



DEBRIS BASIN RANKINGS AND VEGETATION REPLACEMENT RATIOS

SECTION 1605 LONG-TERM STREAMBED ALTERATION AGREEMENT FOR THE DEBRIS BASIN MAINTENANCE PROGRAM

Prepared for

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ATTACHMENTS

Attachment A – Aerial Photographs for 162 Debris Basins Attachment B – Vegetation Communities for 162 Debris Basins

SECTION 1.0 METHODOLOGY

BonTerra Consulting conducted a habitat quality evaluation of all 162 County-maintained debris basins included in the County of Los Angeles Debris Basin Maintenance Program (Maintenance Program). The debris basins are maintained by the County of Los Angeles Department of Public Works (LACDPW). The purpose of the evaluation was two-fold: to provide the California Department of Fish and Game (CDFG) with detailed information about the types, quantity, and quality of the jurisdictional vegetation within each debris basin, and to determine appropriate replacement ratios for impacts to these debris basins from maintenance activities. This document includes vegetation maps for all 162 debris basins within the 100% capacity contour level (elevation level at which the debris basin would reach maximum capacity), 25% and mowing contour, as well as a methodology for assessing biological values and ascribing replacement ratios.

Vegetation types within the 100% contour for all 162 debris basins included in the Maintenance Program have been mapped and are presented within this document. The habitat quality evaluations were based on the following factors: open space, vegetation types (internal and adjacent), and the potential presence or absence of special status or sensitive species and critical habitat (internal and adjacent). An explanation of the ranking methodology is summarized below in Table 1.

TABLE 1
HABITAT QUALITY EVALUATION FACTORS

Factors
Open Space
Adjacent Vegetation
Internal Basin Vegetation
Adjacent Special Status Species/Designated Critical Habitat
Internal Special Status Species/Designated Critical Habitat

1.1 OPEN SPACE

An assessment of the open space surrounding a debris basin was used as one measure of a basin's biological value because it is a strong indicator of the basin's potential for utilization by plants and animal species of the region. In assessing the value of open space, there are three primary elements to consider: quality, quantity, and connectivity. The quality of the open space was assessed based on the "type" of open space. For instance, open space adjacent to or within National Forests or other protected areas was ranked higher than open space that is likely to be developed in the future, currently used as parkland or golf courses, or otherwise hindered in its long-term value for plants and wildlife. The quantity of open space surrounding the basin was rated higher when it extended beyond several hundred acres. Conversely, basins with only small amounts of open space surrounding them (i.e. less than a couple hundred acres), were given a lower score for this factor. The final element of the open space rating was based on the level of connectivity between the adjacent open space and other larger open spaces. Basins that are surrounded by open space that is connected to other large tracts of open space scored higher while basins with more isolated surrounding open space scored lower.

Open Space Ranking Definition	Ranking
Very High Quality/Quantity/Connectivity	3.0
High Quality/Quantity/Connectivity	2.5
Good Quality/Quantity/Connectivity	2.0
Moderate Quality/Quantity/Connectivity	1.5
Low Quality/Quantity/Connectivity	1.0
Very Low Quality/Quantity/Connectivity	0.5
No Open Space	0.0

1.2 VEGETATION (ADJACENT AND INTERNAL)

The second factor considered as a measure of a basin's biological value was the vegetation, both within the basin and surrounding it. Adjacent vegetation was rated on its sensitivity or rareness in the region and its condition or quality. Using aerial photographs and site reconnaissance, the type of vegetation and the level of disturbance it has experienced was deduced. Areas adjacent to the debris basins with more undisturbed rare vegetation types such as riparian communities, woodlands, or sage scrub were rated higher. Lower scores were assigned if adjacent vegetation types were considered relatively common in the region (such as chaparral, grasslands, or ornamental) or were highly disturbed.

Vegetation Ranking Definition (Adjacent and Internal)	Ranking
Very High Sensitivity/Rareness	3.0
High Sensitivity/Rareness	2.5
Good Sensitivity/Rareness	2.0
Moderate Sensitivity/Rareness	1.5
Low Sensitivity/Rareness	1.0
Very Low Sensitivity/Rareness	0.5
No Vegetation	0.0

Vegetation within a basin was assessed using a more in depth rating method due to its higher degree of importance as the jurisdictional area of concern in this analysis. Previously prepared vegetation maps were used to calculate the precise acreage of each vegetation type contained within the 100% contour of each debris basin. Based on sensitive/rareness in the region, each vegetation type was rated from 3.0 (highest) to 0.0 (lowest), as shown in Table 2 below.

TABLE 2 VEGETATION TYPES WITHIN DEBRIS BASINS

Vegetation Types	Overall Vegetation Value Rating
Alluvial Sage Scrub	3.0
Alluvial Sage Scrub/Sycamore Riparian Woodland	3.0
California Walnut Woodland	3.0
Freshwater Marsh	3.0
Hollyleaf Cherry Woodland	3.0
Mixed Sage Scrub	3.0
Mixed Sage Scrub/Needlegrass Grassland	3.0
Needlegrass Grassland	3.0
Oak Woodland	3.0
Oak Woodland/California Walnut Woodland	3.0
Oak Woodland/Sycamore Riparian Woodland	3.0
Oak Woodland/Sycamore Riparian Woodland/California Walnut Woodland	3.0
Oak Woodland/Sycamore Riparian Woodland/Willow Riparian Woodland	3.0
Southern Willow Scrub	3.0
Southern Willow Scrub/Freshwater Marsh	3.0
Sycamore Riparian Woodland	3.0
Willow Riparian Woodland	3.0
Willow Riparian Woodland/Sycamore Riparian Woodland	3.0
Oak Woodland/Chaparral	2.5
Sycamore Riparian Woodland/Unvegetated Wash	2.5
Chaparral	2.0
Chaparral/Mixed Sage Scrub	2.0
Mixed Sage Scrub/California Annual Grassland	2.0
Mule Fat Scrub	2.0
Oak Woodland/Ornamental	2.0
Ornamental/Southern Willow Scrub	2.0
Riparian Herb	2.0
Saltbush Scrub	2.0
Chaparral/California Annual Grassland	1.5
Open Water	1.5
California Annual Grassland	1.0
Unvegetated Wash	1.0
Ornamental	0.5
Ruderal	0.5
Developed	0.0
Disturbed	0.0

High values were assigned to riparian communities and other native rare vegetation types while low scores were assigned to common vegetation types of the region or highly disturbed areas. The vegetation type rating was then multiplied by the acreage of the associated vegetation types within each basin's 100% contour.

The resulting scores were then simplified by grouping and re-assigning scores from 3.0 (highest) to 0.0 (lowest). This process was based on a bell curve. As demonstrated in

Table 3, if a debris basin's raw internal vegetation ranking was greater than 10 (i.e. Santa Anita, Big Dalton, Limekiln, Sawpit, Wilson, and La Tuna), the internal vegetation was assessed to be a 3.0. If a basin's raw internal vegetation ranking was between 9.9 and 5.0, it was ranked a 2.5 and so forth, as summarized below.

Raw Internal Ranking	Internal Vegetation Ranking
Greater than 10	3.0
9.99 to 5.00	2.5
4.99 to 2.00	2.0
1.99 to 1.00	1.5
0.99 to 0.50	1.0
0.49 to 0.01	0.5

A summary of the preliminary ranking for internal vegetation (i.e. Rated 100% Acreage), as well as the final ranking for "Internal Basin Vegetation" for each of the 162 debris basins is presented in Table 3 below.

TABLE 3
PRELIMINARY AND FINAL RANKINGS FOR INTERNAL
BASIN VEGETATION

Basin Name	Rated 100% Acreage	Ranking	Basin Name	Rated 100% Acreage	Ranking
Santa Anita	45.57	3.0	West Ravine	1.19	1.5
Big Dalton	18.70	3.0	Lincoln	1.15	1.5
Limekiln	17.35	3.0	Snover	1.13	1.5
Sawpit	14.08	3.0	Oakdale	1.13	1.5
Wilson	12.81	3.0	Ave S	1.12	1.5
La Tuna	10.17	3.0	Auburn	1.11	1.5
Little Dalton	9.46	2.5	Chamberlain	1.10	1.5
Sierra Madre Villa	9.01	2.5	Cloudcroft	1.09	1.5
Stratford	7.53	2.5	Copperhill	1.09	1.5
Bailey	6.67	2.5	Cassara	1.06	1.5
Havenway	6.49	2.5	Bakerton	1.05	1.5
May1	5.36	2.5	Linda Vista	1.05	1.5
Oliver	4.95	2.0	Kinneloa-East	1.04	1.5
Beatty	4.78	2.0	Sunset Canyon Deer	1.01	1.5
Aliso	4.71	2.0	Contento	1.00	1.5
Sunset Lower	4.52	2.0	Lopez 1.00		1.0
Hillcrest	4.33	2.0	Monument 0.99		1.0
Emerald East	4.22	2.0	Pickens	0.99	1.0
Stevenson Ranch	4.14	2.0	Saddleback #1	0.96	1.0
Schoolhouse	3.70	2.0	Cooks M1	0.95	1.0
Rubio	3.63	2.0	Hook-East	0.94	1.0
Elmwood	3.52	2.0	Green Hill 2	0.91	1.0
Stough	3.45	2.0	Shields	0.90	1.0
Stetson	3.36	2.0	Oak	0.90	1.0
Sierra Madre Dam	3.25	2.0	Shields Upper	0.88	1.0

TABLE 3 (Continued) PRELIMINARY AND FINAL RANKINGS FOR INTERNAL BASIN VEGETATION

Basin Name	Rated 100%	Ranking	Basin Name	Rated 100% Acreage	Ranking
Verdugo	Acreage 3.21	2.0	Carter	0.85	1.0
Bell Creek	3.20	2.0	Las Lomas	0.84	1.0
Sombrero	3.19	2.0	Hazelnut #2	0.82	1.0
Gould	3.17	2.0	Denivelle	0.82	1.0
Spinks	3.13	2.0	Eagle	0.79	1.0
Hook-West	3.03	2.0	Sloan	0.79	1.0
Childs	2.89	2.0	Blue Gum	0.76	1.0
Las Flores	2.72	2.0	Montana	0.72	1.0
Sunset Upper	2.67	2.0	Ward	0.67	1.0
Halls	2.66	2.0	Skyridge	0.65	1.0
Bradbury	2.41	2.0	Calle Robleda	0.64	1.0
Dunsmuir	2.40	2.0	Crestview	0.60	1.0
Nichols	2.38	2.0	Mullally	0.57	1.0
Gordon	2.34	2.0	Shadow	0.57	1.0
Oak Park	2.29	2.0	Moon Dust	0.57	1.0
Cardiff	2.15	2.0	Arbor Dell	0.54	1.0
Thousand Oaks	2.11	2.0	Devonwood	0.53	1.0
Hillman	2.10	2.0	Dry Canyon	0.52	1.0
Sullivan	2.04	2.0	Fair Oaks	0.51	1.0
Goss	2.03	2.0	Cooks	0.51	1.0
Camp Plenty	2.02	2.0	La Salle	0.50	1.0
Crescent Glen	2.01	2.0	Blanchard	0.50	0.5
Schwartz	2.01	2.0	Hay	0.49	0.5
Fern	1.92	1.5	Turnbull	0.48	0.5
Harbor	1.91	1.5	Zachau	0.48	0.5
Harrow	1.78	1.5	Saddleback #2	0.48	0.5
Harter	1.74	1.5	Victoria	0.48	0.5
Mustang	1.74	1.5	Hipshot	0.43	0.5
Morgan	1.73	1.5	Sturtevant	0.36	0.5
Wellington	1.67	1.5	Cordoba	0.35	0.5
Line A	1.66	1.5	Sunnyside	0.35	0.5
Rowley Upper	1.66	1.5	Oakmont	0.34	0.5
Winery	1.64	1.5	Big Briar	0.33	0.5
Greensbrier	1.59	1.5	Crystal Springs	0.32	0.5
Lannan	1.58	1.5	Knoll	0.27	0.5
Bramhall	1.55	1.5	Oakglade	0.20	0.5
Brand	1.54	1.5	Inverness	0.20	0.5
Carriage House	1.51	1.5	Cloudcreek	0.20	0.5
Englewild	1.50	1.5	Mull	0.19	0.5
Chandler	1.48	1.5	Golf Club	0.19	0.5
Wilbur	1.45	1.5	Royal Terminus	0.18	0.5
Fullerton	1.45	1.5	Fieldbrook	0.18	0.5

