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9-21-0714 (Southern California Gas Co.)

NOVEMBER 23, 2022

EXHIBITS

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Project Location

N

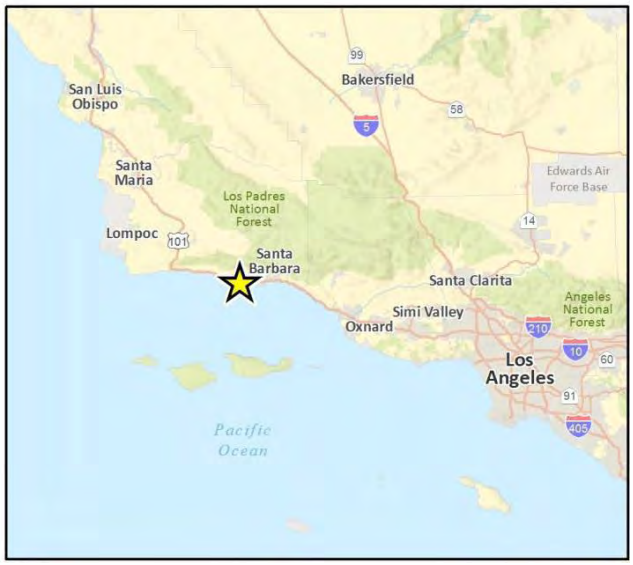

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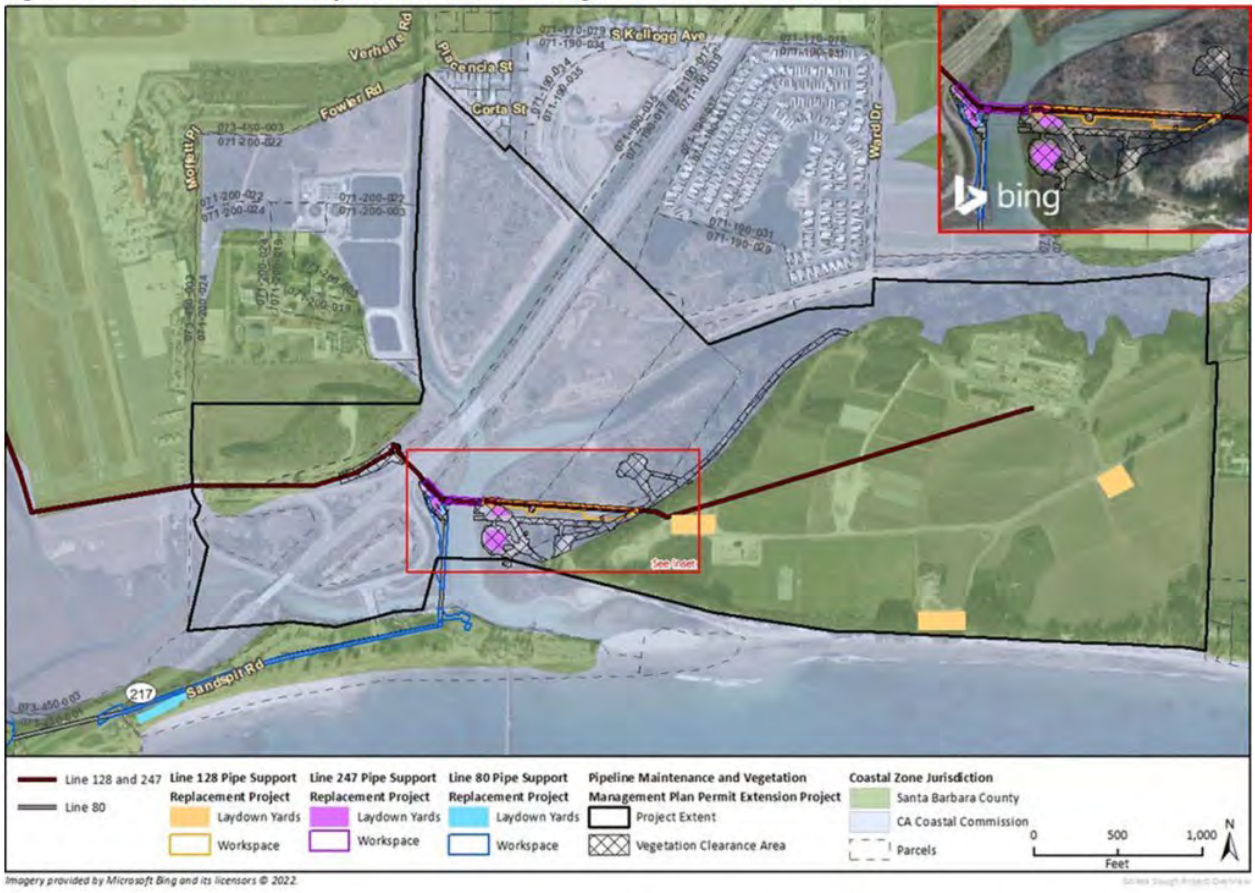
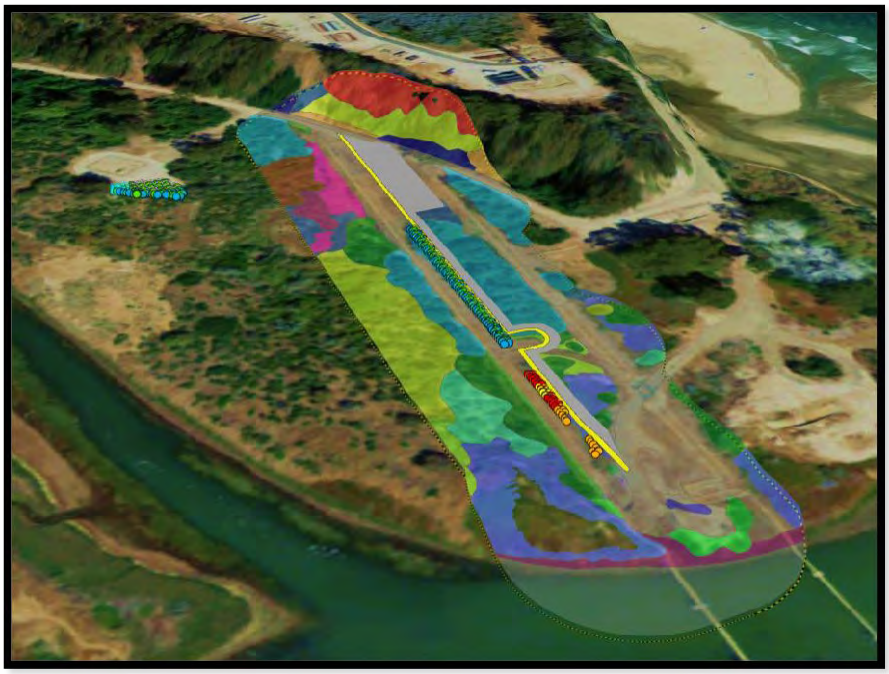
Figure 1 Current SoCalGas Projects in the Goleta Slough CCC-Retained Jurisdiction



