberry and weeds such as poison hemlock and fennel while the east bank is well vegetated mostly with weedy, non-native, annual species and only an occasional willow.

Revegetation:
Beginning with the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District began a new reporting and accounting program for the restoration component of the Annual Routine Maintenance Program. Since that time, the District has been tracking the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. A table is being included in the 2010/2011 Annual Routine Maintenance Plan.

On Corralitos Creek, maintenance since the 2002/2003 Annual Routine Maintenance Plan (including this year's plan) has not resulted in the complete removal of native vegetation but rather the trimming of overhanging limbs and desilting within the dry channel that is not vegetated with native vegetation. *A 6,000 square foot restoration site was implemented in 2007 as replacement for a damaged mitigation site on Orcutt/Soloman Creek in 2006, and is not credited as surplus for the Corralitos watershed. This site was subsequently re-planted with additional willows in 2010, heavy rains in March 2011 damaged some of the plantings. Maintenance and plant replacement resulted in success at one half of the site, therefore 3,000 square feet of mitigation was tabulated for Orcutt-Soloman Creek.

Corralitos Creek				
Annual Plan Year	New Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2003/2004	0	0	0	0
2004/2005	0	0	0	0
2006/2007	0	6,000	6,000	0*
2007/2008	0	0	0	0
2008/2009	0	0	0	0
2010/2011	0	0	0	0
2011/2012	0	0	0	0
2014/2015	0	0	0	0

***** 6,000 square feet of impacts in the Orcutt-Soloman Creek watershed were mitigation through a revegetation site in Corralitos Creek (a main tributary) because a suitable site was not available in Orcutt-Soloman.

Wildlife Survey:

As described in the project description, maintenance within Section 1 will require the use of heavy equipment within the streambed. A pre-project wildlife survey will be perfomed. The project area is within 1 mile of red legged frog sightings (in other drainages), thus the survey focuses on potential RLF habitat. However, the work area was completely dry in spring 2014 and will be dry during the maintenance season.

Engineering Analysis:

Corralitos Creek has a relatively high gradient as it flows out of the Casmalia Hills. As the creek reaches the valley floor, the bed slope flattens significantly.

The capacity of the creek immediately upstream of the confluence with Solomon Creek has been reduced due to recent sedimentation. The streambed is in a leveed section and is higher than the adjacent farm fields to the east. In recent years, stream flows have broken out of the channel and flooded adjacent areas. The channel capacity needs to be restored to reduce the frequency of flooding the adjacent properties.

Obstructive vegetation, consisting primarily of downed limbs or live limbs projecting into the active channel, will be removed from the main channel at various locations to provide conveyance of flood waters as well as reduce the debris load which can form debris plugs, block flows, increase water surface elevation and lead to erosion.

Project Description:

Section 1:

In this approximately 2300' length the creek runs between vegetable fields. Starting at a dirt-road crossing, a willow thicket emerges on both sides of the ditch, becoming denser as the creek runs downstream to its confluence with Orcutt-Soloman Creek. Through this reach, the willows, coyotebrush, and tobacco trees have begun to encroach over the floor of the channel. Several limbs and branches have fallen and collected debris within the active channel.

Just downstream of the culvert, some weedy vegetation will be brushed from the floor of the channel. Further downstream, the District crew will use chainsaws and loppers to limb overhanging and projecting vegetation within a corridor approximately 6 feet wide and 6 feet high. Downed branches will be cut into smaller pieces and removed from the channel. The woody material will be chipped on site or hauled away for offsite disposal, or left behind within the narrow riparian corridor (as space allows). Vegetation higher than 6 feet will not be limbed in order to preserve the upper canopy for shading. The work area will be dry during maintenance. No whole native trees or shrubs will be removed and there will be no impact to native vegetation.

Impact Analysis and Mitigation Measures:

Listed below are the impacts and associated mitigation measures for each of the issue areas impacted by this project as identified in the Updated Program EIR. See the Section entitled "Impacts and Mitigation Measures" for definitions of the specific impacts and mitigation measures.

Impacts:
Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the impacts listed below are considered Class I (unavoidable significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

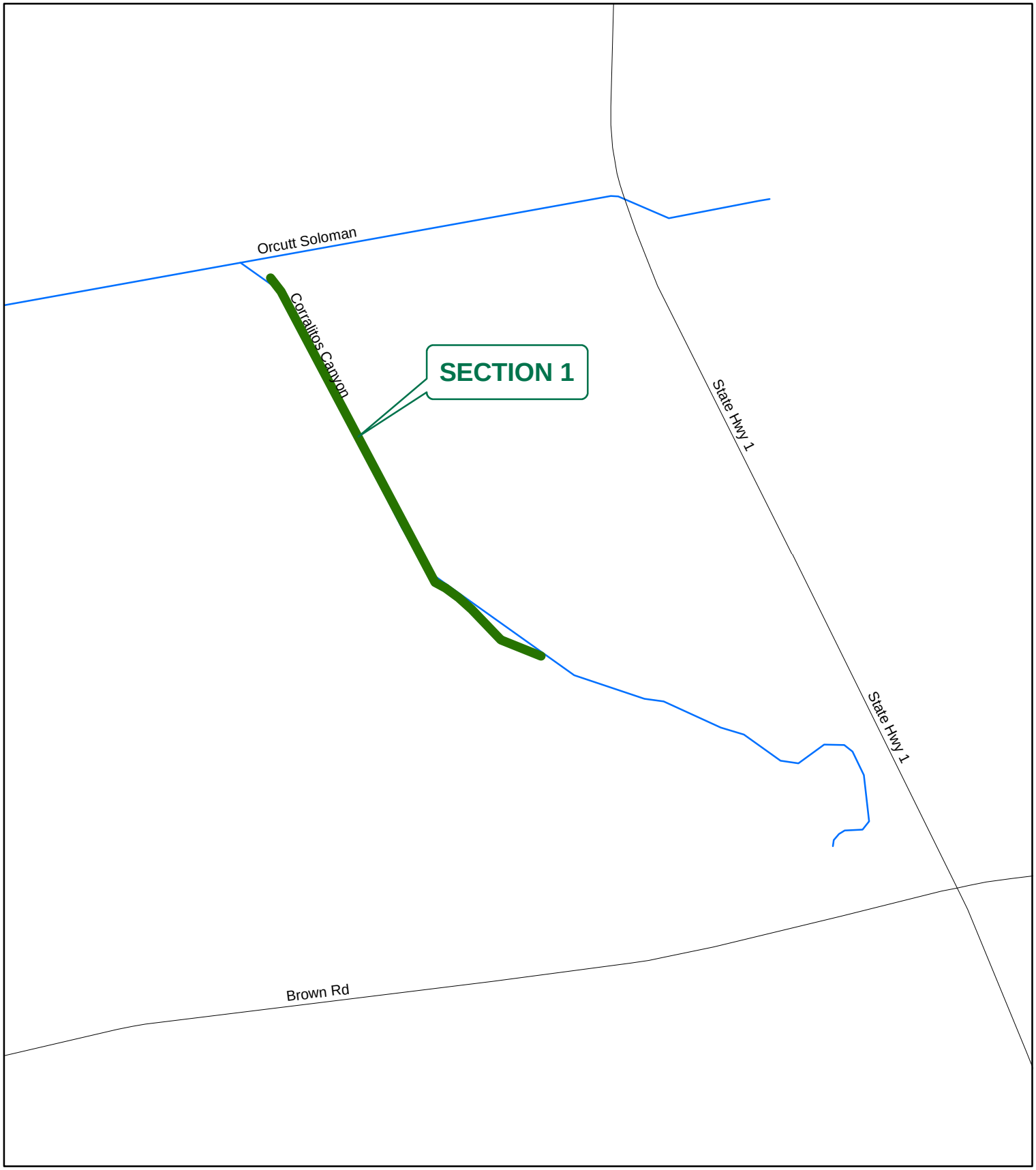
Mitigation Measures:
Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Resource	**Impacts**	**Mitigation Measures***
Hydrology EIR sections 5.1.2, 5.1.3	H-A,	H-1
Water Quality EIR sections 5.2.2, 5.2.3	WQ-A, WQ-C,	H-1, B-2, W-1, W-4, W-6, W-7,
Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	WRR-A, WRR-D	B-1, B-2, B-3, B-4
Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	FAW-A, FAW-B, FAW-E,	H-1, B-2, W-1, W-2, W-5
Air Quality EIR sections 5.5.2, 5.5.3	AQ-A	A-1

Noise EIR sections 5.6.2, 5.6.3	N-A	N-1
Visual EIR sections 5.9.2, 5.9.3		
Public Health and Safety EIR section 5.10	PHS-A	W-2

*Residual Impacts:
Incorporation of the above mitigation measures would reduce the impacts to all resource categories to less than significant levels.

Project Specifics:
This project will take 2 days to complete.



Department of Public Works County of Santa Barbara

Corralitos Canyon

Legend

Lengths

This map is for reference only. Although every effort has been made to ensure the accuracy of information, errors and conditions originating from physical sources used to develop the database may be reflected on this map. Santa Barbara County shall not be liable for any errors, omissions, or damages that result from inappropriate use of this document. No level of accuracy is claimed for the boundary lines shown hereon and lines should not be used to obtain coordinate values, bearings or distances.

N W E S

Feet

470 235 0 470

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District

Compiled by the Public Works Enterprise GIS in Mayl 2014.

Corralitos Canyon

Corralitos Canyon

CORRALITOS CREEK
VASCULAR PLANT LIST

SCIENTIFIC NAME	***COMMON NAME***	***ORIGIN****
AMARANTHACEAE		
Amaranthus retroflexus	Redrood Pigweed	I
ANACARDIACEAE		
Toxicodendron diversilobum	Poison Oak	N
APIACEAE		
Apium leptophyrium	Celery	I
Conium maculatum	Poison Hemlock	I
Foeniculum vulgare	Sweet Fennel	I
ASTERACEAE		
Artemisia californica	California Sagebrush	N
Artemisia douglasiana	Mugwort	N
Baccharis pilularis ssp. consanguinea	Coyote Bush	N
Carduus pyenocephalus	Italian Thistle	I
Carpobrotus aeuilaterus	Sea Fig	I
Conyza canadensis	Horseweed	I
Cotula coronopifolia	Brass Buttons	I
Matricaria matricaridodes	Pinapple weed	I
Picris echioides	Ox Tongue	I
Silybum marianum	Milk Thistle	I
Sonchus oleraceus	Sow Thistle	I
Xanthium spinosum	Spiny Cocklebur	I
BORAGINACEAE		
Amsinckia intermedia	Common Fiddleneck	I
Heliotropium curassavicum	Heliotrope	I
BRASSICACEAE		
Brassica nigra	Black Mustard	I
Brassica campestris	Field Mustard	I
Raphanus sativus	Wild Radish	I
CAPRIFOLIACEAE		
Sambucus mexicana	Elderberry	N

SCIENTIFIC NAME	*COMMON NAME*	*ORIGIN**
CHENOPODIACEAE		
Chenopodium album	Lamb's Quarters	I
CONVOLVULACEAE		
Convolvulus arvensis	Bindweed	I
CYPERACEAE		
Cyperus esculentus	Yellow Nutgrass	I
FABACEAE		
Lupinus sp.	Lupine	N
Melilotus indicus	Yellow Sweet Clover	I
GERANEACEAE		
Erodium cicutarium	Redstem Filaree	I
LAMIACEAE		
Marrubium vulgare	Horehound	I
MALVACEAE		
Malva parviflora	Cheeseweed	I
POACEAE		
Avena Fatua	Wild Oats	I
Bromus diandrus	Ripgut Grass	I
Bromus rubens	Foxtail	I
Hordeum leporinum	Hare Barley	I
Hordeum sp.	Barley	I
Lolium sp.	Ryegrass	I
Polypogon monspeliensis	Rabbitsfoot Grass	I
PORTULACACEAE		
Portulaca oleracea	Purslane	I
PRIMULACEAE		
Anagallis arvensis	Scarlet Pimpernel	I
ROSACEAE		
Rubus ursinus	California Blackberry	I
SALICACEAE		
Salix lasiolepis	Arroyo Willow	N

SCIENTIFIC NAME	***COMMON NAME***	***ORIGIN****
SOLANACEAE		
Nicotiana glauca	Tobacco Tree	I
Solanum sp.	Nightshade	N
TROPAEOLACEAE		
Tropaeolum majus	Garden Nasturtium	I
URTICACEAE		
Urtica urens	Dwarf Nettle	I

* I = Introduced
N= Native

GREEN CANYON DRAINAGES ROUTINE MAINTENANCE ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:

Routine maintenance of the Green Canyon drainages begins south of the town of Guadalupe and terminates approximately 2 miles east of the confluence with Orcutt/Solomon Creek. The Green Canyon system is divided into 3 channels: North, Middle, and South. South Green Canyon flows into Orcutt/Soloman Creek in agricultural fields near Highway 1. North Green Canyon flows into Middle Green Canyon, which meets Orcutt/Soloman Creek near the Santa Maria River.

Setting:

Inspected on March 27, 2014.

Middle Green Canyon Channel begins approximately 1,500 feet upstream of Highway 1 and flows to the confluence with Orcutt/Solomon Creek just upstream of West Main Street, a distance of approximately 4 miles. This is a highly degraded agriculture tailwater channel. This earthen trapezoidal channel carries highly turbid agricultural tailwater through row crops along most of its length. The lower 2,000 feet of the drainage flows through a cattle pasture to the confluence with Orcutt/Solomon Creek. Dirt access roads run parallel to both sides of the drainage at the top of the bank. The banks are vegetated with weedy species such as wild radish, black mustard, cheeseweed and annual grasses. Vegetation within the invert is mainly watercress with an occasional clump of bulrush. No native trees grow along the banks where maintenance is scheduled, although there are patches of willows along portion of this drainge.

North Green Canyon Channel begins approximately 1,200 feet south of the intersection of Sal Dunes Way and West Main Street near the town of Guadalupe and flows to the southwest for a distance of approximately 1 mile to its confluence with Middle Green Canyon Channel. This agricultural drainage ditch carries highly turbid tailwater and varies from 2 feet deep at the upstream end to almost 10 feet deep near its confluence with Middle Green Canyon Channel. Vegetation on the banks is wild radish, black mustard, cheeseweed and annual grasses. Invert vegetation is intermittent and patches of watercress and bulrush can develop. One patch of willows, approximately ¼ acres in size, is growing along the banks halfway down the drainage. Dirt access roads run parallel to both sides of the ditch. Row crops grow beyond the access roads. Sediment input into this channel is high due to agricultural runoff and limited or absent bank vegetation.

Revegetation:

Since the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District has been tracking and reporting the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. The following table is being included in the Annual Routine Maintenance Plan addenda to more easily display and track the District's restoration efforts.

Middle Green Canyon				
Annual Plan Year	New Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2002/2003	0	1,200	0	0
2004/2005	0	0	0	0
2005/2006	1,000	1,000	1,000	0
2007/2008	0	0	0	0
2008/2009	0	0	0	0
2009/2010	0	0	0	0
2010/2011	0	0	0	0
2011/2012	0	0	0	0
2012/2013	300	0	0	-300
2013/2014	100	0	1900	1500
2014/2015	770	0	0	730

North Green Canyon				
Annual Plan Year	New Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2004/2005	3,000	3,000	3,000	0
2006/2007	0	0	0	0
2008/2009	0	0	0	0
2009/2010	0	0	0	0
2010/2011	0	0	0	0
2011/2012	0	0	0	0
2013/2014	0	0	0	0
2014/2015	1300	0	0	-1300

Wildlife Survey:

As described in the project description, maintenance will involve using equipment to desilt and remove obstructive vegetation to restore flow capacity. This type of maintenance has the potential to impact wildlife, particularly the California red legged frog.

The California red legged frog has been consistently detected in the Green Canyon drainages since 2004. The District assumes that red legged frogs may be present in any part of the Green Canyon drainages and implements mitigation measures and best management practices to protect the species. The District has developed a management strategy and special conditions through a Biological Opinion issued by the US Fish and Wildlife Service

No other sensitive species have been observed within this drainage. Impacts to red legged frogs and other species address in the Program EIR are expected to be less than significant with the incorporation of the proposed mitigation measures and monitoring conditions specified in the Biological Opinion.

Engineering Analysis:

The Western Santa Maria Valley is an old floodplain formed by historic flows of the Santa Maria River. As agricultural activity intensified in the Valley, a network of channels/ditches evolved. One of the most prominent drainage features is the Green Canyon system of channels. The valley floor is very flat and there is insufficient energy to convey the sediments to the river. Year round sediment laden flow results in excessive sedimentation and reduced capacity along this drainage course. Removal of the recently deposited sediment will restore channel capacity and reduce the risk of flooding to west Main Street, Highway 1 and surrounding properties. In addition, it is necessary to control vegetation to maintain higher velocities that will transport sediment more efficiently.

Project Description:

Middle Green Canyon Channel

Section 1:

Recently accumulated sediment will be removed using a Gradall working from an existing access road and parking area along the north side of the creek for a length of 250 feet, 5 feet wide, and 3 feet deep. Approximately 25 cubic yards of sediment will be removed and graded onto the adjacent farm field after it has dewatered. An application of Aquamaster herbicide may be applied along the center of the channel (avoiding the edges and the banks) when obstructive vegetation begins to colonize the streambed after the desilting is complete. A band of vegetation will be maintained along the sides of the invert to provide cover for wildlife. Most of the work area is non-native watercress, dried weeds, and bare sediment, but a few clusters of cattails are present and will be removed along with the sediment. The work will result in 200 square feet of impacts to native vegetation.

Section 2:

Here, a cluster of cattails has emerged in the center channel of the ditch and is blocking flow capacity and silt has built up behind the vegetation. As in Section 1, sediment will be removed using a Gradall working from an existing access road along the north side of the creek. The area to be desilted is 10 feet long, 5 feet wide, and 3 feet deep and will impact 10 square feet of vegetation. Approximately 5 cubic yards of sediment will be removed and graded onto the adjacent farm field after it has dewatered. A band of vegetation will be maintained along the sides of the invert to provide cover for wildlife.

Section 3:

This reach of the ditch runs from a patch of willow trees to a dirt road crossing 100 feet downstream. The willow colony has dropped limbs into the channel. Additionally, sediment has accumulated downstream of the willows in this section of the ditch.

The District crew will use hand tools to cut and remove the downed limbs from the ditch. The material will be cut into pieces and dispersed into the rest of the standing willows. Using a Gradall, the District will excavate the floor of the ditch to reclaim a trench 5 ft wide and 2 feet deep for a distance of 100 feet. Approximately 55 cubic yards of material will be desilted. The material will be placed on the adjacent farm field and graded back into the existing field after it was dewatered. The channel is mostly all bare sediment along this area with a few patches of cattails. The work result in 250 square feet of impacts to native vegetation.

Section 4:
A willow branch has fallen in front of a culvert at a dirt road crossing. The District crew will remove the woody material, cut it up into pieces and stash the remains within the existing willow colonies on the adjacent banks. The work will not impact native vegetation.

Section 5:
Sediment has accumulated in the ditch just downstream of the road culvert. The District will excavate the floor of the ditch to reclaim a trench 5 ft wide and 2 feet deep for a distance of 10 feet. Approximately 4 cubic yards of material will be desilted. The material will be placed on the adjacent farm field and graded back into the existing field after it was dewatered. The channel is mostly all bare sediment along this area with a cluster of cattail and bulrush. The work will result in 10 square feet of impacts to native vegetation.

Section 6:
Sediment has accumulated in the ditch. The District will excavate the floor of the ditch to reclaim a trench 6 ft wide and 2 feet deep for a distance of 650 feet. A few buckets of silt will be excavated from each side of the road culvert as well. Approximately 290 cubic yards of material will be desilted. The material will be placed on the adjacent farm field and graded back into the existing field after it was dewatered. The channel is mostly all bare sediment along this area with a few patches of weedy vegetation. The work will not result in impacts to native vegetation.

Section 7:
In this reach, the ditch is overgrown with dense cattails and bulrush and some areas with accumulated sediment. The ditch is narrow and confined by the elevated road bed in this reach, making excavation difficult. This year, the District will experiment with a different management technique. Through this reach, the District will mow a pathway through the cattails and bulrush to allow room for flowing water to move through the center of ditch, to straighten the meandering pathway. Using a mower attachment on the Gradall arm, the District will mow a pathway approximately 4 feet wide through the center of the ditch, leaving a strip of vegetation untouched on the edges of the channel and not mowing over either bank. The mower will not dip below the water surface and will leave 6-10 inches of stubble standing above the water surface for wildlife habitat. No herbicide will be used and the vegetation will be able to regrow throughout the following season.

The work area is 750 feet long. The first 500 feet of this section was previously excavated in 2012/13 and impacts to native vegetation have already been tabulated and mitigated. The remaining work area includes 300 square feet of patchy cattails and bulrush which will be temporarily impacted by mowing.

North Green Canyon Channel
Section 1:
Through this section, the District will excavate accumulated sediment from the willow cluster downstream to the road culvert (a length of 130 feet). This section of the ditch is filling with sediment and impeding flow through the culvert.

Downstream from this same culvert, the District will excavate accumulated sediment for a distance of 50 feet to allow the culvert room to drain. Using a Gradall stationed along the adjacent roadway, the District will excavate sediment for a width of 5 feet and depth

of 2 feet. A total of 70 cubic yards of material may be removed. The material will be placed behind the Gradall on the adjacent field to dewater, and then the material will be tilled back into the farm fields. The work area is bare sediment and weeds (mostly watercress). The project will not result in impacts to native vegetation.

Section 2:
In this reach, the ditch is overgrown with dense cattails and bulrush. In the past, this area has accumulated obstructive sediment. This year, the sediment accumulation is only moderate and the District is experimenting with a different management technique. Through this reach, the District will mow a pathway through the cattails and bulrush to allow room for flowing water to move through the ditch. Using a mower attachment on the Gradall arm, the District will mow a pathway approximately 4 feet wide through the center of the ditch for 550 feet in length, leaving a strip of vegetation untouched on the south edge of the channel and not mowing over either bank. The mower will not dip below the water surface and will leave 6-10 inches of stubble standing above the water surface for wildlife habitat. No herbicide will be used and the vegetation will be able to regrow throughout the following season. The work area includes 600 square feet of patchy cattails and bulrush which will be temporarily impacted by mowing.

Section 3:
This reach is equivalent to Section 2. Through this reach, the District will mow a pathway through the cattails and bulrush to allow room for flowing water to move through the ditch. Using a mower attachment on the Gradall arm, the District will mow a pathway approximately 4 feet wide through the center of the ditch for 650 feet in length, leaving a strip of vegetation untouched on the south edge of the channel and not mowing over either bank. The mower will not dip below the water surface and will leave 6-10 inches of stubble standing above the water surface for wildlife habitat. No herbicide will be used and the vegetation will be able to regrow throughout the following season. The work area includes 700 square feet of patchy cattails and bulrush which will be temporarily impacted by mowing.

Impact Analysis and Mitigation Measures:
Listed below are the impacts and associated mitigation measures for each of the issue areas impacted by this project as identified in the Updated Program EIR. See the Section entitled “Impacts and Mitigation Measures” for definitions of the specific impacts and mitigation measures.

Impacts:
Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the impacts listed below are considered Class I (unavoidable significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

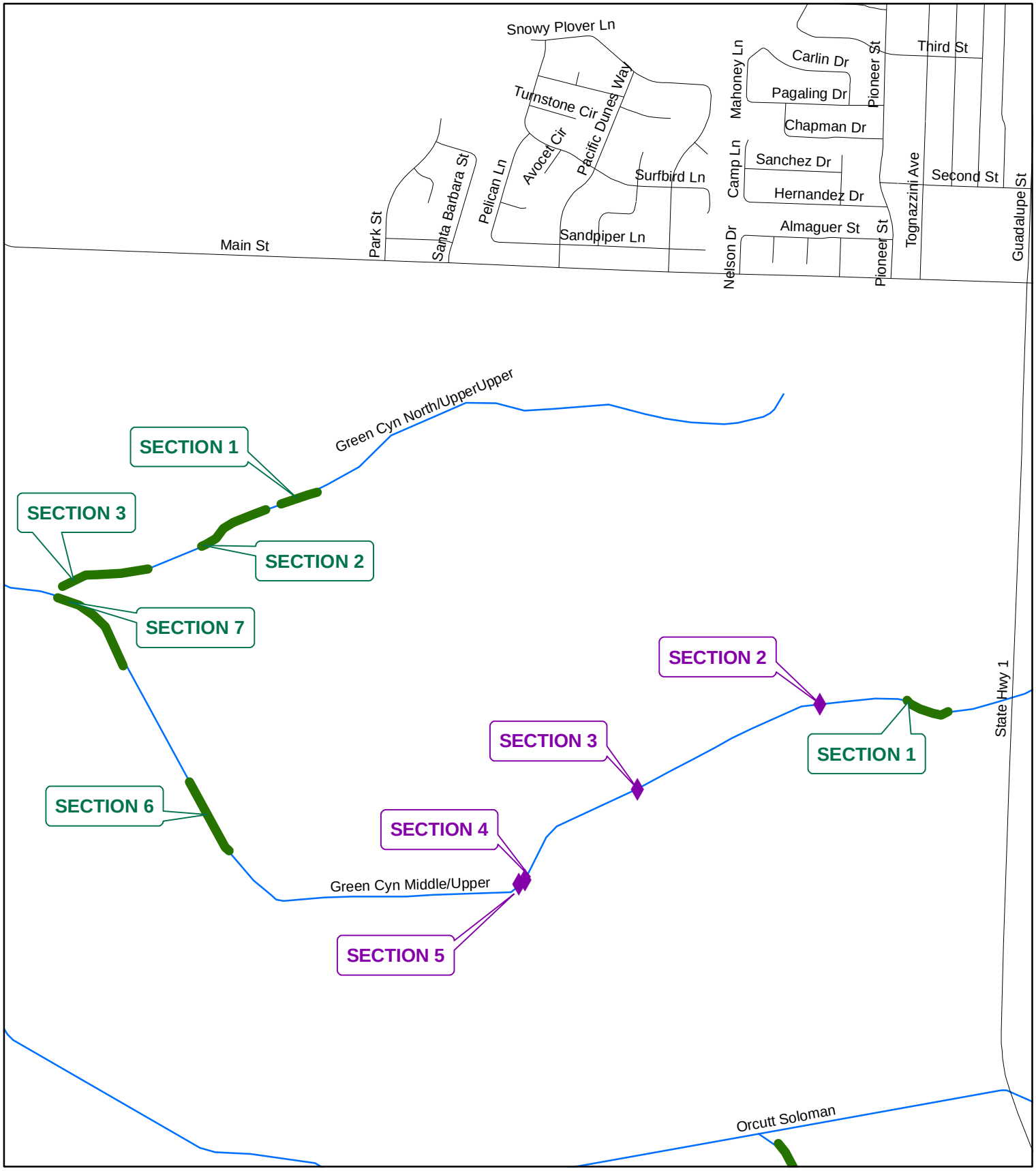
Mitigation Measures:
Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County

Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Resource	Impacts	Mitigation Measures*
Hydrology EIR sections 5.1.2, 5.1.3	H-A, H-D, H-E	H-1
Water Quality EIR sections 5.2.2, 5.2.3	WQ-A, WQ-B, WQ-C, WQ-D	H-1, B-2, W-1, W-2, W-4, W-5, W-6, W-7, W-8,
Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	WRR-A, WRR-D	B-1, B-2, B-3, B-4
Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	FAW-A, FAW-B, FAW-E, FAW-F, FAW-I	H-1, B-1, B-2, B-3, B-5, B-6, W-1, W-2, W-5
Air Quality EIR sections 5.5.2, 5.5.3	AQ-A, AQ-B	A-1, A-2
Noise EIR sections 5.6.2, 5.6.3	N-A	N-1
Visual EIR sections 5.9.2, 5.9.3	V-A	V-1
Public Health and Safety EIR section 5.10	PHS-A	W-2

*Residual Impacts:
Incorporation of the above mitigation measures would reduce the impacts to all resource categories to less than significant levels.

Project Specifics:
The Green Canyon Drainage projects will take 7 days to complete.



Department of Public Works County of Santa Barbara

Legend

- Sites
- Lengths

Green Canyons

N W E S

Feet

720 360 0 720

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in Mayl 2014.

Green Canyon Ditches

Middle Green Canyon – Section 1

Middle Green Canyon – Section 3

Green Canyon Ditches

Middle Green Canyon – Section 7

North Green Canyon – Section 1

VASCULAR PLANT LIST
GREEN CANYON DRAINAGES

SCIENTIFIC	COMMON NAME	ORIGIN*
APIACEAE		
Conium maculatum	Poison Hemlock	I
ASTERACEAE		
Ambrosia psilostachya	Western Ragweed	I
Conyza bonariensis	Horseweed	I
Heterotheca grandiflora	Telegraph Weed	N
Sencio vulgaris	Common Groundsel	I
Sonchus asper	Sow Thistle	I
BRASSICACEAE		
Brassica nigra	Black Mustard	I
Raphanus sativus	Wild Radish	I
Rorippa nasturium -aquaticum	Watercress	N
FABACEAE		
Melilotus indicus	Yellow Sweet Clover	I
MALVACEAE		
Malva parviflora	Cheeseweed	I
MYRTACEAE		
Eucalyptus sp.	Eucalyptus	I
ONAGRACEAE		
Epilobium adenocaulation	Willow-Herb	N
POACEAE		
Avena fatua	Wild Oat	I
Bromus mollis	Soft Chess	I
Bromus rubens	Foxtail	I
Cortaderia acacamensis	Pampas Grass	I
Lolium perenne	Italian Rye	I
Oryzopsis sp.	Rice grass	I
POLYGONACEAE		
Polygonum lapathifolium	Willow Smartweed	N
Rumex crispus	Curly Dock	I
SALICACEAE		

Salix lasiolepis	Arroyo Willow	N
TYPHACEAE		
Typha sp.	Cattail	N
URTICACEAE		
Urtica holosericea	Giant Nettle	N

* I = Introduced
N = Native

ORCUTT/SOLOMON CREEK ROUTINE MAINTENANCE ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location: The project begins 2000 feet downstream of Stillwell Road and ends 1200 feet downstream of Highway 135 in Orcutt.

Setting:
Inspected on March 20, 2014.

Orcutt/Solomon Creek originates in the Solomon Hills southeast of Santa Maria and drains a 27,357 acre watershed. The District's management area includes the semi-urban reach of the watershed running through the community Orcutt, as well as portions of the creek running near the Laguna Sanitation Water Treatment Plant and the downstream confluence of Orcutt Creek and the Santa Maria River.

Revegetation:
Since the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District has been tracking and reporting the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. The following table is being included in the Annual Routine Maintenance Plan addenda to more easily display and track the District's restoration efforts.

Orcutt/Solomon Creek				
Annual Plan Year	New Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2003/2004	2,600	4,000	4,000	1,400
2004/2005	8,600	9,000	9,000	1,800
2006/2007	6,000*	6,000*	3,000*	-1,200
2007/2008	350	800	800	-400
2008/2009	800	0	0	-1,200
2009/2010	0	750	2000	-800
2010/2011	0	500	500	1,300
2011/2012	800	880	880	1,380
2012/2013	435	800	0	945
2013/2014	20	0	0	925
2014/2015	10	0	0	915

Wildlife Survey:
The lower region of Orcutt/Soloman Creek is known or likely habitat for red legged frog (downstream of Blosser Road). Maintenance at Section 1 through 6 are upstream of RLF habitat and will occur in the dry channel.

Maintenance at Sections 7 and 8 occur in a reach in which RLF breeding was discovered in 2010. This region of the creek is likely to be inhabited by red legged frogs during some parts of the year, although persistent dry conditions in 2013 and 2014 may limit RLF presence. RLF have also been detected frequently in the vicinity of the culvert crossing to the Sand Plant and Guadalupe Dunes. If these work areas are wetted during the maintenance season, the areas will be inspected by the District Biologist before operations and monitored during any heavy equipment operations in the creek corridor.

Maintenance at Sections 10 through 13 is along the Laguna Sanitation facility. This region of the creek is known to be inhabited by red legged frogs during some parts of the year. The most suitable RLF habitat is within the settling ponds on the other side of an earthen berm from the main creek channel (and outside of the maintenance area). The settling ponds retain water year round while the main channel goes dry in the summer and fall. Individual frogs have been observed dispersing from the ponds into the main channel in the rainy season and some have been found and relocated during biomonitoring in previous years along the main channel.

The District assumes RLF may be present and implements management practices as specified in the Biological Opinion issued by US Fish and Wildlife Service. The work will be performed during the dry season with pre-project inspections and biomonitoring by the District Biologist. Any RLF will be flushed from the worksite in advance of maintenance operations, and then the District Biologist will supervise all equipment work within potential RLF habitat. If RLF are detected, work will be temporarily suspended until the animal can be flushed and/or captured and relocated out of the work area into adjacent habitat.

Engineering Analysis:

Maintenance of Orcutt/Solomon Creek requires vegetation and silt removal to preserve flood flow conveyance and to protect adjacent properties. Obstructive vegetation consisting primarily of downed limbs and trees, limbs projecting into the active channel, and several trees growing in the active channel, will be removed from the main channel at various locations to provide conveyance of flood waters as well as reduce the debris load which can cause debris plugs that divert flows towards banks causing erosion or raise water surface levels, and aggravate bridge and culvert plugging. The bankfull discharge width for Orcutt/Solomon Creek, based on field indicators is approximately 10'-12' wide.

Project Description:

Section 1:

Section 1 runs from Stillwell Road downstream 800 feet. In this section there are occasional willow limbs and coyotebrush projecting into the active channel. It has been many years since this areas was maintained and the vegetation is becoming dense enough to pose a flood hazard. A crew with chainsaws and loppers will limb only the vegetation projecting into the active channel up to a height of 6 feet and a width of 10 feet. The material will be cut up and hauled out of the creek or left on the upper banks depending on access at this location. Vegetation on the banks will not be disturbed and the canopy above 6' high will be left intact to preserve shading. The creek channel is dry during the summer at this location. Maintenance in this section will not result temporal impacts to native vegetation.

Section 2:

A multi-stemmed willow branch has fallen into the active channel and is collecting debris. The crew will use chain saws and hand tools to cut up the fallen material. No whole trees or shrubs will be removed and no impacts to native vegetation will occur. The limbed material will be cut into small pieces and left on the upper banks, blended into the existing vegetation.

Section 3:
A downed willow has accumulated debris, and led to a thicket and an incipient debris jam at this location. The District crew will cut up the portion of the thicket that is within the bankful width at this location (10-12'), and leave the remaining portion of the thicket that is growing from the south bank and toe. Depending on weather conditions and if the fallen tree is still alive during maintenance, the cut willow material may be used as cuttings for revegetation on the south bank. The crew will work with the District Biologist to facilitate transfer of the willow cuttings. Maintenance in this section will not result in temporal impacts to native vegetation.

Section 4:
A willow tree has fallen over the active channel in this location and there are multiple branches projecting into the active channel. The crew will use chain saws and hand tools to limb the overhanging material within a corridor 12 feet wide. No whole living trees or shrubs will be removed and no impacts to native vegetation will occur. The limbed material will be cut into small pieces and left on the upper banks, blended into the existing vegetation. Maintenance in this section will not result in temporal impacts to native vegetation.

Section 5:
A willow branch has fallen into the active channel at the right (north) toe of the creek. The willow is beginning to resprout in a low thicket on the floor of the active channel. The crew will use chain saws and hand tools to cut up the fallen material. The new sprouts will be brushed and spot-sprayed with herbicide. No whole trees or shrubs will be removed. The work will result in 10 square feet of impacts to native vegetation. The cut material will be cut into small pieces and left on the upper banks, blended into the existing vegetation.

Section 6:
A willow tree has fallen into the active channel and has collected debris, but is still alive. A crew with chainsaws and loppers will remove the fallen tree and cut up the woody debris. The material hauled out of the channel and left on the upper banks. Maintenance in this section will not result in temporal impacts to native vegetation.

Section 7:
This reach of the creek runs through the suburban housing development of West Trails. The creek has a narrow but mature willow canopy. A storm drain from the adjacent roadways runs through an underground pipe that leads to the south bank of the creek. Due to many years of discharge and erosion at this storm drain, a large scour hole has emerged in the creek. The scour hole threatens to continue to enlarge, which could lead to bank failure, downcutting, and the eventual loss of trees, roadways, and private property in the neighborhood. This area is also known habitat for red-legged frog, with a breeding pool discovered just downstream of this site in 2010.

To correct the scour hole, but maintain suitable pool habitat for RLF, the District proposes to partially filly the eroded hole with riprap to create a partial loose-rock armor on the channel floor and edges of the banks. The existing scour hole is 20 feet long, 10 feet wide, and up to 6 feet

deep in the center, compared to the rest of the creek, which is less than 1 foot deep through this reach.

The District will transport 2-3 truckloads of ¼ ton rock (a total of ~15 cubic yards of rock) using existing surface streets and the access road alongside the riparian corridor. Using an excavator with an articulating thumb, the boulders will be placed in the creek channel and dropped individually into the scour hole. The rock placement will be performed in an organized manner to install rocks along the bottom and edges of the channel, while maintaining an overall depth of approximately 4' in the remaining pool. The rock placement may extend above the water line on the north and south banks to further protect the edges of the banks site from future stormwater damage.

The work will be performed in the dry season, outside of the RLF breeding season. The area is likely to retain standing water (but may go dry, depending on weather in summer 2014). If the site retains standing water, the work will be monitored by the District Biologist. The site will be inspected pre-project and RLF present will be flushed from the site and/or captured and relocated out of the work area. If RLF are detected during operations, the work will be halted until RLF can be cleared from the site.

This work will not involve any impacts to native vegetation.

Section 8:
Approximately 50 feet downstream of the existing check structure and drop-pool in West Trails subdivision, the creek has a dense debris plug across the active channel. The District Crew wil use chainsaws and hand tools to cut apart the woody material in the debris jam for a width of 10 -12 feet. The material will be cut into manageable pieces and dispersed into the surrounding upper banks. This work will not involve any impacts to native vegetation.

Section 9:
Section 9 runs through the property at Laguna Sanitation Water Treatment Plant. Section 9 has a dense willow riparian canopy along both sides. Several fallen trees have dropped in the active channel; additionally the mature trees in the corridor have limbs projecting into the channel. A contractor tree-crew will use chain saws and hand tools to cut the projecting limbs from a corridor 12' wide and 6 feet tall. Dead fallen trees will be cut into smaller pieces. The cut woody material will be cut into manageable lengths and stashed in the adjacent riparian trees or hauled out and chipped, depending on access. Live trees and whole willow trunks will not be cut.

Section 10:
This portion of the channel is in good condition except at the confluences with other small drainage ditches in the region. The adjacent vegetation, mostly arroyo willows, builds up and encroaches over the culvert openings and traps debris. At Section 10, the crew will use chain saws and hand tools to limb the vegetation in front of the culverts for a width of 10 feet and height of 5 to 6 feet. Live trees and whole willow trunks will not be cut. The work will not impact native vegetation.

Section 11:
This area is similar to Section 10, debris and sediment have accumulated at a drainage culvert. The overhanging and projecting vegetation, will be cut with chain saws and hand tools to open

an area in front of the culverts for a width of 10 feet and height of 5 to 6 feet. Live trees and whole willow trunks will not be cut. The work will not impact native vegetation.

Section 12:
This site is the confluence of Orcutt-Soloman Creek and a small side-drainage. Sediment and debris routinely collect here and threaten to block the channel. A cluster of bulrush has emerged over the accumulated sediment as well. The crew will use an excavator stationed on the adjacent access ramp to remove material, including the cluster of bulrush. The material will be placed on the existing dirt road, outside of the creek channel, and graded back over the road shoulder to fill existing erosion holes. The willow canopy along the side of the drainage is narrow, but dense and mature. The crew may need to limb some branches from a few trees to create a "window" for the excavator arm. Entire tree trunks will not be cut, only light limbing would be performed. The excavation will involve approximately 60 linear feet, 15 feet wide, and 3 feet deep. Approximately 100 cubic yards will be removed. The work area includes bare sediment and a cluster of bulrush; this area was previously maintained in 2012/13 and impacts to native vegetation have already been tabulated and mitigated.

Section 13:
Similar to the previous site, Section 13 is the confluence of the main creek channel and a roadside drainage ditch. Sediment and debris have accumulated here, reducing the capacity of the channel at a sharp bend at the end of the Sanitation property. To maintain drainage capacity through this area, the crew will use an excavator stationed on the adjacent access ramp to remove sediment and debris. The material will be placed on the existing dirt road, outside of the creek channel, and graded back over the road shoulder to fill existing erosion holes. The work area is bare sediment and debris, no native vegetation will be impacted.

Section 14:

Extreme caution will be used to avoid the overhead powerlines at this location

Orcutt-Soloman Creek joins with the Green Canyon ditches just upstream of West Main Street, near the road crossing for Guadalupe Dunes. The culvert at this location has accumulated silt and sediment, reducing flow capacity and threatening to overflow the culvert and wash out the road and the adjacent sand plant. To alleviate this problem, the District crew will use a Gradall or excavator to remove sediment from the front end of the culvert.

The desilting area is approximately 10 by 10 and 2 feet deep. Approximately 7 cubic yards of material will be removed. The sediment will be placed over the adjacent dirt access road and allowed to dry for several days, and then graded and compacted back over the dirt road. The dirt road is currently rutted and dry sandy sediment; any drainage water will percolate into the surface and would not run into the standing water of the Creek. As the material is scooped out of the culvert, the operator will allow water to drain out of the bucket for several seconds before releasing the material over the road bed. The existing water quality at this location is extremely turbid from ag runoff, unstable soil, and cattle in the adjacent fields and in the creek itself. The area is bare soil, open water, and clumps of non-native watercress. The work will not result in impacts to native vegetation. The District Biologist will monitor the work for RLF.

Section 15:
Downstream of the culvert at West Main Street/Sand Plant, the willow canopy is dense and mature. The vegetation has encroached into the creek channel and created a thicket of limbs,

fallen trees, and hanging branches (both dead and alive) at the opening of the culvert. For a length of 100 feet downstream from the culvert, the District crew will use hand tools to perform light limbing within a corridor 12' wide and 6' high. Within this corridor, fallen limbs will be cut up and removed, a few downed trees will be pulled from the active channel, and projecting limbs will be cut back. Vegetation on the banks will not be disturbed. The cut material will be chopped into manageable pieces and left within the existing riparian vegetation. An overhead canopy above 6' will be left in place to preserve shading.

Impact Analysis and Mitigation Measures:

Listed below are the impacts and associated mitigation measures for each of the issue areas impacted by this project as identified in the Updated Program EIR. See the Section entitled "Impacts and Mitigation Measures" for definitions of the specific impacts and mitigation measures.

Impacts:

Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the impacts listed below are considered Class I (unavoidable significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

Mitigation Measures:

Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

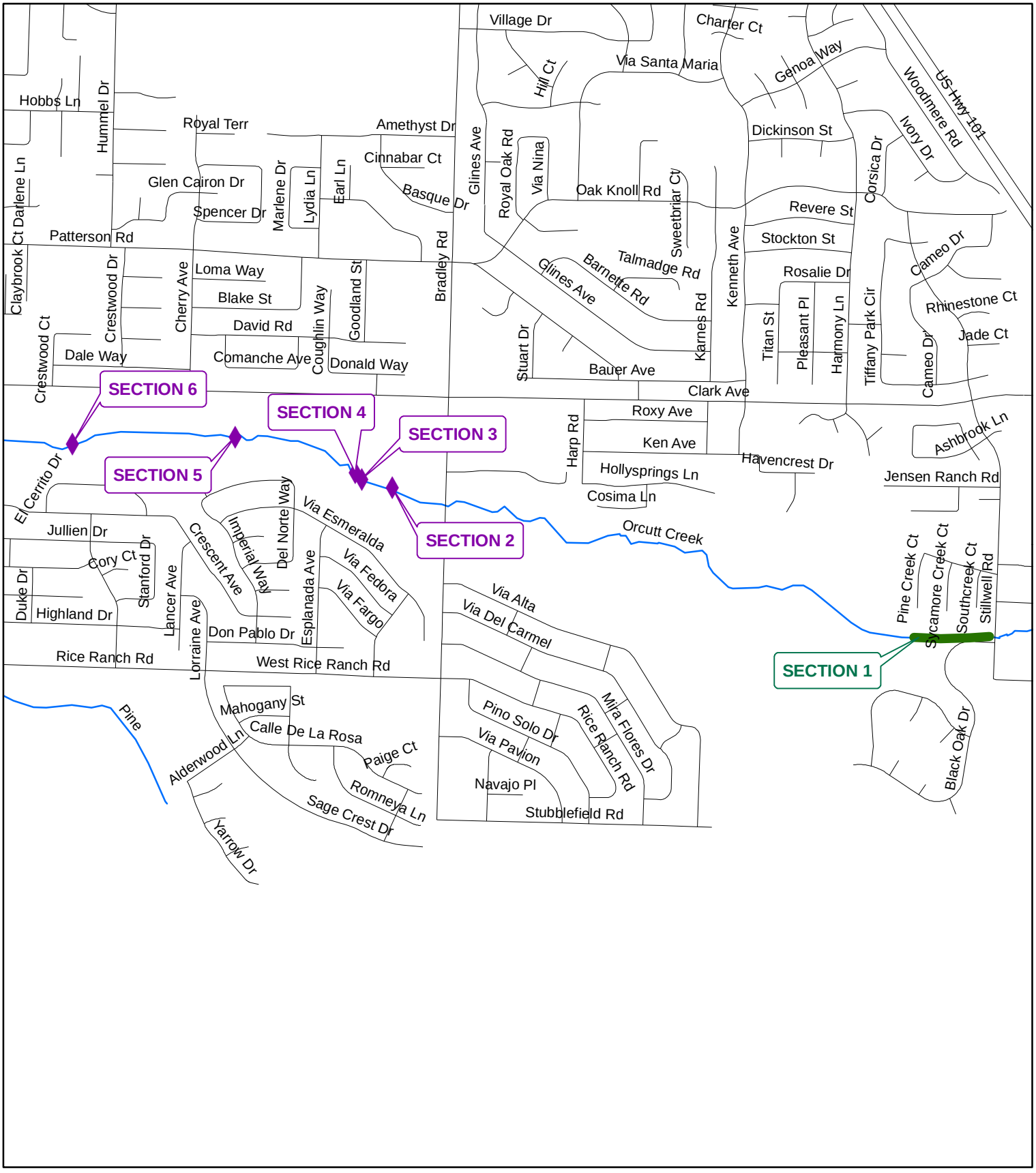
Resource	**Impacts**	**Mitigation Measures***
Hydrology EIR sections 5.1.2, 5.1.3	H-A	H-1
Water Quality EIR sections 5.2.2, 5.2.3	WQ-A, WQ-B, WQ-C	H-1, B-2, W-2, W-4, W-6, W-7, W-8,
Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	WRR-A, WRR-B	B-1, B-3, H-9
Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	FAW-A, FAW-F, FAW-I	B-1, B-2, B-3, B-5, W-1, W-2, W-5
Air Quality EIR sections 5.5.2, 5.5.3	AQ-A	A-1
Noise EIR sections 5.6.2, 5.6.3	N-A	N-1
Visual EIR sections 5.9.2, 5.9.3	V-A	V-1

*Residual Impacts:

Incorporation of the above mitigation measures would reduce the impacts to all resource

categories to less than significant levels.

Project Specifics:
The project will take 3 days to complete.



Department of Public Works County of Santa Barbara

Orcutt-Soloman Creek - A

Legend

- Sites
- Lengths

N W E S

Feet

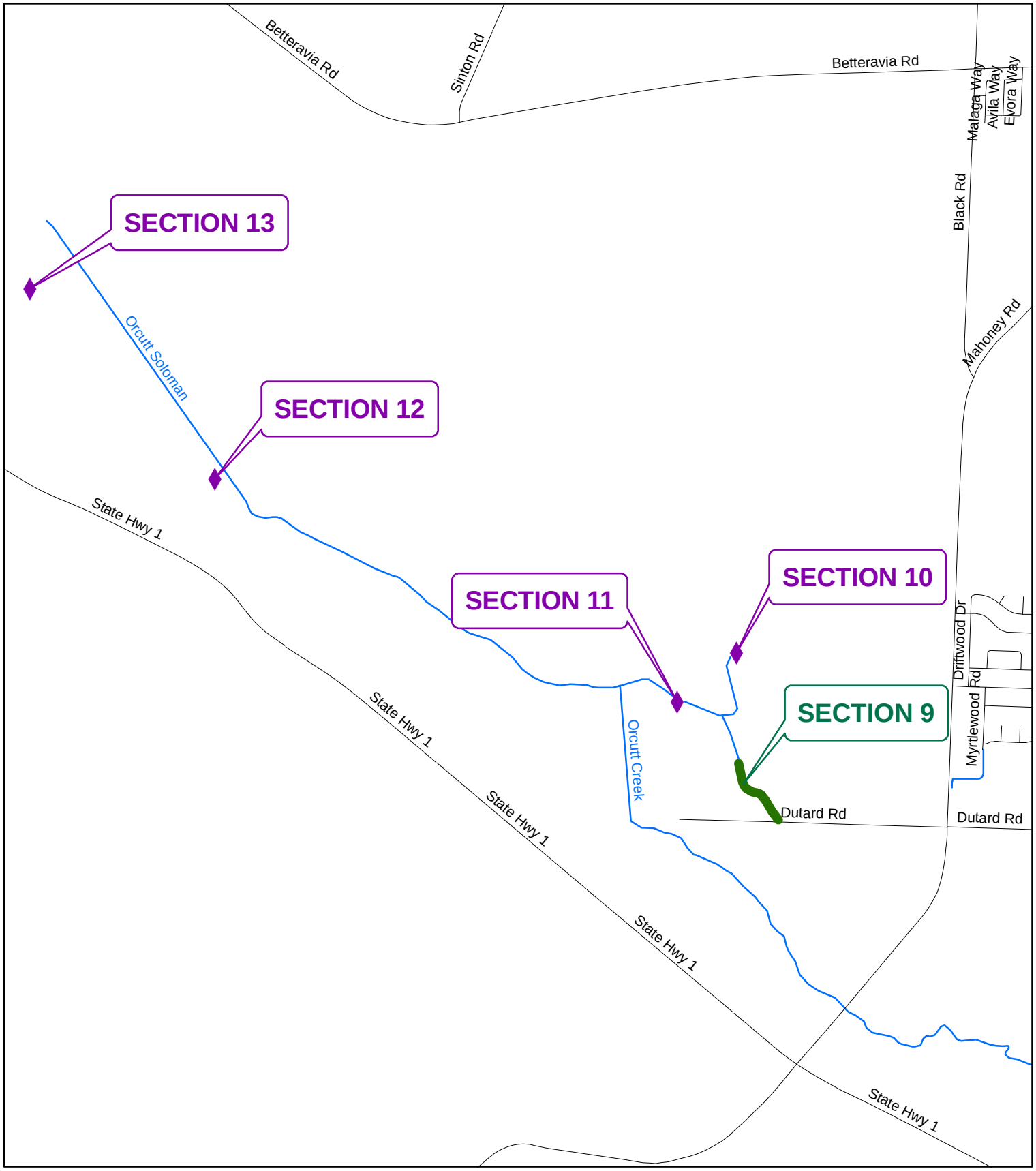
920 460 0 920

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in Mayl 2014.



Department of Public Works County of Santa Barbara

Orcutt-Soloman Creek - B

Legend

- Sites
- Lengths

This map is for reference only. Although every effort has been made to ensure the accuracy of information, errors and conditions originating from physical sources used to develop the database may be reflected on this map. Santa Barbara County shall not be liable for any errors, omissions, or damages that result from inappropriate use of this document. No level of accuracy is claimed for the boundary lines shown hereon and lines should not be used to obtain coordinate values, bearings or distances.

N W E S

Feet

1,400 700 0 1,400

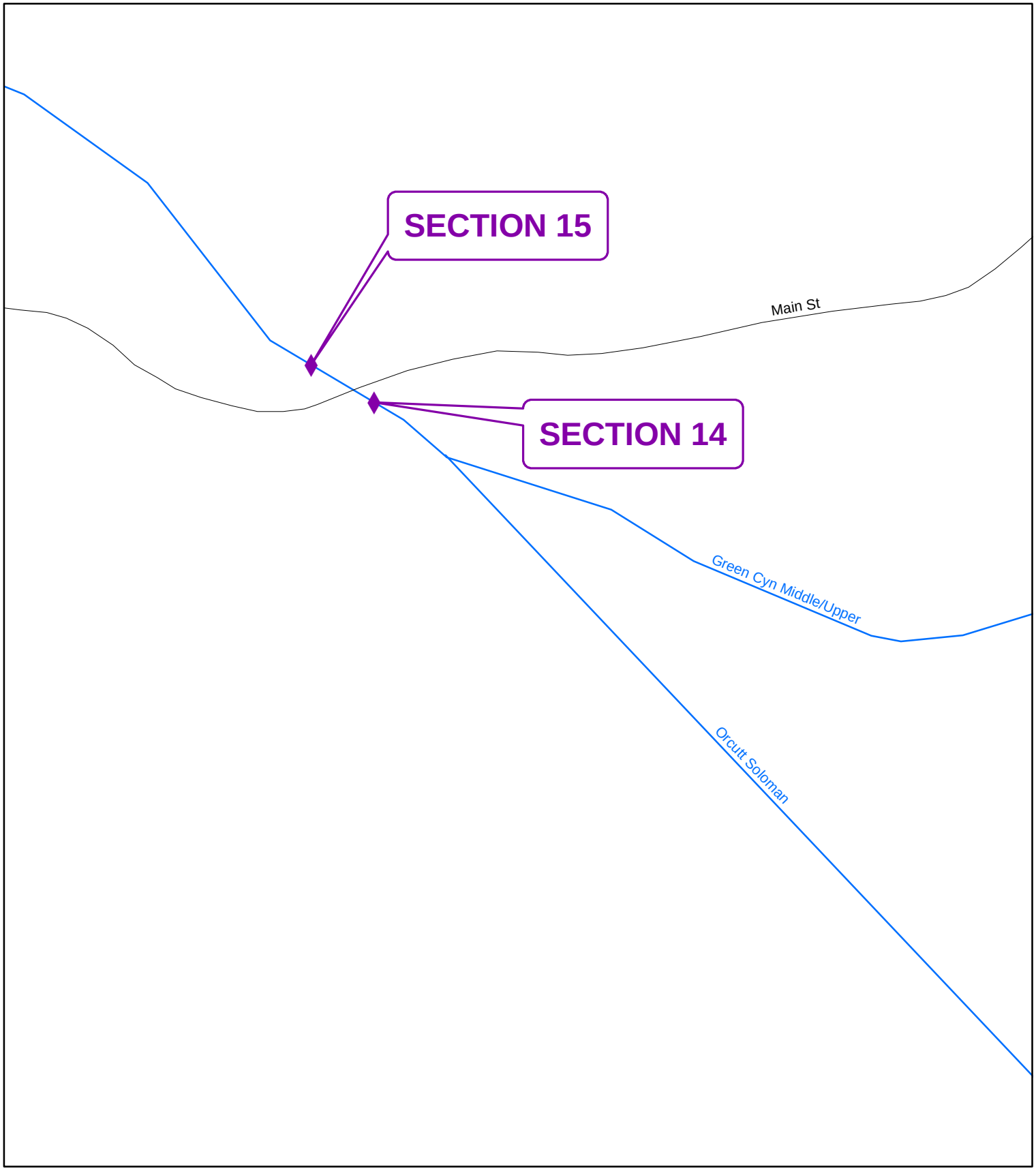
Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District

Compiled by the Public Works Enterprise GIS in Mayl 2014.



Department of Public Works County of Santa Barbara

Orcutt-Soloman Creek - C

Legend

Sites

Lengths

N W E S

Feet

190 95 0 190

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in Mayl 2014.

Orcutt-Soloman Creek

Orcutt-Soloman Creek – Section 1

Orcutt-Soloman Creek – Section 3

Orcutt-Soloman Creek

Orcutt-Soloman Creek – Section 7

Orcutt-Soloman Creek – Section 14

VASCULAR PLANT LIST
ORCUTT- SOLOMON CREEK

SCIENTIFIC NAME	COMMON NAME	ORIGIN*
EQUISETACEAE		
Equisetum telmateia	Giant Horsetail	N
AMACARDOACEAE		
Toxicodendron diversilobum	Poison Oak	N
APIACEAE		
Conium Maculatum	Poison Hemlock	I
ASTERACEAE		
Achillea millefolium	Yarrow	N
Ambrosia Psilostachya	Western Ragweed	I
Artemisia biennis	Biennial Sagewort	I
Artemisia douglasiana	Mugwort	N
Baccharis douglasii	Marsh Baccharis	N
Baccharis salicifolia	Mulefat	N
Baccharis pilularis	Coyote Bush	N
Carpobrotus edulis	Iceplant	I
Ciriusum vulgare	Bull Thistle	I
Conyza bonariensis	Horseweed	I
Cotula coronopifolia	Brass Buttons	I
Gnaphalium purpureum	Purple Cudweed	I
Helenium puberulum	Sneezeweed	N
Heterotheca grandiflora	Telegraph Weed	N
Isocoma venetus ssp. verniodes	Coast Goldenbrush	N
Lactuca serriola	Prickly Lettuce	I
Picris echioides	Ox Tongue	I
Sencio blochmaniae	Blochman's -Groundsel	I
Silybum marianum	Milk thistle	I
Sisymbrium irio	London Rocket	I
Sonchus asper	Sow Thistle	I
Xanthium spinosum	Spiny Cocklebur	I
Xanthium strumarium	Cocklebur	I
BORAGINACEAE		
Heliotropium curassavicum var. occulatrum	Heliotrope	N
BRASSICACEAE		

Brassica nigra	Black Mustard	I
Brassica campestris	Field Mustard	I
Raphanus sativus	Wild Radish	I
Rorippa nasturium -aquaticum	Watercress	I
CACTACEAE		
Opuntia sp.	Beavertail Cactus	I
CAPRIFOLIACEAE		
Sambucus mexicana	Elderberry	N
CARYOPHYLLACEAE		
Spergularia st.	Sand Spurrey	I
CHENOPDIACEAE		
Artiplex hastata	Hastate-Leaved -Saltbush	N
Chenopodium berlandiere	Lamb's Quarters	I
Chenopodium murale	Nettle-Leaved -Goosefoot	I
CYPERACEAE		
Cyperus alternifolius	Umbrella Plant	I
Cyperus esculentus	Yellow Nutgrass	N
Eleocharis macrostachya	Common Spikerush	N
Scirpus californicus	California Bulrush	N
Scirpus robustus	Prairie Bulrush	N
EUPHORBIACEAE		
Euphoria peplus	Petty Surge	I
FABACEAE		
Lotus purshianus var. purshianus	Spanish Clover	N
Lotus salsuginosus	Lotus	N
Melilotus indicus	Yellow Sweet Clover	I
Vicia benghalensis	Vetch	I
JUNACEAE		
Juncus bufonius	Toad Rush	N
Juncus phaeocephalus	Brown-Headed Rush	N
LEMNACEAE		
Lemna sp.	Dutchweed	N

MALVACEAE		
Malva parviflora	Cheeseweed	I
ONAGRACEAE		
Epilobium adenocaulation	Willow-Herb	N
PLANTAGINACEAE		
Plantago major	Common Plantain	I
POACEAE		
Agrostis stolonifera	Redtop	I
Cynodon dactylon	Bermuda Grass	I
Digitaria sanguinalis	Crab grass	I
Echonochloa crusgalli	Barnyard Millet	I
Lolium perenne	Italian Ryegrass	I
Piptatherum miliaceum	Rice grass	I
Polypogon monspeliensis	Rabbitfoot Grass	I
POLEMONIACEAE		
Microsteris gracilis spp. gracilis	Microsteris	N
POLYGONACEAE		
Polygonum arenastrum	Common Knotweed	I
Polygonum lapathifolium	Willow Smartweed	N
Polygonum punctatum	Dotted Smartweed	N
Rumex crispus	Curly Dock	I
Rumex fueginus	Golden Dock	I
Rumes hymenosephalus	Wild Rhubarb	I
PORTULACEAE		
Portulaca oleraceae	Purslane	I
PRUMULACEAE		
Angallis arvensis	Scarlet Pimpernel	I
ROSACEAE		
Poentilla egedii	Silverweed	
Rubus ursinus	Calif. Blackberry	N
SALICACEAE		
Salix exigua	Narrowleaf Willow	N
Salix lasiolepis	Arroyo Willow	N

SCROPHULARICEAE		
Mimulus guttatus	Marsh Monkey -Flower	N
Scrophularia californica	Figwort	N
SOLANACEAE		
Solanum nodiflorum	Small-Flowered -Weed	I
SPARGANIACEAE		
Sparganium ecrycarpum	Bur Reed	N
TROPAEOLACEAE		
Tropaelum majus	Garden Nasturtium	I
URTICACEAE		
Urtica holosericea	Giant Nettle	N
Urtica urens	Dwarf Nettle	N
VERBENACEAE		
Verbena lasiotachys	Verbena	N

* I = Introduced
N = Native

PINE CANYON CREEK ROUTINE MAINTENANCE
ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:
The maintenance inspection area begins 300 yards upstream of Graciosa Rd. and terminates at the Orcutt Expressway Bridge.

Setting:
Inspected on March 20, 2014.

Pine Canyon Creek is a tributary to Solomon Creek and runs through the southern portion of Orcutt. The creek has low sloping banks with willows, sycamores and cottonwoods on either side. The upper portion of Pine Canyon Creek is well vegetated with willows and is immediately adjacent to Rice Ranch Road for several hundred feet and immediately downstream of a new housing development bordered by Rice Ranch Road and Bradley Road. On the lower portion of the maintenance area, the willows and cottonwoods are now over 20 feet tall. The vegetation on the north bank in this same stretch has also matured through the District's revegetation efforts. The sandy substrate in the creek invert held some standing water at the time of the inspection but the majority of this stretch of creek did not contain flowing water. The creek dries out during the summer months and only occasionally contains water due to irrigation runoff from adjacent neighborhoods.

Revegetation:
Beginning with the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District began a new reporting and accounting program for the restoration component of the Annual Routine Maintenance Program. Since that time, the District has been tracking the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. The following table is being included to more easily display and track the District's restoration efforts.

Pine Canyon Creek				
Annual Plan Year	New Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2003/2004	1,500	1,500	1,500	0
2008/2009	0	0	0	0
2014/2015	0	0	0	0

Engineering Analysis:
Excessive or obstructive vegetation growing in the invert can trap silt and sediment which would otherwise move downstream. The channel needs to be cleared of the silt and silt-trapping vegetation which has accumulated so that the culvert and the channel's full capacity can be utilized. When the accumulated sediment is allowed to remain, it

leads to increased water surface elevations which could eventually break out of the creek banks and threaten adjacent private properties.

Project Description:

Section 1:
Willow limbs are projecting into the active channel for a length of 400 feet in this section. A crew of 2 using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek. Limbs above 6' will be left in place to preserve shade. Additionally, there is a large multi-trunked willow that has fallen into the channel in front of culvert at Graciosa Road. The tree will be cut and removed from the channel. There will be no impact to native vegetation.

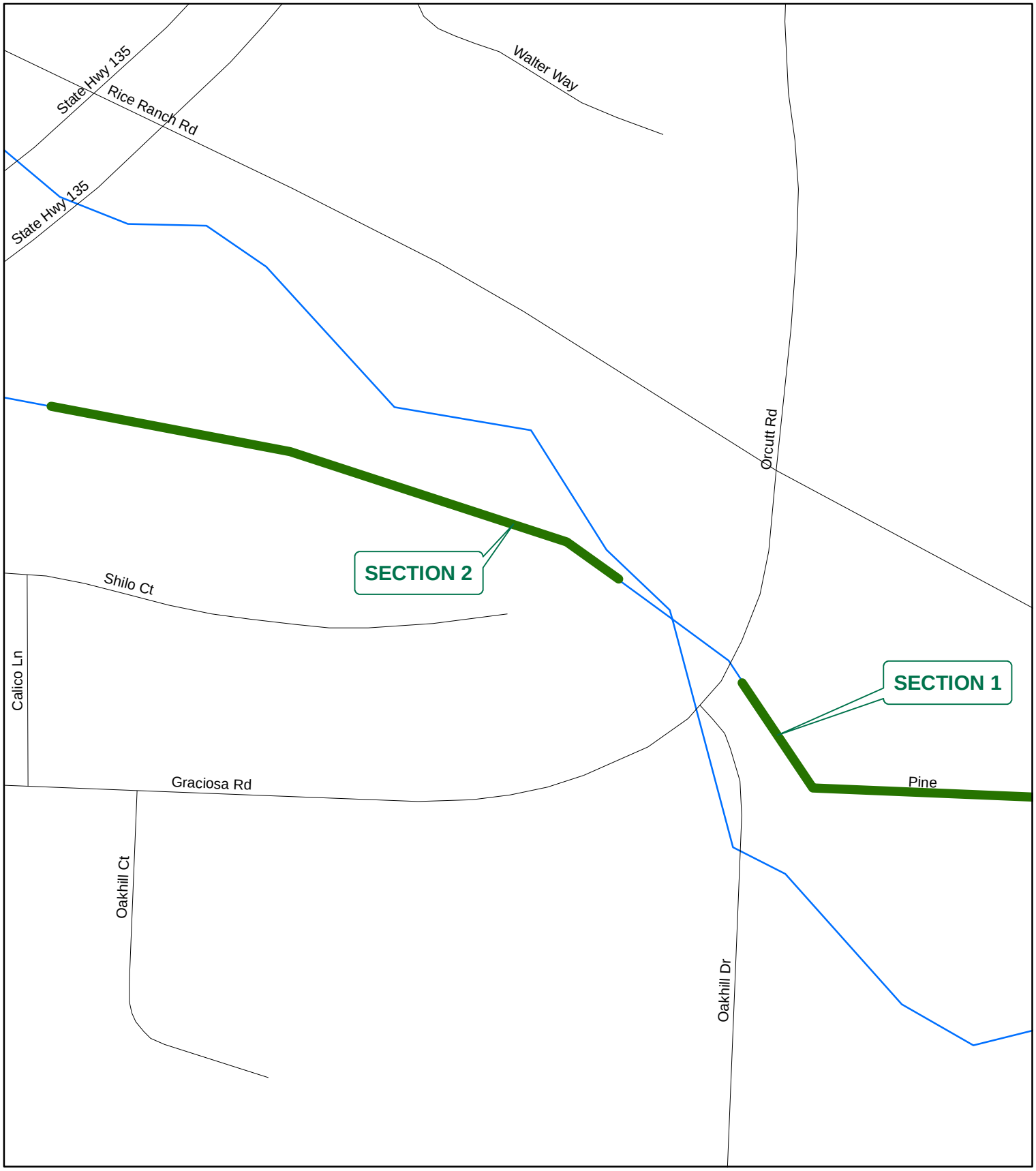
Section 2:
Through this section of the creek, there are several fallen limbs and encroaching branches within the flow area along 600 linear feet. The vegetation will be cut up and hauled out of the creek. Limbs above 6' will be left in place to preserve shade. There will be no impact to native vegetation.

Impact Analysis and Mitigation Measures:
Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Resource	Impacts	Mitigation Measures*
Hydrology EIR sections 5.1.2, 5.1.3	H-A	H-1
Water Quality EIR sections 5.2.2, 5.2.3	WQ-A, WQ-B, WQ-C	H-1, B-2, W-2, W-4, W-6, W-7, W-8,
Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	WRR-A, WRR-B	B-1, H-9
Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	FAW-A, FAW-F, FAW-I	B-1, B-2, B-3, B-5, W-1, W-2, W-5
Air Quality EIR sections 5.5.2, 5.5.3	AQ-A	A-1
Noise EIR sections 5.6.2, 5.6.3	N-A	N-1
Visual EIR sections 5.9.2, 5.9.3	V-A	V-1

*Residual Impacts:
Incorporation of the above mitigation measures would reduce the impacts to all resource categories to less than significant levels.

Project Specifics:
The project will take 4 days to complete.



Department of Public Works County of Santa Barbara

Pine Creek

Legend

Lengths

This map is for reference only. Although every effort has been made to ensure the accuracy of information, errors and conditions originating from physical sources used to develop the database may be reflected on this map. Santa Barbara County shall not be liable for any errors, omissions, or damages that result from inappropriate use of this document. No level of accuracy is claimed for the boundary lines shown hereon and lines should not be used to obtain coordinate values, bearings or distances.

N W E S

Feet

100 50 0 100

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District

Compiled by the Public Works Enterprise GIS in Mayl 2014.

Pine Creek

Pine Creek – Section 1

Pine Creek – Section 2

PINE CANYON CREEK
VASCULAR PLANT LIST

SCIENTIFIC NAME	***COMMON NAME***	***ORIGIN****
EQUISETACEAE		
Equisetum telmateia	Giant Horsetail	N
APIACEAE		
Conium maculatum	Poison Hemlock	I
Sanicula crassicaulis	Sanicle	N
ASTERACEAE		
Artemisia californica	California Sagebrush	N
Artemisia douglasiana	Mugwort	N
Baccharis salicifolia	Mulefat	N
Baccharis pilularis	Coyote Bush	N
Cirsium vulgare	Bull Thistle	I
Xanthium spinosum	Spiny Cocklebur	I
BORAGINACEAE		
Heliotropium curassavicum	Heliotrope	N
BRASSICACEAE		
Brassica nigra	Black Mustard	I
CHENOPODIACEAE		
Chenopodium ambrosioides	Mexican Tea	I
CONVOLVULACEAE		
Cuscuta californica	Dodder	I
CYPERACEAE		
Scirpus americanus	Three Square	N
EUPHORBIACEAE		
Eremocarpus setigerus	Turkey Mullein	N
FABACEAE		
Lathyrus latifolius	Common Sweetpea	I
Lotus scoparius	Deerwood	N
Lupinus arboreus	Bush Lupine	I

SCIENTIFIC NAME (Cont'd)	**COMMON NAME** (Cont'd)	**ORIGIN** *
FABACEA (Cont'd)		
Lupinus bicolor	Bicolor Lupin	N
Melilotus indicus	Yellow Sweet Clover	I
Vicia benghalensis	Vetch	I
FAGACEAE		
Quercus agrifolia	Coast Live Oak	N
GROSSULARIACEAE		
Ribes divaricatum	Straggly Gooseberry	N
MYRTACEAE		
Eucalyptus globulus	Blue Gum	I
POACEAE		
Avena fatua	Wild Oats	I
Bromus diandrus	Ripgut Grass	I
Bromus unuioloides	Rescue Brome	I
Lolium perenne	Italian Ryegrass	I
POLYGONACEAE		
Rumex crispus	Curly Dock	I
SALICACEAE		
Salix laevigata	Red Willow	N
SOLANACEAE		
Nicotiana glauca	Tobacco Tree	I

* N = Native
I = Introduced

RODEO-SAN PASCUAL CHANNEL OUTLET ROUTINE MAINTENANCE ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARACOUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:
The project is located at the outlet of the Rodeo-San Pascual Channel at the confluence with the Santa Ynez River approximately two miles west of the City of Lompoc.

