

LANDSCAPE DESIGN 5
ARCH-X 472.5 - SPRING 2023
05/24/2023



Slope Restoration
**Cohabitation
Corridor**

STUDENT - BRENNAN GROH
INSTRUCTOR - PAMELA BRIEF

COVER IMAGE
Sandrine Biziaux-Scherson, Audubon.org

Housing in California has been a hot topic for some time. It is arguably one of the most beautiful places in the country so it is no wonder why so many people want to live here. However, real estate development practices can unintentionally push out critical wildlife with whom we share this beautiful state. In the case of Janss Rd. in Thousand Oaks, we have a road cutting through undisturbed open space with manufactured slopes on either side. While the road gives access to homeowners in the area it runs the risk of pushing the Cactus Wren out of its home. Though thoughtful planning and design we can create a cohabitation corridor that works for both humans and wildlife by restoring native habitat and mitigating erosion and wild fires on this developed piece of nature.

The Janss Rd. corridor is a residential street sitting between undisturbed coastal sage scrub and has the opportunity to work for all of its users. We can't ignore the human factor in this relationship. The street provides access to the adjacent neighborhoods and gives an opportunity for its residents to get out for exercise and appreciate where they live, and maybe even become environmental stewards themselves. This design utilizes a disconnected street tree planting pattern of *Chilopsis linearis* to bring the scale down to a human level, create a visual identity for the street, and provide a bit of shade for those out for a run or walking their 4-legged friends. Additional shade is provided by a more natural placement of native oaks. A naturalistic buffer of *Baccharis 'Pigeon Point'* helps keep people and pets on the sidewalk while still allowing for views up into the naturalized slope planting. Planting is kept lower at the intersection of Janss and Lynnmere for optimal sight lines for local drivers.

The rest of the slope has been dedicated to restoring the hillside back to a natural habitat for the corridor's other users: pollinators and wildlife,

Cohabitation Corridor

like our friend the Cactus Wren. Plants at the top of the slope have been selected based on what has been identified as growing in the undisturbed coastal sage scrub surrounding the site. The goal is to create a restored buffer between the natural space and the manufactured space. The Cactus Wren is known for building their nests in cactus thickets, yucca, and other thorny shrubs. In an attempt to welcome them back, the design works with large thickets of native *Opuntia littoralis* to provide them a desirable place to move into. According to a survey done by USGS, other plants often found in thriving Cactus Wren habitats include *Artemisia californica*, *Eriogonum fasciculatum*, *Rhus integrifolia*, and *Sambucus mexicana*; all of which are native to the area and planted generously on the site.

The plant palette has additional beneficial qualities to the corridor. Many of the plants on site were chosen for their slope stabilization qualities. The hydroseed mix includes native meadow seeds such as *Stipa pulchra*, known for its deep root system (up to 20' deep) and establishes quickly. Other plants such as *Quercus agrifolia*, *Sambucus mexicana*, *Heteromeles arbutifolia*, and *Baccharis sp.* are also known for their extensive root systems which not only help with slope stabilization but also pull up water from deep within the ground and spread it laterally, sharing it with the plants around them in a process known as biophilic irrigation. Plants working together to source water makes for healthier plants that will burn less quickly in a fire event. Some of these same plants also have fire resistant qualities.

As a landscape designer I hope to shift human perception on nature away from being something to control or opt into to, and toward us being reintegrated into nature and its systems.