Southern California Gas Company

Pipeline Safety Enhancement Plan (PSEP)
Line 128 Pipe Supports Replacement Project
Native Vegetation Restoration Plan



Submitted to:

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SOUTHERN CALIFORNIA GAS COMPANY
PSEP LINE 128 PIPE SUPPORTS REPLACEMENT PROJECT
NATIVE VEGETATION RESTORATION PLAN

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SOUTHERN CALIFORNIA GAS COMPANY

LA GOLETA NATURAL GAS STORAGE FACILITY
LINE 128 PIPE SUPPORTS REPLACEMENT PROJECT
NATIVE VEGETATION RESTORATION PLAN

1.0 NATIVE VEGETATION RESTORATION PLAN INTRODUCTION

Sage Institute Inc. has prepared this Native Vegetation Restoration Pan (NVRP) for the Southern California Gas Company (SoCalGas). The NVRP has been prepared in support of the Line 128 (L128) element of the Consolidated Public Safety Projects, authorized by Coastal Development Permit (CDP) No. 9-21-0714. The NVRP provides site specific planting and restoration treatments to mitigate impacts from the Line 128 Pipe Supports Replacement Project (Project). The NVRP has been prepared consistent with Coastal Development Permit E-11-031 (CDP E-11-031) Special Condition 3 to compensate for impacts to native vegetation from the pipeline maintenance and vegetation management activities at the La Goleta Natural Gas Storage Facility (Facility) since this project requires an expansion of the pipeline maintenance and vegetation management area south of the existing L128 pipeline. The overall goal of the NVRP is to restore and enhance native vegetative functions within the California Coastal Commission's (CCC) retained jurisdiction in the Project area that would otherwise not be subject to ongoing pipeline maintenance and vegetation management activities associated with the SoCalGas facility.

1.1 RESPONSIBLE PARTY

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2.0 PROJECT DESCRIPTION AND IMPACT SUMMARY

The Project includes the replacement of pipe supports for an approximately 1,000-foot (ft.) section of existing above-ground pipe for L128. Replacement and hydrotesting of L128 was completed in 2020/2021 and no further hydrotesting or pipeline replacement will be required. The Project is located within the SoCalGas Facility, adjacent to Atascadero Creek and entirely in the Coastal Zone. Project replacement activities include the removal of 36 temporary supports and the installation of 34 new reinforced concrete pipe supports. The existing temporary supports consist of four concrete and metal pilings (located at the far western portion of the Project nearest Atascadero Creek) and 32 temporary wooden cribbing supports. Each new pipe support consists of two concrete piers approximately 2.5 ft. in

diameter embedded into the ground to a depth of at least 25 ft. deep. Each pair of concrete piers would be connected by an above-grade horizontal steel support. Following installation of the 34 replacement pipe supports, removal of the temporary supports would occur.

Project construction would occur within a linear work area encompassing a minimum of 25 ft. on the south side of the L128 pipeline (approximately 40,000 square [sq.] ft. total). Brush clearing and tree trimming would be needed within the proposed workspace areas. L128 is located approximately 10 ft. south of another SoCalGas natural gas pipeline (Line 247).

The 10 ft. between L128 and L247 is currently cleared of vegetation and obstacles but is generally too narrow to accommodate equipment required for pipe support replacement. Approximately 15 ft. of additional brush clearing, and tree pruning/removal would be required to the south of the workspace areas (approximately 25 ft. from L128 pipeline). A crane would be staged at the terminus of an existing SoCalGas access road directly adjacent to L128 to facilitate removal and replacement activities. Figure 1 illustrates the approximate workspaces. Project equipment staging, parking, and materials fabrication would occur within three existing developed laydown yards located within the Storage Facility. Existing paved access roads within the Facility would provide access between the Project workspaces and the laydown yards.

Please refer to Figure 2 for a map depicting vegetation communities within the study area, Figure 3 for the Conceptual Restoration Plan, and Figure 4 for representative photographs.

Site Access. The Project is located within the existing Facility at 1171 More Ranch Rd. Regional access to the site would be provided by United States Route 101 (U.S. 101) to Patterson Rd. From Patterson Rd., access would be provided via a private roadway (More Ranch Rd.) to the gated Facility entrance. Once inside the Facility, vehicles and equipment would use existing paved and unpaved (graded) SoCalGas access roads to reach the laydown yards and workspaces. Equipment would be trucked from the laydown yards to the workspaces along either the existing southern access road directly north of the Slough mouth or from the existing northern access road that runs adjacent to the main storage Facility.

