



PUBLIC NOTICE

**U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT**

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**APPLICATION FOR PERMIT
Regional General Permit 45 – Debris Basins Maintenance Program Reauthorization**

Public Notice/Application No.: SPL-2003-00411-BLR

Project: Regional General Permit 45-Debris Basin Maintenance Program Reauthorization

Comment Period: January 27, 2015 through February 25, 2015

Project Manager: Bonnie Rogers; 213-452-3372; Bonnie.L.Rogers@usace.army.mil

Applicant

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Location

Soft-bottom sediment debris basins throughout Los Angeles County, California (see attached figure).

Activity

In 2009, the Corps reauthorized Regional General Permit (RGP) 45 to allow the Los Angeles County Flood Control District (LACFCD) and other entities to conduct routine maintenance activities in existing soft-bottom sediment debris basins throughout Los Angeles County. LACFCD has requested the Corps remove three basins from their list resulting in 158 soft-bottom debris basins, and to reauthorize RGP 45 for another five years.

This RGP would: (1) reauthorize ongoing maintenance and sediment removal activities by the Los Angeles County Department of Public Works (LACDPW) at their soft-bottom debris basins for which LACDPW has accepted maintenance responsibilities, and (2) Authorize non-LACDPW applicants to conduct maintenance and sediment removal activities at soft-bottom debris basins if meeting the terms and conditions of this RGP 45 (with submittal of a preconstruction notification). For more information, see page 3 of this notice.

Interested parties are hereby notified that an application has been received for a Department of the Army permit for the activity described herein and shown on the attached drawing(s). We invite you to review today's public notice and provide views on the proposed work. By providing substantive, site-specific comments to the Corps Regulatory Division, you provide information that support the Corps' decision-making process. All comments received during the comment period become part of the record and will be considered in the decision. This permit will be issued, issued with special conditions, or denied under Section 404 of the Clean Water Act. Comments should be mailed to:

U.S. Army Corps of Engineers, Los Angeles District
Regulatory Division
ATTN: SPL-2003-00411-BLR
915 Wilshire Blvd. Ste 930
Los Angeles, California 90017

Alternatively, comments may be sent electronically to: Bonnie.L.Rogers@usace.army.mil

The mission of the U.S. Army Corps of Engineers Regulatory Program is to protect the Nation's aquatic resources, while allowing reasonable development through fair, flexible, and balanced permit decisions. The Corps evaluates permit applications for essentially all construction activities that occur in the Nation's waters, including wetlands. The Regulatory Program in the Los Angeles District is executed to protect aquatic resources by developing and implementing short- and long-term initiatives to improve regulatory products, processes, program transparency, and customer feedback considering current staffing levels and historical funding trends.

Corps permits are necessary for any work, including construction and dredging, in the Nation's navigable water and their tributary waters. The Corps balances the reasonably foreseeable benefits and detriments of proposed projects, and makes permit decisions that recognize the essential values of the Nation's aquatic ecosystems to the general public, as well as the property rights of private citizens who want to use their land. The Corps strives to make its permit decisions in a timely manner that minimizes impacts to the regulated public.

During the permit process, the Corps considers the views of other Federal, state and local agencies, interest groups, and the general public. The results of this careful public interest review are fair and equitable decisions that allow reasonable use of private property, infrastructure development, and growth of the economy, while offsetting the authorized impacts to the waters of the United States. The permit review process serves to first avoid and then minimize adverse effects of projects on aquatic resources to the maximum practicable extent. Any remaining unavoidable adverse impacts to the aquatic environment are offset by compensatory mitigation requirements, which may include restoration, enhancement, establishment, and/or preservation of aquatic ecosystem system functions and services.

Evaluation Factors

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof. Factors that will be considered include conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people. In addition, if the proposal would discharge dredged or fill material, the evaluation of the activity will include application of the EPA Guidelines (40 CFR Part 230) as required by Section 404 (b)(1) of the Clean Water Act.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Preliminary Review of Selected Factors

EIS Determination- A preliminary determination has been made that an environmental impact statement is not required for the proposed work.

Water Quality- The applicant is required to obtain water quality certification, under Section 401 of the Clean Water Act, from the California Regional Water Quality Control Board. Section 401 requires that any applicant for an individual Section 404 permit provide proof of water quality certification to the Corps of Engineers prior to permit issuance.

Coastal Zone Management- This project is located outside the coastal zone and preliminary review indicates that it would not affect coastal zone resources. After a review of the comments received on this public notice and in consultation with the California Coastal Commission, the Corps will make a final determination of whether this project affects coastal zone resources.

Essential Fish Habitat- No Essential Fish Habitat (EFH), as defined by the Magnuson-Stevens Fishery Conservation and Management Act, occurs within the project area and no EFH is affected by the proposed project.

Cultural Resources- The National Register of Historic Places has been consulted and the sites are not listed. This review constitutes the extent of cultural resources investigations by the District Engineer, and is otherwise unaware of the presence of such resources.

Endangered Species- Preliminary determinations indicate that the proposed activity would not affect federally-listed endangered or threatened species, or their critical habitat. Therefore, formal consultation under Section 7 of the Endangered Species Act does not appear to be required at this time.

Public Hearing- Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearing shall state with particularity the reasons for holding a public hearing.

Proposed Activity for Which a Permit is Required

Basic Project Purpose- The basic project purpose comprises the fundamental, essential, or irreducible purpose of the proposed project, and is used by the Corps to determine whether the applicant's project is water dependent (i.e., requires access or proximity to or siting within the special aquatic site to fulfill its basic purpose). Establishment of the basic project purpose is necessary only when the proposed activity would discharge dredged or fill material into a special aquatic site (e.g., wetlands, pool and riffle complex, mudflats, coral reefs). Because no fills are proposed within special aquatic sites, identification of the basic project purpose is not necessary. The basic project purpose

for the proposed project is maintenance. The project is water dependent because maintenance would occur within flood control facilities.

Overall Project Purpose- The overall project purpose serves as the basis for the Corps' 404(b)(1) alternatives analysis and is determined by further defining the basic project purpose in a manner that more specifically describes the applicant's goals for the project, and which allows a reasonable range of alternatives to be analyzed. The overall project purpose for the proposed project is to conduct maintenance activities in LACFCD debris basins in order to restore their original design capacity.

Additional Project Information

The proposed project would modify RGP 45 by removing 3 previously authorized basins (Marston/Panagon, Rye, Scholl) from the list no longer of LACFCD responsibility and reauthorize 158 basins throughout Los Angeles County. Other basins not maintained by LACFCD and not listed in this permit may qualify for this RGP 45 but must submit a preconstruction notification to the Corps for review. The majority of these debris basins are located in the foothills of the Santa Monica, San Gabriel, Verdugo, and Puente Hills Mountains; however, three of these debris basins are located in the northern Los Angeles County foothills near the Palmdale/Lancaster area. The debris basins fall within the watersheds of the Los Angeles River, Santa Clara-Calleguas, Santa Monica Bay, and San Gabriel River; with a majority occurring within the Los Angeles River watershed. See Exhibit 1 for a regional map of all debris basin locations. Please note, each debris basin is listed in the legend with an abbreviated name.