NOTES

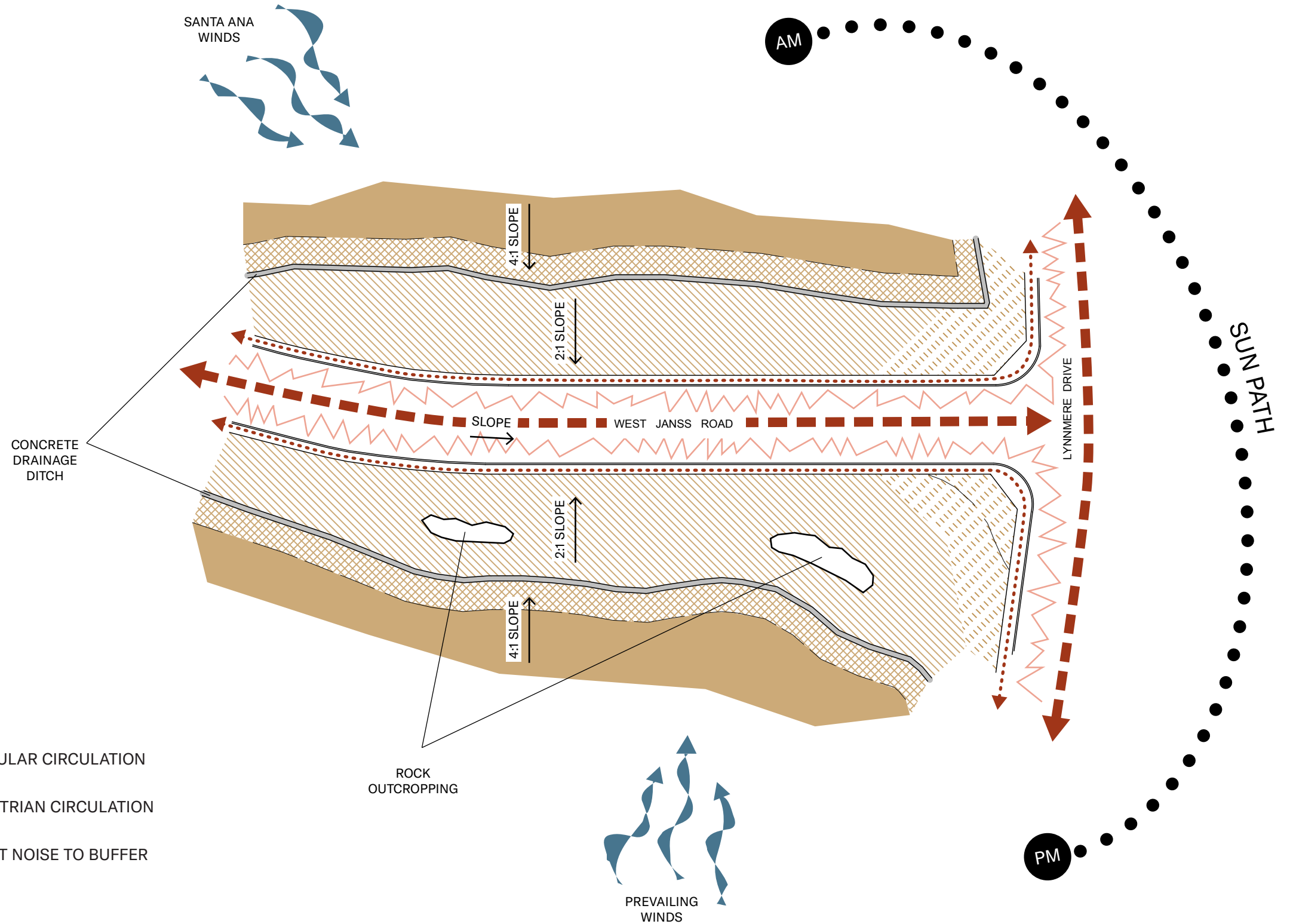
Sunset Zone 21

Existing Soil:
Rocky shaley loam with several areas of fractured rock outcroppings.

Existing Vegetation:
Top of slope is populated by undisturbed coastal sage scrub (*Artemisia californica*, *Baccharis sp.*, *Eriogonum fasciculatum*, *Opuntia littoralis*, *O. proliferata*, *Salvia melifera*). Adjacent street trees are *Pistacia chinensis*.