Setting:
Inspected on April 3, 2014.

Rodeo-San Pascual Channel is a 1.5 mile concrete lined channel that traverses the Lower Lompoc Valley. The channel begins upstream of the Rodeo-San Pascual Basin located at the base of La Salle and Sloan Canyons.

The concrete lined channel is maintained free of vegetation and sediment. Cliff swallows utilize the water and small amounts of mud for building nests on nearby bridges and culverts. The last several hundred feet of the channel, before it discharges into the Santa Ynez River (River), is earthen and contains mostly weedy vegetation on the upper banks along the first hundred feet of the earthen channel. After the first hundred feet beyond the concrete channel, the earthen channel is runs through a riparian corridor that blends into the Santa Ynez River banks. The area is well vegetated with species such as willows, blackberry, stinging nettle, cottonwood and poison oak. The tree canopy over the channel is very well developed and the channel bottom is usually clear of obstructive vegetation.

Revegetation:
Since the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District has been tracking and reporting the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. The following table is being included in the Annual Routine Maintenance Plan addenda to more easily display and track the District's restoration efforts.

Rodeo-San Pascual Channel				
Annual Plan Year	New Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2006/2007	1000	1000	0	-1000
2007/2008	500	1500	0	-1500
2010/2011	0	1500	0	-1500
2011/2012	0	1500	1500	0
2012/2013	70	0	100	30
2014/2015	0	0	0	30

Engineering Analysis:

Sediment has accumulated within the natural bottom portion of Rodeo-San Pasqual Channel between the concrete-lined channel and the confluence with the Santa Ynez River. The build-up of sediment impedes flows from the Rodeo-San Pascual Channel as they enter the river. This condition interrupts the sediment transport function of the channel and the river, slows flows down which raises water surface elevations, and reduces conveyance capacity within the Rodeo-San Pascual Channel, all of which exacerbates sediment accumulation within this channel. Additionally, downed vegetation is also obstructing flows through this facility. Maintaining an obstruction free channel at the outlet of the Rodeo-San Pascual Channel is also a required element of the maintenance of this federally funded project.

Project Description:

Section 1:

Section 1 addresses the gap between the concrete lined section and the willow canopy further downstream. This reach is approximately 90 feet long, and because there is little overhead canopy, sunlight reaches the standing water are creates a potential weedy thicket. During the spring inspection, weeds were just beginning to colonize the site, but in later summer, the area will likely constitute a dense thicket of wild mustard, poison hemlock, fennel, and other ruderal vegetation.

The District crew will spot-spray the weedy vegetation along the floor of the channel after August 1. The area is potential habitat for red legged frog, therefore any vegetation control will be delayed until later summer, after the RLF breeding season. (RLF breeding has not been detected in this area and is not likely since the water is only a few inches deep). A band of vegetation, 2-3 feet wide will be left untouched at both edges of the channel, and the banks will not be sprayed.

A followup application may be made in the following summer (if winter rains are insufficient to scour the channel), but will be delayed until July or later to avoid RLF activity.

Impact Analysis and Mitigation Measures:

Listed below are the impacts and associated mitigation for each of the issue areas impacted by this project as identified in the Updated Program EIR. See the Section entitled “Impacts and Mitigation Measures” for definitions of the specific impacts and mitigation measures.

Impacts:

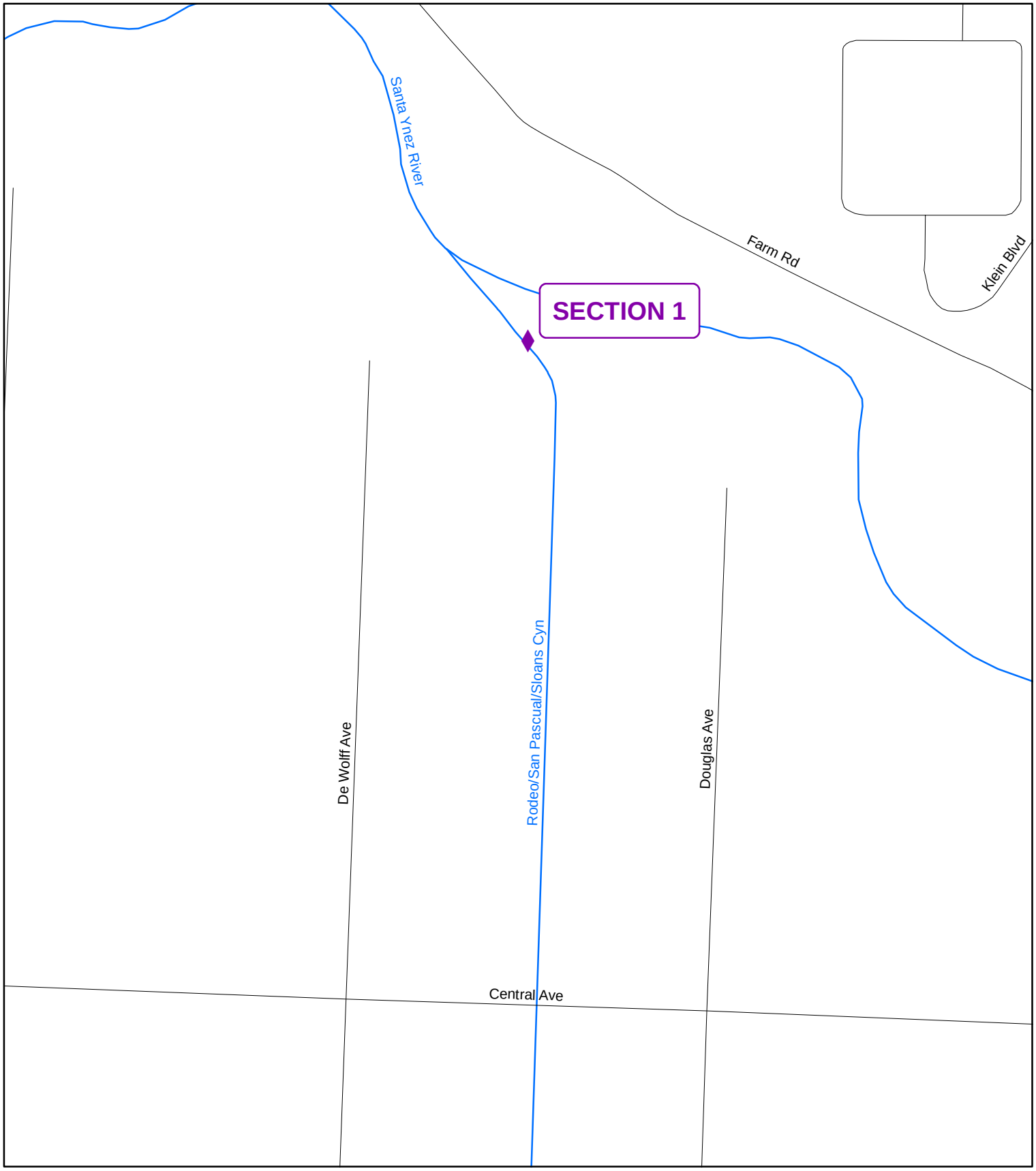
Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the impacts listed below are considered Class I (unavoidable significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

Mitigation Measures:
Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Resource	**Impacts**	**Mitigation Measures***
Hydrology EIR sections 5.1.2, 5.1.3	H-D	H-1, H-2, H-3, H-4
Water Quality EIR sections 5.2.2, 5.2.3	WQ-A, WQ-D	H-1, B-2, W-1, W-3, W-4,
Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	WRR-A, WRR-C, WRR-D,	B-1, B-2
Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	FAW-A, FAW-I	B-1, B-2, B-3, B-5, B-6, H-1, W-1
Air Quality EIR sections 5.5.2, 5.5.3	AQ-A	A-1

*Residual Impacts:
Incorporation of the above mitigation measures would reduce the impacts to all resource categories to less than significant levels.

Project Specifics:
The project will take 2 days to complete.



Department of Public Works County of Santa Barbara

Rodeo-San Pascual Channel

Legend

♦ Sites

N W E S

690 345 0 690 Feet

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in Mayl 2014.

Rodeo-San Pascual Channel

Rodeo-San Pascual Channel – Section 1

VASCULAR PLANT LIST
RODEO-SAN PASQUAL CREEK AND BASIN

SCIENTIFIC NAME	COMMON NAME	ORIGIN*
EQUISETACEAE		
Equisetum telematia	Giant Horsetail	N
ANACARDIACEAE		
Toxicodendron diversilobum	Poison Oak	N
APIACEAE		
Conium maculatum	Poison Hemlock	I
Foeniculum vulgare	Fennel	I
ASTERACEAE		
Achillea millefolium	Yarrow	N
Artemisia california	Calif. Sagebrush	N
Artemisia douglasiana	Mugwort	N
Baccharis gutinosa	Mulefat	N
Baccharis pilularis ssp. consanguinea	Coyote Bush	N
Ciriusum vulgare	Bull Thistle	I
Carduus pycnocephalus	Italian Thistle	I
Gnaphalium californicum	Pearly Everlasting	N
Lactuca serriola	Prickly Lettuce	I
Picris echioides	Ox Tongue	I
Venegasia carpesoides	Canyon Sunflower	N
Xanthium spinosum	Spiny Cocklebur	I
BRASSICACEAE		
Brassica nigra	Black Mustard	I
Raphanus sativus	Wild Radish	I
Rorippa nasturium -aquaticum	Watercress	I
CAPRIFOLIACEAE		
Sambucus mexicana	Elderberry	N
Lonicera involucrata	Twinberry	N
EQUISETACEAE		
Equisetum telmateia	Horsetail	N

FABACEAE		
Lupinus sp.	Lupine	N
Melilotus indicus	Yellow Sweet Clover	I
Vicia benghalensis	Vetch	I
FAGACEAE		
Quercus agrifolia	Coast Live Oak	N
MALVACEAE		
Malva parviflora	Cheeseweed	I
MYRTACEAE		
Eucalyptus sp.	Eucalyptus	I
ONAGRACEAE		
Epilobium adenocaulation	Willow-Herb	N
POACEAE		
Avena fatua	Wild Oaks	I
Bromus diandrus	Ripgut Grass	I
Oryzopsis sp.	Rice grass	I
Polypogon monspeliensis	Rabbitfoot Grass	I
PRUMULACEAE		
Angallis arvensis	Scarlet Pimpernel	I
RANUNCULACEAE		
Clematis ligusticifolia	Creek Clematis	N
RHAMNACEAE		
Rhamnus california	Coffeeberry	N
ROSACEAE		
Heteromeles arbutifolia	Toyon	N
Rubus ursinus	Calif. Blackberry	N
SALICACEAE		
Populus trichocarpa	Black Cottonwood	N
Salix lasiolepis	Arroyo Willow	N
SCROPHULARICEAE		
Mimulus cardinalis	Scarlet Monkey -Flower	N
Scrophularia california	California Figwort	N

SOLANACEAE		
Solanum douglasii	Douglas Nightshade	N
URTICACEAE		
Urtica holosericea	Giant Nettle	N
VERBENACEAE		
Verbena lasiotachys	Verbena	N

* I = Introduced
N = Native

SAN ANTONIO CREEK- LOS ALAMOS
ROUTINE MAINTENANCE ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:
The project begins approximately ½ mile upstream of Highway 101 and ends approximately four miles downstream of Bell St.

Setting:
Inspected on March 25, 2014.

San Antonio Creek, located in northwestern Santa Barbara County is near the unincorporated area of Los Alamos. The area where maintenance will occur is an approximately 5 mile portion of San Antonio Creek. San Antonio Creek through the maintenance area is low gradient, with sand and gravel substrate, running through low density urban areas of Los Alamos and agricultural fields downstream.

The maintenance area was dry during the creekwalks, which is typical of this creek in March; the creek is usually dried out by mid-spring. Riparian vegetation is generally quite dense along the entire maintenance area, dominated by medium and large willow trees. The creek invert is littered with fallen limbs and debris, but very little herbaceous growth due to the dense overstory and limited light infiltration.

Revegetation:
Since the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District has been tracking and reporting the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. The following table is being included in the Annual Routine Maintenance Plan addenda to more easily display and track the District's restoration efforts.

Historically within San Antonio Creek, the District has implemented restoration at several locations, however some of the plantings have not been as successful as desired and therefore not counted towards mitigation. In other areas, the private property owners have not been willing to allow restoration along their creek banks. In 2006, however, the District was able to implement a large restoration site along the north bank of San Antonio Creek at Hamptons Farms. The 2009/2010 Annual Plan included two restoration areas as part of bank shaping and stabilization. Another site was established in 2011; the revegetation was washed away in late season flows but the bank protection remained in place, and was revegetated again in 2012.

San Antonio Creek-Los Alamos				
Annual Plan Year	New Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2002/2003	2,690	5,100	1,500	-1,190
2003/2004	1,925	4,000	0	-3,115
2004/2005	3,800	7,600	0	-6,915
2005/2006	0	7,000	0	-6,915
2006/2007	800	7,800	7,800	85
2007/2008	760	2,400	0	-675
2008/2009	350	4,670	0	-675
2009/2010	0	4,670	4,670	3,995
2010/2011	1,400	2,150	2,150*	4,745
2011/2012	0	500	1,000*	5,745
2012/2013	0	0	0	5,745
2013/2014	160	0	0	5,585
2014/2015	0	0	0	5,585

* This restoration site was mostly washed away in 2011 storms. It was replanted to re-establish the site with an additional 1000 ft^2.

Engineering Analysis:

Maintenance of San Antonio Creek requires downed vegetation, overhanging vegeatation and debris removal to preserve flood flow conveyance and to protect adjacent properties. Obstructive vegetation consisting primarily of downed limbs and trees as well as limbs projecting into the active channel will be removed from the main channel at various locations to provide conveyance of flood waters as well as reduce the debris load which can aggravate bridge and culvert plugging.

Project Description:

Section 1:

A 3" dbh willow tree has fallen into the active channel in this section. A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks depending on access. Work in this section has no impact to native vegetation.

Section 2:

A willow limb has fallen into the active channel in this section. A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks depending on access. Work in this section has no impact to native vegetation.

Section 3:

A dead willow limb has fallen into the active channel in this section. A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks depending on access. Work in this section has no impact to native vegetation.

Section 4:
A large willow tree (9" dbh) has fallen from the north bank and landed on the pipe and wire of the south bank. In previous years, the District left the main trunk in place and removed only the lower hanging limbs. However, over time, the main trunk has dropped lower and lower into the main flow pathway. This year, the entire tree must be removed to prevent a flood hazard. A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks depending on access. Work in this section has no impact to native vegetation.

Section 5:
A dead willow limb has fallen into the active channel in this section. A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks depending on access. Work in this section has no impact to native vegetation.

Section 6:
A willow limb and debris have fallen into the active channel in this section. A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks depending on access. Work in this section has no impact to native vegetation.

Section 7:
Two downed willow branches have fallen into the active channel in this section. A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks depending on access. Work in this section has no impact to native vegetation.

Section 8:
A 8" dbh willow limb has fallen into the active channel in this section. A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks depending on access. Work in this section has no impact to native vegetation.

Section 9:
Two downed willow limbs have fallen into the active channel in this section. A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks depending on access. Work in this section has no impact to native vegetation.

Section 10:
A downed willow limb has fallen into the active channel and is collecting debris in this section. A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks depending on access. Work in this section has no impact to native vegetation.

Section 11:
A downed willow limb has fallen into the active channel at this section. A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel.

The vegetation will be cut up and hauled out of the creek or left on the upper banks depending on access. Work in this section has no impact to native vegetation.

Section 12:
A downed willow limb has fallen into the active channel at this section. A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks depending on access. Work in this section has no impact to native vegetation.

Section 13:
A 6" dbh willow tree has fallen into the active channel in this section. A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks depending on access. Work in this section has no impact to native vegetation.

Section 14:
A 8" dbh willow tree has fallen into the active channel in this section. A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks depending on access. Work in this section has no impact to native vegetation.

Section 15:
A 6" dbh willow tree has fallen into the active channel in this section. A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks depending on access. Work in this section has no impact to native vegetation.

Section 16:
A downed willow limb with multiple limbs has fallen into the active channel at this section. A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks depending on access. Work in this section has no impact to native vegetation.

Section 17:
A downed willow limb has fallen into the active channel at this section. A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks depending on access. Work in this section has no impact to native vegetation.

Impact Analysis and Mitigation Measures:
Listed below are the impacts and associated mitigation measures for each of the issue areas impacted by this project as identified in the Updated Program EIR. See the Section entitled "Impacts and Mitigation Measures" for definitions of the specific impacts and mitigation measures.

Impacts:
Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the impacts listed below are considered Class I (unavoidable

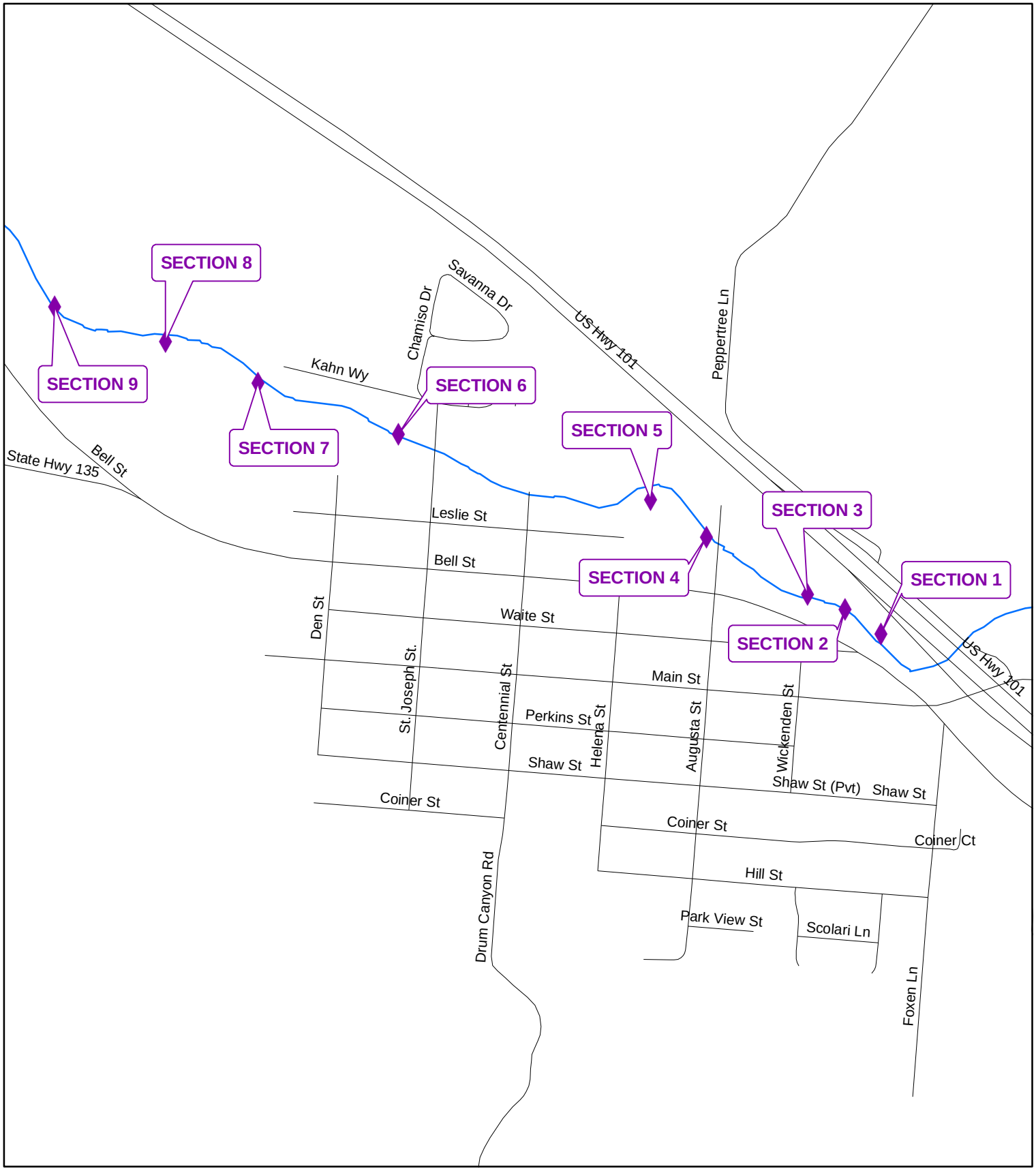
significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

Mitigation Measures:
Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Resource	**Impacts**	**Mitigation Measures***
Hydrology EIR sections 5.1.2, 5.1.3	H-A	H-1
Water Quality EIR sections 5.2.2, 5.2.3	WQ-A, WQ-B, WQ-C	H-1, B-2, W-2, W-4, W-6, W-7, W-8,
Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	WRR-A	B-1, B-2, B-3
Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	FAW-A, FAW-F, FAW-I	B-1, B-2, B-3, B-5, W-1, W-2,
Public Health EIR section 5.10	PH-A	W-2

*Residual Impacts:
Incorporation of the above mitigation measures would reduce the impacts to all resource categories to less than significant levels.

Project Specifics:
The project will take 5 days to complete.



Department of Public Works County of Santa Barbara

San Antonio, Los Alamos - A

Legend

♦ Sites

N W E S

Feet

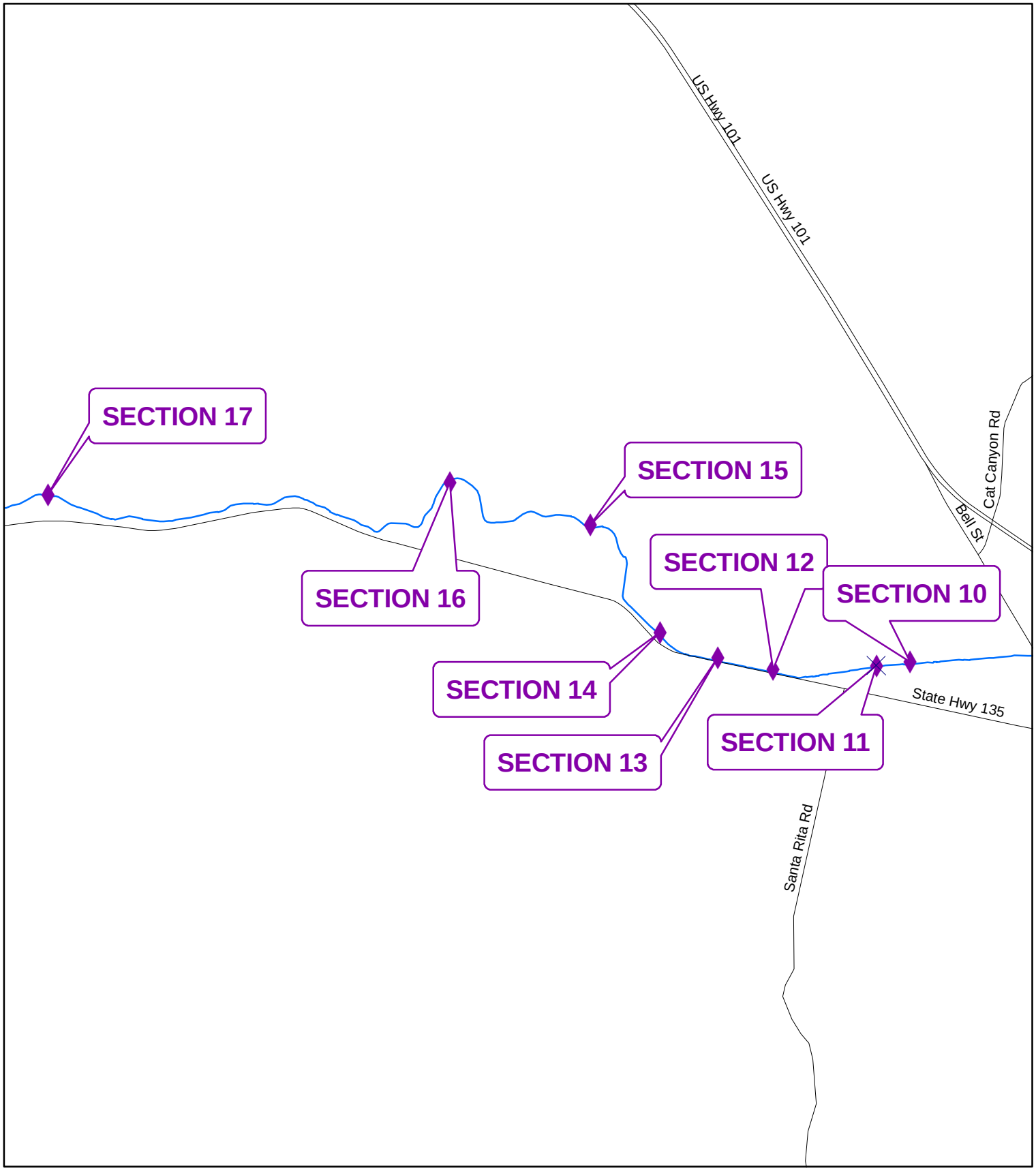
550 275 0 550

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in Mayl 2014.



Department of Public Works County of Santa Barbara

San Antonio, Los Alamos - B

Legend

Sites

This map is for reference only. Although every effort has been made to ensure the accuracy of information, errors and conditions originating from physical sources used to develop the database may be reflected on this map. Santa Barbara County shall not be liable for any errors, omissions, or damages that result from inappropriate use of this document. No level of accuracy is claimed for the boundary lines shown hereon and lines should not be used to obtain coordinate values, bearings or distances.

N W E S

Feet

1,900 950 0 1,900

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District

Compiled by the Public Works Enterprise GIS in Mayl 2014.

San Antonio – Los Alamos Creek

San Antonio – Los Alamos Creek – Section 2

San Antonio – Los Alamos Creek – Section 5

San Antonio – Los Alamos Creek

San Antonio – Los Alamos Creek – Section 9

San Antonio – Los Alamos Creek – Section 12

VASCULAR PLANT LIST
SAN ANTONIO CREEK - LOS ALAMOS

SCIENTIFIC NAME	COMMON NAME	ORIGIN
ACERACEAE		
Acer negundo	Box elder	N
AMARANTHACEAE		
Amaranthus albus	Tumbleweed	I
Amaranthus deflexus	Low Amaranth	I
ANACARDIACEAE		
Malosma laurina	Laurel Sumac	N
Toxicodendron diversilobum	Poison Oak	N
APIACEAE		
Apium graveolens	Celery	I
Conium maculatum	Poison Hemlock	I
Foenicumum vulgare	Sweet Fennel	I
ARALIACEAE		
Hedera helix	English Ivy	I
ASTERACEAE		
Ambrosia psilostachya	Western Ragweed	I
Anthemis cotula	Mayweed	I
Artemisia biennis	Biennial Sagewort	
Artemisia californica	California Sagebrush	N
Artemisia douglasiana	Mugwort	N
Baccharis douglasii	Marsh Baccharis	N
Baccharis salicifolia	Mulefat	N
Baccharis pillaris	Coyote Bush	N
Carduus pysnocephalus	Italian thistle	I
Centaurea sostitalis	Barnaby's Thistle	I
Cirisium vulgare	Bull Thistle	I
Conyza canadensis	Horseweed	I
Cotula coronopifolia	Brass Buttons	I
Gnaphalium chilense	Cottonvatting	N
Isocoma venetus ssp. Vernoniodes	Coast Goldenbrush	N
Lactuca serriola	Prickly Lettuce	I
Picris ecioides	Ox Tongue	I
Senecio vulgare	Common Groundsel	I
Silybum marianum	Milk Thistle	I
Sonchus arvensis	Prickly Sow Thistle	I

Xanthium spinosium	Spiny Cocklebur	I
Xanthium strmarium	Cocklebur	I
BORAGINACEAE		
Heliotropium curassavicum var. occulatum	Heliotrope	N
Amsinckia intermedia	Fiddleneck	N
BRASSICACEAE		
Brassica nigra	Black Mustard	I
Capsella bursa-pastoris	Shepherd's Purse	I
Cardaria draba	Hoary Cress	I
Raphanus sativus	Wild Radish	I
Rorippa nasturtium -aquaticum	Watercress	I
Sisymbrium altissimum	Tumbling Mustard	I
Sisymbrium irio	London Rocket	I
CARIFOLIACEAE		
Sambucus mexicana	Elderberry	N
CARYOPHYLLACEAE		
Spergula arvensis	Spurrey	I
Spergularia sp.	Sand Spurrey	I
CHENOPODIACEAE		
Artiplex hastate	Hastate-Leaved -Saltbush	N
Artiplex serenana	Bractscale	N
Chenopodium album	Lamb's Quarters	I
Chenopodium macrospermum var. farinosum	Coast Goosefoot	I
Chenopodium murale	Nettle-Leaved -Goosefoot	I
Salsola iberica	Russian Thistle	I
CONVOLVULACEAE		
Convolvulus arvensis	Bindweed	I
Cuscuta claifornica	Dodder	N
CYPERACEAE		
Cyperus alternifolius	Umbrella Plant	I
Cyperus esculentus	Yellow Nutgrass	N
Scirpus acutus	Common Tule	N
Scirpus californicus	California Bulrush	N
Scirpus pungens	Bulrush	N

Scirpus robustus	Prairie Bulrush	N
EUPHORBIACEAE		
Eremocarpus setigerus	Turkey Mullein	N
FABACEAE		
Lotus purshianus var. purshianus	Spanish Clover	N
Lotus salsuginosus	Lotus	N
Lupius bicolor	Bicolor Lupin	N
Medicago polymorpha	Bur Clover	I
Metilotus albus	White Sweet Clover	I
Metilotus inducus	Yellow Sweet Clover	I
Vicia benghalensis	Vetch	I
FAGACEAAE		
Quercus agrifolia	Coast Live Oak	N
Quercus lobata	Valley Oak	N
FRANKENIACEAE		
Frankenia grandifolia	Alkali Heath	N
GROSSULARIACEAE		
Ribes divaricatum	Straggly Gooseberry	N
JUGLANDACEAE		
Juglans regia	English Walnut	I
JUNCACEAE		
Juncus bufonius	Toad Rush	N
Juncus effusus var. brunneus	Common Rush	N
Juncus texilis	Indian Rush	N
Juncus Xipihiodes	Iris-Leaved Juncus	N
LAMIACEAE		
Marrubium vulgare	Horehound	I
Stachys bullata	Wood Mint	N
LEMNACEAE		
Lemma sp.	Duckweed	N
MALVACEAE		
Malva prviflora	Cheeseweed	I
Sidalcea leprosa	Alkali Mallow	N

MYRTACEAE		
Eucalyptus globulus	Blue Gum	I
ONAGRACEAE		
Camissonia cheiranthifolia ssp. cheiranthifolia	Primose	N
Epilobium paniculatum	Willow-Herb	N
Epilobiumm ciliatum	Willow-Herb	N
PAPAVERACEAE		
Eschscholzia californica	California Poppy	N
PLANTANACEAE		
Platanus racemosa	Western Sycamore	N
PLUMBAGINACEAE		
Limonium sinatum	Statice	I
POACEAE		
Arundo donax	Giant Reed	I
Avena fatua	Wild Oats	I
Bromus diandrus	Ripgut Grass	I
Cynodron dactylon	Bermuda Grass	I
Digitaria sanguinalis	Crab-Grass	I
Distichlis spicata	Saltgrass	I
Echinocgkia crysgakku	Barbyard Nukket	I
Elymus condensatus	Giant Rye	N
Hordeum glacum	Glausus Barley	I
Koeleria macrantha	June Grass	I
Leptochloa univeria	Sprangletop	I
Lolium perenne	Italian Ryegrass	I
Piptatherum miliaceum	Rice Grass	I
Phalaris stenoptera	Harding Grass	I
Polypogon monspeliensis	Rabbitsfoot Grass	I
POLEMONIACEAE		
Navarretia atractyloides	Navarretia	I
POLYGONACEAE		
Chorizanthe saticoides	Turkish Rugging	I
Polygonum arenastrum	Common Knotweed	I
Polygonum lapathiflium	Willow Smartweed	N
Polygonum punctatum	Dotted Smartweed	N
Rumex angiocarpus	Sheep Sorrel	I
Rumex crispus	Curly Dock	I
Rumex fueginus	Golden Dock	I

Rumex hymenosepalus	Wild Rhubarb	N
PORTULACEAE		
Portulaca oleracea	Purslane	I
PRIMULACEAE		
Anagallis arvensis	Scarlet Pimpernel	I
RANUNCULACEAE		
Clematis ligusticifolia	Creek Clematis	N
ROSACEAE		
Rosa californica	Wild Rose	N
Rubus ursinus	California Blackberry	N
SALICACEAE		
Populus fremontii	Fremont Cottonwood	N
Populus balsamifera	Black Cottonwood	N
Salix exigua	Narrowleaf Willow	N
Salix laevigata	Red Willow	N
Salix lasiolepis	Arroyo Willow	N
SCROPHULARIACEAE		
Datura ferox	Chinese Thornapple	I
Datura meteloides	Jimson Weed	I
Diplacus longiflorus	Bush Monkeyflower	N
Mimulus guttatus	Marsh Monkey -Flower	N
Scrophularia californica	California Figwort	N
Veronica Americana	Speedwell	N
SOLANCEAE		
Nicotiana glauca	Tobacco Tree	I
Solananum douglasii	Douglas Nightshade	N
SPARGANIACEAE		
Sparganium euycarpum	Bur Reed	I
TAMARICACEAE		
Tamarix sp.	Tamarisk	I
TYPHACEAE		
Typha domingensis	Cattail	N
ULMACEAE		
Ulmus minor	Smoothleaved Elm	I

URTICACEAE		
Urtica holosericea	Giant Nettle	N
Urtica urens	Dwarf Nettle	N
VERBENACEAE		
Verbena lasiostachys	Verbena	N
VITACEAE		
Vitis sp.	Grape	I

*I = Introduced
N = Native

SANTA MARIA AIRPORT/ABEX CHANNELS
ROUTINE MAINTENANCE ADDENDUM
TO THE PROGRAM EIR FOR SANTA BARBARA
COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:
The Airport/Abex channels are located along the northeast side of the Santa Maria Municipal Airport. See attached map for specific locations.

Setting:
Inspected on March 20, 2014.

Airport Channel begins a short distance to the west of the intersection of Skyway Drive and Lakeview Road northeast of the Santa Maria Airport. The Airport Ditch is a trapezoidal channel that has been reinforced with hard bank structures (i.e., concrete rip-rap) in some locations. The ditch trends northwest along Skyway Drive for approximately 1 mile. After passing beneath Skyway Drive, the ditch runs generally westward along the south side of Sunset Ridge Golf Course. Runoff is directed from north and west of the golf course to a weir structure in corner of the channel adjacent to the golf course. The weir enables water to be diverted into a natural, westward-trending channel that leads to Betteravia Lakes. A three-quarter mile segment of the Airport Ditch between Air Park Lane and the point where Skyway Drive turns north is concrete lined.

Vegetation along portions of the ditch varies in composition. Emergent aquatic species such as cattail, bulrush and sedges occur in the streambed along with bare sand and gravel. The banks of the channel are sparsely vegetated with predominantly non-native, ruderal species, including patches of exotic pampas grass. The District is working on removing exotic vegetation and replacing native willows and riparian trees. The restoration areas have created a willow canopy that helps minimize dense obstructive vegetation in the channel. The District continues to replant species in the restoration areas and remove pampas grass. Both native and non-native trees are present along some segments. Arroyo willow is the most common native tree species.

Abex Channel is a combination of concrete-lined and earthen ditch that is located adjacent to the Santa Maria Airport and is a tributary to Airport Ditch. The Santa Maria Airport property is located to the south and west, industrial buildings and a large paved lot are located to the north. The earthen portion of this channel is located at the confluence with Airport Ditch and is approximately 500 feet long. The remaining length of Abex Ditch (upstream of the earthen portion) is concrete lined, travels amongst industrial and office buildings located northeast of the airport, and contains poor habitat for any native plants or animals. Portions of the concrete-lined channel are underground within culverts. The District typically performs maintenance tasks only in the earthen segment of Abex Channel. This reach often becomes colonized with patches of cattail and bulrush which constrict the flow capacity of the drainage. Adjacent vegetation is mostly weedy species such as wild radish, black mustard and telegraph weed along the banks. The District installed approximately 4,000 square feet of native riparian vegetation along 300 linear feet of the south bank in 2005.

Revegetation:

Since the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District has been tracking and reporting the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. The following table is being included in the Annual Routine Maintenance Plan addenda to more easily display and track the District's restoration efforts.

Santa Maria Airport Channel				
Annual Plan Year	New Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2004/2005	10,000	10,000	10,000	0
2005/2006	5,500	5,500	5,500	0
2006/2007	0	0	0	0
2007/2008	0	0	0	0
2008/2009	90	90	0	-90
2009/2010	0	1,600	1,600	1,510
2010/2011	0	0	0	1,510
2011/2012	0	0	0	0
2012/2013	1000	3000*	2650*	2910*
2013/2014	2600	1000	3400	6310
2014/2015	200	TBD	TBD	TBD

*Restoration on Airport Channel will be used to mitigate impacts on Airport Channel and Abex Channel which are adjacent channels with a confluence.

Maintenance-related impacts in Abex Channel were mitigated through a restoration site in 2004 and 2005.

Abex Channel				
Annual Plan Year	New Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2004/2005	4,000	4,000	4,000	0
2005/2006	0	0	0	0
2006/2007	0	0	0	0
2007/2008	0	0	0	0
2008/2009	0	0	0	0
2009/2010	0	0	0	0
2010/2011	0	0	0	0
2011/2012	0	0	0	0
2012/2013	250	0	0	0
2013/2014	0	0	0	0
2014/2015	0	0	0	*

*Restoration on Airport Channel and Abex Channel is applied for mitigation along both locations.

Wildlife Survey:

The California red legged frog (RLF) has been detected in the Airport Channel and Abex Channel.

The Airport Channel is usually wetted year round. Red legged frogs were observed in the wetted portions during surveys in 2003 and maintenance monitoring in 2005. In dryer years, RLF are generally not detected in the channel. No RLF were observed during biomonitoring for the 2009/2010 maintenance season, one RLF was relocated during 2011 maintenance. In 2013, two subadult RLF were detected at the weir at the downstream end of Airport Ditch

Similarly, RLF were observed in the Abex Channel in 2003 and 2004. No frogs were seen during the 2007/2008 maintenance activities or during a survey in March 2008 or during maintenance activities in the fall of 2009. However, 5 RLF were detected during biomonitoring in 2011. It is expected that frogs are likely to be present in the drainage when standing water is present, therefore work in the channel is postponed until the dry season.

The District presumes that red legged frogs may still be present in the channels and implements protective measures and monitoring as required. The District has developed a management strategy and special conditions for red legged frog through a Biological Opinion issued by the US Fish and Wildlife Service. Proposed maintenance in Airport and Abex Channels uses a Gradall with a mower attachment to mow non-native vegetation, leaving enough residue to serve as wildlife cover. The District Biologist monitors equipment work and captures/relocates any RLF that are flushed from vegetation during the work. This strategy has been successfully deployed for several years in RLF habitat.

This year's maintenance includes desilting at Section 4. The District Biologist will monitor the desilting operations. Depending on weather in summer 2014, the entire work area may be dry during maintenance. If standing water is present, RLF will be flushed from the work site and relocated out of the work area into adjacent habitat. Impacts to the red legged frog and other species discussed in the Program EIR are expected to be less than significant with the incorporation of proposed mitigation measures, monitoring, and special conditions in the Biological Opinion.

Engineering Analysis:

The Airport/Abex channels are engineered drainages designed to convey storm flows from portions of Orcutt and the City of Santa Maria through the industrial areas of the Airport area. Reduction in capacity, as a result of excessive vegetation and/or sedimentation, subjects the surrounding areas to frequent flooding. The Santa Maria River valley is very flat and all of the drainage courses are prone to sedimentation. Vegetation in the channel bed aggravates this situation. Obstructive vegetation in these drainages can severely restrict channel capacity resulting in flooding of roads, commercial/industrial properties as well as the airport. Vegetation lowers velocities and increases the potential for sedimentation and the attendant reduction in channel capacity. Therefore, controlling vegetation to minimize the potential for sedimentation will maintain the design capacity of the channels.

Project Description:

Airport Channel

Section 1:

The south banks of the ditch will be mowed for the entire length. A Gradall using a mower attachment will drive along the adjacent access road and reach into the ditch to mow the weedy vegetation and grasses on the south bank. The mower will leave 6-12" of vegetation stubble as wildlife cover. A strip of vegetation one foot above the toe will be left in place and not mowed.

Patches of cattails and bulrush are beginning to sprout in the active channel. Vegetation near the toe of the slopes and banks is acceptable, but the center of the channel must remain relatively clear during the winter so that storm flow can be carried away from the Airport and surrounding roadways.

A Gradall with a mower attachment will be used to mow any patches of vegetation through the center of the channel to regain the 8-10' width. The channel is greater than 10 feet in most locations, so a band of vegetation will be left behind (not mowed) outside of the 8-10 foot corridor. A followup application of herbicide will be applied to the area that was mowed. The vegetation outside of the 8-10 foot corridor will not be mowed or sprayed and will remain as wildlife habitat.

Section 2:

Section 2 involves non-native pampas grass removal and revegetation with native species. The District has been engaged in a multi-phased program to remove pampas grass from these drainage ditches and revegetate with native species for the last several years. Pampas grass removal will be performed opportunistically during the 2014/15 maintenance season, when the crew has time and equipment available during the maintenance window. The District's landscape contractor may also be involved in some stages of the project

Pampas removal typically involves one or more methods as described below, and sometimes a combination of methods: 1) Gradall excavation: with this method, a Gradall is stationed along the existing access road, it reaches over the ditch with a long boom arm, and scoops out entire pampas grass clusters and root material with the bucket, and then rakes over the soil to prepare the bank for planting. 2) Winching: the crew wraps a cable around the pampas mass and a winch truck pulls the cable, dislodging the entire plant and pulling it out of the bank. 3) Cut and spray: the crew uses hand tools to cut the main stalks of the pampas grass and the remaining material is sprayed with herbicide. This method typically requires a followup spray in the spring and summer. 4) Shovel-excavation: the crew uses shovels and hand tools to dig the root mass out of the soil and then hauls the entire pampas plant out of the bank.

With any method, the soil on the bank is raked and groomed to prepare a flat area for planting. Native species, such as arroyo willow, coyotebrush, sandbar willow, sycamore, cottonwood, mulefat, and wild rye will be installed to refill any bare areas. In some locations, the pampas grass colonies are interspersed within the dense willow thicket. In these areas, the pampas grass are removed but no re-planting is necessary because the existing willows adequately shade and refill the riparian corridor.

The total area of non-native removal and native restoration will be quantified in the field during the maintenance season. The square footage of restoration will be used to offset future impacts and mitigation requirements within the Annual Plan at Abex and Airport Ditch, as well as other drainage ditches in the region, such as Tanglewood, Orcutt-Soloman, Unit 2 channels, and Green Canyon ditches.

Section 3:
This Section is equivalent to Section 2. This reach had periodic infestations with pampas grass. The District crew will remove pampas colonies opportunistically, as time equipment, and funding allow. Bare areas left behind will be revegetated with native species. The total area of non-native removal and native restoration will be quantified in the field during the maintenance season. The square footage of restoration will be used to offset future impacts and mitigation requirements within the Annual Plan at Abex and Airport Ditch, as well as other drainage ditches in the region, such as Tanglewood, Orcutt-Soloman, Unit 2 channels, and Green Canyon ditches.

Section 4:
This site is a double-box culvert that runs under an airport maintenance road. The floor and interior of the culverts has collected sand and sediment, compromising the flow capacity. The culverts empty onto a concrete apron and a weir structure. Sediment has collected on the concrete apron.

Using drag-sled attached to a small tractor, the District will pull sediment through the culvert towards the downstream end into a pile. From there, a Gradall stationed on the existing access road will scoop and remove sediment from the concrete apron. The material will be placed behind the machinery on the access road to dry, and then graded back into the roadbed. The material will be placed far enough away that percolating water will not flow back into the ditches. Approximately 4 cubic yards of material will be removed.

Section 5:
This reach has a dense, mature willow corridor on both sides of the drainage ditch. Last year, accumulated sediment was excavated from the weir. The weir pool has since been partially colonized by bulrush, and the bulrush has encroached across the entire channel at the downstream end of the pool

This year, the District proposes light brushing and limbing through this corridor to allow water and sediment to flow downstream from the weir and prolong the pool habitat created last year.

At the weir pool, the crew will brush a pathway through the center of the bulrush colony. The cut stalks will be spot sprayed with herbicide. The bulrush at the edges and the corner of the pool will be left behind (not brushed or sprayed) as wildlife habitat.

Further downstream for a length of 200 feet, willow limbs and fallen material from both banks will be cut with chainsaws and loppers to allow a width of 8 feet and height of 6 feet. Periodic patches of bulrush will be brushed, again leaving the vegetation at the edges of the channel untouched. Two downed trees within this section will be cut into smaller pieces and removed from the active channel.

This work will result in 200 square feet of impact to native vegetation.

Abex Channel

Section 1:

In this length (approximately 4'X450'), the upper slope of Abex ditch will be mowed for the entire length. A Gradall using a mower attachment will drive along the adjacent access road and reach into the ditch to mow the weedy vegetation and grasses on the south bank. The mower will leave 6-12" of vegetation stubble as wildlife cover. The strip of bulrush along the toe will not be mowed, but will be left behind as wildlife cover. A follow-up application of herbicides may be done in the spring/summer if vegetation begins to resprout in the floor of the channel. The toe of the banks will not be sprayed this season.

Impact Analysis and Mitigation Measures:

Listed below are the impacts and associated mitigation measures for each of the issue areas impacted by this project as identified in the Updated Program EIR. See the Section entitled "Impacts and Mitigation Measures" for definitions of the specific impacts and mitigation measures.

Impacts:

Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the impacts listed below are considered Class I (unavoidable significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

Mitigation Measures:

Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Resource	Impacts	Mitigation Measures*
Hydrology EIR sections 5.1.2, 5.1.3	H-A, H-D, H-E	H-1
Water Quality EIR sections 5.2.2, 5.2.3	WQ-A, WQ-B, WQ-C, WQ-D	H-1, B-2, W-1, W-2, W-4, W-6, W-7, W-8,
Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	WRR-A, WRR-D	B-1, B-2, B-3, B-4
Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	FAW-A, FAW-B, FAW-F, FAW-I	H-1, B-2, B-3, B-5, B-6, W-1, W-2,
Air Quality EIR sections 5.5.2, 5.5.3	AQ-A, AQ-B	A-1, A-2
Noise EIR sections 5.6.2, 5.6.3	N-A	N-1
Visual EIR sections 5.9.2, 5.9.3	V-A	V-1
Public Health and Safety EIR section 5.10	PHS-A	W-2

*Residual Impacts:
Incorporation of the above mitigation measures would reduce the impacts to all resource categories to less than significant levels.

Project Specifics:
This project will take approximately 8 days to complete.

Department of Public Works County of Santa Barbara

Legend

Lengths

Santa Maria Airport & ABEX Channels - Mowing

Feet

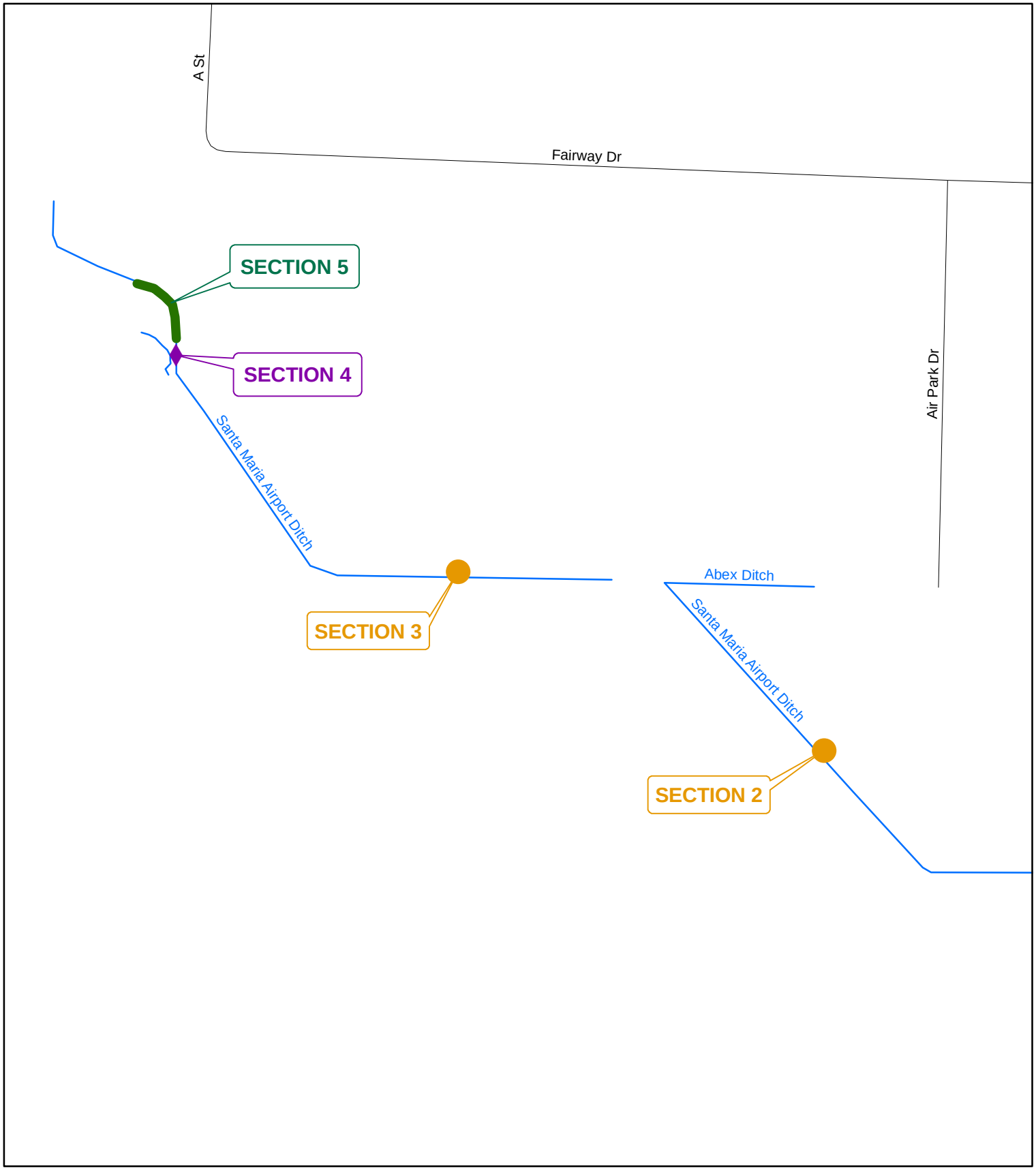
260 130 0 260

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014.-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in April 2014.



Department of Public Works County of Santa Barbara

Legend

- Sites
- Lengths
- Revegetation Sites

Santa Maria Airport Ditch ABEX

This map is for reference only. Although every effort has been made to ensure the accuracy of information, errors and conditions originating from physical sources used to develop the database may be reflected on this map. Santa Barbara County shall not be liable for any errors, omissions, or damages that result from inappropriate use of this document. No level of accuracy is claimed for the boundary lines shown hereon and lines should not be used to obtain coordinate values, bearings or distances.

N W E S

300 150 0 300

Feet

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in Mayl 2014.

Santa Maria Airport, ABEX Ditches

Santa Maria Airport Ditch – Section 4

Santa Maria Airport Ditch – Section 5

VASCULAR PLANT LIST
SANTA MARIA AIRPORT/ABEX CHANNELS

SCIENTIFIC NAME	COMMON NAME	ORIGIN*
ANACARDIACEAE		
Schinus molle	Pepper Tree	I
APIACEAE		
Conium maculatum	Poison Hemlock	I
Foeniculum vulgare	Sweet Fennel	I
ASTERACEAE		
Baccharis pilularis ssp. consanguinea	Coyote Bush	N
Carduus phonozephalus	Italian Thistle	I
Gnaphalium luteo-album	Weedy Everlasting	I
Picris echioides	Ox Tongue	I
Taraxcum officinale	Common Dandelion	I
BRASSICACEAE		
Brassica nigra	Black Mustard	I
Raphanus sativus	Wild Radish	I
Rorippa nasturtium	Watercress	I
CHENOPODIACEAE		
Chenopodium ambrosioides	Mexican Tea	I
Chenopodium murale	Nettle-Leaved -Goosefoot	I
CYPERACEAE		
Cyperus alternifolius	Umbrella Plant	I
Cyperus esculentus	Yellow Nutgrass	I
Scirpus californicus	CA Bulrush	N
EUPHORBIACEAE		
Ricinus communis	Castor Bean	I
FABACEAE		
Melilotus albus	White Sweet Clover	I
JUNCACEAE		
Juncus effusus var. brunneus	Common Rush	N
Juncus xiphioides	Iris-Leaved Juncus	N

LAMIACEAE		
Marrubium vulgare	Horebound	I
MYRTACEAE		
Eucalyptus	Eucalyptus	I
PAPAVERACEAE		
Eschscholia californica	California Poppy	N
PLANTAGINACEAE		
Plantago lanceolata	English Plantain	I
Plantago major	Common Plantain	I
POACEAE		
Agrostis stolonifera	Redtop	I
Avena fatua	Wild Oats	I
Bromus rubens	Foxtail	I
Cortaderia acacamensis	Pampas Grass	I
Lolium perenne	Italian Rye	I
Oryzopsis miliacea	Rice Grass	I
Polypogon monspeliensis	Rabbitsfoot Grass	I
POLYGONACEAE		
Rumex conglomeratus	Green Dock	I
Rumex crispus	Curly Dock	I
SALICACEAE		
Salix lasiolepis	Arroyo Willow	N
SOLANACEAE		
Nicotiana glauca	Tree Tobacco	I
TROPAELACEAE		
Tropaeolum majus	Garden Nasturtium	I
TYPHACEAE		
Typha sp.	Cattail	N

* I - Introduced
N - Native

SANTA MARIA RIVER ROUTINE MAINTENANCE
ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:
The sections of the Santa Maria River proposed for maintenance are west of the City of Santa Maria, along the southern levee where drainage culverts convey water through the levee.

Setting:
Inspected on April 30, 2014.

The Santa Maria River originates in the Los Padres National Forest and drains a 1,600 sq. mile watershed capable of producing 100,000 cfs during a 100 year return period precipitation event. Two main tributaries, the Sisquoc River and Cuyama River, join east of the City of Santa Maria and continue westward to the Pacific Ocean. The last several miles of the River are bounded by a levee along portions of the north and south banks to protect farms, and the cities of Santa Maria and Guadalupe. Between the levees, the Santa Maria River is a wide sandy corridor with a series of active and inactive braided channels. Willows as well as scrub and shrub species populate the sand and gravel substrate, while much of the channel is bare sediment. Sediment is chiefly sand and fines from deposition.

At several locations along the southern levee, urban runoff and agricultural tailwater is channeled through the levee via culverts. The culverts empty into the river system just up from the toe of the levee, while the active flow channel of the Santa Maria River might be several hundred feet away. In the summer months, tailwater dries up before joining the active channel. Most of the lower Santa Maria River goes completely dry during the summer.

The August 2009 La Brea Fire burned approximately 89,000 acres with 85% of the burned area located within the Sisquoc River watershed and 15% located in the Cuyama River watershed (both major tributaries to the Santa Maria River). Due to the burned watersheds, the District anticipates a higher than normal flow rate and sediment/debris transport during rain events for the next few years.

Revegetation:
Since the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District has been tracking and reporting the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. The following table is being included in the Annual Routine Maintenance Plan addenda to more easily display and track the District's restoration efforts.

Santa Maria River				
Annual Plan Year	New Temporal Impacts to Native Vegetation (acres)	Proposed Restoration (acres)	Restoration Implemented (acres)	Surplus Restoration (acres)
2003/2004	0	Not completely quantified– estimated at 10 acres	*	Estimated at 1.5 acres
2006/2007	1.2	0	0	0.3
2007/2008	12.65	11.15	13.5	1.15
2008/2009	0.6	0	0.6**	1.15
2009/2010	0	0	0	1.15
2010/2011	1.7	0.22	0**	**
2010/2011***	Annual Plan Cert…….0 34210WQ17 Cert ….. 72,150 ft^2	0 2.3 acre	0 0	1.15 -72,150 ft^2
2011/2012	Annual Plan Cert…….800 ft^2 34210WQ17 Cert …..N/A	0 0	0 0	
2012/2013	450	2.3	0	1.14 -72,150ft^2
2013/2014	0	1.7	TBD	TBD
2014/2015	1800	1 acre	TBD	TBD

*Included in the 2003/2004 Annual Routine Maintenance Plan was the Santa Maria River Mitigation Bank. This effort was not as successful as was hoped and although large areas were planted, the District did not gain large areas of useable acreage for mitigation.

**See the explanation of impacts and mitigation of scrub habitat associated with pilot channel construction below.

*** Mitigation for 2010/2011 projects is being tracked separately by RWQCB Water Quality Cert 34210WQ17.

The Santa Maria River Levee Operation and Maintenance manual, which prescribes standard procedures and maintenance requirements for the Federally constructed *Santa Maria Valley Levees and Channel Improvements* states "The flood flow channel…was cleared of brush, trees, and obstacles under the terms of the contract for construction of the project." The manual also says that the agency responsible for operation and maintenance (Santa Barbara County Flood Control District) "shall maintain the channel or floodway clear of debris, weed and wild growth." A section of the Code of Federal Regulations that governs maintenance of the levee project states: "Where practicable, measures shall be taken to retard bank erosion by planting of willows or other suitable growth on areas riverward of the levees."

Over the years the District has allowed and encouraged growth of willows and shrub/scrub vegetation in the river channel, especially along the toe of the levee. From Fugler Point, where the levee starts, to the terminus at Highway 1 in Guadalupe, the levee system encompasses approximately 4,100 acres of land of which nearly 1,800 acres are covered by varying densities of the shrub/scrub type of habitat. The vegetated areas have various densities of natives such as mulefat, bush lupine, sandbar willow, coyote bush, mugwort, and a variety of nonnatives

including wild radish, pearly everlasting, malva, black mustard, bromes, and morning glory, to name just a few. The Army Corps of Engineers has agreed that this vegetation that has been allowed to colonize the channel can be used as mitigation acreage for the temporal disturbance during pilot channel construction and other maintenance-related impacts. The pilot channels are placed through low terraces vegetated with the sparse shrub/scrub habitat. This type of habitat is of relatively low quality; the diversity, density and wildlife habitat is essentially identical between the areas to be cleared for pilot channels and the colonized vegetation on the adjacent terraces. In contrast, disturbance in higher-quality willow woodland has historically been mitigated by the District through compensatory restoration sites with new plantings.

In 2010, the Regional Water Quality Control Board requested that the District develop additional mitigation and restoration measures for incidental impacts to vegetation within the Santa Maria River System. Long-term mitigation/restoration strategies are still under development, but for the 2010/2011 season an agreement was reached in which the District would mitigate by performing riparian plantings at a 1:1 ratio for impacts that occurred in shrub/scrub or mixed willow/riparian habitats, while the District would not be required to mitigate for impacts occurring over bare substrate or weedy growth.

Some impacts in 2010/2011 were processed by RWQCB under a separate permit (Water Quality Cert 34210WQ17). The mitigation for this Cert are being tracked separately from mitigation for the Annual Plan. Both numbers are provided in the summary below for illustrative purposes.

The 2013/2014 Annual Plan does not include any pilot channels, only small patches of disturbance to alleviate obstructions.

Wildlife Survey:

As described in the project description, maintenance within the Santa Maria River will require the use of equipment in the river channel where a culvert and flap gate emerges along the south edge of the river. The river channel near the culverts is a mosaic of bare sandy washes, coastal sage scrub, and shrubby riparian woodland. The proposed maintenance site along the toe of the levee is mostly dry, therefore woody growth is minimal.

Red legged frogs are known to occur in wetted areas of the Santa Maria River. RLF have been detected in and near the project area during previous field surveys and biomonitoring Bradley Canyon and at the Bonita School road crossing (Section 1). The District assumes RLF may be present during maintenance operations. The District Biologist will monitor any grading work at these location and relocate RLF out of the work area, per the terms of the Biological Opinion.

The District Biologist will perform a pre-project inspection for the excavation at Section 3. If the site is wetted or otherwise suitable habitat for RLF, the work will be monitored as required, per the terms of the Biological Opinion.

The District has developed a management strategy and special conditions through a Biological Opinion issued by the US Fish and Wildlife Service. The management practices have been successful in accommodating maintenance activities and protecting individuals and populations of red legged frogs in District maintenance drainages. Because the water conditions can

change within the river depending upon nearby agriculture tailwater, pre-project surveys will be conducted and monitoring will ensure that no frogs are harmed by the maintenance. Onsite monitoring will include capture and relocation as necessary during operations. Impacts to the observed species as well as those discussed in the Program EIR are expected to be less than significant with the incorporation of proposed mitigation measures, special conditions in a red-legged frog Biological Opinion issued by the United States Fish and Wildlife Service and close monitoring by the District Biologist.

Engineering Analysis:

The Santa Maria River Levee was constructed by the US Army Corps of Engineers to a design capacity of the Standard Project Flood (SPF). The SPF flow rate is 150,000 cubic feet per second.

The levee was also constructed with several flap gates or culverts along the length at various locations to convey urban and agriculture runoff from areas outside of the levee to the river itself. At many of the culvert locations, agriculture and urban runoff have contributed to the growth of willow, bulrush, and cattail thickets along varying lengths of the river at and downstream of the culvert openings. The sedimentation and vegetation growth within the river at and near the flapgate outlets has severely compromised the ability of trenches to convey water into the river channel and away from the urban areas. Obstructive vegetation and sediment must be removed in order to maintain flow through the levee and prevent flooding of adjacent homes and land within the Santa Maria Valley as these drainages through the levee are the only avenue for flows to exit the City of Santa Maria and agricultural areas between Blosser and Bonita School Roads.

Project Description:

Section 1

This is an area proposed for restoration during the 2014/15 maintenance season. The site is near the junction of the Santa Maria River levee and Bradley Canyon. Bradley Canyon is an ag drainage ditch that flows from the south and meets the River at the east end of the Levee. The Army Corps is currently engaged in a separate restoration project on this property. The District's restoration will correspond with the Army Corps effort and will be performed when the Army Corps project window allows, expected in November or December 2014.

The property is owned by the District and was formerly used for row crops and fruit/vegetables by neighboring property owners. The District has recently terminated ag operations. This site is near a riparian corridor with historic observations of red-legged frogs, therefore increasing the habitat value at this site could have multiple species benefits.

Up to 2 acres will be planted with a mosaic of riparian species and native shrubs appropriate to the area. The District is working with the Army Corps to develop a planting palette to favor low-water species, as irrigation is difficult and cost-prohibitive at this location. Species will include arrow willow, sandbar willow, mulefat, buckwheat, coyotebrush elderberry, scalebroom, coast goldenbush, California sagebrush, and lupine.

Site preparation will include mowing or cutting existing weeds and annual grasses. The Bradley

Canyon ditch was excavated by the Army Corps during their levee construction project, and the entire restoration parcel was graded for staging, which assists in preparing a suitable planting bed but may also be prone to weed infestations. The District may excavate small temporary furrows from the main drainage ditch to deliver water to the restoration areas as part of the 2014/15 Annual Plan.

The restoration at Bradley Canyon will be used to address past-due mitigation for previous permit requirements and any surplus would be credited for future impacts from Annual Plan tasks in the Santa Maria River system.

Section 2

This area is a revegetation area begun in 2014 at the culvert outlet under Bonita School Road. The District started the first phase of weed removal and restoration during the 2013/14 Annual Plan. As part of the work in 2013/14, a trench was excavated from the Bonita School Road culvert to allow ag tailwater to drain away from the levee and the roadway. As a result, the tailwater escaped to an old rudereal field. The District performed extensive weed control and replanting to fulfill prior mitigation obligations from 2010/11.

The next phase of the project in the 2014/15 season will involve further weed removal, maintenance, and additional planting as necessary. The site is currently covered with a blend of non-native poison hemlock, whitetop, black mustard, and Bermudagrass, with interspersed clusters of native plants that were installed by the District last season. Weed removal may include weed-whacking, spot spray with herbicide, and disking or grading with a small tractor. The tractor will drive over the weedy areas, scraping the weeds and the upper few inches of soil to capture the seed bank; the material will be spread outside of the restoration zone over the existing weeds and bare soil in the surrounding fallow field. As the tractor exits the site, the blade will be tilted slightly to excavate shallow furrows to facilitate planting and watering (no grading would occur in the wetted channel). Selected areas may be treated by installing black plastic tarps over the ground surface to solarize and suffocate stubborn weed patches.

Willow cuttings will be harvested from the adjacent willow canopy and installed in the furrows. Additional container plants and native seed mixes will be planted. The final extent of planting will be determined by weather conditions, workload, schedule, and funding. The plants will be watered with a combination of water-trucks and onsite watering using a small portable pump to pull water from the ag tailwater culvert and distribute water onto the new plantings, approximately once per 2 weeks. The pump intake is screened to exclude wildlife.

Section 3:

This section is a flap gate and double culvert that drains through the south levee into the River channel. The opening of the culverts has filled with sand and sediment over the past several years. The sediment impedes drainage through the culverts into the River. To restore the function of the culverts, the District will use an excavator to remove the accumulated sediment. The excavator will park along the top of the existing levee road and reach over to the flap gate. The excavation area is approximately 10 by 10 feet and 3-4 feet deep. Approximately 15 cubic yards of material will be excavated. The material will be placed behind the excavator on areas of bare soil, and at the end of the project, graded to blend back into the adjacent property and dirt road.

A cluster of dead vegetation and debris that has accumulated at the site will also be excavated along with the sediment. The project will not result in impacts to living native vegetation.

Section 4:
Section 4 involves the previously established pilot channels at the Railroad crossing and Highway 1 bridge. Pilot channels were established in the early 2000s to address channel constriction at this location near the town of Guadalupe. The pilot channels allow flowing water to drain under the Railroad bridge at a safe location, central in the channel, rather than eroding toward the levee or north bank. The pilot channel continues downstream and splits into two channels at the Highway 1 bridge, also to allow drainage at optimal locations within the channel. The pilot channels also allow vegetation to remain and persist at the north and south borders of the river channel. Once established, the pilot channels need periodic maintenance to prevent colonization and succession of a woody thicket.

The last two seasons have been incredibly dry and no scouring flow occurred in the River to perpetuate the pilot channels. Weeds and willow sprouts are colonizing the channels. The District will spot spray the woody growth and weedy thickets within the pilot channels only. Low, sparse, and herbaceous species will not be sprayed, only denser patches that threaten to form thickets will be treated.

Vegetation between the channels will not be treated and will be allowed to persist. If dense weeds re-colonize the pilot channels in the fall, a re-treatment may be needed in the spring or summer.

The treatment area is mostly non-natives (wild raddish, hemlock, mustard, white-top, ripgut brome) with occasional sprouts of arroyo willow, mulefat and coyotebrush. Native cover is less than 5% currently, but the weeds and native species can rapidly form dense thickets if not maintained. The total area of the pilot channels is approximately 39,000 square feet, of which 4-5 % is native cover. The work will impact ~1800 square feet of native vegetation.

Impact Analysis and Mitigation Measures:
Listed below are the impacts and associated mitigation measures for each of the issue areas impacted by this project as identified in the Updated Program EIR. See the Section entitled "Impacts and Mitigation Measures" for definitions of the specific impacts and mitigation measures.

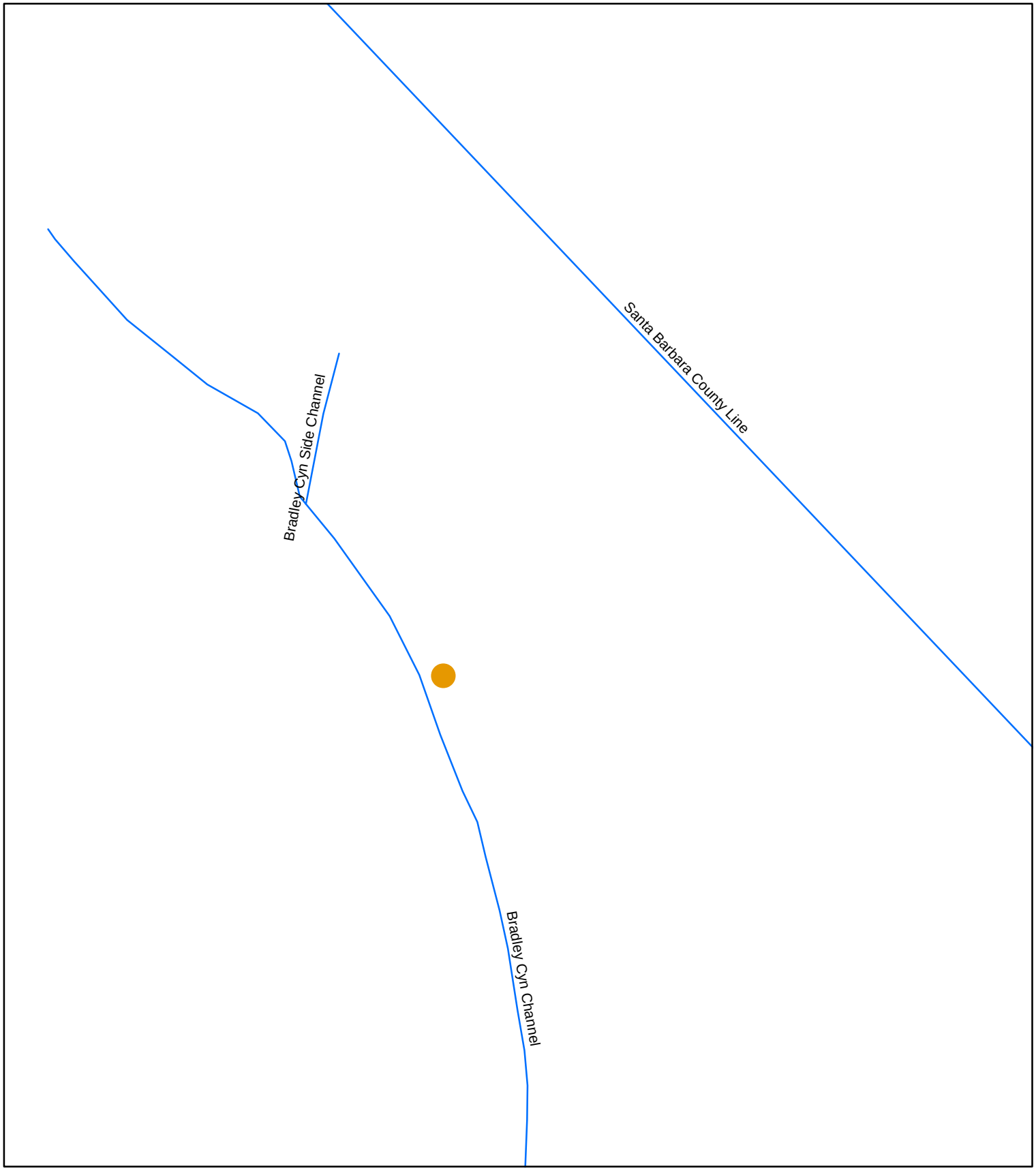
Impacts:
Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the impacts listed below are considered Class I (unavoidable significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

Mitigation Measures:
Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Resource	**Impacts**	**Mitigation Measures***
Hydrology EIR sections 5.1.2, 5.1.3	H-A, H-D, H-E	H-1, H-2, H-3, H-8
Water Quality EIR sections 5.2.2, 5.2.3	WQ-A, WQ-C, WQ-D	H-1, B-2, W-1, W-4,
Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	WRR-A, WRR-D	B-1, B-2, B-3, B-6
Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	FAW-A, FAW-B, FAW-E, FAW-I	H-1, B-1, B-2, B-3, B-5, B-6, W-2,
Air Quality EIR sections 5.5.2, 5.5.3	AQ-A, AQ-B	A-1, A-2
Noise EIR sections 5.6.2, 5.6.3	N-A	N-1
Visual EIR sections 5.9.2, 5.9.3	V-A	V-1

*Residual Impacts:
Incorporation of the above mitigation measures would reduce the impacts to all resource categories to less than significant levels.