Updated biological assessments were conducted for the 158 previously authorized debris basins (see below and Attachment G summary sheet). Based on surveys, no federally threatened or endangered species nor suitable habitat were found. Changes in biological conditions were documented for 66 of the 158 debris basins under RGP 45. A change in vegetation types present within the 100% capacity contour boundary was the primary change for debris basins designated "2A" below. For two debris basins a change in vegetation created a potential for occurrence of key special status species that did not previously exist and are designated "2AB" below. They now have additional vegetation between the 25% capacity contour boundary ('mowing boundary') and the 100% capacity contour boundary. Vegetation changes for all 66 of the basins are primarily located within the 100% capacity contour boundary but outside the 25% capacity contour boundary. Although potentially adversely affected by major storms, vegetation between the 25% and 100% capacity or inundation contour boundaries was preserved and was used to offset mitigation requirements for impacts associated with debris basin maintenance activities within the mowing contour boundary. Vegetation maps showing these changed biological conditions are provided for each of these 66 debris basins (Exhibit 3). The primary cause of vegetation change in this part of the basin was due to natural changes in vegetation types. For the most part, this was the colonization of ruderal and disturbed areas by sage scrub and chaparral species. For other debris basins, this change was due to a variety of factors including fire (e.g. Englewilds), debris flows (e.g. Sawpit), fire abatement activities of adjacent properties (e.g. Haven Way), and landslides (e.g. Sierra Madre Dam).

92 Previously authorized debris basins with no change in resources ("1"):

Auburn, Ave, Ave T-8, Bell Creek, Big Briar, Bracemar, Bramhall, Calle Robleda, Carriagehouse, Carter, Chamberlain, Cloud Creek, Cloudcroft, Contento, Cooks, Cordoba, Crescent Glen, Crystal Springs, Deer, Denivelle, Devonwood, Dry Canyon, Elmwood, Emerald East, Fair Oaks, Fern, Fieldbrook, Ft. Tejon, Golf Club, Gooseberry, Gould Upper, Green Hill 1, Green Hill 2, Halls, Hay, Hazel Nut, Hillman, Hipshot, Hook-West, Inverness, Irving, Kinneloa-East, Kinneloa-West, Knoll, La Salle, Lannan, Linda Vista, Little Dalton, Lopez Inlet, Maddock, May1, May2, Montana, Monument, Mountbatten, Mull, Millally, Mustang, Nichols, Oak, Oak Park, Oakglade, Oakmont, Pinelawn, Royal Terminus, Rubio, Ruby Lower, Saddleback #1, Saddleback #2, Saddleback #3, Santa Anita,

Schwartz, Sierra Madre Villa, Sloan, Stetson, Stevenson Ranch, Sturtevant, Sunnyside, Sunset Canyon-Deer Canyon, Verdugo, Victoria, Ward, Wedgewood, Wellington, West ravine, Westridge, Whitney, Wilbur, Wildwood, William s. Hart park, Yucca, Zachau.

64 Previously authorized debris basins with a change in vegetation types ("2A"):

Arbor Dell, Bailey, Beatty, Big Dalton, Blanchard, Blue Gum, Brace, Bradbury, Brand, Buena Vista, Cardiff, Cassara, Chandler, Childs, Cooks M1, Copper Hill, Crestview, Dunsmuir, Eagle, Englewild, Fullerton, Garnet Canyon, Gordon, Goss Inlet, Gould, Greensbrier, Harbor Blvd., Harrow, Harter Land, Haven Way, Hillcrest, Hog, Hook-East, La Tuna, La Flores, Las Lomas, Limekiln, Lincoln, Morgan, Oakdale, Oliver, Pickens, Rowley, Rowley Upper, Sawpit, Schoolhouse, Shadow, Shields, Shields Upper, Sierra Madre Dam, Skyridge, Snover, Sombrero, Spinks, Starfall, Stough, Stratford, Sullivan, Sunset Lower, Sunset Upper, Thousand Oaks, Turnbull, Wilson, Winery.

2 Previously authorized debris basins with a change in vegetation types and potential to support special status species ("2AB"):

Aliso and Camp Plenty.

Project description-

Activities would include sediment removal and maintenance of soft-bottom debris basins, access roads, and other appurtenances such as, but not limited to the following: inlet chutes, trash racks, facing slabs, gage boards, slow and down drains, outlet towers, and slopes.

Activities would result in temporary discharge of fill onto approximately 182 acre(s) of waters of the U.S. pursuant to Section 404 of the Clean Water Act of 1972, as shown on the attached drawings. Approximately one hundred debris basins are less than 1 acre in size, forty-six are 1-3 acres, six are 4-6 acres, and four are 7-10 acres.

(1) Specifically, this RGP would authorize sediment removal when one of the following criteria is met:

(A) The quantity of sediment in the soft-bottom debris basin has reached 25% capacity or more, as identified in the permit application.

(B) A debris basin has reached 5% or more of the basin's capacity and when more than 20% of the watershed for a particular basin has burned within the previous 5 years.

(C) or, in cases where the above criteria are not met, the Corps may approve maintenance in special circumstances to allow for compliance with the Fire Department, Vector Control District, and/or State Division of Safety of Dams requirements, or in the case of undersized debris basins and special structures such as the retention basins.

Maintenance of these facilities involves excavation, fill, and land clearing activities. Occasionally, non-mechanical means such as hand clearing are conducted. The sediment and debris excavation activities at any one debris basin would occur infrequently (once every few years), several times during a storm season, or several times during and following a single storm event, depending upon the size of the sediment control facility, amount or intensity of water flow, and amount of sediment/debris produced by the watershed or event.

(2) The RGP would authorize maintenance (including reconstruction) of existing access roads to debris basins covered by the RGP provided that the footprint does not change and the width and length of the road are the minimum necessary to access the debris basin. Reconstruction and maintenance of appurtenances are also authorized.

(3) The RGP would authorize maintenance of a small (no more than 10-foot wide) entrainment channel and a 15 foot wide area immediately around outlet towers to prevent clogging and direct low flow discharge to the outlet tower.

(4) The RGP would authorize the mechanized removal of vegetation on the upstream and downstream jurisdictional faces of the soft-bottom debris basin's dam and abutments as necessary to comply with dam safety requirements of the California Department of Water Resources, Division of Safety of Dams or to ensure the integrity of the embankment.

(5) The RGP would authorize weed control that is consistent with the terms and conditions of Regional General Permit No. 41 (Invasive, Exotic Plant Removal), with no further review, above the 25% capacity area for fire control.

DEBRIS BASIN MAINTENANCE PROGRAM

See attached document "LACFCD Debris Basin Maintenance Program."