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TABLE 3 (Continued) PRELIMINARY AND FINAL RANKINGS FOR INTERNAL BASIN VEGETATION

Basin Name	Rated 100% Acreage	Ranking	Basin Name	Rated 100% Acreage	Ranking
Buena Vista	1.43	1.5	Gooseberry	0.16	0.5
Deer	1.42	1.5	Pinelawn	0.14	0.5
Ruby Lower	1.40	1.5	Mountbatten	0.13	0.5
Brace	1.39	1.5	Irving	0.10	0.5
Caitlyn Circle	1.36	1.5	Westridge	0.04	0.5
Green Hill 1	1.35	1.5	Wildwood	0.02	0.5
Starfall	1.35	1.5	Ave T-8	0.02	0.5
May2	1.33	1.5	Saddleback #3	0.01	0.5
Maddock	1.24	1.5	Rowley	0.01	0.5
High Sierra	1.23	1.5	Wedgewood	0.01	0.5
Kinneloa-West	1.23	1.5	Bracemar	0.00	0.0
Yucca	1.21 1.5		Gould Upper	0.00	0.0
Ft Tejon	1.20	1.5	Whitney	0.00	0.0
Hog	1.19	1.5	William S. Hart Park	0.00	0.0

1.3 SPECIAL STATUS SPECIES (ADJACENT AND INTERNAL)

The third factor considered as a measure of a basin's biological value was its occupation or potential to be occupied by special status plant or wildlife species. Based on previously prepared habitat assessment reports, focused survey reports, and other field studies conducted by BonTerra Consulting and Chambers Group, information regarding the presence of special status species was ascertained. In addition, USFWS Designated Critical Habitat areas for all species were assessed for their proximity to each debris basin. High scores were assigned to basins which supported or had high potential to support numerous special status plant and/or wildlife species. Lower scores were afforded to basins which had few or no special status species known to occur or little to no potential to support special status species. Using this same method, the vegetation adjacent to the basin was similarly assessed and scored based on its known occupation or potential to be occupied by special status plant or wildlife species or USFWS designated critical habitat.

The following reports were used for this scoring:

- Results of the Biological Reconnaissance Surveys for the Los Angeles Department of Public Works 116 Debris Basins, Los Angeles County, California (Chambers Group, Inc. 2003)
- 2. Los Angeles County, Department of Public Works Twenty-one Debris Basins 2003 Focused Surveys (BonTerra Consulting 2003)
- 3. Results of Focused Surveys for Braunton's Milk-vetch in 43 Debris Basins, Los Angeles County, California (BonTerra Consulting 2003)
- 4. Final Results of Focused Wildlife Surveys Conducted at Various LADPW Debris Basins, Debris Retaining Inlets, and Soft-bottom Channels in Los Angeles County, California (Chambers Group, Inc. 2004)

- 5. Los Angeles County Department of Public Works Habitat Assessments Reconnaissance Surveys Debris Basins, Debris Retaining Inlets and Soft-bottom Channels (BonTerra Consulting 2004)
- 6. Results of Focused Amphibian Surveys at 32 Debris Basins Maintained by the Los Angeles County Department of Public Works in Los Angeles County, California (BonTerra Consulting 2005)

Special Status Species Ranking Definition (Adjacent and Internal)	Ranking
Very High Likelihood of Presence or Present	3.0
High Likelihood of Presence	2.5
Good Likelihood of Presence	2.0
Moderate Likelihood of Presence	1.5
Low Likelihood of Presence	1.0
Very Low Likelihood of Presence	0.5
Not Present	0.0

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SECTION 2.0 RANKING

In order to derive the final overall basin ranking value, these five factors were weighted as to their relative significance to the debris basin's biological value. Although all five of the factors used to rank the biological value of the basins are important, they are not equally important. For instance, a debris basin may have valuable and sensitive vegetation within the 100% contour, but if the basin is landlocked, then the overall value of the basin is reduced. Therefore, the factors considered most important when determining appropriate replacement ratios were open space and internal basin vegetation (weighted at 1.25). The vegetation quality and potential presence of special status species and critical habitat were determined to be less critical factors (weighted at 0.75) when ascribing appropriate replacement ratios. Table 4 shows this weighted ranking.

TABLE 4
WEIGHTED HABITAT QUALITY EVALUATION FACTORS

Factor	Weighted
Open Space	1.25
Adjacent Vegetation	0.75
Internal Basin Vegetation	1.25
Adjacent Special Status Species/Designated Critical Habitat	0.75
Internal Special Status Species/Designated Critical Habitat	1.00

Once the five factors discussed above were assessed for each debris basin, they were multiplied by the weighting factors above to determine the final overall debris rankings. These rankings are provided in Table 5 below.

TABLE 5
OVERALL DEBRIS BASIN RANKING (3.0 THROUGH 0.0)

Basin Name Ranking		Basin Name	Ranking	Basin Name	Ranking
Wilson 2.73		Rowley Upper	2.05	Hipshot	1.58
Santa Anita 2.70		Skyridge	2.05	Gould	1.55
Sawpit	2.60	Thousand Oaks	2.05	Shadow	1.55
Big Dalton	2.55	Englewild	2.00	Sturtevant	1.55
Crescent Glen	2.55	Yucca	2.00	Aliso	1.53
Sierra Madre Dam	2.48	Shields Upper	1.98	High Sierra	1.53
May1	2.43	Sunset Lower	1.98	Oakmont	1.53
Havenway	2.43	Maddock	1.95	Stough	1.53
Little Dalton	2.43	Mullally	1.95	Wellington	1.53
Childs	2.30	Big Briar	1.93	Auburn	1.50
Elmwood	2.30	Caitlyn Circle	1.93	Contento	1.48
Hillcrest	2.30	Carriage House	1.93	Ruby Lower	1.48
Hook-West	2.30	Goss	1.93	Beatty	1.43
La Tuna	2.30	Harbor	1.93	Cooks M1	1.43
Oak Park	2.30	Winery	1.93	Gould Upper	1.43
Oliver	2.30	Calle Robleda	1.90	Knoll	1.43
Sombrero	2.30	Dunsmuir	1.90	Mountbatten	1.43
Sullivan	2.30	Hazel Nut #2	1.90	Whitney	1.43
Schwartz	2.23	Lannan	1.90	Denivelle	1.40
Sunset Upper	2.23	Las Lomas	1.90	Irving	1.40
Bradbury	2.20	Limekiln	1.90	La Salle	1.40

TABLE 5 (Continued) OVERALL DEBRIS BASIN RANKING (3.0 THROUGH 0.0)

Basin Name	Ranking	Basin Name	Ranking	Basin Name	Ranking
Brace	2.18	Montana	1.90	Rubio	1.40
Cardiff	2.18	Saddleback #1	Saddleback #1 1.90 Fern		1.35
Cassara	2.18	Devonwood 1.88 La		Las Flores	1.35
Chandler	2.18	Royal Terminus	1.88	Turnbull	1.35
Cloudcroft	2.18	Oak	1.85	West Ravine	1.35
Deer	2.18	Arbor Dell	1.83	Copperhill	1.33
Emerald East	2.18	Mustang	1.83	Inverness	1.30
Gordon	2.18	Chamberlain	1.80	Wildwood	1.30
Greensbrier	2.18	Linda Vista	1.80	Lopez	1.28
Harrow	2.18	Monument	1.80	Halls	1.23
Harter	2.18	Saddleback #2	1.78	Verdugo	1.23
Hog	2.18	Saddleback #3	1.78	Bracemar	1.20
Kinneloa-East	2.18	Sunnyside	1.78	Oakglade	1.18
Kinneloa-West	2.18	Bailey	1.75	Blanchard	1.13
Morgan	2.18	Blue Gum	1.75	Cooks	1.08
Oakdale	2.18	Cloudcreek	Cloudcreek 1.75 Lincoln		1.03
Schoolhouse	2.18	Pinelawn	elawn 1.75 Crystal Springs		1.00
Spinks	2.18	Sloan 1.75 Fair Oaks		0.98	
Starfall	2.18	Stevenson Ranch 1.75 Wedgewo		Wedgewood	0.98
Stetson	2.18	Green Hill 2	1.73 Golf Club		0.90
Stratford	2.18	Victoria	1.73	Westridge	0.90
Sunset Canyon Deer	2.18	Carter	1.70	Bell Creek	0.88
Bakerton	2.15	Fieldbrook	1.70	Ft Tejon	0.88
Buena Vista	2.15	Mull	1.70	Wilbur	0.88
Line A	2.15	Snover	1.70	Rowley	0.85
Fullerton	2.10	Hay	1.68	William S. Hart Park	0.85
May2	2.05	Sierra Madre Villa	1.68	Pickens	0.83
Bramhall	2.05	Cordoba	1.65	Eagle	0.80
Brand	2.05	Crestview 1.65 Zachau		0.80	
Dry Canyon	2.05	Moon Dust 1.65 Ave T-8		0.78	
Hillman	2.05	Green Hill 1	1.60	Ave S	0.75
Hook-East	2.05	Ward	1.60	Shields	0.70
Nichols	2.05	Camp Plenty	1.58	Gooseberry	0.65

2.1 REPLACEMENT RATIOS

Replacement ratios ensure compensation for temporal losses of habitat value in addition to replacement of permanent losses in habitat acreages. Ratios that the CDFG uses as general guidelines (from Appendix D of Compensating for Wetland Losses under the Clean Water Act) for the South Coast Region are as follows:

- 1:1 low-value habitat (e.g, isolated freshwater marsh, unvegetated streams)
- 2:1 medium-value habitat (e.g., disturbed mule fat scrub, highly disturbed willow riparian)
- 3:1 high-value habitat (e.g., willow riparian, possibly with some exotics, rare/unique habitats)
- 5:1 endangered species habitats (e.g., mature willow riparian with least Bell's vireo)

5:1 impacts beyond those permitted by Streambed Alteration Agreements or violations (this can vary, depending on quality, temporal loss, location, etc., but should have a compensatory factor in addition to the above guidelines of 1:1 to 5:1)

Based on these CDFG guidelines, a replacement ratio was assigned to each vegetation type. With regard to the debris basins managed by the LACDPW, impacts to certain vegetation types from maintenance activities consist primarily of a temporal loss in habitat value. Vegetation types including freshwater marsh, southern willow scrub, willow riparian woodland, riparian herb, open water, and unvegetated wash would be only temporarily impacted by maintenance activities within the basin. These vegetation types are known to regenerate quickly and would provide valuable habitat within a year of maintenance activities. Therefore, these vegetation types should be replaced at a much lower ratio than typically imposed by CDFG because impacts would only be temporal.

