

Table 3-1  
Interim Action Ranges MRA Activity Types and Restoration Strategies

Activity Type	Activity Category	Anticipated Investigation Area (acres)	Completed Investigation Area (acres)	Restoration Strategy	Planned Actions
Ingress/egress routes	A	5.5	0.4	Monitoring only	- monitor
Above-ground vegetation cutting prior to target-specific excavaton	B	12.3	13.8	Monitoring only	- separate/replace topsoil/subsoil in specified sequence
Small-scale soil excavation - areas of less than 1 acre or no more than 100 feet wide. All vegetation removed above and below ground.	C	2.9	1.2	Passive (seeding)	- separate/replace topsoil/subsoil in specified sequence
					- recontour to match original
					- control erosion as needed
					- seed
Large-scale soil excavation - areas of greater than 1 acre or more than 100 feet wide. All vegetation removed above and below ground.	D	13.4	13.4	Active (seeding and container planting)	- monitor
					- separate/replace topsoil/subsoil in specified sequence
					- recontour to match original
					- control erosion as needed
					- seed
- container plantings					
- monitor					
<b>Totals</b>		<b>34.1</b>	<b>28.8</b>		

Table 3-2  
Interim Action Ranges MRA Soil and Topography Remediation Success Criteria

Restoration Strategy	Success Criteria	Evaluation Method/Procedure	Monitoring Frequency
Soil decompaction on trails and roads	Match soil texture and structure to that of nearby native soils	Linear measurements via GIS of trails and roads requiring restoration	At end of construction activities prior to restoration
		Comparison of samples every 0.25 mile with nearby native soils	After completion of de-compaction efforts
Remove constructed berm in Range 47 and restore to pre-existing conditions	Match original topography as closely as possible	Comparison with 1964 aerial image for reference	At end of construction activities prior to remediation
		Ground-level photographic imagery before and after remediation	After completion of re-contouring
Topsoil and subsoil placement in Range 47 Subarea A	6-inch topsoil improvement on 80% of exposed dune hill in Range 47 Subarea A	Comparison with 1964 aerial image for reference	At end of construction activities prior to remediation
		Volume calculations	During re- contouring
		Document soil placement in specified manner	During re- contouring
		Ground-level photographic imagery before and after remediation	After completion of re-contouring



Table 3-3  
Interim Action Ranges MRA Plant Species Diversity and Vegetation-Based Success Criteria

Activity Category	Location	Completed Investigation Area (acres)	Restoration Strategy	Performance Category	Performance Metric	Performance Target for Post-installation by Year							Baseline for Comparison
						1	2	3	4	5	6	7	
Large-scale soil excavation (Activity D)	Range 47 Subarea A (low recruitment area)	1.2	Passive (seeding)	Shrub species richness	% of total present	0	10	10	20	20	20	30	Tables 2 and 3 in the HRP
				Native vegetation cover	% cover by location	0	1	2	4	6	8	10	
				Monterey spineflower presence	% focus species baseline	0	0	30	10	10	10	10	2012 baseline monitoring plots
				Pampas grass, iceplant, and French broom recruits	% total area	<5	<5	<5	<5	<5	<5	<5	total area
	Range 47 Subarea B and part of Subarea C	12.2	Active (container planting and seeding)	Container plant survival	% total planted	0	60	60	60	50	50	50	Tables 2 and 3 in the HRP
				Shrub species richness	% of total present	0	20	30	40	50	60	70	
				Native vegetation cover	% cover by location	0	5	15	20	25	30	50	
				HMP shrub species richness (maximum value =3)	% of total present	0	0	33	33	33	66	66	
				HMP shrub species frequency	% frequency of HMP shrub species in IAR-wide baseline	0	0	33	33	33	66	66	2012 baseline monitoring plots
				Monterey spineflower presence	% focus species baseline	100	70	60	50	30	20	10	
				Monterey gilia presence	% focus species baseline	100	50	40	30	20	10	0	
				Pampas grass, iceplant, and French broom recruits	% total area	<5	<5	<5	<5	<5	<5	<5	

Notes:

1 = Area includes 0.5-acre escarpment where small-scale excavation was conducted. The escarpment could not be accessed safely to conduct passive or active restoration. For this reason, the escarpment was categorized as an Activity B area and the monitoring-only strategy was implemented in this area.