DEFINITIONS AND ACRONYMS FOR PURPOSES OF THIS RGP

Definitions:

Debris Basin – Debris basin describes a sediment entrapment basin, but in this document all basins to be permitted are referred to as debris basins. A sediment entrapment basin is an engineered structure designed to capture sediments (i.e. mud, silt, sand, soil, rock, and dislodged vegetation), eroded from the steep hillside watershed above, before they can enter and block the downstream flood control systems. These basins are located at or near a canyon mouth. For example, in Los Angeles County the vast majority of the basins are located along the foothill areas at the base of the San Gabriel Mountains and Verdugo Hills. For the purposes of this RGP, a sediment entrapment basin is assumed to have a "soft bottom", i.e., a natural bottom as opposed to a concrete bottom (Maintenance of existing concrete bottom basins is typically exempt from regulation.).

Capital Flood - Capital flood designations within Los Angeles County are made according to County of Los Angeles Department of Public Works standards. In layman terms, for a mountain watershed, a capital flood is the runoff from a 50-year rainfall storm event falling on a saturated watershed.

25%- and 100%-Capacity Areas and Lines - The current LACDPW design capacity for a basin is equal to the volume of sediment produced by a capital flood. The amount of sediment expected from a capital flood depends on the characteristics of the watershed above and rainfall data for the area. (LACDPW is currently in the process of bringing their existing sediment entrapment basins to "design" standards.) The area occupied by the sediment expected from a capital flood is determined by the basin topography.

Design Capacity - The total volume of sediment expected to be contained by a sediment entrapment basin when it is full.

25% Capacity - One fourth of the design capacity.

25%-Capacity Area - The area occupied by the entrapped sediment and debris when the basin is one-fourth full.

25%-Capacity Line - The outline (on the surrounding hillside or side slopes) of the area

estimated to be inundated with water, sediment and debris when the basin is 25% full.

100% Capacity - Same as design capacity.

100%-Capacity Area - Area occupied by the entrapped sediment and debris when basin is full.

100%-Capacity Line - The outline (on the surrounding hillside or side slopes) of the area expected to be inundated with water, sediment and debris when the basin is full.

Perennial Stream - For the purposes of this RGP, a perennial stream is a stream in which water on the surface of the basin flows year round from the upstream side of the basin or canyon mouth to the water/sediment control structure (usually a dam).

Proposed Mitigation– The proposed mitigation may change as a result of comments received in response to this public notice, the applicant's response to those comments, and/or the need for the project to comply with the 404(b)(1) Guidelines. In consideration of the above, the proposed mitigation sequence (avoidance/minimization/compensation), as applied to the proposed project is summarized below:

Avoidance: The work area and scope would be limited to the proposed basins listed and the frequency and limits of maintenance would be restricted.

Minimization: The proposed project would minimize impacts to waters of the United States by restricting the frequency of disturbance within sediment basins to set capacity thresholds whereby maintenance may only be conducted under circumstances outlined in the required Special Conditions of the permit.

Compensation: No compensatory mitigation is required because the previous authorization did not require compensatory mitigation because impacts associated with removal of sediment and debris is temporary in nature, and the original installation of the basins were either grandfathered in under the Clean Water Act due to their status at the time of permitting, or already mitigated for by a previous Corps permit.

Proposed Special Conditions

None at this time.

For additional information please call Bonnie Rogers of my staff at 213-452-3372 or via e-mail at Bonnie.L.Rogers@usace.army.mil . This public notice is issued by the Chief, Regulatory Division.



Regulatory Program Goals:

- To provide strong protection of the nation's aquatic environment, including wetlands.
- To ensure the Corps provides the regulated public with fair and reasonable decisions.
- To enhance the efficiency of the Corps' administration of its regulatory program.

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS
915 Wilshire Blvd. Ste 930
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DEBRIS BASIN MAINTENANCE PROGRAM

The operation of the LACFCD of Los Angeles Debris Basin Maintenance Program requires regular vegetation mowing and/or periodic removal of vegetation and sediment from debris basins throughout the LACFCD of Los Angeles. LACFCD defines three sub-areas in each debris basin to describe the limits of the basin and interior work areas. These three areas, in order of increasing size, include the 25% capacity elevation contour boundary (25% of design capacity), the mowing contour boundary, and the 100% capacity elevation contour boundary (100% of design capacity). (The current LACFCD design capacity for a debris basin is the volume of debris a basin can impound, which depends on the characteristics of the upstream watershed and rainfall data for the area.)

- The 25% contour delineates the portion of the debris basin that receives periodic sediment removal as needed to maintain the capacity of the basin at or below this contour elevation. Maintenance of each basin at or below the 25% contour provides that adequate capacity is available to protect downstream areas from future storm water flows.
- The mowing contour is similar to and often overlaps the 25% contour and is the portion of the debris basin that receives annual vegetation trimming and/or mowing.
- The debris basin limit contour delineates the design capacity of each basin (i.e. the 100% contour). The boundary of the LACFCD-owned property containing the debris basin generally extends outside the basin limit contour, and often includes an access road for LACFCD maintenance vehicles.

Routine Maintenance Activities

Routine maintenance (RM) activities consist of hand clearing, annual mowing, debris basin cleanouts, or other means of minor vegetation management and/or structural repairs necessary to maintain the functionality of the debris basin and comply with State Division of safety of Dams (DSOD) and vector and fire control requirements. RM would consist of any combination of the following activities.

A) The Removal of Fallen and Dead Trees and Annual Brush Maintenance

The removal of fallen and dead trees and annual brush maintenance will not to exceed 50 cubic yards, combined fallen, dead trees and brush, annually. Heavy equipment such as dump truck and backhoes will not be utilized in areas of the basins where vegetation may be crushed or damaged outside the 25% contour. Outside the 25% contour all debris clearing and tree trimming shall be done by hand using hand tools, and only to the extent necessary to facilitate the project goals. It is understood that in some situations heavy equipment must be utilized to remove large, cumbersome, or dangerous materials. When heavy equipment must be utilized the biologist shall clearly mark a path to and from the debris to be removed and equipment Permittee's shall stay within the demarcated zone. If any plant or animals identified as California Department of Fish and Wildlife ('Department') species of special concern, or U.S. Fish and Wildlife Service ('Service') state listed or threatened species may be impacted as a result of these activities, the Service shall be contacted PRIOR to any work being conducted and an exclusionary plan shall be created and implemented to avoid impacts to those resources. For purposes of mowing only: after appropriate surveys have been conducted by a qualified biologist and no sensitive species have been observed utilizing the area, LACFCD may mow within the 25% contour without PRIOR notification to the Department. However, if biological surveys indicate a state listed or candidate species could be impacted, no maintenance may be conducted, and consultation with the Department is REQUIRED.

B) Tree Trimming

Trees throughout the riparian areas outside the 25% contour, other than willow species, that require trimming shall only be trimmed under supervision of a tree surgeon or qualified arborist. This Agreement does not authorize the removal of any trees with a diameter at breast height (DBH) of greater than 4 inches without PRIOR Department approval. Based on new information additional protective measures and mitigation may be required.