Construction Equipment. The following equipment would be required for the Project: Rubber tire backhoe, excavator with auger, air compressors, welding rigs, pickup trucks, concrete trucks, dump trucks, water trucks, crane, reach forklifts, generators, sandblasters, lights, and compactors. An office trailer and generator would also be located within one of the laydown yards.

Schedule. The project is currently scheduled to initiate September 2022, with a duration of approximately 48 days. Pre-construction survey activities would be scheduled before the start of construction.

3.0 PROJECT AREA VEGETATION COMMUNITIES AND FUNCTIONS

This section classifies the onsite vegetation types within the proposed Project area based on the habitat hierarchy in the 2009 second edition of *A Manual of California Vegetation* (Sawyer, 2009) and field observations along L128. Plant names used in this report follow *The Jepson Manual, Vascular Plants of California, Second Edition Thoroughly Revised and Expanded* (Baldwin et al. 2012) with taxonomy updated as needed (Jepson, 2022). This section also describes the site-specific species composition observed within the Project areas.

The study area evaluated in this NVRP includes a minimum 100-foot buffer around L128 plus the proposed Chase–Bryce mitigation site. Reconnaissance-level surveys for the purpose of collecting adequate baseline information for this NVRP were conducted by SII Principal Biologist, Jason Kirschenstein, on January 19, February 8, and February 17, 2022. Following the habitat descriptions, Table 1 provides a list of plant species observed within the study area. Please review the Environmentally Sensitive Habitat Area and Coastal Wetland Impact Summary included in the CDP application for this Project for a list of all the vegetation communities outside the Project area but in the study area. The text below (and Tables 2 and 3) focus on vegetation communities within the study area that are within the Project area that would be impacted by proposed construction activities. Refer to Figure 2 for a depiction of study area habitats not described in detail below.

3.1 WILD OATS AND ANNUAL BROME GRASSLANDS

- *Avena spp.* - *Bromus spp.* Herbaceous Semi-Natural Alliance; California Department of Fish and Wildlife (CDFW) CA Code 42.027.00.

The non-native annual grassland plant community within the Project area is formed by intermittent to dense herbaceous species cover dominated by non-native annual grassland species, and is found in patches within the study area (Figure 2). The annual grassland habitat is generally dominated by non-native annual grasses and herbaceous broadleaf plant species along with a few native forbs. The co-dominant grasses include ripgut brome (*Bromus diandrus*), red brome (*B. madritensis* ssp. *rubens*), Bermuda grass (*Cynodon dactylon*), rattail fescue (*Festuca myuros)*, foxtail barley (*Hordeum murinum*), ryegrass (*Lolium multiflorum*), and rabbitsfoot grass (*Polypogon monspeliensis*). Other non-native annual species observed in abundance included black mustard (*Brassica nigra),* fixweed (*Descurainia sophia*), horse weed (*Erigeron canadensis*), stork-bill filaree (*Erodium botrys*), and red-stem filaree (*E. cicutarium*).

3.2 ICE PLANT MATS

- *Mesembryanthemum* spp. - *Carpobrotus* spp. Herbaceous Semi-Natural Alliance, CDFW CA Code 21.200.00.

Ice plants (*Carpobrotus edulis)* spread beyond landscaped areas and invade dunes, dune scrub, coastal bluff scrub, and coastal prairies (Albert, 2000). All ice plant species are highly aggressive and compete with native plants for moisture, nutrients, and space. Ice plant mats create adverse conditions for establishment of natives. Ice plant is widely used for soil stabilization and landscaping and is considered fire-resistant. Ice plant mats are scattered in small patches within the project area, and larger patches are established within the study area (Figure 2).

3.3 ARROYO WILLOW THICKETS

- *Salix lasiolepis* Shrubland Alliance, CDFW CA Code 61.201.00.

Arroyo willow (*Salix lasiolepis*) thickets occur as discontinuous riparian patches in the Project area bordered by salt marsh, coyote brush scrub, ruderal and annual grassland communities. This community is found Project area (Figure 2) and is considered a Coastal Wetland per CCC regulations. Arroyo willow thickets are dominated by arroyo willows and are associated with coyote brush (*Baccharis pilualris*) and California blackberry (*Rubus ursinus*). Other plants commonly found within this community on site are mule fat (*Baccharis salicifolia*) and toyon (*Heteromeles arbutifolia)*. Cape ivy (*Delairea odorata*), poison oak (*Toxicodendron diversilobum*), poison hemlock (*Conium maculatum*), and garden nasturtium (*Tropaeolum majus*) occur variably

throughout the arroyo willow thickets. Along the edges of most of the arroyo willow thickets ruderal species such as castor bean (*Ricinus communis*), myoporum (*Myoporum laetum*), and those species described in annual grasslands are predominant. This habitat consists of dense shrub or tree canopy cover with a variable grass and forb understory (Figures and 4).

3.4 COYOTE BRUSH SCRUB

- *Baccharis pilularis* Shrubland Alliance, CDFW CA Code 32.060.00.

The coyote brush shrubland occurs throughout the study area at the higher elevations than the surrounding salt marsh and arroyo willow communities. Within the Project area it is found intermixed with weedy ruderal species and adjacent to riparian areas. This community is dominated by coyote brush with co-dominate quailbush (*Atriplex lentiformis)*, California sagebrush (*Artemesia californica*) or blue elderberry (*Sambucus nigra ssp. caerulea*) occurring as dense cover stands. Other herbaceous and woody components occurring variably include black nightshade (*Solanum douglasii*) and a myriad of non-native species such as black mustard, castor bean, and myoporum trees. This community is typically dense to open shrub canopy cover and is common along L128 (Figures 2 and 4).