The ultimate replacement ratio for each vegetation type should be dependent upon the overall biological value of a basin. For instance, an acre of California walnut woodland in an isolated debris basin with poor adjacent vegetation values should be replaced at a lower ratio than an acre of California walnut woodland in a debris basin with high connectivity to adjacent open space areas with valuable biological resources. As such, the replacement ratios ascribed to each vegetation type vary depending on the overall rating of the debris basin. If a debris basin was ranked between a 3.0 and 2.5, then replacement ratios would correspond to typical CDFG ratios. If a debris basin ranked between as 2.5 and a 2.0, then the vegetation would be replaced at 75% of the typical CDFG ratios, and so forth. The proposed ratios for impact replacement to all vegetation types are provided in Table 6, Vegetation Replacement Ratios.

In summary, based on the proposed methodology described above, a replacement ratio for all vegetation types that takes into consideration the biological value of each basin as well as the temporal nature of impacts to many of the vegetation types has been determined. As such, the total acres of vegetation to be replaced through either preservation or creation would be 21.41, as shown in Table 7, Vegetation Replacement Acreage for All Impacts.

Up to 6.42 acres of this total could be captured by preserving the existing vegetation between the 100% contour and the 25%-mow contour. Because the vegetation between the 100% contour and the 25%-mow contour would not be impacted by debris basin maintenance activities, it is considered to be "preserved". Only an emergency circumstance beyond the control of the LACDPW would impact that vegetation. Therefore, the amount of vegetation to be created off-site (14.99 acres) and the amount that would be preserved (6.42 acres) through existing onsite resources is presented in Table 8, Preserved Acreage and Created Acreage Replacement Requirements.

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TABLE 6 VEGETATION REPLACEMENT RATIOS

				100%	75%	50%	25%	10%	0
	OVERALL	TYPICAL CDFG	REVISED BASED						
	VEGETATION	REPLACEMENT	ON	3.00 - 2.51	2.50 - 2.01	2.00 - 1.51	1.50 - 1.01	1.00 - 0.51	0.50 - 0 RATED
VEGETATION TYPE	VALUE RATING	RATIOS	TEMPORARY	RATED BASIN	RATED BASIN		RATED BASIN		BASIN
Alluvial Sage Scrub	3.0	2:1	2:1	2:1	1.5 : 1	1:1	0.5 : 1	0.2 : 1	NONE
Alluvial Sage Scrub/Sycamore Riparian Woodland	3.0	2:1	2:1	2:1	1.5 : 1	1:1	0.5 : 1	0.2 : 1	NONE
California Walnut Woodland	3.0	2:1	2:1	2:1	1.5 : 1	1:1	0.5 : 1	0.2 : 1	NONE
Freshwater Marsh	3.0	3:1	1:1	1:1	0.75 : 1	0.5 : 1	0.25 : 1	0.1:1	NONE
Hollyleaf Cherry Woodland	3.0	2:1	2:1	2:1	1.5:1	1:1	0.5 : 1	0.2 : 1	NONE
Mixed Sage Scrub	3.0	2:1	1:1	1:1	0.75 : 1	0.5 : 1	0.25 : 1	0.1:1	NONE
Mixed Sage Scrub/Needlegrass Grassland	3.0	2:1	2:1	2:1	1.5 : 1	1:1	0.5 : 1	0.2 : 1	NONE
Needlegrass Grassland	3.0	3:1	3:1	3:1	2.25 : 1	1.5:1	0.75 : 1	0.3:1	NONE
Oak Woodland	3.0	1:1	1:1	1:1	0.75 : 1	0.5 : 1	0.25 : 1	0.1:1	NONE
Oak Woodland/California Walnut Woodland	3.0	1:1	1:1	1:1	0.75 : 1	0.5 : 1	0.25 : 1	0.1:1	NONE
Oak Woodland/Sycamore Riparian Woodland	3.0	2:1	2:1	2:1	1.5 : 1	1:1	0.5 : 1	0.2 : 1	NONE
Oak Woodland/Sycamore Riparian Woodland/California Walnut Woodland	3.0	2:1	2:1	2:1	1.5 : 1	1:1	0.5 : 1	0.2 : 1	NONE
Oak Woodland/Sycamore Riparian Woodland/Willow Riparian Woodland	3.0	2:1	2:1	2:1	1.5 : 1	1:1	0.5 : 1	0.2 : 1	NONE
Southern Willow Scrub	3.0	2:1	1:1	1:1	0.75 : 1	0.5 : 1	0.25 : 1	0.1:1	NONE
Southern Willow Scrub/Freshwater Marsh	3.0	3:1	1:1	1:1	0.75 : 1	0.5 : 1	0.25 : 1	0.1:1	NONE
Sycamore Riparian Woodland	3.0	2:1	2:1	2:1	1.5 : 1	1:1	0.5 : 1	0.2 : 1	NONE
Willow Riparian Woodland	3.0	2:1	1:1	1:1	0.75 : 1	0.5 : 1	0.25 : 1	0.1:1	NONE
Willow Riparian Woodland/Sycamore Riparian Woodland	3.0	2:1	2:1	2:1	1.5 : 1	1:1	0.5 : 1	0.2 : 1	NONE
Oak Woodland/Chaparral	2.5	1:1	1:1	1:1	0.75 : 1	0.5 : 1	0.25 : 1	0.1:1	NONE
Sycamore Riparian Woodland/Unvegetated Wash	2.5	2:1	2:1	2:1	1.5 : 1	1:1	0.5 : 1	0.2 : 1	NONE
Chaparral	2.0	0:1	0:1	0:1	NONE	NONE	NONE	NONE	NONE
Chaparral/Mixed Sage Scrub	2.0	1:1	1:1	1:1	0.75:1	0.5 : 1	0.25:1	0.1:1	NONE
Mixed Sage Scrub/California Annual Grassland	2.0	1:1	1:1	1:1	0.75 : 1	0.5 : 1	0.25:1	0.1:1	NONE
Mule Fat Scrub	2.0	1:1	1:1	1:1	0.75:1	0.5 : 1	0.25:1	0.1:1	NONE
Oak Woodland/Ornamental	2.0	1:1	1:1	1:1	0.75:1	0.5 : 1	0.25:1	0.1:1	NONE
Ornamental/Southern Willow Scrub	2.0	1:1	1:1	1:1	0.75 : 1	0.5 : 1	0.25:1	0.1:1	NONE
Riparian Herb	2.0	2:1	1:1	1:1	0.75 : 1	0.5 : 1	0.25:1	0.1:1	NONE
Saltbush Scrub	2.0	1:1	1:1	1:1	0.75 : 1	0.5 : 1	0.25:1	0.1:1	NONE
Chaparral/California Annual Grassland	1.5	1:1	1:1	1:1	0.75 : 1	0.5 : 1	0.25:1	0.1:1	NONE
Open Water	1.5	1:1	0:1	0:1	NONE	NONE	NONE	NONE	NONE
California Annual Grassland	1.0	0:1	0:1	0:1	NONE	NONE	NONE	NONE	NONE
Unvegetated Wash	1.0	2:1	0:1	0:1	NONE	NONE	NONE	NONE	NONE
Ornamental	0.5	0:1	0:1	0:1	NONE	NONE	NONE	NONE	NONE
Ruderal	0.5	0:1	0:1	0:1	NONE	NONE	NONE	NONE	NONE
Developed	0.0	0:1	0:1	0:1	NONE	NONE	NONE	NONE	NONE
Disturbed	0.0	0:1	0:1	0:1	NONE	NONE	NONE	NONE	NONE
Un-mapped	0.0	0:1	0:1	0:1	NONE	NONE	NONE	NONE	NONE

TABLE 7 VEGETATION REPLACEMENT ACREAGE FOR ALL IMPACTS

Vegetation Type	Impacts Within 25%- Mow Contour	Typical CDFG Replacement Ratios	Typical CDFG Replacement Required	Revised Ratios Based on Temporary	Revised Replacement Based on Temporary	Final Proposed Replacement Acres Based on Ranking
Alluvial Sage Scrub	1.38	2:1	2.76	2:1	2.76	2.07
Alluvial Sage Scrub/Sycamore Riparian Woodland	0.44	2:1	0.89	2:1	0.89	0.89
California Walnut Woodland	0.17	2:1	0.35	2:1	0.35	0.17
Freshwater Marsh	4.44	3:1	13.32	1:1	4.44	2.21
Hollyleaf Cherry Woodland	0.08	2:1	0.15	2:1	0.15	0.11
Mixed Sage Scrub	7.86	2:1	15.73	1:1	7.86	5.22
Mixed Sage Scrub/Needlegrass Grassland	0.00	2:1	0.00	2:1	0.00	0.00
Needlegrass Grassland	0.00	3:1	0.00	3:1	0.00	0.00
Oak Woodland	3.09	1:1	3.09	1:1	3.09	2.03
Oak Woodland/California Walnut Woodland	0.00	1:1	0.00	1:1	0.00	0.00
Oak Woodland/Sycamore Riparian Woodland	0.00	2:1	0.00	2:1	0.00	0.00
Oak/Sycamore Riparian/California Walnut Woodland	0.05	2:1	0.09	2:1	0.09	0.05
Oak/Sycamore Riparian/Willow Riparian Woodland	0.09	2:1	0.17	2:1	0.17	0.09
Southern Willow Scrub	1.70	2:1	3.40	1:1	1.70	0.92
Southern Willow Scrub/Freshwater Marsh	0.26	3:1	0.78	1:1	0.26	0.13
Sycamore Riparian Woodland	0.00	2:1	0.00	2:1	0.00	0.00
Willow Riparian Woodland	4.21	2:1	8.42	1:1	4.21	4.00
Willow Riparian/Sycamore Riparian Woodland	0.00	2:1	0.00	2:1	0.00	0.00
Oak Woodland/Chaparral	0.04	1:1	0.04	1:1	0.04	0.03
Sycamore Riparian Woodland/Unvegetated Wash	0.00	2:1	0.00	2:1	0.00	0.00
Chaparral	1.57	0:1	0.00	0:1	0.00	0.00
Chaparral/Mixed Sage Scrub	2.04	1:1	2.04	1:1	2.04	1.16
Mixed Sage Scrub/California Annual Grassland	0.15	1:1	0.15	1:1	0.15	0.11
Mule Fat Scrub	1.74	1:1	1.74	1:1	1.74	1.45
Oak Woodland/Ornamental	0.00	1:1	0.00	1:1	0.00	0.00
Ornamental/Southern Willow Scrub	0.00	1:1	0.00	1:1	0.00	0.00
Riparian Herb	1.90	2:1	3.81	1:1	1.90	0.67
Saltbush Scrub	0.38	1:1	0.38	1:1	0.38	0.10
Chaparral/California Annual Grassland	0.02	1:1	0.02	1:1	0.02	0.01