Table 6-1  
Interim Action Ranges MRA Seed Collected for Sowing

Scientific Name	Common Name	Total Weight (pounds)	Weight of Seed Sown in Range 47 (pounds)	Weight of Seed Sown in Range 44 (pounds)	Dates collected
<b>SHRUBS AND SUBSHRUBS</b>					
<i>Acmispon glaber</i>	deerweed	4.2	2.3	1.9	2010 - 2012
<i>Adenostoma fasciculatum</i>	chamise	1.0	0.5	0.4	2010 - 2012
<i>Baccharis pilularis</i> subsp. <i>consanguinea</i>	coyote brush	0.7	0.4	0.3	2010 - 2012
<i>Ceanothus dentatus</i>	dwarf ceanothus	2.3	2.3	0.0	2010 - 2012
<b><i>Ceanothus rigidus</i></b>	<b>Monterey ceanothus</b>	<b>7.7</b>	<b>7.7</b>	<b>0.0</b>	<b>2010 - 2012</b>
<i>Ericameria ericoides</i>	dune-heather, mock-heather	1.7	0.9	0.8	2010 - 2012
<b><i>Ericameria fasciculata</i></b>	<b>Eastwood's ericameria</b>	<b>0.4</b>	<b>0.2</b>	<b>0.2</b>	<b>2010 - 2011</b>
<i>Eriophyllum confertiflorum</i>	golden yarrow	1.4	0.8	0.6	2010 - 2012
<i>Frangula californica</i> subsp. <i>californica</i>	California coffeeberry	7.5	4.1	3.4	2010 - 2011
<i>Helianthemum scoparium</i>	rush-rose	1.0	0.6	0.5	2010 - 2012
<i>Lepechinia calycina</i>	pitcher sage	0.1	0.1	0.0	2010, 2012
<i>Lupinus arboreus</i>	coastal bush lupine	0.1	0.1	0.0	2012
<i>Lupinus chamissonis</i>	silver bush lupine	0.1	0.1	0.1	2012
<i>Mimulus aurantiacus</i>	sticky monkeyflower	0.9	0.5	0.4	2011, 2012
<i>Salvia mellifera</i>	black sage	0.4	0.2	0.2	2010 - 2012
<b>TOTAL SEED WEIGHT OF SHRUBS</b>		<b>29.5</b>	<b>20.7</b>	<b>8.8</b>	
<b>HERBACEOUS SPECIES (ANNUALS AND HERBACEOUS PERENNIALS)</b>					
<b><i>Chorizanthe pungens</i> var. <i>pungens</i></b>	<b>Monterey spineflower</b>	<b>2.7</b>	<b>2.7</b>	<b>0.0</b>	<b>2011</b>
<b><i>Cordylanthus rigidus</i> subsp. <i>littoralis</i></b>	<b>seaside bird's-beak</b>	<b>0.4</b>	<b>0.0</b>	<b>0.4</b>	<b>2010, 2012</b>
<b><i>Gilia tenuiflora</i> subsp. <i>arenaria</i></b>	<b>Monterey gilia</b>	<b>0.04</b>	<b>0.02</b>	<b>0.02</b>	<b>2011, 2013</b>
<i>Horkelia cuneata</i> var. <i>cuneata</i>	coast horkelia	3.9	2.1	1.8	2010 - 2012
<b>TOTAL SEED WEIGHT OF HERBACEOUS SPECIES</b>		<b>7.1</b>	<b>4.9</b>	<b>2.2</b>	
<b>TOTAL SEED WEIGHT</b>		<b>36.6</b>	<b>25.6</b>	<b>11.0</b>	

HMP species in bold

Table 6-2  
Interim Action Ranges MRA Seed Mixes and Soil Seedbank

Seed Mix Name	Scientific Names/Description	Total Quantity	Amount in Range 47	Amount in Range 44	Date(s) collected
Range 47 Soil Seedbank	Top 6 inches of soil from Range 47 containing seeds (trees, shrubs, herbaceous, perennials, annuals)	12,308 cubic yards	12,308 cubic yards	--	2011
Ceanothus Soil Seedbank	Salvaged soil containing <i>Ceanothus dentatus</i> , <b><i>Ceanothus rigidus</i></b>	0.3 cubic feet	--	0.3 cubic feet	2011-2012
Ceanothus Seed Mix	<i>Ceanothus dentatus</i> , <b><i>Ceanothus rigidus</i></b>	10 pounds	10 pounds	--	2010-2012
Rush-rose Soil Seedbank	Salvaged soil containing <i>Helianthemum scoparium</i>	2.5 cubic feet	0.83 cubic feet	1.67 cubic feet	
Central Maritime Chaparral Seed Mix	<i>Adenostoma fasciculata</i> , <b><i>Arctostaphylos pumila</i></b> , <i>A. tomentosa</i> subsp. <i>tomentosa</i> , <i>Baccharis pilularis</i> subsp. <i>consanguinea</i> , <i>Eriophyllum confertiflorum</i> , <i>Ericameria ericoides</i> , <b><i>Ericameria fasciculata</i></b> , <i>Frangula californica</i> subsp. <i>californica</i> , <i>Helianthemum scoparium</i> , <i>Lupinus arboreus</i> , <i>Lupinus chamissonis</i> , <i>Mimulus aurantiacus</i>	23.4 pounds	12.8 pounds	10.5 pounds	2010-2012
Seaside Bird's-beak Seed	<b><i>Cordylanthus rigidus</i> subsp. <i>littoralis</i></b>	0.4 pounds	--	0.4 pounds	2010, 2012
Monterey Spineflower Soil Seedbank	Salvaged soil containing <b><i>Chorizanthe pungens</i> var. <i>pungens</i></b>	50 cubic feet	50 cubic feet	--	2010
Monterey Gilia Soil Seedbank	Salvaged soil containing <b><i>Gilia tenuiflora</i> subsp. <i>arenaria</i></b>	70 cubic feet	70 cubic feet	--	2010

HMP species in bold

Table 6-3  
Interim Action Ranges MRA HMP Annual Plant Polygons in Range 47 SCA Restoration Area