Project Specifics:
The project will take approximately 15 days to complete.



Santa Maria River - A

Legend

Revegetation Sites

Department
of
Public Works
County
of
Santa Barbara

N
W E
S

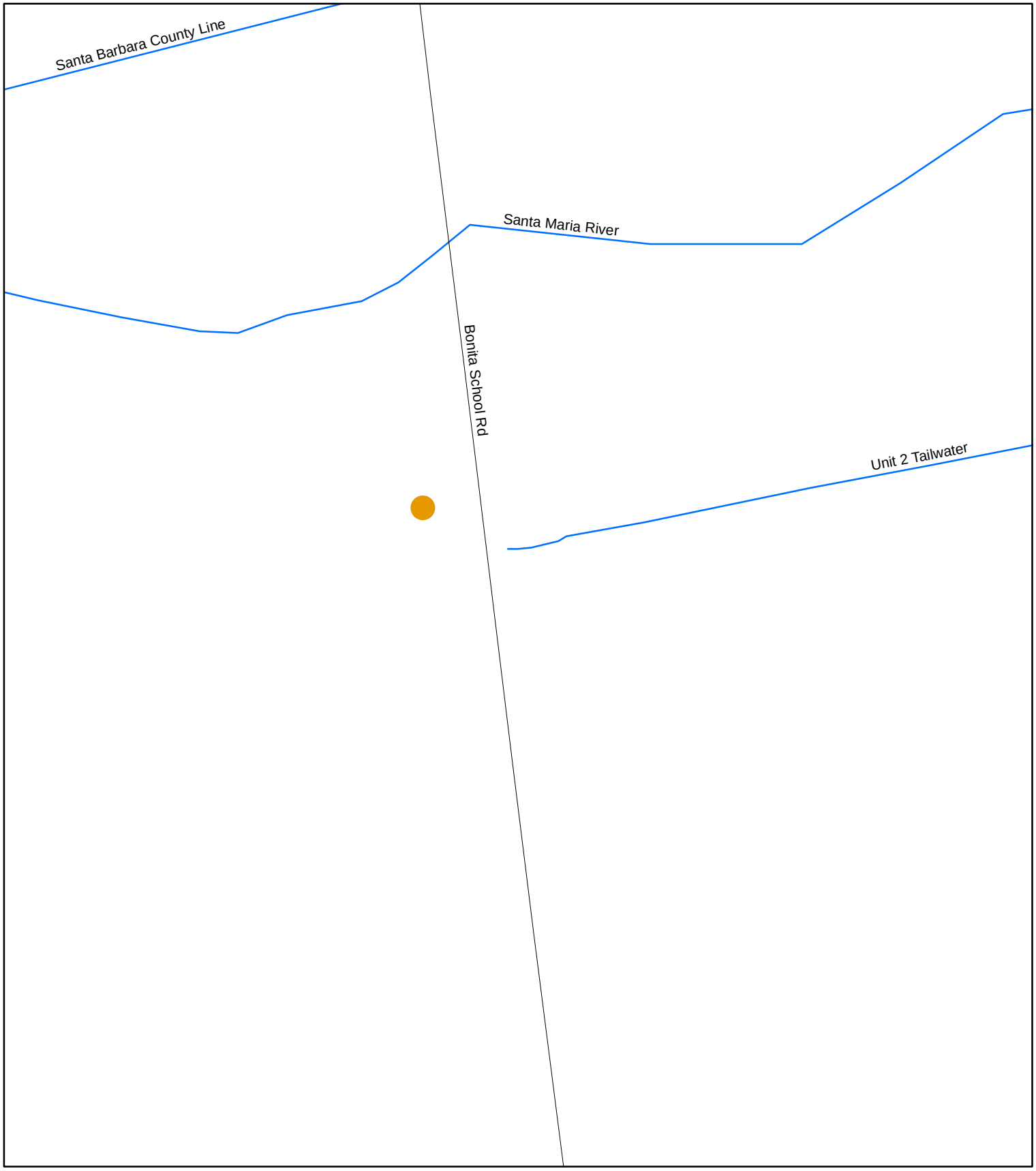
Feet
360 180 0 360

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in Mayl 2014.



Department of Public Works County of Santa Barbara

Santa Maria River - B

Legend

Revegetation Sites

N W E S

560 280 0 560 Feet

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
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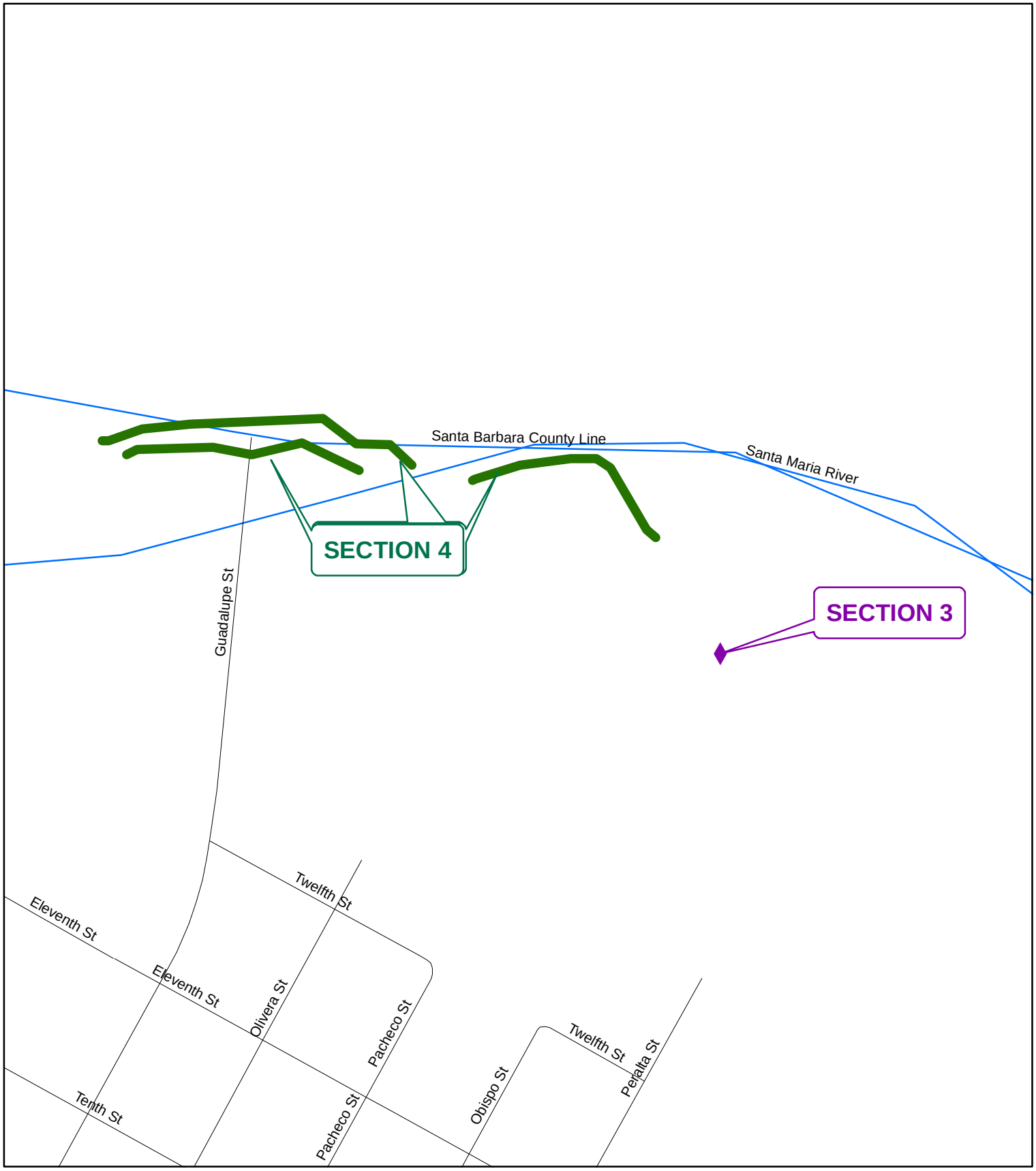


Department of Public Works County of Santa Barbara

Santa Maria River - C

Legend

- Sites
- Lengths

N W E S

Feet

310 155 0 310

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in Mayl 2014.

Santa Maria River

Santa Maria River – Section 1

Santa Maria River – Section 2

Santa Maria River

Santa Maria River – Section 3

Santa Maria River – Section 4

SANTA MARIA RIVER
VASCULAR PLANT LIST

SCIENTIFIC NAME	COMMON NAME	ORIGIN*
ANACARDIACEA		
Toxicodendron diversilobum	Poison Oak	N
APIACEAE		
Conium maculatum	Poison Hemlock	I
Foeniculum vulgare	Sweet Fennel	I
ASTERACEAE		
Artemiasia douglasiana	Mugwort	N
Baccharis salicifolia	Mulefat	N
Baccharis douglasii	Marsh Baccharis	N
Baccharis pilularis	Coyotebrush	N
Cotula coronopifolia	Brass Buttons	I
Gnaphalium luteo-album	Weedy Everlasting	I
Picris echioides	Ox Tongue	I
Silybum marianum	Milk Thistle	I
Taraxcum officinale	Common Dandelion	I
Senecio blochmaniae	Dune ragwort	N
Xanthium strumarium	Cocklebur	N
BETULACEAE		
Alnus rhombifolia	White Alder	N
BRASSICACEAE		
Brassica nigra	Black Mustard	I
Raphanus sativus	Wild Radish	I
Rorippa nasturtium-aquaticum	Watercress	I
CHENOPODIACEAE		
Chenopodium ambrosioides	Mexican Tea	I
Chenopodium berlandieri	Lamb’s Quarters	N
CONVOLVULACEAE		
Convolvulus althaeoides	Garden Morning Glory	I
CYPERACEAE		
Cyperus alternifolius	Umbrella Plant	I
Cyperus eragrostis	Sedge	N

CYPERACEAE		
Scirpus americanus	Three square	N
Scirpus californicus	California Bulrush	N
EQUISATACEAE		
Equisetum telmateia	Giant Horsetail	N
EUPHORBIACEAE		
Eremocarpus setigerus	Turkey Mullein	N
Ricinus communis	Castor Bean	I
FABACEAE		
Lupinus arborus	Lupine	N
Melilotus albus	White Sweet Clover	I
Melilotus indicus	Yellow Sweet Clover	I
Vicia benghalensis	Vetch	N
GROSSULARIACEAE		
Ribes amarum	Bitter Gooseberry	N
LAMIACEAE		
Marrubium vulgare	Horehound	I
Mentha xpiperita	Peppermint	I
MALVACEAE		
Malva parviflora	Cheeseweed	I
ONAGRACEAE		
Epilobium ciliatum	Willow-Herb	N
Camissonia cheiranthifolia	Beach Evening-primrose	N
PAPAVERACEAE		
Argemone munita	Prickly Poppy	N
PLANTAGINACEAE		
Plantago major	Common Plantain	I
POACEAE		
Avena fatua	Wild Oats	I
Pennisetum calnestinum	Kikuyu Grass	I
Polypogon monspeliensis	Rabbitsfoot Grass	I
POLYGONACEAE		
Rumex crispus	Curly Dock	I
PRIMULACEAE		
Anagallis arvensis	Scarlet Pimpernel	I

ROSACEAE		
Rosa californica	Wild Rose	N
Rubus ursinus	California Blackberry	N
SALICACEAE		
Populus fremontii	Fremont Cottonwood	N
Salix lasiolepis	Arroyo Willow	N
Salix exigua	Sandbar Willow	N
SCROPHULARIACEAE		
Mimulus guttatus	Marsh Monkey Flower	N
Minmulus guttatus	Monkey Flower	N
Veronica angallis-aquatica	Speedwell	N
SOLANCEAE		
Nicotiana glauca	Tobacco Tree	I
URTICACEAE		
Urtica holosericea	Giant Nettle	N
VERBENACEAE		
Verbena lasiostachys	Verbena	N

* I = Introduced
N = Native

SANTA YNEZ RIVER ROUTINE MAINTENANCE
ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:
The proposed maintenance within the Santa Ynez River begins approximately 1000 feet downstream from the outlet of Rodeo-San Pasqual Channel outlet and continues downstream approximately 1300' for a total distance of 1300'.

Setting:
Inspected on April 3, 2014.

The Santa Ynez River is one of the largest rivers in Santa Barbara County. The River is approximately 78 miles long and drains a watershed of 789 square miles. The River runs from west to east along the north slopes of the Santa Ynez Mountain Range. The lower watershed is on federal and private property. The river above the Lompoc Regional Waste Water Treatment Facility flows intermittently during the wet season, depending on rainfall and releases from the Bradbury Dam upstream. The river most often dries up during the summer months upstream of the City of Lompoc. Just below the WWTP, the river is perennial due to outflow from the facility. The facility treats up to 5 million gallons of water per day and releases the treated effluent into the Santa Ynez River approximately .75 miles upstream of the Floradale Bridge.

The riparian vegetation contains well developed, multi successional stages of willow riparian woodland and also areas of specimen cottonwood and sycamore trees. The understory is densely vegetated almost to the point of being impenetrable. Understory vegetation along the river banks consists of large stands of California blackberry, clematis, poison oak, elderberry, stinging nettle and nightshade while the flow areas of the river are dominated by young willows intermixed with areas of watercress and small areas of cattail and bulrush. The District will be cutting willows and will not disturb the more complex understory areas on the banks.

Revegetation:
After a 100'-wide clearing project in December 1997/January 1998, the District implemented 18 acres of restoration along the Santa Ynez River in three separate locations to compensate for the 16 acres of riparian vegetation that was removed. One location is just upstream of H-Street along the south side of the river in a fallow field, another site was located at Riverbend Park near Rucker Road on the south side of the river and the third site was located beginning just upstream of Riverbend Park. The proposed maintenance is within the same areas that were last cleared in 1998 therefore no additional restoration is proposed for this project.

Wildlife Survey:
The Santa Ynez River has the highest quality riparian habitat of any other drainage system throughout Santa Barbara County and several listed species are either known to historically or currently occur at least nearby the proposed project reach. The California red-legged frog is known to occur and breed in the project reach.

The project length stretches from the Floradale Bridge approximately 2500' downstream The California Natural Diversity Database (CNDDB) shows historical observations of steelhead trout and red legged frog near the project location. The river is designated as critical habitat for southern California steelhead, willow flycatchers are historically known to nest within the river corridor but not within the project reachy. The least Bell's vireo is known to nest in the upper Santa Ynez River drainage and was heard within the river in the lower Lompoc Valley outside of the current proposed project, in the late 1980s.

Protocol level surveys for Southwestern willow flycatcher and least Bell's vireo were performed in spring 2013 and spring 2014. Listed bird species were not detected in the 2014 project area. A focused red-legged frog survey was not conducted, however red-legged frogs are known to occur within this region of the river and are expected to be present during maintenance operations. Several large tadpoles (either red-legged frog or bullfrog) were detected in the area in 2013 and within the project reach in 2014. What was most likely a red-legged frog was detected during a field visit in spring 2014. The individual was heard jumping into the water but not seen. Most of the vegetation removal will be completed outside of the wetted channel with some work completed along the edges of the channel to remove downed willows and to widen the total width of the channel to 100'-wide which will require an average of 30' of clearing. Pools will be avoided during clearing activities. Two beaver ponds were located within the project reach during spring 2014 field visits. No vegetation removal will occur in or around the beaver ponds. All work will be performed outside of the RLF breeding season. The District Biologist will monitor vegetation removal operations and will provide a training session so crew members are aware of sensitive species issues and what to do if they see a sensitive animal. The District has successfully hand-cleared vegetation for the past three maintenance seasons without harming any sensitive wildlife species.

Engineering Analysis:

As described in the 2001 Updated Routine Maintenance PEIR, the objectives for clearing obstructive vegetation within the Santa Ynez River is to maintain a 100-foot wide swath (or its equivalent in two swaths with a minimum width of 30 feet for each swath) along the project reach with non-obstructive vegetation in order to allow sufficient channel capacity for certain flood flows. The last time vegetation was cleared within the river at this location was December 1997/January 1998 and since that time vegetation has colonized areas that were, at that time, part of the unobstructed flow areas. Over time the 100'-wide channel has been reduced to an average of 60' wide within this stretch of the river. In order to restore capacity through this area and allow unobstructed flows from Rodeo-San Pasqual Channel to enter into the Santa Ynez River, the District will clear an average of 40 feet of obstructive vegetation along the length of the channel.

Project Description:

Section 1:

The portion of the Santa Ynez River scheduled for maintenance during the 2014/2015 maintenance season begins just downstream of the Floradale Bridge and continues downstream for for a distance of 2500' feet. This section begins near the point that the District stopped the maintenance in 2010/11. There is a short area immediately downstream of Floradale brige where resprouting willows will be re-cut from 2010/11, and the remaining area downstream has not been maintained since the 1997/98 project.

As the River bends around the Floradale Bridge, the corridor has braided channels and sediment bars. Due to very low flows during the past 2 years, the River sediment has been subjected to very little scouring flow and as a result, the channel has become obstructed with vegetation. The flow corridor is only approximately 60' wide immediately downstream of Floradale Bridge for a length of approximately 600' and then the channel opens up considerabely with only approximately 10-15' of clearing needed along 800 linear feet of channel. It is within this area that the two beaver ponds are located. The most downstream portion of the project length would require approximately 30' of clearing to establish the 100' flow corridor. Due to the configuration of the channel, flow location, width of the channel, etc, all clearing of vegetation will occur along the south side of the channel corridor essentially where vegetation has been cleared historically thus retaining the very mature vegetation located along the north side of the river and flow areas.

Using chainsaws, and no heavy equipment, a crew will cut vegetation that has colonized the sediment bars to reclaim a 100-wide pathway. The vegetation will be cut into 4'-6' pieces and left within the river corridor but outside of the current active flow area. The cleared area will not include the dense mature riparian canopy along the south or north terraces at each bank. Overhanging trees from the south bank will be left in place over the low flow to maintain cover. Clearing will be done to take advantage of the natural open areas within the stream corridor as long as a contiguous corridor can be maintained. Along some sections of the 2500 linear feet, only relatively small clumps of willows will need to be removed to connect existing open areas and establish the 100' corridor. No herbicide will be used on the cut tree stumps.

The District flew over the river and conducted a field visit in April 2014 to determine the location with the greatest need and the best configuration of the cleared corridor. Prior to work beginning in fall 2014, the District Biologist will perform a pre-project inspection to remeasure and flag the work area to minimize disturbance.

Impact Analysis and Mitigation Measures:

Listed below are the impacts and associated mitigation measures for each of the issue areas impacted by this project as identified in the Updated Program EIR. See the Section entitled "Impacts and Mitigation Measures" for definitions of the specific impacts and mitigation measures.

Impacts:

Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included.

Mitigation Measures:

Mitigation measures are taken from the Section 6.0 Environmental Setting, Impacts and Mitigations-Santa Ynez River Program of the of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Resource	Impacts	Mitigation Measures*

Hydrology EIR sections 6.1.2, 6.1.3	SY-H-A	None required
Water Quality EIR sections 6.1.2, 6.1.3	SY-WQ-A, SY-WQ-B,	SY-H-1
Wetlands, Riparian Habitat, and Rare Plants EIR sections 6.2.2, 6.2.3	SY-WRR-A, SY-WRR-B, SY-WRR-C, SY-WRR-D	SY-B-1, SY-B-2, SY-B-3, SY-B-4, SY-B-5, SY-B-6, SY-B-7
Fish, Aquatic Species, and Wildlife EIR sections 6.3.2, 6.3.3	SY-FAW-A, SY-FAW-B, SY-FAW-C, SY-FAW-D	SY-H-1, SY-B-2, SY-B-5, SY-B-7, SY-B-8, SY-B-9
Air Quality EIR sections 6.4.2, 6.4.3	SY-AQ-A, AY-AQ-B	SY-A-1
Noise EIR sections 6.5.2	SY-N-A	None required
Visual EIR sections 6.7.2, 6.7.3	SY-V-A	None required

*Residual Impacts:
Incorporation of the above mitigation measures would reduce the impacts to all resource categories to less than significant levels.

Project Specifics:
The project will take 2 weeks to complete.

Department of Public Works County of Santa Barbara

Santa Ynez River

Legend

Lengths

N W E S

Feet

580 290 0 580

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in Mayl 2014.

Santa Ynez River

Santa Ynez River – Section 1

Santa Ynez River – Section 1

Table 3

Santa Ynez River - West of Lompoc

Plant Species Inventory

Species	Habit[1]	Status[2]
Agrostis exarata **Trin.** "Spike bentgrass"	PG	N
Ambrosia acanthicarpa Hook. "Sand-bur"	AH	N
Ambrosia psilostachya DC. "Western ragweed"	PH	N
Amsinckia intermedia F. & M. "Fiddleneck"	AH	N
Amsinckia spectabilis F. & M. var. ***microcarpa*** (Greene) Jeps. & Hoov. "Seaside Amsinckia"	AH	N
Anemopsis californica Hook. "Yerba mansa"	PH	N
Apium graveolens L. "Celery"	PH	I
Artemisia californica Less. "California sagebrush"	S	N
Artemisia douglasiana Bess. in Hook. "Mugwort"	PH	N
Artemisia dracunculus L. "Tarragon"	PH	N
Astragalus sp. "Locoweed"	PH	N

(continued)

Table 3
(continued)
Santa Ynez River - West of Lompoc
Plant Species Inventory

Species	Habit[1]	Status[2]
Avena barbata Brot. "Slender wild oat"	AG	I
Avena fatua L. "Wild oat"	AG	I
Baccharis douglasii DC. "Douglas' Baccharis"	PH	N
Baccharis glutinosa Pers. "Mule fat"	S	N
Baccharis pilularis DC. ssp. ***consanguinea*** (DC.) C. B. Wolf. "Coyote brush"	S	N
Brassica geniculata (Desf.) J. Ball. "Mediterranean mustard"	BH	I
Brassica nigra (L.) Koch. "Black mustard"	AH	I
Bromus diandrus Roth. "Ripgut brome"	AG	I
Bromus mollis L. "Soft chess"	AG	I
Bromus rubens L. "Red brome"	AG	I
Bromus willdenovii Kunth. "Rescue grass"	AG	I
Calandrinia ciliata (R. & P.) DC. var. ***menziesii*** (Hook.) Macbr. "Red maids"	AH	N
Camissonia micrantha (Hornem. ex Spreng.) Raven. "Small primrose"	AH	N

(continued)

Table 3
(continued)
Santa Ynez River - West of Lompoc
Plant Species Inventory

Species	Habit[1]	Status[2]
Camissonia strigulosa (Fisch. & Meyer) Raven. "Contorted primrose"	AH	N
Cardaria draba (L.) Desv. "Hoary cress"	PH	I
Carduus pycnocephalus L. "Italian thistle"	AH	I
Centaurea melitensis L. "Tocalote"	AH	I
Claytonia perfoliata Donn. "Miner's lettuce"	AH	N
Clematis ligusticifolia Nutt. in T. & G. "Virgin's bower"	V	N
Conium maculatum L. "Poison hemlock"	BH	I
Cortaderia atacamensis (Phil.) Pilger. "Pampas grass"	PG	I
Cotula coronopifolia L. "Brass buttons"	PH	I
Cryptantha sp. "Popcorn flower"	AH	N
Cyperus eragrostis Lam. "Tall Cyperus"	PH	N
Descurainia pinnata (Walt.) Britton ssp. ***menziesii*** (DC.) Detl. "Tansy mustard"	AH	N
Dipsacus sativus (L.) Honckeny. "Teasel"	BH	I
Ehrharta calycina Sm. "Veldt grass"	PG	I

(continued)

Table 3
(continued)
Santa Ynez River - West of Lompoc
Plant Species Inventory

Species	Habit[1]	Status[2]
Eleocharis macrostachya Britton in Small. "Common spikerush"	PH	N
Epilobium adenocaulon Hausskn. "Willow-herb"	PH	N
Equisetum telmateia Ehrh. var. ***braunii*** Milde. "Giant horsetail"	PH	N
Eremocarpus setigerus (Hook.) Benth. "Doveweed"	AH	N
Eriogonum fasciculatum Benth. "California buckwheat"	S	N
Erodium cicutarium L. "Filaree"	AH; I	
Eucrypta chrysanthemifolia (Benth.) Greene. "Common Eucrypta"	AH	N
Euphorbia peplus L. "Petty spurge"	AH	I
Festuca arundinacea Schreb. "Alta fescue"	PG	I
Festuca megalura Nutt. "Foxtail fescue"	AG	N
Foeniculum vulgare Mill. "Sweet fennel"	PH	I
Galium aparine L. "Bedstraw"	AH	I
Geranium dissectum L. "Cranesbill"	AH	I
Gnaphalium luteo-album L. "Cudweed"	AH	I

(continued)

Table 3
(continued)
Santa Ynez River - West of Lompoc
Plant Species Inventory

Species	Habit[1]	Status[2]
Gnaphalium sp. "Everlasting"	AH or BH	N
Haplopappus ericoides (Less.) H. & A. "Mock heather"	S	N
Hedypnois cretica (L.) Willd. "Crete Hedypnois"	AH	I
Helenium puberulum DC. "Sneezeweed"	BH	N
Heliotropium curassavicum L. var. ***oculatum*** (Heller) Jtn. "Heliotrope"	PH	N
Heterotheca grandiflora Nutt. "Telegraph weed"	BH	N
Hordeum leporinum Link. "Foxtail"	AG	I
Hypochoeris glabra L. "Cat's ear"	AH	I
Juncus bufonius L. "Toad rush"	AH	N
Juncus effusus L. var. ***brunneus*** Engelm. "Bog rush"	PH	N
Juncus patens E. Mey. "Wire grass"	PH	N
Juncus xiphioides E. Mey. "Iris-leaved rush"	PH	N
Lemna sp. "Duckweed"	AH	N
Lupinus latifolius J. G. Agardh. "Canyon lupine"	PH	N

(continued)

Table 3
(continued)

Santa Ynez River - West of Lompoc
Plant Species Inventory

Species	Habit[1]	Status[2]
Lupinus succulentus Dougl. ex Koch. "Succulent lupine"	AH	N
Marah macrocarpus (Greene) Greene. "Wild cucumber"	PH	N
Marrubium vulgare L. "Horehound"	PH	I
Medicago polymorpha L. "Burr clover"	AH	I
Melilotus albus Desr. "Sweet clover"	AH	I
Melilotus indicus L. "Yellow sweet clover"	AH	I
Mimulus guttatus Fisch. ex DC. "Monkey flower"	PH	N
Nicotiana glauca Grah. "Tree tobacco"	S	I
Picris echioides L. "Ox tongue"	AH	I
Phalaris minor Retz. "Mediterranean canary grass"	AG	I
Plantago lanceolata L. "English plantain"	PH	I
Plantago major L. "Common plantain"	PH	I
Polygonum lapathifolium L. "Willow weed"	AH	I

(continued)

Table 3
(continued)

Santa Ynez River - West of Lompoc
Plant Species Inventory

Species	Habit[1]	Status[2]
Polypogon monspeliensis (L.) Desf. "Beard grass"	AG	I
Populus trichocarpa T. & G. "Black cottonwood"	T	N
Psoralea macrostachya DC. "Leather root"	S	N
Raphanus sativus L. "Wild radish"	AH	I
Ribes sp. "Gooseberry"	S; N	
Rorippa nasturtium-aquaticum (L.) Schinz & Thell. "Water-cress"	PH	I
Rorippa palustris (L.) Besser ssp. ***occidentalis*** (Wats. in Gray) Abrams "Marsh cress"	AH	N
Rubus ursinus C. & S. "California blackberry"	S	N
Rumex crispus L. "Curly dock"	PH	I
Salix hindsiana Benth. "Sandbar willow"	S	N
Salix laevigata Bebb. "Red willow"	T	N
Salix lasiolepis Benth. "Arroyo willow"	T	N
Sambucus mexicana Presl. "Mexican elderberry"	T	N

(continued)

Table 3
(continued)

Santa Ynez River - West of Lompoc
Plant Species Inventory

Species	Habit[1]	Status[2]
Satureja douglasii (Benth.) Briq. "Yerba buena"	PH	N
Schismus barbatus (L.) Thell.	AG	I
Scirpus californicus (C. A. Mey.) Steudel. "California bulrush"	PH	N
Scirpus microcarpus Presl. "Small-fruited bulrush"	PH	N
Scirpus robustus Pursh. "Prairie bulrush"	PH	N
Scrophularia atrata Penn. "Black-flowered figwort"	PH	N*
Scrophularia californica C. & S. var. ***floribunda*** Greene. "California figwort"	PH	N
Silybum marianum (L.) Gaertn. "Milk thistle"	AH	I
Sonchus oleraceus L. "Sow thistle"	AH	I
Sparganium angustifolium Michx. "Bur-reed"	PH	N
Stachys bullata Benth. "Hedge-nettle"	PH	N
Toxicodendron diversilobum (T. & G.) Greene. "Poison oak"	S	N
Trifolium sp. "Clover"	AH	

(continued)

Table 3
(continued)

Santa Ynez River - West of Lompoc
Plant Species Inventory

Species	Habit[1]	Status[2]
Typha domingensis Pers. "Cattail"	PH	N
Urtica holosericea Nutt. "Giant creek nettle"	PH	N
Urtica urens L. "Dwarf nettle"	AH	I
Verbena lasiostachys Link. "Verbena"	PH	N
Veronica anagallis-aquatica L. "Great water speedwell"	PH	I
Vicia sativa L. "Spring vetch"	AH	I
Xanthium strumarium L. var. ***canadense*** (Mill.) T. & G. "Cocklebur"	AH	I

Habit abbreviations:
AH = Annual herb; BH = Biennial herb; PH = Perennial herb; AG = Annual grass; PG = Perennial grass; V = Vine; S = Shrub; T = Tree

Native/introduced species:
N = Native; I = Introduced

*California Native Plant Society List 4 species

Sources: Munz, P. A. 1974. A Flora of Southern California. Univ. of Calif. Press,

UNIT II, UNIT II TAILWATER, EAST, AND WEST MAIN CHANNELS ROUTINE MAINTENANCE
ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:
Routine maintenance of the network of drainages located immediately west of the City of Santa Maria will occur on various sections of the Unit II, West Main, East and Unit II Tailwater channels. See attached map for specific locations.

Setting:
Inspected on 3-17-2014.

West Main Street Channel:
West Main Channel is a degraded unlined trapezoidal roadside ditch that runs from just west of Blosser Road in Santa Maria parallel to West Main Street for a distance of approximately 1.5 miles where it flows under West Main Street through a culvert and enters Unit II Channel. Dirt access roads run parallel to the channel on either side. Beyond the channel to the south are row crops and light industrial land use. To the north is West Main Street, light industrial property and row crops. West Main Street Channel receives runoff from the west end of the city of Santa Maria and surrounding agriculture fields and flows year round. The channel banks are vegetated with weedy species such as black mustard, wild radish, cheeseweed and telegraph weed. No trees grow on along this drainage.

Unit II Channel:
Unit II Channel is a constructed trapezoidal channel that trends north from West Main Street to the Santa Maria River Levee, a distance of about 2 miles, where it enters the Santa Maria River. Dirt access roads run parallel to the channel on either side. Row crops surround the channel beyond the access roads. This channel carries highly turbid runoff from the surrounding agriculture fields as well as runoff from the west end of the City of Santa Maria. Weedy species such as black mustard, wild radish, cheeseweed, telegraph weed, watercress, and annual grasses occur along the entire length of the channel. The District's maintenance program typically allows this vegetation to grow thicker at the toe of the bank along at least one side of the channel (to provide wildlife cover), while the higher banks are periodically mowed to keep the weeds to a minimum for the surrounding farmers. No trees grow along this drainage.

Unit II Tailwater Channel:
Unit II Tailwater Channel is an unlined, trapezoidal channel that carries highly turbid irrigation and storm water runoff from agricultural fields south of the Santa Maria River. The channel trends westward for about 1.5 miles parallel to the Santa Maria River Levee and discharges into the river just east of Bonita School Road. Dirt access roads run parallel to the channel on both sides. Vegetation within the bottom of the channel is relatively sparse and the banks of the channel are vegetated with weedy species such as black mustard, wild radish, cheeseweed and annual grasses. There are no trees along this drainage, except occasional willows isolated at the intersection with Bonita School Road. Water level is highly variable and can vary from 2-plus feet deep to completely dry, depending upon the surrounding crops and irrigation schedules. Unit II

tail water suffered from erosion and bank failure at several locations during storms in December 2010 and January/March 2011. Some emergency protective measures were deployed, but erosion damage remained into spring 2011.

East Channel:
The segment of East Channel that is maintained by the District is a 2-mile portion of the ditch that runs parallel to the Santa Maria River on the south side of the levee. The East Channel runs along agricultural fields and drains into Unit II, then through the levee via culvert. Vegetation in the bottom of the channel is relatively sparse due to infrequent flow; the banks are vegetated with weedy species such as black mustards, wild radish, cheeseweed, and annual grasses. There are no trees along this ditch. Water flow is highly variable and depends on runoff from the surrounding crops. Most of the year, East Ditch is dry.

Revegetation:
Since the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District has been tracking and reporting the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. The following table is being included in the Annual Routine Maintenance Plan addenda to more easily display and track the District's restoration efforts.

Maintenance proposed in Unit II Channel, Unit II Tailwater Channel and West Main Channel during the 2013/2014 Maintenance season will result in small patches of temporal impacts to native vegetation. Restoration within these channels is not reasonable because they are ag drainage ditches on private property. Restoration for these sites will likely be combined with larger restoration efforts for the Santa Maria River system.

Unit II Channel				
Annual Plan Year	New Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2004/2005	0	0	0	0
2005/2006	80	80	80	0
2006/2007	0	0	0	0
2007/2008	0	0	0	0
2008/2009	0	0	0	0
2009/2010	0	0	0	0
2010/2011	0	0	0	0
2011/2012	0	0	0	0
2012/2013	50	0	0	-50
2013/2014	0	0	0	-50
2014/2015	0	0	0	-50

Unit II Tailwater Channel				
Annual Plan Year	New Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2002/2003	0	0	0	0
2004/2005	0	0	0	0
2005/2006	0	0	0	0
2006/2007	0	0	0	0
2007/2008	0	0	0	0
2008/2009	0	0	0	0
2009/2010	0	0	0	0
2010/2011	0	0	0	0
2011/2012	150	500	0	-150
2012/2013	50	0	0	-200
2013/2014	0	0	0	-200
2014/2015	0	0	0	-200

West Main Channel				
Annual Plan Year	New Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2004/2005	0	0	0	0
2005/2006	335	335	335	0
2006/2007	0	0	0	0
2007/2008	50	50	50	0
2008/2009	0	0	0	0
2009/2010	0	0	0	0
2010/2011	0	0	0	0
2011/2012	0	0	0	0
2012/2013	200	0	0	-200
2013/2014	0	0	0	-200
2014/2015	0	0	0	-200

East Channel				
Annual Plan Year	New Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2004/2005	0	0	0	0
2005/2006	0	0	0	0
2006/2007	0	0	0	0
2007/2008	0	0	0	0
2008/2009	0	0	0	0
2011/2012	0	0	0	0
2012/2013	0	0	0	0
2013/2014	0	0	0	0
2014/2015	0	0	0	0

Wildlife Survey:

As described in the project description below, proposed maintenance in this series of drainage ditches will require equipment reaching into the channel from the tops of the banks. This maintenance has the potential to impact wildlife, particularly the California red legged frog. The red legged frog has been detected in Unit II Channel and Tailwater, as well as the West Main Street Channel since 2003. Red legged frogs have not been found in East Channel, but this drainage completely dries in most years and minimal maintenance (and surveys) has been performed.

The District has developed a management strategy and special conditions through a Biological Opinion issued by the US Fish and Wildlife Service. The District has successfully conducted maintenance on these four drainages during the last several years, has not injured any red legged frogs, and the population persists in the maintenance area every year. As adjacent ag practices have switched from flood-irrigation to drip irrigation, the amount of tail water has dropped and the number of red-legged frogs is lower during these periods.

During the maintenance seasons since 2006, the District has monitored for red legged frogs during equipment operation in these four drainages. Recent findings are described below.

2006/2007 Season
Unit II Channel: Two red legged frogs observed during monitoring.
Unit II Tailwater: Five red legged frogs observed during monitoring.
West Main Street Channel: No red legged frogs observed during monitoring.

2007/2008 Season
Unit II Channel: Six red legged frogs observed during monitoring.
Unit II Tailwater: No red legged frogs observed during monitoring.
West Main Street Channel: No red legged frogs observed during monitoring.

2008/2009 Season
Unit II Channel: Five red legged frogs were observed during monitoring.

Unit II Tailwater: Three red legged frogs were observed during monitoring along 500 feet of the most upstream stretch of the desilting work.
West Main Street Channel: No red legged frogs observed during monitoring.

2009/2010 Season
Unit II Channel: No red legged frogs were observed during monitoring.
Unit II Tailwater: Seven red legged frogs were observed during monitoring along 3,500 feet of the most upstream stretch of the desilting work.
West Main Street Channel: Seven red legged frogs observed during monitoring along 5,500 feet of the desilting work.

2010/2011 Season
Unit II Channel: Two red legged frogs were observed during monitoring along 200 feet of the desilting work.
Unit II Tailwater: Seventeen red legged frogs were observed during monitoring along a work area of 3,000 feet.
West Main Street Channel: Five red legged frogs observed during monitoring along 1,600 feet of desilting work.

2011/2012 Season
Unit II Channel: Three red legged frogs were observed during monitoring along 3,300 feet of the desilting work.
Unit II Tailwater: Two red legged frogs were observed during monitoring along a work area of 2,700 feet.
West Main Street Channel: No red legged frogs observed during monitoring along 60 feet of desilting work.

2012/2013 Season
Unit II Channel: No red legged frogs were observed during monitoring, no desilting.
Unit II Tailwater: One red legged frog observed during monitoring along 4400 ft of work.
West Main Street Channel: 29 red legged frogs observed during monitoring along 3100 feet of desilting work.

2013/2014 Season
Unit II Channel: 10 red legged frogs were observed during monitoring.
Unit II Tailwater: No red legged frogs observed during monitoring, no desilting.
West Main Street Channel: No red legged frogs observed during monitoring.

Southwestern pond turtles (a state species of special concern) have been observed in Unit 2 Channel where the culvert meets the Santa Maria River levee. Biomonitoring and relocation for red legged frog will also serve to protect the southwestern pond turtle. No other sensitive species have been observed within these four drainages. The District assumes red legged frogs are present and implements mitigation measures and best management practices as appropriate. Impacts to red legged frogs and other species address in the Program EIR are expected to be less than significant with the incorporation of the protective measures and monitoring conditions specified in the Biological Opinion.

In 2013, a burrowing owl was observed on two separate inspections of Unit 2 Channel. The owls were observed foraging on the ground and flying over the adjacent ag fields. Active burrowing and nesting were not observed, however the channel has many

rodents and existing burrows available that may be attractive to burrowing owls. Both animals were observed downstream (north) of the bend in the channel at Section 2. All work is proposed in late summer and fall, outside of the burrowing owl nesting season. Additional focused surveys are underway in spring/summer 2014.

Engineering Analysis:

The Unit II/West Main Channel system, including Unit II Tailwater channel and East Channel are engineered drainages designed to convey storm flows from the City of Santa Maria and adjacent agricultural areas. Reduction in capacity as a result of excessive vegetation and/or sedimentation subjects the surrounding areas to frequent flooding. It is necessary to maintain the proper gradient throughout the system to ensure that water reaches the Santa Maria River. In fact, portions of this system are in a leveed section, which is required to make the necessary gradient to the river. Overflows from this leveed section could have devastating results. The Santa Maria River valley is very flat and all of the drainage courses south of the levee and into the river are prone to sedimentation. Vegetation in the channel bed aggravates this situation. Sediment accumulation in these drainages can severely impede flows toward the Santa Maria River Levee and into the river. If the sediment is not removed, flows from the ditches will not flow into the river and will accumulate on the south side of the levee resulting in flooding of adjacent prime farmlands. In addition, sedimentation or vegetative debris can wedge open the Levee flap gates. In such a case, flows from the river could back-flow through the gates and further add to flooding on the landward side of the Levee.

The County owns and operates the Santa Maria River Levee as well as Unit II Drainage. By agreement, the Corps built the Levee and the County maintains the system. The flap gates and the drainages that flow through the Levee are an integral component to the Levee. Therefore, sediment and vegetation removal is necessary to allow flows to freely drain into the river and to maintain the design capacity.

Project Description:

West Main Channel:

Section 1:

Non-native vegetation on the banks will be mowed along the entire length of both banks of the channel. Occasional clumps of weeds will also be mowed in the invert. Additional mowing and spot spraying may be necessary to maintain the design capacity of the channel. Only one edge of the channel will be spot-sprayed during an application. A strip of vegetation will be left along the toe of one of the banks. A follow-up application of herbicides may be done in the spring if the vegetation begins to resprout and needs additional treatment. There will be no impact to native vegetation.

Unit II Channel:

Section 1:

Non-native vegetation on the banks will be mowed along the entire length of the channel. The mower will leave a height of 6 to 12 inches remaining as wildlife cover. A strip of vegetation will be left along the toe of the bank. Occasional clumps of weeds will also be mowed in the invert. A follow-up application of herbicides may be done in the spring if the vegetation begins to resprout and needs additional treatment. Only one edge of the channel will be spot-sprayed during an application. A strip of vegetation will be left

along the toe of one of the banks. Work in this section has no impact to native vegetation.

Unit II was much dryer than normal during the March inspection. The adjacent farm fields are being used for strawberries rather than flood-irrigated vegetation crops. No cattail clumps were present along the channel, which is unusual, but likely due to reduced tail water input from the strawberry fields. The area will be re-checked during the maintenance season to determine if any additional desilting is required for new batches of cattails. If required, follow-up impact measurements will be made during the maintenance season.

Section 2:
Unit 2 Channel has a sharp bend and the District is engaged in a multi-phased project to re-align this section of the channel to create a softer bend in the channel and increase channel capacity.

Annual Plan work involves excavating the upstream (south) section of Unit 2 channel along the west bank to widen the channel and reduce the meander of the ditch as it approaches the sharp bend. Using a Gradall excavator stationed along the access road that runs along the channel, the District crew will remove soil material from the west bank to widen the channel. Channel widening ranges from 1'-5' in width along 4,700 linear feet of the channel from West Main Street to the site of the sharp bend. Approximatley 5,00 cubic yards of material will be removed along the west bank and hauled to an upland disposal site away from the drainage.

This project area also includes 5 existing concrete check structures that are partially buried in each bank. As part of the realignment, the District crew will excavate the west edge of the check structures and sawcut the newly exposed west edge of the concrete structures; then approximately 3 cubic yards of ½ ton rock rip rap will be placed on the west bank of each structure to tie the existing structures into the newly graded slope.

At the downstream (north) end of the District's project area, the widened west bank will be tapered back into the existing bank near the sharp bend.

Depending upon background turbidity at the time of construction, flowing water (agriculture tailwater) may be diverted around the work area. A temporary diversion dam would be constructed over the concrete floor of the channel near West Main Street. An electric pump will pull water from the concrete-lined culvert into a settling tank, from which a drain pipe will run upstream to release water outside of the work area. The downstream end of the work area will have a turbidity barrier and a coffer dam to prevent water from percolating back into the work site.

All work is proposed on Flood Control Property or within Flood Control right-of-way. The work will be performed during the late summer and fall, outside of riparian bird season and burrowing owl nesting season. A biomonitor will be on site to flush and relocate RLF that may be exposed during the excavation. The work site is bare sediment, bare rock, weedy grasses, hemlock, mustards, and watercress. No native vegetation will be impacted. Following construction, the slopes will be available for recolonization with native and non-native species. Impacts will be minor and temporary.

Unit II Tailwater:

Section 1:

Non-native vegetation on the banks will be mowed along the entire length of the channel. The mower will leave a height of 6 to 12 inches remaining as wildlife cover. A strip of vegetation will be left along the toe of the bank. Occasional clumps of weeds will also be mowed in the invert. Additional mowing and spraying may be necessary in the spring to maintain the design capacity of the channel. A follow-up application of herbicides may be done in the spring if the vegetation begins to resprout and needs additional treatment. Work in this section has no impact to native vegetation.

East Ditch:

Section 1:

Unlike previous years, East Ditch is not proposed for mowing this year. Due to extreme drought, the weedy vegetation on the banks has not grown sufficiently to justify the need for mowing. Instead, for this year, the District will spot spray weeds along the lower toe of the drainage ditch to keep an unobstructed pathway for flow. Occasional clumps of weeds on the floor of the channel will also be spot-sprayed to maintain the design capacity of the channel. Only one edge of the channel will be spot-sprayed during an application. A strip of vegetation will be left along the toe of one of the banks. Work in this section has no impact to native vegetation.

Impact Analysis and Mitigation Measures:

Listed below are the impacts and associated mitigation measures for each of the issue areas impacted by this project as identified in the Updated Program EIR. See the Section entitled "Impacts and Mitigation Measures" for definitions of the specific impacts and mitigation measures.

Impacts:

Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the impacts listed below are considered Class I (unavoidable significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

Mitigation Measures:

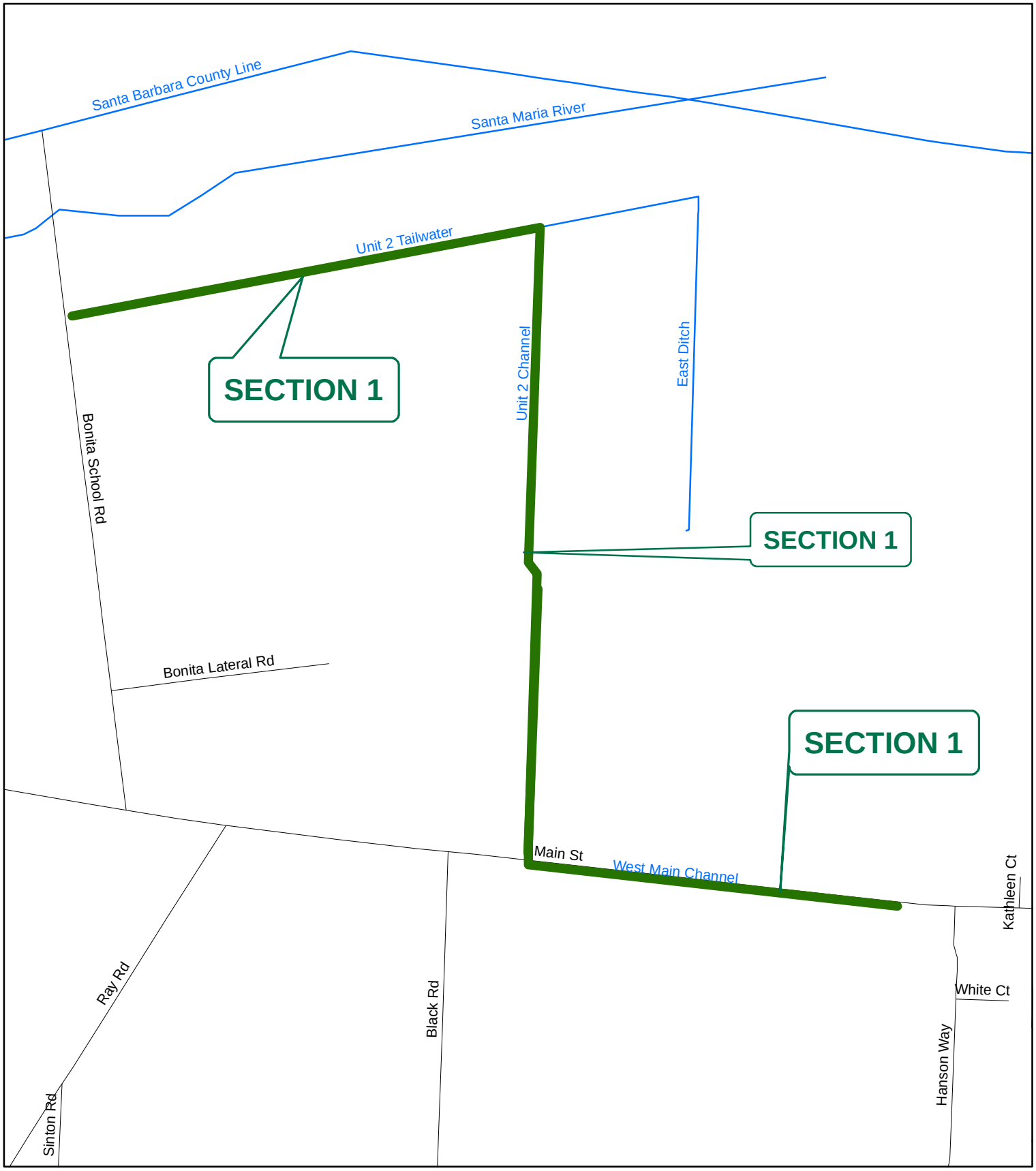
Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Resource	**Impacts**	**Mitigation Measures***
Hydrology EIR sections 5.1.2, 5.1.3	H-A, H-D, H-E	H-1, H-2, H-3
Water Quality EIR sections 5.2.2, 5.2.3	WQ-A, WQ-B, WQ-C, WQ-D	H-1, B-2, W-1, W-2, W-3, W-4, W-8

Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	WRR-A, WRR-D, WRR-F	B-1, B-2, B-3, B-4
Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	FAW-A, FAW-B, FAW-E, FAW-F, FAW-I	H-1, B-1, B-2, B-3, B-5, B-6, W-1, W-2, W-3
Air Quality EIR sections 5.5.2, 5.5.3	AQ-A, AQ-B	A-1, A-2
Noise EIR sections 5.6.2, 5.6.3	N-A	N-1
Visual EIR sections 5.9.2, 5.9.3	V-A	V-1
Public Health and Safety EIR section 5.10	PHS-A	W-2

*Residual Impacts:
Incorporation of the above mitigation measures would reduce the impacts to all resource categories to less than significant levels.

Project Specifics:
These projects will take 3 weeks to complete.



Department of Public Works County of Santa Barbara

Legend

Lengths

West Main, Unit 2 Channel, Unit 2 Tailwater, MOWING

N W E S

Feet

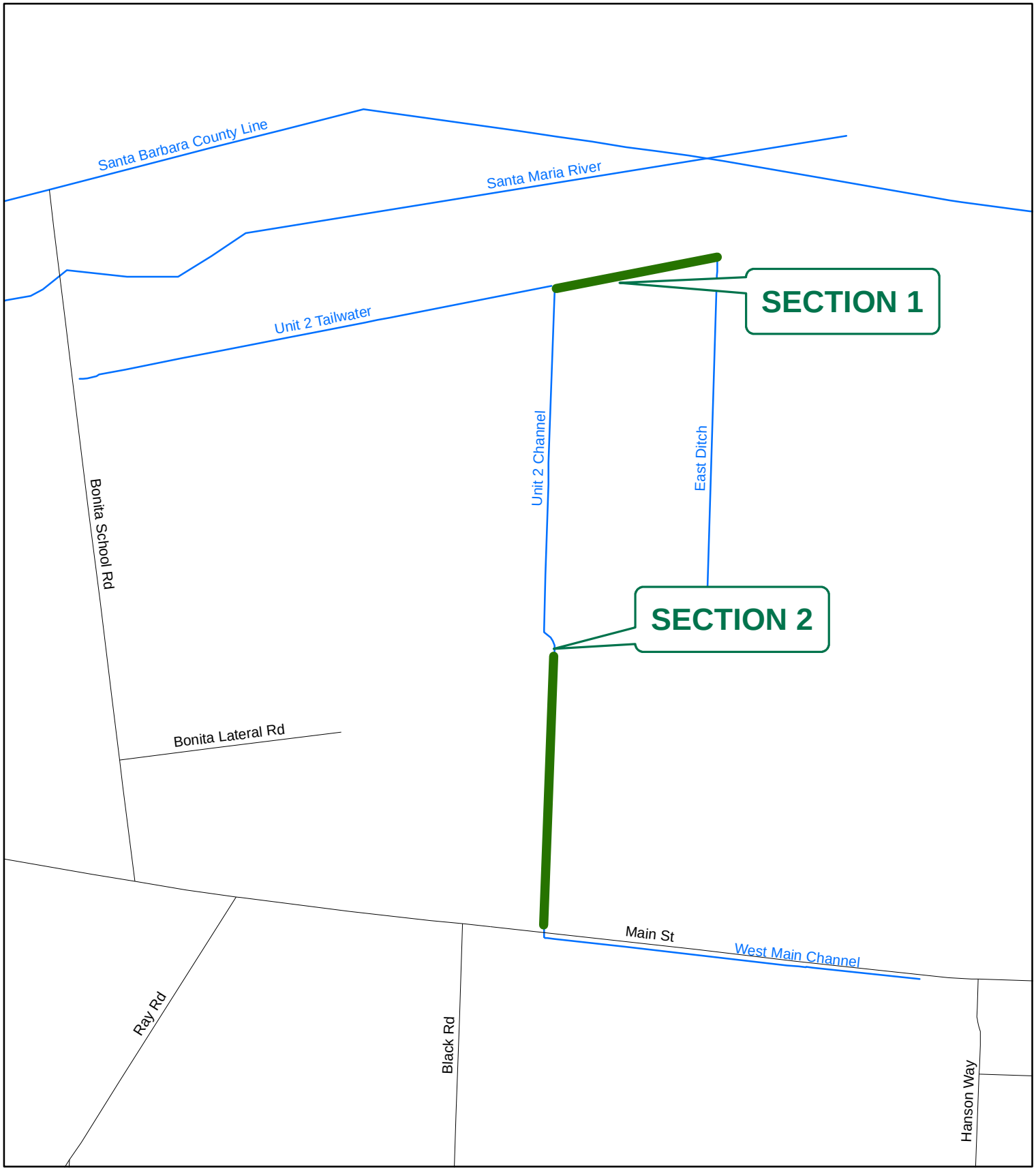
1,750 875 0 1,750

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in Mayl 2014.



Department of Public Works County of Santa Barbara

Legend

Sites

Lengths

Unit 2 Channel, East Ditch - B

This map is for reference only. Although every effort has been made to ensure the accuracy of information, errors and conditions originating from physical sources used to develop the database may be reflected on this map. Santa Barbara County shall not be liable for any errors, omissions, or damages that result from inappropriate use of this document. No level of accuracy is claimed for the boundary lines shown hereon and lines should not be used to obtain coordinate values, bearings or distances.

N W E S

Feet

1,700 850 0 1,700

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in Mayl 2014.

West Main, Unit II Channel, Unit II Tailwater, East Ditch

Unit 2 Channel – Section 1

Unit 2 Channel – Section 1 and 2

VASCULAR PLANT LIST
Unit II/West Main, East and Unit II Tailwater Channels

SCIENTIFIC NAME	COMMON NAME	ORIGIN*
AIZOACEAE		
Carpobrotus edulis	Iceplant	I
APIACEAE		
Conium maculatum	Poison Hemlock	I
ASTERACEAE		
Ambrosia psilostachya	Western Ragweed	I
Baccharis pilularis ssp. consanguinea	Coyote Bush	N
Cotula coronopifolia	Brass Buttons	I
Heterotheca grandiflora	Telegraph Weed	I
Lactuca serriola	Prickly Lettuce	I
Silybum marianum	Milk thistle	I
Xanthium spinosum	Spiny Cocklebur	I
BRASSICACEAE		
Brassica nigra	Black Mustard	I
Rrippa nasturium -aquaticum	Watercress	I
CHENOPDIACEAE		
Chenopodium ambrosioides	Mexican Tea	I
CYPERACEAE		
Scirpus californicus	Ca. Bullrush	N
MALVACEAE		
Malva parviflora	Cheeseweed	I
ONAGRACEAE		
Epilobium adenocaulation	Willow-Herb	N
POACEAE		
Echinochloa crusgalli	Barnyard Millet	I
Oryzopsis sp.	Rice grass	I
Polypogon monspeliensis	Rabbitsfoot Grass	I
POLYGONACEAE		
Polygonum arenastrum	Common Knotweed	I

SALICACEAE		
Salix lasiolepis	Arroyo Willow	N
TYPHACEAE		
Typha sp.	Cattail	N
URTICACEAE		
Urtica holosericea	Giant Nettle	N

* I = Introduced
N = Native

ARROYO BURRO CREEK ROUTINE MAINTENANCE ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:
The project begins just downstream of the intersection of Mariana Way and Calle De Los Amigos and terminates at Cliff Drive.

Setting:
Inspected on April 9, 2014.

Arroyo Burro Creek originates in the foothills of the Santa Ynez Mountains and drains a 5,559 acre watershed capable of producing 5,400 cfs during a 100 year return period precipitation event. Land use adjacent to the creek is residential and open space.

The creek flows year round and contains pool and riffle sequences. The 2009 Jesusita Fire burned the majority of the San Roque Creek and Barger Canyon watersheds (the two major tributaries of Arroyo Burro Creek). In the first few years following the fire, some of the larger pools were filled with sediment. In 2014, the pools were recovering and the amount of sediment in the creek had not changed due to low rainfall. It is expected that sediment transport will continue to be high for the next few years as the watersheds recover and the accumulated sediment is delivered through the creek system.

From Modoc Road downstream, Arroyo Burro Creek is characterized by extremely steep banks with an average channel depth of approximately 50 feet. Downstream of Veronica Springs Road there are numerous landslides coming off of Campanil Hill on the west bank of the creek. The banks are very well vegetated with species such as poison oak, mustard, introduced grasses, eucalyptus, occasional oaks, many willows and sycamore. There are numerous large stands of *Arundo donax* in the lower portion of Arroyo Burro Creek. Long stretches of the creek have Arundo growing on the creek banks that hang over into the creek, impeding flow and contributing to debris plugs in the creek.

Efforts have been made by the County and volunteer organizations to remove some of the stands of *Arundo donax.* The City of Santa Barbara Creeks Restoration and Water Quality Improvement Division has removed several stands of Arundo and developed plans for further removal over the next several years.

Revegetation:
Beginning with the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District began a new reporting and accounting program for the restoration component of the Annual Routine Maintenance Program. Since that time, the District has been tracking the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. The following table is being included in the Annual Routine Maintenance Plan addenda to more easily display and track the District's restoration efforts.

The District entered the 2009/2010 with a slight restoration deficit due to temporal impacts to

riparian vegetation. A 2,000 was planted in May 2010 at San Roque Creek (a tributary to Arroyo Burro) with better access and a more direct need for riparian cover. The surplus footage will be used to offset small future impacts in this watershed.

The District and the City of Santa Barbara are engaged in Arundo donax removal projects which will likely result in temporarily exposed soil and associated restoration. The arundo removal has not been performed yet, but when it is conducted, andyrestoration performed with District involvement will be claimed for partial restoration credit, while any restoration performed solely by the City staff/funds will not be claimed as credit by the District.

Arroyo Burro				
Annual Plan Year	New Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2004/2005	1,250	1,250	1,250	0
2008/2009	375	2,000	0	-375*
2009/2010	0	2,000* +7,400**	2,000	1,625
2010/2011	0	0	0	1,625
2012/2013	200	0	0	1,425
2013/2014	265	200	0	1,360
2014/2015	240	0	0	1,120

*The 2000 square feet of restoration identified in 2008/2009 Annual Maintenance Plan was planted at an alternate site on San Roque Creek (a tributary) in May 2010.

**Restoration proposed to be implemented by the City of Santa Barbara as 1:1 replacement for banks exposed during Arundo removal and will not be credited to the District as surplus restoration.

Engineering Analysis:

Removing obstructive vegetation from the bankfull channel cross-section (active channel) is important to reduce the debris load associated with higher flows. Additionally, Obstructive vegetation growing in the active channel as well as growing along the banks and projecting into the active channel, which is what is occurring with the *Arundo donax* stands, can become mobilized during flood flows, raising the water surface elevation as well as plugging bridges and culverts located downstream.

The bankfull discharge* for Arroyo Burro Creek is approximately 572 cfs with a typical depth of 2.5 feet deep. The width of clearing should be between 15-20 feet to maintain channel equilibrium.

* As defined in "Regional Curves for Bankfull Channel Dimensions-Selected South Coast Streams", URS Corporation-March 2002.

Project Description:

Below is an explanation of typical Annual Plan maintenance practices for vegetation removal and mitigation. These explanations will not be included within each corresponding project

description section. If the section number in the Annual Plan requires more explanation than below, it will be included within that individual section in the project descriptions. Otherwise, please refer to these descriptions for typical maintenance and mitigation.

Limbing/Down trees or limbs: A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks, depending on access.

Brushing: A crew with chain saws and loppers will brush the (insert vegetation name). The vegetation will be removed with hand tools and an application of Aquamaster herbicide will be applied to inhibit regeneration. A follow-up application of herbicide may be done in the spring/summer if the vegetation begins to resprout and needs additional treatment.

Mitigation: Limbing trees results in the trimming of limbs and therefore does not remove whole living trees or shrubs therefore, the District is not required to, and does not mitigate for limbing with riparian restoration. The District also does not provide restoration as mitigation for down trees, broken branches, or dead trees. All sections that use these terms will not have any restoration as mitigation associated with them. The District's Maintenance Program incorporates other mitigation measures to reduce limbing impacts to a less than significant level.

Brushing and complete live tree removals (native vegetation only) are mitigated for by the District with riparian restoration. If a section includes brushing or removal of native vegetation, the associated mitigation quantity will be quantified in that section's description. If no mitigation quantity is included in a Section description, no mitigation is required.

Section 1:
In this section there is a downed <3" willow limb in the active channel.

Section 2:
In this section there is a nonnative palm tree growing on the creek bank that will be brushed.

Section 3:
In this section there is a 15' long (10" dia.) down sycamore branch in the active channel.

Section 4:
A eucalyptus tree (15" DBH) has fallen and the main trunk is bridging the creek. There are multiple branches from the main trunk hanging into the active channel. The crew will leave the tree bridging the creek and limb any branches hanging into the active channel.

Section 5:
A willow branch (<3") is projecting into the active channel and will be limbed.

Section 6:
In this section there is a <3" broken willow branch hanging into the active channel that will be limbed.

Section 7:
In this section there is a nonnative palm tree growing on the creek bank that will be brushed.

Section 8:
A 3" DBH sycamore is growing on the toe of the left bank with branches projecting into the active channel that will be limbed.

Section 9:
There is a nonnative palm tree growing on the right bank that will be brushed and also dead willow branches hanging into the active channel that will be limbed.

Section 10:
In this section there is a <3" diameter willow branch projecting into the active channel that will be limbed.

Section 11:
There is a down 3" DBH ash tree in the active channel, directly upstream of the Torino Drive bridge culvert.

Section 12:
A 2" diameter willow branch is projecting into the active channel and will be limbed.

Section 13:
There is a 7" DBH by approximately 20' long dead down willow tree in the active channel.

Section 14
Sycamore seedlings are growing within a 5'x30' area in the active channel and will be brushed, resulting in 50 square feet of mitigation.

Section 15
There is a 5'x10' area within the active channel with arundo and cattail growing that will be brushed, resulting in 20 square feet of mitigation.

Section 16
There is a 3'x7' area with willow seedlings growing within the active channel that will be brushed, resulting in 20 square feet of mitigation.

Section 17
There is a 4"x 20' long down willow branch in the active channel.

Section 18
There is a 5'x20' area with willow seedlings growing within the active channel that will be brushed, resulting in 50 square feet of mitigation.

Section 19
There is a down willow that is bridging the creek outside of the active flow line. However, branches on the tree are projecting into the active channel and will be limbed.

Section 20
There is a 3"x 10' long down willow branch in the active channel.

Section 21

A large eucalyptus branch (8" dia.) has fallen into the active channel.

Section 22
A 2" diameter willow branch has fallen into the active channel.

Section 23
A 3" diameter willow branch has broken off and is hanging in the active channel.

Section 24
There is a down willow that is bridging the creek outside of the active flow line. However, branches on the tree are projecting into the active channel and will be limbed.

Section 25
There is an 8'x50' sediment bar with 100 square feet of native sycamore and willow saplings growing within the active channel that will be brushed, resulting in 100 square feet of mitigation.

Arundo Removal (carry over from 13/14 AP)j
Along with the patches of arundo limbing above, the District and City of Santa Barbara/Creeks Division are partnering on a larger-scale arundo removal effort in the Arroyo Burro watershed.

A separate map is included to show the patches of arundo that have been targeted under this project. Arundo stalks will be cut to a height of six inches or less, and the stumps will be immediately painted with a small dose of Aquamaster herbicide (no overspray will result from herbicide application). Cut stalks will be bundled and hauled up and out of the creek corridor. The bundles will be disposed outside of the creek corridor and dried, chipped, and spread in areas that are removed from the channel, where material will not fall or be washed back into the creek corridor; or the material will be hauled offsite for landfill disposal, depending on access.

The cut stumps will be retreated with herbicide as needed through the remaining spring and summer after a visual inspection of re-growth. Re-treatment will not occur with 72 hours of a predicted rain event.

Access to the arundo sites will be gained from Modoc Rd, the La Cumbre Country Club, the City's creek side property off Calle de los Amigos (near Portofino Way), Hidden Valley Park, and via Richelle Ln. This project will be performed in two phases, working from Highway 101 to Richelle Ln in 2013/14, while the areas downstream from Richelle Ln to Cliff Drive will be performed the following year. Phase 1 involves a total of 2-3 acres of arundo, and Phase 2 involves a total of approximately 2 acres. Approximately 10-15 days are needed to remove arundo for the first phase. Contractors will perform most of the work under guidance and supervision from City Parks staff and District monitoring and permit compliance inspectors.

Sites where arundo is removed will be re-vegetated with native plants in the fall. Willow cuttings will be primarily used to re-vegetate, but oaks, sycamore, elderberry, and other riparian species will be planted in suitable locations that are not subject to creek flows.

Impact Analysis and Mitigation Measures:
Listed below are the impacts and associated mitigation measures for each of the issue areas impacted by this project as identified in the Updated Program EIR. See the Section entitled

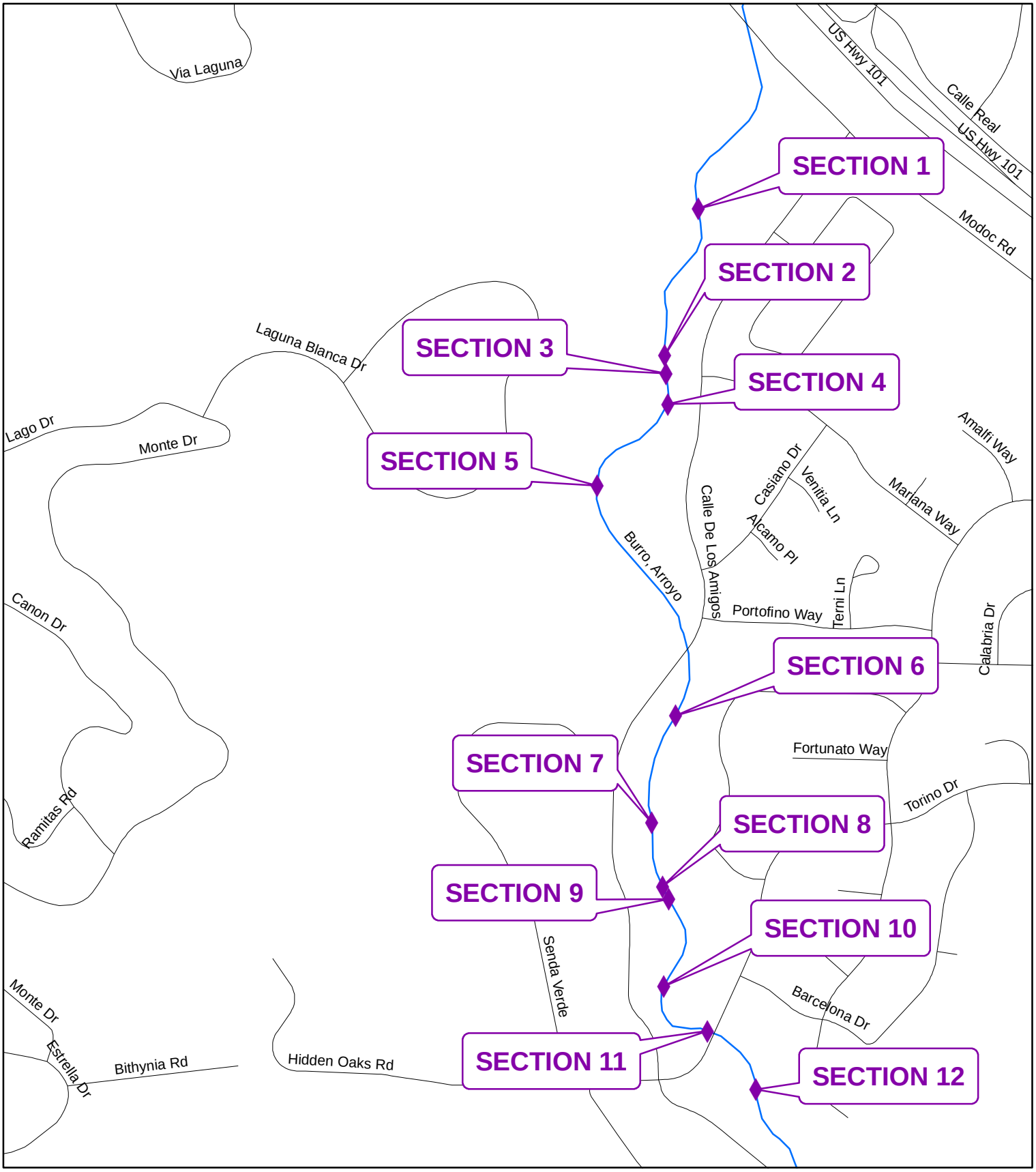
"Impacts and Mitigation Measures" for definitions of the specific impacts and mitigation measures.