TABLE 7 (Continued) VEGETATION REPLACEMENT ACREAGE FOR ALL IMPACTS

Vegetation Type	Impacts Within 25%- Mow Contour	Typical CDFG Replacement Ratios	Typical CDFG Replacement Required	Revised Ratios Based on Temporary	Revised Replacement Based on Temporary	Final Proposed Replacement Acres Based on Ranking
Open Water	6.78	1:1	6.78	0:1	0.00	0.00
California Annual Grassland	2.36	0 : 1	0.00	0:1	0.00	0.00
Unvegetated Wash	1.49	2:1	2.98	0:1	0.00	0.00
Ornamental	2.51	0:1	0.00	0:1	0.00	0.00
Ruderal	71.88	0 : 1	0.00	0:1	0.00	0.00
Developed	8.99	0:1	0.00	0:1	0.00	0.00
Disturbed	58.99	0:1	0.00	0:1	0.00	0.00
TOTALS	184.60		67.08		32.25	21.41

TABLE 8
PRESERVED ACREAGE AND CREATED ACREAGE REPLACEMENT REQUIREMENTS

Vegetation Type	Final Proposed Replacement Acres Based on Ranking	Total Acres Preserved between 25% and 100 % Contours	Acres Preserved On-Site Based on CDFG 30% Maximum	Off-Site Replacement Acreage Required
Alluvial Sage Scrub	2.07	4.16	0.62	1.45
Alluvial Sage Scrub/Sycamore Riparian Woodland	0.89	2.81	0.27	0.62
California Walnut Woodland	0.17	0.44	0.05	0.12
Freshwater Marsh	2.21	0.12	0.66	1.55
Hollyleaf Cherry Woodland	0.11	0.14	0.03	0.08
Mixed Sage Scrub	5.22	23.69	1.57	3.65
Mixed Sage Scrub/Needlegrass Grassland	0.00	0.10	0.00	0.00
Needlegrass Grassland	0.00	0.00	0.00	0.00
Oak Woodland	2.03	19.62	0.61	1.42
Oak Woodland/California Walnut Woodland	0.00	0.04	0.00	0.00
Oak Woodland/Sycamore Riparian Woodland	0.00	1.80	0.00	0.00
Oak/Sycamore Riparian/California Walnut Woodland	0.05	0.02	0.01	0.03
Oak/Sycamore Riparian/Willow Riparian Woodland	0.09	0.29	0.03	0.06

TABLE 8 (Continued) PRESERVED ACREAGE AND CREATED ACREAGE REPLACEMENT REQUIREMENTS

Vegetation Type	Final Proposed Replacement Acres Based on Ranking	Total Acres Preserved between 25% and 100 % Contours	Acres Preserved On-Site Based on CDFG 30% Maximum	Off-Site Replacement Acreage Required
Southern Willow Scrub	0.92	0.93	0.28	0.64
Southern Willow Scrub/Freshwater Marsh	0.13	0.01	0.04	0.09
Sycamore Riparian Woodland	0.00	0.64	0.00	0.00
Willow Riparian Woodland	4.00	5.58	1.20	2.80
Willow Riparian/Sycamore Riparian Woodland	0.00	0.00	0.00	0.00
Oak Woodland/Chaparral	0.03	0.40	0.01	0.02
Sycamore Riparian Woodland/Unvegetated Wash	0.00	0.71	0.00	0.00
Chaparral	0.00	3.90	0.00	0.00
Chaparral/Mixed Sage Scrub	1.16	7.60	0.35	0.81
Mixed Sage Scrub/California Annual Grassland	0.11	0.30	0.03	0.08
Mule Fat Scrub	1.45	1.85	0.44	1.02
Oak Woodland/Ornamental	0.00	0.20	0.00	0.00
Ornamental/Southern Willow Scrub	0.00	0.55	0.00	0.00
Riparian Herb	0.67	0.13	0.20	0.47
Saltbush Scrub	0.10	0.16	0.03	0.07
Chaparral/California Annual Grassland	0.01	0.13	0.00	0.01
Open Water	0.00	0.79	0.00	0.00
California Annual Grassland	0.00	2.25	0.00	0.00
Unvegetated Wash	0.00	0.88	0.00	0.00
Ornamental	0.00	4.79	0.00	0.00
Ruderal	0.00	24.19	0.00	0.00
Developed	0.00	24.22	0.00	0.00
Disturbed	0.00	42.02	0.00	0.00
TOTALS	21.41	175.46	6.42	14.99

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ATTACHMENT A

AERIAL PHOTOGRAPHSFOR 162 DEBRIS BASINS

Basin Limit Contour 25% Capacity Contour Mowing Contour Vegetation Types Alluvial Sage Scrub Alluvial Sage Scrub/ Sycamore Riparian Woodland California Walnut Woodland FΜ Freshwater Marsh Hollyleaf Cherry Woodland Mixed Sage Scrub Mixed Sage Scrub/ Needlegrass Grassland Needlegrass Grassland Oak Woodland Oak Woodland/California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland Oak Woodland/ Sycamore Riparian Woodland/ California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland/ Willow Riparian Woodland Southern Willow Scrub Southern Willow Scrub/Freshwater Marsh Sycamore Riparian Woodland Willow Riparian Woodland Willow Riparian Woodland/ Sycamore Riparian Woodland Oak Woodland/ Chaparral Sycamore Riparian Woodland/ Unvegetated Wash Chaparral Chaparral/ Mixed Sage Scrub Mixed Sage Scrub/ California Annual Grassland Mule Fat Scrub Oak Woodland/ Ornamental Ornamental/ Southern Willow Scrub Riparian Herb

Saltbush Scrub

Chaparral/ California Annual Grassland

California Annual Grassland

WAT Open Water Ruderal

Unvegetated Wash

Disturbed Ornamental Developed Un-mapped

Aliso

Los Angeles County Debris Basins

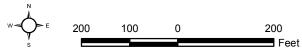


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Arbordell







Basin Limit Contour 25% Capacity Contour Mowing Contour Vegetation Types Alluvial Sage Scrub Alluvial Sage Scrub/ Sycamore Riparian Woodland California Walnut Woodland Freshwater Marsh Hollyleaf Cherry Woodland Mixed Sage Scrub Mixed Sage Scrub/ Needlegrass Grassland Needlegrass Grassland Oak Woodland Oak Woodland/California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland Oak Woodland/ Sycamore Riparian Woodland/ California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland/ Willow Riparian Woodland Southern Willow Scrub Southern Willow Scrub/Freshwater Marsh Sycamore Riparian Woodland Willow Riparian Woodland Willow Riparian Woodland/ Sycamore Riparian Woodland Oak Woodland/ Chaparral Sycamore Riparian Woodland/ Unvegetated Wash Chaparral Chaparral/ Mixed Sage Scrub Mixed Sage Scrub/ California Annual Grassland Mule Fat Scrub Oak Woodland/ Ornamental Ornamental/ Southern Willow Scrub

Riparian Herb

Saltbush Scrub

Chaparral/ California Annual Grassland

California Annual Grassland

Open Water

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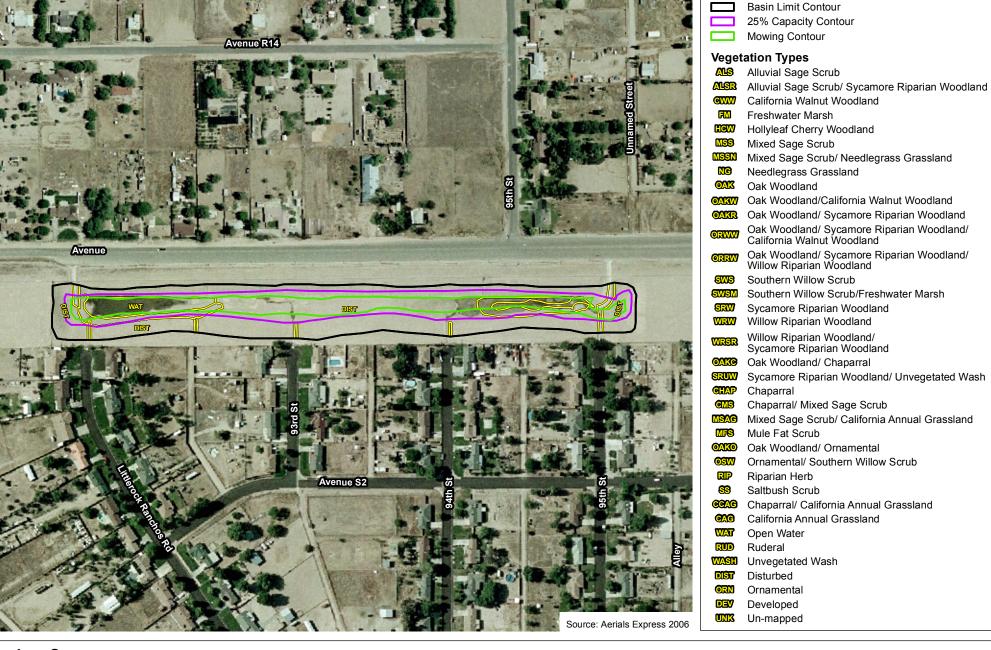
Los Angeles County Debris Basins



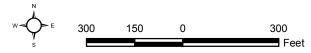
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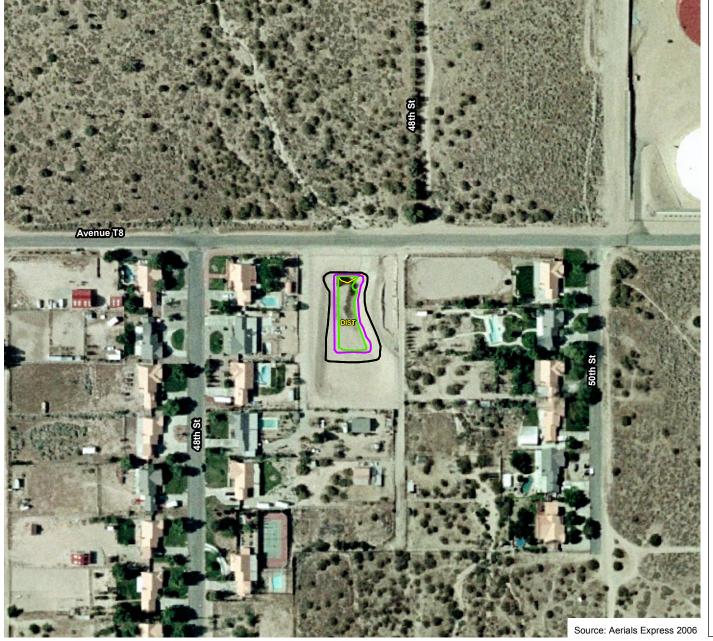