C) Brush Clearance and Vegetation Mowing

The brush clearance program requires removal and reduction of dead trees and trimming or thinning of bushes and shrubs, and removal of other combustible refuse near roads, fences, buildings, and combustible fences. Where brush clearance activities are to be conducted outside the 25% contour, no more than 50 total cubic yards of this types material shall be removed annually without additional consultation from the Department. If greater than 50 cubic yards of materials need to be cleared from any one debris basin during any one RM activity additional consultation with the Department shall be required and additional protective measures and/or mitigation may be required. This Agreement does not authorize large scale fuel modification activities.

Vegetation removal and facility repairs within LACFCD's debris basin limits would be performed as required or requested by the California Department of Water Resources, Division of Safety of Dams (DSOD), the Agricultural Commission (AC), the Vector Control District (VCD), or local fire Departments. Upon receipt of notices from DSOD, AC, VCD or local fire Departments that vegetation removal and/or repairs are required, LACFCD would inform the Department and provide copies of the notices or email requests. LACFCD must remove vegetation that would be creating a fire hazard, vector, and/or odor nuisance to adjacent properties or that may be detrimental to the public health and safety, and the stability of the debris basin. If removal of this vegetation requires passing through an area that would be outside the boundaries of the notice, LACFCD would provide a description of that path when notifying Department.

1. Vegetation mowing at all debris basins would be performed annually between August 16th and March 15th to prevent any impacts to nesting birds that could occur.
2. If mowing during the nesting season (e.g., mid-February through mid-August) is necessary, a qualified biologist shall perform a nesting bird survey prior to initiation of mowing if there would be a potential for impacts to nesting birds, and findings must be submitted to the Department for concurrence. Additional restrictions and protective measures can be found in the Resource Protection portion of the Agreement.
3. Mowing using mechanical mowers would be performed within the 25% contour of debris basins. Exotic and invasive/weed removal would be performed by hand between the 25% and 100% contours for fire and invasive vegetation control.
4. The 25% contour location is based on previous surveys performed at the basins. Handheld GPS equipment would be used in the field to determine several points in the debris basin that define the 25% contour. These GPS points would be imported into database spreadsheets. The data would be used in the field to determine or mark the 25% contour limits prior to initiation of mowing activities.
5. Invasive vegetation would be removed first by hand and put onto a tarp or handled according to the different methods discussed below under "Exotic Species Eradication Control".
6. All pre- and post mowing site visits would be conducted by a qualified biologist to ensure that all mowing activities are performed according to the provisions of the Long-term Agreement or other applicable regulatory agency permits. Before and after photos (either by biologists or LACFCD staff), monthly schedule updates, and biological monitoring status reports from the biologists would be conducted and included as part of the annual debris basin maintenance monitoring report.

D) Entrainment Channel and Outlet Tower Area Clearing

1. Maintenance of a small (i.e., no more than 10-foot wide) entrainment channel that

extends from the debris basin outlet tower to the upstream end of the LACFCD easement along the flow path, and a 15-foot wide radius area immediately around the outside surface of an outlet tower at the top of the deposited debris would be performed annually to prevent clogging of the tower inlet and to direct the low flow discharge from the basin into the outlet tower.

2. In cases where a debris basin, in a non-burned watershed that has less than 25% capacity, has sufficient accumulated debris to require clearing around the outlet tower (i.e., greater than 5-feet deep from the bottom of the debris basin), the following condition shall apply when removing sediment around the outlet tower: Sediment clearing around the tower to ensure a clean tower inlet would require excavating a 15-foot radius from the tower's outer surface to the basin bottom elevation. This bottom basin elevation would be as shown on the ultimate cut plan for that basin. At the outer circumference of the 15-foot cleared area, a 2:1 slope shall be constructed to meet the existing debris surface. This would ensure that no material would fall against the tower during or after a storm event. Therefore, excavating would require additional vegetation and sediment removals, as necessary, to create a 2:1 slope from the top of the sediment to the bottom of the excavated area to operate a backhoe (or gradall) and provide access for a truck to remove the excavated debris.

3. These annual maintenance activities would be performed immediately following the mowing activities to minimize impacts on vegetation, or thereafter during the storm season as deemed necessary by LACFCD. If work needs to be performed during the nesting season, a biological monitor would be present and/or available during the mowing activities to ensure compliance with nesting bird requirements. Both mechanical and non-mechanical tools would be used, as necessary, to perform the maintenance activities.

E) Sediment Removal

Sediment removal would be authorized under the following conditions: Removal of accumulated sediment is necessary when the debris basin capacity reaches or exceeds the 25% contour. Sediment removal is completed with heavy equipment, such as a backhoe(s) or excavator(s), transferring the sediment into a dump truck(s). Generally, 10-cy trucks are used to transport the sediment from the debris basin to a designated sediment placement site. There are multiple variables that contribute to the rate at which the 25% contour would be filled, thereby triggering a cleanout requirement. Many of these factors, such as wildfires, amount of annual rainfall, and changes in land use conditions upstream of the basin, cannot be anticipated. These types of variables make it impractical to predict the frequency of debris basin sediment removal activities; however, historically the debris basins have been cleaned out generally once every 5 to 20 years. The overall cleanout period can be longer (i.e., up to 12 weeks) for larger basins because of weather delays, as sediment clearing is suspended for rain. Although sediment clearing is generally accomplished in the months prior to the rainy season (between mid-August and early November), this activity can occur year-round as needed to adequately maintain the flood-control facilities. If maintenance activities are proposed at a time that sensitive biological resources may be affected, such as the nesting bird season, specific preventative measures would be implemented in accordance with all applicable permits, including the proposed provisions of this Agreement discussed further below.

1. When the quantity of sediment in a debris basin has reached or exceeded the 25% of the debris basin's volume.

2. When the quantity of sediment in a debris basin has reached or exceeded 5% or more of the basin's capacity and more than 20% of the watershed upstream of the debris basin has burned within the previous 5 years.

3. Sediment removal in all debris basins would occur between August 16th and March 15th of any given storm season unless prior approval is received from the Department. If work in progress could potentially extend beyond March 15th LACFCD would be required to perform the necessary nesting bird surveys, in accordance with other provisions of this Agreement, before work may continue uninterrupted.

4. Sediment removal below the cleanout thresholds listed above would only be performed after prior approval from all agencies.

5. Sediment removal usually involves excavation, fill, and land clearing activity. The work would be performed using mechanical equipment and non-mechanical activities such as hand clearing. Work would be performed within the existing and defined right-of-way easements. All buried vegetation within the sediment deposition zone would be removed with the sediment as part of the removal activity.

6. A qualified biological monitor would be present or available before and during the sediment removal activities to ensure protection of resources.