3.5 DISTURBED/RUDERAL

Although not defined by California Native Plant Society (2022 or Holland (1986)), disturbed and ruderal areas are dominated by non-native plant species and do not contain significant areas of native or naturalized vegetation. These anthropogenic communities consist of artificial communities of non-native plants or agricultural crops established and maintained by human disturbance. Ruderal areas are typically dominated by introduced Mediterranean annual plant species and other non-native invasive plant species. Ruderal or disturbed habitat is typically found in areas altered by agriculture, construction, and other land-clearing activities, along roadsides, and in other areas experiencing repeated ground surface disturbance.

Herbaceous ruderal plant species found in the study area include ripgut brome, red brome, bull thistle (*Cirsium vulgare*), black mustard (*Brassica nigra*), Italian thistle (*Carduus pycnocephalus*), poison hemlock (*Conium maculatum*), Andean jabata grass (*Cortaderia jubata*), horseweed, stork-bill filaree (*Erodium botrys*), redstem filaree, annual geranium (*Geranium dissectum*), bristly ox-tongue (*Helminthotheca echioides*), foxtail barley, ryegrass, cheeseweed (*Malva parviflora*), yellow sweetclover (*Melilotus indicus*), tree tobacco (*Nicotiona glauca*), fountaingrass (*Pennisetum setaceum*), rabbitsfoot grass, curly dock and cocklebur (*Xanthium strumarium*). Woody ruderal species include castor bean, myoporum tree, and blue gum eucalyptus (*Eucalyptus globulus*). Project area ruderal habitats are present anywhere with disturbed soils, including alongside roads, pipelines, and facilities (Figures 2 and 4).

TABLE 1: STUDY AREA PLANT SPECIES OBSERVED JANUARY AND FEBRUARY 2022

COMMON NAME	NATIVE	SCIENTIFIC NAME	WILD OATS / ANNUAL BROME GRASSLANDS	ICE PLANT MATS	COYOTE BRUSH SCRUB	ARROYO WILLOW THICKET	PICKLEWEED MATS	DISTURBED / RUDERAL
California sagebrush	Y	*Artemisia californica*			X			
Quail bush	Y	*Atriplex lentiformis*			X			
Australian saltbush	N	*Atriplex semibaocata*	X				X	
Coyote brush	Y	*Baccharis pilularis*			X			
Mule fat	Y	*Baccharis salicifolia*				X		
Black mustard	N	*Brassica nigra*	X					X
Ripgut brome	N	*Bromus diandrus*	X					
Red brome	N	*Bromus madritensis ssp. rubens*	X					
Morning-glory	N	*Calystegia macrostegia spp. intermedia*			X			
Italian thistle	N	*Carduus pycnocephalus*						X
Ice plant	N	*Carpobrotus edulis*		X				
Bull thistle	N	*Circium vulgare*						X
Poison hemlock	N	*Conium maculatum*	X			X		X
Pampas grass	N	*Cortaderia selloana*						X
Cape ivy	N	*Delairea odorata*				X		
Fixweed	N	*Descurainia sophia*	X					X
Salt grass	Y	*Distichlis spicata*					X	
California sunflower	Y	*Encelia californica*			X			
Horseweed	Y	*Erigeron canadensis*	X					X
California buckwheat	Y	*Eriogonum fasciculatum*			X			
Stork-bill filaree	N	*Erodium botrys*	X					X
Redstem filaree	N	*Erodium cicutarium*	X					X
Blue gum	N	*Eucalyptus globulus*						X
Rattail fescue	N	*Festuca myuros*	X					
Alkali heath	Y	*Frankenia salina*					X	
Annual geranium	N	*Geranium dissectum*						X
Bristly ox-tongue	N	*Helminthotheca echioides*						X
Toyon	Y	*Heteromeles arbutifolia*				X		
Telegraph weed	N	*Heterotheca grandiflora*						X
Golden aster	Y	*Heterotheca sessiliflora*			X			
Short podded mustard	N	*Hirschfeldia incana*	X					X
Foxtail barley	N	*Hordeum murinum*	X					X
Menzies' goldenbush	Y	*Isocoma menziesii*	X		X			
Ryegrass	N	*Lolium perenne*	X					X
Scarlet pimpernel	N	*Lysimachia arvensis*	X					X
Cheeseweed mallow	N	*Malva parviflora*	X					X
Yellow sweetclover	N	*Melilotus albus*						X
Bur clover	N	*Medicago polymorpha*						X
Ngaio tree	N	*Myoporum laetum*						X
Tree tobacco	N	*Nicotiana glauca*						X
Bermuda buttercup	N	*Oxalis pes-caprae*						X
Fountaingrass	N	*Pennisetum setaceum*						X
Branching phacelia	Y	*Phacelia ramosissima*			X			

COMMON NAME	NATIVE	SCIENTIFIC NAME	WILD OATS / ANNUAL BROME GRASSLANDS	ICE PLANT MATS	COYOTE BRUSH SCRUB	ARROYO WILLOW THICKET	PICKLEWEED MATS	DISTURBED / RUDERAL
Rabbitsfoot grass	N	*Polypogon monspeliensis*	X					X
Lemonade berry	Y	*Rhus integrifolia*			X			
Castor bean	N	*Ricinus communis*				X		X
California blackberry	Y	*Rubus ursinus*				X		
Curley dock	N	*Rumex crispus*						X
Pacific pickleweed	Y	*Salicornia pacifica*					X	
Arroyo willow	Y	*Salix lasiolepis*				X		
Black elderberry	Y	*Sambucus nigra spp. caerulea*			X	X		
California figwort	Y	*Scrophularia californica*			X	X		
Black nightshade	Y	*Solanum douglasii*			X			
Poison Oak	Y	*Toxicodendron diversilobum*			X	X		
Garden Nasturtium	N	*Tropaeolum majus*				X		X
Stinging nettle		*Urtica dioica*			X	X		X
Cultivated grape	N	*Vitis vinifera*						X
Rough cocklebur	N	*Xanthium strumarium*						X