Impacts:
Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the impacts listed below are considered Class I (unavoidable significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

Mitigation Measures:
Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Resource	**Impacts**	**Mitigation Measures***
Hydrology EIR sections 5.1.2, 5.1.3	H-A	H-1
Water Quality EIR sections 5.2.2, 5.2.3	WQ-A, WQ-B, WQ-C	H-1, B-2, W-2, W-4, W-6, W-7, W-8,
Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	WRR-A	B-1, B-2, B-3
Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	FAW-A, FAW-F, FAW-I	B-1, B-2, B-3, B-5, W-1, W-2, W-5
Public Health EIR section 5.10	PH-A	W-2

Project Specifics:
This project will take 4 days to complete



Department of Public Works County of Santa Barbara

Arroyo Burro Creek-A

Legend

Sites

This map is for reference only. Although every effort has been made to ensure the accuracy of information, errors and conditions originating from physical sources used to develop the database may be reflected on this map. Santa Barbara County shall not be liable for any errors, omissions, or damages that result from inappropriate use of this document. No level of accuracy is claimed for the boundary lines shown hereon and lines should not be used to obtain coordinate values, bearings or distances.

N W E S

Feet

400 200 0 400

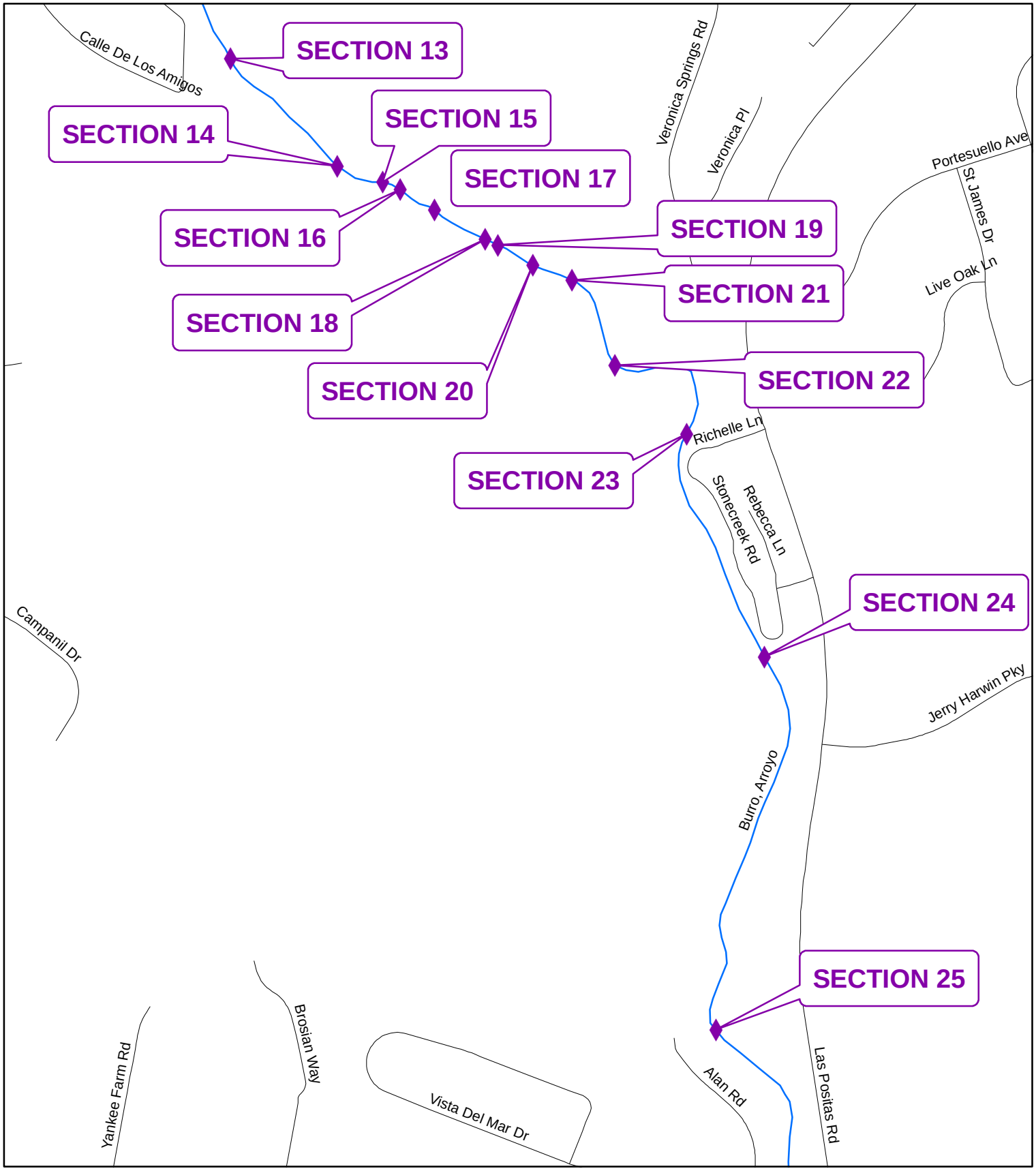
Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District

Compiled by the Public Works Enterprise GIS in Mayl 2014.



Department of Public Works County of Santa Barbara

Arroyo Burro Creek-B

Legend

♦ Sites

N W E S

Feet

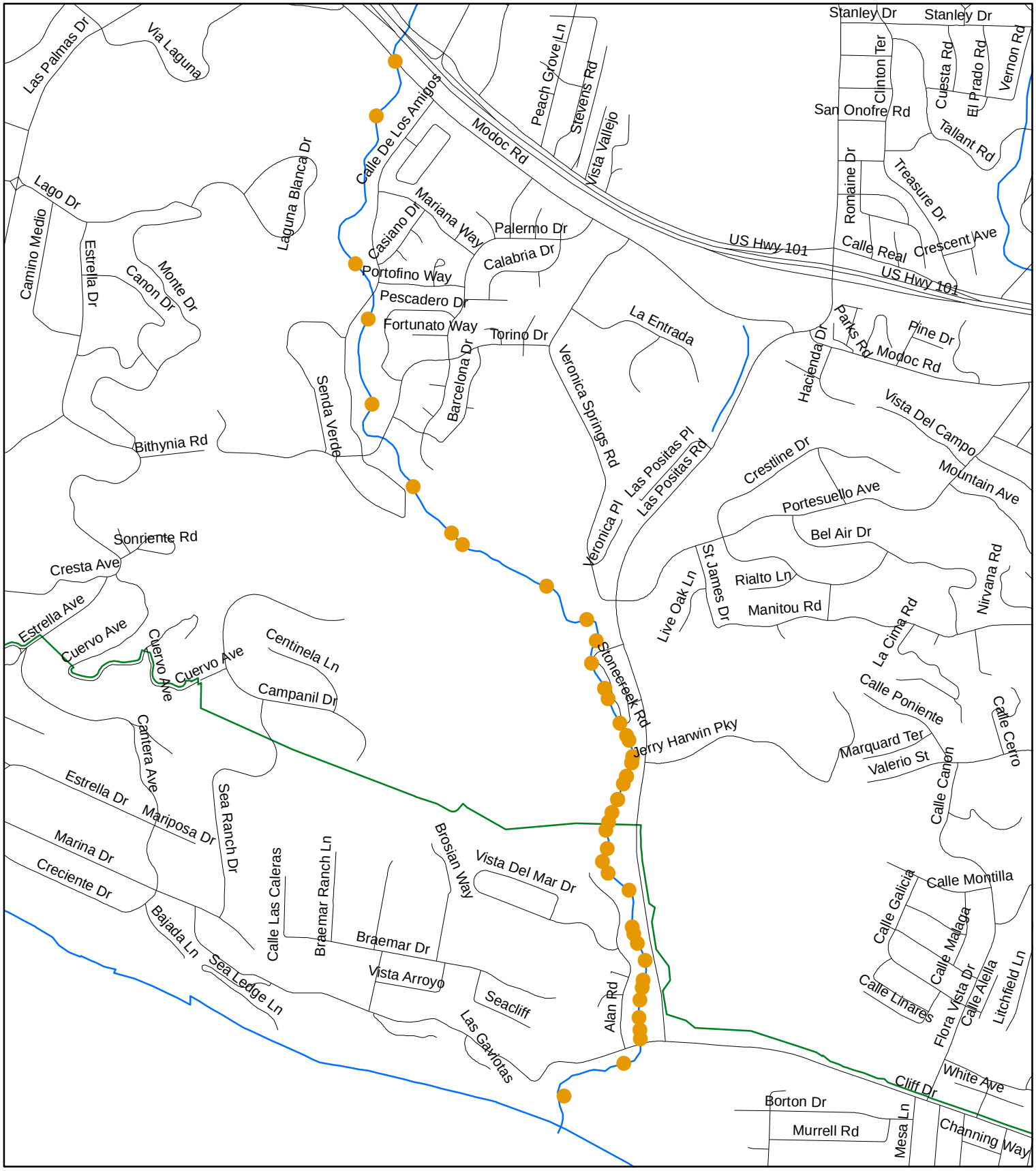
400 200 0 400

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in Mayl 2014.



Department of Public Works County of Santa Barbara

Arroyo Burro - Arundo Control

Legend

- Arunod Removal & Revegetation Areas

N W E S

Feet

1,100 550 0 1,100

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2013-2014

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in April 2013.

Arroyo Burro

Arroyo Burro: Section 4

Arroyo Burro: Section 11

Arroyo Burro

Arroyo Burro: Section 22

Arroyo Burro: Section 25

VASCULAR PLANT LIST
ARROYO BURRO CREEK

SCIENTIFIC NAME	COMMON NAME	ORIGIN
EQUISETACEAE		
Equisetum telmateia	Giant Horsetail	N
ANACARDIACEAE		
Toxicodendron diversilobum	Poison Oak	N
APIACEAE		
Apium graveolens	Celery	I
Conium maculatum	Poison Hemlock	I
APOCYNACEAE		
Vinca major	Periwinkle	I
ARALICEAE		
Hedera helix	English Ivy	I
ASTERACEAE		
Artemisia douglasiana	Mugwort	N
Baccharis pilularis ssp. consanguinea	Coyote Bush	N
Conyza canadensis	Horseweed	I
Picris echioides	Ox Tongue	I
Senecio mikanioides	German Ivy	I
Sonchus arvensis	Prickly Sow Thistle	I
Venegasia carpesioides	Canyon Sunflower	N
Xanthium strumarium	Cocklebur	I
BETULACEAE		
Alnus rhombifolia	White Alder	N
BRASSICACEAE		
Brassica nigra	Black Mustard	I
Raphanus sativus	Wild Radish	I
Rorippa nasturtium -aquaticum	Watercress	I
CAPRIFOLIACEAE		
Lonicera sp.	Honeysuckle	I
Sambucus mexicana	Elderberry	N
CHENOPODIACEAE		

Chenopodium ambrosioides	Mexican Tea	I
Chenopodium macrospermum var. farinosum	Coast Goosefoot	I
Chenopodium murale	Nettle-Leaved -Goosefoot	I
CYPERACEAE		
Cyperus alternifolius	Umbrella Plant	I
Cyperus eragrostis	Umbrella Sedge	I
Scirpus micrcarpus	Small-Fruited Bulrush	N
EUPHORBIACEAE		
Ricinus communis	Castor Bean	I
FAGACEAE		
Quercus agrifolia	Coast Live Oak	N
JUGLANDACEAE		
Juglans sp.	Walnut	I
LAMIACEAE		
Marrubim vulgare	Horehound	I
Mentha citrata	Bargamont Mint	I
MYRTACEAE		
Euclayptus globulus	Blue Gum	I
ONAGRACEAE		
Epilobium adenocaulon	Willow-Herb	N
OXALIDACEAE		
Oxails pes-caprae	Sour Grass	I
PLANTAGINACEAE		
Plantago lanceolata	English Plantain	I
Plantago major	Common Plantain	I
PLATANACEAE		
Platanus racemosa	Western Sycamore	N
POACEAE		
Arundo donax	Giant Reed	I
Bromus diandrus	Ripgut Grass	I
Cortaderia atacamensis	Pampas Grass	I
Oryzopsis miliacea	Rice Grass	I
Polypogon interruptus	Beard Grass	I

POLYGONACEAE		
Polygonum lapathifolium	Willow Smartweed	I
Rumex conglomeratus	Green Dock	I
Rumex crispus	Curly Dock	I
PRIMULACEAE		
Anagallis arvenisis	Scarlet Pimpernel	I
RANUNCULACEAE		
Clematis ligusticifolia	Creek Clematis	N
ROSACEAE		
Rubus urnsinus	California Blackberry	N
SALICACEAE		
Populus fremonti	Fremont Cottonwood	N
Salix laevigata	Red Willow	N
Salix lasiolepis	Arroyo Willow	N
SCOPHULARIACEAE		
Mimulus cardinalis	Scarlet Monkey	N
Scrophularia californica	California Figwort	N
SOLANCEAE		
Nicotiana glauca	Tobacco Tree	I
Solanum douglasii	Douglas Nightshade	N
TROPAELACEAE		
Tropaeolum majus	Garden Nastutium	I
TYPHACEAE		
Typha sp.	Cattail	N
VALERIANACEAE		
Centranthus rubber	Red Valerian	I
VERBENACEAE		
Verbena lasiostachys	Verbena	N

* I - Introduced
N – Native

UPPER ATASCADERO CREEK ROUTINE MAINTENANCE ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:
The project begins upstream of Highway 192 and ends just upstream of Arroyo Road.

Setting:
Inspected on April 2, 2014.

Atascadero Creek originates in the foothills of the Santa Ynez Mountains. Upper Atascadero Creek drains an 1118 acre watershed above the confluence with Cieneguitas Creek which is capable of producing 1300 cfs during a 100 year return period precipitation event.

Upstream of Cathedral Oaks Blvd, the creek gradient is high and invert of Atascadero Creek is approximately 4 feet wide and bordered by very well vegetated steep, banks that are more than 20 feet tall, and in some cases up to 50 feet tall. The west side of this upper portion of Atascadero Creek is open space while the east side is developed residential.

Between Highway 154 and Highway 101 the creek goes through a trailer park and is mostly a grassy swale and concrete lined channel.

Downstream of Highway 101, the creek is quite degraded and contains limited riparian vegetation along most of the banks which are instead vegetated with ornamental species such as myoporum, ivy, introduced grasses and weedy species. Land uses adjacent to the creek include residential and business. Concrete sack walls and reinforced banks line sections of the creek in the semi-urban setting downstream of Highway 101. Low-gradient reaches of the creek exhibit patches of cattail and bulrush within a mixed willow canopy. The substrate consists of scattered rocks and gravel interspersed with silty areas.

The upper and middle sections were dry except for a few areas where standing water was present during the creek inspections. Upstream near the Highway 154 culvert, the creek channel was damp, but there was no standing water. The upper and middle portions of the creek will dry up during the summer months prior to the maintenance season, however the lower lengths remain wetted year round.

Revegetation:
Since the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District has been tracking and reporting the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. The following table is being included in the Annual Routine Maintenance Plan addenda to more easily display and track the District's restoration efforts.

Atascadero Creek				
Annual Plan Year	Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2002/2003	5,400	6,500	4,000*	-5,400
2004/2005	4,500	3,800	300	-9,600
2005/2006	0	1,720	0	-9,600
2006/2007	0	3,920	0	-9,600
2007/2008	N/A	N/A	8,120	-1,480
2009/2010	90	1,600	1,600	0
2012/2013	50	0	50	0
2013/2014	0	0	0	0
2014/2015	0	0	0	0

*Understory vegetation was planted but in the end was not successful and had to be replanted in 2007.

Engineering Analysis:

Removing obstructive vegetation from the bankfull channel cross-section (active channel) is important to reduce the debris load associated with higher flows. Obstructive vegetation growing in the active channel as well as limbs projecting into the active channel can become mobilized during flood flows, raising the water surface elevation as well as plugging bridges and culverts located downstream. The bankfull discharge* for Atascadero Creek downstream of Highway 101 is approximately 77 cfs. With a velocity of approximately 4 fps and a typical depth of 2', the width of clearing should be 10' to maintain channel equilibrium.

*As defined in "Regional Curves for Bankfull Channel Dimensions-Selected South Coast Streams", URS Corporation-March 2002.

Project Description:

Below is an explanation of typical Annual Plan maintenance practices for vegetation removal and mitigation. These explanations will not be included within each corresponding project description section. If the section number in the Annual Plan requires more explanation than below, it will be included within that individual section in the project descriptions. Otherwise, please refer to these descriptions for typical maintenance and mitigation.

Limbing/Down trees or limbs: A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks, depending on access.

Brushing: A crew with chain saws and loppers will brush the (insert vegetation name). The vegetation will be removed with hand tools and an application of Aquamaster herbicide will be applied to inhibit regeneration. A follow-up application of herbicide may be done in the spring/summer if the vegetation begins to resprout and needs additional treatment.

Mitigation: Limbing trees results in the trimming of limbs and therefore does not remove whole living trees or shrubs therefore, the District is not required to, and does not mitigate for limbing

with riparian restoration. The District also does not provide restoration as mitigation for down trees, broken branches, or dead trees. All sections that use these terms will not have any restoration as mitigation associated with them. The District's Maintenance Program incorporates other mitigation measures to reduce limbing impacts to a less than significant level.

Brushing and complete live tree removals (native vegetation only) are mitigated for by the District with riparian restoration. If a section includes brushing or removal of native vegetation, the associated mitigation quantity will be quantified in that section's description. If no mitigation quantity is included in a Section description, no mitigation is required.

Section 1:
This section is directly upstream of a culvert that goes under Highway 192. There is a 3' vertical concrete grade stabilizer here that is being undercut and could potentially fail during high flows. Using hand tools a crew will dig footings, set up form boards to contain concrete onsite and pump approximately 1cy of concrete into the void.

Section 2:
There is a down 8" diameter x 25' long ash limb projecting into the active channel.

Section 3:
There is a down 7" diameter willow limb within the active channel.

Section 4
There is a down 4" diameter eucalyptus branch within the active channel.

Section 5
There is a down <3" diameter willow branch within the active channel.

Section 6
There is a down <3" diameter cottonwood tree within the active channel.

Section 7
There multiple down willow branches within the active channel.

Section 8
There is a down <3" diameter willow branch within the active channel.

Section 9
There is a down <3" diameter willow branch within the active channel.

Impact Analysis and Mitigation Measures:
Listed below are the impacts and associated mitigation measures for each of the issue areas impacted by this project as identified in the Updated Program EIR. See the Section entitled "Impacts and Mitigation Measures" for definitions of the specific impacts and mitigation measures.

Impacts:

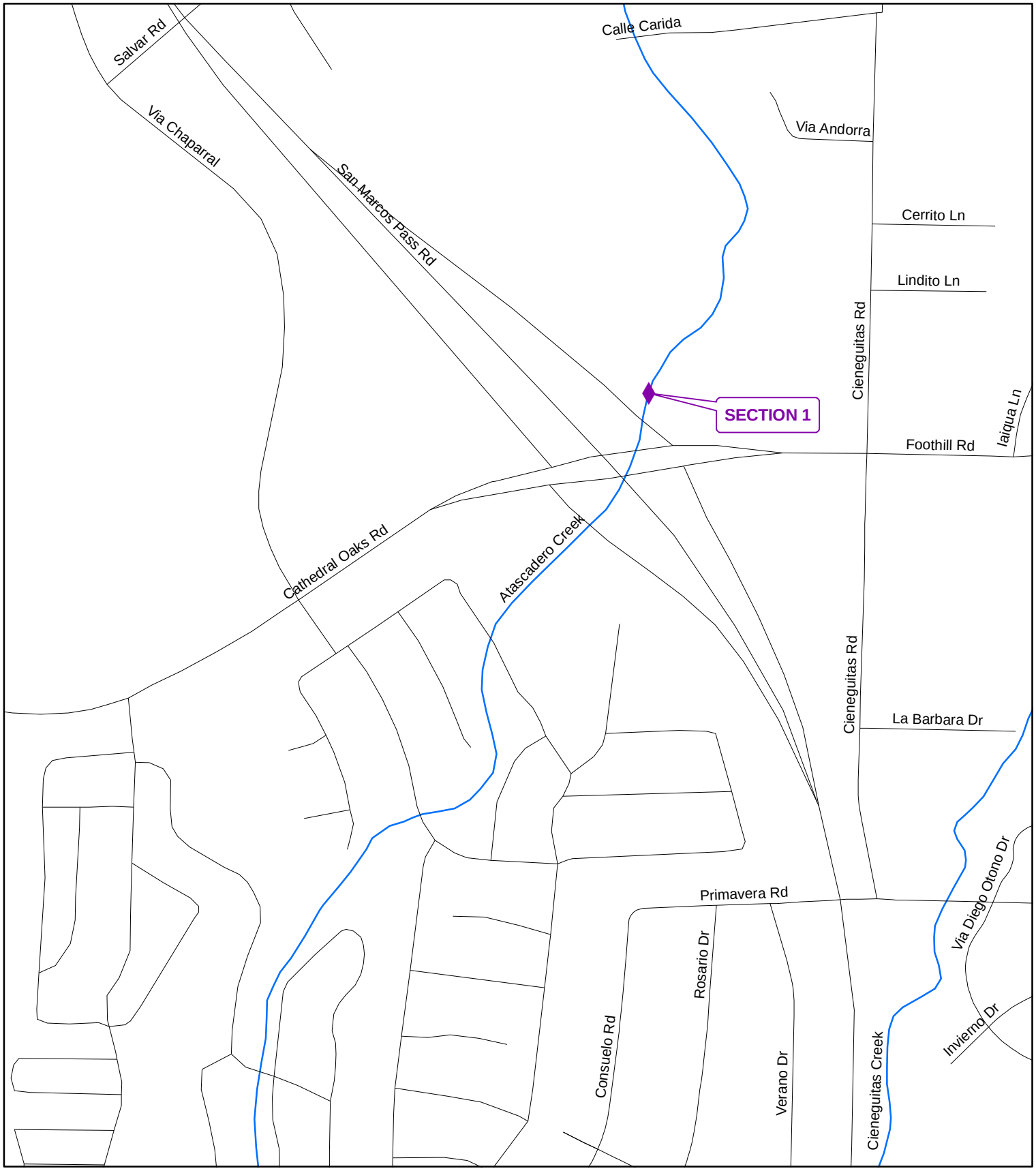
Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the impacts listed below are considered Class I (unavoidable significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

Mitigation Measures:
Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Resource	**Impacts**	**Mitigation Measures***
Hydrology EIR sections 5.1.2, 5.1.3	H-A	H-1
Water Quality EIR sections 5.2.2, 5.2.3	WQ-A, WQ-B, WQ-C	H-1, B-2, W-2, W-4, W-6, W-7, W-8,
Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	WRR-A	B-1, B-2, B-3
Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	FAW-A, FAW-F, FAW-I	B-1, B-2, B-3, B-5, W-1, W-2, W-5
Public Health EIR section 5.10	PH-A	W-2

*Residual Impacts:
Incorporation of the above mitigation measures would reduce the impacts to all resource categories to less than significant levels.

Project Specifics:
The project will take 4 days to complete.



Department of Public Works County of Santa Barbara

Atascadero-A

Legend

Sites

This map is for reference only. Although every effort has been made to ensure the accuracy of information, errors and conditions originating from physical sources used to develop the database may be reflected on this map. Santa Barbara County shall not be liable for any errors, omissions, or damages that result from inappropriate use of this document. No level of accuracy is claimed for the boundary lines shown hereon and lines should not be used to obtain coordinate values, bearings or distances.

N W E S

Feet

300 150 0 300

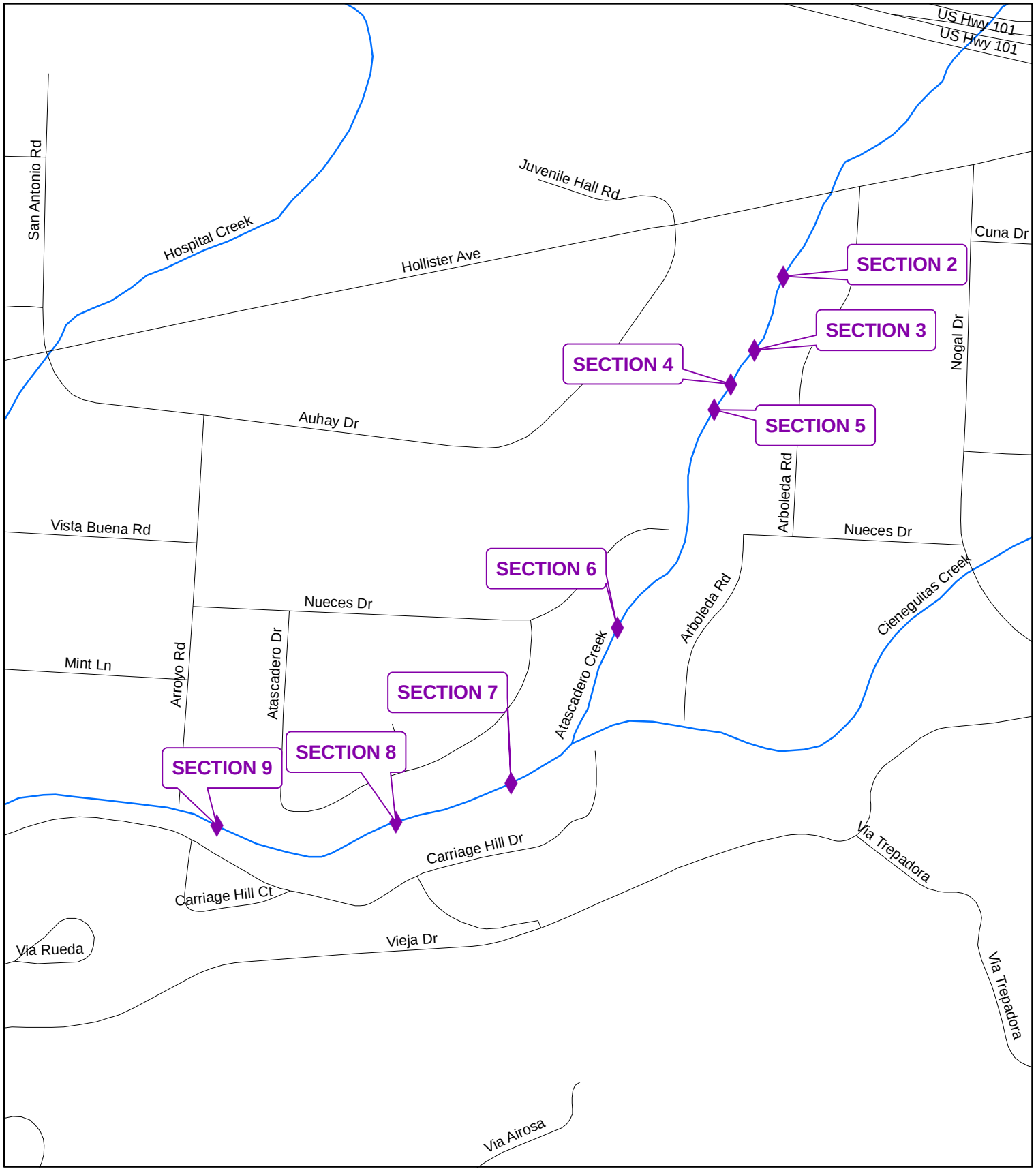
Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District

Compiled by the Public Works Enterprise GIS in Mayl 2014.



Department of Public Works County of Santa Barbara

Atascadero-B

Legend

Sites

This map is for reference only. Although every effort has been made to ensure the accuracy of information, errors and conditions originating from physical sources used to develop the database may be reflected on this map. Santa Barbara County shall not be liable for any errors, omissions, or damages that result from inappropriate use of this document. No level of accuracy is claimed for the boundary lines shown hereon and lines should not be used to obtain coordinate values, bearings or distances.

N W E S

Feet

350 175 0 350

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District

Compiled by the Public Works Enterprise GIS in Mayl 2014.

Atascadero Creek

Atascadero Creek: Section 1

Atascadero Creek: Section 7

ATASCADERO CREEK
VASCULAR PLANT LIST

SCIENTIFIC NAME	COMMON NAME	ORIGIN*
ANACARDIACEAE		
Schinus molle	Pepper Tree	I
Toxicodendron diversilobum	Poison Oak	N
APIACEAE		
Conium maculatum	Poison Hemlock	I
Foeniculum vulgare	Sweet Fennel	I
APOCYNACEAE		
Vinca major	Periwinkle	I
ARALIACEAE		
Hedera helix	English Ivy	I
ASTERACEAE		
Ageratina adenophora	Ironweed	I
Artemisia californica	California Sagebrush	N
Artemisia douglasiana	Mugwort	N
Baccharis douglasii	Marsh Baccharis	N
Baccharis glutinosa	Mulefat	N
Baccharis pilularis ssp.consanguinea	Coyote Bush	N
Cirsium vulgare	Bull Thistle	I
Gnaphalium sp.	Everlasting	N/I
Picris echioides	Ox tongue	I
Senecio mikanioides	German Ivy	I
Taraxcum officinale	Common Dandelion	I
Venegasia carpesioides	Canyon Sunflower	N
BETULACEAE		
Alnus rhombifolia	White Alder	N
BRASSICACEAE		
Brassica nigra	Black Mustard	I
Raphanus sativus	Wild Radish	I
Rorippa nasturtium-aquaticum	Watercress	I
CAPRIFOLIACEAE		
Sambucus mexicana	Elderberry	N
Lonicera sp.	Honeysuckle	I

CONVULVULACEAE		
Calystegia macrostegia ssp. cyclostegia	Morning-Glory	I
EUPHORBIACEAE		
Ricinus communis	Castor Bean	I
FABACEAE		
Melilotus indicus	Yellow Sweet Clover	I
FAGACEAE		
Quercus agrifolia	Coast Live Oak	N
JUGLANDACEAE		
Juglans sp.	Walnut	N/I
LAMIACEAE		
Marrubium vulgare	Horehound	I
Stachys bullata	Wood Mint	N
MALVACEAE		
Malcothamnus sp.	Mallow	N
MYRTACEAE		
Eucalyptus globulus	Blue Gum	I
ONAGRACEAE		
Epilobium adenocaulon	Willow-Herb	N
POACEAE		
Avena fatua	Wild Oats	I
Bromus diandrus	Ripgut Grass	I
Bromus mollis	Soft Chess	I
Elymus condensatus	Giant Rye	N
Lolium perenne	Italian Ryegrass	I
Oryzopsis miliacea	Ricegrass	I
Polypogon interruptus	Beard Grass	I
POLYGONACEAE		
Polygonum sp.	Smartweed	N
Rumex crispus	Curly Dock	I
PRIMULACEAE		
Anagallis arvensis	Scarlet Pimpernel	I

RANUNCULACEAE		
Clematis ligusticifolia	Creek Clematis	N
ROSACEAE		
Rubus ursinus	California Blackberry	N
SALICACEAE		
Populus fremontii	Fremont Cottonwood	N
Salix exigua	Narrowleaf Willow	N
Salix lasiolepis	Arroyo Willow	N
SCROPHULARIACEAE		
Scrophularia californica	California Figwort	N
SOLANACEAE		
Nicotiana glauca	Tobacco Tree	I
TROPAEOLACEAE		
Tropaeolum majus	Garden Nasturtium	I
TYPHACEAE		
Typha sp.	Cattail	N

* I = Introduced
N = Native

CARPINTERIA CREEK ROUTINE MAINTENANCE ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:
The project begins approximately where Carpinteria Creek runs under Highway 192 and terminates approximately 500 feet downstream of the 8th Street Bridge in the City of Carpinteria.

Setting:
Inspected March 18, 2014.

Carpinteria Creek originates in the foothills of the Santa Ynez Mountains and drains a 9,680 acre watershed capable of producing 8,900 cfs during a 100 year return period precipitation event.

The portion of Carpinteria Creek proposed for maintenance flows through agriculture and low-density residential areas above Highway 101 and high-density residential areas below Highway 101. Upstream of Highway 101, the creek supports a relatively narrow yet well developed canopy of riparian vegetation with dense mature stands of arroyo and yellow willow. Stands of sycamore, Fremont cottonwood and black cottonwood are scattered along the top of the bank. Occasional coast live oaks are also scattered along the entire length of the creek. Woody riparian understory vines and shrubs include species such as poison oak, coyote bush, blackberry, mugwort and many non-native species as well. Small drier areas along the top of the bank support shrubs typical of the coastal sage scrub habitat. Avocado and citrus orchards are common along the tops of banks.

Large residential lots border the creek in the lower reaches of the watershed and invasive non-native vegetation is more abundant than in the largely agricultural areas upstream. Much of the riparian canopy in the urban portion of the creek has been removed beyond the top of the bank for apartments, businesses and roads. Mature cottonwood, white alder and western sycamore trees occur in scattered patches along the lower portions of the project reach. In general, the understory component consists of species such as mugwort, mustard, nettle, monkey flower and ivy.

Revegetation:
Beginning with the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District began a new reporting and accounting program for the restoration component of the Annual Routine Maintenance Program. Since that time, the District has been tracking the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. The following table is being included in the Annual Routine Maintenance Plan addenda to more easily display and track the District's restoration efforts.

Carpinteria Creek				
Annual Plan Year	Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2002/2003	2,710	4,750	3,750	1,040
2003/2004	900	0	0	140*
2008/2009	1,250	16,750	0	-1250
2009/2010	1,500	6,750	6,750	4,000
2010/2011	550	1,400	0	3,450
2012/2013	5,200 8 alders >3" dbh	1,800 Salvage alders	1,800 Salvage alders	50
2013/2014	565, Incl 3 Trees >3" dbh	600	Carp Valley: 515 14 alders	0
2014/2015	420, Inch 8 Syc>3" dbh	0	TBD	TBD

Engineering Analysis:

Vegetation tends to colonize the streambed during years when there is insufficient flow to scour the active channel. In an effort to reduce the potential for plugging downstream bridges and the creation of debris plugs and bank erosion, downed trees/limbs and obstructive vegetation that could be mobilized during high flows should be removed.

The bankfull discharge* for Carpinteria Creek downstream of Casitas Pass Road is approximately 625 cfs. With a velocity of approximately 6 fps and a typical depth of 3', the width of clearing should be 35' to maintain channel equilibrium.

* As defined in "Regional Curves for Bankfull Channel Dimensions-Selected South Coast Streams", URS Corporation-March 2002.

Project Description:

Below is an explanation of typical Annual Plan maintenance practices for vegetation removal and mitigation. These explanations will not be included within each corresponding project description section. If the section number in the Annual Plan requires more explanation than below, it will be included within that individual section in the project descriptions. Otherwise, please refer to these descriptions for typical maintenance and mitigation.

Limbing/Down trees or limbs: A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks, depending on access.

Brushing: A crew with chain saws and loppers will brush the (insert vegetation name). The vegetation will be removed with hand tools and an application of Aquamaster herbicide will be applied to inhibit regeneration. A follow-up application of herbicide may be done in the spring/summer if the vegetation begins to resprout and needs additional treatment.

Mitigation: Limbing trees results in the trimming of limbs and therefore does not remove whole living trees or shrubs therefore, the District is not required to, and does not mitigate for limbing with riparian restoration. The District also does not provide restoration as mitigation for down trees, broken branches, or dead trees. All sections that use these terms will not have any restoration as mitigation associated with them. The District's Maintenance Program incorporates other mitigation measures to reduce limbing impacts to a less than significant level.

Brushing and complete live tree removals (native vegetation only) are mitigated for by the District with riparian restoration. If a section includes brushing or removal of native vegetation, the associated mitigation quantity will be quantified in that section's description. If no mitigation quantity is included in a Section description, no mitigation is required.

Section 1:
There is a down willow limb (<3" dia) and willow branches projecting into the active channel that will be limbed.

Section 2:
There are 3 cottonwood saplings growing in the active channel that will be brushed, resulting in 10 square feet of mitigation.

Section 3:
There is a down cottonwood branch (7" dia) in the active channel.

Section 4:
There is a 5'x70' section of willow saplings (<3" DBH) growing within the active channel and causing the channel to split which could lead to bank erosion that will be brushed, resulting in 350 square feet of mitigation.

Section 5:
There is a 3'x10' area of willow saplings (<3" DBH) growing within the active channel that will be brushed. Impacts associated with this work were mitigated for in the 2013/14 Annual Plan.

Section 6:
There is a down willow limb (5" dia) in the active channel.

Section 7:
This section is directly adjacent to a bike path and just upstream of the Highway 101 Bridge. A 20' wide x 50' long x 2' deep sediment bar has formed with vegetation growing on it. There is 20 square feet of native horsetail growing on the sediment bar and all other vegetation is nonnative, mostly fennel, watercress and ivy. Using an excavator and working from the bike path, the sediment will be scooped out (clean excavation), loaded into waiting trucks, and taken to an upland disposal site. This work will result in 20 square feet of mitigation.

If there is flowing water through the site at the time of maintenance, a diversion dam will be constructed upstream and water will be piped around the site and released downstream. If there is only standing water or puddles at the site, haybales wrapped in filter fabric will be placed downstream as a precautionary measure to filter any turbid water that may leave the site. A seine

net will also be placed across the creek upstream of the worksite to prevent any fish from swimming into the site.

Section 8:
A 12" DBH alder is down in the active channel.

Section 9:
There is an island in this section with two 8-10" DBH alders and twelve 4" DBH sycamores. The sycamores are growing very closely together and are constricting the active channel. A clump of nonnative umbrella sedge is growing in the active channel just downstream of the sycamores.

A crew will brush 8 of the 12 4" DBH sycamores that are closest to the low flow channel and leave the rest. The umbrella sedge will also be brushed from the active channel. The alders will be left in place and any branches below 6' high will be limbed, so they will not trap vegetation during high flows. Sixteen 1-gallon sycamore trees will be planted to mitigate for the removal of 8 sycamores. The location will be determined at the time of removal and included in the post project report.

Section 10:
In this section there is an area on the right edge of the active channel of approximately 2'x25' with cottonwood seedlings that will be brushed, resulting in 50 square feet of mitigation.

Section 11:
There is 5'x10' clump of cattails growing in the active channel that will be brushed. This area has been mitigated for in the 12/13 AP Section 22.

Section 12:
In this length of approximately 200 linear feet there are cattail and willow seedlings growing on the inside bend as well as willow branches projecting into the active channel. The 5' band of vegetation growing in the active channel will be brushed and limbed to regain capacity and not force flows to the outside bank. The approximately 1000 square feet of impacts were mitigated for in the 12/13 AP Section 23.

Impact Analysis and Mitigation Measures:
Listed below are the impacts and associated mitigation measures for each of the issue areas impacted by this project as identified in the Updated Program EIR. See the Section entitled "Impacts and Mitigation Measures" for definitions of the specific impacts and mitigation measures.

Impacts:
Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the impacts listed below are considered Class I (unavoidable significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

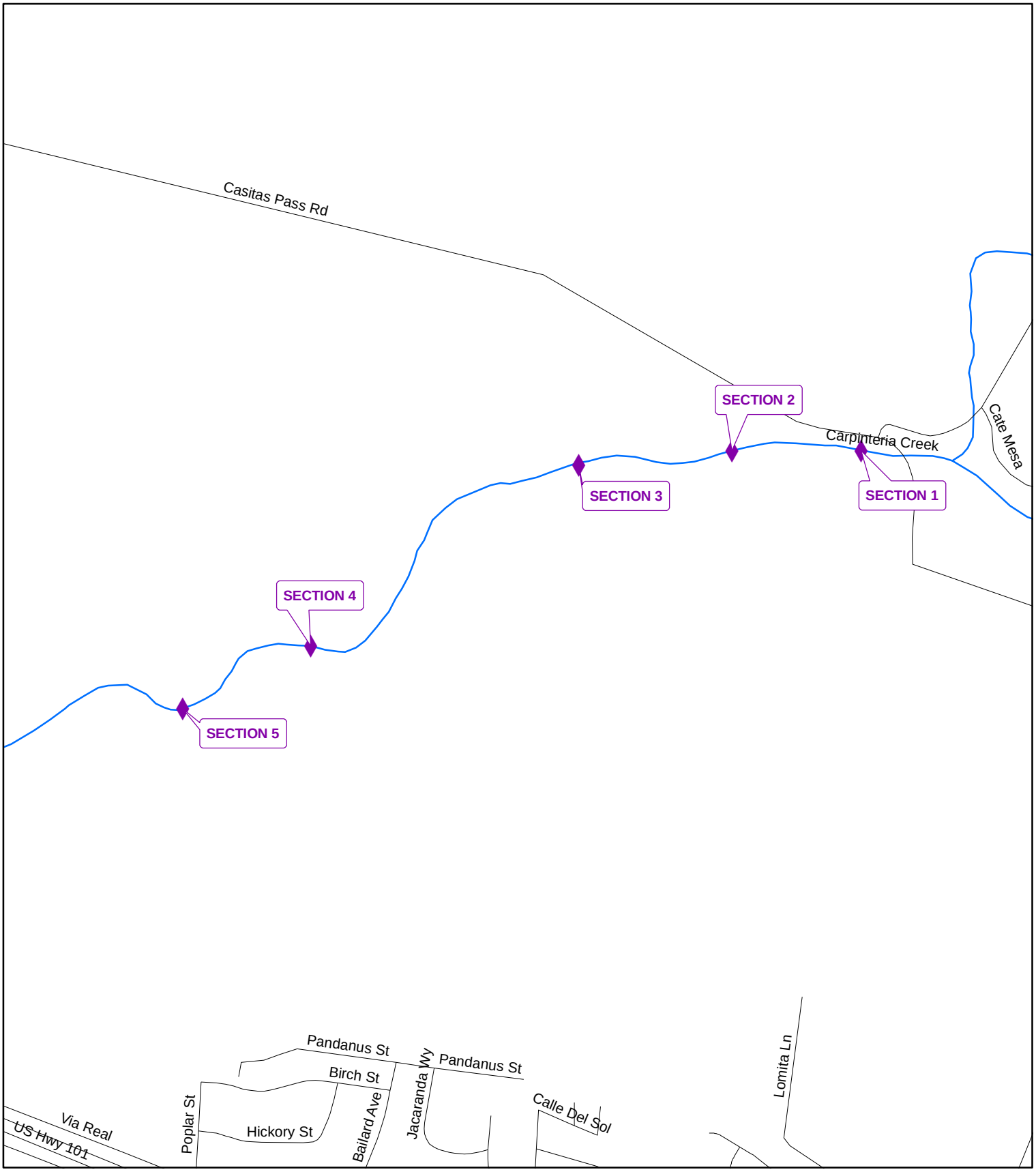
Mitigation Measures:
Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Resource	**Impacts**	**Mitigation Measures***
Hydrology EIR sections 5.1.2, 5.1.3	H-A	H-1
Water Quality EIR sections 5.2.2, 5.2.3	WQ-A, WQ-B, WQ-C	H-1, B-2, W-2, W-4, W-6, W-7, W-8,
Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	WRR-A, WRR-B	B-1, B-3, H-9
Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	FAW-A, FAW-F, FAW-I	B-1, B-2, B-3, B-5, W-1, W-2
Air Quality EIR sections 5.5.2, 5.5.3	AQ-A	A-1
Noise EIR sections 5.6.2, 5.6.3	N-A	N-1
Visual EIR sections 5.9.2, 5.9.3	V-A	V-1

Project Specifics:
This project will take 4 days to complete.

TYPHACEAE		
Typha angustifolia	Narrowleaf Cattail	N
Typha latifolia	Common Cattail	N
URTICEAE		
Urtica holosericeo	Stinging Nettle	N

* I = Introduced
  N = Native



Carpinteria Creek-A

Department of Public Works County of Santa Barbara

Legend

Sites

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N W E S

Feet

590 295 0 590

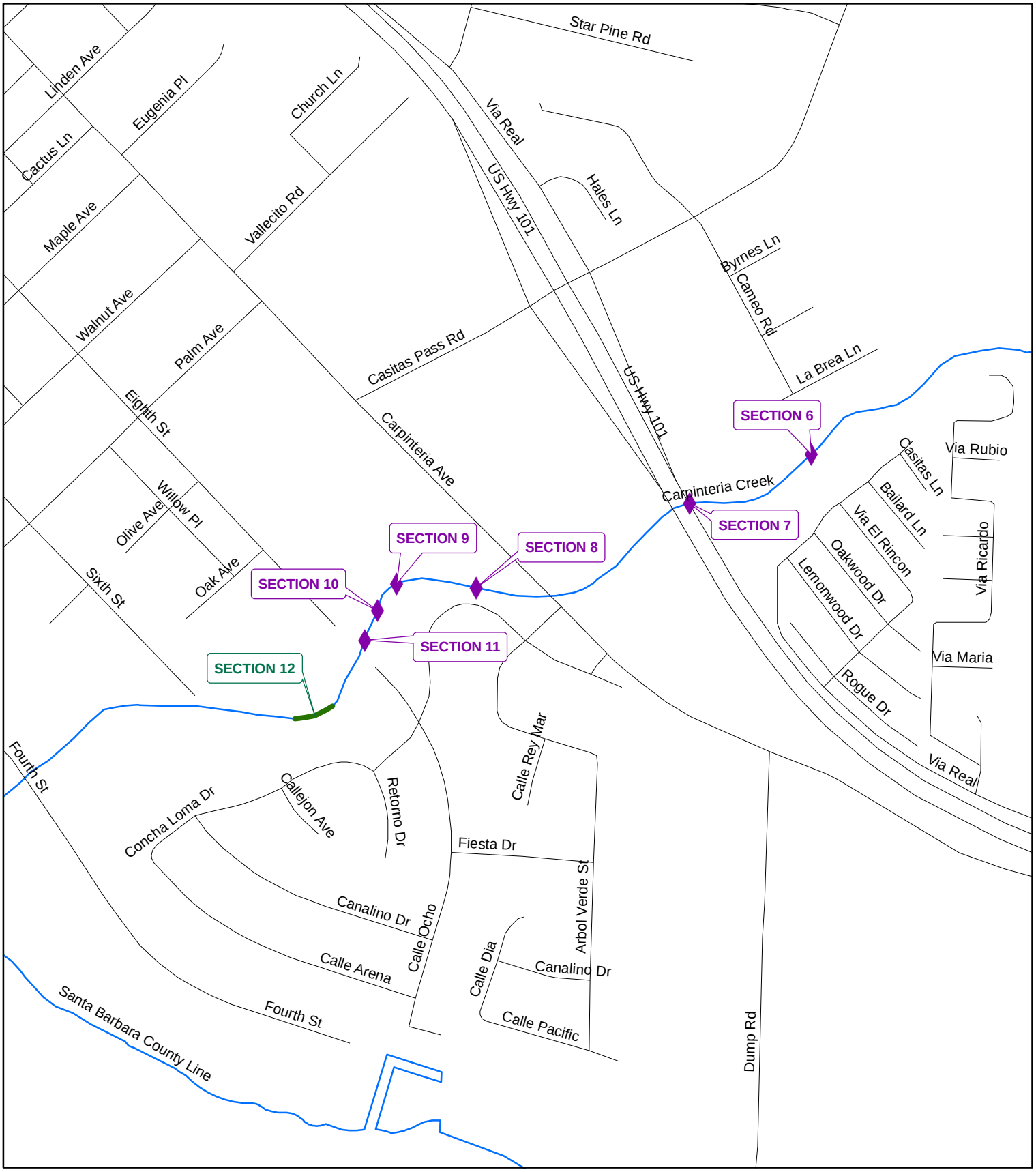
Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District

Compiled by the Public Works Enterprise GIS in Mayl 2014.



Carpinteria Creek-B

Department of Public Works County of Santa Barbara

Legend

- Sites
- Lengths

N W E S

Feet

410 205 0 410

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in Mayl 2014.

Carpinteria Creek

Carpinteria Creek: Section 3

Carpinteria Creek: Section 4

Carpinteria Creek

Carpinteria Creek: Section 7

Carpinteria Creek: Section 9

VASCULAR PLANT LIST
CARPINTERIA CREEK

SCIENTIFIC NAME	COMMON NAME	ORIGIN*
EQUISETACEAE		
Equisetum telmateia var. braunii	Giant Horsetail	N
Equisetum laevigatum	Smooth Scouringrush	N
Equisetum hyemale var. affine	Giant Scouringrush	N
ANACARDIACEAE		
Rhus integrifolia	Lemonade Berry	N
Schinus molle	California Pepper Tree	I
Schinus terebinthofolius	Brazilian Pepper	I
Toxicodendron diversilobum	Poison Oak	N
APIACEAE		
Conium maculatum	Poison Hemlock	I
Foeniculum vulgare	Sweet Fennel	I
APOCYNACEAE		
Vinca major	Periwinkle	I
ARALIACEAE		
Hedera helix	English Ivy	I
ASTERACEAE		
Artemisia calfornica	California Sagebrush	N
Artemisia douglasiana	Mugwortt	N
Baccharis pilularis	Coyote Bush	N
Baccharis salicifolia	Mulefat	N
Conyza bonoariensis	Horseweed	I
Gnaphalium palustee	Marsh Cudweed	N
Gnaphalium bicolor	Bicolored Cudweed	N
Picris echioides	Pricky Ox Tongue	I
Senecio mikanioides	German Ivy	I
Senecio vulgare	Common Groundsel	I
Sonchus asper	Prickly Sow-thistle	I
BETULACEAE		
Alnus rhombifolia	White Alder	N
BRASSICACEAE		
Brassica nigra	Black Mustard	I
Raphanus sativa	Wild Radish	I
Rorippa nasturtium-aquaricum	Watercress	I

CACTACEAE		
Opuntia oricola	Prickly Pear	I
CAPRIFOLIACEAE		
Sambucus mexicana	Elderberry	N
CHENOPODIACEAE		
Chenopodium ambrosioides	Mexican Tea	I
CYPERACEAE		
Cyperus eragrostis	Nut-Sedge	I
Scirpus microcarpus	Small-fruited Bulrush	N
Scirpus robustus	Prairie Bulrush	N
EUPHORBIACEAE		
Euphorbia lathyrus	Gopher Plant	I
Ricinus communis	Castor Bean	I
FABACEAE		
Medicago sativa	Alfafa	I
Melilotus indicus	Yellow Sweet Clover	I
Vicia sativa	Spring Vetch	I
FAGACEAE		
Quercus agrifolia	Coast Live Oak	N
HYDROPHYLLACEAE		
Phacelia ramosissima var. austrolitoralis	Phacelia	N
JUGLANDECEAE		
Juglans californica	So.California Black Walnut	N
JUNACEAE		
Juncus xiphioides	Iris-leaved Rush	N
LAMIACEAE		
Salvia mellifera	Black Sage	N
MALVACEAE		
Malacothamnus fasciculatus var. nuttallii	Nuttall’s Bush Mallow	N
MORACEAVE		
Ficus carius	Cultivated Fig	I
MYRTACEAE		
Eucalyptus globulus	Blue Gum	I

ONAGRACEAE		
Epilobium ciliatum	Willowherb	N
Oenethera hookeri ssp.hookeri	Hooker's Evening Primrose	N
PLANTAGINACEAE		
Plantago lanceolata	English Plantain	I
Plantago major	Common Plantain	I
PLATANACEAE		
Platanus racemosa	Western Sycamore	N
POACEAE		
Arundo donax	Giant Reed	I
Cortaderia jubata	Pampas Grass	I
Lolium multiflorum	Italian Ryegrass	I
Paspalum dilatatum	Dallis Grass	I
POLYGONACEAE		
Polygonum lapathifolium	Willow Smartweed	N
Rumex crispus	Curly Dock	I
Rumex conglomeratus	Green Dock	I
PRIMULACEAE		
Anagallis arvensis	Scarlet Pimpernel	I
RANUNCULACEAE		
Clematis ligusticifolia	Creek Clematis	N
ROSACEAE		
Heteromeles arbutifolia	Toyon	N
Rubus ursinus	California Blackberry	N
SALICACEAE		
Populus fremontii	Freemont Cottonwood	N
Populus balsamifera	Black Cottonwood	N
Salix exigua	Sandbar Willow	N
Salix laevigata	Red Willow	N
Salix lucida	Yellow Willow	N
Salix lasiolepis	Arroyo Willow	N
SCROPHULARIACEAE		
Mimulus guttatus var. guttatus	Monkey Flower	N
TROPAEOLACEAE		
Tropaelom majus	Garden Nasturtium	I

CIENEGUITAS CREEK ROUTINE MAINTENANCE
ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:
The project begins just downstream of State Street and continues down to Arboleda Road.

Setting:
Inspected on 4-10-2014.

Cieneguitas Creek originates in the foothills of the Santa Ynez Mountains and drains a 1,340 acre watershed capable of producing 2,100 cfs during a 100 year return period precipitation event.

Land uses adjacent to Cieneguitas Creek are suburban housing and light commercial. Residential streets and bike paths run alongside and cross the creek at several locations along the maintenance area. The upstream reach of the maintenance area is a drainage "spur" off of Cieneguitas main fork. The spur runs through commercial and residential properties but is confined by State Street and the Union Pacific Railroad. This portion of the creek is densely vegetated but subject to illegal dumping and homeless encampments as well as water quality impairments from adjacent parking lots.

The Cieneguitas spur joins the main stem at a Railroad culvert and from there, the channel is concrete lined for 600 feet until another culvert at Modoc Road. From Modoc downstream to Arboleda Road, the creek banks along Cieneguitas Creek are well vegetated and several large restoration projects have been implemented on this drainage between Modoc Road and Nogal, greatly improving the diversity and cover along the stream corridor. The vegetation between Modoc Road and Nogal Road has now grown large enough for a majority of the distance to provide shading to the stream channel. Downstream of Nogal Dr. the creek banks are well vegetated with mostly non-native species along private residences. There is a constant flow of water in this reach of the creek which precludes very much vegetation from growing in the invert along this lower stretch. The channel generally dries up during the summer months upstream of Modoc Road.

Revegetation:
Since the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District has been tracking and reporting the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. The following table is being included in the Annual Routine Maintenance Plan addenda to more easily display and track the District's restoration efforts.

Cieneguitas Creek				
Annual Plan Year	Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2002/2003	3,200	6,100	6100	2,900
2004/2005	0	0	0	2,900
2005/2006	240	0	0	2,660
2006/2007	0	0	0	2,660
2008/2009	0	0	0	2,660
2009/2010	270	0	0	2,390
2010/2011	0	0	0	2,390
2011/2012	0	0	0	2,390
2012/2013	0	0	0	2,390
2014/2015	75	0	0	2,315

Engineering Analysis:

Removing obstructive vegetation from the bankfull channel cross-section (active channel) is important to reduce the debris load associated with higher flows. Obstructive vegetation growing in the active channel as well as limbs projecting into the active channel and downed trees can become mobilized during flood flows, raising the water surface elevation as well as plugging bridges and culverts located downstream.

The bankfull discharge* for the spur is approximately 28 cfs. With a velocity of approximately 3 fps and a typical depth of 1.5', the width of clearing should be 6' to maintain channel equilibrium. The bankfull discharge* for the main stem is approximately 90 cfs. With a velocity of approximately 4 fps and a typical depth of 2.5', the width of clearing should be 9' to maintain channel equilibrium.

*As defined in "Regional Curves for Bankfull Channel Dimensions-Selected South Coast Streams", URS Corporation-March 2002.

Project Description:

Below is an explanation of typical Annual Plan maintenance practices for vegetation removal and mitigation. These explanations will not be included within each corresponding project description section. If the section number in the Annual Plan requires more explanation than below, it will be included within that individual section in the project descriptions. Otherwise, please refer to these descriptions for typical maintenance and mitigation.

Limbing/Down trees or limbs: A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks, depending on access.

Brushing: A crew with chain saws and loppers will brush the (insert vegetation name). The vegetation will be removed with hand tools and an application of Aquamaster herbicide will be applied to inhibit regeneration. A follow-up application of herbicide may be done in the spring/summer if the vegetation begins to resprout and needs additional treatment.

Mitigation: Limbing trees results in the trimming of limbs and therefore does not remove whole living trees or shrubs therefore, the District is not required to, and does not mitigate for limbing with riparian restoration. The District also does not provide restoration as mitigation for down trees, broken branches, or dead trees. All sections that use these terms will not have any restoration as mitigation associated with them. The District's Maintenance Program incorporates other mitigation measures to reduce limbing impacts to a less than significant level.

Brushing and complete live tree removals (native vegetation only) are mitigated for by the District with riparian restoration. If a section includes brushing or removal of native vegetation, the associated mitigation quantity will be quantified in that section's description. If no mitigation quantity is included in a Section description, no mitigation is required.

Section 1:
Nonnative black ash seedlings are growing in the active channel and will be brushed and there is a down willow branch.

Section 2:
In this section there is a down willow branch in the active channel.

Section 3:
In this length of approximately 400 linear feet there are multiple broken willow branches and willow limbs projecting into the active channel that will be limbed.

Section 4:
In this section a eucalyptus tree has fallen and is bridging the channel with branches projecting into the active channel. Only the lower branches will be removed and the main trunk will be left bridging the creek.

Section 5:
In this section there are willow branches overhanging the active channel that will be limbed and a down willow branch.

Section 6:
In this section there are two down willow branches.

Section 7:
In this section a willow tree has fallen slightly and is projecting over the channel. Only the lower branch will be removed from the willow and the upper branch will be allowed to grow as it is out of the flow path.

Section 8:
A concrete culvert pipe discharges into the creek in this section and there are willow branches projecting into the active channel and nonnative ash seedlings growing in the active channel.

Section 9

A willow is bridging the active channel with exterior branches projecting into the active channel. Only the branches projecting into the active channel will be limbed, the bridging trunk will be left in place.

Section 10
A nonnative ash seedling is growing within the active channel and will be brushed.

Section 11
A willow branch has broken off and is hanging into the active channel.

Section 12
There is a down willow branch within the active channel.

Section 13
There are 2 down willow branches within the active channel.

Section 14
Willow branches are projecting into the active channel and will be limbed.

Section 15
A nonnative pittosporum and palm tree are growing with the active channel and will be removed.

Section 16
A 5'x15' patch of cattails are growing within the active channel and will be brushed. This will result in 75 square feet of mitigation.

Section 17
There are 2 dead down trees (4" DBH) that will be removed from the active channel.

Impact Analysis and Mitigation Measures:
Listed below are the impacts and associated mitigation measures for each of the issue areas impacted by this project as identified in the Updated Program EIR. See the Section entitled "Impacts and Mitigation Measures" for definitions of the specific impacts and mitigation measures.

Impacts:
Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the impacts listed below are considered Class I (unavoidable significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

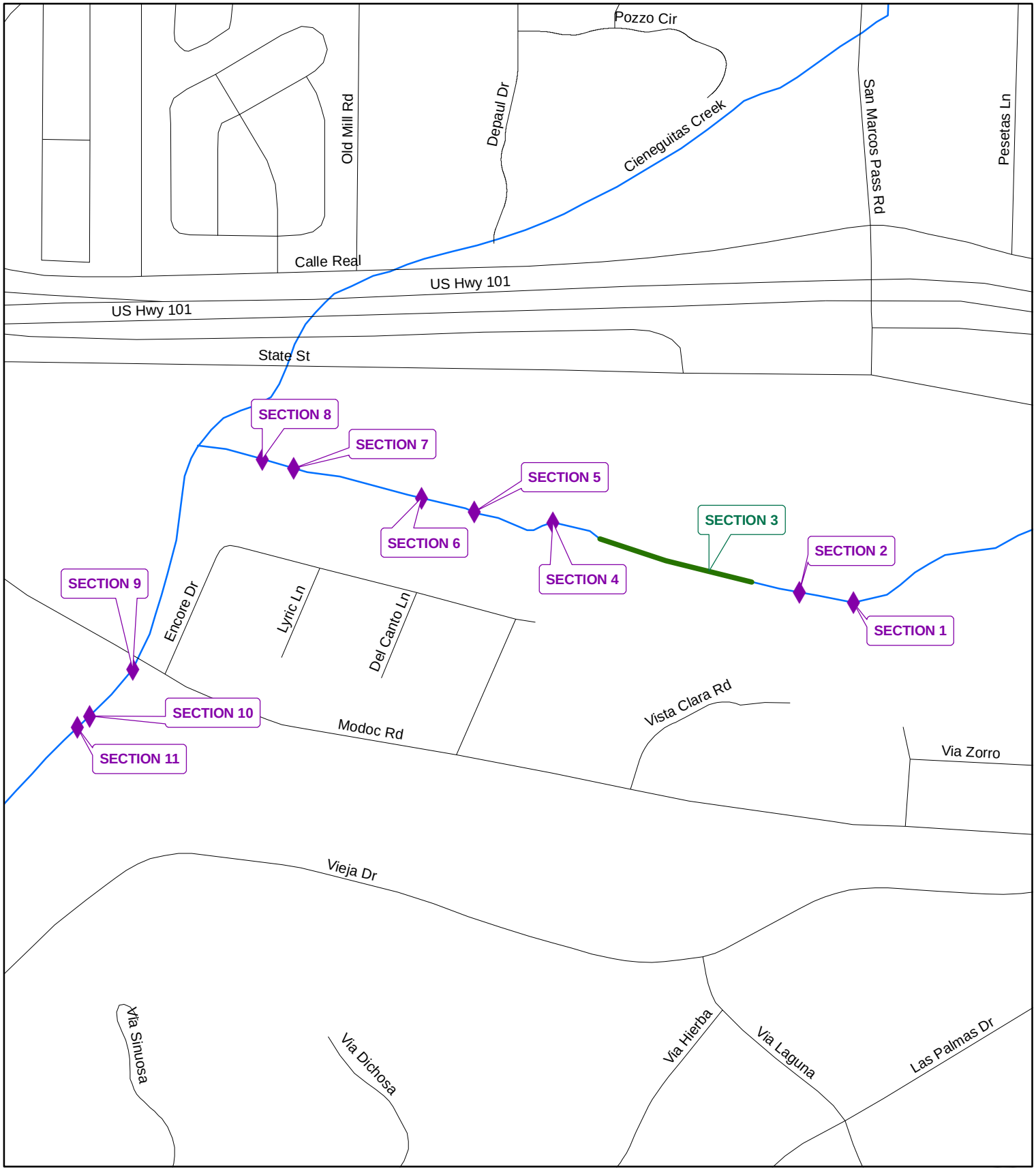
Mitigation Measures:
Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County Flood Control

Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Resource	Impacts	Mitigation Measures*
Hydrology EIR sections 5.1.2, 5.1.3	H-A, H-D,	H-1, B-2,
Water Quality EIR sections 5.2.2, 5.2.3	WQ-A, WQ-B, WQ-D,	H-1, B-2, W-1, W-2, W-6, W-7, W-8,
Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	WRR-A, WRR-D, WRR-E,	B-1, B-2, B-3, B-4, B-5, B-6,
Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	FAW-A, FAW-B, FAW-E, FAW-F, FAW-H, FAW-I, FAW-J,	B-1, B-2, B-3, B-5, B-6, H-1, W-1, W-2,
Air Quality EIR sections 5.5.2, 5.5.3	AQ-A, AQ-B	A-1, A-2
Noise EIR sections 5.6.2, 5.6.3	N-A	N-1
Visual EIR sections 5.9.2, 5.9.3	V-A	V-1

*Residual Impacts:
Incorporation of the above mitigation measures would reduce the impacts to all resource categories to less than significant levels.

Project Specifics:
The project will take 1 week to complete.



Department of Public Works County of Santa Barbara

Cieneguitas Creek-A

Legend

- Sites
- Lengths

N W E S

Feet

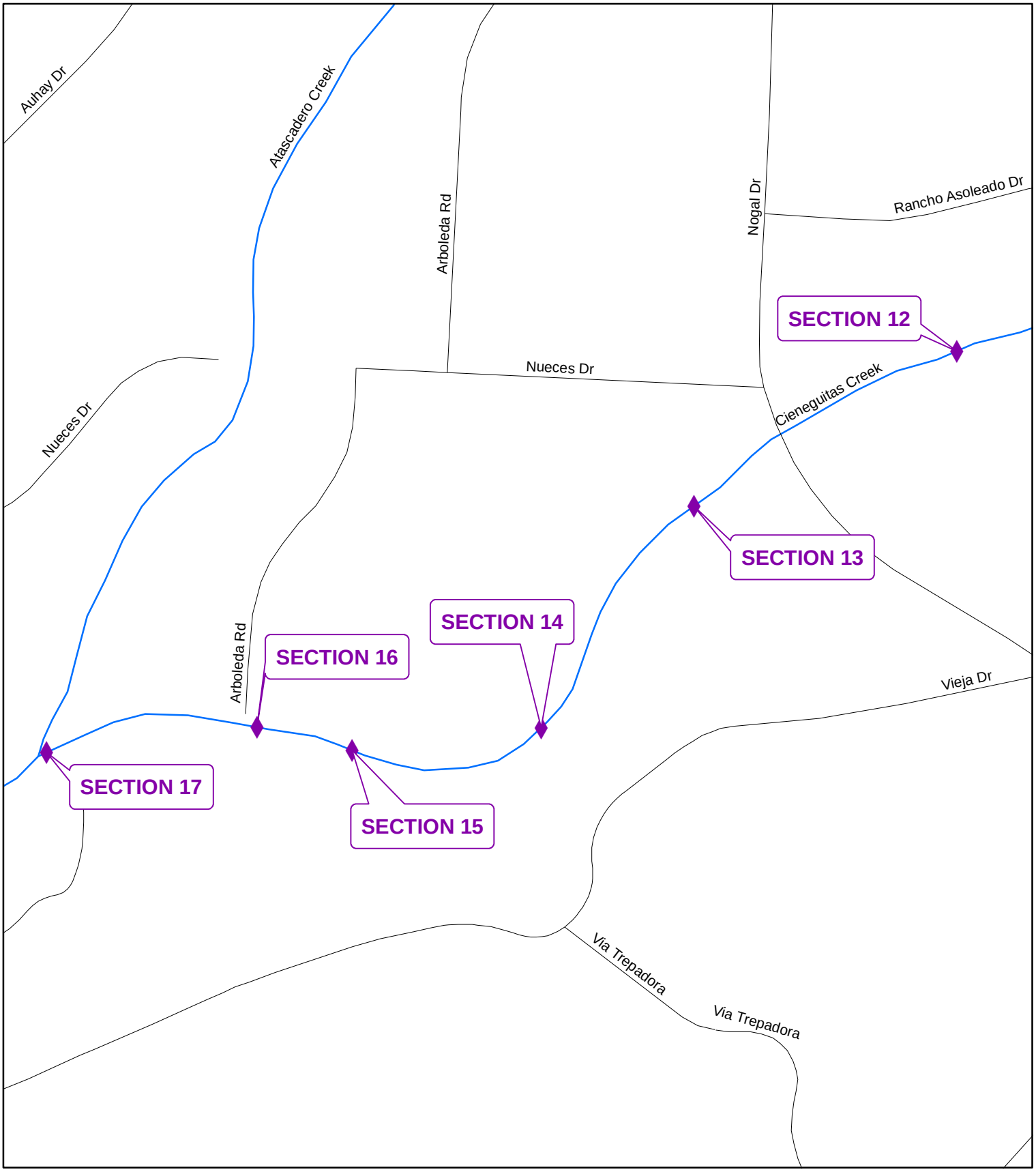
290 145 0 290

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in Mayl 2014.



Department of Public Works County of Santa Barbara

Cieneguitas Creek-B

Legend

Sites

This map is for reference only. Although every effort has been made to ensure the accuracy of information, errors and conditions originating from physical sources used to develop the database may be reflected on this map. Santa Barbara County shall not be liable for any errors, omissions, or damages that result from inappropriate use of this document. No level of accuracy is claimed for the boundary lines shown hereon and lines should not be used to obtain coordinate values, bearings or distances.

N W E S

Feet

170 85 0 170

Coordinate System: State Plane California Zone V NAD 1983

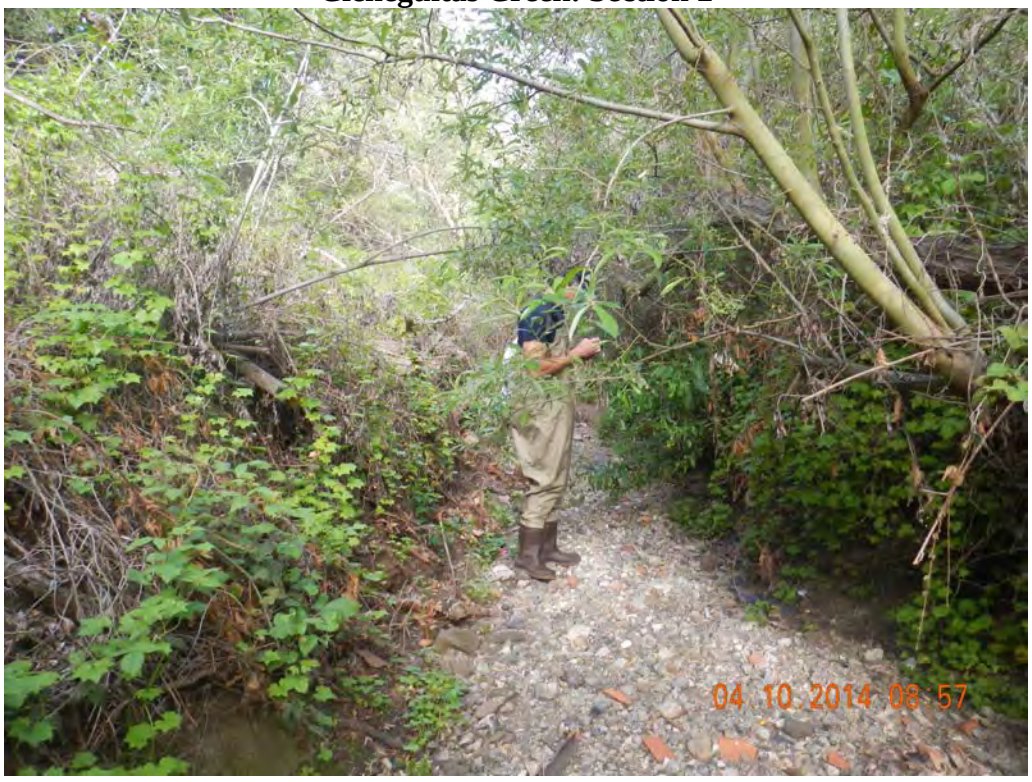
Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in Mayl 2014.