7. A Water Diversion Plan would be prepared and appropriate Best Management Practices (BMPs) installed prior to start of work when a basin has ponded or flowing water. The plan would include appropriate BMPs and water sampling and testing protocols to comply with applicable Regional Water Quality Control Board (RWQCB) requirements. Similar to the RWQCB permit conditions, copies of the water sampling testing results would be submitted to the Department for its records.

8. Two standard water diversion plans (diversion plans) that have been previously approved by agencies and used by LACFCD during previous basin cleanouts that involved ponded or flowing water are included as part of the Long-term Agreement. Any future debris basin cleanout activity would use either one of the diversion plans and would notify the Department in writing. No diversion plans would be submitted prior to start of the cleanout. However, if LACFCD believes there would be a need to deviate from the pre-approved water diversion plan, a modified diversion plan would be submitted to the Department for review and approval.

F) Maintenance of Access Road and Other Appurtenances

1. Maintenance would be authorized, including restoration/reconstruction of existing access roads to and into debris basins, parking and turnaround areas, crest of spillway and spillway structures, provided the footprint does not change and the minimum width and length of the road necessary to provide access for routine maintenance and sediment removal. Reconstruction and maintenance of fences and other appurtenances would be also authorized. Appropriate BMPs would be installed prior to start of performing maintenance activities.

2. Annual inspections of the debris basin structures would be conducted, including minor repairs of outlet towers and access railings/stairs, graffiti removals, spillway, inlet and outlet pipe structures/chutes, riprap, trash racks, facing slabs, gage boards, slow and down drains, fence, unclogging of outlet towers, and other appurtenances to ensure compliance with other agency requirements and for the safety of the basin dam structures. This may require the use of hand and/or mechanical equipment and trucks to enter the basins to perform the repairs.

G) State Division of Safety of Dams (DSOD) Compliance

Removal of vegetation and/or accumulated trash/debris, including repair of rodent-damaged portions on the upstream and downstream faces of the debris basin dam and abutments would be allowed as necessary to comply with dam safety requirements of the DSOD and/or to ensure the integrity of the embankment. Additional maintenance activities may be required by State DSOD and shall be performed accordingly to comply with applicable regulations, including notification and coordination with Department and other agencies.

H) Storm Damage Repair and Restoration Projects

Storm damage repair and restoration of existing structures back to pre-storm conditions includes eroded or damaged slopes and embankments, down drains, inlet and outlet pipes and related structures, and other on-site structures. E-mail notification to the Department would be required prior to initiation of any such storm damage repair or restoration projects for existing structures.

Conditions

Sediment removal from debris basins would be allowed whenever necessary to protect downstream public health, safety and welfare. Debris basins with special situations that warrant specific conditions are listed below in Table 2 with the appropriate restrictions necessary to protect the environmental resources values present. Wilson Debris Basin requires a phased clearance program which is intended to reduce the amount of vegetation removed in any one year from vegetation mowing activities.

Table 2-Special Conditions

Debris Basin	Special Condition
Big Dalton & Englewild	Sediment removal activities would be conducted between August 15th and November 15th and would avoid major trees located within the slopes of the basin banks where at all possible, even when cleaning within the 25%-100% contour.
Linda Vista & Mullally	These basins are significantly undersized and require sediment clearing whenever the basin reaches 5% of maximum capacity, regardless of the upstream watershed conditions. Should the facility be redesigned, LACFCD would consult with the agencies on the proposed capacity in order to allow area for riparian vegetation to develop. This special condition would be void once the basins were built.

Santa Anita	<p>Sediment removal activities would be conducted between August 16th and November 15th and would avoid existing large willows near the dam on both sides of the basin. Willow growth on the upstream dam face may be removed to meet dam safety requirements.</p> <ul style="list-style-type: none"> • A 10-foot wide channel within the path of the inflow, through the willow grove located at the upstream end of the basin reservoir, would be maintained as-needed to relieve the blockage of debris upstream of the trees and allow debris and sediment to reach the basin. • A 16-foot wide access area along the toe of the upstream dam embankment face and the west embankment (adjacent to the access road and the residential homes) would be cleared of vegetation and maintained to allow maintenance vehicle trucks or equipment to access the outlet tower from the west invert access ramp for maintenance, to conduct upstream spillway embankment inspection, and to maintain a fire hazard clearing area on the west side of the basin. • A 15-foot wide radius clearance area around the outside surface of the tower would be cleared of debris, vegetation, and sediment to unclog the outlet tower inlets, ensure proper drainage, and to direct storm flows into the outlet tower.
Sawpit	<p>LACFCD would avoid tributaries entering the debris basin unless they are inundated with sediment.</p>
Sierra Madre Dam	<p>The State Division of Safety of Dams (DSOD) requires Sierra Madre Dam to be cleaned out whenever the accumulated debris surface reaches a target elevation of 1,128.9 feet above mean sea level (msl). This elevation corresponds to the maximum water and silt level at which the debris basin could safely operate in the event of a maximum credible earthquake.</p>
Wilson	<ul style="list-style-type: none"> • The area within the 25% contour that would be downstream of the July 2008 mature vegetation line (as indicated by a purple line on attached graphic) would be mowed annually in its entirety. Beginning at the edge of the mature vegetation line, the remainder of the 25% contour would be segregated into two areas by the control line. The eastern section would be mowed during even numbered years and the western portion would be mowed during odd numbered years. Training channels would be cut along the toe of both sides of the basin. • The training channel along the west side of the basin would collect waters flowing from the canyon. This western channel would be maintained up to the mature vegetation line annually. During odd numbered years, when the western half of the mature area would be cleared, the training channel would be extended to the furthest upstream point to collect the canyon runoff. • The training channel along the east side would collect water coming from a natural spring along that bank of the channel. A culvert would be placed to funnel the water under the basin access road and would be maintained annually. • A 15-foot wide radius clearance area around the outside surface of the outlet tower would be cleared annually of debris, vegetation, and sediment to unclog the outlet tower inlets, ensure proper drainage, and to direct storm flows into the outlet tower.