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Basin Limit Contour 25% Capacity Contour Mowing Contour Vegetation Types Alluvial Sage Scrub Alluvial Sage Scrub/ Sycamore Riparian Woodland California Walnut Woodland Freshwater Marsh Hollyleaf Cherry Woodland Mixed Sage Scrub Mixed Sage Scrub/ Needlegrass Grassland Needlegrass Grassland Oak Woodland Oak Woodland/California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland Oak Woodland/ Sycamore Riparian Woodland/ California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland/ Willow Riparian Woodland Southern Willow Scrub Southern Willow Scrub/Freshwater Marsh Sycamore Riparian Woodland Willow Riparian Woodland Willow Riparian Woodland/ Sycamore Riparian Woodland Oak Woodland/ Chaparral Sycamore Riparian Woodland/ Unvegetated Wash Chaparral Chaparral/ Mixed Sage Scrub Mixed Sage Scrub/ California Annual Grassland Mule Fat Scrub Oak Woodland/ Ornamental Ornamental/ Southern Willow Scrub Riparian Herb Saltbush Scrub Chaparral/ California Annual Grassland California Annual Grassland WAT Open Water Ruderal Unvegetated Wash Disturbed Ornamental Developed Un-mapped

Ave T-8







Bailey

Los Angeles County Debris Basins



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Bakerton

Los Angeles County Debris Basins



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Basin Limit Contour 25% Capacity Contour Mowing Contour Vegetation Types Alluvial Sage Scrub Alluvial Sage Scrub/ Sycamore Riparian Woodland California Walnut Woodland Freshwater Marsh Hollyleaf Cherry Woodland Mixed Sage Scrub Mixed Sage Scrub/ Needlegrass Grassland Needlegrass Grassland Oak Woodland Oak Woodland/California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland Oak Woodland/ Sycamore Riparian Woodland/ California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland/ Willow Riparian Woodland Southern Willow Scrub Southern Willow Scrub/Freshwater Marsh Sycamore Riparian Woodland Willow Riparian Woodland Willow Riparian Woodland/ Sycamore Riparian Woodland Oak Woodland/ Chaparral Sycamore Riparian Woodland/ Unvegetated Wash Chaparral Chaparral/ Mixed Sage Scrub Mixed Sage Scrub/ California Annual Grassland Mule Fat Scrub Oak Woodland/ Ornamental Ornamental/ Southern Willow Scrub

Ornamental/ Southern Willow Scru

Riparian Herb
Saltbush Scrub

Chaparral/ California Annual Grassland

©AG California Annual Grassland

WAT Open Water Ruderal

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WASH Unvegetated Wash

DIST Disturbed
ORN Ornamental
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Los Angeles County Debris Basins



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Basin Limit Contour 25% Capacity Contour Mowing Contour Vegetation Types Alluvial Sage Scrub Alluvial Sage Scrub/ Sycamore Riparian Woodland California Walnut Woodland Freshwater Marsh Hollyleaf Cherry Woodland Mixed Sage Scrub Mixed Sage Scrub/ Needlegrass Grassland Needlegrass Grassland Oak Woodland Oak Woodland/California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland Oak Woodland/ Sycamore Riparian Woodland/ California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland/ Willow Riparian Woodland Southern Willow Scrub Southern Willow Scrub/Freshwater Marsh Sycamore Riparian Woodland Willow Riparian Woodland Willow Riparian Woodland/ Sycamore Riparian Woodland Oak Woodland/ Chaparral Sycamore Riparian Woodland/ Unvegetated Wash Chaparral Chaparral/ Mixed Sage Scrub Mixed Sage Scrub/ California Annual Grassland Mule Fat Scrub Oak Woodland/ Ornamental Ornamental/ Southern Willow Scrub

Riparian Herb Saltbush Scrub

Chaparral/ California Annual Grassland

California Annual Grassland

WAT Open Water Ruderal

Unvegetated Wash

Disturbed Ornamental Developed Un-mapped

Bell Creek

Los Angeles County Debris Basins



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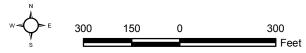
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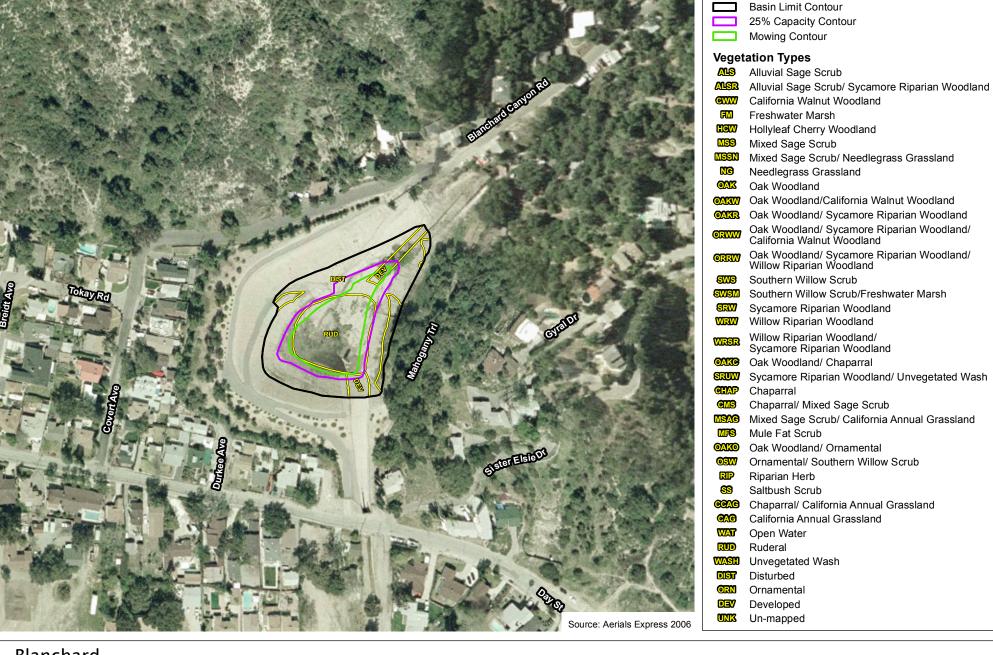


Big Dalton









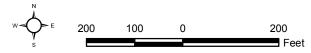
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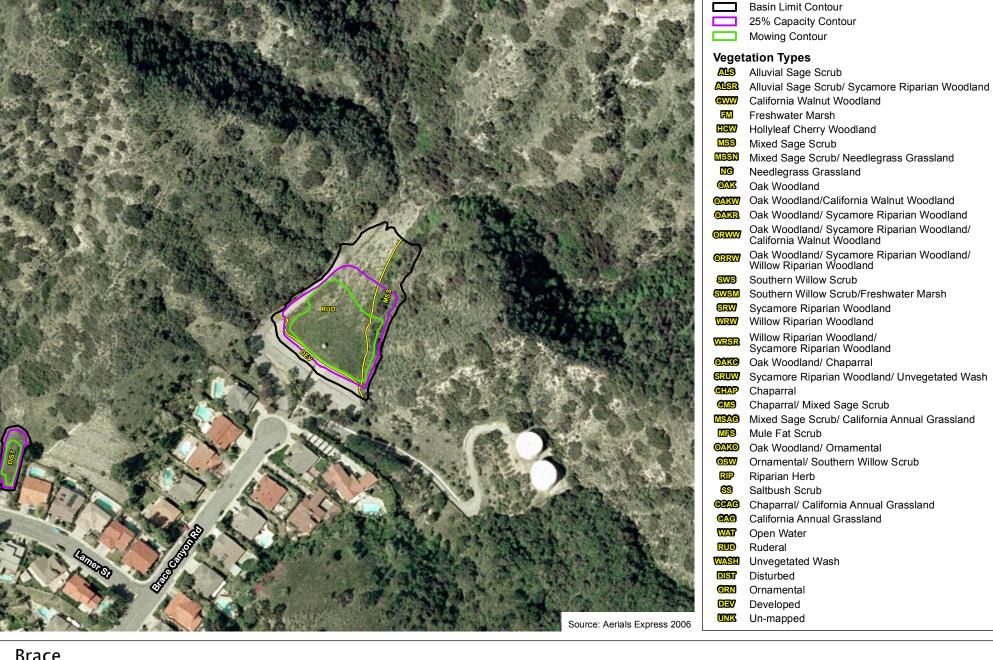


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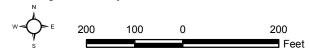