CONCEPT LEGEND

-  UNDISTURBED SAGE SCRUB
-  HABITAT RESTORATION
-  CHAPARRAL BUFFER
-  GATEWAY PLANTING
-  VEHICULAR CIRCULATION
-  PEDESTRIAN CIRCULATION
-  STREET NOISE TO BUFFER



Eriogonum fasciculatum (existing)
Artemisia californica
Artemisia californica
 Rock Outcrop
Quercus agrifolia
Baccharis pilularis 'Pigeon Point'
Sambucus mexicana

Opuntia littoralis

A

Undisturbed Sage Scrub

Restoration Area - 4:1 Slope

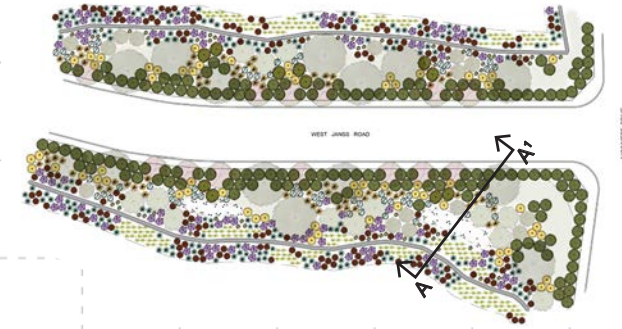
Concrete 'V' Channel

Built 2:1 Slope

Sidewalk

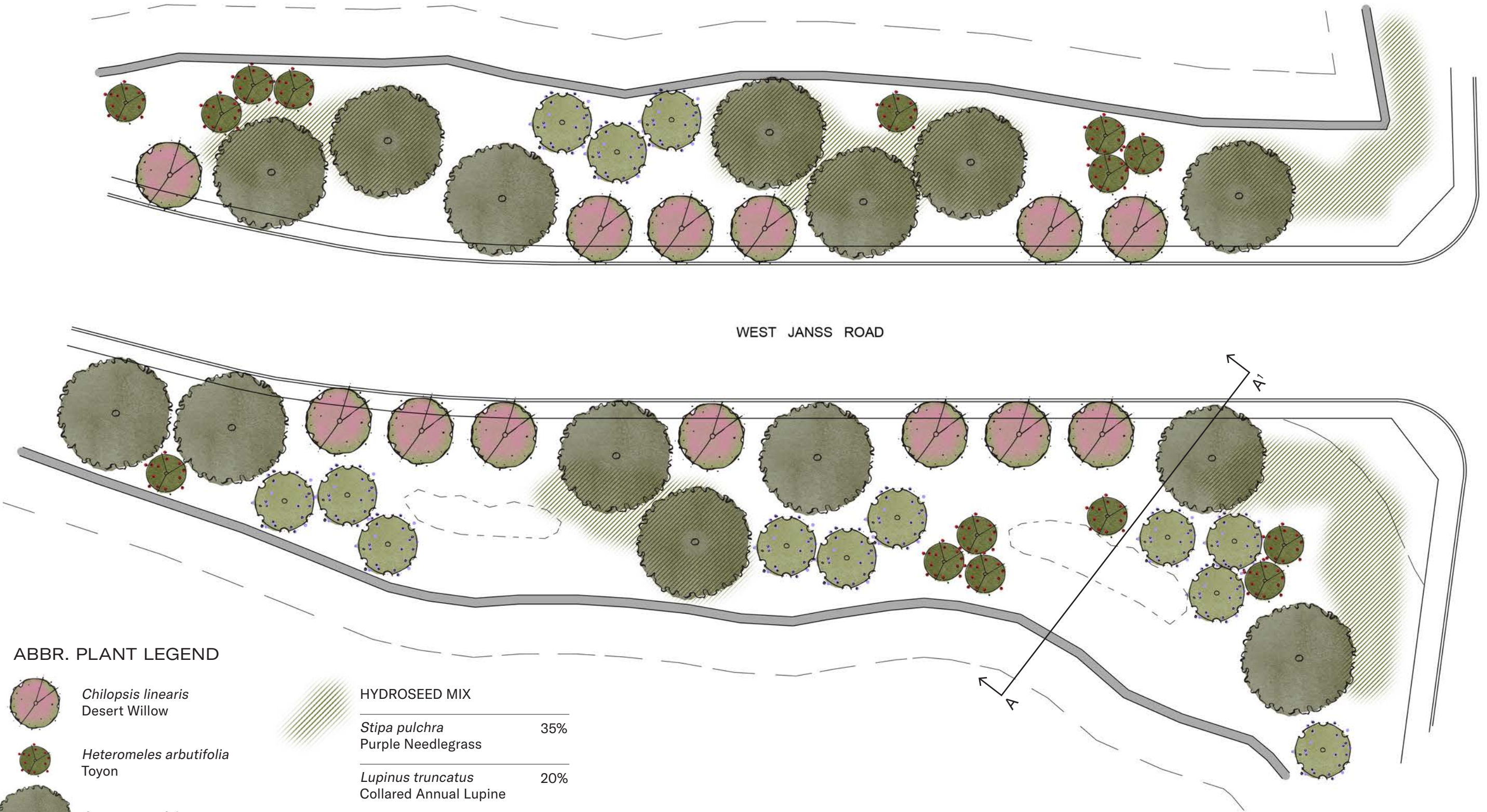
Janss Rd

A'



SCALE: 1" = 10'