4.0 VEGETATION IMPACT OVERVIEW

The primary impact on vegetation would occur as a result of the 10 to 25-ft. clearance zone adjacent to and south of the L128 right-of-way (ROW). The impact area evaluated in this NVRP includes only the areas that extend outside the existing Operations and Maintenance permit (CDP E-11-031)[1]. Figures 1 through 3 show the pipelines within the CCC retained jurisdiction subject to CDP E-11-031 and the vegetation communities impacted within the proposed Project area. For the purposes of compensating for impacts, non-native annual grassland, ruderal, or developed areas are not considered native vegetation and impacts to these vegetation types are not included in any proposed restoration compensation[2]. Tables 2 and 3 below summarize permanent and temporary impacts to vegetation communities, respectively.

[1] CDP E-11-031 expired on March 6, 2022 and is pending extension. This plan assumes the CDP E-11-031 will be extended prior to construction activities. The projects CDP may be conditionally approved dependent on the issuance of the O&M CDP.
[2] This approach is consistent with CDP E-11-031 Special Condition 3 that specifically requires a "Restoration Plan for Native Vegetation" for "native vegetation" to be cleared.

TABLE 2: PERMANENT IMPACTS TO NATIVE & NON-NATIVE VEGETATION COMMUNITIES

VEGETATION COMMUNITY PERMANENT IMPACTS	WILD OATS / ANNUAL BROME GRASSLANDS	ARROYO WILLOW THICKET	COYOTE BRUSH SCRUB	ICE PLANT MATS	DISTURBED / RUDERAL
NATIVE VEGETATION COMMUNITIES					
Coyote Brush Scrub (Upland ESHA)	--	--	123.1	--	--
Arroyo Willow Thicket (Coastal Wetland)	--	1,312.4	--	--	--
NON-NATIVE VEGETATION COMMUNITIES					
Wild Oats / Annual Brome Grasslands	290.2	--	--	--	--
Disturbed / Ruderal	--	--	--	--	2,262.5
Ice Plant Mats	--	--	--	304.3	--
PERMANENT IMPACT SUBTOTALS	**290**	**1,312**	**123**	**304**	**2,263**
TOTAL PERMANENT IMPACTS	**4,292**				

Note: All values in square feet

TABLE 3: TEMPORARY IMPACTS TO NATIVE & NON-NATIVE VEGETATION COMMUNITIES

VEGETATION COMMUNITY TEMPORARY IMPACTS	WILD OATS / ANNUAL BROME GRASSLANDS	ARROYO WILLOW THICKET	COYOTE BRUSH SCRUB	ICE PLANT MATS	DISTURBED / RUDERAL
NATIVE VEGETATION COMMUNITIES					
Coyote Brush Scrub	--	--	1,211.1	--	--
Arroyo Willow Thicket	--	3,132.8	--	--	--
NON-NATIVE VEGETATION COMMUNITIES					
Wild / Oats Annual Brome Grasslands	349.3	--	--	--	--
Disturbed / Ruderal	--	--	--	--	10,933.4
Ice plant Mats	--	--	--	573.2	--
TEMPORARY IMPACT SUBTOTALS	**349**	**3,133**	**1,211**	**573**	**10,933**
TOTAL TEMPORARY IMPACTS	**16,199**				

Note: All values in square feet

5.0 GOALS AND OBJECTIVES OF THE NATIVE VEGETATION RESTORATION PLAN

The overall goal of the NVRP is to restore and enhance native vegetative functions in areas within the CCC retained jurisdiction in the Project, excluding areas within ongoing pipeline operations and maintenance vegetation management permit (CDP E-11-031).

The following objectives have been developed for the NVRP:

- Create native Coyote Brush Scrub and Arroyo Willow Thicket habitat to mitigate for permanent impacts to native habitat and to increase the habitat functions over the existing developed conditions.
- Expand patches of willow in suitable areas using onsite cuttings from vegetation management activities (to extent construction schedule occurs within the preferred seasonal fall/winter precipitation planting window).
- Establish a vegetated cover of low-maintenance self-sustaining native species.
- Fully restore temporary impacts to native habitat, in-kind, and at the location of disturbance.

Permanent Impacts: Field surveys have identified an existing developed well pad (Chase-Bryce) that is ideal for native habitat creation to compensate for permanent impacts to native habitat as it is currently devoid of vegetation and is located adjacent to existing riparian and saltmarsh habitat in a low-lying area. This location has also been identified as a preferred restoration location by the CCC per prior project communications with Rincon Consultants, Inc. (Rincon) staff. Permanent impacts to native vegetation include approximately 1,312 square feet of Arroyo Willow Thicket and 123 square feet of Coyote Brush Scrub. As indicated in Figure 3 and Table 4, a minimum of 2,870 square feet of suitable habitat creation area is available within the Chase-Bryce site to meet a proposed 2:1 compensation ratio for permanent impacts to native vegetation.

Temporary Impacts: Temporary impacts to native habitat are proposed to be restored in-kind at a 1:1 mitigation ratio onsite at the location of the initial disturbance (Figures 2 and 3). Temporary impacts to native vegetation to be restored include approximately 3,133 square feet of Arroyo Willow Thicket and 1,211 square feet of Coyote Brush Scrub.

6.0 DESCRIPTION OF NATIVE VEGETATION RESTORATION AREAS

The study area supports a mosaic of habitat patches dominated by native and non-native plant species. Field surveys were conducted in January and February 2022 to identify target restoration areas. As indicated above, the Chase-Bryce site is considered preferrable to compensate for permanent impacts due to its adjacency to both existing willow riparian habitat and previously restored salt marsh habitat. The site would require deep ripping prior to planting as it is currently compacted with gravel.