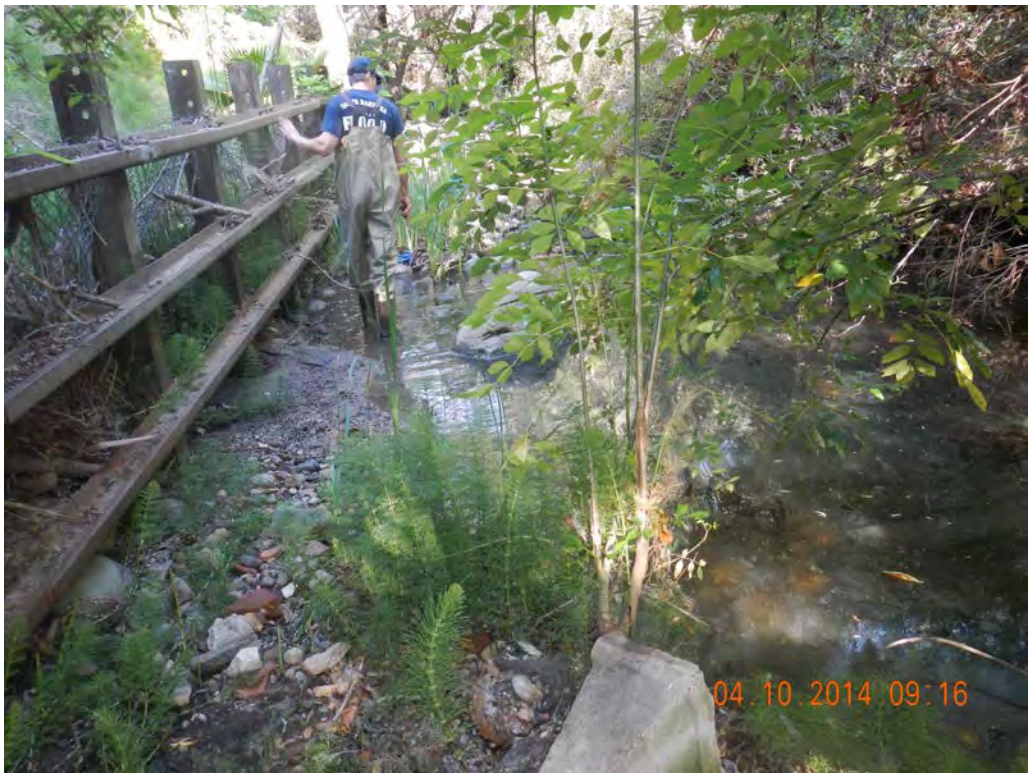
Cieneguitas Creek

Cieneguitas Creek: Section 2

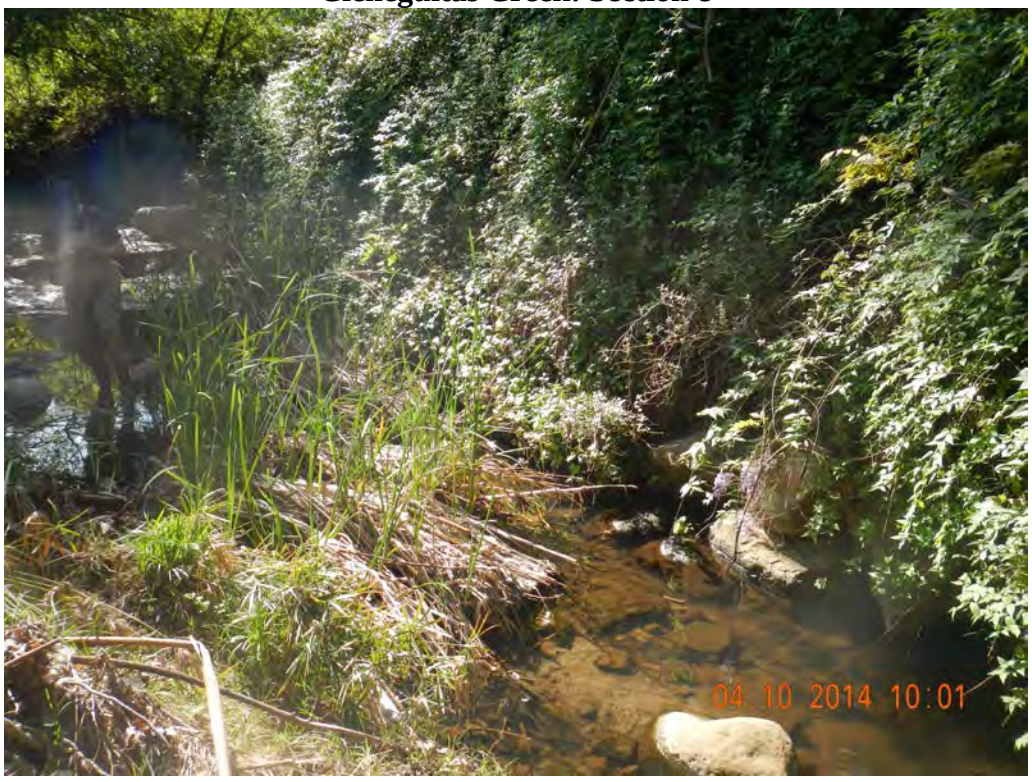


Cieneguitas Creek: Section 3

Cieneguitas Creek



Cieneguitas Creek: Section 8



Cieneguitas Creek: Section 16

VASCULAR PLANT LIST
CIENEGUITAS CREEK

SCIENTIFIC NAME	COMMON NAME	ORIGIN*
EQUISETACEAE		
Equisetum telmateia	Giant Horsetail	N
AMARANTHACEAE		
Amaranthus deflexus	Low Amaranth	I
ANACARDIACEAE		
Toxicodendron diversilobum	Poison Oak	N
APIACEAE		
Apium graveolens	Celery	I
Conium maculatum	Poison Hemlock	I
Foeniculum vulgare	Sweet Fennel	I
APOCYNACEAE		
Vinca major	Periwinkle	I
ARACEAE		
Zantedeschia aethiopica	Calla-Lily	I
ARALIACEAE		
Hedera helix	English Ivy	I
ASTERACEAE		
Ambrosia psilostachya	Western Ragweed	N
Artemisia californica	California Sagebrush	N
Artemisia douglasiana	Mugwort	N
Baccharis pilularis ssp. consanguinea	Coyote Bush	N
Carduus pycnocephalus	Italian Thistle	I
Conyza bonariensis	Flax-Leaved Fleabane	I
Conyza canadensis	Horseweed	I
Cotula coronopifolia	Brass Buttons	I
Gnaphalium luteo-album	Weed Everlasting	I
Lactuca serriola	Prickly Lettuce	I
Malacothrix saxtitilis var. tenuifolia	Cliff Aster	N
Picris echioides	Ox Tongue	I
Senecio mikanioides	German Ivy	I
Silybum marianum	Milk Thistle	I
ASTERACEAE		

Sonchus arvensis	Prickly Sow Thistle	I
Sobchus oleraceaus	Sow Thistle	I
Xanthium strumarium	Cocklebur	I
BRASSICACEA		
Brassica nigra	Black Mustard	I
Raphanus sativus	Wild Radish	I
Rorippa nasturtium -aquaticum	Watercress	I
CACTACEAE		
Opuntia sp.	Beavertail Cactus	N
CAPRIFOLIACEAE		
Lonicera japonica	Garden Honeysuckle	I
Sambucus mexicana	Elderberry	N
CHENOPODIACEAE		
Artiplex hastata	Hastate-Leaved Saltbush	I
Artiplex semibaccata	Australian Saltbush	I
Chenopodium ambrosioides	Mexican Tea	I
Chenopodium murale	Nettle-Leaved Goosefoot	I
Salsola iberica	Russian Thistle	I
CONVOLVULACEAE		
Convolvulus althaeoides	Garden Morning Glory	I
Convolvulus arvensis	Bindweed	I
CYPERACEAE		
Cyperus alternifolius	Umbrella Plant	I
Scirpus californicus	California Bulrush	N
EUPHORBIACEAE		
Eremocarpus setigerus	Turkey Mullein	N
Ricinus communis	Castor Bean	I
FABACEAE		
Acacia decurrens	Green Wattle	I
Lathyrus latifolius	Common Sweetpea	I
Melilotus alba	White Sweet Clover	I
Melilotus indicus	Yellow Sweet Clover	I
Vicia sativa	Spring Vetch	I
FAGACEAE		
Quercus agrifolia	Coast Live Oak	N

OLEACEAE		
Fraxinus dipetala	Flowering ash	N
GERANEACEAE		
Erodium botrys	Broad-Leaf Filaree	I
JUGLANDACEAE		
Juglans regia	English Walnut	I
JUNCACEAE		
Juncus effusus var. brunneus	Common Rush	N
LAMIACEAE		
Marrubium vulgare	Horehound	
Mentha spicata	Spearmint	I
Stachys bullata	Wood Mint	N
MALVACEAE		
Malva parviflora	Cheeseweed	I
MORACEAE		
Ficus carica	Cultivated Fig	I
MYRTACEAE		
Eucalyptus globulus	Blue Gum	I
OXALIDACEAE		
Oxalis pes-caprae	Sour Grass	I
PLANTAGINACEAE		
Plantago lanceolata	English Plantain	I
Plantago major	Common Plaintain	I
PLATANACEAE		
Platanus racemosa	Western Sycamore	N
POACEAE		
Agrostis stolonifera	Redtop	I
Avena fatua	Wild Oats	I
Avena barbata	Slender Wild Oats	I
Bromus diandrus	Ripgut Grass	I
Bromus mollis	Soft Chess	I
Cortaderia atacamensis	Pampas Grass	I
Cynodon dactylon	Bermuda Grass	I
Hordeum glaucum	Glaucus Barley	I

POACEAE

Koeleria macrantha	June Grass	I
Lolium perenne	Italian Ryegrass	I
Oryzopsis miliacea	Rice Grass	I
Paspalum dilitatum	Dallas Grass	I
Paspalum distichum	Knotgrass	I
Pennisetum clandetinum	Kikuyu Grass	I
Pennisetum setaceum	Fountain Grass	I
Phalaris stenoptera	Harding Grass	I
Polypogon monspeliensis	Rabbitsfoot Grass	I
POLYGONACEAE		
Polygonum arenastrum	Common Knotweed	I
Polygonum lapathifolium	Willow Smartweed	N
Polygonum punctatum	Dotted Smartweed	N
Rumex crispus	Curly Dock	I
PORTULACACEAE		
Portulaca oleracea	Purslane	N
PRIMULACEAE		
Anagallis arvensis	Scarlet Pimpernel	I
ROSACEAE		
Heteromeles arbutifloia	Toyon	N
Rubus ursinus	California Blackberry	N
SALICACEAE		
Populus balsamifera	Black Cottonwood	N
Salix lasiolepis	Arroyo Willow	N
SOLANACEAE		
Nicotiana glauca	Tobacco tree	I
Solanum douglasii	Douglas Nightshade	N
TROPAEOLACEAE		
Tropaeolum majus	Garden Nasturtium	I
TYPHACEAE		
Typha domingensis	Cattail	N
URTICACEAE		
Urtica holosericea	Giant Nettle	N

* I = Introduced
N = Native

HOSPITAL CREEK ROUTINE MAINTENANCE
ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:
The project begins 250' downstream of the Alpha Resource Center, which is just below Cathedral Oaks Road, and terminates at Calle Real.

Setting:
Inspected on March 19, 2014.

Hospital Creek originates in the foothills of the Santa Ynez Mountains and drains a 900 acre watershed capable of producing 1,400 cfs during a 100 year return period precipitation event.

From the beginning of the project reach through Section 2, Hospital Creek flows through an area with very long, step, well vegetated banks. Canopy trees include oak, sycamore, elderberry and willow. Understory species include blackberry, nettle, and poison oak along with numerous non-native species. The substrate consists of silt and is saturated and deep in places. The steep banks and vegetation provide shade to the channel invert. Hospital Creek generally remains wet through Section 2 year round but dries up a short distance downstream during the summer months. From the Social Services Buildings downstream, the creek is shallow and mainly vegetated with non-native species with the exception of the sycamore trees that were planted many years ago. In 2005, the District removed a large area of iceplant along the east bank just upstream of Calle Real and realigned the lower 300 feet of the channel so it would flow unobstructed through the Calle Real and Highway 101 culverts. Approximately 12,000 square feet of riparian restoration was implemented along 300 feet of the east and west banks and is doing very well. Land use upstream on Calle Real is business, residential and open space.

Revegetation:
Since the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District has been tracking and reporting the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. The following table is being included in the Annual Routine Maintenance Plan addenda to more easily display and track the District's restoration efforts.

Hospital Creek				
Annual Plan Year	Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2003/2004	500	6,000	0	-500
2005/2006	0	12,000	12,000	11,500
2007/2008	1,800	14,850	14,850	24,550
2011/2012	0	0	0	24,550
2012/2013	0	500	500	25,950
2013/2014	0	0	0	25,950
2014/2015	5	0	0	25,945

Engineering Analysis:
Removal of obstructive vegetation to maintain an approximately 8' wide channel will be performed to maintain the flow area of the creek for protection of adjacent property. Obstructive vegetation removal will reduce the potential for plugging the relatively small bridge located at the upstream end of the Social Services building parking lot and the culvert under Calle Real and Highway 101. This bridge has plugged in the past resulting in localized flooding.

Project Description:

Below is an explanation of typical Annual Plan maintenance practices for vegetation removal and mitigation. These explanations will not be included within each corresponding project description section. If the section number in the Annual Plan requires more explanation than below, it will be included within that individual section in the project descriptions. Otherwise, please refer to these descriptions for typical maintenance and mitigation.

Limbing/Down trees or limbs: A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks, depending on access.

Brushing: A crew with chain saws and loppers will brush the (insert vegetation name). The vegetation will be removed with hand tools and an application of Aquamaster herbicide will be applied to inhibit regeneration. A follow-up application of herbicide may be done in the spring/summer if the vegetation begins to resprout and needs additional treatment.

Mitigation: Limbing trees results in the trimming of limbs and therefore does not remove whole living trees or shrubs therefore, the District is not required to, and does not mitigate for limbing with riparian restoration. The District also does not provide restoration as mitigation for down trees, broken branches, or dead trees. All sections that use these terms will not have any restoration as mitigation associated with them. The District's Maintenance Program incorporates other mitigation measures to reduce limbing impacts to a less than significant level.

Brushing and complete live tree removals (native vegetation only) are mitigated for by the District with riparian restoration. If a section includes brushing or removal of native vegetation, the associated mitigation quantity will be quantified in that section's description. If no mitigation quantity is included in a Section description, no mitigation is required.

Section 1:
One willow seedling is growing within the active channel and will be brushed. This work will result in 5 square feet of mitigation.

Section 2:
There is a down willow branch within the active channel.

Section 3:
There is a down oak limb and nonnative palm tree within the active channel. The palm tree will be brushed.

Section 4:
There are 2 down, 4" DBH willow trees within the active channel.

Section 5:
Willow branches projecting into the active channel will be limbed.

Section 6:
Willow branches projecting into the active channel will be limbed.

Section 7:
There is a down willow branch and willow branches projecting into the active channel that will be limbed.

Section 8:
A down willow limb is in the active channel.

Section 9:
Sycamore limbs are projecting into the active channel and will be limbed, just upstream of a bridge culvert.

Impact Analysis and Mitigation Measures:
Listed below are the impacts and associated mitigation measures for each of the issue areas impacted by this project as identified in the Updated Program EIR. See the Section entitled "Impacts and Mitigation Measures" for definitions of the specific impacts and mitigation measures.

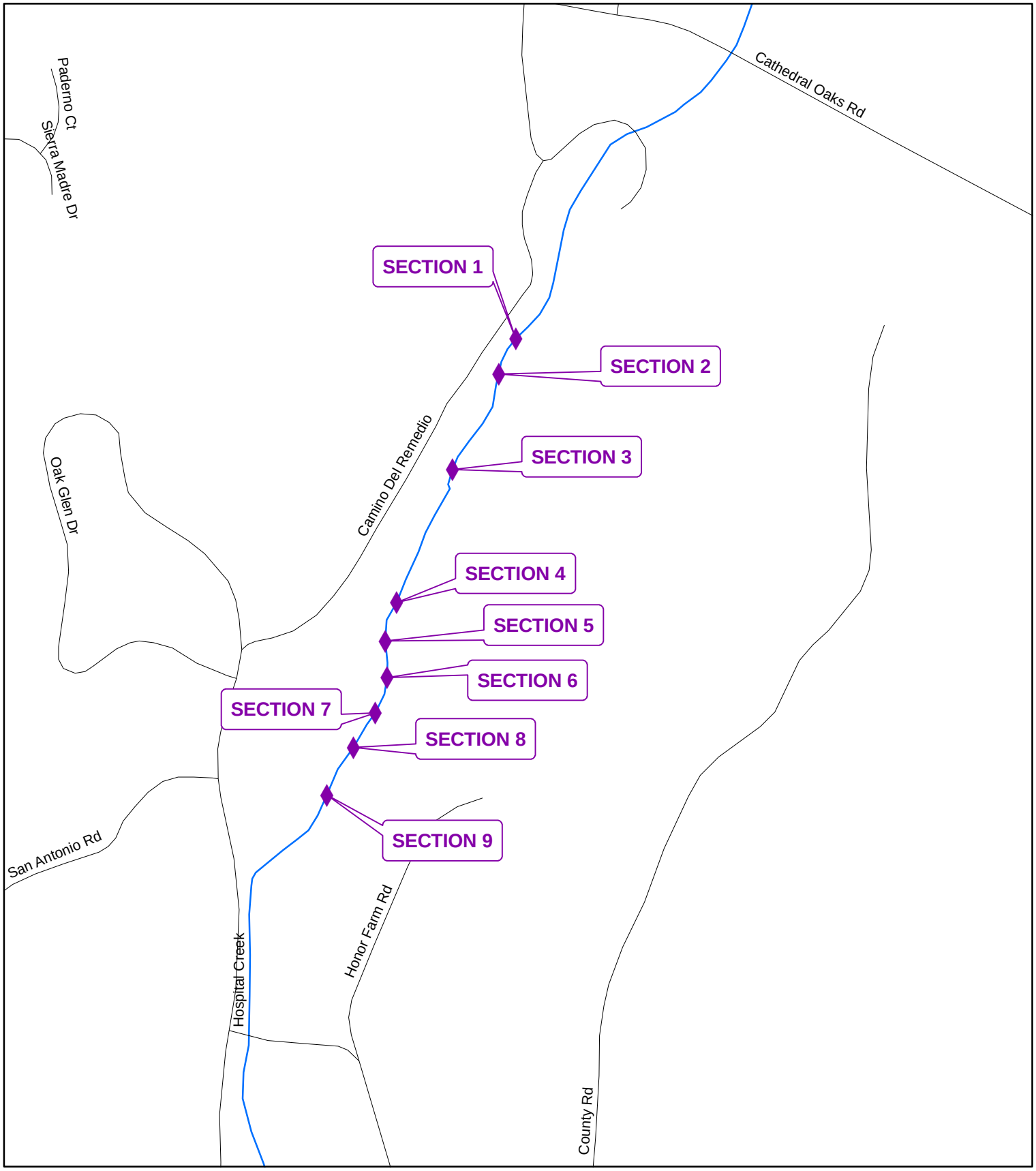
Impacts:
Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the impacts listed below are considered Class I (unavoidable significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

Mitigation Measures:
Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Resource	**Impacts**	**Mitigation Measures***
Hydrology EIR sections 5.1.2, 5.1.3	H-A	H-1
Water Quality EIR sections 5.2.2, 5.2.3	WQ-A, WQ-B, WQ-C	H-1, B-2, W-2, W-4, W-6, W-7, W-8,
Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	WRR-A	B-1, B-2, B-3
Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	FAW-A, FAW-F, FAW-I	B-1, B-2, B-3, B-5, W-1, W-2, W-5
Public Health EIR section 5.10	PH-A	W-2

*Residual Impacts:
Incorporation of the above mitigation measures would reduce the impacts to all resource categories to less than significant levels.

Project Specifics:
The project will take 1 day to complete.



Hospital Creek

Department of Public Works County of Santa Barbara

Legend

Sites

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N W E S

Feet

275 137.5 0 275

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District

Compiled by the Public Works Enterprise GIS in Mayl 2014.

Hospital Creek

Hospital Creek: Section 3

Hospital Creek: Section 4

VASCULAR PLANT LIST
HOSPITAL CREEK

SCIENTIFIC NAME	COMMON NAME	ORIGIN*
ANACARDIACEAE		
Schinus molle	Pepper Tree	I
Toxicodendron diversilobum	Poison Oak	N
APIACEAE		
Foeniculum vulgare	Sweet Fennel	I
APOCYNACEAE		
Vinca major	Periwinkle	I
ASTERACEAE		
Artemisia californica	California Sagebrush	N
Artemisia douglasiana	Mugwort	N
Baccharis salisifolia	Mulefat	N
Baccharis pilularis	Coyote Bush	N
Picris echioides	Ox Tongue	I
BRASSICACEAE		
Brassica nigra	Black Mustard	I
Raphanus sativus	Wild Raddish	I
CAPRIFOLIACEAE		
Sambucus mexicana	Elderberry	N
CONVULVULACEAE		
Calystegia macrostegia ssp. cyclostegia	Morning-Glory	I
EUPHORBIACEAE		
Ricinius communis	Castor Bean	I
FABACEAE		
Melilotus indicus	Yellow Sweet Clover	I
Vicia americana	American vetch	N
FAGACEAE		
Quercus agrifolia	Coast Live Oak	N

HYDROPHYLLACEAE		
Phacelia ramossissima	Branching Phacelia	N
LAMIACEAE		
Stachys bullata	Wood Mint	N
OXALIDACEAE		
Oxalis pes-caprae	Sour Grass	I
PLANTAGINACEAE		
Plantago major	Common Plantain	I
PLANTANACEAE		
Plantanus racemosa	Western Sycamore	N
POACEAE		
Avena fatua	Wild Oats	I
Bromus diandrus	Ripgut Grass	I
Leymus condensatus	Giant Rye	N
Lolium perenne	Italian Ryegrass	I
Piptatherum miliacea	Rice Grass	I
PRIMULACEAE		
Anagallis arvenis	Scarlet Pimpernel	I
RANUNCULACEAE		
Clematis ligusticifolia	Creek Clematis	N
ROSACEAE		
Pyracantha sp.	Pyranacantha	I
Rubus ursinus	California Blackberry	N
SALICACEAE		
Salix laevigata	Red Willow	N
Salix lasiolepis	Arroyo Willow	N
SOLANACEAE		
Nicotiana glauca	Tobacco Tree	I
Solanum douglasii	Douglas Nightshade	N

TROPAEOLACEAE		
Tropaeolum majus	Garden Nasturtium	I
TYPHACEAE		
Typha sp.	Cattail	N

* I = Introduced
N = Native

LOWER DEVEREUX CREEK ROUTINE MAINTENANCE ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:
The project begins where El Encanto Drain enters Ocean Meadows Golf Course and continues downstream to just upstream of the Devereux Slough at Venoco Road.

Setting:
Inspected on 3/17/2014.

Devereux Creek originates in the foothills of the Santa Ynez Mountains and drains a 2,369 acre watershed capable of producing 3,100 cfs during a 100 year return period precipitation event. Devereux Creek receives flow from several drainages that begin above Highway 101 between Glenn Annie Road and Winchester Canyon Road. These drainages ultimately converge on Ocean Meadows Golf Course and drain into Devereux Slough.

The maintenance area begins on Ocean Meadows Golf Course near Marymount Way and Scripps Crescent Drive, where El Encanto Channel meets the Golf Course property. The maintenance reach extends from the golf course foot bridge 2,500 feet downstream to a check structure on the access road just upstream of Devereux Slough on UCSB property.

The banks have several small willow thickets in the upper reaches and then the vegetation transitions into high salt marsh species such as coyote bush, coast goldenbush, saltbush, frankenia, and pickleweed. The channel invert has been colonized with mostly bulrush but also contains occasional clumps of cattails. This vegetation is quite dense in some locations and reduces flow capacity as well as trapping sediment. Because the District is not allowed to use any sort of herbicide in this area, yearly mowing is required in order to maintain creek capacity.

The District has been implementing an extensive restoration project along the entire length of the channel proposed for maintenance which was initially only moderately successful, but is becoming stronger in recent years. In particular, the high salt marsh habitat has done very well along the lower 300 feet of both banks, while the willow woodland has not been as successful. In 2008 through 2010, portions of the willow woodland components of the restoration were planted with more salt tolerant species and shrubs found in the high salt marsh habitat. Performance criteria is now being met in these reaches.

Revegetation:
Since the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District has been tracking and reporting the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. The following table is being included in the Annual Routine Maintenance Plan addenda to more easily display and track the District's restoration efforts.

Lower Devereux Creek				
Annual Plan Year	New Temporal Impacts to Native Vegetation	Proposed Restoration	Restoration Implemented	Surplus Restoration
2003	*	*	3.05 acres*	0
2007/2008	0	0	0	0
2008/2009	0	0	0	0
2009/2010	0	0	0	0
2010/2011	0	0	0	0
2011/2012	0	0	0	0
2012/2013	0	0	0	0
2013/2014	0	0	0	0
2014/2015	0	0	0	0

*Impacts and associated restoration for the Lower Devereux Creek Project were originally identified and mitigated for in 2003 under separate permits to complete the project and all restoration requirements. Since 2007 the District has included the maintenance of this project area within the Annual Routine Maintenance Plan. This project does not require any additional restoration square footage. Maintenance and monitoring of the existing restoration area is ongoing.

Wildlife Survey:

In 2007, tidewater gobies were in Devereux Creek and upstream of the maintenance area. Biomonitoring and relocation as part of maintenance in 2009 also detected tidewater gobies in the sediment basin at Ocean Meadows Golf Course. Based on these previous surveys, the District assumes that tidewater gobies are present throughout the project reach. The District consulted with the US Fish and Wildlife Service through the Army Corps of Engineers to utilize the programmatic Biological Opinion for tidewater gobies in this drainage.

Southwestern pond turtles, a state species of concern, have also been detected in lower Devereux Creek. Maintenance proposed does not involve heavy equipment or active disturbance in the creek channel. Mowing will be performed from the tops of the adjacent banks, as is routinely performed by experienced District staff. Mowing will occur only above the water level. The USFWS has determined that this type of maintenance is not expected to impact the gobies.

Impacts to the tidewater goby, southwestern pond turtle, and other wildlife species address in the Program EIR are expected to be minimal. Disturbance during the maintenance operations would be minor and temporary. With the implementation of monitoring, mitigation measures, and special conditions from the Biological Opinion from the US Fish and Wildlife Service, the proposed maintenance would have no significant impact on sensitive biological resources.

Engineering Analysis:

Obstructive vegetation growing in the active channel traps sediment, thus reducing channel capacity and can also become mobilized during flood flows, raising the water surface elevation as well as plugging bridges and culverts located downstream. Higher water surface elevations within this drainage preclude storm drains from nearby developments from draining which leads to property flooding. Additionally, since 2003, the Coastal Commission permit precludes the use of herbicide within the channel. Without

herbicide, the mowed bulrush and cattails readily regrow each year and must be re-mowed every maintenance season to regain channel capacity and to prevent the channel from filling in with sediment which would require a very extensive and highly impactful desilting operation. The District is in the process of renewing the Coastal Development Permit with the Coastal Commission and in an effort to reduce chronic maintenance as directed by the Regional Water Quality Control Board, the District has requested that an herbicide approved for aquatic use (Rodeo) be included in the permit. The use of an herbicide on the cut vegetation would potentially reduce mowing maintenance to every other year or at least reduce the amount of area that needs to be mowed annually.

Adjacent homes were flooded and many others threatened by flooding over the years due to the proximity of the development. Ongoing maintenance of previous clearing efforts is needed to ensure these homes are not threatened.

Project Description:

Below is an explanation of typical Annual Plan maintenance practices for vegetation removal and mitigation. These explanations will not be included within each corresponding project description section. If the section number in the Annual Plan requires more explanation than below, it will be included within that individual section in the project descriptions. Otherwise, please refer to these descriptions for typical maintenance and mitigation.

Limbing/Down trees or limbs: A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks, depending on access.

Brushing: A crew with chain saws and loppers will brush the (insert vegetation name). The vegetation will be removed with hand tools and an application of Aquamaster herbicide will be applied to inhibit regeneration. A follow-up application of herbicide may be done in the spring/summer if the vegetation begins to resprout and needs additional treatment.

Mitigation: Limbing trees results in the trimming of limbs and therefore does not remove whole living trees or shrubs therefore, the District is not required to, and does not mitigate for limbing with riparian restoration. The District also does not provide restoration as mitigation for down trees, broken branches, or dead trees. All sections that use these terms will not have any restoration as mitigation associated with them. The District's Maintenance Program incorporates other mitigation measures to reduce limbing impacts to a less than significant level.

Brushing and complete live tree removals (native vegetation only) are mitigated for by the District with riparian restoration. If a section includes brushing or removal of native vegetation, the associated mitigation quantity will be quantified in that section's description. If no mitigation quantity is included in a Section description, no mitigation is required.

Section 1:
From the area where Lower Devereux Creek enters Ocean Meadows Golf Course, to the area immediately upstream of the entrance to Devereux Slough, bulrush and cattails are

colonizing the invert, decreasing the channel capacity, and blocking flows. Using a Gradall with a mower attachment, working from the top of the bank, obstructive vegetation will be cut from the channel. The channel, along with associated expanded wetlands within several portions of the project length, is wide enough that cattail/bulrush habitat is retained along the channel to provide wildlife habitat for the length of the project. Although unlikely but possible, in the event that the Gradall cannot reach far enough into the channel to mow some vegetation, small areas may be cut by one or two people walking in the channel using weed eaters. Impacts associated with this maintenance have already been mitigated with the implementation of 3.05 acres of restoration along Lower Devereux Creek beginning in 2003.

The restoration sites along both sides of the creek channel had areas replanted and expanded in 2009/2010, with special considerations for providing access for the Gradall mower. Certain patches were left without large shrubs and trees to allow the equipment to reach the channel with the mowing arm. The mowing operation will use the designated mowing stations to reach into the channel, avoiding the restoration plantings as much as feasible.

Impact Analysis and Mitigation Measures:

Listed below are the impacts and associated mitigation measures for each of the issue areas impacted by this project as identified in the Updated Program EIR. See the Section entitled "Impacts and Mitigation Measures" for definitions of the specific impacts and mitigation measures.

Impacts:

Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the impacts listed below are considered Class I (unavoidable significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

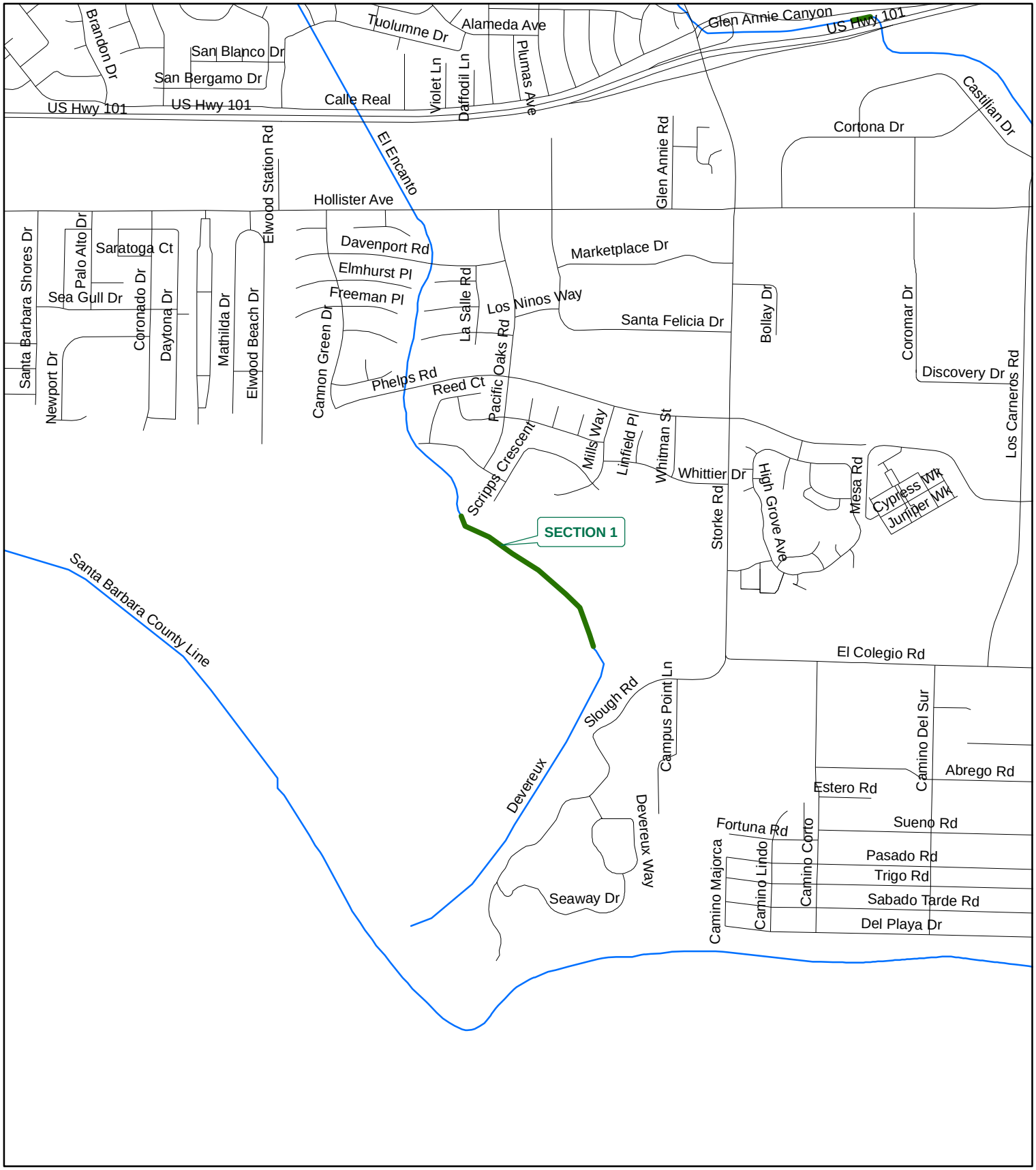
Mitigation Measures:

Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Resource	**Impacts**	**Mitigation Measures***
Hydrology EIR sections 5.1.2, 5.1.3	H-A	H-1
Water Quality EIR sections 5.2.2, 5.2.3	WQ-A, WQ-B, WQ-C	H-1, B-2, W-2, W-4, W-6, W-7, W-8,

Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	WR-A	B-1, B-2, B-3
Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	FAW-A, FAW-B, FAW-F	B-1, B-2, B-3, H-1, W-2, W-5
Air Quality EIR sections 5.5.2, 5.5.3	AQ-A, AQ-B	A-1, A-2
Noise EIR sections 5.6.2, 5.6.3	N-A	N-1
Visual EIR sections 5.9.2, 5.9.3	V-A	V-1

Project Specifics:
This project will take 4 days to complete.



Department of Public Works County of Santa Barbara

Devereux Creek

Legend

Lengths

This map is for reference only. Although every effort has been made to ensure the accuracy of information, errors and conditions originating from physical sources used to develop the database may be reflected on this map. Santa Barbara County shall not be liable for any errors, omissions, or damages that result from inappropriate use of this document. No level of accuracy is claimed for the boundary lines shown hereon and lines should not be used to obtain coordinate values, bearings or distances.

N W E S

Feet

1,000 500 0 1,000

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District

Compiled by the Public Works Enterprise GIS in Mayl 2014.

Devereux Creek

Devereux Creek: Section 1

Devereux Creek: Section 1

VASCULAR PLANT LIST
LOWER DEVEREUX CREEK

SCIENTIFIC NAME	COMMON NAME	ORIGIN
ASTERACEAE		
Artemesia californica	Ca. Sage	N
Baccharis pilularis	Coyote bush	N
Cotula coronopifolia	Brass Buttons	I
Encelia californica	Bush Sunflower	N
Isocoma menziesii	Golden Bush	N
BRASSICACEAE		
Rorippa nasturtium -aquaticum	Watercress	I
CHENOPODIACEAE		
Atriplex lentiformis lentiformis	Quailbush	N
Atriplex semibaccata	Australian Saltbush	I
Atriplex trangularis	Spearscale	I
Salacornia virginica	Pickleweed	N
Suaeda tacifolia	Wooly Seablite	N
CYPERACEAE		
Scirpus californicus	California Bulrush	N
Cyperus eragrostis	Nutsedge	N
FRANKENIACEAE		
Frankenia salina	Alkali Heath	N
MALVACEAE		
Malva prviflora	Cheeseweed	I
PLANTANACEAE		
Platanus racemosa	Western Sycamore	N
PLANTAGINACEAE		
Plantago coronopus	Cut-leaved Plantain	I
Plantago lanceolata	English Plantain	I
Plantago major	Common Plantain	I
POLYGONACEAE		
Eriogonum parvifolium	Seacliff Buckwheat	N

POACEAE		
Distichlis spicata	Saltgrass	N
Hordeum brachyantherum	Ca. Barley	N
Leymus tritcoides	Alkali Rye	N
Loleum multiflorum	Italian Ryegrass	I
Nassella pulchra	Purple Needlegrass	N
Pennisetum clandestinum	Kikuyu Grass	I
Phalaris aquatica	Harding Grass	I
POLYGONACEAE		
Rumex crispus	Curly Dock	I
ROSACEAE		
Rosa californica	California Wild Rose	N
Rubus discolor	Himalayan Blackberry	I
SALICACEAE		
Populus trichocarpa	Black Cottonwood	N
Salix lasiolepis	Arroyo Willow	N
TYPHACEAE		
Typha latafolia	Cattail	N
URTICACEAE		
Urtica dioica	Stinging Nettle	N
VERBENACEAE		
Verbena lasiostachys	Western Vervain	N

* = Introduced
= Native

MISSION CREEK ROUTINE MAINTENANCE
ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:
The project begins in Rocky Nook Park and terminates at Haley Street.

Setting:
Inspected on March 31, 2014.

Mission Creek originates in the foothills of the Santa Ynez Mountains and drains a 7,589 acre watershed capable of producing between 5,800 and 7,500 cfs during a 100 year return period precipitation event.

The maintenance area of Mission Creek begins at Rocky Nook Park and continues downstream through the Santa Barbara Museum of Natural History, residential areas and the downtown corridor of Santa Barbara. The creek network includes several road crossings, bridges, culverts, and storm drainages within the maintenance area. Adjacent land use includes medium and high density residential, commercial, and parks.

Within Rocky Nook Park and the Museum property, riparian vegetation is a mix of native willows, bay, sycamore, elderberry, ash, and patches of non-native ivy, arundo, and other non-native species. Substrate is large cobbles and boulders. As Mission Creek enters the urban areas of downtown Santa Barbara, non-native species become more predominant with nasturtium and other landscape species encroaching into the creek from adjacent residences. Portions of the creek are lined with hard bank protection on one or both sides.

At Arrellaga Street and downstream to Canon Perdido Street, Mission Creek enters a concrete lined channel that does not typically require extensive maintenance or management. From Canon Perdido to the Santa Barbara train station, Mission Creek passes under several bridges and partially lined channels. At several bridges, cattails, bulrush, sedges, and watercress have colonized the creek invert, in some cases with nearly 100% cover.

The lower portions of Mission Creek are degraded with trash, debris, human waste, and invasive species without much riparian canopy. However, the condition of the creek is improving, most likely due to efforts by the City of Santa Barbara and the County's Project Clean Water. Mission Creek features several restoration projects and arundo removal areas along the maintenance area.

The creek was dry through the majority of the maintenance areas during the assessment. The lower portions of the creek often remain wet year round from urban runoff and high groundwater.

Revegetation:
Since the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District has been tracking and

reporting the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. The following table is being included in the Annual Routine Maintenance Plan addenda to more easily display and track the District's restoration efforts.

Mission Creek				
Annual Plan Year	Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2002/2003	3,425	7,500	0	-3,425
2005/2006	4,917	1,000	0	-8,342
2006/2007	0	0	0	-8,342
2008/2009	1,060	17,625	15,000*	3,658
2009/2010	1,080	2,625**	0	2,578
2012/2013	1710	0	0	868
2013/2014	1520	0	LMMB 6520	0
2014/2015	480	0	TBD	TBD

*12,000 square feet of restoration was implemented by the District and 3,000 square feet of restoration was implemented by the City of Santa Barbara, therefore the District only claims mitigation credit for 12,000 square feet.

**This 2,625 square feet of restoration was implemented by the City of Santa Barbara, therefore the District will not claim this area as mitigation.

Engineering Analysis:

Removing obstructive/silt trapping vegetation from the bankfull channel cross-section (active channel) is important to reduce the debris load associated with higher flows. Obstructive vegetation growing in the active channel as well as limbs projecting into the active channel and downed trees can become mobilized during flood flows, raising the water surface elevation as well as plugging bridges and culverts located downstream.

The bankfull discharge* for Mission Creek upstream of Highway 101 is approximately 351 cfs. With a velocity of approximately 6 fps and a typical depth of 2.5', the width of clearing should be 24' to maintain channel equilibrium.

* As defined in "Regional Curves for Bankfull Channel Dimensions-Selected South Coast Streams", URS Corporation-March 2002.

Project Description:

Below is an explanation of typical Annual Plan maintenance practices for vegetation removal and mitigation. These explanations will not be included within each corresponding project description section. If the section number in the Annual Plan requires more explanation than below, it will be included within that individual section in the project descriptions. Otherwise, please refer to these descriptions for typical maintenance and mitigation.

Limbing/Down trees or limbs: A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks, depending on access.

Brushing: A crew with chain saws and loppers will brush the (insert vegetation name). The vegetation will be removed with hand tools and an application of Aquamaster herbicide will be applied to inhibit regeneration. A follow-up application of herbicide may be done in the spring/summer if the vegetation begins to resprout and needs additional treatment.

Mitigation: Limbing trees results in the trimming of limbs and therefore does not remove whole living trees or shrubs therefore, the District is not required to, and does not mitigate for limbing with riparian restoration. The District also does not provide restoration as mitigation for down trees, broken branches, or dead trees. All sections that use these terms will not have any restoration as mitigation associated with them. The District's Maintenance Program incorporates other mitigation measures to reduce limbing impacts to a less than significant level.

Brushing and complete live tree removals (native vegetation only) are mitigated for by the District with riparian restoration. If a section includes brushing or removal of native vegetation, the associated mitigation quantity will be quantified in that section's description. If no mitigation quantity is included in a Section description, no mitigation is required.

Section 1:
There is 1 alder and 1 sycamore seedling growing within the active channel that will be brushed. This will result in 10 square feet of mitigation.

Section 2:
There are 50 square feet of cottonwood seedlings growing in a 10'x10' area within the active channel that will be brushed. This will result in 50 square feet of mitigation.

Section 3:
There is down alder branch (<1" dia.) in the active channel.

Section 4:
1 Willow has branches projecting into the active channel and will be limbed.

Section 5:
There is 1 down willow branch (1" dia.) in the active channel.

Section 6:
There is a 10'x30' area of nonnative tree of heaven and a fig sapling growing within the active channel that will be brushed.

Section 7:
This section is directly upstream of the Alamar St. Bridge. There are 4 large wood piles on the right bank that were placed by the City to protect the bridge abutment. 20 square feet of willow seedlings are growing in the invert near the piles and will be brushed. There is

also 25 square feet of nonnative tree of heaven seedlings that will be brushed. This section was mitigated for in the 12/13 Annual Plan under Section 11.

Section 8:
There is a down eucalyptus branch in the active channel and a willow with branches (<1" dia.) projecting into the active channel that will be limbed.

Section 9:
10 square feet of willow seedlings are growing within the active channel and will be brushed. This will result in 10 square feet of mitigation.

Section 10:
There is a willow on the right bank with branches projecting into the active channel that will be limbed.

Section 11:
20 square feet of nonnative eucalyptus seedlings are growing within the active channel and will be brushed.

Section 12:
There are two 2" dia. willow branches down in the active channel. Willow seedlings are growing in the active channel near the left bank and there is a 10" DBH sycamore growing on the toe of the left bank. The sycamore will be left in place and only the willow seedlings will be brushed. This will result in 40 square feet of mitigation.

Section 13:
There is a dead down unidentifiable limb within the active channel.

Section 14:
A 3'x5' area of alder seedlings is growing within the active channel and will be brushed.

Section 15:
A 2" DBH sycamore is accumulating debris and growing in the active channel directly downstream of the Valerio bridge and will be brushed. There is also an island of nonnative tree of heaven, castor bean, and ivy growing in the active channel that will be brushed. Sycamore removal will result in 50 square feet of mitigation.

Section 16:
50 square feet of willow seedlings are growing within the active channel in a 10'x50' area and will be brushed. A nonnative palm tree will also be brushed. This will result in 25 square feet of mitigation because this section was worked in the 12/13 Annual Plan and received 25 square feet of mitigation under Section 21.

Section 17:
Nonnative arundo is growing on the right bank and falling into the active channel, greatly reducing capacity. A sycamore sapling (<3" DBH) is also growing out of the concrete sack wall that is the left bank and could lead to a wall failure, if left in place. The arundo and sycamore will be brushed and result in 20 square feet of mitigation for sycamore removal.

Section 18:

Approximately 50 linear feet of nonnative arundo are growing on the left bank and will be brushed. A 10'x40' area containing 100 square feet of willow seedlings and cattail is growing within the active channel and will be brushed, resulting in 100 square feet of mitigation.

Section 19:
150 square feet of Cattail, 2 willow saplings (<3" DBH), and nonnative castor bean and eucalyptus saplings are growing within the active channel and will be brushed. A multi trunk willow growing approximately 50' upstream on the left bank will be left in place because its branches are growing above the active channel. This will result in 200 square feet of mitigation.

Section 20:
There are approximately 100 linear feet of very dense willows growing over and into the active channel in this section. The crew will limb only branches that are within 6' of the channel bottom leaving the dense over story while accommodating high flows.

Mission Channel Habitat Improvement:
This section represents a joint project between the District and the City of Santa Barbara Creeks Division. The District and City have developed a project to improve shading and native riparian habitat along the downtown corridor of Mission Creek. The project will remove invasive species and help maintain cooler water temperature within the newly constructed fish-passage channel through this reach.

The project includes two reaches along the existing concrete-lined portions of the Creek. The upper liner runs from Los Olivos Street to Pedregosa. The work in this reach includes removing several dead snags from the upper banks, as well as removal of approximately 25 non-native myoporum, eucalyptus, landscape yucca, arundo, palms, pine trees, pepper trees, and a cluster of English ivy. Approximately 70 native trees will be planted to replace the non-native trees as well as to fill gaps in the canopy. Existing native oak sprouts will be maintained in place. Removal and planting will occur along both sides of the upper banks, leaving a 5-foot gap between the existing concrete and any new trees.

The lower section runs from Arrellaga Street downstream to Canon Perdido Street. In this section, approximately 60 trees would be removed (dead snags, myoporum, pines, palms, eucalyptus, tree tobacco, pepper trees, ash, and arundo colonies). Approximately 250 new trees would be installed to replace the removed trees and fill existing gaps in the canopy. Removals and planting will occur along both sides of the channel.

The District and City have worked together to identify priority areas for removal and new plantings within the reaches. Some areas cannot be planted due to access constraints, maintenance concerns, or proximity to roadways or culverts. Tree removal will be performed by District crew, City crew, California Conservation Corps, and contractor crews, using chain saws and hand tools. Native trees will be installed from acorns and container stock. Species will include mostly coast live oak, sycamores, with a few California bay trees, alder, and willows at locations that are appropriate for these species. The crews will install an irrigation system, connected to City water lines, running through PVC pipes and drip lines. Some portions of the irrigation system will be buried shallowly to protect the pipe from damage; other lines will run along the ground surface. The area will be watered and maintained for 3 to 5 years, or until the trees are well-established. Trees

planted by the District will be credited for future revegetation and replacement trees according to RWQCB and DFG mitigation ratios as described in the Annual Plan permits.

Impact Analysis and Mitigation Measures:
Listed below are the impacts and associated mitigation measures for each of the issue areas impacted by this project as identified in the Updated Program EIR. See the Section entitled "Impacts and Mitigation Measures" for definitions of the specific impacts and mitigation measures.

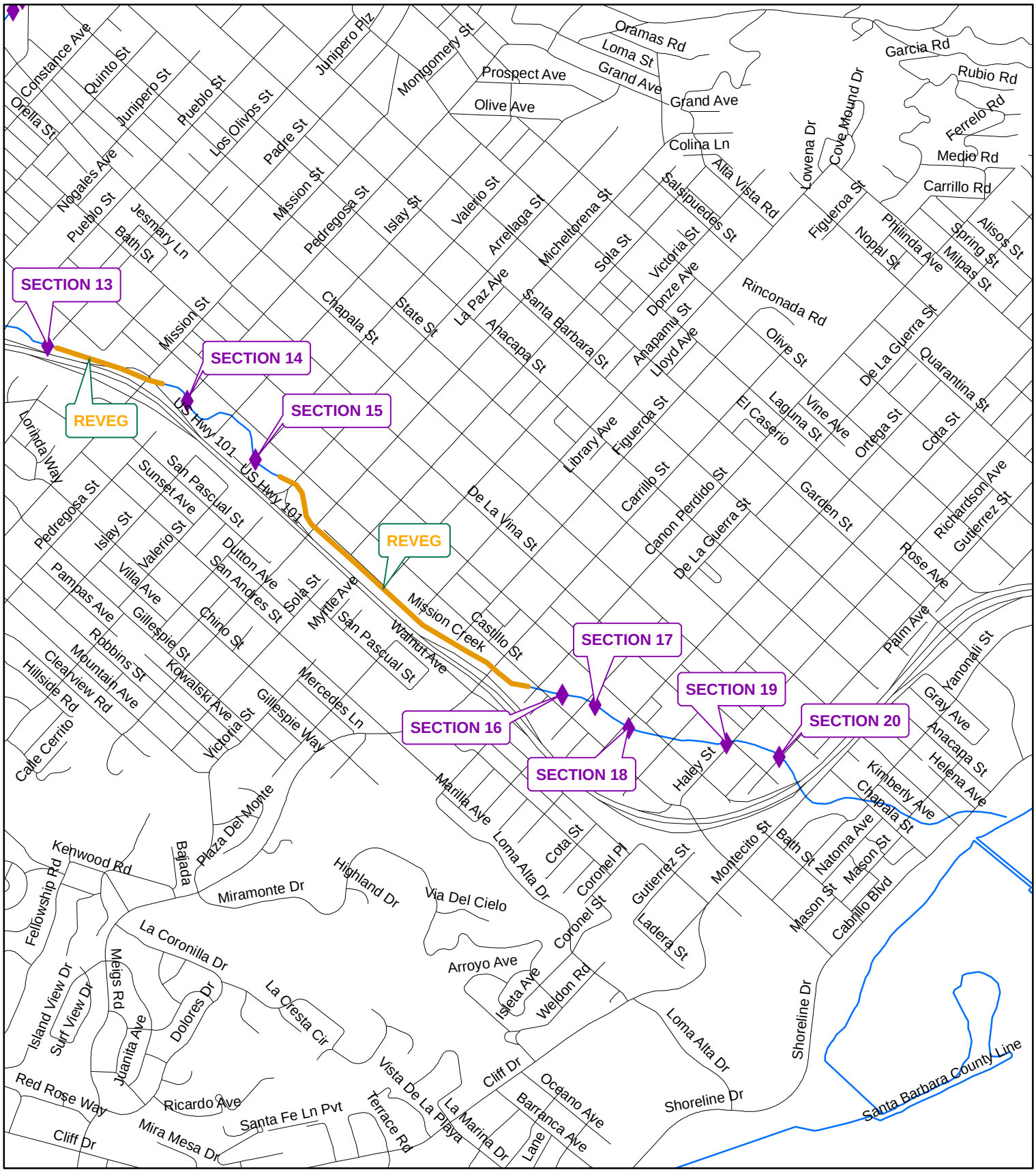
Impacts:
Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the impacts listed below are considered Class I (unavoidable significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

Mitigation Measures:
Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Resource	Impacts	Mitigation Measures*
Hydrology EIR sections 5.1.2, 5.1.3	H-A	H-1
Water Quality EIR sections 5.2.2, 5.2.3	WQ-A, WQ-B, WQ-C	H-1, B-2, W-2, W-4, W-6, W-7, W-8,
Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	WRR-A	B-1, B-2, B-3
Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	FAW-A, FAW-F, FAW-I	B-1, B-2, B-3, B-5, W-1, W-2,
Public Health EIR section 5.10	PH-A	W-2

*Residual Impacts:
Incorporation of the above mitigation measures would reduce the impacts to all resource categories to less than significant levels.

Project Specifics:
The project will take 4 days to complete.



Mission Creek-B

Department of Public Works County of Santa Barbara

Legend

- Sites
- Lengths

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N W E S

Feet

1,100 550 0 1,100

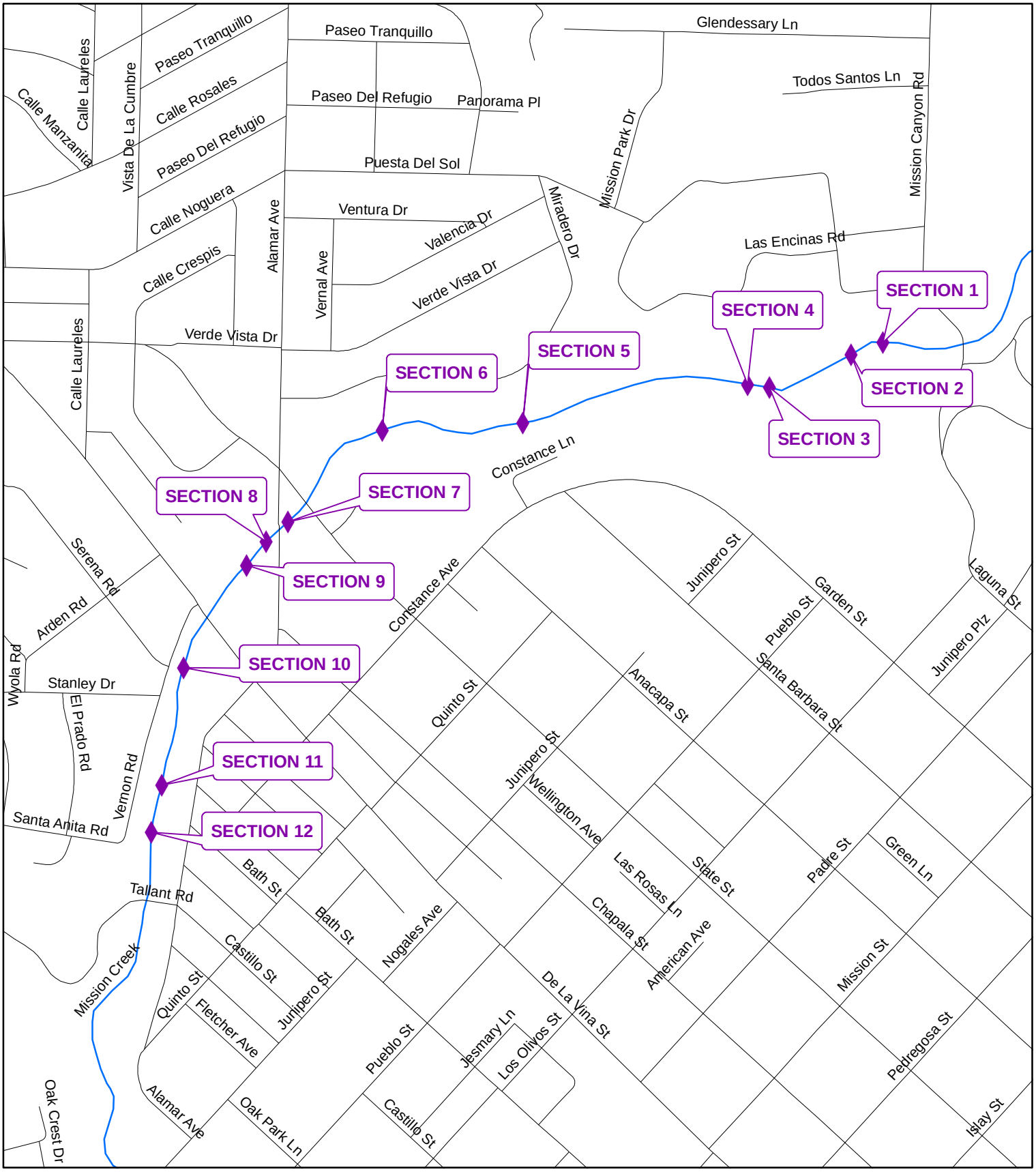
Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District

Compiled by the Public Works Enterprise GIS in Mayl 2014.



Department of Public Works County of Santa Barbara

Mission Creek-A

Legend

Sites

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N W E S

520 260 0 520 Feet

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District

Compiled by the Public Works Enterprise GIS in Mayl 2014.

Mission Creek

Mission Creek: Section 2

Mission Creek: Section 7

Mission Creek

Mission Creek: Section 19

Mission Creek: Section 20

VASCULAR PLANT LIST
MISSION CREEK

SCIENTIFIC NAME	COMMON NAME	ORIGIN*
EQUISETACEAE		
Equisetum telemateia	Giant Horsetail	N
APIACEAE		
Foeniculum vulgare	Sweet Fennel	I
ASTERACEAE		
Ageratina adenophora	Ironweed	I
Aremisia douglasiana	Mugwort	N
Sonchus arvensis	Prickly Sow Thistle	I
BRASSICACEAE		
Brassica nigra	Black Mustard	I
Raphanus sativus	Wild Radish	I
Rorippa nasturtium -aquaticum	Watercress	I
CYPERACEAE		
Cyperus alternifolius	Umbrella Plant	I
EUPHORBIACEAE		
Ricinus communis	Castor Bean	I
FABACEAE		
Melilotus indicus	Yellow Sweet Clover	I
Vicia benghalensis	Vetch	I
PLANAGINACEAE		
Plantago lanceolate	English Plantain	I
Plantago major	Common Plantain	I
PLATANCEAE		
Platanus racemosa	Western Sycamore	N
POACEAE		
Arundo donax	Giant Reed	I
Oryzopsis miliacea	Rice Grass	I
Polypogon monspeliensis	Rabbitsfoot	I
SOLANACEAE		

Nicotiana glauca	Tobacco Tree	I
Solanum douglasii	Douglas Nightshade	N
TROPAEOLACEAE		
Tropaeolum majus	Garden Nasturtium	I
TYPHACEAE		
Typha sp.	Cattail	N

* I = Introduced
N = Native

MONTECITO CREEK ROUTINE MAINTENANCE
ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:
The project begins in Cold Spring Canyon just south of East Mountain Drive and terminates at Hot Springs Road.

Setting:

Inspected March 24, 2014.

Montecito/Cold Springs/Hot Springs Creek originates in the foothills of the Santa Ynez Mountains and drains a 3,890 acre watershed (excluding the La Vereda Creek Watershed) capable of producing 5,700 cfs during a 100 year return period precipitation event.

The maintenance area runs from the debris basin off of Mountain Drive downstream to the culverts at Highway 101, where the creek enters a concrete lined channel. Montecito Creek through this region is relatively steep, with large boulders and step-pools. Surrounding land uses are large residential, trails, and landscapes areas. The riparian corridor is mostly intact, with large specimen sycamores, bays, alder, willow, and ash trees. Landscape trees and shrubs have also colonized many portions of the creek from the adjacent residences. Understory includes blackberry, poison oak, mugwort, leather root, ironweed, and other exotic species.

The creek invert is populated with willow and alder sprouts and saplings growing among the boulders of the creek bed. The creek was wetted and flowing throughout the maintenance area and generally dries up each summer in the vicinity of where the creek flows under Olive Mill Road.

Revegetation:
Since the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District has been tracking and reporting the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. The following table is being included in the Annual Routine Maintenance Plan addenda to more easily display and track the District's restoration efforts.

Restoration opportunities in the Montecito Creek watershed are limited, because the riparian corridor is mostly intact, and because property access is very difficult. The District is pursuing restoration sites in the vicinity, or will use credits from the Los Carneros Mitigation Bank to compensate for the required mitigation.

Montecito Creek				
Annual Plan Year	Temporal Impacts to Native Vegetation	Proposed Restoration	Restoration Implemented	Surplus Restoration

	(square feet)	(square feet)	(square feet)	(square feet)
2004/2005	2,400	2,400	2,400	0
2005/2006	0	0	0	0
2007/2008	575	2,500	0	-575
2009/2010	775	2,500*	0	-1,350
2013/2014	925	0	LCMB 2,275	0
2014/2015	665	0	0	-660

Engineering Analysis:

Several culverts and small bridges on Montecito Creek are susceptible to plugging and causing significant flooding of the adjacent areas as well as Highway 101. In an effort to reduce the potential for plugging culverts and bridges, downed trees and obstructive vegetation that could be mobilized during high flows should be removed. The bankfull discharge* for Montecito Creek in the vicinity of East Valley Road is approximately 351 cfs. With a velocity of approximately 7 fps and a typical depth of 2.5', the width of clearing should be 21' to maintain channel equilibrium.

* As defined in "Regional Curves for Bankfull Channel Dimensions-Selected South Coast Streams", URS Corporation-March 2002.

Project Description:

Below is an explanation of typical Annual Plan maintenance practices for vegetation removal and mitigation. These explanations will not be included within each corresponding project description section. If the section number in the Annual Plan requires more explanation than below, it will be included within that individual section in the project descriptions. Otherwise, please refer to these descriptions for typical maintenance and mitigation.

Limbing/Down trees or limbs: A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks, depending on access.

Brushing: A crew with chain saws and loppers will brush the (insert vegetation name). The vegetation will be removed with hand tools and an application of Aquamaster herbicide will be applied to inhibit regeneration. A follow-up application of herbicide may be done in the spring/summer if the vegetation begins to resprout and needs additional treatment.

Mitigation: Limbing trees results in the trimming of limbs and therefore does not remove whole living trees or shrubs therefore, the District is not required to, and does not mitigate for limbing with riparian restoration. The District also does not provide restoration as mitigation for down trees, broken branches, or dead trees. All sections that use these terms will not have any restoration as mitigation associated with them. The District's Maintenance Program incorporates other mitigation measures to reduce limbing impacts to a less than significant level.

Brushing and complete live tree removals (native vegetation only) are mitigated for by the District with riparian restoration. If a section includes brushing or removal of native vegetation, the

associated mitigation quantity will be quantified in that section's description. If no mitigation quantity is included in a Section description, no mitigation is required.

Section 1:
100 square feet of nonnative ironweed is growing within the active channel and will be brushed.

Section 2:
Patches of nonnative ironweed are growing throughout this length of approximately 750' and will be brushed.

Section 3:
A 3" DBH nonnative tree of heaven tree is growing within the active channel as well as 30 square feet of alder seedlings. These will be brushed resulting in 30 square feet of mitigation.

Section 4:
A 2" DBH and two 1" DBH sycamore saplings are growing within the active channel and will be brushed, resulting in 50 square feet of mitigation.

Section 5:
Willow, sycamore and alder seedlings are growing within a 40 linear foot area in the active channel and will be brushed, resulting in 60 square feet of mitigation.

Section 6:
A 4'x5' area of willow and alder seedlings are growing within the active channel will be brushed. This section was previously mitigated for in the 13/14 Annual Plan under Section 16.

Section 7:
Nonnative acacia and 25 square feet of sycamore and alder seedlings are growing within the active channel and will be brushed, resulting in 25 square feet of mitigation.

Section 8:
An alder seedling (<1" DBH) is growing within the active channel and will be brushed, resulting in 10 square feet of mitigation.

Section 9:
3 alder seedlings (<1"DBH) are growing within the active channel and will be brushed, resulting in 30 square feet of mitigation.

Section 10:
There are 2 down 4-5" dia. willow branches.

Section 11:
A 10'x100' island covered with nonnative ironweed and 200 square feet of willow, alder, sycamore, and cottonwood seedlings within the active channel will be brushed, resulting in 200 square feet of mitigation.

Section 12:

30 square feet of willow and sycamore seedlings are growing on the left side of the active channel and will be brushed. This section was mitigated for in the 13/14 Annual Plan under Section 17.

Section 13:
Nonnative ironweed is growing within the active channel and will be brushed.

Section 14:
Nonnative ironweed and a fig tree are growing within the active channel and will be brushed.

Section 15:
Nonnative ironweed and acacia along with 40 square feet of willow and alder seedlings are growing within the active channel and will be brushed, resulting in 40 square feet of mitigation.

Section 16:
Nonnative ironweed is growing within the active channel and willow limbs are projecting into the active channel. The ironweed will be brushed and willow limbed.

Section 17:
Acacia limbs are projecting into the active channel and will be limbed.

Section 18:
There is a down 6" DBH willow.

Section 19:
In this 50 linear foot section nonnative ironweed and tree of heaven are growing within the active channel and will be brushed.

Section 20:
One alder seedling is growing in the active channel and will be brushed, resulting in 10 square feet of mitigation.

Section 21:
Nonnative ironweed is growing in the active channel, constricting flows, and will be brushed.

Section 22:
10 willow saplings (<3" DBH) have been allowed to persist in the active channel and are constricting the active channel. The willows will be brushed, resulting in 200 square feet of mitigation.

Section 23:
There is a down 14" DBH pepper tree and a fig tree with branches projecting into the active channel that will be limbed.

Section 24:
Ironweed, arundo and 1 willow seedling are growing within the active channel and will be brushed, resulting in 10 square feet of mitigation.

Section 25:
An acacia tree has branches projecting into the active channel that will be limbed.

Impact Analysis and Mitigation Measures:
Listed below are the impacts and associated mitigation measures for each of the issue areas impacted by this project as identified in the Program EIR. See the Section entitled "Impacts and Mitigation Measures" for definitions of the specific impacts and mitigation measures.

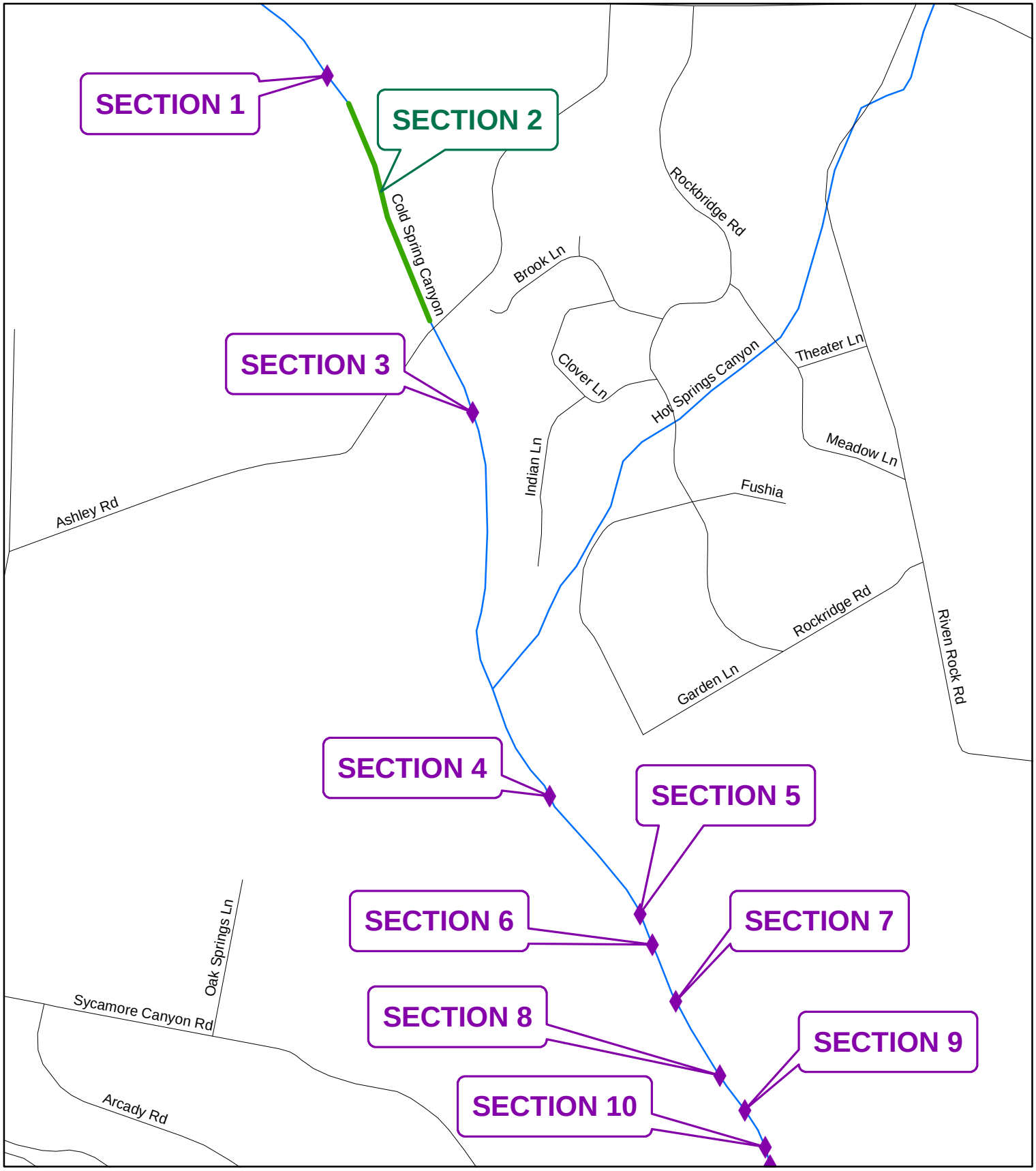
Impacts:
Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the impacts listed below are considered Class I (unavoidable significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

Mitigation Measures:
Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Resource	Impacts	Mitigation Measures*
Hydrology EIR sections 5.1.2, 5.1.3	H-A	H-1
Water Quality EIR sections 5.2.2, 5.2.3	WQ-A, WQ-B	H-1, B-2, W-2, W-6, W-7, W-8, W-4
Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	WRR-A	B-1, B-2, B-3
Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	FAW-A, FAW-F, FAW-I, FAW-J	B-1, B-2, B-3, H-1, W-2, W-1, W-4
Public Health EIR section 5.10	PH-A	W-2

*Residual Impacts:
Incorporation of the above mitigation measures would reduce the impacts to all resource categories to less than significant levels.

Project Specifics:
The project will take 5 days to complete.



Montecito Creek-A

Department of Public Works County of Santa Barbara

Legend

- Sites
- Lengths

This map is for reference only. Although every effort has been made to ensure the accuracy of information, errors and conditions originating from physical sources used to develop the database may be reflected on this map. Santa Barbara County shall not be liable for any errors, omissions, or damages that result from inappropriate use of this document. No level of accuracy is claimed for the boundary lines shown hereon and lines should not be used to obtain coordinate values, bearings or distances.