Polygon Name	Species	Propagule Type	Polygon Size (square feet)	Polygon Slope	Polygon Aspect
GP01	Monterey gilia	container plant	114.7	3-10%	SSW
GP02			114.5	0-2%	E
GP03			190.3	0-2%	NE
GP04			118.9	>10%	N
GP05			153.5	>10	N
GP06			99.9	0-2%	N
GP07			121.1	3-10%	NE
GP08			115.6	3-10%	N
GP09			119.4	0-2%	N
GP10			179.9	0-2%	N
GS01	Monterey gilia	seed	98.3	3-10%	SSW
GS02			115.2	0-2%	NE
GSB01	Monterey gilia	seedbank	80.3	3-10%	SSW
GSB02			204.5	0-2%	ENE
GSB03			191.5	>10%	N
GSB04			110.2	>10	N
GSB05			189.9	3-10%	N
GSB06			91.5	0-2%	N
GSB07			122.4	0-2%	NE
MSS01	Monterey spineflower	seed	75.2	3-10%	SSW
MSS02			91.6	0-2%	E
MSS03			257.1	0-2%	NE
MSS04			157.7	0-2%	NE
MSS05			108.1	>10	N
MSSB01	Monterey spineflower	seedbank	101.6	3-10%	S
MSSB02			76.3	0-2%	E
MSSB03			237.3	0-2%	NE
MSSB04			166.6	0-2%	NE
MSSB05			100.5	>10%	N
MSSB06			103.3	0-2%	N

Table 6-4  
Interim Action Ranges MRA Range 47 SCA Subarea B  
Container Plantings Baseline Census March 2013

Scientific Name	Common Name	Total Number of Container Plantings
<i>Acmipson glaber</i>	deerweed	3,266
<i>Adenostoma fasciculatum</i>	chamise	2,581
<b><i>Arctostaphylos pumila</i></b>	<b>sandmat manzanita</b>	<b>1,596</b>
<i>Arctostaphylos tomentosa</i> subsp. <i>tomentosa</i>	shaggy-barked manzanita	553
<i>Baccharis pilularis</i> subsp. <i>consanguinea</i>	coyote brush	2,706
<i>Ceanothus dentatus</i>	dwarf ceanothus	789
<b><i>Ceanothus rigidus</i></b>	<b>Monterey ceanothus</b>	<b>980</b>
<i>Ericameria ericoides</i>	dune-heather, mock-heather	1,523
<b><i>Ericameria fasciculata</i></b>	<b>Eastwood's ericameria</b>	<b>3,726</b>
<i>Eriophyllum confertiflorum</i>	golden yarrow	2,578
<i>Frangula californica</i> subsp. <i>californica</i>	California coffeeberry	713
<i>Helianthemum scoparium</i>	rush-rose	1,581
<i>Horkelia cuneata</i> var. <i>cuneata</i>	coast horkelia	1,606
<i>Lupinus chamissonis</i>	silver bush lupine	1,021
<i>Mimulus aurantiacus</i>	sticky monkeyflower	4,903
<i>Salvia mellifera</i>	black sage	1,470
<b>Totals</b>		<b>31,592</b>

HMP species in bold



Table 9-1  
Interim Action Ranges MRA Total Native Species Richness by Activity Type

Activity Category	Location	Restoration Strategy	Total Native Species Present Prior to Activities	Total Native Species Present in 2013 After Activities
Ingress/egress routes (Activity A)	All ingress/egress routes	Monitoring only	14	14
Above-ground vegetation cutting followed by target-specific excavation (Activity B)	North Range 44 SCAs and Central Area NCAs, South Range 44 SCAs, Range 47 SCA Subarea C	Monitoring only	100	79
Small-scale soil excavation (Activity C)	North Range 44 SCAs and Central Area NCAs, South Range 44 SCAs, Range 47 SCA Subarea C	Passive (seeding) <sup>1</sup>	100	25
	Grassland grid cell in South Range 44 SCA		18	20
Large-scale soil excavation (Activity D)	Range 47 Subarea A (low recruitment area)	Passive (seeding)	25 <sup>2</sup>	47
	Range 47 Subarea B	Active (container planting and seeding)	25 <sup>2</sup>	115

<sup>1</sup> Seeding delayed until fall 2013 due to ongoing munitions investigation activities during most of 2013

<sup>2</sup> Only limited field surveys allowed in Range 47 prior to munitions investigations activities