Native habitat within the proposed temporary impact area consists of approximately 3,133 square feet of Arroyo Willow Thicket and 1,211 square feet of Coyote Brush Scrub. These areas contain a dense duff layer and varying degrees of vegetation density and downed woody debris. The NVRP provides habitat mitigation treatments that are designed to be applied specifically to the restoration areas that are described more fully in Section 7.0 below. It is noted that no eucalyptus removal has been proposed as it supports nesting and roosting habitat for birds and monarch butterfly roosting/foraging habitat.

TABLE 4: HABITAT RESTORATION SITES SUMMARY

RESTORATION SITE	RESTORATION TREATMENT	MINIMUM RESTORATION AREA (SQUARE FEET)
Chase – Bryce Well Pad Habitat Creation	Arroyo Willow Thicket Creation	**2,620**
	Coyote Brush Scrub Creation	**250**
Temporary Construction Corridor	Arroyo Willow Thicket Restoration	**3,130**
	Coyote Brush Scrub Restoration	**1,210**
	TOTAL	**7,180**

7.0 RESTORATION IMPLEMENTATION PLAN

This NVRP focuses on several treatments based on creating and restoring with native coastal scrub and riparian plantings. The treatments are described below with a container stock plant palette and broadcast seed mix. Broadcast seeding and container plants would be installed within the proposed temporary restoration area and Chase–Bryce Well Pad as depicted in Figure 3. Non-native temporary impact areas would be returned to pre-project conditions and would be seeded with the proposed seed mix in Table 6 and/or receive appropriate BMPs to ensure site stability. Non-native temporary impact areas would also be monitored per Section 7.4 below to ensure invasive plant species do not colonize the site.

TABLE 5: CONTAINER/CUTTING STOCK PLANT PALETTE

SCIENTIFIC NAME	COMMON NAME	CONTAINER CUTTING	SPACING (FT./CENTER)
COASTAL SCRUB			
Artemisia californica	California sage brush	1 gal. or dee-pot	5
Atriplex lentiformis	Quail bush	1 gal. or dee-pot	5
Baccharis pilularis var. *consanguinea*	Coyote brush	1 gal. or dee-pot	5
ARROYO WILLOW RIPARIAN			
Rubus ursinus	California blackberry	1 gal. or dee-pot	5
Salix lasiolepis	Arroyo willow	onsite cutting	10

Note: Other regionally appropriate native container plants may be used based on commercial availability.

TABLE 6: SITE STABILIZATION BROADCAST SEED MIX

HERBACEOUS SEED MIX (PERCENT OF 40 LBS/ACRE)		
Achillea millefolium	Yarrow	20%
Artemesia douglasiana	Mugwort	20%
Asclepias fascicularis	Narrow leaf milkweed	20%
Eschscholzia californica	California poppy	15%
Lupinus bicolor	Miniature lupine	10%
Lupinus nanus	Sky lupine	10%
Lupinus succulentus	Arroyo lupine	5%

Note: Other regionally appropriate native seeds may be used based on commercial availability.

7.1 ARROYO WILLOW THICKET / COYOTE BRUSH SCRUB HABITAT CREATION TREATMENT (PERMANENT IMPACT MITIGATION)

The Chase-Bryce well pad would be cleared of any ruderal vegetation and deep ripped to prepare the surface for planting. Following deep scarification, the proposed broadcast seed mix would be applied to the treatment area to provide rapid annual cover to minimize potential for surface erosion during the first winter and to support mulching efforts. As depicted in Figure 3, approximately 26 willow planting basins (3-5 willow sprigs per basin) are proposed to be installed in the Chase-Bryce habitat creation area. Willow cuttings salvaged from Project disturbance activities will be utilized to the extent construction occurs in fall / winter. Bottoms of the stems will be cut at a steep angle while the cut on the top is flat (reduces potential of planting upside down). As many leaves as possible will be removed from cuttings to encourage root growth. Cuttings will be planted on the same day as harvest, or if stored overnight, placed as bundles in plastic bags or in large buckets with water. Cuttings will be placed in the ground up to at least one-half their length or deeper when possible (6 – 10 inches minimum exposed above ground). Intermixed with the willow sprigs on approximate 5-foot centers will be 96 California blackberry containers in a semi-random pattern to allow for uniform spreading.

The proposed Coyote Brush Scrub creation area depicted in Figure 3 includes installation of a minimum of 11 1-gallon (or dee-pot) native container stock, including four (4) coyote brush, four (4) California sagebrush, and three (3) quailbush.

7.2 ARROYO WILLOW THICKET / COYOTE BRUSH SCRUB HABITAT RESTORATION TREATMENT (TEMPORARY IMPACT MITIGATION)

Native in-kind restoration is proposed within native temporary impact areas. This treatment includes light ripping of the soil prior to installation of plant material. Following scarification, the proposed broadcast seed mix would be applied to the treatment area to provide rapid annual cover to minimize potential for surface erosion during the first winter and to support mulching efforts. The same harvest and installation methods described in Section 7.1 above would apply. As depicted in Figure 3, approximately 28 willow planting basins (3-5 willow sprigs per basin) and 114 California blackberry containers (or dee-pot) are proposed to be installed within the temporary impact restoration area. Willow cuttings salvaged from project disturbance activities will be utilized to the extent construction occurs in fall / winter.

The proposed Coyote Brush Scrub restoration area depicted in Figure 3 includes installation of a minimum of 342 1-gallon (or dee-pot) native container stock, including 18 coyote brush, 15 California sagebrush, and seven (7) quailbush.