N W E S

Feet

310 155 0 310

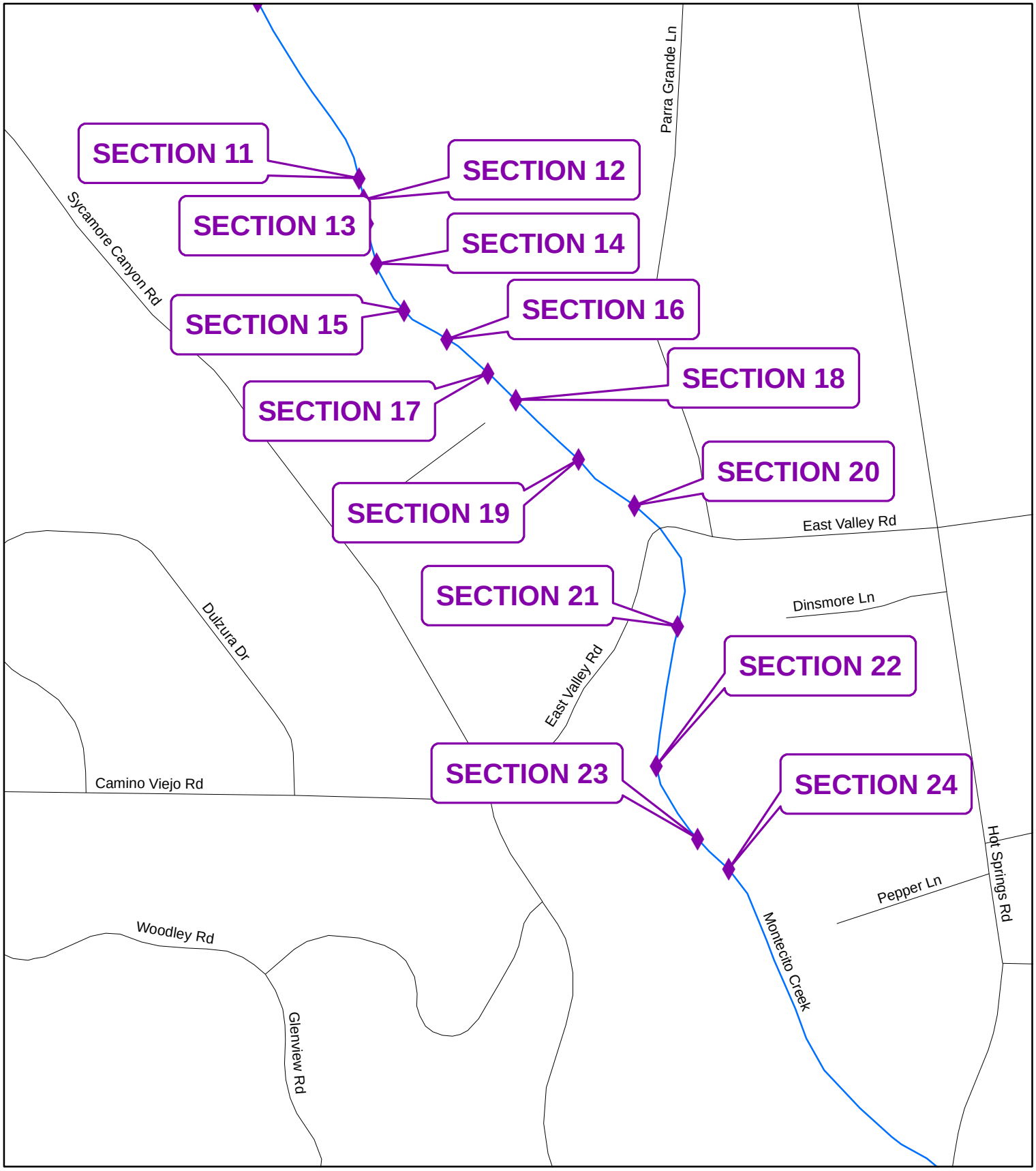
Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District

Compiled by the Public Works Enterprise GIS in Mayl 2014.



Department of Public Works County of Santa Barbara

Montecito Creek-B

Legend

Sites

N W E S

Feet

290 145 0 290

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

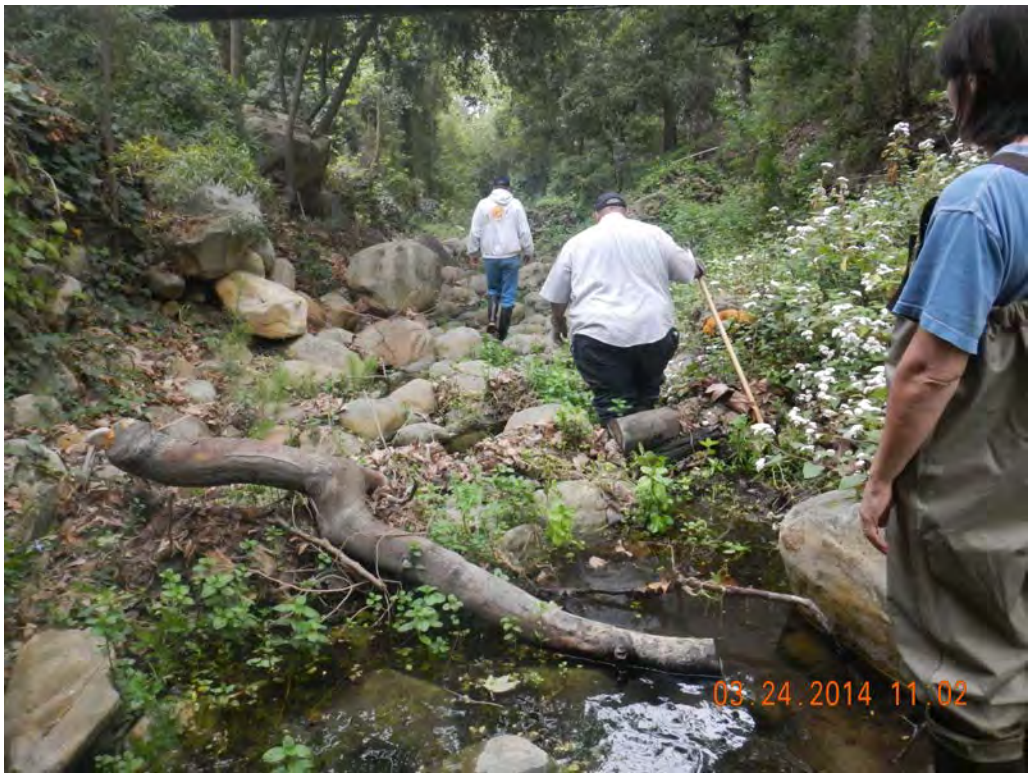
Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in Mayl 2014.

Montecito Creek

Montecito Creek: Section 2

Montecito Creek: Section 4

Montecito Creek



Montecito Creek: Section 10

Montecito Creek: Section 21

VASCULAR PLANT LIST
MONTECITO CREEK

SCIENTIFIC NAME	COMMON NAME	ORIGIN*
EQUISETACEAE		
Equisetum telmateia	Giant Horsetail	N
ANACARDIACEAE		
Rhus integrefolia	Lemonadesberry	N
Rhus laurina	Laurel Sumac	N
Schinus molle	PepperTree	I
Toxicodendron diversilobum	Poison Oak	N
APIACEAE		
Conium maculatum	Poison Hemlock	I
Foeniculum vulgare	Sweet Fennel	I
APOCYNACEAE		
Vinca major	Periwinkle	I
ARALIACEAE		
Hedera helix	English Ivy	I
ASTERACEAE		
Ageratina adenophora	Ironweed	I
Artemisia californica	California Sagebrush	N
Artemisia douglasiana	Mugwort	N
Baccharis glutinosa	Mulefat	N
Baccharis pilularis ssp. Consanguinea	Coyote Bush	N
Cardus pyncnocephalus	Italian Thistle	I
Cirsium vulgare	Bull Thistle	I
Picris echioides	Ox Tongue	I
Senecio mikanioides	German Ivy	I
Silybum marianum	Milk Thistle	I
Sonchus arvensis	Prickly Sow Thistle	I
Taraxcum officinale	Common Dandelion	I
Venegasia carpesioides	Canyon Sunflower	N
BRASSICACEAE		
Raphanus sativus	Wild Radish	I
CAPRIFOLIACEAE		
Sambucus mexicana	Elderberry	N
CHENOPODIACEAE		

Chenopodium ambrosioides	Mexican Tea	I
CONVULVULACEAE		
Calystegia macrostegia	Morning Glory	I
EUPHORBIACEAE		
Ricinus Communis	Castor Bean	I
FABACEAE		
Vicia sativa	Spring Vetch	I
FAGACEAE		
Quercus agrifolia	Coast Live Oak	N
HYDROPHYLLACEAE		
Phacelia ramossissima	Branching Phacelia	N
JUGLANDACEAE		
Juglans regia	English Walnut	I
LAMIACEAE		
Mentha citrata	Bergamont Mint	N
Mentha Spicata	Spearmint	N
Stachys bullata	Wood Mint	N
MYOPORACEAE		
Myoporum laetum	Myoporum	I
MYRTACEAE		
Eucalyptus gloubulus	Blue Gum	I
ONAGRACEAE		
Epilobium adenocaulon	Willow-Herb	N
PITTOSPORACEAE		
Pittosporum undulatum	Pittosporum	I
PLANTAGINACEAE		
Plantago Major	Common Plantain	I
PLATANACEAE		
Plantanus racemosa	Western Sycamore	N
POLYGONACEAE		
Polygonum lapathifolium	Willow Smartweed	N

Rumex conglomeratus	Green Dock	I
Rumex crispus	Curly Dock	I
RANUNCULACEAE		
Clematis ligusticifolia	Creek Clematis	N
ROSACEAE		
Heteromeles arbitufolia	Toyon	N
Pyracantha sp.	Pyracantha	I
Rubus discolor	Himalayan Blackberry	N
Rubus ursinus	California Blackberry	N
SALICACEAE		
Salix lasiolepis	Arroyo Willow	N
SCROPHULARIACEAE		
Mimulus guttatus	Marsh Monkey - Flower	N
Scrophularia californica	Figwort	N
SOLANACEAE		
Nicotiana glauca	Tobacco Tree	I
TROPAEOLACEAE		
Tropaeolum majus	Garden Nasturtium	I
URTICACEAE		
Urtica holosericea	Giant Nettle	I

* N - Native
I - Introduced

ROMERO CREEK ROUTINE MAINTENANCE
ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:
The project begins upstream of the intersection of Jelinda Drive and Sheffield Drive and terminates approximately 500 feet upstream of Highway 101.

Setting:
Inspected on April 7, 2014.

Romero Creek originates in the foothills of the Santa Ynez Mountains and drains a 3,301 acre watershed capable of producing 4,900 cfs during a 100 year return period precipitation event. The maintenance area of Romero Creek runs along the east side of Sheffield Drive and downstream to Highway 101 in Montecito. The creek channel is incised with steep banks along many sections along Sheffield Drive. Riparian vegetation is a mix of native sycamore, willow, alder, bays, and non-native landscape specimens, nasturtium, ironweed, and watercress.

The maintenance area is within the lower watershed, which typically carries water year round. Riffles and step pools are common along this length. Large cobbles and boulders along the creek invert are populated with islands of young willow sprouts. Adjacent land use is predominantly low density suburban with large lots and encroaching landscape species mixed with the native riparian community.

Revegetation:
Since the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District has been tracking and reporting the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. The following table is being included in the Annual Routine Maintenance Plan addenda to more easily display and track the District's restoration efforts.

Romero Creek				
Annual Plan Year	Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2007/2008	10	10	10	0
2009/2010	40	0	0	-40
2010/2011	0	0	0	-40
2011/2012	0	0	0	-40
2013/2014	170	0	LCMB 210	210*
2014/2015	280	0	0	-280

Engineering Analysis:
Obstructive vegetation, woody debris and downed trees require removal from Romero Creek in order to protect adjacent homes, private property and access roads. The obstructive vegetation restricts the creek's ability to convey flood flows and increases the flood hazard to adjacent

development. In addition, the downed trees and woody debris can be mobilized in future storm events posing a significant plugging threat to downstream public and private bridge structures. The bankfull width as determined by field indicators is approximately 15'. Therefore, removal of obstructive vegetation should result in a cleared cross-section that mimics the stable channel geometry found in the vicinity of the proposed project.

Project Description:

Below is an explanation of typical Annual Plan maintenance practices for vegetation removal and mitigation. These explanations will not be included within each corresponding project description section. If the section number in the Annual Plan requires more explanation than below, it will be included within that individual section in the project descriptions. Otherwise, please refer to these descriptions for typical maintenance and mitigation.

Limbing/Down trees or limbs: A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks, depending on access.

Brushing: A crew with chain saws and loppers will brush the (insert vegetation name). The vegetation will be removed with hand tools and an application of Aquamaster herbicide will be applied to inhibit regeneration. A follow-up application of herbicide may be done in the spring/summer if the vegetation begins to resprout and needs additional treatment.

Mitigation: Limbing trees results in the trimming of limbs and therefore does not remove whole living trees or shrubs therefore, the District is not required to, and does not mitigate for limbing with riparian restoration. The District also does not provide restoration as mitigation for down trees, broken branches, or dead trees. All sections that use these terms will not have any restoration as mitigation associated with them. The District's Maintenance Program incorporates other mitigation measures to reduce limbing impacts to a less than significant level.

Brushing and complete live tree removals (native vegetation only) are mitigated for by the District with riparian restoration. If a section includes brushing or removal of native vegetation, the associated mitigation quantity will be quantified in that section's description. If no mitigation quantity is included in a Section description, no mitigation is required.

Section 1:
There is a 10'x10' island within the active channel with 80 square feet of sycamore and willow seedlings that will be brushed, resulting in 80 square feet of mitigation.

Section 2:
There is a 4'x50' section of nonnative ironweed growing on the left side of the channel and forcing flows to the right. The ironweed will be brushed.

Section 3:
There is a debris plug consisting of branches and leaf litter that is forcing flows toward the left bank. The debris plug will be broken and removed from the channel following the down tree procedure.

Section 4:

Two nonnative pampas grass bushes are growing on the left bank and will be brushed.

Section 5:
There is a broken willow limb from the right bank hanging into the active channel that will be limbed.

Section 6:
A 30" DBH cottonwood is down in the active channel and will be removed.

Section 7:
A nonnative palm tree is growing on the left bank and will be brushed.

Section 8:
There is a down 3" DBH willow within the active channel that will be removed.

Section 9:
100 square feet of cottonwood seedlings are growing within the active channel and will be brushed, resulting in 100 square feet of mitigation.

Section 10:
There are 2 down willow trees (5-6" DBH) within the active channel that will be removed. One is at the confluence of Buena Vista Creek and the other is 50' downstream of that.

Section 11:
There is a down 22" DBH sycamore in the active channel that will be removed.

Section 12:
A nonnative palm tree on the toe of the left bank will be brushed.

Section 13:
There is a 5'x20' area within the active channel with nonnative castor bean, ironweed and 50 square feet of native willow and sycamore seedlings growing within this area that will be brushed. This will result in 50 square feet of mitigation.

Section 14:
There is a 10'x10' area with 20 square feet of cottonwood seedlings growing within the active channel that will be brushed. This section has been previously mitigated for under Section 11 of the 13/14 Annual Plan.

Impact Analysis and Mitigation Measures:
Listed below are the impacts and associated mitigation measures for each of the issue areas impacted by this project as identified in the Updated Program EIR. See the Section entitled "Impacts and Mitigation Measures" for definitions of the specific impacts and mitigation measures.

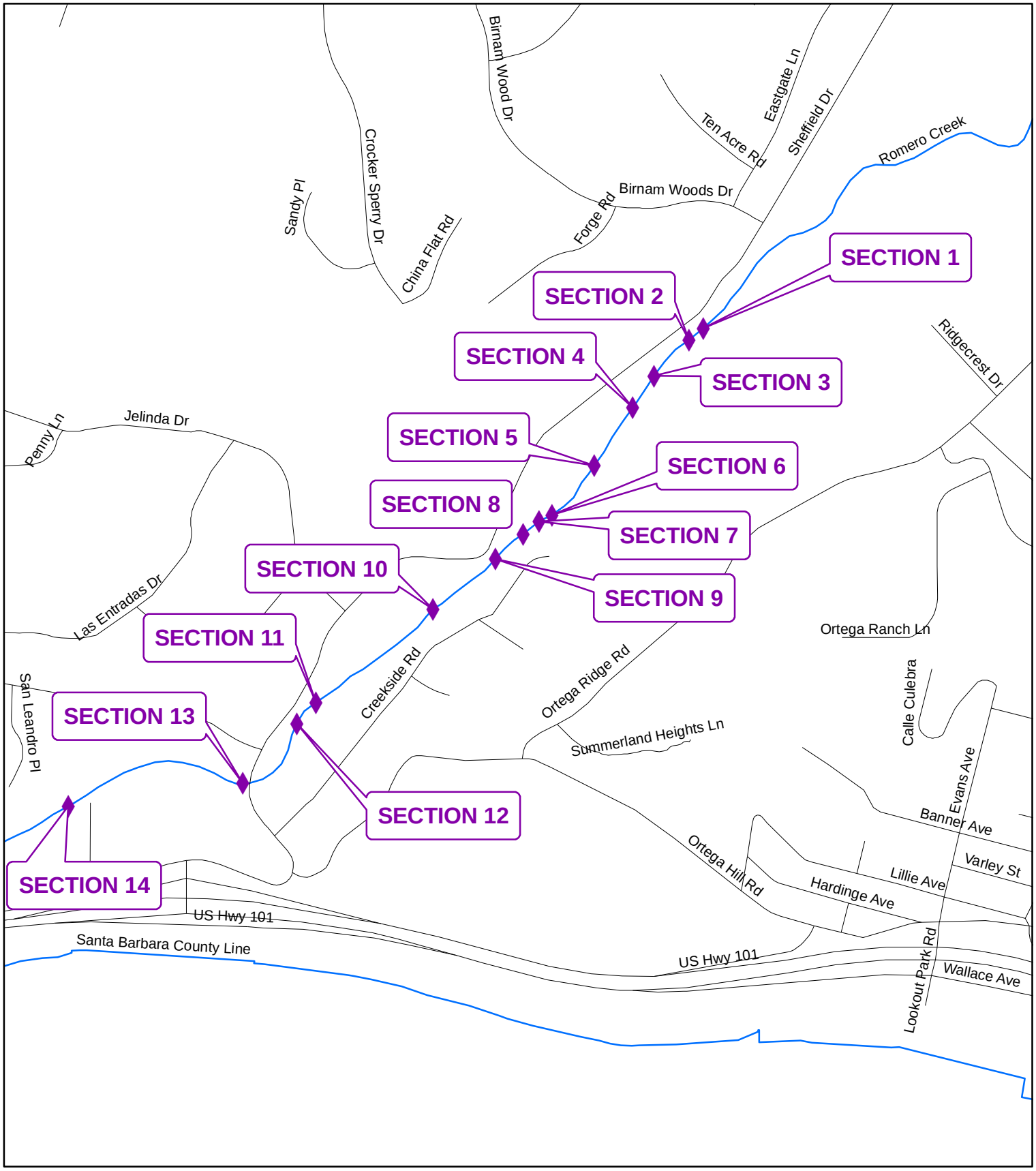
Impacts:
Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the

impacts listed below are considered Class I (unavoidable significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

Mitigation Measures:
Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Resource	**Impacts**	**Mitigation Measures***
Hydrology EIR sections 5.1.2, 5.1.3	H-A	H-1
Water Quality EIR sections 5.2.2, 5.2.3	WQ-A, WQ-B	H-1, B-2, W-2, W-6, W-7, W-8, W-4
Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	WRR-A	B-1, B-2, B-3
Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	FAW-A, FAW-F, FAW-I, FAW-J	B-1, B-2, B-3, H-1, W-2, W-1, W-4
Public Health EIR section 5.10	PH-A	W-2

Project Specifics:
This project will take 4 days to comfplete.



Department of Public Works County of Santa Barbara

Romero Creek

Legend

Sites

N W E S

Feet

480 240 0 480

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in Mayl 2014.

Romero Creek

Romero Creek: Section 3

Romero Creek: Section 6

Romero Creek

Romero Creek: Section 7

Romero Creek: Section 9

VASCULAR PLANT LIST
ROMERO CREEK

SCIENTIFIC NAME	COMMON NAME	ORIGIN*
EQUISETACEAE		
Equisetum telmateia	Giant Horsetail	N
ACERACEAE		
Acer sp.	Ormamental Maple	I
AGAVACEAE		
Agave sp.	Ornamental Agave	I
ANACARDIACEAE		
Rhus integrefolia	Lemonadesberry	N
Rhus laurina	Laurel Sumac	N
Schinus molle	PepperTree	I
Toxicodendron diversilobum	Poison Oak	N
APIACEAE		
Conium maculatum	Poison Hemlock	I
Foeniculum vulgare	Sweet Fennel	I
APOCYNACEAE		
Vinca major	Periwinkle	I
ARACEAE		
Zantedeschia aethiopica	Calla-Lily	I
ARALIACEAE		
Hedera helix	English Ivy	I
ASTERACEAE		
Ageratina adenophora	Ironweed	I
Artemisia californica	California Sagebrush	N
Artemisia douglasiana	Mugwort	N
Baccharis pilularis ssp. consanguinea	Coyote Bush	N
Carduus pycnocephalus	Italian Thistle	I
Cirsium vulgare	Bull Thistle	I
Picris echioides	Ox Tonuge	I
Senecio mikanioides	German Ivy	I
Silybum marianum	Milk Thistle	I
Sonchus arvensis	Prickly Sow Thistle	I
Taraxcum carpesioides	Canyon Sunflower	N
Xanthium strumarium	Cocklebur	I

BRASSICACEAE		
Raphanus sativus	Wild Radish	I
Rorippa nasturtium -aquaticum	Watercress	I
CAPRIFOLIACEAE		
Sambucus meicana	Elderberry	N
CHENOPODIACEAE		
Chenopodium ambrosioides	Mexican Tea	N
CONVULVULACEAE		
Calystegia macrostegia	Morning-Glory	I
EUPHORBIACEAE		
Ricinus communis	Castor Bean	I
FABACEAE		
Vicia sativa	Spring Vetch	I
FAGACEAE		
Quercus agrifolia	Coast Live Oak	N
GROSSULARIACEAE		
Ribes amarum var. hoffmannii	Bitter Gooseberry	N
Ribes malvaceum	Chapparral Currant	N
Ribes speciosum	Fuschia-Flowered Ribes	N
HYDROPHYLLACEAE		
Phacelia ramossissima	Branching Phacelia	N
JUGLANDACEAE		
Juglans regia	English Walnut	I
LAMIACEAE		
Mentha citrata	Bergamont Mint	N
Mentha spicata	Spearmint	N
Stachys bullata	Wood Mint	N
MYOPORACEAE		
Myoporum laetum	Myoporum	I
MYRTACEAE		
Eucalyptus globulus	Blue Gum	I

ONAGRACEAE		
Epilobium adenocaulon	Willow- Herb	N
PITTOSPORACEAE		
Pittosporum undulatum	Pittosporum	I
PLANTAGINACEAE		
Plantago major	Common Plantain	I
PLANTANACEAE		
Plantanus racemosa	Western Sycamore	N
POLYGONACEAE		
Polygonum lapathifolium	Willow Smartweed	N
Rumex conglomeratus	Green Dock	I
Rumex crispus	Curly Dock	I
RANUNCULACEAE		
Clematis ligusticifolia	Creek Clematis	N
ROSACEAE		
Heteromeles arbutifolia	Toyon	N
Pyrancantha	Pyrancantha	I
Rosa californica	Wild Rose	N
Rubus ursinus	California Blackberry	N
SALICACEAE		
Populus trichocarpa	Black Cottonwood	N
Salix lasiolepis	Arroyo Willow	N
SCROPHULARIACEAE		
Mimulus guttatus	Marsh Monkey Flower	N
SOLANACEAE		
Nicotiana glauca	Tobacco tree	I
TROPAEOLACEAE		
Tropaeolum majus	Garden Nasturtium	N
URTICACEAE		
Urtica holosericea	Giant Nettle	I

* N - Native
I - Introduced

SAN JOSE CREEK ROUTINE MAINTENANCE
ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:
The project begins 500' upstream of Patterson Avenue and terminates 300' upstream of Hollister Avenue.

Setting:
Inspected on April 10, 2014.

San Jose Creek originates in the foothills of the Santa Ynez Mountains and drains a 5,503 acre watershed capable of producing 5,300 cfs during a 100 year return period precipitation event.

The creek was flowing and the project length contains many pool and riffle sequences throughout the project reach, however they occur less frequently below Highway 101. Many of the pools are usually at least 3 feet deep with several up to 5 feet deep, but were much shallower this year with some dried up due to consecutive drought years. The creek experienced high sedimentation in the years following the 2008 Gap Fire. The watershed is nearly recovered with most of the sediment moved through the system. The lower portions of the creek, below Cathedral Oaks Road, usually dry up towards the later part of the summer.

San Jose Creek is characterized by a relatively deep channel with banks vegetated with many mature sycamores, cottonwoods, oaks and willows and a well developed understory of poison oak, blackberry, wild rose and numerous non-native species such as nasturtium and grasses. San Jose Creek contains some of the best riparian habitat on the south coast due to the buffer zones left between the creek and residential areas. Downstream of Highway 101, the creek becomes somewhat degraded with development, lawns, or pavement all the way to the tops of the banks in some areas, along with a much narrower riparian corridor.

Downstream of Hollister Avenue, San Jose Creek transitions into a concrete lined channel and then the Goleta Slough system.

Revegetation:
Beginning with the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District began a new reporting and accounting program for the restoration component of the Annual Routine Maintenance Program. Since that time, the District has been tracking the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. The following table is being included in the Annual Routine Maintenance Plan addenda to more easily display and track the District's restoration efforts.

San Jose Creek				
Annual Plan Year	Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2002/2003	1,380	12,600	12,600	11,220

2003/2004	2,650	6,200	6,200	14,950
2006/2007	0	0	0	14,950
2008/2009	1,525	0	0	13,425
2010/2011	1,000	1,000	500	13,425
2011/2012	0	0	0	13,425
2013/2014	1,145	0	0	11,280
2014/2015	200	0	0	11,080

Engineering Analysis:

Removing obstructive vegetation from the bankfull channel cross-section (active channel) is important to reduce the debris load associated with higher flows. Obstructive vegetation growing in the active channel as well as limbs projecting into the active channel and downed trees can become mobilized during flood flows, raising the water surface elevation as well as plugging bridges and culverts located downstream. The bankfull discharge for this portion of San Jose Creek is approximately 375 cfs. With a velocity of approximately 6 fps and a typical depth of 3', the width of clearing should be 21' to maintain channel equilibrium.

* As defined in "Regional Curves for Bankful Channel Dimensions-Selected South Coast Streams", URS Corporation-March 2002.

Project Description:

Below is an explanation of typical Annual Plan maintenance practices for vegetation removal and mitigation. These explanations will not be included within each corresponding project description section. If the section number in the Annual Plan requires more explanation than below, it will be included within that individual section in the project descriptions. Otherwise, please refer to these descriptions for typical maintenance and mitigation.

Limbing/Down trees or limbs: A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks, depending on access.

Brushing: A crew with chain saws and loppers will brush the (insert vegetation name). The vegetation will be removed with hand tools and an application of Aquamaster herbicide will be applied to inhibit regeneration. A follow-up application of herbicide may be done in the spring/summer if the vegetation begins to resprout and needs additional treatment.

Mitigation: Limbing trees results in the trimming of limbs and therefore does not remove whole living trees or shrubs therefore, the District is not required to, and does not mitigate for limbing with riparian restoration. The District also does not provide restoration as mitigation for down trees, broken branches, or dead trees. All sections that use these terms will not have any restoration as mitigation associated with them. The District's Maintenance Program incorporates other mitigation measures to reduce limbing impacts to a less than significant level.

Brushing and complete live tree removals (native vegetation only) are mitigated for by the District with riparian restoration. If a section includes brushing or removal of native vegetation, the associated mitigation quantity will be quantified in that section's description. If no mitigation quantity is included in a Section description, no mitigation is required.

Section 1:
Nonnative *arundo donax* is growing on the left bank and falling into the active channel and will be brushed.

Section 2:
A willow branch has broken off and is down in the active channel and will be removed.

Section 3:
There is a 3'x10' area of cottonwood seedlings growing within the active channel that will be brushed, resulting in 30 square feet of mitigation.

Section 4:
A 2" diameter willow branch has broken off and is lying in the active channel and will be removed.

Section 5:
There is a down 2" diameter willow branch in the active channel and 20 square feet of cottonwood seedlings within a 5'x15' work area that will be brushed, resulting in 20 square feet of mitigation.

Section 6:
There is a 3'x50' area of cottonwood saplings growing within the active channel that will be brushed. This section was completed in the 13/14 Annual Plan under Section 11 and requires no further mitigation.

Section 7:
There is a 5'x50' area with 70 square feet of cotton wood seedlings growing in the active channel that will be brushed, resulting in 70 square feet of mitigation.

Section 8:
Multiple willow branches and nonnative arundo are projecting into the active channel and will be limbed.

Section 9:
There are 3 down (1-3" dia.) willow branches within the active channel that will be removed.

Section 10:
80 square feet of cottonwood seedlings are growing within the active channel and will be brushed. This will result in 50 square feet of mitigation because 30 square feet of mitigation was completed at this site in the 13/14 Annual Plan under Section 13.

Section 11:
Cottonwood seedlings are growing in a 2'x15' area on the left toe of bank in the active channel and will be brushed. This section has been previously mitigated for under Section 15 of the 13/14 Annual Plan.

Section 12:

A willow is growing over the active channel from the left bank with a lower branch projecting into the active channel that will be limbed, leaving the rest of the willow in place.

Section 13:
Arundo and willow branches are projecting into the active channel and will be limbed.

Section 14:
There is a bend in the creek in this section with a scour forming on the outside bend where large boulders have been previously placed to armor the bank. On the inside bend there are 100 square feet of willow saplings growing in the active channel and forcing flows toward the outside bank. The willow saplings will be removed with hand tools and placed in the rock voids along the outside bend to help protect the bank. This section will be self-mitigating.

Section 15:
There is a down 6" dia. eucalyptus branch within the active channel that will be removed.

Section 16:
There is a 20 square feet area of sandbar willow seedlings growing within the active channel that will be brushed. This site has been previously mitigated for under Section 22 of the 13/14 Annual Plan.

Section 17:
There are 10 square feet of willow seedlings growing in the active channel that will be brushed, resulting in 10 square feet of mitigation.

Section 18:
Nonnative arundo is growing on the left bank, projecting into the active channel and will be limbed.

Section 19:
There is a willow tree growing over the channel with a branch growing into the active channel that will be limbed.

Section 20:
Arundo is growing on the right bank, hanging into the active channel and will be limbed.

Section 21:
Cottonwood sprouts are growing in a 5'x10' area on the right side of the active channel and will be brushed, resulting in 50 square feet of mitigation.

Section 22:
Arundo is growing from the left bank into the active channel and will be limbed.

Impact Analysis and Mitigation Measures:
Listed below are the impacts and associated mitigation measures for each of the issue areas impacted by this project as identified in the Updated Program EIR. See the Section entitled "Impacts and Mitigation Measures" for definitions of the specific impacts and mitigation measures.

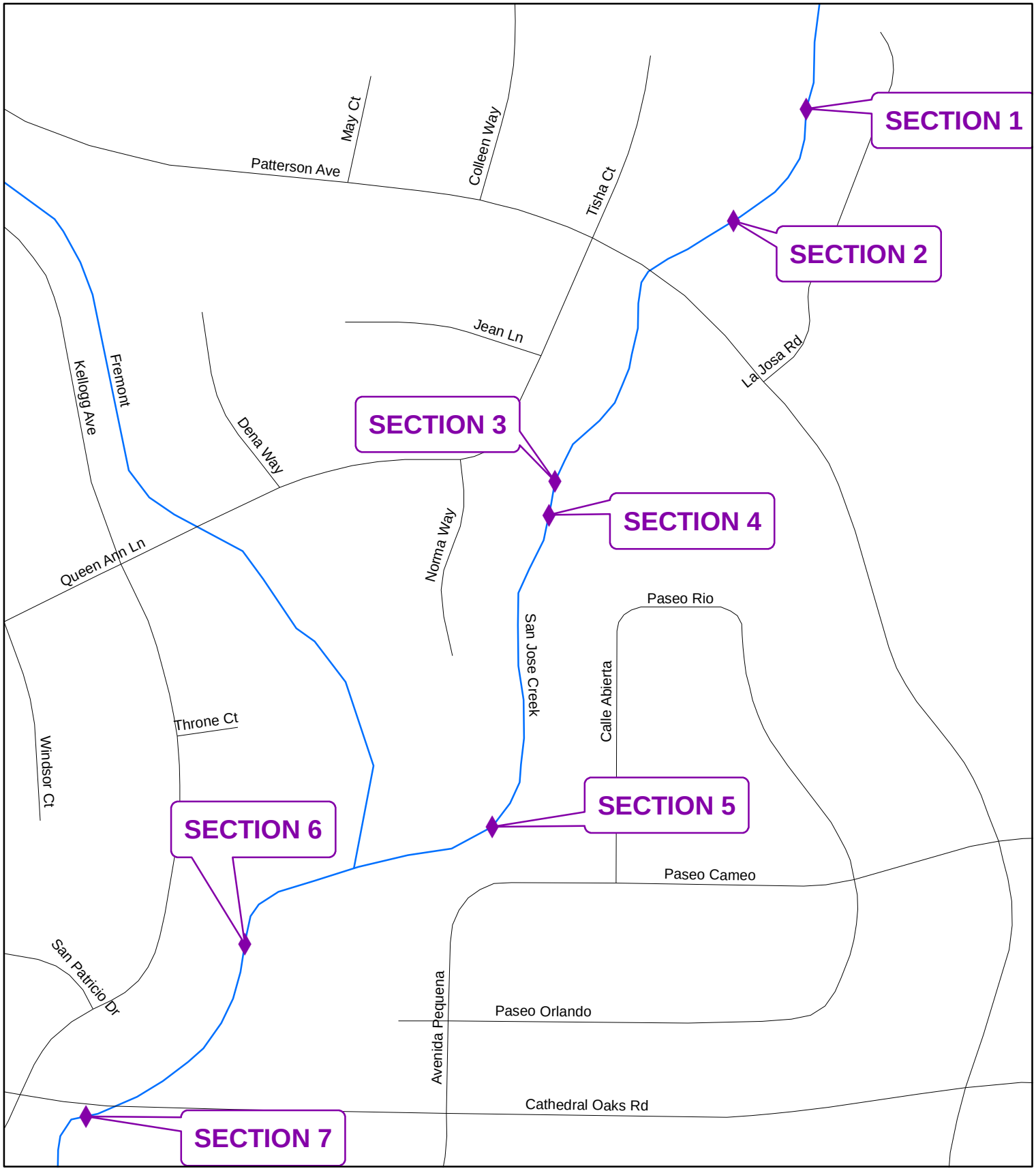
Impacts:

Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the impacts listed below are considered Class I (unavoidable significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

Mitigation Measures:
Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Resource	**Impacts**	**Mitigation Measures***
Hydrology EIR sections 5.1.2, 5.1.3	H-A	H-1
Water Quality EIR sections 5.2.2, 5.2.3	WQ-A, WQ-B	H-1, B-2, W-2, W-6, W-7, W-8, W-4
Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	WRR-A	B-1, B-2, B-3
Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	FAW-A, FAW-F, FAW-I, FAW-J	B-1, B-2, B-3, H-1, W-2, W-1, W-4
Public Health EIR section 5.10	PH-A	W-2

Project Specifics:
This project will take 4 days to complete.



Department of Public Works County of Santa Barbara

San Jose Creek-A

Legend

Sites

N W E S

Feet

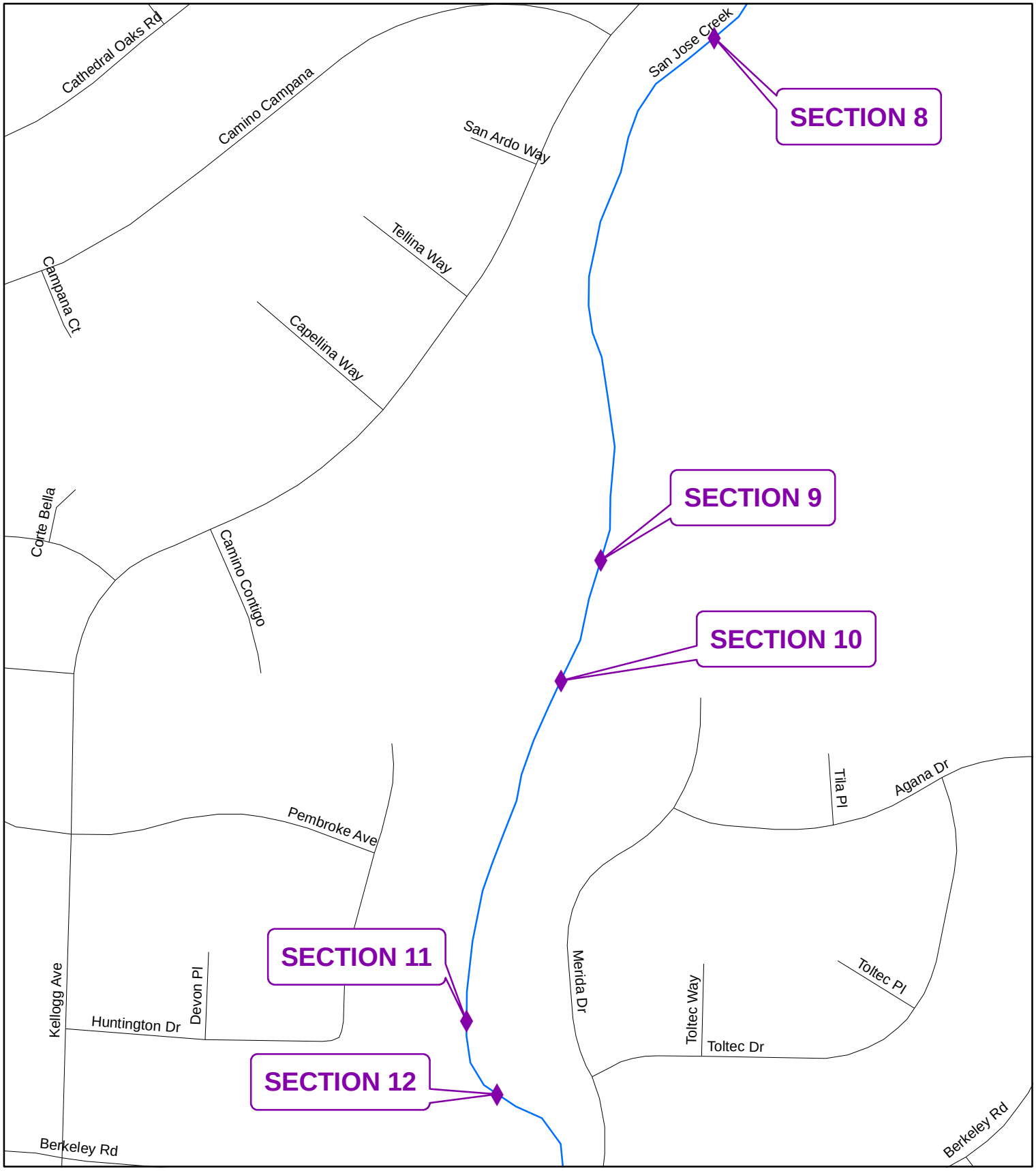
200 100 0 200

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in Mayl 2014.



Department of Public Works County of Santa Barbara

San Jose Creek-B

Legend

Sites

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N W E S

Feet

200 100 0 200

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
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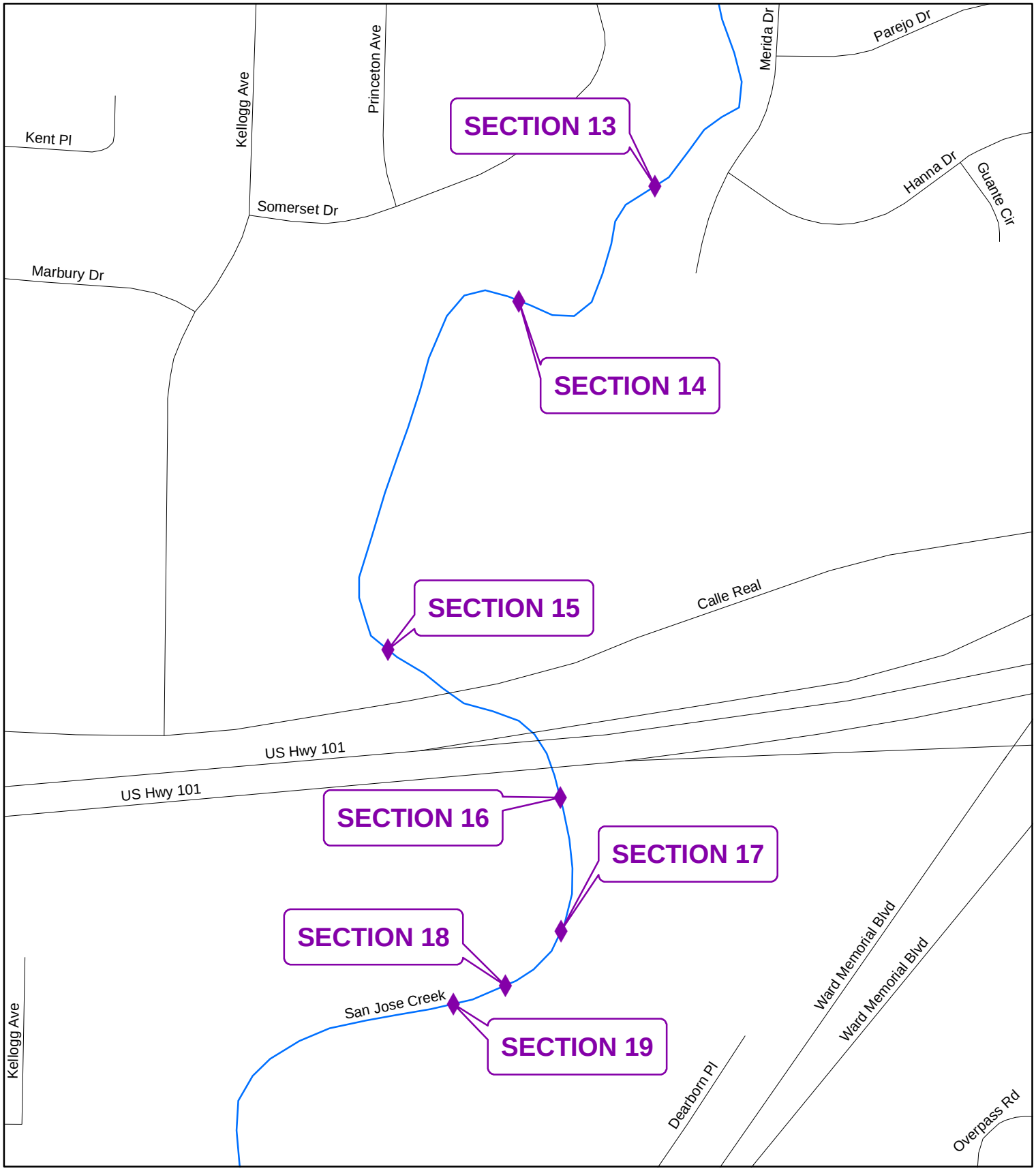

Department of Public Works County of Santa Barbara

San Jose Creek-C

Legend

Sites

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N W E S

Feet

200 100 0 200

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

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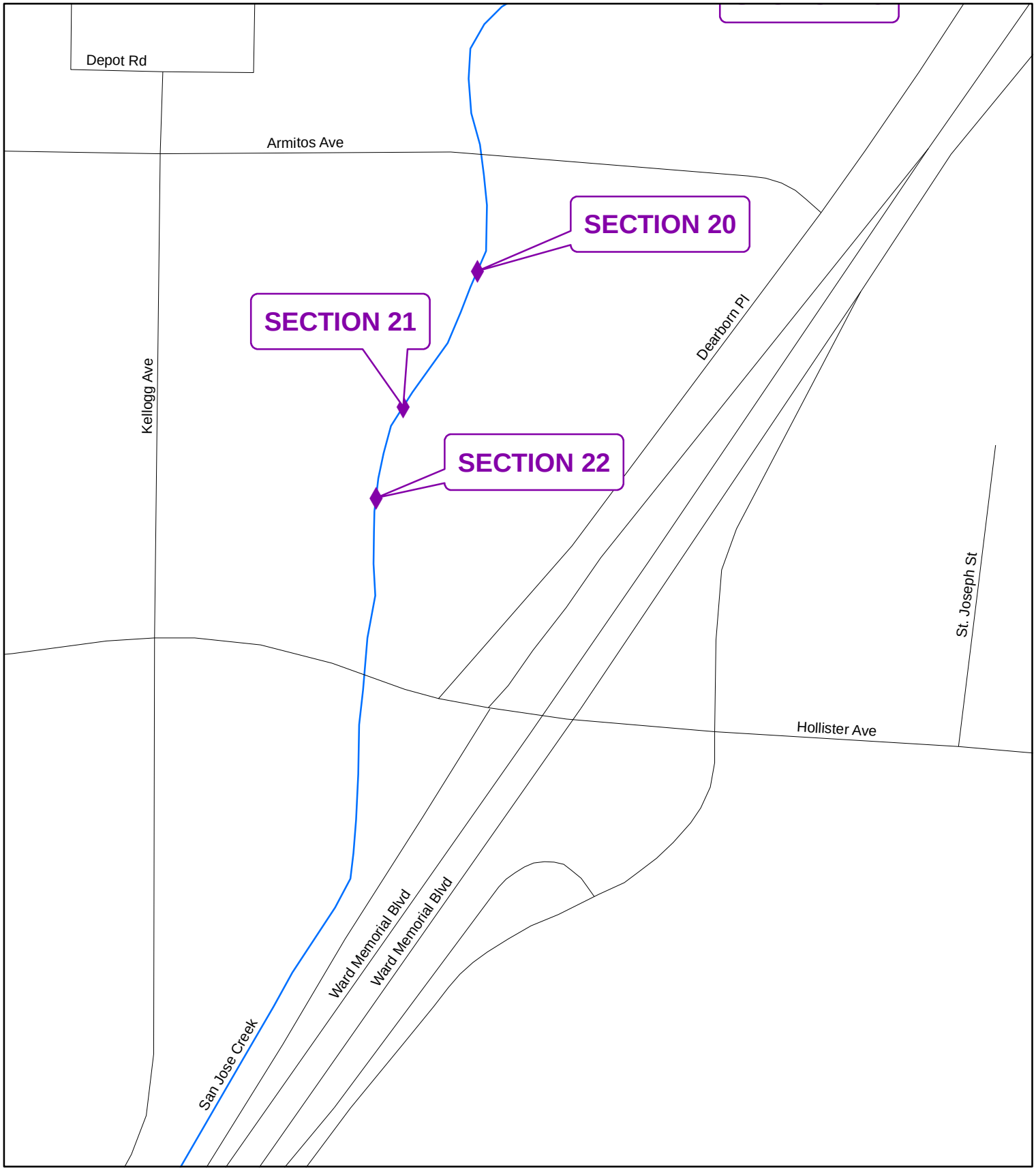

San Jose Creek-D

Department of Public Works County of Santa Barbara

Legend

Sites

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N W E S

Feet

200 100 0 200

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District

Compiled by the Public Works Enterprise GIS in Mayl 2014.

San Jose Creek

San Jose Creek: Section 2

San Jose Creek: Section 14

San Jose Creek

San Jose Creek: Section 17

San Jose Creek: Section 21

VASCULAR PLANT LIST
SAN JOSE CREEK

SCIENTIFIC NAME	COMMON NAME	ORIGIN*
AIZOACAE		
Carpobrotus edulis	Hottentot Fig	I
ANACARDIACEAE		
Toxicoclendron diversilobum	Poison Oak	N
Schinus molle	Pepper Tree	I
Schinus terebenthifolius	Pepper Tree	I
APIACEAE		
Apium graveolens	Wild Celery	I
Conium maculatum	Poison Hemlock	I
APOCYNACEAE		
Vinca major	Periwinkle	I
ARALIACEAE		
Hedera canariensis	Algerian Ivy	I
ASTERACEAE		
Ambrosia psilostachya var. california	Western Ragweed	N
Amaranthus albus	Tumbleweed	I
Artemesia biennis	Marsh Sagebrush	N
Artemesia californica	CA. Sagebrush	N
Artemesia douglasiana	Muswort	N
Baccharis pilularis	Coyotebrush	N
Baccharis salicifolia	Mulejat	N
Carduus pyenocephalus	Italian Thistle	I
Conyza canadensis	Horseweed	I
Gnaphalium bicolor	Bicolored Everlasting	N
Gnaphalium californicum	Green Everlasting	N
Gnaphalium luteo-album	Cudweed Everlasting	I
Isocoma veneta	Coast Golden Bush	N
Lactuca serriola	Prickly Lettuce	I
Picris echioides	Ox tongue	I
Senecio micanioides	German Ivy	I
Senecio vulgaris	Common Groundsel	I
Sylibum marianum	Milk Thistle	I
Venegasia carpesioides	Canyon Sunflower	N
Xanthium strumarium	Cocklebur	I

BETULACEAE		
Alnus rhombifolia	White Alder	N
BRASSICACEAE		
Brassica geniculata	Summer Mustard	I
Brassica nigra	Black Mustard	I
Lobularia maritime	Sweet Alyssum	I
Raphanus sativus	Wild Raddish	I
Rorippa Nasturtium-aquaticum	Watercress	I
CACTACEAE		
Opuntia ficus-indica	Indian Fig	I
CAPRIFOLIACEAE		
Sambucus mexicana	Elderberry	N
CARYOPHYLLACEAE		
Sagina occiclentalis	Western Pearlwort	N
Stellaria media	Common Chickweed	I
CHENOPODIACEAE		
Atriplex patula ssp. hastate	Spear-leaved Saltbush	N
Chenopodium ambrosioides	Mexican Tea	I
Chenopodium berlanclieri	Berlander's Goosefoot	N
Chenopodium murale	Nettle-leaved Goosefoot	I
Salsola australis	Russian Thistle	I
CUCURBITACEAE		
Marah herbaceous	Wild Cucumber	N
CYPERACEAE		
Carex sp.	Sedge	
Cyperus alternifolius	African Umbrella Sedge	I
Cyperus eragrostis	Tall Umbrella Sedge	N
Eragrostis sp.		
EQUISETACEAE		
Equisetum telmateia var. braunii	Giant Horsetail	N
EUPHORBIACEAE		
Ricinus communis	Castor Bean	I
Euphorbia Peplus	Petty Spurge	I
FABACEAE		
Acacia sp.		I
Lotus salsuginosus	Coastal Hosackia	N
Melilotus alba	White Sweetclover	I

FAGACEAE		
Quercus agrifolia	Coast Live Oak	N
GROSSULARIACEAE		
Ribes amarum	Gooseberry	N
GERANIACEAE		
Erodium cicutarium	Redstem Filaree	I
HYDROPHYLLACEAE		
Phacelia viscida	Sticky phacelia	N
Phacelia ramosissima	Branching phacelia	I
JUGLANDACEAE		
Juglans californica	So. CA. Black Walnut	N
Juglans regia	English Walnut	I
JUNCACEAE		
Juncus bufonius	Toad Rush	N
LAMIACEAE		
Salvia mellifera	Black Sage	N
Mentha sp.	Mint	I
LAURACEAE		
Umbellularia californica	CA. Bay	N
LYTHRACEAE		
Lythrum hyssopifolia	Hyssop-leaved Loosestrfe	N
MALVACEAE		
Lavatera cretica	Annual Lavatera	I
Malva nicaeensis	Mallow	I
Malva parvifolia	Cheeseweed	I
MYOPORACEAE		
Myoporum laetum	Myoporum	I
MYRTACEAE		
Eucalyptus globulus	Blue Gum	I
Eucalyptus camaldulensis	Murray Red Gum	I
Eucalyptus citriodora	Lemon-scented Gum	I
Eucalyptus lehmannii	Lehmann’s Gum	I
OLEACEAE		
Fraxinus uhdei	Shamel Ash	I

PINACEAE		
Pinus radiata	Monterey Pine	I
PLATAGINACEAE		
Plantago major	Common Plantain	I
Plantago lanceolata	Plantain	I
PLANTANACEAE		
Platanus racemosa	Ca. Sycamore	N
POECEAE		
Agrostis semiverticellata	Water Bent	I
Arundo donax	Giant Reed	I
Avena fatua	Wild Oat	I
Bromus diandrus	Ripgut Grass	I
Bromus mollis	Soft Chess	I
Cortadena jubata	Pampas Grass	I
Cynodon dactylon	Bermuda Grass	I
Echinochloa crusgalli	Barnyard Millet	I
Elymus condensatus	Giant Rye	I
Hordeum murinum	Foxtail	I
Lolium multiflorum	Italian Ryegrass	I
Lolium miliacea	Rice Grass	
Pennisetum clandestinum	Kikuyu Grass	I
Polypogon interruptus		
Polypogon monspeliensis	Rabbitsfoot Grass	I
POLYGONACEAE		
Polygonum arenastrum	Common Knotweed	I
Polygonum lapathifolium	Willow Smartweed	I
Polygonum punctatum	Dotted Water Smartweed	N
Rumex crispus	Curly Dock	I
PTERIDACEAE		
Pteridium aquilinum var. pubescens	Western Bracken	N
RANUNCULACEAE		
Clematis ligusticifolia	Creek Clematis	N
ROSACEAE		
Contoneaster lacteus	Cotoneaster	I
Heteromeles arbutifolia	Toyon	N
Malosma laurina	Sumac	N
Prunus illicifolia	Holly-leaved Cherry	N
Pyracantha sp.	Fire Thorn	I
Rosa californica	CA. Rose	N
Rubus procerus	Himalya Berry	I
Rubus ursinus	CA. Blackberry	N

SALICACEAE		
Populus balsamifera	Black Cottonwood	N
Salix exigua	Sandbar Willow	N
Salix lasiolepsis	Arroyo Willow	N
Salix laevigata	Red Willow	N
Salix lucida	Yellow Willow	N
SCROPHULARIACEAE		
Scrophularia californica	CA. Figwort	N
Veronica anagallis-aquatica	Water Speedwell	I
SOLANACEAE		
Datura wrightii	Jimson Weed	N
Nicotiana glauca	Tree Tobacco	I
Solanum doughasii	Douglas Nightshade	N
Solanum nigrum	Black Nightshade	I
Solanum xanti	Nightshade	N
TROPAEOLACEAE		
Tropaeolum majus	Nasturium	I
TYPACEAE		
Typha domingensis	Narrow-leaved Cattail	N
Typha latifolia	Broad-leaved Cattail	N
ULMACEAE		
Ulmus sp.	Elm	I
Ulmus parviflorus	Chinese Elm	I
VISCACEAE		
Phoradendron tomentosum	Bigleaf Mistletoe	N

* N = Native
I = Introduced

SAN PEDRO CREEK ROUTINE MAINTENANCE
ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:
The project starts 300 feet downstream of Cathedral Oaks Road and terminates near the intersection of Fairview Road and Matthews Street.

Setting:
Inspected on March 26, 2014.

San Pedro Creek originates in the foothills of the Santa Ynez Mountains and drains a 4,555 acre watershed capable of producing 6,200 cfs during a 100 year return period precipitation event.

The maintenance area of San Pedro Creek runs from Cathedral Oaks Blvd near Carlo Drive, through residential Goleta and under Highway 101, and along Fairview Avenue near the Santa Barbara Airport. The upper portion of the maintenance area near Cathedral Oaks Blvd is characterized by steep banks with a well-developed canopy of willow, cottonwood, and sycamore along with some non-native eucalyptus and pepper trees. Several hundred feet downstream of Covington Way, the natural bottom of the creek feeds into a concrete trapezoidal channel for several hundred feet. After flowing under Highway 101, the channel bottom returns to a natural bottom. From the railroad bridge downstream to Hollister Avenue and beyond, the creek banks are sparsely vegetated with willows and cottonwoods.

San Pedro watershed typically has a high sediment load. The upper reaches of the San Pedro watershed (outside of the annual maintenance area) were burned in summer 2008 during the Gap Fire. A total of 63% of this watershed was burned. As part of emergency response and flood preparation, the District and partner agencies performed vegetation brushing, sediment excavation, and installed a debris rack. In the years following the Gap Fire, the stream channel showed high sedimentation. In 2014 creek inspections the sedimentation was substantially the same as 2013, likely due to low rainfall and the recovering watershed.

Revegetation:
Since the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District has been tracking and reporting the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. The following table is being included in the Annual Routine Maintenance Plan addenda to more easily display and track the District's restoration efforts.

San Pedro Creek				
Annual Plan Year	Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2002/2003	6,680	8,620	8,620	1,940
2003/2004	100	0	0	1,840
2004/2005	320	2,400	2,400	3,920
2005/2006	350	1,600	1,600	5,170
2006/2007	0	0	0	5,170
2007/2008	120	0	0	5,050
2008/2009	225	0	0	4,825
2009/2010	200	1,000	1000	5,625
2010/2011	0	320	320	5,645
2011/2012	0	0	0	5,645
2012/2013	600	0	0	5,045
2013/2014	100	0	0	4,945
2014/2015	0	0	0	4,945

Engineering Analysis:

The culvert on San Pedro Creek at Calle Real is susceptible to plugging causing significant flooding of the adjacent residential areas. In an effort to reduce the potential for plugging the culvert, obstructive vegetation that could be mobilized during high flows should be removed. The bankfull discharge* for San Pedro Creek downstream of Cathedral Oaks Road is approximately 234 cfs. With a velocity of approximately 6 fps and a typical depth of 2.5', the width of clearing should be 16' to maintain channel equilibrium.

The creek downstream of the UPRR track is relatively flat and prone to sedimentation. The area in the vicinity of Fairview and Hollister Avenue is very prone to siltation and flooding (including major portions of Old Town Goleta) so maintaining maximum hydraulic capacity is essential. Maintaining the channel bed clear of vegetation including breaking up any root mass that develops will help maintain capacity as well as provide for efficient sediment transport. Due to lower velocities associated with the relatively flat slope in this section, the bankfull channel width is approximately 20' upstream of Hollister. The bankfull channel width is approximately 34' downstream of Hollister due to the increase in watershed area including Las Vegas Creek.

As defined in "Regional Curves for Bankfull Channel Dimensions-Selected South Coast Streams", URS Corporation-March 2002.

Project Description:

Below is an explanation of typical Annual Plan maintenance practices for vegetation removal and mitigation. These explanations will not be included within each corresponding project description section. If the section number in the Annual Plan requires more explanation than below, it will be included within that individual section in the project descriptions. Otherwise, please refer to these descriptions for typical maintenance and mitigation.

Limbing/Down trees or limbs: A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks, depending on access.

Brushing: A crew with chain saws and loppers will brush the (insert vegetation name). The vegetation will be removed with hand tools and an application of Aquamaster herbicide will be applied to inhibit regeneration. A follow-up application of herbicide may be done in the spring/summer if the vegetation begins to resprout and needs additional treatment.

Mitigation: Limbing trees results in the trimming of limbs and therefore does not remove whole living trees or shrubs therefore, the District is not required to, and does not mitigate for limbing with riparian restoration. The District also does not provide restoration as mitigation for down trees, broken branches, or dead trees. All sections that use these terms will not have any restoration as mitigation associated with them. The District's Maintenance Program incorporates other mitigation measures to reduce limbing impacts to a less than significant level.

Brushing and complete live tree removals (native vegetation only) are mitigated for by the District with riparian restoration. If a section includes brushing or removal of native vegetation, the associated mitigation quantity will be quantified in that section's description. If no mitigation quantity is included in a Section description, no mitigation is required.

Section 1:
This Section is a recurring project that is performed nearly every year as part of routine maintenance. The length begins downstream of the UPRR Bridge and continuing downstream to Matthews Street. The channel bed is usually disced to loosen accumulated rocks and sediment, but due to the unusually dry winter discing is not needed this year. The channel down the center that was established as part of the 12/13 AP discing still remains and no new sediment deposits are present.

However, sediment trapping vegetation will be spot sprayed on an as-needed basis in order to allow sediment to mobilize during storm flows. An application of Aquamaster herbicide may be applied to silt trapping vegetation in the streambed to inhibit regeneration. Herbicide may be applied in the spring and summer, as well. The channel is usually dry during the summer except for minimal urban runoff that is contained in the 4-foot wide defined channel down the centerline. No herbicide will be applied in this channel. The creek bed had minimal almost exclusively non-native vegetation growing in this section. A few native species, such as mulefat sprouts, willow sprouts, and sedges are scattered sporadically in a few areas. Less than 1% of the work area has native vegetation present. This area was worked last year and the impacts have previously been accounted for, therefore no new impacts are required at this section.

Impact Analysis and Mitigation Measures:
Listed below are the impacts and associated mitigation measures for each of the issue areas impacted by this project as identified in the Updated Program EIR. See the Section entitled "Impacts and Mitigation Measures" for definitions of the specific impacts and mitigation measures.

Impacts:
Impacts identified for this project have been taken directly from the Impact Summary

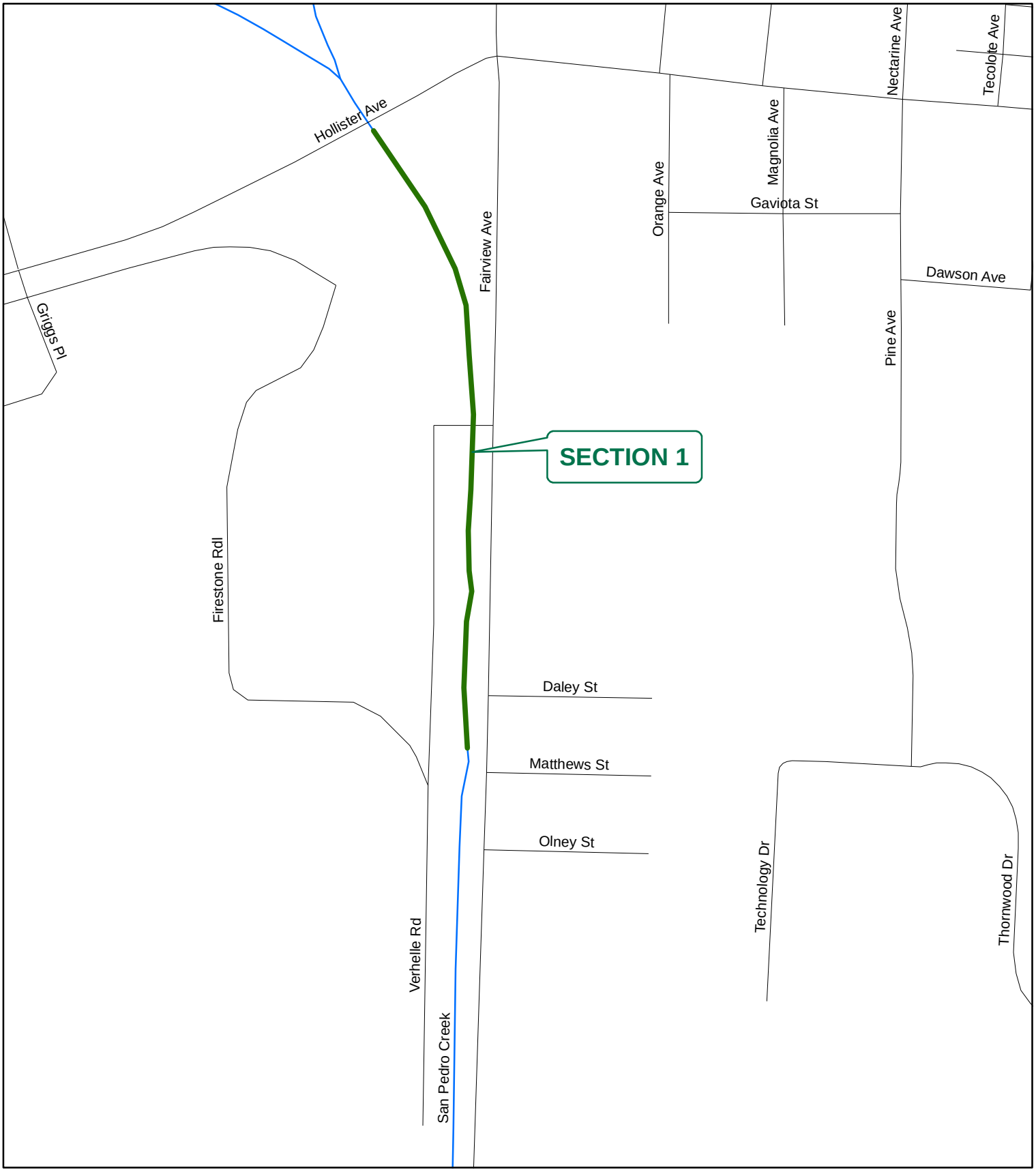
Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the impacts listed below are considered Class I (unavoidable significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

Mitigation Measures:
Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Resource	**Impacts**	**Mitigation Measures***
Hydrology EIR sections 5.1.2, 5.1.3	H-A	H-1
Water Quality EIR sections 5.2.2, 5.2.3	WQ-A, WQ-B, WQ-C	H-1, B-2, W-2, W-4, W-5, W-6, W-7, W-8,
Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	WRR-A	B-1, B-2, B-3
Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	FAW-A, FAW-F, FAW-I	B-1, B-2, B-3, B-5, W-1, W-2, W-5
Public Health EIR section 5.10	PH-A	W-2

*Residual Impacts:
Incorporation of the above mitigation measures would reduce the impacts to all resource categories to less than significant levels.

Project Specifics:
The project will take 1 day to complete.



San Pedro Creek

Department of Public Works County of Santa Barbara

Legend

Lengths

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N W E S

Feet

300 150 0 300

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District

Compiled by the Public Works Enterprise GIS in Mayl 2014.

San Pedro Creek

San Pedro Creek: Section 2

SAN PEDRO CREEK
VASCULAR PLANT LIST

SCIENTIFIC NAME	COMMON NAME	ORIGIN*
EQUISETACEAE		
Equisetum laevigatum	Smooth Scouring Rush	N
ANACARDIACEAE		
Malosma laurina	Laurel Sumac	N
Schinus molle	Pepper Tree	I
Toxicodendron diversilobum	Poison Oak	N
APIACEAE		
Foeniculum	Sweet Fennel	I
APOCYNACEAE		
Vinca major	Periwinkle	I
ARALIACEAE		
Hedera helix	English Ivy	I
ASTERACEAE		
Artemisia douglasiana	Mugwort	N
Baccharis salicifolia	Mulefat	N
Baccharis pilularis	Coyote Bush	N
Centaurea melitensis	Yellow Star Thistle	I
Lactuca serriola	Prickly Lettuce	I
Matricaria marricarioides	Pineapple Weed	I
Senecio mikanioides	German Ivy	I
Senecio vulgare	Common Groundsel	I
Sonchus asper	Sow Thistle	I
Sonchus oleraceus	Sow Thistle	I
Xanthium strumarium	Cocklebur	I
BETULACEAE		
Alnus rhombifolia	White Alder	N
BRASSICACEAE		

Brassica nigra	Black Mustard	I
Brassica rapa sylvestris	Field Mustard	I
Raphanus sativus	Wild Radish	I
Rorippa nasturtium-aquaticum	Watercress	I
CACTACEAE		
Opuntia ficus-indica	Indian Fig	I
CAPRIFOLIACEAE		
Sambucus mexicana	Elderberry	N
CHENOPODIACEAE		
Chenopodium album	Lamb's Quarters	I
Salsola iberica	Russian Thistle	I
CONVOLVULACEAE		
Calystegia macrostegia	Morning Glory	I
CUCURBITACEAE		
Marah macrocarpus	Wild Cucumber	N
CYPERACEAE		
Cyperus esculentus	Yellow Nutgrass	I
Scirpus microcarpus	Small-fruited Bulrush	N
EUPHORBIACEAE		
Ricinus communis	Castor Bean	I
Euphorbia lathyris	Gopher purge	I
FABACEAE		
Acacia baileyana	Bailey Acacia	I
Lotus Scoparus	Deerweed	N
Melilotus albus	White Sweet Clover	I
FAGACEAE		
Quercus agrifolia	Coast Live Oak	N
Quercus dumosa	Scrub Oak	N
GERANIACEAE		
Erodium cicutarium	Redstem filaree	I
Erodium moschatum	Whitestem filaree	I
Pelargonum hortorum	Garden Geranium	I

HYDROPHYLLACEAE		
Phacelia ramossissima	Branching Phacelia	N
Phacelia cicutaria	Caterpillar Phacelia	N
LAMIACEAE		
Mentha spicata	Spearmint	I
LAURACEAE		
Umbellularia California	California bay	N
LEGUMINOSAE		
Astragalus sp.	Locoweed	I
OXALIDACEAE		
Oxalis pes-caprae	Sour Grass	N
PAPAVERACEAE		
Eschscholzia californica	California Poppy	N
PLATANACEAE		
Platanus racemosa	Western Sycamore	N
POACEAE		
Agrostis stolonifera	Redtop	I
Arundo donax	Giant Reed	I
Avena barbata	Slender Wild Oats	I
Bromus diandrus	Ripgut Grass	I
Bromus rubens	Foxtail	I
Bromus tectorum	Cheatgrass Brome	I
Cortaderia atacamensis	Pampas Grass	I
Cynodon dactylon	Bermuda Grass	I
Elymus condensatus	Giant Rye	N
Elymus glaucus	Blue Wild Rye	I
Hordeum sp.	Foxtail Rye Grass	I
Piptatherum miliacea	Rice Grass	I
Polypogon monspeliensis	Rabbitsfoot Grass	I
POLYGONACEAE		
Rumex crispus	Curly Dock	I
PORTULACACEAE		
Claytonia perfoliata	Miner’s Lettuce	N
ROSACEAE		
Heteromeles arbutifolia	Toyon	N

Rubus ursinus	California Blackberry	N
SALICACEAE		
Populus fremontii		
Fremont Cottonwood	N	
Salix lasiolepis		
Arroyo Willow	N	
SIMARUBACEAE		
Ailanthus altissima		Tree
of Heaven I		
SOLANACEAE		
Nicotiana glauca	Tobacco Tree	I
Solanum douglasii	Douglas Nightshade	N
TROPAEOLACEAE		
Tropaeolum majus	Garden Nasturtium	I
TYPHACEAE		
Typha latifolia	Cattail	N
URTICACEAE		
Urtica holosericea	Giant Nettle	N

* I = Introduced
N = Native

SAN YSIDRO CREEK ROUTINE MAINTENANCE
ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:
The project begins at East Valley Road and terminates upstream of North Jameson Lane.

Setting:
Inspected on April 2, 2014.

San Ysidro Creek originates in the foothills of the Santa Ynez Mountains and drains a 2,621 acre watershed capable of producing 3,500 cfs during a 100 year return period precipitation event.

At the time of the field visit, flowing water was present through the entire maintenance area of the creek. It is expected that the most of the maintenance area will dry up during the summer months. The channel bottom vegetation consists mainly of herbaceous species such as monkey flower, nasturtium, English ivy, and watercress with the most abundant species present being ironweed, an extremely invasive weed seen commonly in the Montecito area creeks. Small willows and sycamore saplings are also growing in portions of the invert.

The substrate consists of small to moderate sized boulders mixed with sand and silt. The channel banks are typical alluvium of rocky soil and support species such as coyote brush, poison oak, elderberry, canyon sunflower and sage brush. There are willows, sycamore, big leaf maples, alders and oaks that form a well developed canopy. Exotic/landscape species are common, many of which have encroached into the riparian understory. The land surrounding the project reach is slightly disturbed open space, agriculture fields that are part of the Ennisbrook subdivision and other light density development. In many cases, the overbank area provides excellent oak/sycamore riparian corridor habitat with a diverse understory.

Revegetation:
Beginning with the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District began a new reporting and accounting program for the restoration component of the Annual Routine Maintenance Program. Since that time, the District has been tracking the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. The following table is being included to more easily display and track the District's restoration efforts.