Table 9-2  
Interim Action Ranges MRA Observed Plant Species

Scientific Name	Common Name	HMP species	CNPS Rare Plant Rank	Cal-IPC Invasiveness Status	IAR MRA Range 44	IAR MRA Range 44 Grassland	IAR MRA Range 47 Subarea A	IAR MRA Range 47 Subarea B	IAR MRA Range 47 Subarea C	Notes
<b>Trees</b>										
<i>Arbutus menziesii</i>	Pacific madrone						x			seedling
<i>Hesperocyparis macrocarpa</i>	Monterey cypress		1B.2				x			seedling
<i>Pinus radiata</i>	Monterey pine		1B.1				x			seedling
<i>Populus trichocarpa</i>	black cottonwood						x			seedling
<i>Quercus agrifolia</i>	coast live oak			x			x			
<i>Salix lasiolepis</i>	arroyo willow			x			x			
<b>Shrubs and Subshrubs</b>										
<i>Acmispon glaber</i>	deerweed			x		x	x	x		
<i>Adenostoma fasciculatum</i>	chamise			x		x	x	x		
<i>Arctostaphylos pumila</i>	sandmat manzanita	HMP	1B.2	x		x	x	x		
<i>Arctostaphylos tomentosa</i> subsp. <i>tomentosa</i>	woolyleaf manzanita			x		x	x	x		
<i>Artemisia californica</i>	California sagebrush			x						
<i>Baccharis pilularis</i> subsp. <i>consanguinea</i>	coyote bush, coyote brush			x		x	x	x		
<i>Ceanothus dentatus</i>	dwarf ceanothus			x		x	x	x		
<i>Ceanothus rigidus</i>	Monterey ceanothus	HMP	4.2	x		x	x	x		
<i>Ericameria ericoides</i>	mock-heather			x		x	x	x		
<i>Ericameria fasciculata</i>	Eastwood's ericameria	HMP	1B.1	x		x	x	x		
<i>Eriophyllum confertiflorum</i>	golden yarrow			x		x	x	x		
<i>Frangula californica</i> subsp. <i>californica</i>	California coffeeberry			x		x	x	x		
<i>Garrya elliptica</i>	coast silk-tassel			x			x	x		
<i>Helianthemum scoparium</i>	rush-rose			x		x	x	x		
<i>Heteromeles arbutifolia</i>	toyon			x			x	x		
<i>Lepechinia calycina</i>	pitcher sage			x			x	x		
<i>Lupinus arboreus</i>	coastal bush lupine			x		x	x	x		
<i>Lupinus chamissonis</i>	silver bush lupine			x	x	x	x	x		
<i>Mimulus aurantiacus</i>	sticky monkeyflower			x		x	x	x		
<i>Ribes malvaceum</i>	chaparral currant			x			x	x		
<i>Ribes speciosum</i>	fuchsia-flowered gooseberry			x			x	x		
<i>Salvia mellifera</i>	black sage			x		x	x	x		
<i>Solanum umbelliferum</i>	blue witch nightshade			x		x	x	x		
<i>Symphoricarpos mollis</i>	creeping snowberry			x			x	x		
<i>Toxicodendron diversilobum</i>	poison-oak			x			x	x		
<b>Herbaceous species (annuals, perennial herbs, grasses, and grass-like species)</b>										
<i>Achillea millefolium</i>	common yarrow			x			x			
<i>Acmispon heermannii</i> var. <i>orbicularis</i>	wooly lotus			x	x		x	x		
<i>Acmispon strigosus</i>	Bishop's lotus			x		x	x	x		
<i>Aira caryophyllea</i>	common silver-hair grass			x	x		x			
<i>Amsinckia intermedia</i>	common fiddleneck			x	x		x			

Table 9-2  
Interim Action Ranges MRA Observed Plant Species

Scientific Name	Common Name	HMP species	CNPS Rare Plant Rank	Cal-IPC Invasiveness Status	IAR MRA Range 44	IAR MRA Range 44 Grassland	IAR MRA Range 47 Subarea A	IAR MRA Range 47 Subarea B	IAR MRA Range 47 Subarea C	Notes
<b>Herbaceous species (annuals, perennial herbs, grasses, and grass-like species)</b>										
<i>Anagallis arvensis</i>	scarlet pimpernel				x		x			
<i>Antirrhinum majus</i>	snapdragon						x			Cultivated plant, appeared in container planting
<i>Apiastrum angustifolium</i>	wild celery				x		x			
<i>Armeria maritima</i> subsp. <i>californica</i>	California sea pink, sea thrift				x					
<i>Artemisia douglasiana</i>	mugwort						x			
<i>Avena barbata</i>	slender wild oat				x	x	x			
<i>Avena fatua</i>	wild oat									
<i>Briza maxima</i>	rattlensnake grass						x	x		
<i>Bromus diandrus</i>	ripgut brome				x	x	x			
<i>Bromus hordeaceus</i>	soft chess				x	x	x			
<i>Bromus madritensis</i> subsp. <i>rubens</i>	red brome			high	x		x			
<i>Calandrinia ciliata</i>	red maids				x	x	x	x		
<i>Calochortus albus</i> var. <i>albus</i>	fairy lanterns, globe lily				x		x			
<i>Calyptidium monandrum</i>	pussy paws				x		x			
<i>Camissonia contorta</i>	contorted suncups				x	x	x			
<i>Camissoniopsis cheiranthifolia</i>	beach primrose						x	x		
<i>Camissoniopsis micrantha</i>	small suncups				x		x	x		
<i>Cardionema ramosissimum</i>	sand mat				x	x	x			
<i>Camissonia cheiranthifolia</i>	beach evening primrose									
<i>Carex globosa</i>	round-fruited sedge				x		x			
<i>Carpobrotus edulis</i>	hottentot fig/ice plant			high	x	x	x			
<i>Castilleja exserta</i> subsp. <i>latifolia</i>	wideleaf purple owl's clover				x	x	x			
<i>Caulanthus lasiophyllus</i>	California mustard				x	x	x	x		
<i>Centaurea melitensis</i>	toçalote			mod	x	x	x			
<i>Chorizanthe diffusa</i>	diffuse chorizanthe				x		x			
<i>Chorizanthe pungens</i> var. <i>pungens</i>	Monterey spineflower	HMP	1B.2		x	x	x	x	x	
<i>Cirsium occidentale</i> var. <i>occidentale</i>	cobweb thistle				x	x	x			
<i>Cirsium vulgare</i>	bull thistle			mod			x			
<i>Clarkia amoena</i>	farewell-to-spring						x			California native wildflower but not expected to be native in this location; appeared amongst container plantings
<i>Claytonia perfoliata</i>	miner's lettuce				x		x			
<i>Collinsia heterophylla</i>	Chinese houses						x			
<i>Cordylanthus rigidus</i> subsp. <i>littoralis</i>	seaside bird's-beak	HMP	1B.1		x		x	x		
<i>Corethrogyne filaginifolia</i>	California aster				x		x			
<i>Cortaderia jubata</i>	pampas grass, jubata grass			high	x		x	x		
<i>Crassula connata</i>	pygmy weed				x	x	x			
<i>Croton californicus</i>	California croton				x	x	x			
<i>Cryptantha clevelandii</i> var. <i>florosa</i>	coastal cryptantha				x	x	x	x		