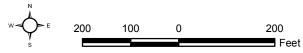






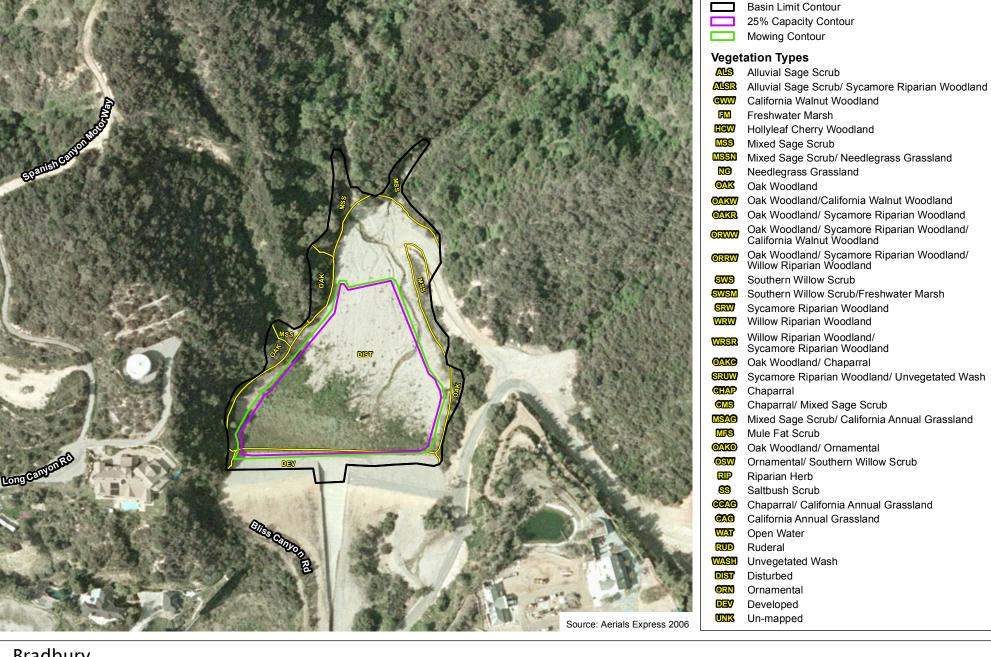


Bracemar









Bradbury

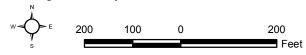






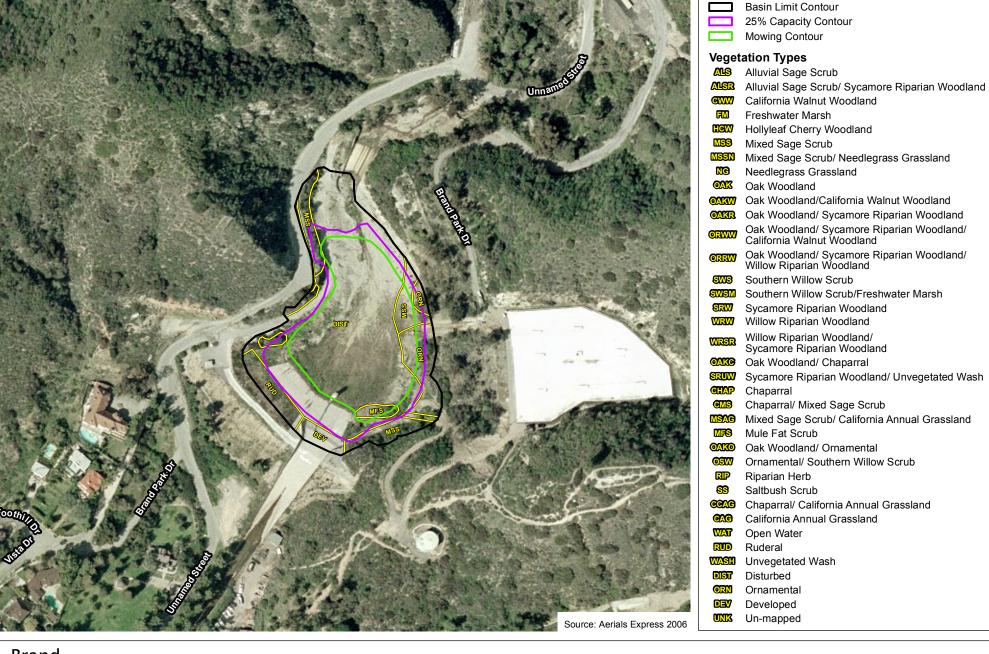


Bramhall









Brand







Buena Vista







Caitlyn Circle







Basin Limit Contour 25% Capacity Contour Mowing Contour Vegetation Types Alluvial Sage Scrub Alluvial Sage Scrub/ Sycamore Riparian Woodland California Walnut Woodland Freshwater Marsh Hollyleaf Cherry Woodland Mixed Sage Scrub Mixed Sage Scrub/ Needlegrass Grassland Needlegrass Grassland Oak Woodland Oak Woodland/California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland Oak Woodland/ Sycamore Riparian Woodland/ California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland/ Willow Riparian Woodland Southern Willow Scrub Southern Willow Scrub/Freshwater Marsh

> Sycamore Riparian Woodland Willow Riparian Woodland Willow Riparian Woodland/ Sycamore Riparian Woodland Oak Woodland/ Chaparral

Chaparral/ Mixed Sage Scrub

Oak Woodland/ Ornamental Ornamental/ Southern Willow Scrub

California Annual Grassland

Chaparral/ California Annual Grassland

Sycamore Riparian Woodland/ Unvegetated Wash

Mixed Sage Scrub/ California Annual Grassland

Open Water Ruderal

Unvegetated Wash

Chaparral

Mule Fat Scrub

Riparian Herb Saltbush Scrub

Disturbed Ornamental Developed

Un-mapped

Calle Robleda

Los Angeles County Debris Basins

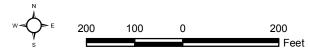


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Camp Plenty







Cardiff



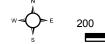




Basin Limit Contour 25% Capacity Contour Mowing Contour Vegetation Types Alluvial Sage Scrub Alluvial Sage Scrub/ Sycamore Riparian Woodland California Walnut Woodland Freshwater Marsh Hollyleaf Cherry Woodland Mixed Sage Scrub Mixed Sage Scrub/ Needlegrass Grassland Needlegrass Grassland Oak Woodland Oak Woodland/California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland Oak Woodland/ Sycamore Riparian Woodland/ California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland/ Willow Riparian Woodland Southern Willow Scrub Southern Willow Scrub/Freshwater Marsh Sycamore Riparian Woodland Willow Riparian Woodland Willow Riparian Woodland/ Sycamore Riparian Woodland Oak Woodland/ Chaparral Sycamore Riparian Woodland/ Unvegetated Wash Chaparral Chaparral/ Mixed Sage Scrub Mixed Sage Scrub/ California Annual Grassland Mule Fat Scrub Oak Woodland/ Ornamental Ornamental/ Southern Willow Scrub Riparian Herb Saltbush Scrub Chaparral/ California Annual Grassland California Annual Grassland WAT Open Water Ruderal

Carriage House

Los Angeles County Debris Basins



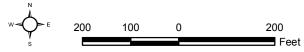
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Unvegetated Wash Disturbed Ornamental Developed Un-mapped



Carter







Basin Limit Contour 25% Capacity Contour Mowing Contour Vegetation Types Alluvial Sage Scrub Alluvial Sage Scrub/ Sycamore Riparian Woodland California Walnut Woodland Freshwater Marsh Hollyleaf Cherry Woodland Mixed Sage Scrub Mixed Sage Scrub/ Needlegrass Grassland Needlegrass Grassland Oak Woodland Oak Woodland/California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland Oak Woodland/ Sycamore Riparian Woodland/ California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland/ Willow Riparian Woodland Southern Willow Scrub Southern Willow Scrub/Freshwater Marsh Sycamore Riparian Woodland Willow Riparian Woodland Willow Riparian Woodland/ Sycamore Riparian Woodland Oak Woodland/ Chaparral Sycamore Riparian Woodland/ Unvegetated Wash Chaparral/ Mixed Sage Scrub Mixed Sage Scrub/ California Annual Grassland Mule Fat Scrub Oak Woodland/ Ornamental Ornamental/ Southern Willow Scrub Riparian Herb Saltbush Scrub Chaparral/ California Annual Grassland California Annual Grassland Open Water Unvegetated Wash

Cassara

Los Angeles County Debris Basins



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Basin Limit Contour 25% Capacity Contour Mowing Contour Vegetation Types Alluvial Sage Scrub Alluvial Sage Scrub/ Sycamore Riparian Woodland California Walnut Woodland

Freshwater Marsh

Hollyleaf Cherry Woodland

Mixed Sage Scrub

Mixed Sage Scrub/ Needlegrass Grassland

Needlegrass Grassland

Oak Woodland

Oak Woodland/California Walnut Woodland

Oak Woodland/ Sycamore Riparian Woodland

Oak Woodland/ Sycamore Riparian Woodland/ California Walnut Woodland

Oak Woodland/ Sycamore Riparian Woodland/ Willow Riparian Woodland

Southern Willow Scrub

Southern Willow Scrub/Freshwater Marsh

Sycamore Riparian Woodland Willow Riparian Woodland

Willow Riparian Woodland/ Sycamore Riparian Woodland

Oak Woodland/ Chaparral

Sycamore Riparian Woodland/ Unvegetated Wash

Chaparral

Chaparral/ Mixed Sage Scrub

Mixed Sage Scrub/ California Annual Grassland

Mule Fat Scrub

Oak Woodland/ Ornamental

Ornamental/ Southern Willow Scrub

Riparian Herb

Saltbush Scrub

Chaparral/ California Annual Grassland

California Annual Grassland

Open Water

Ruderal

Unvegetated Wash

Disturbed Ornamental

Developed

Un-mapped

Chamberlain

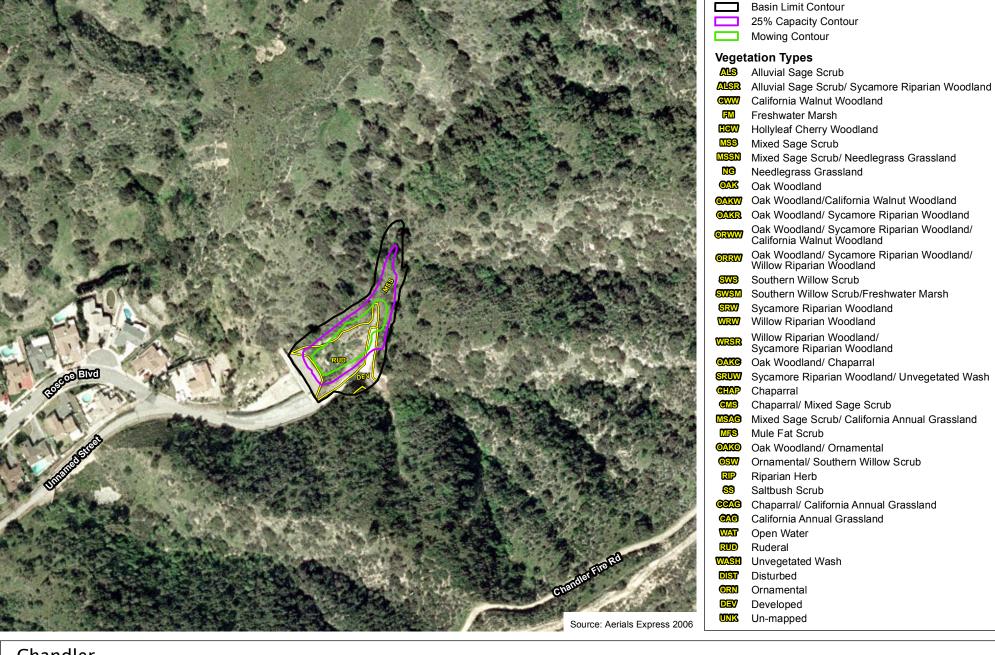
Los Angeles County Debris Basins



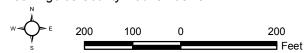
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Chandler