7.3 GENERAL RESTORATION PLAN PROVISIONS

At the outset of Project implementation, Project work areas will be prepared by removing all non-native and invasive plant species. Soil disturbance shall be minimized to the maximum extent feasible. Soil scarification activities shall be limited to those areas required for plant installation.

All planting areas will receive natural wood mulch a minimum of three inches deep. A program of weeding non-native herbaceous species during the growing season will be implemented to reduce the presence and spread of these species in the restoration areas. All other areas of exposed soil from project disturbance activities (excluding developed roadways) would be broadcast seeded with the proposed seed mix.

Commercially available seeds and container stock from local sources will be used for all restoration applications. Willow sprigs from the Project vicinity will be collected to be used during planting activities. The quality of the sprigs and seeds will be inspected and approved by the Project restoration biologist; this will either be a SoCalGas biologist or a consultant, prior to installation into the restoration areas.

Container stock, from locally collected plant materials, shall have a normal habit of growth and shall be healthy, vigorous, and free of insect infestations, plant diseases, sunscalds, excessive abrasions, or other damage. Container stock shall be transported to the site in the original containers and shall be inspected upon delivery to the site. Container plants shall not be stored on site and shall be delivered only when planting operations commence. Plants shall be kept moist at all times and shall be completely irrigated before planting and be moist when installed.

Planting of Container Stock

- Actual planting shall be performed during periods when weather and soil conditions are suitable, and in accordance with locally accepted practices.
- Only as many plants as can be planted and watered on the same day shall be distributed in a planting area.
- Container stock layout on site shall be completed by the restoration biologist. Planting locations shall be made in natural configurations such that each species is distributed throughout each associated plating zone (habitat area), and such that plants are not crowded together. Overall, care shall be taken to avoid regular geometric patterns.
- Container stock shall be planted on five-to-ten-foot centers as specified. The final number of container stock plants will be determined by the restoration biologist at the end of Project disturbance activities.
- Containers shall be opened and plants shall be removed in such a manner that the ball of earth surrounding the roots is not broken and they shall be planted and watered immediately after removal from the container.
- Irrigate immediately after installation to settle soil.

Broadcast Seeding

- The dimensions and locations of each area to be seeded will be verified in the field. Each area to be seeded will be marked in the field in a manner that clearly designates each seeding area.
- Prior to seeding, the soil shall be scarified by ripping or other appropriate method.
- Seed shall be applied in two passes at the rate of half of the seed total required for each area per pass. Each pass shall be in opposite directions to one another.

- Lightly rake after seed application or use other methods to incorporate seed into soil and prevent it from floating or blowing away. Seed shall not be planted more than 2 inches deep.
- Water as conditions require to maintain moisture content necessary for proper germination and establishment of seed.
- The amount of seed for this site will be based on approximately 40 lbs/acre.

7.4 MAINTENANCE AND IRRIGATION

Weed Control

- Non-native and invasive weeds shall be removed from the restoration and mitigation sites with hand tools or by herbicide treatment appropriate for use along waterways during inspection and monitoring sessions (see Section 8.2). Weed removal shall cause minimal disruption to the root systems of the installed plants and the soil surface. All weedy plant material removed during weed control operations shall be hauled off the site. At least two non-native invasive plant species removal efforts will be implemented during the spring growth period, prior to seed set and before April 1st. The following list in Table 6 of noxious weed species shall be managed so that there is not greater than five percent absolute cover in any of the restoration areas. Other invasive species not on the list would be removed as needed should they occur.

TABLE 7: TARGET NOXIOUS INVASIVE PLANTS

SCIENTIFIC NAME	COMMON NAME
Arundo donax	Giant reed
Brassica/ Hirschfeldia spp.	Mustards
Carduus pycnocepalus	Italian thistle
Carpobrotus edulis	Ice plant
Centaurea solstitialis	Yellow-star thistle
Cirsium vulgare	Bull thistle
Conium maculatum	Poison hemlock
Cortaderia jubata	Andean jabata grass
Delairea odorata	Cape ivy
Foeniculum vulgare	Fennel
Helminthotheca echioides	Bristly ox-tongue
Myoporum laetum	Myoporum
Nicotiona glauca	Tree tobacco
Ricinus communis	Castor bean
Silybum marianum	Milk thistle
Sonchus spp.	Sow thistles
Tamarisk sp.	Salt cedar

Debris Removal

Debris and trash removal shall occur throughout the monitoring period. All areas of work shall be kept clean, neat, and orderly at all times. All trash and non-organic debris shall be removed from the site as discovered and disposed of off-site at a suitable location.

Supplemental Planting

Replanting and/or supplemental planting shall be conducted if the performance evaluation indicates that the success criteria (e.g., survivorship or absolute native vegetation cover within the disturbed area) are not being met. Areas where vegetation is not adequately establishing or plants are in poor health shall be replanted with the same species or species from the plant palette that are showing better signs of survival.

Irrigation

To help establish the new plantings and seeds, the restoration sites shall be watered as necessary to ensure establishment of plants. Temporary automatic irrigation systems are acceptable but there shall be no permanent irrigation system installed at the site. Watering will temporarily cease during the raining season, except under severe drought conditions. After the raining season, the Project restoration biologist will evaluate if further supplemental irrigation will be need for the spring and summer months.

8.0 SUCCESS CRITERIA, MONITORING, AND REPORTING

8.1 SUCCESS CRITERIA

This NVRP restoration plan is to be deemed successful if after five years the restored area(s) provide at least 80% absolute cover of native vegetation. In addition, the following success criteria shall be observed:

- No woody invasive species shall be present.
- Herbaceous invasive species shall not exceed 5% absolute cover (not including non-native grass species).
- If adequate survival, cover and other requirements have not been met, replacement planting shall be monitored with the same success criteria for three years after replacement planting.
- All surviving plants must survive and grow for at least two years without supplemental water for the restoration phase of the project. In-kind replacement plant material will be installed if deemed necessary to meet the 80% absolute cover success criteria requirement.
- A shorter monitoring term may be requested by SoCalGas if success criteria is met prior to the proposed 5-year period.