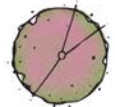


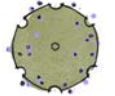





WEST JANS S ROAD

LYNNMERE DRIVE

ABBR. PLANT LEGEND

-  *Chilopsis linearis*
Desert Willow
-  *Heteromeles arbutifolia*
Toyon
-  *Quercus agrifolia*
Coast Live Oak
-  *Sambucus mexicana*
Blue Elderberry

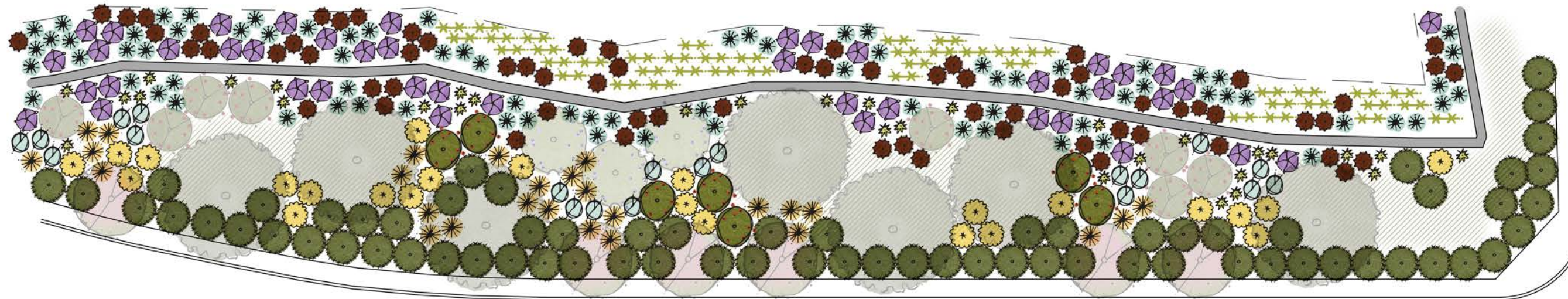
HYDROSEED MIX

	<i>Stipa pulchra</i>	35%
	Purple Needlegrass	
	<i>Lupinus truncatus</i>	20%
	Collared Annual Lupine	
	<i>Dichelostemma capitatum</i>	20%
	Blue Dicks	
	<i>Achillea millefolium</i>	15%
	Common Yarrow	
	<i>Castilleja affinis</i>	10%
	Indian Paintbrush	