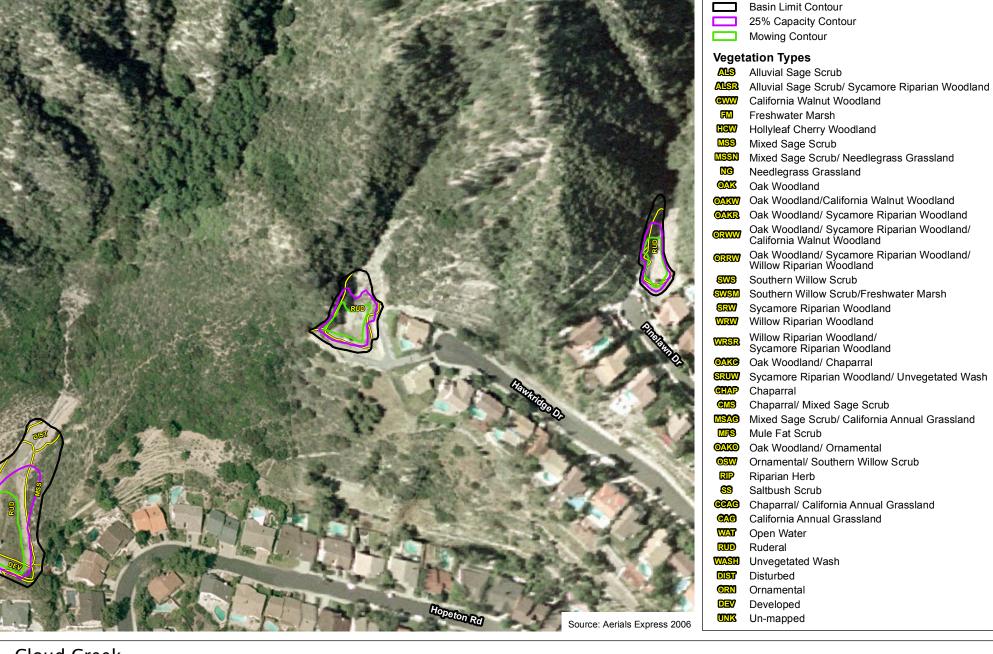


Childs

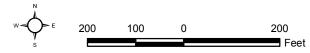








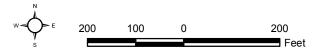
Cloud Creek





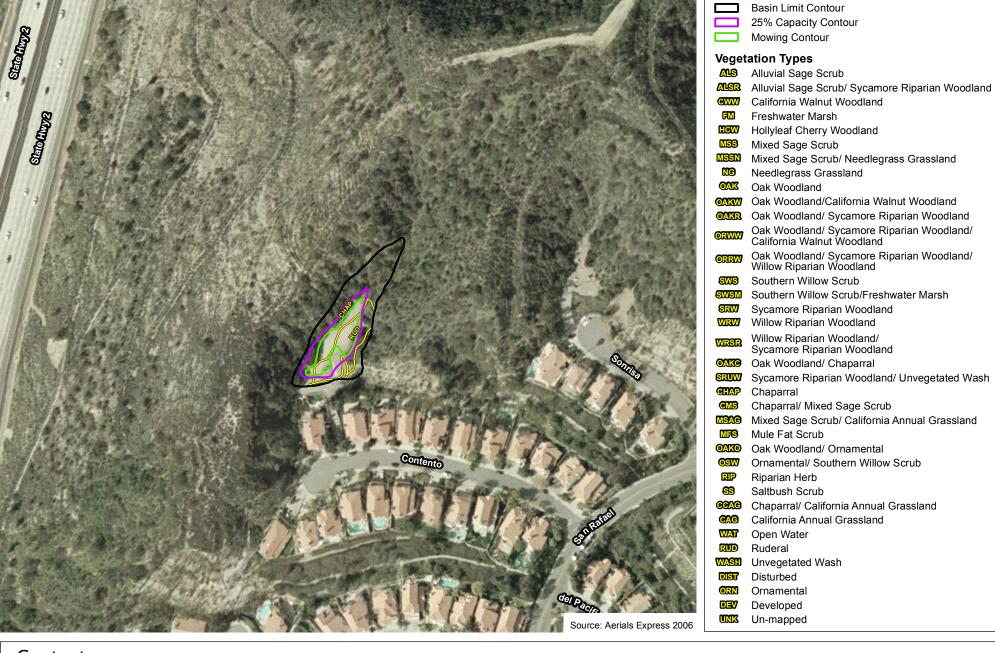


Cloudcroft

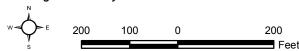








Contento









Cooks

Los Angeles County Debris Basins



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Basin Limit Contour 25% Capacity Contour Mowing Contour **Vegetation Types** Alluvial Sage Scrub Alluvial Sage Scrub/ Sycamore Riparian Woodland California Walnut Woodland Freshwater Marsh Hollyleaf Cherry Woodland Mixed Sage Scrub Mixed Sage Scrub/ Needlegrass Grassland Needlegrass Grassland Oak Woodland Oak Woodland/California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland Oak Woodland/ Sycamore Riparian Woodland/ California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland/ Willow Riparian Woodland Southern Willow Scrub Southern Willow Scrub/Freshwater Marsh Sycamore Riparian Woodland Willow Riparian Woodland Willow Riparian Woodland/ Sycamore Riparian Woodland Oak Woodland/ Chaparral Sycamore Riparian Woodland/ Unvegetated Wash Chaparral Chaparral/ Mixed Sage Scrub Mixed Sage Scrub/ California Annual Grassland Mule Fat Scrub Oak Woodland/ Ornamental Ornamental/ Southern Willow Scrub Riparian Herb Saltbush Scrub Chaparral/ California Annual Grassland California Annual Grassland Open Water Ruderal **Unvegetated Wash** Disturbed Ornamental Ornamental/ Developed Developed Un-mapped

Cooks M-1A

Los Angeles County Debris Basins



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Basin Limit Contour 25% Capacity Contour Mowing Contour Vegetation Types Alluvial Sage Scrub Alluvial Sage Scrub/ Sycamore Riparian Woodland California Walnut Woodland Freshwater Marsh Hollyleaf Cherry Woodland Mixed Sage Scrub Mixed Sage Scrub/ Needlegrass Grassland Needlegrass Grassland Oak Woodland Oak Woodland/California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland Oak Woodland/ Sycamore Riparian Woodland/ California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland/ Willow Riparian Woodland Southern Willow Scrub Southern Willow Scrub/Freshwater Marsh Sycamore Riparian Woodland Willow Riparian Woodland Willow Riparian Woodland/ Sycamore Riparian Woodland Oak Woodland/ Chaparral Sycamore Riparian Woodland/ Unvegetated Wash Chaparral Chaparral/ Mixed Sage Scrub Mixed Sage Scrub/ California Annual Grassland

Mule Fat Scrub

Oak Woodland/ Ornamental

Ornamental/ Southern Willow Scrub

Riparian Herb Saltbush Scrub

Chaparral/ California Annual Grassland

California Annual Grassland

WAT Open Water

Ruderal

Unvegetated Wash

Disturbed Ornamental

Developed

Un-mapped

Copper Hill Line B

Los Angeles County Debris Basins



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Basin Limit Contour 25% Capacity Contour Mowing Contour Vegetation Types Alluvial Sage Scrub Alluvial Sage Scrub/ Sycamore Riparian Woodland California Walnut Woodland Freshwater Marsh Hollyleaf Cherry Woodland Mixed Sage Scrub Mixed Sage Scrub/ Needlegrass Grassland Needlegrass Grassland Oak Woodland Oak Woodland/California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland Oak Woodland/ Sycamore Riparian Woodland/ California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland/ Willow Riparian Woodland Southern Willow Scrub Southern Willow Scrub/Freshwater Marsh Sycamore Riparian Woodland Willow Riparian Woodland Willow Riparian Woodland/ Sycamore Riparian Woodland Oak Woodland/ Chaparral Sycamore Riparian Woodland/ Unvegetated Wash Chaparral Chaparral/ Mixed Sage Scrub Mixed Sage Scrub/ California Annual Grassland Mule Fat Scrub Oak Woodland/ Ornamental Ornamental/ Southern Willow Scrub Riparian Herb Saltbush Scrub Chaparral/ California Annual Grassland California Annual Grassland Open Water Ruderal

Unvegetated Wash

Disturbed

Developed

Un-mapped

Cordoba

Los Angeles County Debris Basins

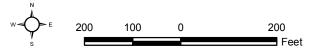


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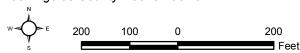
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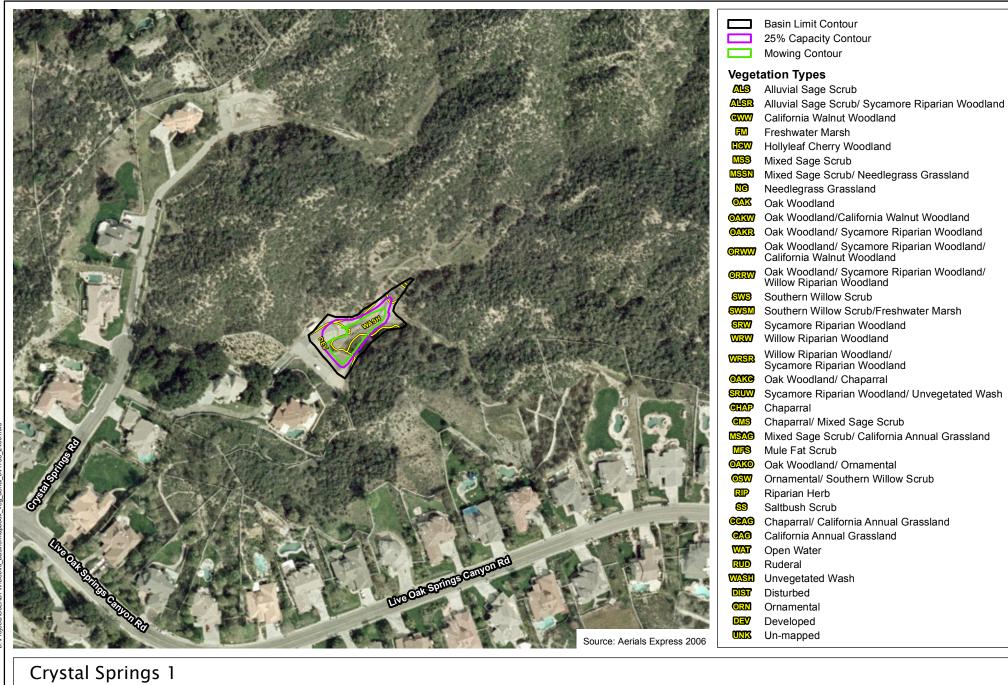


Crestview









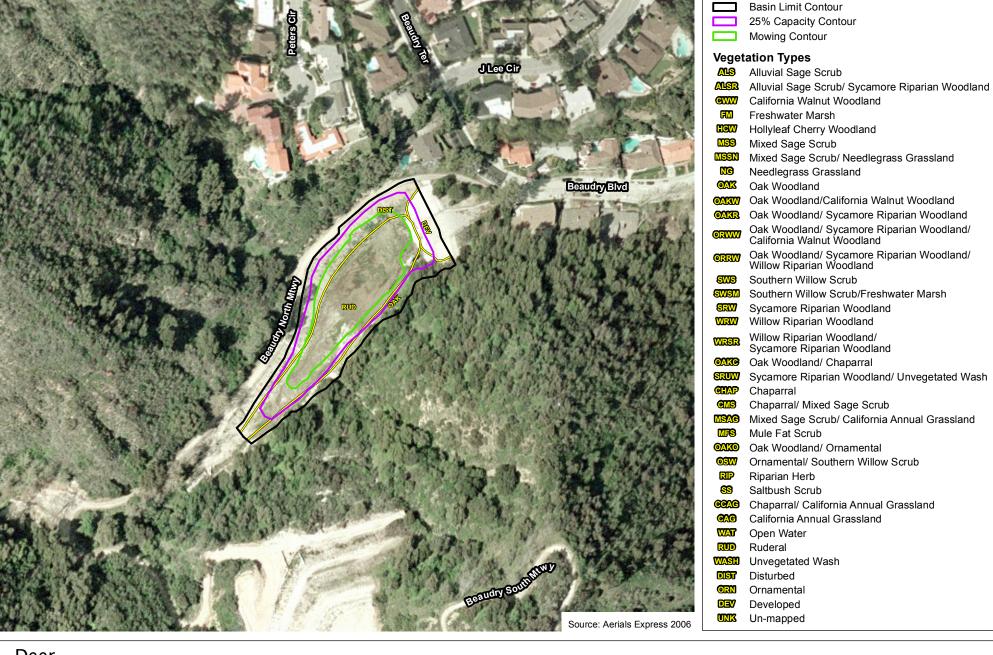
Los Angeles County Debris Basins

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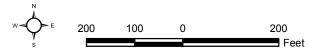
Denivelle