San Ysidro Creek				
Annual Plan Year	Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2004/2005	4,200	4,200	4,200	0
2008/2009	490	1,000	0	-490
2010/2011	100	1000	1000	510

2011/2012	0	1000	1000	510
2012/2013	910	0	LCMB 400	0
2014/2015	135	0	0	-135

Engineering Analysis:

Several culverts on San Ysidro Creek are susceptible to plugging causing significant flooding of the adjacent areas as well as Highway 101. In an effort to reduce the potential for plugging the culverts, downed trees and obstructive vegetation that could be mobilized during high flows should be removed. The bankfull discharge* for San Ysidro Creek downstream of the Glenn Oaks subdivision (downstream of Each Valley Road) is approximately 258 cfs. With a velocity of approximately 6 fps and a typical depth of 2.5', the width of clearing should be 17' to maintain channel equilibrium.

* As defined in "Regional Curves for Bankfull Channel Dimensions-Selected South Coast Streams", URS Corporation-March 2002.

Project Description:

Below is an explanation of typical Annual Plan maintenance practices for vegetation removal and mitigation. These explanations will not be included within each corresponding project description section. If the section number in the Annual Plan requires more explanation than below, it will be included within that individual section in the project descriptions. Otherwise, please refer to these descriptions for typical maintenance and mitigation.

Limbing/Down trees or limbs: A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks, depending on access.

Brushing: A crew with chain saws and loppers will brush the (insert vegetation name). The vegetation will be removed with hand tools and an application of Aquamaster herbicide will be applied to inhibit regeneration. A follow-up application of herbicide may be done in the spring/summer if the vegetation begins to resprout and needs additional treatment.

Mitigation: Limbing trees results in the trimming of limbs and therefore does not remove whole living trees or shrubs therefore, the District is not required to, and does not mitigate for limbing with riparian restoration. The District also does not provide restoration as mitigation for down trees, broken branches, or dead trees. All sections that use these terms will not have any restoration as mitigation associated with them. The District's Maintenance Program incorporates other mitigation measures to reduce limbing impacts to a less than significant level.

Brushing and complete live tree removals (native vegetation only) are mitigated for by the District with riparian restoration. If a section includes brushing or removal of native vegetation, the associated mitigation quantity will be quantified in that section's description. If no mitigation quantity is included in a Section description, no mitigation is required.

Section 1:

There is 1 willow and 3 sycamores (all <1" DBH) that are growing in the active channel and will be brushed. This site was previously mitigated for in Section 2 of the 12/13 Annual Plan.

Section 2:
A willow branch is projecting into the active channel and will be limbed. 20 square feet of sycamore seedlings are growing in the active channel and will be brushed. This site was mitigated for in Section 5 of the 12/13 Annual Plan.

Section 3:
50 square feet of nonnative ironweed are growing in the active channel and will be brushed.

Section 4:
40 square feet of sycamore seedlings are growing in the active channel and will be brushed, resulting in 40 square feet of mitigation.

Section 5:
A willow branch has split, is hanging into the active channel and will be limbed.

Section 6:
A willow branch is projecting into the active channel and poison oak has grown onto the limb and into the active channel. The willow and poison oak will be limbed.

Section 7:
A 1" DBH sycamore growing in the channel near the left, vertical bank, will be left in place for bank protection and 30 square feet of willows growing on the right side of the active channel will be brushed so they do not further direct flows toward the vertical bank. This will result in 30 square feet of mitigation.

Section 8:
There is an 8"DBH willow down in the active channel and a willow branch projecting into the active channel that will be limbed.

Section 9:
A nonnative 2" DBH ash tree is growing in the active channel and will be brushed.

Section 10:
A nonnative fig tree has branches projecting into the active channel that will be limbed.

Section 11:
A 10 square foot willow is growing in the active channel and will be removed and placed approximately 50' downstream where there is a revegetation site. No mitigation will be required.

Section 12:
There is a 10'x50' island here created by storm flows that were eroding the left bank. The eroding channel was repaired in a previous annual plan and there is a revegetation site on the bank. The island has clumps of nonnative ironweed that will be brushed to allow space for the willow in section 11 and future revegetation efforts.

Section 13:
Willow branches on the right bank are projecting into the active channel and will be limbed.

Section 14:
A toyon and willow branches are projecting into the active channel and will be limbed.

Section 15:
A 5'x20' area of nonnative ironweed is growing on the left side of the active channel and will be brushed.

Section 16:
30 square feet of sycamore seedlings are growing in the active channel and will be brushed, resulting in 30 square feet of mitigation.

Section 17:
1 willow seedling is growing in the active channel and will be brushed, resulting in 10 square feet of mitigation.

Section 18:
In this length of approximately 350' there are nonnative buckeye, elderberry, and willow branches projecting in to the active channel that will be limbed.

Section 19:
There is an oak tree root wad and stump from a tree that someone cut down and discarded in the creek bed that is accumulating vegetation, and will be removed from the creek.

Section 20:
There is a willow tree with branches projecting into the active channel that will be limbed and a nonnative pampas grass that will be brushed on the left bank.

Section 21:
There is a 90 degree right bend in the channel here with a sycamore sapling growing in the active channel on the inside bend that will be brushed so it does not push flows into the outside bend and lead to erosion. This will result in 25 square feet of mitigation.

Impact Analysis and Mitigation Measures:
Listed below are the impacts and associated mitigation measures for each of the issue areas impacted by this project as identified in the Updated Program EIR. See the Section entitled "Impacts and Mitigation Measures" for definitions of the specific impacts and mitigation measures.

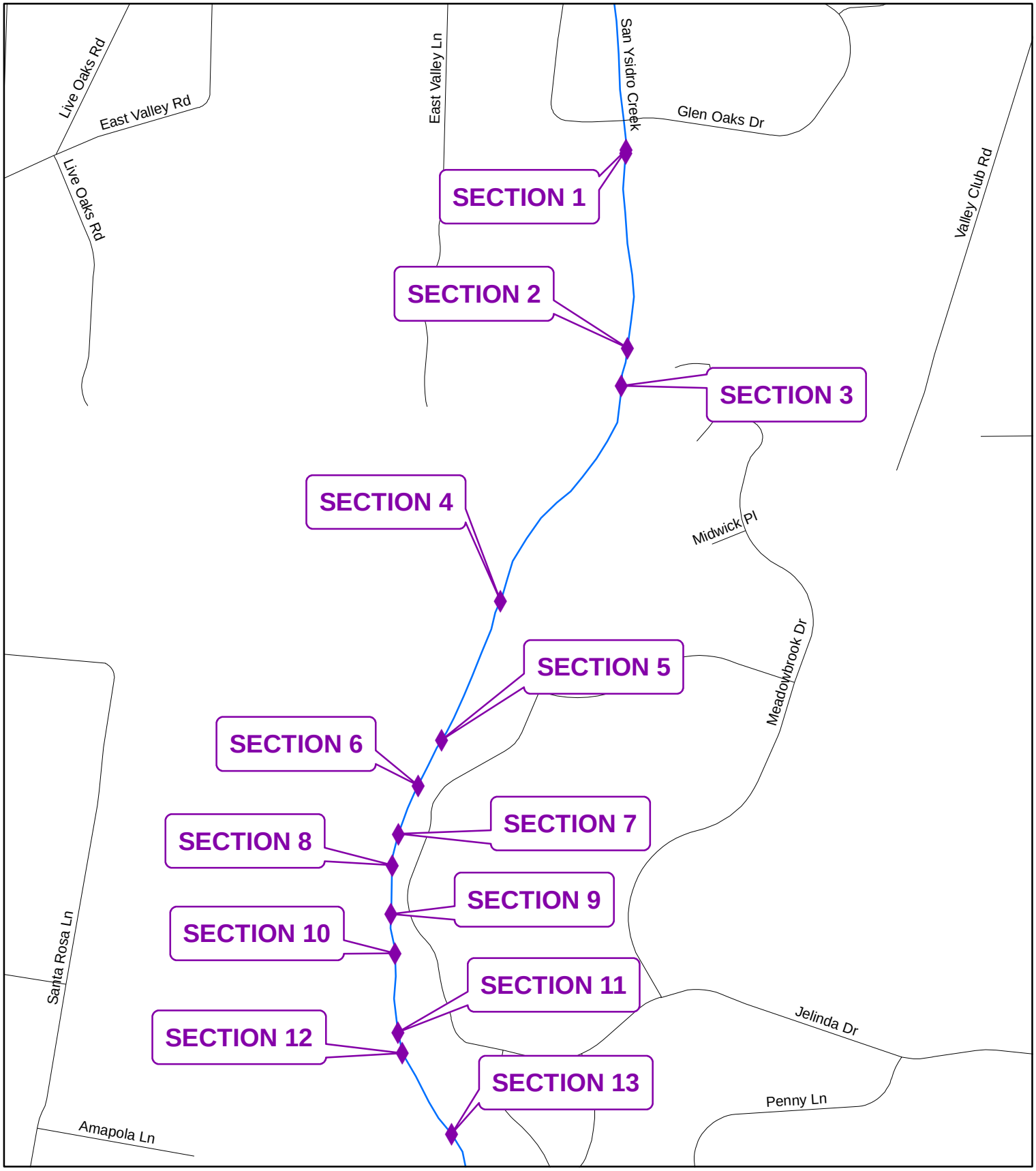
Impacts:
Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the impacts listed below are considered Class I (unavoidable significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

Mitigation Measures:

Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Resource	Impacts	Mitigation Measures*
Hydrology EIR sections 5.1.2, 5.1.3	H-A	H-1
Water Quality EIR sections 5.2.2, 5.2.3	WQ-A, WQ-B, WQ-E	H-1, B-2, W-2, W-7, W-8
Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	WRR-A	B-1, B-2, B-3
Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	FAW-A, FAW-F, FAW-H, FAW-I,	B-1, B-2, B-3, H-1,
Air Quality EIR sections 5.5.2, 5.5.3	None	
Noise EIR sections 5.6.2, 5.6.3	None	
Visual EIR sections 5.9.2, 5.9.3	None	
Recreation EIR sections 5.8.2, 5.8.3	None	
Public Health EIR sections 5.10	PH-A	W-2

Project Specifics: This project will take 4 days to complete.



Department of Public Works County of Santa Barbara

San Ysidro Creek-A

Legend

Sites

This map is for reference only. Although every effort has been made to ensure the accuracy of information, errors and conditions originating from physical sources used to develop the database may be reflected on this map. Santa Barbara County shall not be liable for any errors, omissions, or damages that result from inappropriate use of this document. No level of accuracy is claimed for the boundary lines shown hereon and lines should not be used to obtain coordinate values, bearings or distances.

N W E S

Feet

325 162.5 0 325

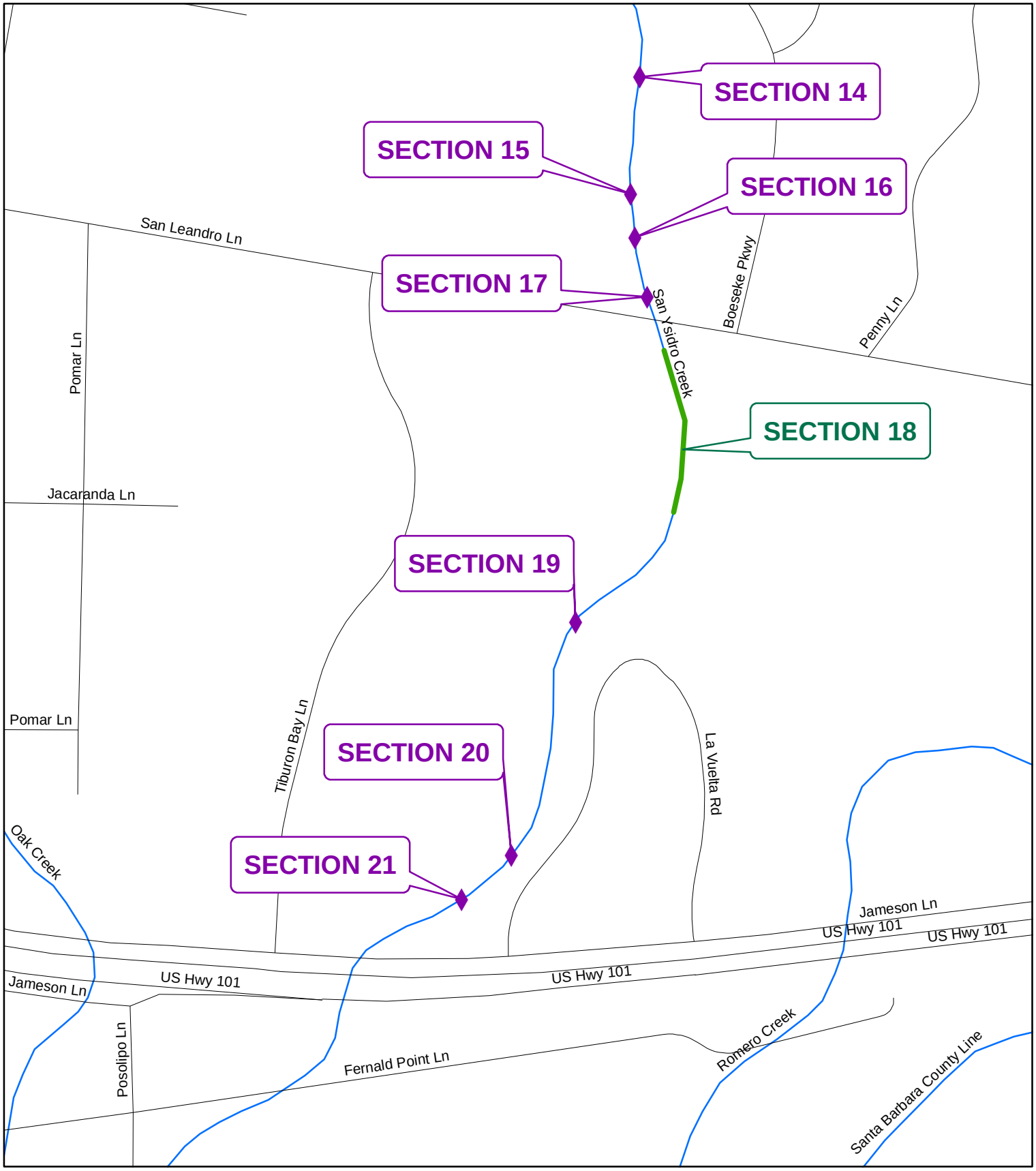
Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District

Compiled by the Public Works Enterprise GIS in Mayl 2014.



Department of Public Works County of Santa Barbara

San Ysidro Creek-B

Legend

- Sites
- Lengths

N W E S

Feet

225 112.5 0 225

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in Mayl 2014.

San Ysidro Creek

San Ysidro Creek: Section 1

San Ysidro Creek: Section 5

San Ysidro Creek

San Jose Creek: Section 11

San Jose Creek: Section 12

VASCULAR PLANT LIST
SAN YSIDRO CREEK

SCIENTIFIC NAME	COMMON NAME	ORIGIN*
EQUISETACEAE		
Equisetum telemateia	Giant Horsetail	N
ACERACEAE		
Acer macrophyllum	Big Leaf Maple	N
AMARANTHACEAE		
Amaranthus deflexus	Low Amaranth	I
ANACARDIACEAE		
Rhus integrifolia	Lemonadeberry	N
Rhus laurina	Laurel Sumac	N
Schinus molle	Pepper Tree	I
Toxicodendron diversilobum	Poison Oak	N
APIACEAE		
Conium maculatum	Poison Hemlock	I
Foeniculum vulgare	Sweet Fennel	I
APOCYNACEAE		
Vinca major	Periwinkle	I
ARALIACEAE		
Hedera helix	English Ivy	I
ASTERACEAE		
Ageratina adenophora	Ironweed	I
Artemisia californica	California Sagebrush	N
Artemisia douglasiana	Mugwort	N
Baccharis pilularis ssp. consanguinea	Coyote Bush	N
Carduus phonozephalus	Italian Thistle	I
Cirsium vulgare	Bull Thistle	I
Gnaphalium luteo-album	Weedy Everlasting	I
Lactuea serriola	Prickly lettuce	I
Picris echioides	Ox Tongue	I
Senecio mikanioides	German Ivy	I
Silybum marianum	Milk Thistle	I
Sonchus asper	Sow Thistle	I
Taraxcum officinale	Common Dandelion	I

Venegasia carpesioides	Canyon Sunflower	N
Xanibum strumarium	Cocklebur	I
BETULACEAE		
Alnus rhombifolia	White Alder	N
BRASSICACEAE		
Brassica nigra	Black Mustard	I
Brassica campestris	Field Radish	I
Raphanus sativus	Wild Radish	I
Rorippa nasturtium	Watercress	I
CAPRIFOLIACEAE		
Sambucus mexicana	Elderberry	N
CHENOPODIACEAE		
Chenopodium ambrosioides	Mexican Tea	I
Chenopodium berlandieri	Lamb's Quarters	I
Chenopodium murale	Nettle-Leaved -Goosefoot	I
CONVOLVULACEAE		
Calystegia macrostegia ssp. cyclostegia	Morning-Glory	I
Convolvolvus arvensis	Bindweed	I
CYPERACEAE		
Cyperus alternifolius	Umbrella Plant	I
Cyperus esculentus	Yellow Nutgrass	I
Scirpus robustus	Prairie Bulrush	I
EUPHORBIACEAE		
Ricinus communis	Castor Bean	I
FABACEAE		
Acacia decurrens	Green Wattle	I
Lotus scoparius	Deerweed	N
Medicago polymorpha	Bur Clover	I
Melilotus albus	White Sweet Clover	I
Trifolium sp.	Clover	I
Vicia benghalensis	Vetch	I
FAGACEAE		
Quercus agrifolia	Coast Live Oak	N

GERANEACEAE		
Erodium botrys	Broad-Leaf Filatree	I
GROSSULARIACEAE		
Ribes amarum var. hofmannii	Bitter Gooseberry	N
Ribes speciosum	Fucshia-Flowered -Gooseberry	N
HYDROPHYLLACEAE		
Phacelia ramossissima	Branching Phacelia	N
JUNCACEAE		
Juncus effusus var. brunneus	Common Rush	N
Juncus xiphioides	Iris-Leaved Juncus	N
LAMIACEAE		
Marrubium vulgare	Horebound	I
Mentha spicata	Spearmint	I
Salvia spatheca	Pitcher Sage	N
MALVACEAE		
Lavatera sp.	Lavatera	I
MYOPORUM		
Myoporum laetum	Myoporum	I
MYRTACEAE		
Eucalyptus globulus	Blue Gum	I
ONAGRACEAE		
Epilobium adenocaulon	Willow-Herb	N
PAPAVERACEAE		
Eschscholia californica	California Poppy	N
PITTOSPORACEAE		
Pittosporum undulatum	Pittosporum	I
PLANTAGINACEAE		
Plantago lanceolata	English Plantain	I
Plantago major	Common Plantain	I

PLANTANACEAE		
Plantanus racemosa	Western Sycamore	N
POACEAE		
Agrostis stolonifera	Redtop	I
Arundo donza	Giant Reed	I
Avena fatua	Wild Oats	I
Avena barbata	Slender Wild Oats	I
Bromus diandrus	Ripgut Grass	I
Bromus mollis	Soft Chess	I
Bromus rubens	Foxtail	I
Cortaderia acacamensis	Pampas Grass	I
Cynodon dactylon	Bermuda Grass	I
Echinochloa crusgalli	Barnyard Miller	I
Elymus condensatus	Giant Rye	N
Lolium perenne	Italian Rye	I
Oryzopsis miliacea	Rice Grass	I
Pennisetum interruptus	Beard Grass	I
Polypogon monspeliensis	Rabbitsfoot Grass	I
POLYGONACEAE		
Polygonum arenastrum	Italian Ryegrass	I
Polygonum lapathifolium	Willow Smartweed	N
Polygonum punctatum	Dotted Smartweed	N
Rumex conglomeratus	Green Dock	I
Rumex crispus	Curly Dock	I
PORTULACEAE		
Portulaca oleracea	Purslane	I
RANUNCULACEAE		
Clematis ligusticifolia	Creek Clematis	N
RHAMNACEAE		
Ceanothus megacarpus	Large-Fruited -Ceanothus	N
Ceanothus spinosus	Greenbark	N
Rhamnus californica	Coffeeerry	N
Rhamnus crocea	Redberry	N
ROSACEAE		
Cercocarpus betuloides	Mountain Mahogany	N
Heteromeles arbutifolia	Toyon	
Rubus ursinus	California Blackberry	N

SALICACEAE		
Populus fremontii	Fremont Cottonwood	N
Populus trochocarpa	Black Cottonwood	N
Salix exigua	Narrowleaf Willow	N
Salix laevigata	Red Willow	N
Salix lasiolepis	Arroyo Willow	N
SCROPHULARIACEAE		
Diplacaus longiflorus var. longiflorus	Bush Monkeyflower	N
Keckiella cordifolia	Climbing Penstemon	N
Scrophularia californica	California Figwort	N
Veronica anagallis-aquatica	Speedwell	I
SOLANACEAE		
Nicotiana glauca	Free Tobacco	I
Solanum douglasii	Douglas Nightshade	N
Solanum xantii	Chaparral Nightshade	N
TROPAELACEAE		
Tropaeolum majus	Garden Nasturtium	I
URTICACEAE		
Urtica holosericea	Giant Needle	I
VERBENACEAE		
Verbena lasiostachys	Verbena	N

* I - Introduced

N - Native

TECOLOTITO CREEK ROUTINE MAINTENANCE
ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:
The project begins downstream of Glen Annie Road and terminates upstream of Los Carneros Road.

Setting:

The creek was inspected on March 17, 2014.

Tecolotito Creek originates in the foothills of the Santa Ynez Mountains and drains a 3,858 acre watershed capable of producing 4,600 cfs during a 100 year return period precipitation event.

From the area upstream of Cathedral Oaks Blvd. downstream to Del Norte Drive the creek has well vegetated steep banks. Coast live oak, eucalyptus and willow shade the creek channel. The creek usually contains at least some water year round. Land use is residential and open space with Glenn Annie Golf Course located upstream and to the west of Cathedral Oaks Blvd. From Del Norte Drive downstream to Highway 101 the creek flows through an on-ramp/off-ramp intersection to the highway with portions of the channel completely concrete lined. Downstream of the northbound 101 on-ramp, the creek is concrete lined along the south bank. The north bank is vegetated with willows which do provide some shading to the invert. The creek invert is vegetated with occasional clumps of cattails. Downstream of Highway 101 the creek is lined with pipe and wire revetment. This entire stretch of the drainage contains a well vegetated canopy that has been restored by the District and nearby developments over the last ten years. The land use adjacent to the creek downstream of the Highway is commercial. Land use upstream of Glen Annie Road is residential and open space.

Revegetation:
Since the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District has been tracking and reporting the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. The following table is being included in the Annual Routine Maintenance Plan addenda to more easily display and track the District's restoration efforts.

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Tecolotito Creek				
Annual Plan Year	Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2002/2003	14,620	15,000	15,000	380
2004/2005	0	0	0	380
2005/2006	525	150	150	5
2007/2008	1,100	1,100*	1,100	5
2010/2011	100	0	0	-95
2014/2015	55	0	0	-150

The square footage of impact from the season is so small, therefore the District will wait until more impacts are realized and mitigate a larger restoration site in this drainage, or utilize credit from Los Carneros Mitigation Bank.

Engineering Analysis:

Tecolotito Creek is prone to sedimentation and associated colonization by obstructive vegetation throughout the project reach. The creek has been improved to convey the Q100 and allow for adjacent development. Silt trapping vegetation consisting primarily of cattails and bulrush are growing in the active channel reducing capacity. Removing silt and silt trapping vegetation from the bankfull channel cross-section (active channel) is important to maintain the design capacity of the creek. The bankful discharge for this section is approximately 300 cfs. With a velocity of approximately 6 fps and a typical depth of 3', the width of clearing should be 17' to maintain channel equilibrium.

* As defined in "Regional Curves for Bankfull Channel Dimensions-Selected South Coast Streams", URS Corporation-March 2002.

Project Description:

Below is an explanation of typical Annual Plan maintenance practices for vegetation removal and mitigation. These explanations will not be included within each corresponding project description section. If the section number in the Annual Plan requires more explanation than below, it will be included within that individual section in the project descriptions. Otherwise, please refer to these descriptions for typical maintenance and mitigation.

Limbing/Down trees or limbs: A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks, depending on access.

Brushing: A crew with chain saws and loppers will brush the (insert vegetation name). The vegetation will be removed with hand tools and an application of Aquamaster herbicide will be applied to inhibit regeneration. A follow-up application of herbicide may be done in the spring/summer if the vegetation begins to resprout and needs additional treatment.

Mitigation: Limbing trees results in the trimming of limbs and therefore does not remove whole living trees or shrubs therefore, the District is not required to, and does not mitigate for limbing with riparian restoration. The District also does not provide restoration as mitigation for down trees, broken branches, or dead trees. All sections that use these terms will not have any restoration as mitigation associated with them. The District's Maintenance Program incorporates other mitigation measures to reduce limbing impacts to a less than significant level.

Brushing and complete live tree removals (native vegetation only) are mitigated for by the District with riparian restoration. If a section includes brushing or removal of native vegetation, the associated mitigation quantity will be quantified in that section's description. If no mitigation quantity is included in a Section description, no mitigation is required.

Section 1:

There is a down 4" DBH willow in the active channel that will be removed.

Section 2:
A willow on the left bank has branches projecting into the active channel that will be limbed.

Section 3:
This length of 200' is adjacent to Highway 101 and has concrete lined banks with and earthen bottom. A 3-4' wide x 2' deep x 200' long sediment bar has formed and mostly nonnative weeds are growing on it with 20 square feet of bulrush and 20 square feet of nettle mixed in. A gradall working from the access road on top of the left bank will scoop out the sediment (clean excavation) and load it into trucks to be taken to an upland disposal area.

There are also 3 willow seedlings growing out of the concrete liner on the right bank that will be brushed.

This section will result in 55 square feet of mitigation.

Section 4:
There is a down 6" DBH willow in the active channel that will be removed.

Impact Analysis and Mitigation Measures:
Listed below are the impacts and associated mitigation measures for each of the issue areas impacted by this project as identified in the Updated Program EIR. See the Section entitled "Impacts and Mitigation Measures" for definitions of the specific impacts and mitigation measures.

Impacts:
Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the impacts listed below are considered Class I (unavoidable significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

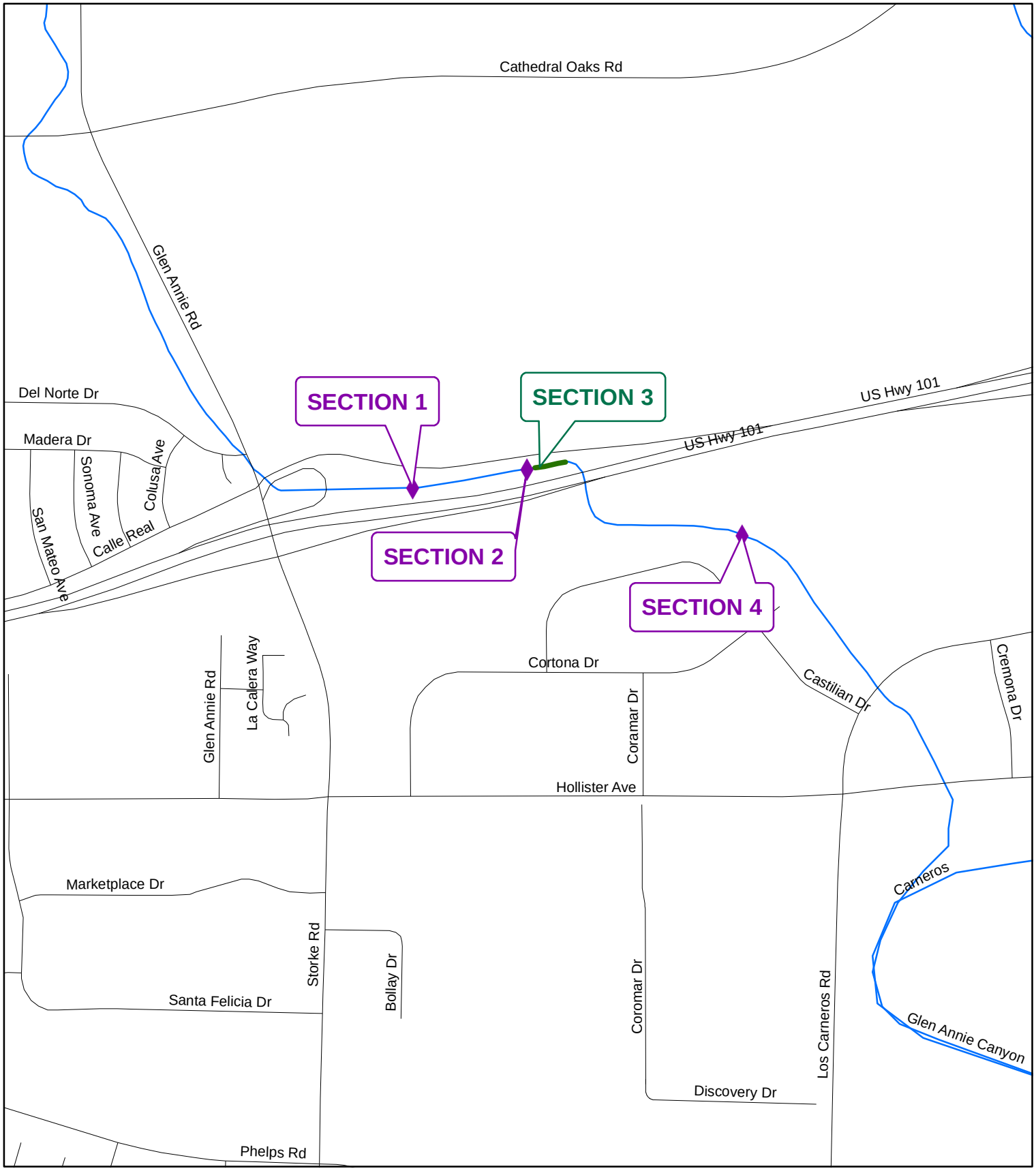
Mitigation Measures:
Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Resource	**Impacts**	**Mitigation Measures***
Hydrology EIR sections 5.1.2, 5.1.3	H-A,	H-1,B-7
Water Quality EIR sections 5.2.2, 5.2.3	WQ-A, WQ-B, WQ-C, WQ-D	H-1, B-2, B-7, W-1, W-2, W-4, W-6, W-7, W-8
Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	WR-A	B-1, B-3,

Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	FAW-A, FAW-F, FAW-H, FAW-I, FAW-J	B-1, B-2, B-3, W-1, W-2, W-4, W-5,
Air Quality EIR sections 5.5.2, 5.5.3	AQ-A, AQ-B	A-1, A-2
Noise EIR sections 5.6.2, 5.6.3	N-A	N-1
Visual EIR sections 5.9.2, 5.9.3	V-A	V-1

Project Specifics:

This project will take 3 days to complete.



Department of Public Works County of Santa Barbara

Tecolotito Creek

Legend

- Sites
- Lengths

N W E S

Feet

580 290 0 580

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in Mayl 2014.

Tecolotito Creek

Tecolotito Creek: Section 2

Tecolotito Creek: Section 3

VASCULAR PLANT LIST
TECOLOTITO CREEK

SCIENTIFIC NAME	COMMON NAME	ORIGIN*
EQUISETACEAE		
Equisetum telemateia	Giant Horsetail	N
ANACARDIACEAE		
Rhus integrefolia	Lemonadeberry	N
Rhus laurina	Laurel Sumac	N
APIACEAE		
Foeniculum vulgare	Sweet Fennel	I
ASTERACEAE		
Artemisia californica	California Sagebrush	N
Baccharis pilularis ssp. consanguinea	Coyote Bush	N
Xanthium strmarium	Cocklebur	I
BRASSICACEAE		
Raphanus sativus	Wild Radish	I
CAPRIFOLIACEAE		
Sambucus mexicana	Elderberry	N
CHENOPODIACEAE		
Artiplex Hastata	Hastate-Leaved -Saltbush	
CYPERACEAE		
Cyperus alternifolius	Umbrella plant	I
Scirpus californicus	California Bulrush	N
Scirpus cernuus var. californicus	Low Club-Rush	N
Scirpus microcarpus	Small-Fruited Bulrush	N
Scirpus robustus	Prairie Bulrush	N
EUPHORBIACEAE		
Ricinis communis	Castor Bean	I
FABACEAE		
Lotus scoparius	Deerweed	N
JUGLANDACEAE		

Juglans regia	English Walnut	I
MYRTACEAE		
Eucalyptus globulus	Blue Gum	I
PLATANACEAE		
Plantus racemosa	Western Sycamore	N
POACEAE		
Cortaderia atacamensis	Pampas Grass	I
POLYGONACEAE		
Rumex crispus	Curly Dock	I
RANUNCULACEAE		
Clematis ligusticifolia	Creek Clematis	N
ROSACEAE		
Hetermeles arbutifolia	Toyon	N
Rubus ursinus	California Blackberry	N
SALICACEAE		
Salix lasiolepis	Arroyo Willow	N
SROPHULARIACEAE		
Scrophularia californica	California Figwort	N
SOLANCEAE		
Nicotiana glauca	Tobacco Tree	I
TROPAEOLACEAE		
Tropaeolum majus	Garden Nasturtium	I
TYPHACEAE		
Typha sp.	Cattail	N
URTICACEAE		
Urtica holosericea	Giant Nettle	N

* I = Introduced
N = Native

TORO CANYON CREEK ROUTINE MAINTENANCE ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:
The project begins at East Valley Road and terminates at Via Real Road.

Setting:
Inspected on April 8, 2014.

East and West Toro Canyon Creeks originate in the foothills of the Santa Ynez Mountains, drain 869 and 986 acre watersheds respectively and are capable of producing 1800 and 1900 cfs respectively during a 100 year return period precipitation event.

The maintenance area runs from upper Toro Canyon Road at Highway 192, downstream to the Highway 101 culvert. The west fork joins Toro Creek within the maintenance area. Toro Creek features a dense and well developed canopy of mature willows, sycamore, oak, and alder. Understory species include many natives such as canyon sunflower, blackberry, and mugwort, along with non-native and landscape species encroaching from the adjacent residences and agricultural properties. The substrate consists of large cobble and boulders.

The creek was mostly dry during the assessment except for some remaining pools at the upper end, due to the unusually dry winter.

Revegetation:
Since the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District has been tracking and reporting the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. The following table is being included in the Annual Routine Maintenance Plan addenda to more easily display and track the District's restoration efforts.

Toro Creek				
Annual Plan Year	Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2002/2003	985	4,020	4,020	3,235
2003/2004	400	0	0	2,835
2006/2007	50	2,500	0	-1,435
2009/2010	200	2,000	2,000	365
2011/2012	0	0	0	365
2013/2014	200	0	0	165
2014/2015	110	0	0	50

Engineering Analysis:

Removing obstructive vegetation from the bankfull* channel cross-section (active channels) is important to reduce the debris load associated with higher flows. Obstructive vegetation growing in the active channel as well as limbs projecting into the active channel and downed trees can become mobilized during flood flows, raising the water surface elevation as well as plugging bridges and culverts located downstream. The bankfull discharge for this portion of Toro Creek is approximately 140 cfs. With a velocity of approximately 6 fps and a typical depth of 1.5', the width of clearing should be 16' to maintain channel equilibrium.

* As defined in "Regional Curves for Bankfull Channel Dimensions-Selected South Coast Streams", URS Corporation-March 2002.

Project Description:

Below is an explanation of typical Annual Plan maintenance practices for vegetation removal and mitigation. These explanations will not be included within each corresponding project description section. If the section number in the Annual Plan requires more explanation than below, it will be included within that individual section in the project descriptions. Otherwise, please refer to these descriptions for typical maintenance and mitigation.

Limbing/Down trees or limbs: A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks, depending on access.

Brushing: A crew with chain saws and loppers will brush the (insert vegetation name). The vegetation will be removed with hand tools and an application of Aquamaster herbicide will be applied to inhibit regeneration. A follow-up application of herbicide may be done in the spring/summer if the vegetation begins to resprout and needs additional treatment.

Mitigation: Limbing trees results in the trimming of limbs and therefore does not remove whole living trees or shrubs therefore, the District is not required to, and does not mitigate for limbing with riparian restoration. The District also does not provide restoration as mitigation for down trees, broken branches, or dead trees. All sections that use these terms will not have any restoration as mitigation associated with them. The District's Maintenance Program incorporates other mitigation measures to reduce limbing impacts to a less than significant level.

Brushing and complete live tree removals (native vegetation only) are mitigated for by the District with riparian restoration. If a section includes brushing or removal of native vegetation, the associated mitigation quantity will be quantified in that section's description. If no mitigation quantity is included in a Section description, no mitigation is required.

Section 1:

Sycamore sprouts are growing from a previously removed tree within the active channel and will be brushed, resulting in 20 square feet of mitigation.

Section 2:

In an 8'x30' area nonnative ironweed and 3 sycamore seedlings are growing in the active channel and will be brushed, resulting in 20 square feet of mitigation.

Section 3:
In a 5'x10' area cottonwood seedlings are growing in the active channel and will be brushed, resulting in 25 square feet of mitigation.

Section 4:
For 50 linear feet nonnative ivy is growing throughout the channel and will be brushed.

Section 5:
A 10'x10' area of nonnative ironweed growing in the active channel will be brushed.

Section 6:
A 10'x20' area of nonnative arundo is falling into the active channel and will be brushed.

Section 7:
For 20 linear feet lemonade berry is growing into the active channel and will be limbed.

Section 8:
For 40 linear feet nonnative ironweed is growing in the active channel and will be brushed.

Section 9:
For 80 linear feet willow branches are projecting into the active channel from the right bank and will be limbed.

Section 10:
A 10'x100' area of nonnative ironweed is growing in the active channel and will be brushed.

Section 11:
There is a down 5" dia. willow limb in the active channel and a willow with branches projecting into the active channel that will be limbed.

Section 12:
There is a down 4" dia. oak branch in the active channel.

Section 13:
Nonnative ironweed is growing in the active channel and will be brushed. There is a down 4" willow and a sycamore branch projecting into the active channel that will be limbed.

Section 14:
In this 100 linear foot section there are 20 square feet of willow seedlings and nonnative castor bean, ironweed and pittosporum growing in the active channel that will be brushed, resulting in 20 square feet of mitigation.

Section 15:

For 60 linear feet nonnative ironweed and castor bean are growing in the active channel and will be brushed.

Section 16:
There are 2 sycamore saplings growing in the active channel that will be brushed and a willow with branches projecting into the active channel that will be limbed, resulting in 25 square feet of mitigation.

Impact Analysis and Mitigation Measures:
Listed below are the impacts and associated mitigation measures for each of the issue areas impacted by this project as identified in the Updated Program EIR. See the Section entitled "Impacts and Mitigation Measures" for definitions of the specific impacts and mitigation measures.

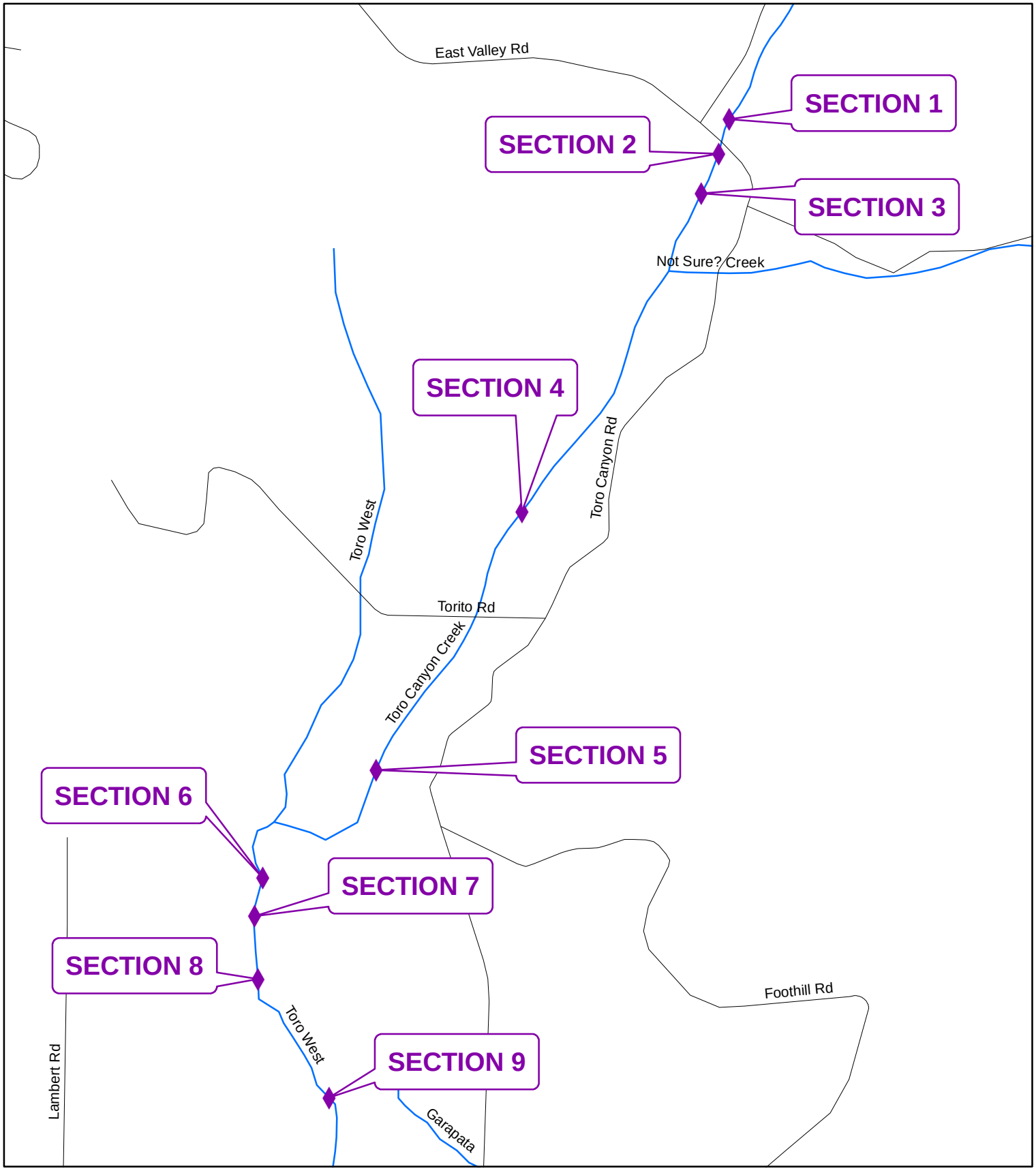
Impacts:
Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the impacts listed below are considered Class I (unavoidable significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

Mitigation Measures:
Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Resource	**Impacts**	**Mitigation Measures***
Hydrology EIR sections 5.1.2, 5.1.3	H-A	H-1
Water Quality EIR sections 5.2.2, 5.2.3	WQ-A, WQ-B	H-1, B-2, W-2, W-6, W-7, W-8, W-4
Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	WRR-A	B-1, B-2, B-3
Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	FAW-A, FAW-F, FAW-I, FAW-J	B-1, B-2, B-3, H-1, W-2, W-1, W-4
Public Health EIR section 5.10	PH-A	W-2

*Residual Impacts:
Incorporation of the above mitigation measures would reduce the impacts to all resource categories to less than significant levels.

Project Specifics:
The project will take 3 days to complete.



Department of Public Works County of Santa Barbara

Toro Creek-A

Legend

Sites

This map is for reference only. Although every effort has been made to ensure the accuracy of information, errors and conditions originating from physical sources used to develop the database may be reflected on this map. Santa Barbara County shall not be liable for any errors, omissions, or damages that result from inappropriate use of this document. No level of accuracy is claimed for the boundary lines shown hereon and lines should not be used to obtain coordinate values, bearings or distances.

N W E S

Feet

400 200 0 400

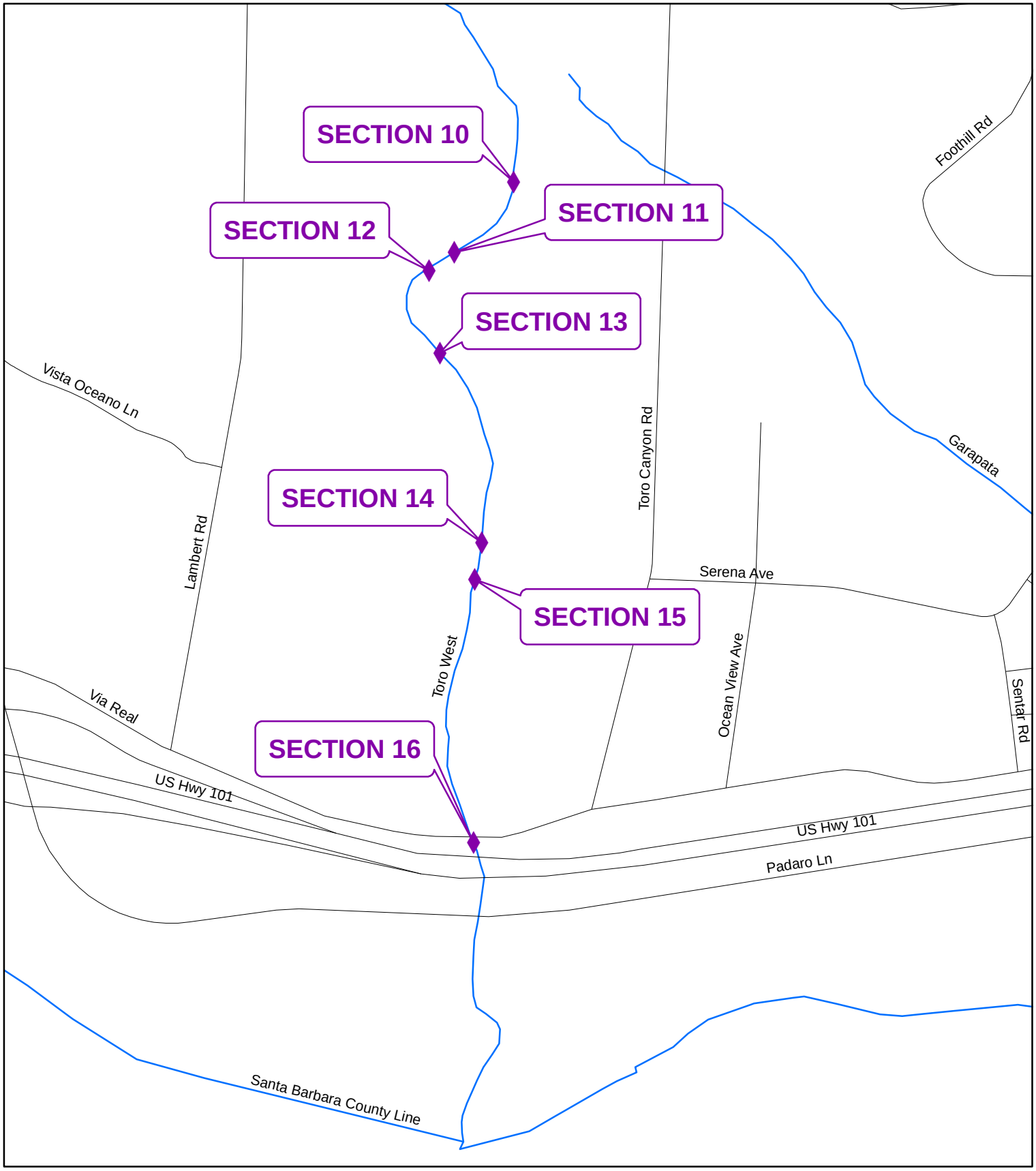
Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District

Compiled by the Public Works Enterprise GIS in Mayl 2014.



Department of Public Works County of Santa Barbara

Toro Creek-B

Legend

Sites

This map is for reference only. Although every effort has been made to ensure the accuracy of information, errors and conditions originating from physical sources used to develop the database may be reflected on this map. Santa Barbara County shall not be liable for any errors, omissions, or damages that result from inappropriate use of this document. No level of accuracy is claimed for the boundary lines shown hereon and lines should not be used to obtain coordinate values, bearings or distances.

N W E S

Feet

400 200 0 400

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District

Compiled by the Public Works Enterprise GIS in Mayl 2014.

Toro Creek

Toro Creek: Section 1

Toro Creek: Section 9

Toro Creek

Toro Creek: Section 10

Toro Creek: Section 16

WINCHESTER CREEK ROUTINE MAINTENANCE
ADDENDUM TO THE PROGRAM EIR FOR SANTA BARBARA COUNTY FLOOD CONTROL ROUTINE MAINTENANCE

Location:
The project begins in Ellwood Creek at the end of Langlo Ranch Rd. and continues downstream past the confluence with Winchester Canyon Creek to Winchester Canyon Road, approximately 2,300 feet.

Setting:
Ellwood and Winchester Canyon Creeks originate in the foothills of the Santa Ynez Mountains. Ellwood Creek drains a 2,486 acre watershed capable of producing 3,300 cfs during a 100 year return period precipitation event. Winchester Canyon Creek drains a 1,125 acre watershed capable of producing 2,000 cfs during a 100 year return period event. The creeks were inspected by District staff on April 11, 2005 to determine the necessity and extent of any maintenance.

Water was present the entire reach. The channel cobble bottomed is interspersed with silt and cobble areas. The channel banks are well vegetated with both native and non-native species such as hemlock, canyon sunflower, phacelia, blackberry and many specimen oaks and sycamores. The creek bed is vegetated with herbaceous species such as cattail and watercress. Land use adjacent to the creek is residential along the east side of the creek while the remaining area is essentially agriculture and open space.

Revegetation:
Beginning with the 2002/2003 Annual Routine Maintenance Plan, which was tiered off the 2001 EIR for the Updated Routine Maintenance Program, the District began a new reporting and accounting program for the restoration component of the Annual Routine Maintenance Program. Since that time, the District has been tracking the impacts and associated restoration on creeks included in each Annual Routine Maintenance Plan. The following table is being included in the Annual Routine Maintenance Plan addenda to more easily display and track the District's restoration efforts.

Winchester				
Annual Plan Year	New Temporal Impacts to Native Vegetation (square feet)	Proposed Restoration (square feet)	Restoration Implemented (square feet)	Surplus Restoration (square feet)
2003/2004	0	2400	2400	2400
2005/2006	350	0	0	2050
2014/2015	0	0	0	2050

Engineering Analysis:
Maintenance on Winchester Creek is comprised of the removal of obstructive vegetation. Several trees and limbs have fallen into the creek and *Arundo donax* is growing over and into the active channel all of which can obstruct and divert flows. Additionally, downed trees/limbs can become mobilized during flood flows, raising the water sur4face elevation as well as plugging culverts located downstream. Removal of downed limbs, trees, and overhanging vegetation will help keep

the active channel open, maintain channel equilibrium, and reduce channel erosion. The bankfull discharge width based on field indicators is approximately 10 feet wide.

Project Description:

Below is an explanation of typical Annual Plan maintenance practices for vegetation removal and mitigation. These explanations will not be included within each corresponding project description section. If the section number in the Annual Plan requires more explanation than below, it will be included within that individual section in the project descriptions. Otherwise, please refer to these descriptions for typical maintenance and mitigation.

Limbing/Down trees or limbs: A crew using chainsaws and loppers will remove the obstructive vegetation from the active channel. The vegetation will be cut up and hauled out of the creek or left on the upper banks, depending on access.

Brushing: A crew with chain saws and loppers will brush the (insert vegetation name). The vegetation will be removed with hand tools and an application of Aquamaster herbicide will be applied to inhibit regeneration. A follow-up application of herbicide may be done in the spring/summer if the vegetation begins to resprout and needs additional treatment.

Mitigation: Limbing trees results in the trimming of limbs and therefore does not remove whole living trees or shrubs therefore, the District is not required to, and does not mitigate for limbing with riparian restoration. The District also does not provide restoration as mitigation for down trees, broken branches, or dead trees. All sections that use these terms will not have any restoration as mitigation associated with them. The District's Maintenance Program incorporates other mitigation measures to reduce limbing impacts to a less than significant level.

Brushing and complete live tree removals (native vegetation only) are mitigated for by the District with riparian restoration. If a section includes brushing or removal of native vegetation, the associated mitigation quantity will be quantified in that section's description. If no mitigation quantity is included in a Section description, no mitigation is required.

Section 1:
There are 4 down willows (1-3" dia.) and also arundo that is falling into the active channel that will be limbed.

Section 2:
In this length of 250' arundo is growing on the banks and falling into the active channel and will be limbed.

Section 3:
There is an elderberry with branches projecting into the active channel that will be limbed.

Section 4:
A 2" dia. eucalyptus branch is down in the active channel.

Section 5:
There is a down 2" dia. willow branch and arundo that will be limbed.

Section 6:
There is a down 3" dia. willow branch.

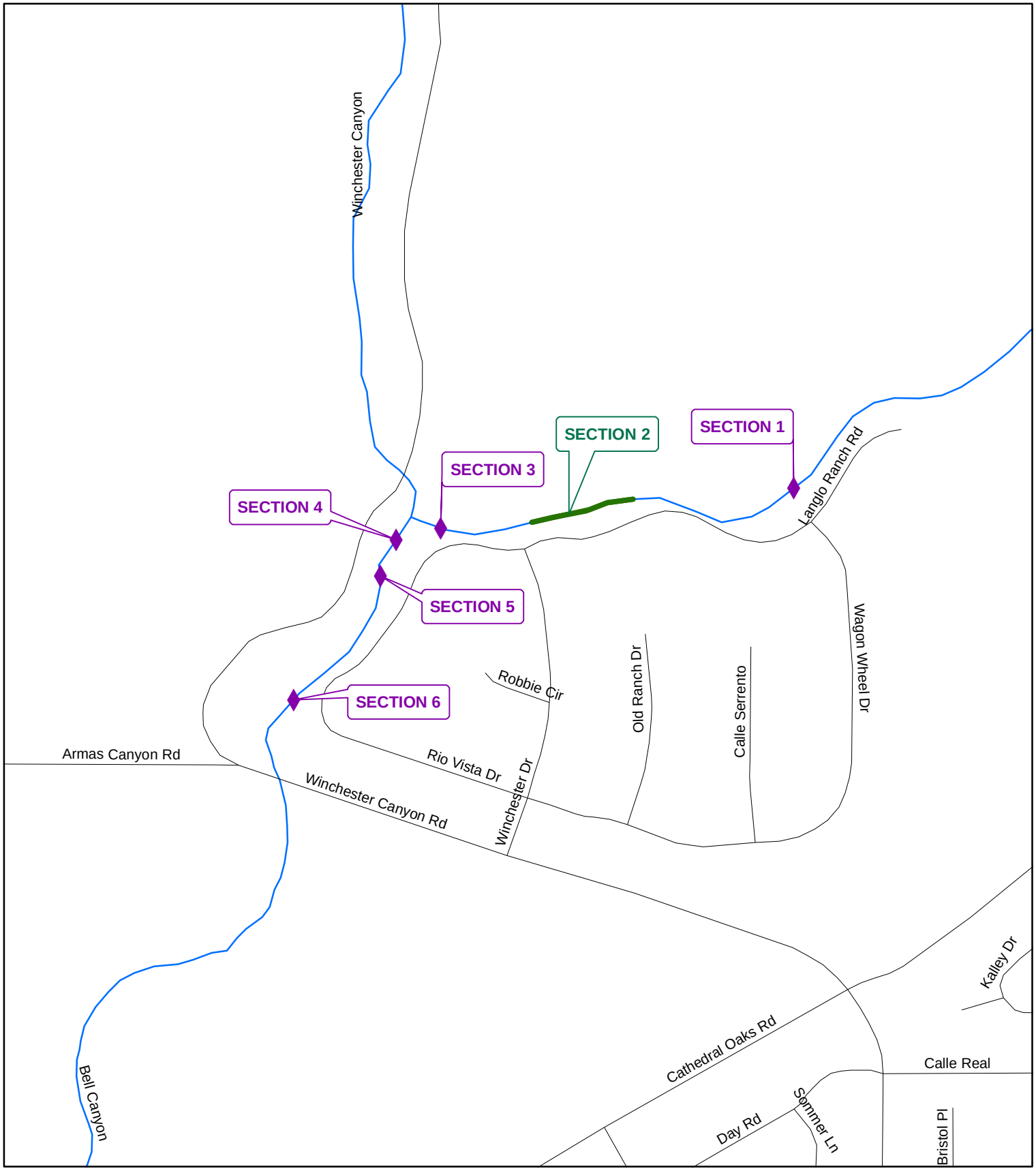
Impact Analysis and Mitigation Measures:
Listed below are the impacts and associated mitigation measures for each of the issue areas impacted by this project as identified in the Updated Program EIR.

Impacts:
Impacts identified for this project have been taken directly from the Impact Summary Table of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the impacts that apply to this project are included. Some of the impacts listed below are considered Class I (unavoidable significant) under the worst-case scenario assumptions of the Program EIR. However, due to the limited scope of this project and the current state of the creek this project would not be considered a worst-case scenario. Therefore the impacts identified below are considered Class II.

Mitigation Measures:
Mitigation measures are the Adopted Standard Practices which were derived from the Preferred Alternative section of the Updated Program EIR for Santa Barbara County Flood Control Routine Maintenance Activities (01-EIR-01). Only the mitigation measures that apply to the previously identified impacts are included.

Resource	**Impacts**	**Mitigation Measures***
Hydrology EIR sections 5.1.2, 5.1.3	H-A,	H-1,B-7
Water Quality EIR sections 5.2.2, 5.2.3	None	
Wetlands, Riparian Habitat, and Rare Plants EIR sections 5.3.2, 5.3.3	None	
Fish, Aquatic Species, and Wildlife EIR sections 5.4.2, 5.4.3	None	
Air Quality EIR sections 5.5.2, 5.5.3	None	
Noise EIR sections 5.6.2, 5.6.3	None	
Visual EIR sections 5.9.2, 5.9.3	None	

Project Specifics:
The project will take 1 day to complete.



Department of Public Works County of Santa Barbara

Winchester Creek

Legend

- Sites
- Lengths

N W E S

Feet

260 130 0 260

Coordinate System: State Plane California Zone V NAD 1983

Annual Routine Maintenance Plan
Fiscal Year 2014-2015

Santa Barbara County, California

Prepared By:
The Santa Barbara County Flood Control and Water Conservation District
Compiled by the Public Works Enterprise GIS in Mayl 2014.

Winchester Creek

Winchester Creek: Section 1

Winchester Creek: Section 2

Winchester Creek

Winchester Creek: Section 4

VASCULAR PLANT LIST
WINCHESTER CANYON CREEK

SCIENTIFIC NAME	COMMON NAME	ORIGIN*
EQUISETACEAE		
Equisetum telmateia	Giant Horsetail	N
ANACARIACEAE		
Toxicodendron diversilobum	Poison Oak	N
APIACEAE		
Conium maculatum	Poison Hemlock	I
APOCYNACEAE		
Vinca major	Periwinkle	I
ARALIACEAE		
Hedera helix	English Ivy	I
ASTERACEAE		
Artemisia dogulasiana	Mugwort	N
Baccharis pilularis	Coyote Bush	N
Carduus pycnocephalus	Italian Thistle	I
Picris echioides	Ox Tongue	I
Senecio mikanioides	German Ivy	I
Venegasia carpesioides	Canyon Sunflower	N
Xanthium strumarium	Cocklebur	I
BRASSICACEAE		
Brassica nigra	Black Mustard	N
Raphanus sativus	Wild Radish	N
CAPRIFOLICACEAE		
Sambucus mexicana	Elderberry	N
CHENOPODIACEAE		
Chenopodium murale	Nettle-Leaved Goosefoot	I
CONVOLVULACEAE		
Calystegia macrostegia ssp. cyclostegia	Morning-Glory	I

CYPERACEAE		
Cyperus alternifolius	Umbrella Plant	I
EUPHORBIACEAE		
Ricinus communis	Castor Bean	I
FAGACEAE		
Quercus agrifolia	Coast Live Oak	N
GROSSULARIACEAE		
Ribes amarum	Bitter Gooseberry	N
HYDROPHYLLACEAE		
Phacelia ramossissima	Branching Phacelia	N
Pholistoma auritum	Fiesta Flower	N
LAURACEAE		
Umbellularia californica	California Bay	N
MYOPORUM		
Myoporum laetum	Myoporum	I
OXALIDACEAE		
Oxalis pes-caprae	Sour Grass	I
PLANTAGINACEAE		
Plantago major	Common Plantain	I
PLATANACEAE		
Platanus racemosa	Western Sycamore	N
POACEAE		
Arundo donax	Giant Reed	I
POLYGONACEAE		
Rumex conglomeratus	Green Dock	I
Rumex crispus	Curly Dock	I
RANUNCULACEAE		
Clematis ligusticifolia	Creek Clematis	N
ROSACEAE		
Rubus ursinus	California Blackberry	N

SALICACEAE		
Salix laevigata	Red Willow	N
Saliz lasiolepis	Arroyo Willow	N
SCROPHULARIACEAE		
Scrophularia californica	California Figwort	N
SOLANACEAE		
Nicotiana glauca	Tobacco Tree	I
Solanum douglasii	Douglas Nightshade	N
TROPAEOLACEAE		
Tropaeolum majus	Garden Nasturtium	I
TYPHACEAE		
Typha sp.	Cattail	N
URTICACEAE		
Urtica holosericea	Giant Nettle	N

* I = Introduced
N = Native

FINDINGS

1.0 CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) FINDINGS

1.1 CONSIDERATION OF THE ADDENDA AND FULL DISCLOSURE

The Board of Directors has considered the Addenda in the 2014/2015 Annual Routine Maintenance Plan prepared for the Santa Barbara County Flood Control District, together with the previously certified Program EIR (01-EIR-01) prepared for the Santa Barbara County Flood Control's Updated Routine Maintenance Program. The Addenda reflect the independent judgment of the Board of Directors and have been completed in compliance with CEQA. The Addenda, together with the prior PEIR are adequate for this proposal. On the basis of the whole record, including the Addenda, the previously certified CEQA document, and any public comments received, the Board of Directors finds that the projects described in the 2014/2015 Annual Routine Maintenance Plan Addenda will not create any new significant effects or a substantial increase in the severity of previously identified significant effects on the environment. Therefore, since there are no substantial changes proposed in the project which will require major revisions to the Updated Routine Maintenance PEIR, no substantial changes have occurred with respect to the circumstances under which the project is undertaken, and there is no new information of substantial importance, no subsequent environmental review shall be prepared according to CEQA Guidelines Sections 15162 and 15168 (c)(2).

1.2 LOCATION OF DOCUMENTS

The documents and other materials which constitute the record of proceedings upon which this decision is based are in the custody of the Santa Barbara County Flood Control District located at 130 E. Victoria Street, Suite 200, Santa Barbara, CA 93101.

1.3 ENVIRONMENTAL REPORTING AND MONITORING PROGRAM

Public Resources Code Section 21081.6 and CEQA Guidelines Section 15091(d) require the District to adopt a reporting and monitoring program for the project and conditions of the project adopted to mitigate or avoid significant effects on the environment. The approved project descriptions, mitigation measures, with their corresponding permit monitoring requirements, are hereby adopted as the reporting and monitoring program for these projects. The District will provide the monitoring and reporting to ensure compliance during project implementation.

REVEGETATION PLAN FOR
SANTA BARBARA COUNTY FLOOD CONTOL DISTRICT
MAINTENANCE PROGRAM

The purpose of this plan it to outline the Santa Barbara County Flood Control and Water Conservation District's (District) plan for designing, implementing, and monitoring the restoration associated with the Annual Routine Maintenance Plan. The District's maintenance practices often require mitigation in the form of restoration. As a result, the District has gained a great deal of revegetation experience over the past 10 years and has planted more than one hundred restoration sites along creek corridors throughout Santa Barbara County.

This Plan addresses seven phases of the revegetation process: 1) Identification of native plants and potential revegetation sites, 2) Use of bio-technical approaches to bank stabilization, 3) Determination of appropriate plant quantities, 4) Plant collection and propagation, 5) Revegetation of the riparian corridor, 6) Maintenance of restoration sites, and 7) Post-project monitoring.

Identification of Native Plants and Revegetation Sites

During annual creek inspections, District personnel determine maintenance needs and associated restoration opportunities on individual creeks. In general, the District implements restoration in four different situations:

1. Denuded banks
2. Areas containing large amounts of non-native invasive species such as *Arundo donax*, castor bean, mustard or poison hemlock
3. Areas with an established healthy canopy but lacking a well-developed understory, or vice versa, due to the invasion of non-natives
4. Eroded banks that have been stabilized or rebuilt

Each creek addendum included in the Annual Routine Maintenance Plan will identify appropriate restoration that mitigates the impacts of the proposed maintenance project. The identified areas will be at densities recommended in this revegetation guide.

Bio-technical Bank Protection

Bio-technical approaches to bank stabilization use woody, readily sprouting plant species which are inserted into the banks or anchored in various other ways to create structure and stabilization by providing direct protection from erosive flows and quickly developing root systems and above ground growth to further stabilize the bank.

Bio-technical bank stabilization is not appropriate in all circumstances and is most suitable for creek restoration projects where the purpose is to reduce bank erosion, establish native vegetation on the bank, and not protect expensive structures or roads. The District will evaluate the erosion problems and flow conditions at potential revegetation sites to determine whether bio-technical techniques are appropriate and if so, the combination of techniques that would be best suited for the specific site characteristics. Common types of bio-technical bank protection are briefly described below. The District has consulted directly with Ms. Ann Riley for bio-technical design as

well as referring to her book, Restoring Streams in Cities. Some examples of bio-technical techniques are shown in Figures1 through 4.

1. Anchored Cuttings. This technique employs large numbers of cuttings arranged in layers or bundles, which are secured to creek banks and partially buried. They provide direct protection from erosive flows, prevent overbank erosion, promote sediment capture, and quickly develop roots.

2. Live Stakes. This is the simplest form of bio-technical slope protection in which live cuttings of willows, mulefat, or cottonwood trees are tamped into the banks to root, grow and form a thicket of new trees.

3. Live Fascines. Fascines are dormant branch cuttings of willows bound together into long cylindrical bundles that are placed in shallow trenches parallel to the bank and buried. The branches will sprout and create a mass of new woody plants.

4. Brush Mattress. A combination of live willow stakes, fascines and individual branch cuttings are interwoven and pinned to the bank with jute cord or wire held in place with stakes. The "mattress" is then covered with soil to facilitate sprouting of the willows.

5. Tree revetment. A row of downed trees are laid parallel to the base of the bank and anchored together, and to the bank with steel cable. The trees reduce flow velocities along the base of the slope, trap sediment, and provide substrate for plant establishment.

6. Coconut Fiber Roll. Cylindrical structures composed of coconut husk fibers bound together with twine woven from coconut material are placed parallel to the slope to reduce erosion and trap sediment.

7. Reed Rolls. Soil and rootballs of herbaceous plants are placed into burlap rolls and partially buried and staked along the bank.

8. Brush Layers. Cuttings of willow are placed into trenches cut into the bank so that the branches stick outward from the bank. Alternating layers of cuttings and soils are placed up the bank.

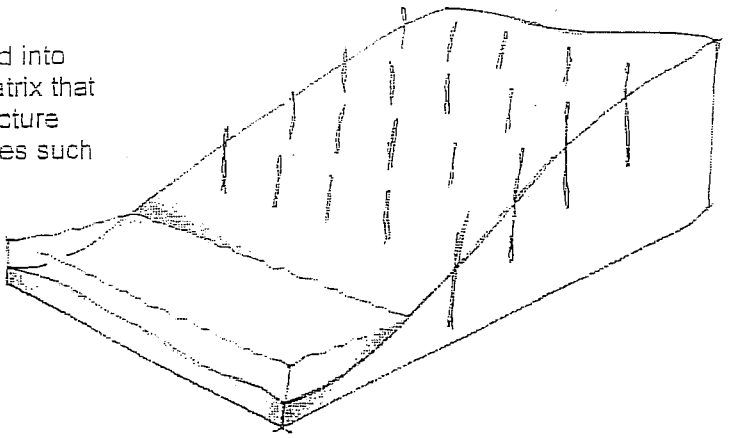
9. Geotextiles consist of plastic or biodegradable materials that hold soils in place to allow plants to become established through the mesh. There are many types of geotextiles available, designed for various flow conditions. For banks in low flow conditions geotextiles are placed across the face of a slope and cuttings or container plants are installed through the mesh. In more erosive conditions, geotextiles are placed between brush layers that are buried in trenches on the bank.

10. Joint Planting. Easily sprouting species such as willow or cottonwood are planted amongst ungrouted rip-rap or "A-jacks" at the base of eroded slopes.

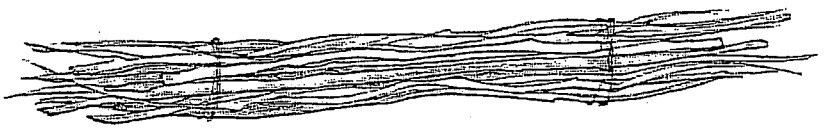
11. Live Cribwalls. Hollow box-like interlocking arrangements of timber are placed at the base of a slope and are filled with alternating layers of soil and live branch

Live Stakes

Live woody cuttings are pushed or tamped into the soil to root, grow and create a root matrix that stabilizes the soil. The above-ground structure that results reduces overland erosive forces such as raindrops or sheet flow across the site.



Willow Wattle (Fascine)



Live Fascines

Branch cuttings bound together in sausage-like bundles and placed in shallow trenches on slopes to reduce erosion and shallow sliding.