Table 9-2  
Interim Action Ranges MRA Observed Plant Species

Scientific Name	Common Name	HMP species	CNPS Rare Plant Rank	Cal-IPC Invasiveness Status	IAR MRA Range 44	IAR MRA Range 44 Grassland	IAR MRA Range 47 Subarea A	IAR MRA Range 47 Subarea B	IAR MRA Range 47 Subarea C	Notes
<b>Herbaceous species (annuals, perennial herbs, grasses, and grass-like species)</b>										
<i>Cryptantha micromeres</i>	small-flowered cryptantha				x	x	x	x	x	
<i>Cryptantha microstachys</i>	Tejon cryptantha							x		
<i>Daucus pusillus</i>	rattlesnake weed				x			x		
<i>Deinandra corymbosa</i> subsp. <i>corymbosa</i>	coast tarplant, grassland tarweed				x	x	x	x	x	
<i>Dichelostemma capitatum</i>	blue dicks, wild hyacinth				x	x		x		
<i>Drymocallis glandulosa</i> var. <i>glandulosa</i>	sticky cinquefoil				x		x	x		
<i>Elymus glaucus</i>	western ryegrass				x			x		
<i>Epilobium brachycarpus</i>	tall annual willowherb							x		
<i>Epilobium canum</i>	California-fuchsia							x		Volunteer in restoration area
<i>Eriastrum virgatum</i>	wand woollystar		4.3		x	x		x		CNPS List 4.3
<i>Erigeron canadensis</i>	horseweed				x	x		x		
<i>Erigeron foliosus</i> var. <i>foliosus</i>	leafy daisy				x					
<i>Erodium botrys</i>	long-beaked filaree				x	x		x		
<i>Erodium cicutarium</i>	red-stemmed filaree			lim	x	x		x		
<i>Erysimum ammophilum</i>	coast wallflower	HMP	1B.2		x					Also in lead remediation area
<i>Eschscholzia californica</i>	California poppy				x	x		x	x	
<i>Euphorbia peplus</i>	petty spurge							x		
<i>Euthamia occidentalis</i>	western goldenrod									Found in aquatic features
<i>Festuca microstachya</i>	small fescue				x			x		
<i>Festuca myuros</i>	rattail fescue			mod	x	x		x		
<i>Festuca octoflora</i>	six-weeks fescue				x	x	x	x		
<i>Fritillaria affinis</i>	checker lily, Mission bells				x					
<i>Galium californicum</i>	California bedstraw				x			x		
<i>Galium porrigens</i> var. <i>porrigens</i>	climbing bedstraw				x			x		
<i>Gamochaeta ustulata</i>	purple cudweed				x			x		
<i>Gilia capitata</i> subsp. <i>abrotanifolia</i>	ball gilia							x		California native wildflower; appeared amongst container plantings
<i>Gilia tenuiflora</i> subsp. <i>arenaria</i>	Monterey gilia	HMP	1B.2		x		x	x	x	
<i>Gilia tricolor</i>	bird's eyes gilia							x		California native wildflower; appeared amongst container plantings
<i>Helminthotheca ixidoides</i>	bristly ox-tongue			lim				x		
<i>Herniaria hirsuta</i> subsp. <i>cinerea</i>	hairy rupturewort							x		
<i>Heterotheca grandifolia</i>	telegraph weed				x	x	x	x	x	
<i>Horkelia cuneata</i> subsp. <i>cuneata</i>	wedge-leaved horkelia				x	x	x	x	x	
<i>Hypochaeris glabra</i>	smooth cat's ears			lim	x	x	x	x		
<i>Hypochaeris radicata</i>	cat's ears			mod	x			x		
<i>Juncus effusus</i> var. <i>pacificus</i>	bog rush							x		Volunteer in restoration area
<i>Layia platyglossa</i>	tidy tips				x	x		x	x	
<i>Lepidium nitidum</i>	common peppergrass							x		
<i>Leptochloa fusca</i> subsp. <i>fascicularis</i>	bearded sprangletop							x		