Devonwood







Basin Limit Contour 25% Capacity Contour Mowing Contour Vegetation Types Alluvial Sage Scrub Alluvial Sage Scrub/ Sycamore Riparian Woodland

California Walnut Woodland Freshwater Marsh

Hollyleaf Cherry Woodland

Mixed Sage Scrub

Mixed Sage Scrub/ Needlegrass Grassland

Needlegrass Grassland

Oak Woodland

Oak Woodland/California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland

Oak Woodland/ Sycamore Riparian Woodland/ California Walnut Woodland

Oak Woodland/ Sycamore Riparian Woodland/ Willow Riparian Woodland

Southern Willow Scrub

Southern Willow Scrub/Freshwater Marsh

Sycamore Riparian Woodland Willow Riparian Woodland

Willow Riparian Woodland/ Sycamore Riparian Woodland

Oak Woodland/ Chaparral

Sycamore Riparian Woodland/ Unvegetated Wash

Chaparral

Chaparral/ Mixed Sage Scrub

Mixed Sage Scrub/ California Annual Grassland

Mule Fat Scrub

Oak Woodland/ Ornamental

Ornamental/ Southern Willow Scrub

Riparian Herb Saltbush Scrub

Chaparral/ California Annual Grassland

California Annual Grassland

Open Water

Ruderal

Unvegetated Wash

Disturbed Ornamental Developed

Un-mapped

Dry Canyon South Fork

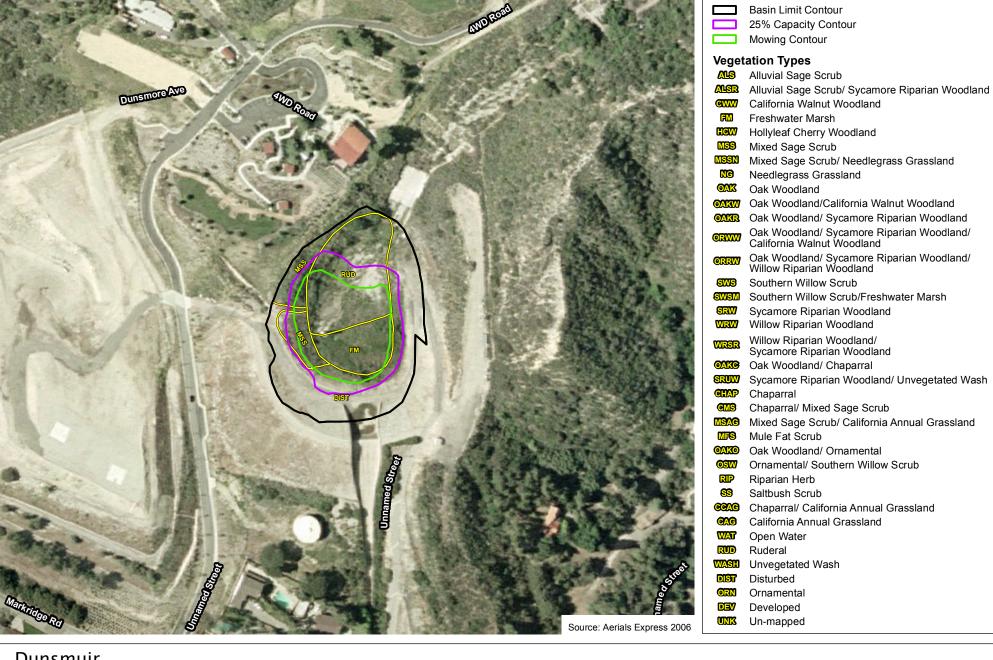
Los Angeles County Debris Basins



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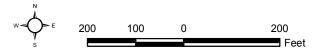
Dunsmuir







Eagle







Elmwood





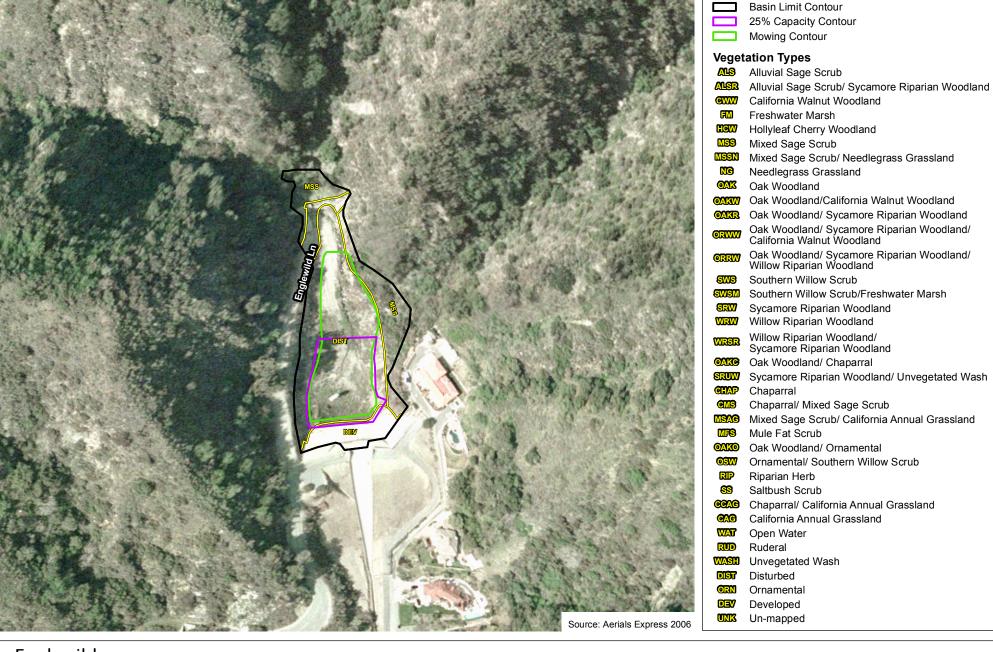


Emerald East

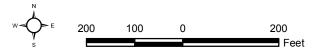








Englewild

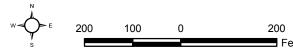






Basin Limit Contour 25% Capacity Contour Mowing Contour Vegetation Types Alluvial Sage Scrub Alluvial Sage Scrub/ Sycamore Riparian Woodland California Walnut Woodland Freshwater Marsh Hollyleaf Cherry Woodland Mixed Sage Scrub Mixed Sage Scrub/ Needlegrass Grassland Needlegrass Grassland Oak Woodland Oak Woodland/California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland Oak Woodland/ Sycamore Riparian Woodland/ California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland/ Willow Riparian Woodland Southern Willow Scrub Southern Willow Scrub/Freshwater Marsh Sycamore Riparian Woodland Willow Riparian Woodland Willow Riparian Woodland/ Sycamore Riparian Woodland Oak Woodland/ Chaparral Sycamore Riparian Woodland/ Unvegetated Wash Chaparral Chaparral/ Mixed Sage Scrub Mixed Sage Scrub/ California Annual Grassland Mule Fat Scrub Oak Woodland/ Ornamental Ornamental/ Southern Willow Scrub Riparian Herb Saltbush Scrub Chaparral/ California Annual Grassland California Annual Grassland Open Water Ruderal Unvegetated Wash Disturbed Ornamental Developed Un-mapped

Fair Oaks







Basin Limit Contour 25% Capacity Contour Mowing Contour Vegetation Types Alluvial Sage Scrub Alluvial Sage Scrub/ Sycamore Riparian Woodland California Walnut Woodland Freshwater Marsh Hollyleaf Cherry Woodland Mixed Sage Scrub Mixed Sage Scrub/ Needlegrass Grassland Needlegrass Grassland Oak Woodland Oak Woodland/California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland Oak Woodland/ Sycamore Riparian Woodland/ California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland/ Willow Riparian Woodland Southern Willow Scrub Southern Willow Scrub/Freshwater Marsh Sycamore Riparian Woodland Willow Riparian Woodland Willow Riparian Woodland/ Sycamore Riparian Woodland Oak Woodland/ Chaparral Sycamore Riparian Woodland/ Unvegetated Wash Chaparral Chaparral/ Mixed Sage Scrub Mixed Sage Scrub/ California Annual Grassland Mule Fat Scrub Oak Woodland/ Ornamental Ornamental/ Southern Willow Scrub

Riparian Herb Saltbush Scrub

Chaparral/ California Annual Grassland

California Annual Grassland

Open Water Ruderal

Unvegetated Wash

Disturbed Ornamental Developed Un-mapped

Fern

Los Angeles County Debris Basins

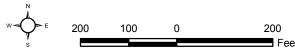


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Fieldbrook









Basin Limit Contour 25% Capacity Contour Mowing Contour Vegetation Types Alluvial Sage Scrub Alluvial Sage Scrub/ Sycamore Riparian Woodland California Walnut Woodland Freshwater Marsh Hollyleaf Cherry Woodland Mixed Sage Scrub Mixed Sage Scrub/ Needlegrass Grassland Needlegrass Grassland Oak Woodland Oak Woodland/California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland Oak Woodland/ Sycamore Riparian Woodland/ California Walnut Woodland Oak Woodland/ Sycamore Riparian Woodland/ Willow Riparian Woodland Southern Willow Scrub Southern Willow Scrub/Freshwater Marsh Sycamore Riparian Woodland Willow Riparian Woodland Willow Riparian Woodland/ Sycamore Riparian Woodland Oak Woodland/ Chaparral Sycamore Riparian Woodland/ Unvegetated Wash CHAP Chaparral Chaparral/ Mixed Sage Scrub Mixed Sage Scrub/ California Annual Grassland Mule Fat Scrub **OAKO** Oak Woodland/ Ornamental

Ornamental/ Southern Willow Scrub

Riparian Herb Saltbush Scrub

Chaparral/ California Annual Grassland

California Annual Grassland

WAT Open Water Ruderal

Unvegetated Wash

Disturbed Ornamental Developed Un-mapped

Ft Tejon Rd

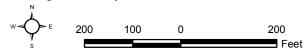








Fullerton







Golf Club Dr