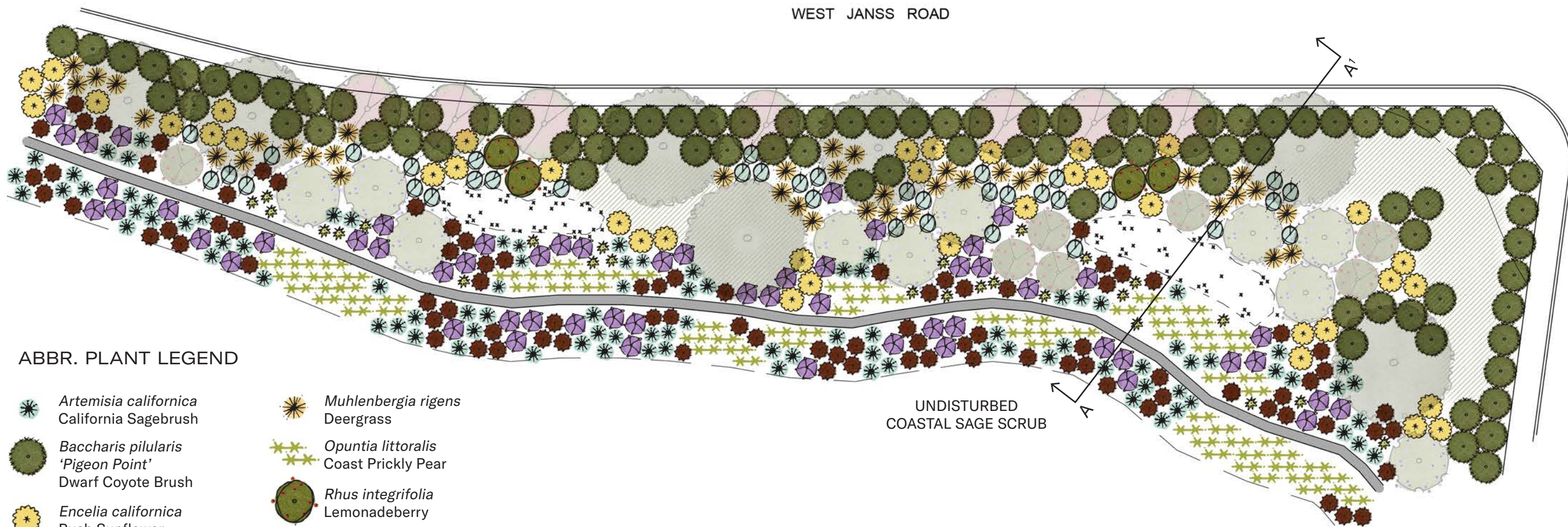
SCALE: 1" = 30'



UNDISTURBED COASTAL SAGE SCRUB














WEST JANS S ROAD



LYNNMERE DRIVE

ABBR. PLANT LEGEND

- | | |
|--|---|
|  <i>Artemisia californica</i>
California Sagebrush |  <i>Muhlenbergia rigens</i>
Deergrass |
|  <i>Baccharis pilularis</i>
'Pigeon Point'
Dwarf Coyote Brush |  <i>Opuntia littoralis</i>
Coast Prickly Pear |
|  <i>Encelia californica</i>
Bush Sunflower |  <i>Rhus integrifolia</i>
Lemonadeberry |
|  <i>Eriogonum fasciculatum</i>
California Buckwheat |  <i>Salvia apiana</i>
White Sage |
|  <i>Hesperoyucca whipplei</i>
Chaparral Yucca |  <i>Salvia melifera</i>
Black Sage |
|  <i>Dudleya lanceolata</i>
Lanceleaf Liveforever | |

UNDISTURBED
COASTAL SAGE SCRUB

SCALE: 1" = 30'