Table 9-2  
Interim Action Ranges MRA Observed Plant Species

Scientific Name	Common Name	HMP species	CNPS Rare Plant Rank	Cal-IPC Invasiveness Status	IAR MRA Range 44	IAR MRA Range 44 Grassland	IAR MRA Range 47 Subarea A	IAR MRA Range 47 Subarea B	IAR MRA Range 47 Subarea C	Notes
<b>Herbaceous species (annuals, perennial herbs, grasses, and grass-like species)</b>										
<i>Lessingia pectinata</i> var. <i>pectinata</i>	common lessingia				x	x		x		
<i>Logfia</i> [ <i>Filago</i> ] <i>gallica</i>	narrow-leaved filago				x		x	x		
<i>Logfia filaginoides</i> [ <i>Filago californica</i> ]	California filago				x		x	x		
<i>Lomatium parvifolium</i>	coastal biscuitroot	4.2		x						
<i>Lupinus bicolor</i>	miniature lupine					x				
<i>Lupinus concinnus</i>	elegant lupine							x		
<i>Lupinus nanus</i>	sky lupine			x	x			x		
<i>Lupinus truncatus</i>	blunt-leaved lupine							x		
<i>Madia exigua</i>	small tarplant			x		x		x		
<i>Marah fabaceus</i>	wild cucumber			x						
<i>Melica imperfecta</i>	Coast Range melic			x				x		
<i>Melilotus indicus</i>	yellow sweet-clover							x		
<i>Mimulus cardinalis</i>	scarlet monkeyflower							x		California native wildflower but not expected to be native in this habitat; appeared amongst container plantings
<i>Monardella undulata</i>	curly-leaved monardella	4.2		x	x			x		
<i>Navarretia hamata</i> subsp. <i>parviloba</i>	hooked navarretia			x		x		x	x	
<i>Navarretia intertexta</i>	needle-leaved navarretia					x				
<i>Nemophila menziesii</i>	baby blue-eyes							x		
<i>Nuttallanthus texanus</i> [ <i>Linaria canadensis</i> ]	toad-flax			x	x	x		x		
<i>Orobanche bulbosa</i>	chaparral broomrape			x						
<i>Oxalis pilosa</i>	hairy wood sorrel							x		
<i>Parapholis incurva</i>	sicklegrass							x		
<i>Pectocarya penicillata</i>	winged combseed			x				x		
<i>Petrorhagia dubia</i>	hairypink			x	x			x		
<i>Phacelia distans</i>	wild heliotrope			x						
<i>Phacelia douglasii</i>	Douglas' phacelia			x				x		
<i>Plagiobothrys collinus</i> var. <i>fulvescens</i>	rusty-haired popcorn flower			x		x		x		
<i>Plantago coronopus</i>	cut-leaved plantain			x						
<i>Plantago erecta</i>	California plantain			x	x			x	x	
<i>Poa annua</i>	annual bluegrass							x		
<i>Poa secunda</i>	pine bluegrass			x						
<i>Polypogon monspeliensis</i>	rabbitsfoot grass			lim				x		
<i>Pseudognaphalium beneolens</i>	fragrant everlasting			x				x		
<i>Pseudognaphalium californicum</i>	California everlasting			x	x			x		
<i>Pseudognaphalium ramosissimum</i>	pink everlasting			x		x		x		
<i>Pseudognaphalium stramineum</i>				x		x		x	x	
<i>Psilocarphus tenellus</i>	slender woolly marbles							x		
<i>Pterostegia drymarioides</i>	fairy mist			x				x		

Table 9-2  
Interim Action Ranges MRA Observed Plant Species

Scientific Name	Common Name	HMP species	CNPS Rare Plant Rank	Cal-IPC Invasiveness Status	IAR MRA Range 44	IAR MRA Range 44 Grassland	IAR MRA Range 47 Subarea A	IAR MRA Range 47 Subarea B	IAR MRA Range 47 Subarea C	Notes
<b>Herbaceous species (annuals, perennial herbs, grasses, and grass-like species)</b>										
<i>Rumex acetosella</i>	sheep sorrel			mod	x			x	x	
<b>Sagina apetela</b>	<b>sticky pearlwort</b>							x		
<b>Senecio aphanactis</b>	<b>chaparral ragwort</b>		2B.2	x						
<i>Senecio glomeratus</i>	cut-leaved fireweed			mod				x		
<i>Senecio vulgare</i>	common groundsel							x		
<i>Silene gallica</i>	windmill pink			x				x		
<i>Sisymbrium orientale</i>	Indian hedgemustard							x		
<i>Sonchus asper</i> subsp. <i>asper</i>	prickly sow-thistle			x				x		
<i>Sonchus oleraceus</i>	common sow-thistle			x				x		
<i>Spergularia rubra</i>	red sand-spurrey							x		
<b>Stipa pulchra</b>	<b>purple needlegrass</b>			x				x		
<b>Stylocline gnaphaliodes</b>	<b>everlasting neststraw</b>			x				x		
<b>Taraxia [Camissonia] ovata</b>	<b>suncups</b>			x				x		
<b>Toxicoscordion fremontii</b>	<b>Fremont's star lily</b>			x						
<b>Trifolium ciliolatum</b>	<b>foothill clover</b>					x				
<b>Trifolium gracilentum</b>	<b>pinpoint clover</b>			x						
<i>Trifolium hirtum</i>	rose clover			mod				x		
<b>Trifolium microcephalum</b>	<b>hairy clover, small-headed clover</b>							x		
<b>Uropappus lindleyi</b>	<b>silver puffs</b>			x				x		
<i>Viola cultivar</i>	pansy							x		Cultivated plant, appeared in container planting
<b>Ferns and Fern-relatives</b>										
<b><i>Pteridium aquilinum</i> var. <i>pubescens</i></b>	<b>western bracken fern</b>			x						

**Native species in bold**

Species and locations noted in this table are for work areas, including monitoring areas and ingress/egress routes; this is not a comprehensive list

**Status Codes:**

**California Native Plant Society (CNPS)**

**Rare Plant Rank (RPR)**

RPR 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere

RPR 2A: Plants Presumed Extirpated in California, but More Common Elsewhere

RPR 2B: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere

RPR 3: Plants About Which More Information is Needed - A Review List

RPR 4: Plants of Limited Distribution - A Watch List

**Extensions to List Categories**

0.1 - Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

0.2 – Moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat)

0.3 – Not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known)

**California Invasive Plant Council (Cal-IPC) ratings:**

high – severe ecological impacts, high rates of dispersal and establishment.

moderate – substantial and apparent ecological impacts, moderate to high rates of dispersal, establishment dependent upon disturbance.

limited – invasive but impacts not widespread statewide, low to moderate rates of dispersal, may be locally persistent and problematic.