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Aliso	18100 San Fernando Mission Rd., Granada Hills	Oat Mountain	34 16'33"	118 31'32"	Aliso Creek
Arbor Dell (MTD 207 U02)	5400 Arbor Dell Pl, Eagle Rock	Pasadena	34 08'50"	118 11'30"	Unnamed
Auburn	700 Auburn Avenue, Sierra Madre	Mount Wilson	34 10'26"	118 03'20"	Unnamed
Avenue S Retention Basin (PD 2136)	9300 Ave S, Littlerock	Little Rock	34 33'25"	117 57'40"	Desert Wash
Avenue T-8 Retention Basin (PD 2103)	4880 Ave T-8, Palmdale	Palmdale	34 32'00"	118 02'25"	Walnut Creek
Bailey	700 Oakcrest Dr., Sierra Madre	Mount Wilson	34 10'19"	118 03'29"	Bailey Canyon
Beatty	500 Sierra Madre Ave., Azusa	Azusa	34 08'52"	117 33'37"	Beatty Canyon
Bell Creek	6950 Valley Circle Blvd, West Hills	Calabasas	31 12'00"	118 39'20"	Bell Creek
Big Briar (PD 638)	5400 Haskell St, La Canada-Flintridge	Pasadena	34 13'26"	118 11'57"	Unnamed
Big Dalton	1000 Glendora Mt. Rd., Glendora	Glendora	34 09'19"	117 50'00"	Big Dalton Canyon
Blanchard	6400 Day St, Tujunga	Sunland	34 15'10"	118 16'12"	Blanchard Canyon
Blue Gum	10320 Haines Canyon Ave, Tujunga	Sunland	34 15'20"	118 16'30"	Blum Gum Canyon
Brace (MTD 266)	3440 Brace Canyon Rd, Burbank	Burbank	34 12'52"	118 19'19"	Brace Canyon
Bracemar (MTD 266)	3361 North Lamer St, Burbank	Burbank	34 12'50"	118 19'26"	Unnamed
Bradbury	72 Bliss Cyn Rd., Bradbury	Azusa	34 09'21"	117 58'02"	Bradbury Canyon
Bramhall	18909 Branhall Ln. Rowland Heights	La Habra	33 58'00"	117 52'30"	Vernon Channel
Brand	1700 Brand Park Dr, Glendale	Burbank	34 11'03"	118 16'31"	Brand Cyn
Buena Vista	1165 Norumbega Dr. Monrovia	Azusa	34 09'45"	117 58'40"	Unnamed
Calle Robleda (PD1505)	4900 Calle Robleda, Agoura Hills	Calabasas	34 08'15"	118 44'20"	Liberty Canyon
Camp Plenty (PD 354)	27950 Camp Plenty Rd, Canyon Country	Mint Canyon	34 25'50"	118 28'30"	Unnamed
Cardiff (PD 2097)	22350 Cardiff Dr, Saugus	Newhall	34 24'15"	118 37'30"	Unnamed
Carriage House	1600 Winding Way, Pasadena	Mount Wilson	34 10'33"	118 04'07"	Unnamed
Carter	600 N. Baldwin Ave., Sierra Madre	Mount Wilson	34 10'26"	118 02'58'	Unnamed
Cassara	11500 Christy Ave, Sylmar	Sunland	34 16'44"	118 21'23"	Cassara Canyon
Chamberlain	1400 Chamberlain Rd., Pasadena	Pasadena	34 10'07"	118 10'51"	Unnamed
Chandler	9900 Roscoe Blvd, Sun Valley	Burbank	34 13'24"	118 20'41"	Chandler Canyon
Childs	1790 Allen Ave, Glendale	Burbank	34 11'20"	118 16'43"	Childs Canyon
Cloud Creek (PD 891)	2978 Hawkridge Dr, La Crescenta	Pasadena	34 14'49"	118 14'34"	Unnamed
Cloudcroft	3400 Cloudcroft Dr, Malibu	Topanga	34 02'57"	118 34'12"	Parker Canyon
Contento (MTD 1221)	1042 Calle Contento, Glendale	Pasadena	34 10'15"	118 13'15"	Sycamore Canyon Channel
Cooks	5025 Boston Ave, Glendale	Burbank	34 14'49"	118 15'42"	Cooks Canyon
Cooks M1-A	5026 Boston Ave, Glendale	Burbank	34 14'56"	118 15'38"	Cooks Canyon
Copper Hill Line "B" (PD 1386)	Copper Hill Dr & Buckhorn Ln, Saugus	Mint Canyon	34 27'40"	118 29'50"	Unnamed
Cordoba (PD 2284)	30530 Gibraltar Pl, Castaic	Val Verde	34 28'40"	118 38'40"	Unnamed
Crescent Glen	200 N. Crescent Glen Dr., Glendora	Glendora	34 08'30"	117 49'15"	Oak Park Drain System
Crestview	12 Crestview Ct., Duarte	Azusa	34 09'12"	117 56'53"	Unnamed
Crystal Springs #1 (PD 2223)	27130 Crystal Springs Rd, Canyon Country	Mint Canyon	34 24'25"	118 24'30"	Unnamed
Deer	1290 Beaudry Blvd, Glendale	Pasadena	34 11'35"	118 14'27"	Deer Creek
Denivelle	7710 Denivelle Road, Tujunga	Sunland	34 16'20"	118 17'59"	Unnamed

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Devonwood	505 Devonwood Rd., Altadena	Pasadena	34 12'25"	118 07'49"	Unnamed
Dry Canyon – South Fork	22820 Mulholland Hwy, Calabasas	Canoga Park	34 08'10"	118 37'25"	Unnamed
Dunsmuir	5145 Dunsmore Ave, Glendale	Burbank	34 14'51"	118 15'07"	Dunsmore Canyon
Eagle	2700 Harmony Pl, La Crescenta	Pasadena	34 14'07"	118 14'09"	Eagle & Goss Canyon
Elmwood	1260 East Elmwood Ave, Burbank	Burbank	34 11'27"	118 17'07"	Elmwood Canyon
Emerald - East	4854 emerald Avenue, La Verne	Glendora	34 07'38"	117 45'53"	Unnamed
Englewild	4700 Englewild Dr., Glendora	Glendora	34 09'32"	117 50'52"	Englewild Canyon
Fair Oaks	300 Loma Alta Dr., Altadena	Pasadena	34 12'12"	118 08'23"	Unnamed
Fern	3500 Chaney Trail, Altadena	Pasadena	34 12'13"	118 08'51"	Chiquita Canyon
Fieldbrook	18566 Fieldbrook St., Rowland Heights	La Habra	33 57'51"	117 53'39"	Unnamed
Ft. Tejon (PD 2101)	4800 Essex Dr. Palmdale	Palmdale	34 33'15"	118 02'30"	Desert Wash
Fullerton (PD 2202-U2)	2300 Fullerton Rd. Rowland Heights	La Habra	33 58'0"	117 53'30"	San Jose Creek
Garnet Canyon (PD 2176) - <Renamed from PD2176 Line 'A' DB>	29090 High Sierra Trail, Saugus	Newhall	34°28'33"	118°31'15"	Unnamed
Golf Club	3065 E. Chevy Chase Dr, Glendale	Pasadena	34 10'10"	118 12'11"	Sycamore Canyon
Gooseberry	1600 Crest Drive, Altadena	Chico Flat	34 20'30"	118 07'15"	Gooseberry Creek
Gordon	1900 E. Foothill Blvd., Glendora	Glendora	34 08'29"	117 49'42"	Gordon Canyon
Goss Inlet (PD 503)	2550 Rockdell St, La Crescenta	Pasadena	34 14'15"	118 13'15"	Goss Canyon
Gould	800 Green Ln, La Canada-Flintridge	Pasadena	34 12'54"	118 11'33"	Gould Canyon
Gould Upper (PD 655)	Cul De Sac of Lone Grove Wy, La Canada-Flintridge	Pasadena	34 13'24"	118 11'33"	Gould Canyon
Green Hill #1 (PD 1974)	32200 Green Hill Dr, Castaic	Warm Springs	34 30'00"	118 37'45"	Unnamed
Green Hill #2 (PD 1974)	28410 Avion Ct, Castaic	Warm Springs	34 30'10"	118 37'50"	Unnamed
Greensbrier (PD 2495)	24800 Greensbrier Drive, Stevenson Ranch	Oat Mountain	34°22'13"	118°35'35"	Dewitt Canyon
Halls	2100 Cross St, La Canada-Flintridge	Pasadena	34 13'20"	118 13'15"	Hall Beckley Canyon
Harbor Blvd. (PD2202-U2)	3500 Harbor Blvd., Rowland Heights	La Habra	35 58'00"	117 54'00"	San Jose Creek
Harrow	4800 Easely Canyon Rd., Glendora	Glendora	34 09'23"	117 51'40"	Harrow Canyon
Harter Lane (PD 222)	5400 Harter Ln, La Canada-Flintridge	Pasadena	34 13'30"	118 11'45"	Harter Canyon
Haven Way (MTD 1008)	3630 Haven Wy, Burbank	Burbank	34 12'38"	118 19'09"	McClure Canyon
Hay	1235 El Vago St, La Canada-Flintridge	Pasadena	34 13'26"	118 12'16"	Hay Canyon
Hazel Nut (PD 2488)	1900 Hazel Nut Ct, Agoura	Point Dume	34 6'25"	118 47'17"	Unnamed
Hillcrest	1800 Hillcrest Ave, Glendale	Burbank	34 10'43"	118 15'54"	Hillcrest & Sherer Canyon
Hillman	2332 Hillman Lane, Rowland Heights	La Habra	33 58'30"	117 53'00"	San Jose Creek
Hipshot (PD 1683 U01)	31675 Hipshot Dr, Castaic	Newhall	34 29'10"	118 37'30"	Unnamed
Hog	15455 Glenoaks Blvd, Sylmar	San Fernando	34 19'50"	118 27'50"	Hog Canyon
Hook-East	9200 Sierra Madre Ave., Glendora	Azusa	34 09'12"	117 52'35"	Unnamed
Hook-West	9201 Sierra Madre Ave., Glendora	Azusa	34 09'13"	117 52'44"	Unnamed
Inverness	1377 Edgehill Place, Pasadena	Pasadena	34 10'40"	118 10'51"	Unnamed
Irving (MTD 329)	940 Irving Dr, Burbank	Burbank	34 12'26"	118 19'15"	Unnamed
Kinneloa-East	2300 Kinneloa Canyon Road	Mount Wilson	34 10'59"	118 04'58"	Unnamed