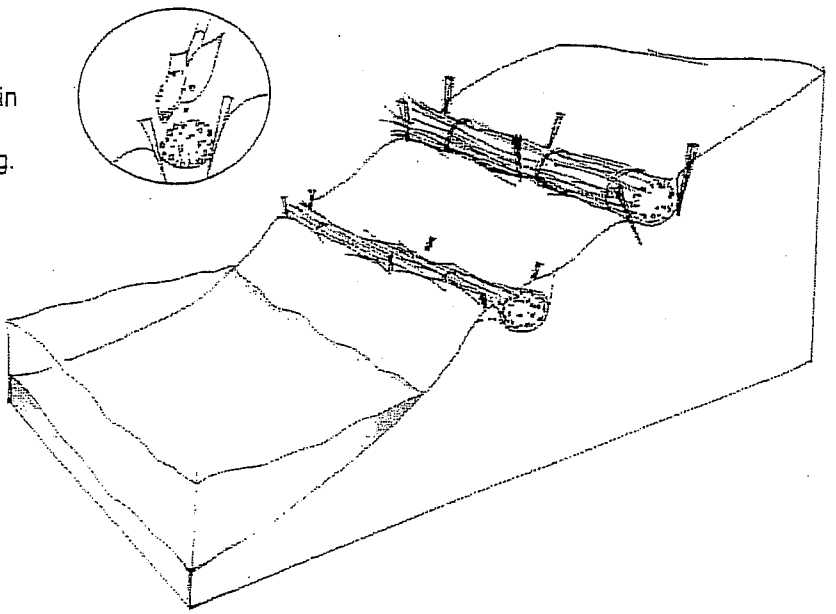
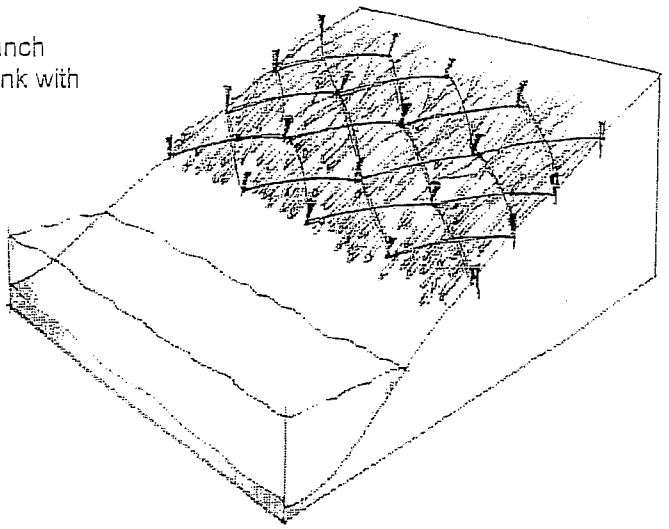


Figure 1. Examples of Bio-technical Techniques

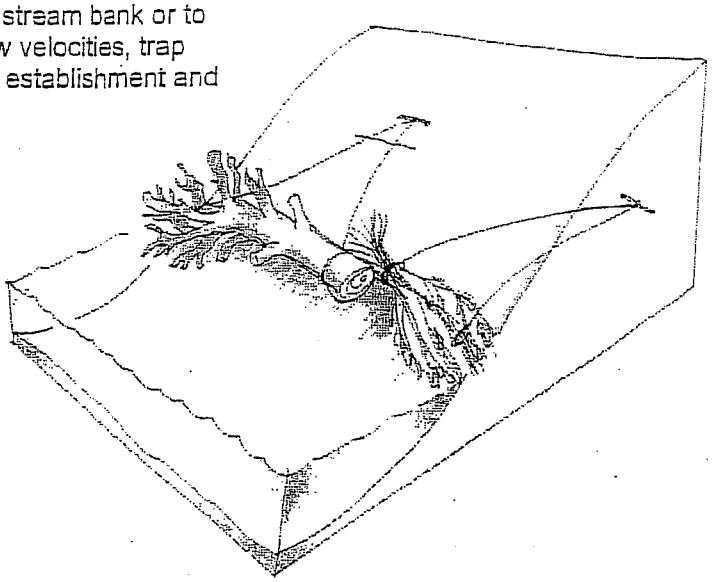
Brush Mattress

Live willow stakes, facines and individual branch cuttings are interwoven and pinned to the bank with jute cord or wire held in place with stakes.



Tree Revetment

A row of live or dead trees attached to the stream bank or to deadmen in the stream bank to reduce flow velocities, trap sediment and provide a substrate for plant establishment and erosion control.



Tree Revetment

A large root wad and stump is anchored within the stream bank to reduce flow velocities and provide structure and hiding places for aquatic species.

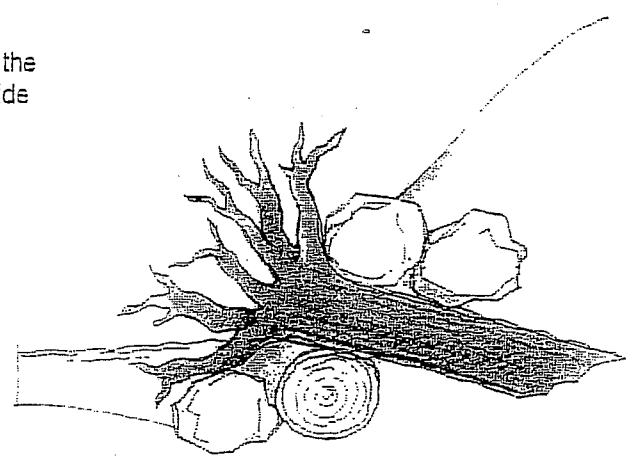
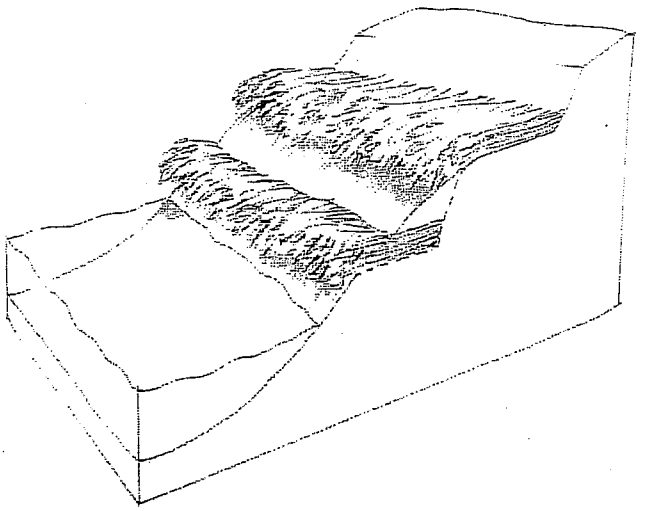


Figure 2. Examples of Bio-technical Techniques

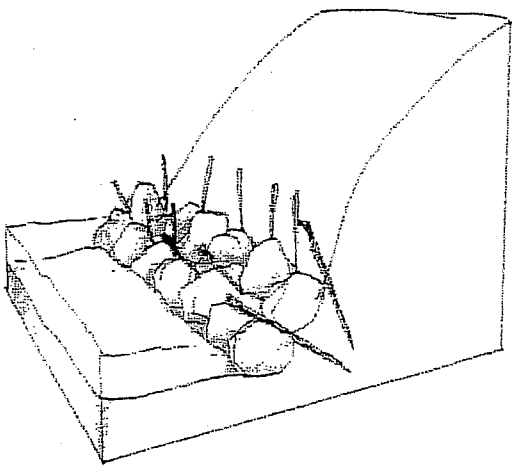
Brush Layering

Live cuttings of willow or cottonwood are placed into trenches cut into the bank so that branches stick outward from the bank. Brush layering provides live material that will root and go along with a structural component to reduce flow velocities along the bank.



Joint Planting Newly Installed

Live cuttings such as willow or cottonwood are planted among ungrouted rip-rap. Cuttings can also be placed horizontally in a trench below the rocks.



Joint Planting Three Years Later

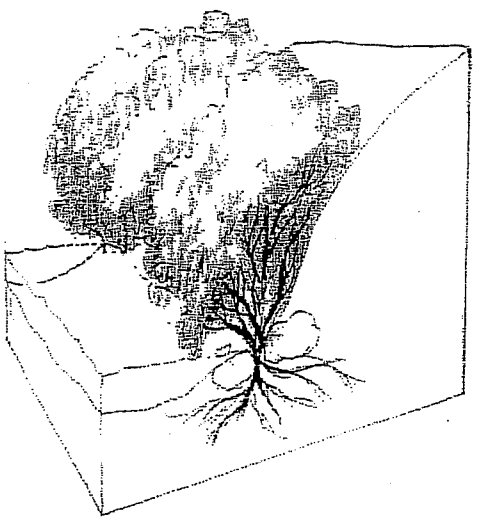
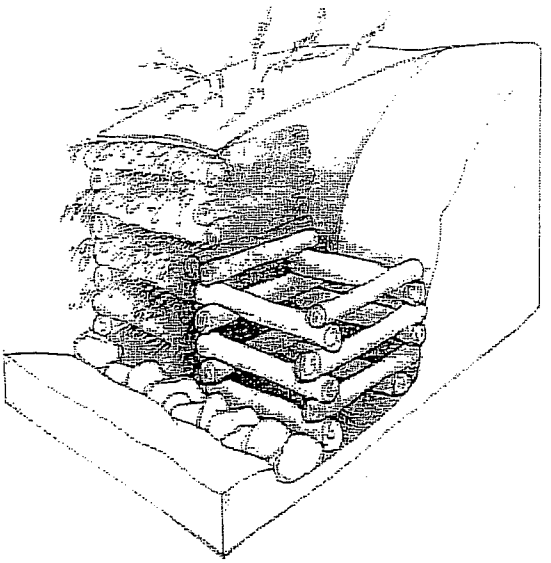


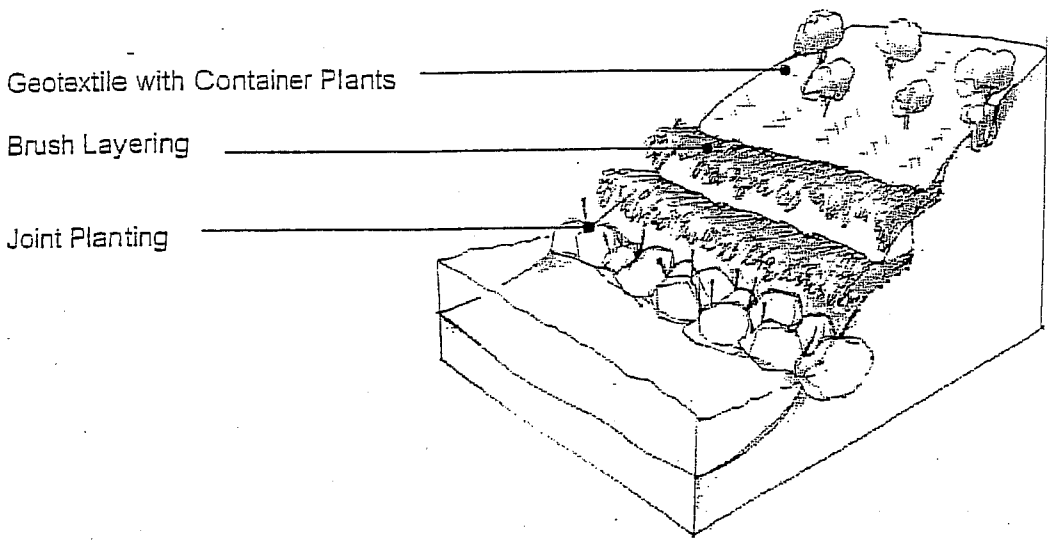
Figure 3. Examples of Bio-technical Techniques

Live Crib Wall

Hollow, box-like interlocking arrangements of logs or timber filled with alternative layers of soil material and live branch cuttings.



Combined Bio-Technical Bank Protection Techniques



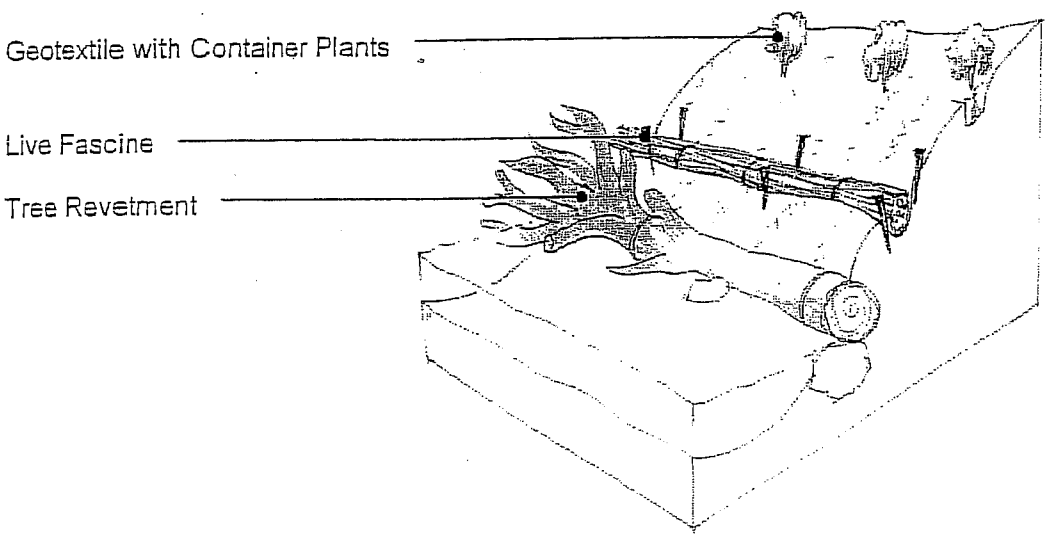


Figure 4. Examples of Bio-technical Techniques

cuttings. Live Cribwalls should be reserved for the particularly difficult projects in urban settings that require a substantial structural solution.

Determination of Appropriate Plant Quantities

After revegetation sites are identified the actual revegetation areas will be calculated. The District does not generally place understory species within three feet of the toe of the bank because even minor flows could remove these plants. Revegetation along the toe of the bank generally consists of willow or cottonwood cuttings or natural colonization.

Planting locations and densities will be determined by the District Biologist using guidance from Martha Blane, a consulting botanist, who provided planting density recommendations that the District has referred to since 1992. Most often, the District Biologist uses Ms. Blane's recommendations as a starting point for figuring plant numbers and then adjusts the numbers as appropriate for each site. It is the District's goal to increase species diversity at each of the revegetation sites as feasible depending upon site characteristics, species occurring in the watershed, and plant availability. Once a plant mix is determined, plant quantities are calculated. The District always includes the possibility of at least 30% plant mortality when calculating final plant numbers for each site. Generally, the District chooses from the following species for restoration projects, although other species are sometimes used depending upon site location:

Salix sp.	Willow
Platanus racemosa	Sycamore
Populus trichocarpa	Black cottonwood
Sambucus mexicana	Elderberry
Quercus agrifolia	Coast live oak
Umbellularia californica	California bay laurel
Baccharis salicifolia	Mulefat
Artemesia douglasiana	Mugwort
Clematis ligusticifolia	Creek Clematis
Elymus condensatus	Giant ryegrass
Hereromeles arbutifolia	Toyon
Lonicera suspicata	Santa Barbara honeysuckle
Rhamnus californica	Coffeeberry
Ribes amarum	Gooseberry
Ribes speciosum	Fushia flowered gooseberry
Rosa californica	California rose
Rubus ursinus	Blackberry

PLANTING DENSITY RECOMMENDATIONS

SPECIES	# PER ACRE	SPACING
Salix sp.	1,000	6' – 7'
Platanus racemosa	50	30'
Quercus agrifolia	50	30'
Populus sp.	70	25'
Alnus rhombifolia	70	25'
Umbellularia californica	70	25'
Sambucus mexicana	200	15'
Baccharis pilularis	200	15'
Rhus sp.	450	10'
Rosa californica	450	10'
Ribes sp.	450	10'
Heteromeles arbutifolia	450	10'
Rhamnus californica	450	10'
Lonicera subspicata	450	10'
Rubus ursinus	1740	5'
Clematis ligusticifolia	1740	5'
Artemesia douglasiana	1740	5'

Plant Collection and Propagation

When feasible, to maintain genetic integrity of the species in each creek, all material (saplings, cuttings and seeds) will be collected as close to the revegetation site as possible. Once the District identifies the creeks needing maintenance for any given year and the associated revegetation requirements, the District biologist will coordinate the plant material collecting and propagation of the species and quantities needed to fulfill the mitigation requirements for that year. Seeds will be collected year round depending upon the species. Many species of trees, shrubs and vines can also be grown from cuttings. In many cases cuttings can be collected year round and grown in a nursery setting to produce a 1-gallon size plant that is ready to be planted by the winter or early spring. The District will work with a nursery to propagate the needed plants for each given maintenance year. For the past several years, the District has used the Tree of Life Nursery, in San Juan Capistrano, to grow plants for several District projects. The District also uses local plant growers as feasible. The District most often uses 1-gallon size plants but occasionally will use 5-gallon size plants. Occasionally, the District will use willow cuttings planted directly at the revegetation site depending upon water availability and site conditions. The District has had the greatest success with container plants as opposed to cuttings planted directly at the site.

Revegetation of the Riparian Corridor

Beginning in the winter and continuing into spring, the District Biologist will coordinate the installation of the plants at the revegetation sites identified in the Annual Routine Maintenance Plan. The District hires a landscaping company with experience in native plant restoration to plant, water and maintain most ofl the revegetation sites.

The District Biologist identifies the species and plant numbers for each revegetation site (allowing for a 30% mortality) and places the color-coded flags to identify where each plant will be installed. The plants are planted at irregular intervals or appropriate groupings to simulate the appearance of a natural creek. Only as many plants that can be planted and watered in one day are delivered to the site.

Actual plantings will follow the digging of holes as rapidly as possible so that the excavated hole does not dry out. The excavated soil will be used as the backfill and will be tamped firmly to eliminate all voids and obtain contact between the root systems and native soils. Excess soil will be used to form a basin around the plant to hold either rainwater or watered delivered to the plant by a drip or hand watering system. The District will often include a slow release fertilizer tablet and some soil amendment in the planting hole at the time of plant installation, depending upon site conditions.

The District will sometimes use unrooted cuttings of easy to root natives such as Salix sp. or Populus sp. In particular, bio-technical techniques utilize cuttings in several planting methods. Standard live stakes are generally from ¾" to 1 ½ " in diameter, approximately 2 to 3 feet long and generally straight. Cuttings are prepared the day they are to be planted although a one to two day delay can be tolerated if the cuttings are kept wet. When the cuttings are prepared, the top of each cutting is cut square with a leaf bud and the base of each cutting is cut below a leaf bud at an approximate 45-degree angle. All the leaves and branches are trimmed off flush with the stem. The cuttings are either pushed into ground that is soft or into holes that have been excavated and backfilled with loose soil that is tamped firmly against the stem to eliminate any air pockets.

Maintenance of Restoration Sites

All newly planted plants are watered immediately. In most cases, the District hand-waters the revegetation sites using a water truck fitted with a hose. Occasionally, a site will be near a water source and a drip system can be installed. In yet other instances, a large site will have a drip system installed and will be watered from the water truck. In all cases, newly installed plants are watered with 5 gallons of water once a week for approximately the first year after installation, which usually takes the site into the next rainy season. If the rainy season is particularly dry or the storms are far apart, watering continues uninterrupted. The sites are evaluated the following spring and the watering schedule is adjusted to meet the plant needs. Most commonly, the sites are watered every other week for the second year. Watering amounts differ at each site depending upon the plant needs. Occasionally, instead of a bi-weekly watering scheme, the District Biologist will direct the contractor to deep water certain plants on a monthly basis to promote deep root growth. Ultimately, the goal is to have each revegetation site self-sustaining once the second rainy season is met.

In addition to watering the restoration sites, the revegetation contractor is responsible for weeding the sites. Each site is unique; however, all sites have a 3-foot diameter weed free zone maintained around each plant for at least the first year following installation. This eliminates the competition for water and sunlight. Beyond the 3-foot weed free zone, the site is allowed to have some weeds such as grasses or other low growing herbaceous species that help reduce erosion. The more noxious weeds such as castor bean, giant reed, poison hemlock, fennel, wild radish, and mustard are removed from the

site repeatedly until the restoration plants are established and will not be out competed by the weeds. Noxious weeds can be selectively sprayed with Rodeo or Roundup herbicides but are most commonly removed by hand. Herbicides will be administered under the supervision of a Pest Control Advisor and the applicator will use care in avoiding natives.

Post-project Monitoring

Post-project monitoring will consist of determining water and weeding regimes, identifying areas of high mortality, and scheduling subsequent revegetation for those areas experiencing a greater than 30% mortality.

The revegetation sites will be checked at least once every three months to monitor the mortality rates and weed growth. As previously mentioned, the sites will be watered using different methods and schedules depending upon site conditions and age of the plants. The District Biologist will monitor the health and establishment of the plants and determine the ongoing watering and weeding needs at each site. Photos will be taken of each site at least once a year until they are established and do not need any further weeding, watering or replanting.

If a site experiences more than 30% mortality, additional plants will be installed during the next maintenance planting season and the watering and weeding schedule will be adjusted to accommodate the new, smaller plants.

References

Riley, Ann. 1998. Restoring Streams in Cities: a guide for planners, policymakers, and citizens.

URS Corporation. 2000. Creek Inventory and Assessment Study, City of Santa Barbara

IMPACTS AND MITIGATION MEASURES*

ALPHABETICAL LIST OF DEFINITIONS

A

Impacts

AQ = Air Quality

AQ-A. Equipment Emissions. Temporary emissions of reactive organic compounds (ROC), particulate matter, and NOx associated with gasoline and diesel-powered heavy-duty maintenance equipment, as well as employee vehicles and trucks transporting excavated materials to and from maintenance sites. (Class II Impact)

AQ-B. Fugitive Dust Emissions. Temporary emissions of fugitive dust (particulate matter) due to earth moving activities during maintenance, including channel shaping, desilting, bank stabilization by placing fill or grading banks, bank protection construction or repair, pilot channel construction, and access ramp construction. (Class II Impact)

Mitigation Measures

A-1 – Reduce Emissions. Implement the following Santa Barbara County APCD-approved measures for each piece of heavy-duty diesel construction equipment to minimize NO_x emissions: (1) The engine size of construction equipment shall be the minimum practical size; (2) Heavy-duty diesel-powered construction equipment manufactured after 1996 (with federally mandated clean diesel engines) should be utilized wherever feasible; (3) The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest number is operating at any one time; (4) Construction equipment operating onsite shall be equipped with two to four degree engine timing retard or precombustion chamber engines; (5) Catalytic converters shall be installed on gasoline-powered equipment, if feasible; (6) Diesel catalytic converters shall be installed, if available; and (7) Diesel powered equipment should be replaced by electrical equipment, whenever feasible.

A-2 – Reduce Fugitive Dust. Implement the following Santa Barbara County APCD-approved measures to minimize fugitive dust emissions: (1) After clearing, grading, earth moving or excavation is complete, the disturbed area must be treated with watering, or revegetating, or by spreading soil binders until the area is paved or otherwise developed so that dust generation will not occur; (2) During construction, use water trucks or sprinkler systems to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this shall include wetting down such areas in the late morning and after work is completed for the day. Increased watering frequency shall be required whenever the wind speed exceeds 15 mph. Reclaimed water shall be

* Extracted from the Final Program Environmental Impact Report, Updated Routine Maintenance Program, November 2001

used whenever possible; (3) Minimize the amount of disturbed area and reduce on site vehicle speeds to 15 miles per hour or less; (4) Gravel pads should be installed at all access points to prevent tracking of mud onto public roads; (5) If importation, exportation, and stockpiling of fill material is involved, soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation; (6) Trucks transporting fill material to and from the site shall be tarped; and (6) Dust control requirements shall be shown on all grading plans.

B

Mitigation Measures

B-1 - Compensatory Habitat Mitigation. The District shall provide compensatory habitat mitigation for the removal of riparian and wetland habitat associated with brushing, herbicide spraying, channel shaping, bank stabilization by placing fill or grading banks, pilot channel construction, bank protection installation, access ramp construction, and channel desilting. The mitigation shall be required for all vegetated habitat, with the exception of areas dominated by aggressive, noxious non-native weeds (e.g., giant reed). The restoration treatment shall occur either on-site (i.e., along suitable portions of the drainage and its tributaries where the project is located) or off-site (Los Carneros Mitigation Bank) in accordance with the updated restoration plan described in the updated Program EIR, using a 1:1 acreage replacement ratio. A 2:1 ratio shall be used for impacts due to new grade stabilizers and non-vegetated bank protection, as described in the updated Program EIR. Prior to the use of the Los Carneros Mitigation Bank, the District shall consult with other organizations with expertise in habitat restoration (e.g., Wetlands Recovery Project) to determine if they have any knowledge of any on-site opportunities. Mitigation for specific affected areas shall only occur once during the next ten years of the maintenance program. That is, once habitat mitigation has been achieved for a portion of a drainage, no further mitigation is required for future maintenance of that reach or site over the next ten years regardless of the type of maintenance activity, provided the previous habitat mitigation has been successfully implemented, and the District continues to minimize habitat impacts to the extent feasible. After ten years, the habitat mitigation requirement shall begin again, regardless of previous habitat mitigation. Native trees with a diameter at breast height of 6 inches or more that are removed shall be replaced at a 10:1 ratio at the restoration site, independent of the replacement of habitat based on acreage. To the extent feasible, habitat restoration opportunities shall be sought on the tops of banks and landward of the creek that could provide a bio-filtering benefit for overland stormwater runoff. In addition, the District will seek opportunities to use regionally rare plants in the restoration plans, as feasible.

B-2 – Minimize Vegetation Removal from Channel Bottom. The District shall minimize vegetation removal from the channel bottom to the least amount necessary to achieve the specific maintenance objectives for the reach (i.e., removing obstructive vegetation or silt-trapping vegetation). Brushing and herbicide application for vegetation control on the channel bottom shall be conducted in a non-continuous, mosaic-like manner, to the extent feasible, allowing small patches of in-channel native vegetation to persist.

B-3 - Construction Monitoring During Maintenance Activities. The District Biologist shall monitor maintenance activities daily to ensure that the appropriate methods and limits are used. Results of the monitoring shall be documented in the annual post-maintenance report. These activities include brushing, herbicide application, channel shaping, desilting, bank stabilization by placing fill or grading banks, bank protection construction or repair, grade stabilizer construction or repair, pilot channel construction, and access ramp construction.

B-4 - Restore Temporarily Disturbed Areas. The District shall restore channel banks containing riparian or wetland vegetation that are temporarily disturbed by maintenance or construction activities associated with the following: channel shaping, placement of bank protection, ramp construction, and repair or construction of bank protection and grade stabilizers. Restoration objectives, methods, plant species, maintenance, and monitoring shall follow the guidelines in the updated restoration plan described in the Program EIR. The restoration of channel bed habitats shall only occur if it would not conflict with the maintenance needs in the affected reach.

B-5 – Pre-Construction Biological Surveys and Avoidance Measures. A District biologist shall inspect all maintenance areas in creeks and basins during the annual spring field assessments (April and May) to determine if any sensitive plants, fish, or wildlife species are present, or habitats for these species are present. If the species are present, the District shall modify maintenance activities to avoid removal or substantial disturbance of the key habitat areas or features. Avoidance and impact minimization measures shall be described in the Annual Plan for each maintenance project. If a rare plant could be affected, the District shall relocate the plant by cultivation or seeding methods to a suitable nearby site. If a sensitive fish or wildlife species will be present at a maintenance site during the work period, the District shall schedule the work to avoid the species, if possible. If avoidance is not feasible, the District shall attempt to relocate the species or population with approval from the California Department of Fish and Game, US Fish and Wildlife Service or National Marine Fisheries Service, as appropriate. This measure applies to all currently known sensitive species that occur in maintained drainages and basins, as well as species that are determined to be sensitive in the future. Endangered species experts with handling permits shall be consulted during relocation efforts to provide additional assurances that relocation is effective. Such consultation shall include assistance in field efforts, as warranted.

B-6 – Construction Monitoring for Sensitive Species. The District Biologist shall monitor, on a daily basis, earth and vegetation disturbing maintenance activities located at and adjacent to locations where sensitive species are known to occur. The need for monitoring and the areas to be monitored shall be determined during the annual field assessment in the spring. The objective of the monitoring is to ensure that key habitat features or species locations are avoided.

B-7 – Post Maintenance Channel Bed Treatment. The District shall roughen the channel bed after channel desilting maintenance to create microtopography that will encourage re-establishment of aquatic habitats over time. Pools and riffles shall be recreated in the work area if they were removed during maintenance, to the extent feasible. Modifications of the creek bed shall be consistent with geomorphological considerations identified through mitigation measure H-1.

C

Impacts

CR=Cultural Resources

CR-A. Disturb Cultural Resources. There is a remote potential for certain earth-disturbing maintenance activities to disturb buried prehistoric and historic archeological sites and isolated artifacts. This impact would occur only on undisturbed upland sites outside watercourse channels and basins due to incidental excavation grading banks for stabilization, installing or repairing bank protection, and constructing access ramps. (Class II Impact).

Mitigation Measures

C-1 - Unexpected Archeological Finds. If cultural materials are unexpectedly uncovered during maintenance activities, the District shall immediately consult with a qualified archeologist who shall inspect the material and coordinate with the District to halt or redirect earth-disturbing maintenance work until the significance of the material is determined, and the location is cleared for further work.

C–2 – Archeological Surveys. The District shall conduct an archeological field investigation in maintenance areas that may be disturbed by excavation activities associated with routine maintenance when such work occurs in upland areas outside watercourses and basins that: (1) appear to represent undisturbed ground not subject to previous excavations or significant grading; and (2) contain known significant archeological sites. The investigation shall be conducted by a qualified cultural resource specialist.

F

Impacts

FAW = Fish Aquatic Species and Wildlife

FAW-A. Displace Wildlife due to Vegetation Removal in the Channel Bottom. Removal and/or thinning of vegetation from channel bottom due to brushing, herbicide application, desilting, and channel shaping cause a temporary reduction in vigor and/or cover of successional riparian habitats and emergent wetlands. This same impact could occur due to clearing pilot channels and outlet works in debris basins, as well as removing sediments from basins. These actions could reduce foraging and loafing habitat for certain riparian and wetland dependent bird species. It can also reduce habitat heterogeneity for reptiles and small mammals, and degrade aquatic habitats by removing protective cover and increasing temperatures. While the long term functions and values of the habitat temporarily disturbed by maintenance would be replaced through the District's updated habitat restoration program, there will be a temporal impact to wildlife that cannot be fully mitigated. (Class I Impact)

FAW-B. Adverse Effects of Maintenance on Aquatic Habitat. Channel shaping, bank stabilization by placing fill or grading banks, sandbar removal, excessive removal and/or thinning of in-channel vegetation, and pilot channel construction could reduce vegetation cover, pools and gravel beds, organic input from overhanging vegetation supporting aquatic productivity, and instream cover and debris providing micro-habitat. In addition, fish and aquatic organisms could be directly displaced. These impacts are temporary and reversible. (Class I Impact)

FAW-C. Displace Wildlife for Hard Bank Protection. Placement of "hard" bank stabilization without native vegetation would permanently reduce the amount of existing and future bank riparian vegetation. This action could also adversely affect nesting and foraging habitat for riparian-dependent bird species, as well as cover for riparian amphibians, reptiles, and mammals. (Class II Impact)

FAW-D. Displace Wildlife for New Access Ramps. Construction or maintenance of access ramps could temporarily reduce the amount of riparian habitat. This action could adversely affect nesting, cover, and foraging habitat for riparian-dependent bird species, as well as cover for riparian amphibians, reptiles, and mammals. (Class II Impact)

FAW-E. Displace or Remove Sensitive Fish and Wildlife. Disturbance of channel banks and bed from heavy equipment during channel shaping, placement of bank protection, channel shaping, desilting operations, ramp construction, and repair of bank protection and grade stabilizers could remove and displace sensitive fish and wildlife species, depending upon location and time of year. This same impact could occur due to clearing pilot channels and outlet works in debris basins, as well as removing sediments from basins. Species that could be directly affected include the southern steelhead trout, arroyo chub, southwestern pond turtle, two-striped garter snake, San Diego horned lizard, California red-legged frog, silvery legless lizard, and tri-colored blackbird. Species that could be indirectly affected due to habitat modification include southwestern willow flycatcher, least Bell's vireo, yellow warbler, yellow breasted chat, purple martin, warbling vireo, Wilson's warbler, Swainson's thrush, blue grosbeak. (Class II Impact)

FAW-F. Fish and Wildlife Exposure to Herbicide The analyses presented in Section 5.2.3 indicated that the application of herbicides to control emerging vegetation on the channel bed is not expected to introduce substantial amounts of herbicide to the water in the drainage where fish, aquatic organisms, and humans could be exposed, because of reasons: (1) no herbicide is directly applied to open water; (2) overspray is minimized by precise spraying by trained field crews; (3) most spraying occurs in the fall when flows are absent in drainages; (4) glyphosate is strongly absorbed by soil particles and not easily mobilized once it has contact with soils or wet sediments; and (5) residual herbicide in soils or sediments are subject to microbial degradation. However, there is a potential, albeit very remote, that adverse herbicide concentrations may be temporarily present in aquatic areas immediately after spraying due to excessive or poor application. (Class II Impact)

FAW-G. Fish Passage Impacts from New Grade Stabilizers .New grade stabilizers may be installed to stabilize the bed of a channel that is being lowered due to headcutting. A new or reconstructed stabilizer could create a vertical drop, which may become a fish passage impediment or barrier over time, depending on the height of the vertical drop. (Class II Impact)

FAW-H. Increased Water Temperatures in Aquatic Habitats. Brushing and spraying cause the removal of vegetation in the channel bed which could increase the temperature of water present due to greater solar radiation. The higher temperatures could adversely affect the quality of aquatic habitats in the channel bottom, if present. (Class III Impact)

FAW-I. Effects of Sediments and Turbidity on Aquatic Organisms. The following activities could cause a temporary increase in sediment and turbidity levels: brushing, mowing, and spraying channel bed vegetation; channel shaping, desilting, bank stabilization by placing fill or grading banks, pilot channel construction, equipment movement on the channel bed, and pilot channel clearing in basins. The higher levels could adversely affect fish and aquatic organisms present in any aquatic habitats. (Class III Impact)

FAW-J. Impact of Accidental Releases on Aquatic Organisms. There is a very low potential for the accidental discharge of fuel, oil, and herbicides to a channel or debris basin during routine maintenance. Such spills may affect fish and aquatic organisms, if present. (Class III Impact)

Mitigation Measures

F-1 – Assist Others with Fish Passage Impediment Removal Projects. Subject to available resources, the District shall provide technical and regulatory assistance to other parties (agencies and non-governmental organizations) seeking to remove or modify fish passage impediments along reaches maintained by the District. Assistance shall include review and recommendation concerning project plans; and identifying a CEQA lead agency and assisting in the preparation of a CEQA document for the proposed project; and general assistance in acquiring access easements and permits.

H

Impacts

H = Hydrology

H-A. Preventing a Build up of Channel Resistance May Increase Velocities. Channel resistance is reduced by brushing, mowing, spraying, and discing to remove obstructive and/or silt-trapping vegetation; and by removing storm debris and obstructive sandbars. These actions can result in higher velocities, which in turn could theoretically cause minor and localized channel degradation that contributes to bank erosion in the affected reach. This impact is expected to occur very infrequently, if at all, and would only have localized hydraulic impacts. To ensure that this impact is avoided under the current program, the District would conducts an “engineering analysis” (Mitigation Measure H-1) to determine the need, nature, and extent of maintenance activities each year along maintained drainages, and give full consideration of incidental adverse hydraulic effects associated with channel maintenance. (Class II Impact)

H-B. Reduced Bank Stability due to Giant Reed Removal. The District may periodically remove giant reed plants from stream banks for habitat restoration purposes if the

stands are large and appear to represent a significant threat to the local riparian vegetation. Removal of large stands could destabilize banks and result in increased local bank erosion and downstream sedimentation. Hydraulic impacts would be localized. In addition, large stands of giant reed on banks that are vulnerable to erosion are few in number. (Class II Impact)

H-C. Unintended Bank Erosion from Hard Bank Protection. Installation of hard bank protection could cause local bank erosion and channel bed degradation on the opposite banks due to increased flow velocities. This impact is expected to occur rarely, if at all, and would only have localized hydraulic impacts. (Class II Impact)

H-D. Effect of Equipment on Channel Bed. For large maintenance projects, the movement of equipment in the channel bed can disrupt any armored layer on the channel bed and loosen sediments. It may also reduce the channel topographic diversity, which imparts a certain resistance to flow, thereby increasing flow velocities and sediment transport capacity. (Class II Impact)

H-E. Impact of Removing Channel Obstructions (Excessive Desilting). Excessive desilting could result in lowering the channel bed below its previous invert elevation, which could contribute to oversteepened banks that are prone to failure. This impact is expected to occur very infrequently, if at all, and would only have localized hydraulic impacts. (Class III Impact)

H-F. Altered Channel Sinuosity and Slope. Creation of a straight pilot channel could theoretically reduce sinuosity, increase channel slope, and cause channel bed degradation. This impact is expected to occur very infrequently, if at all, and would only have localized hydraulic impacts. (Class III Impact)

H-G. New Grade Stabilizer. The District may occasionally need to stabilize the bed of a channel that is being degraded. A new grade stabilizer will prevent channel bed degradation, which in turn, leads to oversteepened banks. However, it could create a scour pool beneath the grade stabilizer and cause a need for repeated repairs. (Class III Impact)

H-H. Steep or Exposed Access Ramps. Creating an overly steep and unstabilized access ramp can cause increased local bank erosion. (Class III Impact)

H-I. Impacts of Reduced Sediments. Periodic removal of the sediments from the basins contributes to the reduction in overall sediment supply to the downstream reaches of the drainages. Reduced sediment supply can result in channel degradation over time. (Class III Impact)

Mitigation Measures

H-1 - Maintenance Need Analysis. The District shall evaluate relevant hydraulic factors when determining the need, type, and extent of channel maintenance for non-exempt watercourses where natural geomorphic processes are largely intact. Key factors that shall be included in the evaluation include: (1) hydraulic benefits of maintaining the bankful channel (if present) dimensions, natural sinuosity, and natural channel bed roughness; and (2) potential adverse hydraulic effects of excessive brushing, channel shaping, equipment activity in the channel, and bank hardening. Hydraulic principles of

creating and maintaining channel stability and sediment transport equilibrium shall be applied, if applicable. The analyses and determinations relevant to this issue shall be documented in the Annual Plan. Clear maintenance objectives with attainable benefits for the protection of life, property, and habitat shall be established for each project and presented in the Annual Plan. A primary objective of this measure is to minimize maintenance activities to the extent feasible, consistent with District's program objectives.

H-2 - Extent of Desilting. The depth of channel desilting shall not cause bank undercutting or channel headcutting. The District shall make a field determination of the maximum depth of desilting based on channel capacity objectives, an evaluation of channel invert elevation and slope through the project reach, and a consideration of the maximum allowable bank length and slope that would cause bank instability. To the extent feasible, banks and bank vegetation shall not be disturbed or reconstructed during desilting to avoid destabilizing the banks.

H-3 - Post Desilting Restoration. After desilting, the District shall restore the channel geometry at the desilting site to a more natural state, as feasible, based on the channel shape, dimension, and slope upstream and downstream of the project site. The channel geometry shall be designed to enhance post-maintenance sediment transport through the desilted reach. If banks are disturbed during desilting, they should be set at a slope that matches existing undisturbed banks and stabilized, to the extent feasible and taking into account available right of way.

H-4 - Pilot Channel Construction. If it is necessary to construct a pilot channel or substantially modify an existing low flow channel, the District shall attempt to maintain the low flow channel length, width, slope, substrate, and sinuosity that are characteristic of the project reach, as determined by field observations of undisturbed low flow channels upstream and downstream of the project reach.

H-5 - Bank Protection Methods. The construction of bank protection shall be limited to situations where bank stabilization is necessary because the banks are vulnerable to continued erosion which could cause a threat to critical public infrastructure, valuable habitat, or otherwise in the public interest and it has been determined that natural slope settling would not achieve the necessary stability. The District shall evaluate different types of bank protection methods, then select one that is most suitable based on the following order of decreasing preference: (1) vegetation stabilization only; (2) bio-technical methods in which vegetation is incorporated with natural type structural components such as woody branches, natural rock, logs, natural fibers and geotextiles, and biodegradable temporary geotextiles; (3) ungrouted rip rap with vegetation; (4) pipe and wire revetment while retaining vegetation; (5) grouted rip rap; and (6) concrete sackwalls, gabion walls, soil cement, and gunite. Only native plants common to the region shall be used in all bank protection projects. Hard bank protection such as grouted and ungrouted rip-rap, pipe and wire revetment, gunite, concrete sackwalls, gabion walls, and soil cement shall only be used if the District has determined that the above methods will not achieve the desired results, are not cost effective, are logistically or technically infeasible, and/or would create greater incidental environmental impacts. Incorporation of plant material into bank protection, and maintenance and monitoring of such plantings, shall follow the guidelines in the updated Routine Maintenance Program Restoration Plan. The installation of new bank protection shall not adversely affect the stability of nearby banks. Bank protection projects that exceed 150 linear feet at any one

single location would be considered a separate project, not included in the routine maintenance program.

H-6 – Removal of Giant Reed from Banks. If the District will remove a stand of mature giant reed from the bank for habitat restoration purposes, the following measures shall be implemented to ensure that the bank will remain stable after treatment. To the extent feasible, the least invasive method of giant reed removal shall be used, and the removal of native vegetation from the banks shall be minimized. The District shall stabilize the banks after giant reed removal using biotechnical methods that include native plants. This measure shall also apply if similarly large stands of other non-native plants are removed from banks.

H-7 – New or Repaired Grade Stabilizers. Prior to installing a new grade stabilizer to control channel bed degradation, the District shall conduct the hydraulic analysis described in H-1. In addition, the District shall first consider stabilizer designs that use native ungrouted rock. The new structure shall not create a passage impediment for fish. This measure also applies to the repair or reconstruction of existing stabilizers. Detailed plans for new and repaired grade stabilizers shall be presented in Annual Plans, including a consideration of alternative designs and justification for the selected design.

H-8 – Access Ramps. The distance between access ramps shall be determined by balancing the impacts of driving equipment on the channel bed versus creating extra access points. Access ramps shall be placed in areas with minimum potential for erosion. Access ways shall be sited, constructed, and maintained in a manner that minimizes disturbance to native vegetation, wildlife, and aquatic organisms. The width of all new ramps shall be minimized to the extent feasible. Unneeded access ramps shall be removed and restored to a natural condition. For ramps that will be used infrequently (e.g., every three years or more), the District shall seed or plant the ramp after each use with native species, compatible with adjacent vegetation and resistant to occasional vehicle use, to prevent infestations of noxious weeds. Permanent and frequently used ramps shall be stabilized with vegetation, as feasible, and designed to minimize unauthorized vehicle access.

H-9 - Landowner Information Regarding Bank Protection. The District shall provide information to landowners along creeks that wish to stabilize eroding banks on their property. The District shall prepare a guide for landowners that describes methods of bank protection, with an emphasis on bio-technical solutions. The booklet shall be written for an educated layperson and include clear diagrams about materials and installation methods. It shall also include discussions of hydraulic and biological impacts when considering bank protection, and permits required from local, state, and federal agencies. The District shall also make staff available to conduct site visits with property owners to provide guidance on an as-needed basis.

N

Impacts

N = Noise

N-A. Maintenance Equipment Noise. Maintenance activities that require the use of heavy equipment, such as channel shaping and desilting, could temporarily increase the ambient indoor and outdoor noise levels for noise-sensitive receptors located in close proximity to the watercourse where maintenance work is conducted. This impact would be limited to weekdays between 8 AM and 5 PM, with a limited duration of several days at any one location. Increased ambient noise levels could cause a nuisance to noise sensitive receptors, such as residences, schools, nursing homes, and day care centers. (Class II Impact)

Mitigation Measures

N-1 – Minimize Noise. Routine maintenance work shall be limited to weekdays and the hours of 7:30 AM and 4:30 PM. Equipment and haul trucks shall be equipped with functioning and properly maintained muffler systems, including intake silencers where necessary. Additional reductions in noise emissions shall be provided, as feasible, by performing noisy operations, such as chipping and loading spoils into dump trucks on the banks, as far away as practicable from sensitive receptors.

P

P = Public Health and Safety

PH-A. Excessive Herbicide Release and Exposure. Excessive application of herbicide to vegetation on the bottom of a channel or debris basin, including substantial application to the bed itself and open water, could result in increased concentrations in downstream water, which could affect the public. Excessive application of herbicide to vegetation could also adversely affect hikers using the watercourse as a trail or for recreation. This situation would arise from poor application methods or procedures, and is expected to occur rarely, if at all. (Class III Impact)

R

Impacts

R = Recreation

R-A. Potentially Adverse Herbicide Concentrations. The application of herbicides to control emerging vegetation on the channel bed is not expected to introduce substantial amounts of herbicide to the water in the drainage where fish, aquatic organisms, and humans could be exposed. However, there is a potential for localized elevated concentrations of glyphosate in drainages due to excessive application of herbicides or poor application methods that result in overspray which would degrade water quality, and affect recreational users along creeks. This impact would be localized and temporary. (Class II Impact)

R-B. Impacts of Reduced Sediment Supply to Beaches. Periodic removal of the sediments from the basins contributes to the reduction in overall sediment supply to local beaches. (Class II Impact)

R-C. Temporary Disruption of Trail and Park Use. Maintenance activities near a public trail may disrupt the use of the trail for a short period of time, and/or disrupt the use of the creek for informal recreation. (Class III Impact)

R-D. Reduced Beach Sand Supply. The periodic removal of sediments from debris basins contributes to the cumulative loss of beach sand supply. (Class III Impact)

Mitigation Measures

R–1 - Minimize Impacts to Trail and Park Users. To the extent feasible, the District shall provide temporary detours for hikers using public trails that must be closed for maintenance work. All work areas shall be marked by signs, and by flagging if necessary to protect the public from hazardous conditions. The District shall notify appropriate County and City parks departments prior to initiating maintenance work in public parks. The work area shall be visibly marked, and measures taken to prevent public entry. If feasible, work shall be restricted to off-peak park hours.

R-2 – Disposal of Sediments at Beaches. Sediments removed from debris basins or creeks on the South Coast during long-term maintenance of the basins and during routine maintenance of creeks, respectively, shall be disposed at local beaches to the extent feasible. Only suitably sized sediments shall be disposed at the beaches, as permitted by applicable regulatory agencies.

V

Impacts

V= Visual

V-A. Visual Impacts in Channels. Certain maintenance activities could reduce the visual quality of riparian corridors that are visible from both private viewpoints (e.g., private roads, backyards of private residences) and public viewpoints (e.g., public parks roads). These channel maintenance activities include channel shaping, bank protection construction or repair, bank stabilization, and desilting. An adverse visual impact would occur if such activities remove substantial amounts of riparian vegetation or very large specimen trees (such as oaks, sycamores) and/or substantially modifies the banks and bed of a watercourse such that the affected reach is clearly characterized as a man-altered landscape feature. (Class II Impact)

V-B. Visual Impacts in Basins. The grading of a pilot channel in the middle of a debris basin would reduce the amount of vegetation in the basin. The removal of vegetation and accumulated sediment from debris basins will periodically reduce the amount of riparian vegetation in the basin. These impacts would be minor because they are temporary and affect a very small area; the basin (i.e., visual setting) is a man-made feature; and public access to the basin and/or nearby public viewing locations is generally prohibited. (Class III Impact)

Mitigation Measures

V–1 - Minimize Visual Impacts in Channels. The District shall minimize brushing in the channel bottom (per Mitigation Measure B-1), minimize remove of bank vegetation (per Mitigation Measure H-2), incorporate natural channel dimensions during channel reshaping (per Mitigation Measure H-1), restore all temporarily disturbed areas with native riparian trees and shrubs (per Mitigation Measure B-4), and use biotechnical methods with riparian vegetation for bank protection and repair, as feasible (per Mitigation Measure H-4). Implementation of these measures will reduce short and long-term visual impacts.

W

Impacts

WQ = Water Quality

WQ-A. Potentially Reduce the Amount of Natural Biofiltering. Removal and/or thinning of vegetation from channel bottom due to brushing, herbicide application, desilting, and channel shaping cause a temporary reduction in vigor and/or cover of successional riparian habitats and emergent wetlands. This same impact could occur due to clearing pilot channels and outlet works in debris basins, as well as removing sediments from basins. It could potentially reduce the bio-filtration effects (if any) of emergent wetlands present along the wetted channel and debris basin bottom. As such, maintenance activities could contribute to an overall decrease in water quality. (Class I Impact)

WQ-B. Potentially Adverse Herbicide Concentrations. The application of herbicides to control emerging vegetation on the channel bed is not expected to introduce substantial amounts of herbicide to the water in the drainage where fish, aquatic organisms, and humans could be exposed because of the following reasons: (1) no herbicide is directly applied to open water; (2) overspray is minimized by precise spraying by trained field crews; (3) most spraying occurs in the fall when flows are absent in drainages; (4) glyphosate is strongly absorbed by soil particles and not easily mobilized once it has contact with soils or wet sediments; and (5) residual herbicide in soils or sediments are subject to microbial degradation. However, there is a potential for localized elevated concentrations of glyphosate in drainages due to excessive application of herbicides or poor application methods that result in overspray which would degrade water quality. While this impact would be localized and temporary, it is considered a significant, but mitigable cumulative impact because of the wide use of herbicides throughout the county. (Class II Impact)

WQ-C. Accidental Spills and Leaks. Accidental leakage or spill of fuel and/or oil from heavy equipment working within or directly adjacent to the watercourse or in a debris basin can cause discharge of pollutants to the creek, which would degrade water quality. This impact is anticipated to be highly localized because most accidental spills are limited in quantity (e.g., less than 50 gallons) and would occur in the dry season when flows are absent. Potential accidental spills of herbicides from applicators. (Class II Impact)

WQ-D. Temporary Sedimentation and Turbidity. Channel shaping, desilting, bank stabilization by placing fill or grading banks, bank protection construction or repair, pilot channel construction, access ramp construction, and excessive removal and/or thinning of in-channel vegetation could cause localized increases in suspended sediments and turbidity which could temporarily degrade water quality. This impact would also occur due to debris basin desilting and to a lesser degree, to pilot channel and outlet works clearing. (Class III Impact)

WQ-E. Increase Water Temperatures. Brushing and spraying remove of vegetation from the channel bed which could redcue shade and increase water temperatures. The magnitude of the impact is low because most of the vegetation affected under the program does not occur in standing water nor provide critical shading. The District does not remove bank vegetation, which provides most of the shade along creeks, as part of the program. (Class III Impact)

WRR = Wetland, Riparian Habitat and Rare Plants

WRR-A. Reduce Amount and Quality of Channel Bottom Habitat. Removal and/or thinning of vegetation from channel bottom due to brushing, herbicide application, desilting, and channel shaping cause a temporary reduction in vigor and/or cover of successional riparian habitats and emergent wetlands. This same impact could occur due to clearing pilot channels and outlet works in debris basins, as well as removing sediments from basins. Although the functions and values of the habitat temporarily disturbed by maintenance would be replaced through the District's habitat restoration program, there is a potentially adverse cumulative effect of annual habitat disturbances throughout the County. (Class I Impact)

WRR-B. Remove Bank Habitat. The District may place "hard" bank protection (i.e., grouted rip-rap) to stabilize a severely eroded bank. Under the updated maintenance program, the use of hard bank protection would only be allowed if no other alternatives using biotechnical methods are available or feasible. This impact would occur very rarely and typically involve a limited reach (e.g., less than 200 feet). Use of hard bank protection would permanently reduce the amount of existing and future bank riparian vegetation. (Class II Impact)

WRR-C. Access Ramp Habitat Impacts. Construction or maintenance of access ramps could temporarily reduce the amount of riparian habitat. (Class II Impact)

WRR-D. Temporary Habitat Disturbance. Disturbance of channel banks and bed from heavy equipment during channel shaping, placement of bank protection, desilting operations, ramp construction, and repair of bank protection and grade stabilizers could temporarily remove wetland, riparian and aquatic habitats in work areas. (Class II Impact)

WRR-E. Displace Sensitive Plants. Disturbance of channel banks and bed from heavy equipment during channel shaping, placement of bank protection, channel shaping, desilting operations, ramp construction, and repair of bank protection and grade stabilizers could remove regionally rare plant species This same impact could occur due to clearing pilot channels and outlet works in debris basins, as well as removing sediments from basins. This impact is expected to occur infrequently because so few sensitive plants occur in the areas maintained. (Class II Impact)

WRR-F. Facilitate Weed Colonization. Disturbance of channel banks and bed from heavy equipment during channel shaping, placement of bank protection, desilting operations, ramp construction, and repair of bank protection and grade stabilizers could facilitate colonization of disturbed areas by non-native invasive weeds. This same impact could occur due to clearing pilot channels and outlet works in debris basins, as well as removing sediments from basins. (Class III Impact)

Mitigation Measures

W-1 - Reduce Sedimentation. The District shall minimize the amount of surface disturbance and vegetation removal to the extent feasible during all maintenance activities in order to reduce the area of disturbed soils that could be eroded during winter runoff. No stockpiles or dewatering operations shall be established in the channel bed or basin bottom. All fill shall be compacted to reduce erosion. All disturbed banks and terraces above the low flow channel shall be seeded with appropriate riparian grasses and herbs and/or planted with willows, mulefat, or other woody plant species. The objectives of the seeding and/or planting are to stabilize these areas and reduce erosion. The selection of species to be used and the density of seeding or planting shall balance the need for maintaining channel capacity while meeting these objectives. If work must occur in a wetted channel that has continuous flow downstream of the work site, the District shall either temporarily divert streamflow around the work site, or provide temporary sediment containment downstream of the site. In addition, the District shall check silt fencing, diversions, and settling ponds twice a day.

W-2 – Responsible Herbicide Application. To the extent feasible, the primary herbicide application each year shall occur during the months of August through November, when stream flows are minimal. In some instances, a follow-up application will be made in the spring to reduce the frequency of maintenance. Herbicides shall be applied by hand-held sprayers rather than from truck mounted sprayers to the extent feasible. The dilution and application of herbicides shall be conducted in strict accordance with all label recommendations, including all restrictions related to public health, worker safety, and the protection of aquatic organisms. Herbicides shall not be applied when winds at the application site exceed 5 miles per hour, within 12 hours of a forecasted rain event, or when vegetation surfaces are covered with water from recent rainfall or dew. Herbicides shall be applied carefully to plant surfaces in minimal effective amounts, minimizing drift to non-target plants and overspray onto the ground or to open water. Signs shall be placed to warn the public if herbicides are applied within 50 feet of any public recreation location, such as a trail, picnic spot, or other site of regular human activity. The signs shall remain for 48 hours after the application of the herbicide. The District shall also notify residences and businesses located adjacent to drainages to be treated with herbicides. Notification shall occur by mail within 7 days of the planned maintenance work.

W-3 - Maintain Biofiltering by Reseeding Channel Bottom Areas. To the extent feasible and consistent with the maintenance objectives, the District shall avoid removal of emergent herbaceous wetland vegetation on the channel bottom that is rooted in or adjacent to the low flow channel or a pond. This same type of vegetation shall be protected, to the extent feasible, during the removal of taller obstructive woody vegetation on the channel bottom. In addition, the District shall re-seed desilted channel areas that formerly contained emergent vegetation, provided that suitable native seeds

from plants that provide biofiltration are available and that the new vegetation will not significantly affect channel conveyance or significantly increase the need for future maintenance. Seeding shall occur after the major winter runoff has occurred and stream flows have receded to prevent loss of seeds.

W-4 - Prevent Accidental Spills and Leaks. The mixing and dispensing of herbicides and equipment fueling or maintenance shall not occur within a channel or a basin. Spill containment and clean-up procedures for herbicides and vehicle fuels and oils shall be developed by the District. All field personnel shall be trained and all field vehicles shall be equipped with appropriate materials.

W-5 - Water Quality Monitoring During Herbicide Application for Large Projects. The District shall monitor concentrations of glyphosate downstream of large maintenance projects that involve herbicide application. Large projects are defined as projects that involve continuous or near-continuous herbicide application along reaches of more than 250 feet where there is flowing water along the entire reach. Water samples shall be collected from the flowing water at the following locations: Site A - above the work site, representing the ambient water quality conditions; Site B - immediately downstream of the work site; and Site C - approximately 200 feet downstream of the work site. Samples shall be collected using the following protocol: (1) Prior to herbicide application – samples at Site A, and Sites B and C if there is a storm drain outlet or similar feature within the maintenance reach that may contribute off-site flow and possible herbicides to the water samples; (2) 24 and 96 hours after herbicide application – samples at Sites A, B, and C. If glyphosate concentrations exceed 15 mg/l in the 24-hour sample or 10 mg/l in the 96-hour sample, the District shall modify the spray program at all remaining maintenance sites to be sprayed. Modification may include reducing the rate of herbicide application and/or using hand removal techniques. The District shall continue to apply herbicides only if the glyphosate concentrations are consistently below the 24 and 96-hour thresholds. If the 24 and/or 96-hour thresholds are exceeded five times during the maintenance year, regardless of location, the District shall cease application of herbicides in aquatic situations until the program can be modified to reduce concentrations to the acceptable range.

W-6 – Public Education Regarding Creek Water Quality. The District shall prepare information brochures for residents located along maintained drainages that explain: (1) how the District applies herbicides in a responsible manner, and provides guidelines on how landowners can use herbicides for residential and commercial uses in a similarly responsible manner to minimize water quality impacts to the creeks; and (2) how landowners can reduce pollution to the creek from their activities by employing best management practices for landscape fertilization; disposal of household paints, hazardous materials and petroleum products; management of trash and landscaping debris; and handling of pet wastes. The brochure shall be prepared in coordination with Project Clean Water and mailed to affected areas on a 3-year rotating basis. It shall include the Project Clean Water phone numbers for technical assistance and for reporting illegal dumping. The brochure shall also include information on how landowners can make their land available for habitat restoration under the routine maintenance program.

W-7 – Reporting Water Quality Incidents. The District shall train its maintenance crews to identify and report incidents or materials observed in the creeks during routine maintenance work that could cause significant water quality impacts, including illegal

dumping of trash, pet waste, and green waste; homeless encampments; and drain outlets with evidence of poor water quality. The staff shall contact appropriate authorities in the County or affected municipalities.

W-8 - Reduce Overall Herbicide Use. The District shall make every feasible effort to reduce the overall amount of herbicides used in the maintenance program over the next ten years through more restrictive and selective applications, greater use of manual clearing, actions to reduce in channel obstructive vegetation through shading by new canopy trees, and coordination with the the County's Integrated Pest Management Strategy to identify more environmentally friendly pesticides. The IPM Strategy was adopted by the Board of Supervisors to promote the maintenance of the County's landscapes in way that protects and enhances natural resources and public health, while providing a framework for evaluating pesticide use by County Departments in pursuit of their missions.

2001 PEIR CLASS I, II AND III IMPACTS WITH ASSOCIATED MITIGATION MEASURES SANTA YNEZ RIVER PROJECT

Class I Impacts

No Class I Impacts are identified for the Santa Ynez River Routine Maintenance Project.

WATER QUALITY
CLASS II IMPACTS

SY-WQ-A. Equipment Leaks and Spills. Accidental leakage or spill of fuel and/or oil from the mowing equipment working within the channel can cause discharge of pollutants and degrade water quality.

Mitigation:
SY-H-1. - *Prevent Equipment Leaks and Spills.* Equipment fueling or maintenance shall not occur within the river channel. Spill containment and clean-up procedures for vehicle fuels and oils shall be developed by the District. All field personnel shall be trained and all field vehicles shall be equipped with appropriate materials.

WATER QUALITY
CLASS III IMPACTS

SY-WQ-B. Temporary Sedimentation and Turbidity. Mowing activities would generate vegetative debris that is discharged to the riverbed and susceptible to being suspended in winter runoff. This debris could cause temporary increases in suspended solids and turbidity in downstream areas. This impact is not considered significant because the effect would be temporary, similar to natural suspended material in winter flows, and the sediments produced would be very small compared to the sediments from the entire watershed.

Mitigation:
No mitigation required for a Class III (adverse but not significant) impacts.

WETLAND, RIPARIAN HABITAT AND RARE PLANTS
CLASS II IMPACTS

SY-WRR-A. Habitat Disturbance. Periodic disturbance to immature willow scrub due to mowing operations. Early to mid-successional woody vegetation dominated by willows in the channel bottom is periodically mowed, then allowed to re-sprout and develop for 3 to 5 years, depending upon runoff conditions. The amount of such habitat disturbed during each maintenance event will not exceed 16 acres.
Mitigation:

SY-B -1 – Compensatory Habitat Mitigation. The District has already initiated long-term compensatory habitat mitigation for the periodic disturbance of riparian habitats in the river channel, establishing 18 acres of various riparian habitats along the river upstream of the project site at three permanent mitigation sites, per the requirements of the California Department of Fish and Game. The creation, maintenance, and protection of these restoration sites represents full and complete mitigation for removal of up to 16 acres of riparian habitat at any time in the future as part of the project. However, subject to available resources, to further mitigate impacts of future periodic maintenance activities on riparian habitat, the District shall remove giant reed plants by the use of herbicides from the lower Santa Ynez River (Robinson Bridge to 13th Street Bridge) and prevent the colonization of this reach of the river for the life of the maintenance project. Stands of giant reed shall be removed, as needed in each reach maintained, in an on-going and proactive program to protect the lower river from this aggressive species. The District shall consider additional habitat restoration if and when future mitigation opportunities arise along the lower river through efforts by other public agencies and private entities.

SY-B-2 – Limits of Disturbance**.** Prior to clearing, District personnel shall place flagging, stakes, or other readily visible markers along the margins of the swaths to be cleared. No more than 16 acres of riparian woodland shall be mowed within the river channel. No clearing shall occur within 25 feet of the primary low-flow channel except when it is necessary to connect cleared swaths from one side of the low flow channel to the other side, or when it is necessary to clear a path across the low-flow channel for temporary equipment and crew access.

SY-B-3 – Minimize Surface Disturbance***.*** Disturbance of the riverbed shall be avoided to the extent feasible. The riverbed shall not be scraped, pushed, excavated, filled, or otherwise directly manipulated by equipment. Vegetative material cut from the riverbed shall be less than six feet in length. Cut vegetative material shall be allowed to fall in place, and shall not be collected, stockpiled, and/or disposed in a directed and purposeful manner.

SY-B-4 – Training and Monitoring. Prior to clearing, the District biologist shall conduct a training session with construction personnel to instruct them on areas to avoid and other environmental protection measures. The District biologist shall be present at all times during clearing activities to ensure that limits of work are observed. Monitoring activities shall be recorded daily.

SY-WRR-B. Disturbance to Wetlands. Mowing operations and accessing the river channel could in advertently disturb ponds and wetlands. The latter are defined as areas dominated by perennial wetland herbs such as watercress, spikerush, cattails, and bulrushes, and do not have a substantial number or density of willow trees or large mulefat plants.

Mitigation:
SY-B-5 – Avoid Ponds and Wetlands. No clearing shall occur within 25 feet of ponds and wetlands. Prior to clearing, District personnel shall place flagging, stakes, or other readily visible markers around ponds and wetlands to be avoided.

See Mitigation Measure SY-B-1- Compensatory Habitat Mitigation

SY-WRR-C. Access Ramp Habitat Impacts. Construction or maintenance of access ramps could temporarily reduce the amount of riparian habitat, which in turn could adversely affect nesting, cover, and foraging habitat for riparian-dependent bird species, as well as cover for riparian amphibians, reptiles, and mammals.

Mitigation:
SY-B-6 – Access Ramp Restoration. After each mowing event, the access ramps shall be seeded with low-growing native grasses, herbs, and shrubs common to the river banks of the project reach to restore habitat after the mowing event, but without dense woody plants that would preclude it use for the next maintenance event.

SY-WRR-D. Impacts to Rare Plants. Accessing the river channel with the crew and mower could potentially affect the regionally rare Lompoc figwort which occurs in woodland habitat along the river banks. Although this species is not known to be present at any of the existing access points, there is a remote possibility that it may be present in the future.

Mitigation:
SY-B-7 - Pre-Construction Biological Surveys. The District biologist shall conduct a biological survey no later than five (5) days prior to the clearing to confirm the limits of the work area, the flagging of environmentally sensitive areas, and to search for: (1) Lompoc figwort at access points; and (2) the western pond turtles and California red-legged frog, both of which could occur in ponds or portions of the low flow channel. The latter species would be physically captured and removed if they occur in areas where clearing or equipment access must occur. They would not be removed from ponds that are protected from clearing or from the low flow channel that is protected by a 25-foot wide buffer zone. The District biologist has the requisite permits and authorizations to handle and relocate these species from CDFG and USFWS. If the Lompoc figwort is present, the District shall modify access routes, if feasible, to avoid removal or disturbance. If the plant cannot be avoided, the District shall relocate the plant by cultivation or seeding methods to a suitable nearby site.

FISH, AQUATIC SPECIES, AND WILDLIFE
CLASS II IMPACTS

SY-FAW-A. General Impacts to Wildlife. Mowing will temporarily displace wildlife that utilize immature willow scrub, and reduce the quality of the habitat. Between mowing events, the habitat would recover and be recolonized by wildlife.

Mitigation:
SY-B-8 – Seasonal Avoidance. Clearing shall occur during the months of October 1st to December 1st, to prevent conflicts with the riparian breeding birds, and the endangered southwestern willow flycatcher and the least Bell's vireo.

See Mitigation Measures:
SY-B-2- Limits of Disturbance
SY-B-5- Avoid Ponds and Wetlands

SY-FAW-B. Displace or Disturb Sensitive Wildlife. Mowing operations and accessing the river channel could displace or disturb the California red-legged frog and the southwestern pond turtle. These species are residents in ponds and wetland areas of the river channel. Impacts to these species would be avoided. The willow flycatcher, least Bell's vireo, and various regionally rare riparian breeding birds are absent from the river during the work period. Periodic mowing of immature willow scrub would not adversely affect the quality of the habitat for these species.

Mitigation:
SY-B-9 - Monitor for Sensitive Species. The District biologist shall monitor clearing events located at or near sensitive species locations, as determined during the pre-construction survey. The objective of the monitoring is to ensure that key habitat features or species locations are avoided, and to relocate species if they are unexpectedly encountered in a work area. The District biologist shall examine ponds and channels near the work areas for the presence of pond turtles and/or red-legged frogs; and move these species if it appears that they may be indirectly affected by the clearing activities. Results of the monitoring shall be documented in a post-maintenance report.

See Mitigation Measures:
SY-B-2-Limits of Disturbance
SY-B-5- Avoid Ponds and Wetlands
SY-B-7- Pre-Construction Biological Surveys
SY-B-8-Seasonal Avoidance

SY-FAW-C. Disturbance to Migrating Steelhead. Mowing operations and accessing the river channel could displace or disturb steelhead if they are migrating through the project reach. The southern steelhead migrates upstream from December 1st through March 1st. Smolts migrate downstream to the lagoon or ocean during the period February through May. The mowing will be restricted to the period October through November, and as such, will avoid impacts to migrating steelhead.

Mitigation:
See Mitigation Measure:
SY-B-8 Seasonal Avoidance

SY-FAW-D. Equipment Leaks and Spills, as it affects aquatic organisms and sensitive species (see Water Quality)

Mitigation:
See Mitigation Measure SY-H-1-Prevent Leaks and Spills

HYDROLOGY
CLASS III IMPACTS

SY-H-A. Reduced Channel Resistance. Mowing in-channel vegetation may have a slight effect on velocities of low to moderate flows that would otherwise pass through this vegetation. The reduction in channel resistance could result in increase in velocities of certain flows, which in turn, could cause increased channel bed scour and downstream sedimentation. This hydraulic impact is expected to be negligible due to the small area removed, the low resistance of the vegetation being mowed, and the wide channel available for flows to spread.

Mitigation:
No mitigation required for a Class III (adverse but not significant) impacts.

AIR QUALITY
Class III Impacts

SY-AQ-A. Equipment Emissions. Temporary emissions of reactive organic compounds (ROC), particulate matter, and NOx associated with the mower and chain saws.

Mitigation:
SY-A-1 – Reduce Emissions. Implement the following Santa Barbara County APCD-approved measures for each piece of heavy-duty diesel construction equipment to minimize NO_x emissions: (1) The engine size of construction equipment shall be the minimum practical size; (2) Heavy-duty diesel-powered construction equipment manufactured after 1996 (with federally mandated clean diesel engines) should be utilized wherever feasible; (3) The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest number is operating at any one time; (4) Construction equipment operating onsite shall be equipped with two to four degree engine timing retard or pre-combustion chamber engines; (5) Catalytic converters shall be installed on gasoline-powered equipment, if feasible; (6) Diesel catalytic converters shall be installed, if available; and (7) Diesel powered equipment should be replaced by electrical equipment, whenever feasible.

SY-AQ-B. Fugitive Dust Emissions. Temporary emissions of fugitive dust (particulate matter) due to mower operations.

Mitigation:
No feasible measures can be employed to reduce unavoidable dust created during mowing operations and none are required for Class III (adverse but not significant) impacts.

NOISE
CLASS III IMPACTS

SY-N-A. Mower Noise. Mowing and chain saw operations would temporarily increase the ambient noise levels in adjacent land uses. However, there are no noise-sensitive receptors in proximity to the project site. This impact would be limited to weekdays between 7 AM and 5 PM, with a limited duration of several days at any one location.

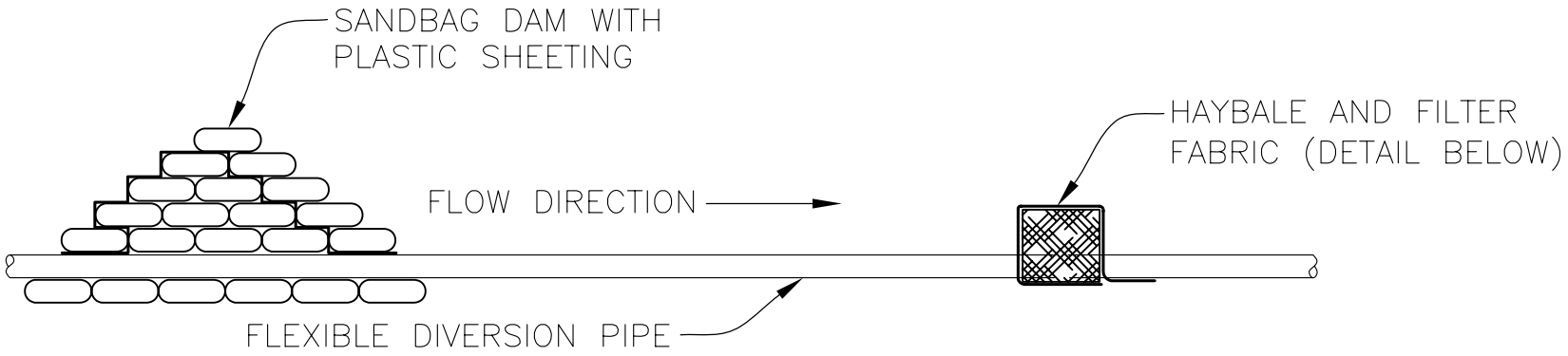
Mitigation:
No mitigation required for Class III (adverse, but not significant) impacts.

VISUAL
CLASS III IMPACTS

SY-V-A. Visual Impacts of Mowing. Mowing would increase the open areas in the river channel, exposing open sandy floodplain. This impact would be minor because only a

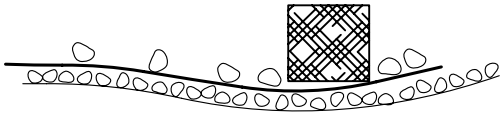
small proportion of the channel would be affected, dense woodland and mature trees on the banks would be avoided, and public viewing locations of the river channel are not present.

Mitigation:
No mitigation required for Class III (adverse, but not significant) impacts.

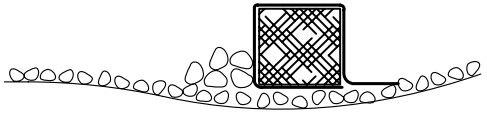


1. PREPARATION—SMOOTH A FLAT AREA OF CHANNEL BY MOVING COBBLES AND SAND (PERFORMED WITH HANDTOOLS ONLY)

2. LAY FILTER FABRIC OVER CHANNEL, ANCHOR LIGHTLY WITH COBBLE



3. PLACE HAYBALE AT ONE END OF FILTER FABRIC



4. WRAP FILTER FABRIC OVER HAYBALE, ANCHOR LEADING EDGE WITH COBBLE

HAYBALE AND FILTER FABRIC INSTALLATION

N.T.S.

SANTA BARBARA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

TEMPORARY WATER DIVERSION