Table 9-3  
Interim Action Ranges MRA HMP Herbaceous Species Presence by Activity Type

Activity Category	Location	Restoration Strategy	Total HMP Species Present Prior to Activities	Total HMP Species Present in 2013 After Activities
Ingress/egress routes (Activity A)	All ingress/ egress routes	Monitoring only	1	3
Above-ground vegetation cutting followed by target-specific excavation (Activity B)	North Range 44 SCAs and Central Area NCAs, South Range 44 SCAs, Range 47 SCA Subarea C	Monitoring only	6	7
Small-scale soil excavation (Activity C)	North Range 44 SCAs and Central Area NCAs, South Range 44 SCAs, Range 47 SCA Subarea C	Passive (seeding) <sup>1</sup>	6	4
	Grassland grid cell in South Range 44 SCA		1	1
Large-scale soil excavation (Activity D)	Range 47 Subarea A (low recruitment area)	Passive (seeding)	1	3
	Range 47 Subarea B	Active (container planting and seeding)	5	6

<sup>1</sup> Seeding delayed until fall 2013 due to ongoing munitions investigation activities during most of 2013

<sup>2</sup> Only limited field surveys allowed in Range 47 prior to munitions investigations activities

Table 9-4  
Interim Action Ranges MRA Native Shrub Species Richness by Activity Type

Activity Category	Location	Restoration Strategy	Total Non-HMP Native Shrub Species Present Prior to Activities	Total Non-HMP Native Shrub Species Present in 2013 After Activities	Percent of Non-HMP Shrub Species Compared with Baseline	Baseline Number of Non-HMP Shrub Species Required	Total HMP Native Shrub Species Present Prior to Activities	Total HMP Native Shrub Species Present in 2013 After Activities	Percent of HMP Shrub Species Compared with Baseline Requirement of 3 HMP Shrubs
Ingress/egress routes (Activity A)	All ingress/ egress routes	Monitoring only	0	0	no baseline <sup>2</sup>	0	0	0	no baseline <sup>2</sup>
Above-ground vegetation cutting followed by target-specific excavation (Activity B)	North Range 44 SCAs and Central Area NCAs, South Range 44 SCAs, Range 47 SCA Subarea C	Monitoring only	20	14	100.0%	14	3	3	100.0%
Small-scale soil excavation (Activity C)	North Range 44 SCAs and Central Area NCAs, South Range 44 SCAs, Range 47 SCA Subarea C	Passive (seeding) <sup>1</sup>	20	7	50.0%	14	3	2	66.7%
	Grassland grid cell in South Range 44 SCA		0	0	no baseline <sup>2</sup>	0	0	0	no baseline <sup>2</sup>
Large-scale soil excavation (Activity D)	Range 47 Subarea A (low recruitment area)	Passive (seeding)		14	140.0%	10	3	2	no baseline <sup>2</sup>
	Range 47 Subarea B	Active (container planting and seeding)	22	25	312.5%	8	3	3	100.0%

<sup>1</sup> Seeding delayed until fall 2013 due to ongoing munitions investigation activities during most of 2013

<sup>2</sup> no baseline = no performance criteria or baseline for this activity type or location

<sup>3</sup> Only limited field surveys allowed in Range 47 prior to munitions investigations activities



Table 9-5  
Interim Action Ranges MRA HMP Shrub Species Frequency Following Activity Types B and D

Activity Type	Location	Restoration Strategy	Years Since Activity	Percent Frequency of HMP Shrub Species - Sandmat Manzanita		Percent of Baseline	Percent Frequency of HMP Shrub Species - Monterey Ceanothus		Percent of Baseline	Percent Frequency of HMP Shrub Species - Eastwood's Manzanita		Percent of Baseline
				2010-2011 Baseline <sup>1</sup>	2013		2010-2011 Baseline <sup>1</sup>	2013		2010-2011 Baseline <sup>1</sup>	2013	
Above-ground vegetation cutting followed by target-specific excavation (Activity B)	North Range 44 SCAs and Central Area NCAs, South Range 44 SCAs, Range 47 Subarea C	Monitoring Only	Year 1 (mean of 5 transects)		80.0%	121.2%		80.0%	82.5%		40.0%	235.3%
			Year 2 (mean of 10 transects)	66.0%	71.4%	108.2%	97.0%	85.7%	88.4%	17.0%	14.3%	84.1%
Large-scale soil excavation (Activity D)	Range 47 Subarea A (low recruitment area)	Passive (seeding)	Year 1 (1 transect)	--	100.0%	100.0%	--	100.0%	100.0%	--	100.0%	100.0%
	Range 47 Subarea B	Active (container planting and seeding)	Year 1 (mean of 7 transects)	33.0%	71.0%	215.2%	100.0%	86.0%	86.00%	0.0%	29.0%	100.0%