8.2 MONITORING AND REPORTING

Monitoring for survivorship shall take place in fall of each year following the growing season and dry season. Monitoring will document plant survivorship/cover, invasive species control, irrigation status/regime, and other relevant mitigation implementation activities that were

conducted. As-needed monitoring spot checks will be provided throughout the year by a qualified restoration specialist.

SoCalGas shall prepare and submit annual reports to the CCC Executive Director for up to five years to document the implementation and success of the NVRP restoration plan. The reports should be brief and succinct reflecting the simple nature of this plan. The year one report will be prepared by November 1st following the first growing season after implementation and will include the "as-built" plan with photo documentation and the first-year trend towards meeting the success criteria. The year two through five reports will be submitted by November 1st and will include photos taken from the established photo documentation points and will focus on recording plant establishment in meeting the success criteria and any additional plantings if installed to meet the success criteria. Each annual report shall include a description of any remedial actions taken, and the maintenance and supplemental watering activities conducted for that year.

9.0 CONTINGENCY MEASURES

It is anticipated that restoration will meet the success criteria within five years after initiation of restorations activities. However, if the planting of the areas is not trending towards meeting success criteria, the reasons will be determined, and contingency measures implemented to obtain the needed success. SoCalGas will reinitiate the necessary aspects of the restoration plan to restore the areas in the same manner as described above modified as needed based on the evaluation of the maintenance and monitoring methods and will continue monitoring for the amount of time deemed necessary by the project restoration biologist to document meeting the success criteria.

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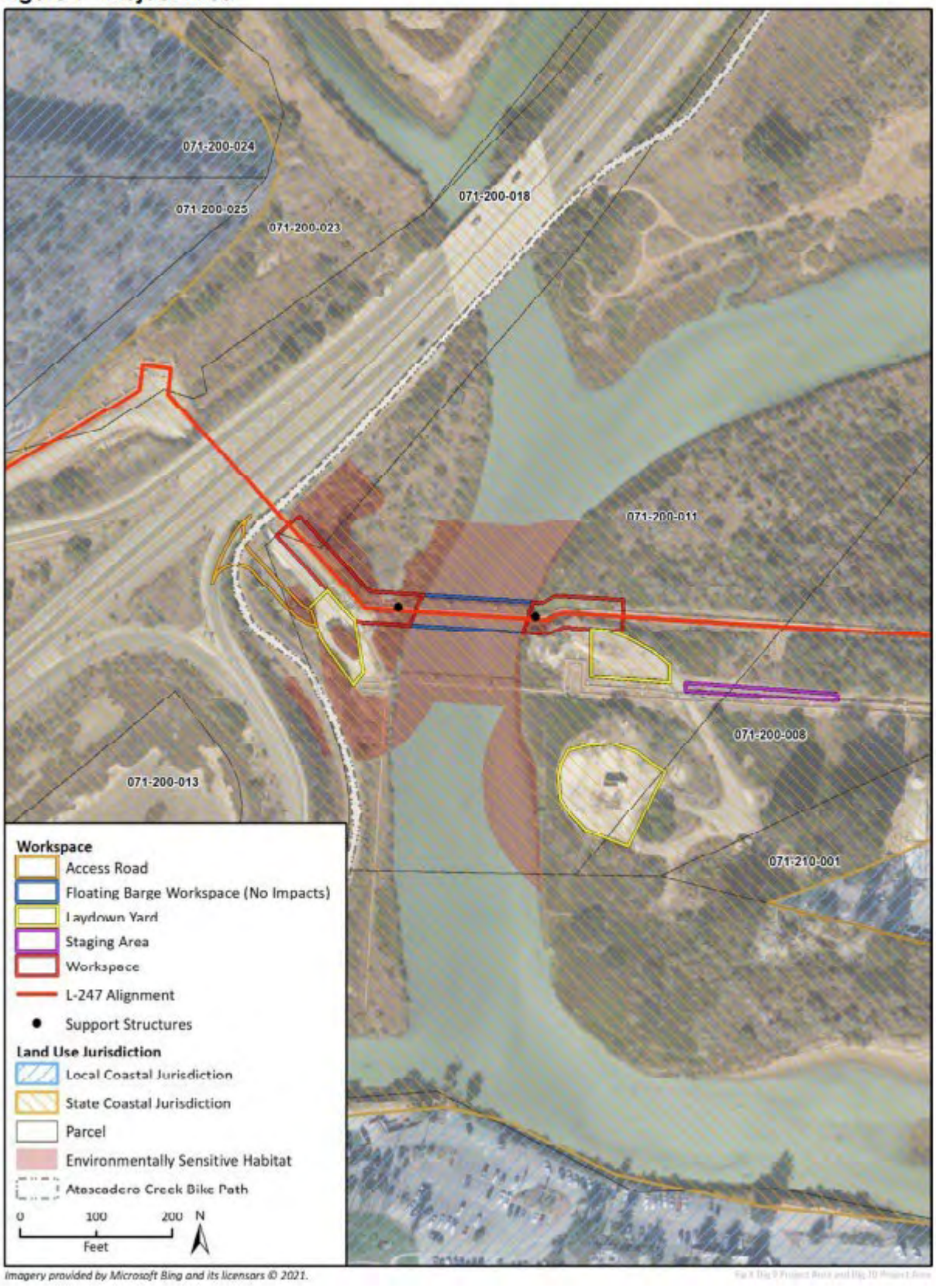
Figure 1 Project Area



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