#	SCIENTIFIC NAME	COMMON NAME	APPROXIMATE HEIGHT/SPREAD	WUCOLS	WILDLIFE (SOURCE: CALSCAPE)	BLOOM COLOR/ SEASON	NOTES
1	<i>Achillea millefolium</i>	Common Yarrow	1-3' H, .5-1.5' W	L		Spring, Summer	Spreads by rhizomes
2	<i>Artemisia californica</i>	California Sagebrush	1-8' H, 4' W	VL		Spring, Summer, Fall	Fragrant
3	<i>Baccharis pilularis 'Pigeon Point'</i>	Dwarf Coyote Brush	1-2' H, 8-10' W	L		Fall	Shear in late winter to make denser
4	<i>Castilleja affinis</i>	Indian Paintbrush	2' H	N/A		Spring	Hemi-parasite, seeded with host plants
5	<i>Chilopsis linearis</i>	Desert Willow	2-5' H, 3-7' W	VL		Spring, Summer, Fall	Winter deciduous
6	<i>Encelia californica</i>	Bush Sunflower	2-5' H, 3-7' W	VL		Winter, Spring	--
7	<i>Eriogonum fasciculatum</i>	California Buckwheat	1-6' H, 4' W	VL		Spring, Summer, Fall	--
8	<i>Heteromeles arbutifolia</i>	Toyon	15' H, 12' W	VL		Summer	Red berries in winter
9	<i>Hesperoyucca whipplei</i>	Chaparral Yucca	2-12' H, 3' W	VL		Spring	Habitat for Cactus Wren
10	<i>Dichelostemma capitatum</i>	Blue Dicks	2-3' H, 0.5' W	VL		Spring	--
11	<i>Dudleya lanceolata</i>	Lanceleaf Liveforever	9" H, 1' W	VL		Spring, Summer	Rock Outcropping
12	<i>Lupinus truncatus</i>	Collared Annual Lupine	4-12" H	L		Spring	--
13	<i>Muhlenbergia rigens</i>	Deergrass	4-5' H, 4' W	L		Spring	Can be pruned back
14	<i>Opuntia littoralis</i>	Coast Prickly Pear	3-4' H, spreading	VL		Spring	Habitat for Cactus Wren
15	<i>Quercus agrifolia</i>	Coast Live Oak	60-80' H, 35' W	VL		Spring, Winter	--
16	<i>Rhus integrifolia</i>	Lemonadeberry	6' H, 10' W	VL		Winter, Spring	Flowers followed by berries
17	<i>Salvia apiana</i>	White Sage	3' H, 4' W	VL		Winter, Spring, Summer	Fragrant, prune in cool season
18	<i>Salvia melifera</i>	Black Sage	3-4' H, 6' W	VL		Winter, Spring, Summer	Fragrant, prune to 1/3 in cool season
19	<i>Sambucus mexicana</i>	Blue Elderberry	15-20' H, 20' W	L		Spring	Winter deciduous
20	<i>Stipa pulchra</i>	Purple Needlegrass	3.5' H, 1.5' W	VL		Spring	Establishes quickly, deep root system (to 20')

HYDROSEED MIX

SHRUB

TREE/LARGE SHRUB



1. *Achillea millefolium*
Common Yarrow



2. *Artemisia californica*
California Sagebrush



3. *Baccharis pilularis* 'Pigeon Point'
Dwarf Coyote Brush



4. *Castilleja affinis*
Indian Paintbrush



5. *Chilopsis linearis*
Desert Willow



6. *Encelia californica*
Bush Sunflower



7. *Eriogonum fasciculatum*
California Buckwheat



8. *Heteromeles arbutifolia*
Toyon



9. *Hesperoyucca whipplei*
Chaparral Yucca



10. *Dichelostemma capitatum*
Blue Dicks



11. *Dudleya lanceolata*
Lanceleaf Liveforever



12. *Lupinus truncatus*
Collared Annual Lupine



13. *Muhlenbergia rigens*
Deergrass



14. *Opuntia littoralis*
Coast Prickly Pear



15. *Quercus agrifolia*
Coast Live Oak



16. *Rhus integrifolia*
Lemonadeberry



17. *Salvia apiana*
White Sage



18. *Salvia melifera*
Black Sage



19. *Sambucus mexicana*
Blue Elderberry



20. *Stipa pulchra*
Purple Needlegrass

PLANT IMAGE CREDITS	Theodore Payne	Selectree
(WIP)	Las Pilitas Nursery	California Native Plant Society
	Calscape	
	Calflora	