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Kinneloa-West	2300 Brambling Lane, Unincorporated	Mount Wilson	34 11'04"	118 05'05"	Unnamed
Knoll (PD 2279)	28450 Knoll Ct, Castaic	Val Verde	34 28'00"	118 38'00"	Unnamed
La Salle (PD 1358)	23700 La Salle Canyon Dr, Santa Clarita	Oat Mountain	34 21'40"	118 33'00"	Unnamed
La Tuna	9050 La Tuna Canyon Rd, Sun Valley	Burbank	34 14'12"	118 19'37"	La Tuna Canyon
Lannan	2701 Santa Anita Avenue, Sierra Madre	Mount Wilson	34 10'56"	118 01'56"	Unnamed
Las Flores	3200 Rubio Canyon Rd., Altadena	Pasadena	34 12'32"	118 07'32"	Las Flores Canyon
Las Lomas	50 Las Lomas Road, Duarte	Azusa	34 09'14"	117 56'40"	Unnamed
Limekiln	10500 Tunney Ave, Los Angeles	Oat Mountain	34° 15'38"	118°33'25"	Limekiln Canyon
Lincoln	600 Loma Alta Drive, Altadena	Pasadena	34 12'10"	118 09'22"	Unnamed/West Ravine Cyn
Linda Vista	3200 Linda Vista Rd, Glendale	Pasadena	34 10'14"	118 11'54"	Unnamed
Little Dalton	110 Glendora Mountain Rd, Glendora	Glendora	34 09'25"	117 50'14"	Little Dalton Canyon
Lopez	12000 Paxton St, Lake View Terrace	San Fernando	34 17'30"	118 24'15"	Lopez Canyon
Maddock	400 Vineyard Avenue, Duarte	Azusa	34 09'16"	117 57'03"	Maddock Canyon
May #1	13500 Fritz Ln, Sylmar	San Fernando	34 19'52"	118 25'42"	May Canyon
May #2	13500 Fritz Ln, Sylmar	San Fernando	34 19'48"	118 25'38"	Unnamed
Montana (MTD 510)	530 South Via Montana, Burbank	Burbank	34 12'00"	118 17'25"	Story Canyon
Monument	23746 Monument Cyn Dr., Diamond Bar	San Dimas	34 00'05"	117 48'10"	Unnamed
Morgan	2100 Valiant Street, Glendora	Glendora	34 08'28"	117 49'10"	Morgan Canyon
Mountbatten (MTD 787 U02)	1150 Mountbatten Dr, Glendale	Pasadena	34 10'39"	118 14'25"	Unnamed
Mull	1800 North Gordon Rd., Glendora	Glendora	34 08'27"	17 49'36"	Mull Canyon
Mullally (PD 274)	2000 Manistee Dr, La Canada-Flintridge	Pasadena	34 14'28"	118 13'14"	Mullally Canyon
Mustang (PD 2049)	32350 Mustang Dr, Castaic	Val Verde	34 30'00"	118 38'00"	Unnamed
Nichols	1920 Nichols Canyon Rd, Los Angeles	Hollywood	34 06'23"	118 21'31"	Nichols Canyon
Oak (MTD 864)	5324 Quail Canyon Rd, Glendale	Pasadena	34 14'40"	118 14'45"	Unnamed
Oak Park	2357 Oak Park Rd., Glendora	Glendora	34 08'30"	117 49'15"	Oak Park Drain System
Oakdale (PD 2389)	26500 Oakdale Canyon Ln, Canyon Country	Mint Canyon	34 23'52"	118 27'17"	Unnamed
Oakglade	900 Ridgeside Drive, Monrovia	Azusa	34 10'25"	117 59'39"	Unnamed
Oakmont (MTD 806)	2940 Oakmont View Dr, Glendale	Pasadena	34 12'14"	118 14'23'	Unnamed
Oliver	11300 Dominica Ave, Lake View Terrace	Sunland	34 16'34"	118 20'52"	Oliver Canyon
Pickens	4628 Briggs St, La Crescenta	Pasadena	34 13'16"	118 13'43"	Pickens Canyon
Pinelawn (PD 1053)	2850 Pinelawn Dr, La Crescenta	Pasadena	34 13'16"	118 13'43"	Unnamed
Rowley	10720 Las Lunitas Ave., Tujunga	Sunland	31 15'50"	118 17'25"	Rowley Canyon
Rowley Upper	10890 Amidon Pl, Tujunga	Sunland	34 16'05"	118 17'08"	Rowley Canyon
Royal Terminus (PD 1920)	28410 Royal Rd, Castaic	Newhall	34 29'30"	118 37'45"	Unnamed
Rubio	3200 Rubio Canyon Rd., Altadena	Mt. Wilson	34 11'56"	118 07'19"	Rubio Canyon
Ruby Lower	300 Scenic Drive, Monrovia	Azusa	34 09'51"	117 39'54"	Ruby Canyon
Saddleback #1 (PD 2247)	15230 Saddleback Rd, Santa Clarita	Mint Canyon	34 23'30"	118 24'00"	Unnamed
Saddleback #2 (PD 2247)	15200 Saddleback Rd, Santa Clarita	Mint Canyon	34 24'00"	118 24'00"	Unnamed
Saddleback #3 (PD 2247)	15200 Saddleback Rd, Santa Clarita	Mint Canyon	34 23'30"	118 24'00"	Unnamed

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Santa Anita	2000 Oak Place, Arcadia	Mount Wilson	34 10'14"	118 01'16"	Santa Anita Canyon
Sawpit	700 North Canyon Road, Monrovia	Azusa	34 10'05"	117 59'05"	Sawpit/Monrovia/Spanish Cyn
Schoolhouse	14500 Olive View Dr, Sylmar	San Fernando	34 19'32"	118 27'29"	Schoolhouse Canyon
Schwartz	9825 Foothill Blvd, Sylmar	Sunland	34 16'32"	118 20'32"	Schwartz Canyon
Shadow (PD 2099)	29000 Shadow Valley Ln, Saugus	Mint Canyon	34 28'12"	118 29'24"	Unnamed
Shields	5300 La Crescenta Ave, La Crescenta	Pasadena	34 14'23"	118 14'22"	Shields Canyon
Shields Upper (PD 769)	5670 Pine Cone Rd, La Crescenta	Pasadena	34 14'52"	118 14'15"	Shields Canyon
Sierra Madre Dam	900 Brookside Lane, Sierra Madre	Mount Wilson	34 10'34"	118 02'31"	Little Santa Anita Canyon
Sierra Madre Villa	1150 Sierra Madre Villa Ave., Pasadena	Mount Wilson	34 10'16"	118 04'36"	Pasadena Glen/Hastings Cyn
Skyridge (MTD 1317)	5190 Sky Ridge Dr, Glendale	Burbank	34 14'50"	118 15'40"	Unnamed
Sloan (PD 1726)	5850 Sloan Pl, Calabasas	Calabasas	34 10'10"	118 41'45"	Gates Canyon
Snover	5250 Escalante Dr, La Canada-Flintridge	Pasadena	34 13'48"	118 13'22"	Snover Canyon
Sombrero	Cul De Sac of Sombrero Cyn Rd, Sylmar	San Fernando	34 19'52"	118 28'07"	Sombrero Canyon
Spinks	17 Woodlyn Land, Bradbury	Azusa	34 09'06"	117 37'42"	Spinks Canyon
Starfall (PD 1081)	2700 Starfall Dr, La Crescenta	Pasadena	34 14'47"	118 14'11"	Eagle Canyon
Stetson	13877 Glenoaks Blvd, Sylmar	San Fernando	34 19'41"	118 28'27"	Unnamed
Stevenson Ranch (PD 2528)	25305 Pico Canyon Rd, Stevenson Ranch	Newhall	34°22'53"	118°34'56"	Pico Canyon
Stough	1150 Walnut Ave, Burbank	Burbank	34 12'00"	118 18'09"	Stough Canyon
Stratford (PD 2097)	25450 Stratford Dr, Saugus	Newhall	34 24'00"	118 37'40"	Oakdale Canyon
Sturtevant	500 Lotus Lane, Sierra Madre	Mount Wilson	34 10'18"	118 02'22"	Unnamed
Sullivan	2200 Queensferry Rd, Los Angeles	Topanga	34 04'24"	118 30'26"	Sullivan Canyon
Sunnyside	4100 Park Vista Dr., Pasadena	Mount Wilson	34 10'26"	118 03'52"	Unnamed
Sunset Canyon-Deer Canyon	1270 Country Club Dr, Burbank	Burbank	34 12'05"	118 17'10"	Deer Canyon
Sunset Lower	455 Country Club Dr, Burbank	Burbank	34 11'09"	118 17'04"	Sunset Canyon
Sunset Upper	1500 Country Club Dr, Burbank	Burbank	34 12'18"	118 17'03"	Sunset Canyon
Thousand Oaks (PD 1726)	25800 Thousand Oaks Blvd, Calabasas	Calabasas	34 10'00"	118 41'50"	Unnamed
Turnbull	13600 Turnbull Canyon Road, Whittier	Whittier	33 59'15"	118 01'35"	Turnbull Canyon
Verdugo	3500 La Crescenta Ave, Glendale	Pasadena	34 12'06"	118 14'09"	Verdugo Wash
Victoria (PD 2275)	28632 Victoria Rd, Castaic	Whittier Peak	34 30'20"	118 38'10"	Unnamed
Ward	3145 Markridge Rd, Glendale	Pasadena	34 14'39"	118 14'52"	Ward Canyon
Wedgewood (PD 2467)	Cul De Sac of W. Wedgewood Ct, Castaic	Newhall	34 28'00"	118 37'10"	Villa Canyon
Wellington (PD 2202 UIII)	1792 Harbor Blvd, La Habra heights	La Habra	33 57' 26"	117 55' 13"	Unnamed
West Ravine	3600 chaney Trail, Altadena	Pasadena	34 12'18"	118 08'51"	Unnamed
Westridge	1000 Westridge Avenue, Glendora	Glendora	34 09'01"	117 52'15"	Unnamed
Whitney (PD 2444)	30530 Whitney Dr, Castaic	Val Verde	34 28'30"	118 38'30"	Villa Canyon
Wilbur	19000 Nordhoff Ave, Northridge	Canoga Park	34 13'45"	118 32'45"	Aliso & Wilbur Canyon
Wildwood (PROJ 1222)	23145 Davey Ave, Newhall	Oat Mountain	34 22'06"	118 31'56"	Wildwood Canyon
William S. Hart Park (RDD 341)	22900 Market St, Newhall	Oat Mountain	34 22'27"	118 31'42"	Unnamed
Wilson	14301 Saranac Dr, Sylmar	San Fernando	34 19'46"	118 26'41"	Wilson Canyon

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Winery	1409 El Vago St, La Canada-Flintridge	Pasadena	34 13'30"	118 12'33"	Winery Canyon
Yucca (PD 2157)	30570 Yucca Pl, Castaic	Newhall	34 28'12"	118 37'12"	Unnamed
Zachau	10905 Sevenhills Dr, Tujunga	Sunland	3416'02"	118 17'25"	Zachau Canyon