<sup>1</sup> From Table 2 of HRP

Table 9-6  
Interim Action Ranges MRA 2013 Presence and Density of Monterey Spineflower  
after Remedial Activities A - C in North Range 44 SCA

Post-activity Data - 2013									
	Estimated Plants in Sampled Grid Cell(s)	Estimated Plants in Sampled Grid Cell(s) (per 211 ft. sq.)	Mean Density (number of plants per 211 ft. sq.)	Standard Deviation	90% Confidence Interval	Number of Grid Cell(s) Surveyed Based on Previous Occurrences	Number of Surveyed Grid Cells or Partial Grid Cells that Contained Plants in 2013	Total Surveyed Grid Cells or Partial Grid Cells in 2013	Percentage of Surveyed Grid Cells Containing Plants Compared to Baseline
<b>Monterey Spineflower (<i>Chorizanthe pungens</i> var. <i>pungens</i>)</b>									
<b>Baseline Pre-disturbance</b>									
2010	4,430	4,430	142.9	251.7	76.7	31	--	--	--
2012	163	163	27.2	32.4	26.7	6	--	--	--
<b>Activity A - (Ingress/Egress Routes)</b>									
Post-activity 2013	241	152	30.5	56.4	66.3	6	4	6	67%
<b>Activity B - (Vegetation Cut/Mag and Dig)</b>									
Post-activity Year 1	64,228	2,067	68.9	54.5	16.9	6	30	31	100%*
<b>Activity C - (Small-scale Excavation)</b>									
Post-activity Year 1	1294	301	23.2	31.1	17.0	6	11	13	100%*
<b>2013 Sampling Totals</b>	<b>65,763</b>	<b>2,520</b>				<b>6</b>	<b>45</b>	<b>50</b>	<b>100%*</b>
<b>Reference Plot</b>									
2013 Survey	450	19	19.0	--	--	1	1	1	--

\* exceeds number of baseline grid cells sampled

Table 9-7  
Interim Action Ranges MRA 2013 Presences and Density of Monterey Gilia,  
Seaside Bird's-beak and Coast Wallflower after Remedial Activities A - C in North Range 44 SCA

Post-activity Data 2013									
	Estimated Plants in Sampled Grid Cell(s)	Estimated Plants in Sampled Grid Cell(s) (per 211 ft. sq.)	Mean Density (number of plants per 211 ft. sq.)	Standard Deviation	90% Confidence Interval	Number of Grid Cell(s) Surveyed Based on Previous Occurrences	Number of Surveyed Grid Cells or Partial Grid Cells that Contained Plants in 2013	Total Surveyed Grid Cells or Partial Grid Cells in 2013	Percentage of Surveyed Grid Cells Containing Plants Compared to Baseline
<b>Monterey Gilia (<i>Gilia tenuiflora</i> subsp. <i>arenaria</i>)</b>									
<b>Baseline Pre-disturbance</b>									
2010	1,248	122	11.1	13.2	4.5	25	--	--	--
2012	0	0	0.0	--	--	2	--	--	--
<b>Activity B - (Vegetation Cut/Mag and Dig)</b>									
Post-activity Year 1	2,329	278	5.8	5.5	1.7	2	29	38	100%*
<b>Activity C - (Small-scale Excavation)</b>									
Post-activity Year 1	108	70	4.4	4.3	2.5	2	10	11	100%*
<b>2013 Sampling Totals</b>	<b>2,437</b>	<b>348</b>				<b>0</b>	<b>39</b>	<b>49</b>	
<b>Reference Plot</b>									
2013 Survey	12	12	12.0	--	--	1	1	100.0%	100.0%
<b>Seaside Bird's-beak (<i>Cordylanthus rigidus</i> subsp. <i>littoralis</i>)</b>									
<b>Baseline Pre-disturbance</b>									
2010	1,833	1,833	107.8	105.2	44.5	17	--	--	--
2012	39	20	3.3	2.6	2.1	9	--	--	--
<b>Activity A - (Ingress/Egress routes)</b>									
Post-activity 2013	0	0	0.0	0.0	--	9	0	5	0.0%
<b>Activity B - (Vegetation Cut/Mag and Dig)</b>									
Post-activity Year 1	4,549	386	38.6	35.6	20.6	9	10	35	100%*
<b>Activity C - (Small-scale Excavation)</b>									
Post-activity Year 1	2	2	1.0	0.0	--	9	2	17	22.2%
<b>2013 Sampling Totals</b>	<b>4551</b>	<b>388</b>				<b>9</b>	<b>12</b>	<b>57</b>	
<b>Reference Plot</b>									
2013 Survey	108	8.5	8.5	--	--	1	1	1	100%
<b>Coast Wallflower (<i>Erysimum amphilum</i>)</b>									
<b>Baseline Pre-Disturbance</b>									
2010	--	--	--	--	--	--	--	--	--
2012	--	--	--	--	--	--	--	--	--
<b>Activity B - (Vegetation Cut/Mag and Dig)</b>									
Post-activity Year 1	54	28	4.7	3.1	5.2	0	6	6	100%*
<b>2013 Sampling Totals</b>	<b>54</b>	<b>28</b>							
<b>Reference Plot</b>									
2013 Survey	11	11	5.5	2	9	2	2	2	100%

\*recorded as 100%, never observed before in this location

Table 9-8

Interim Action Ranges MRA 2013 Presence and Density of Monterey Spineflower after Remedial Activities A - C in South Range 44 SCA and Central Area NCAs

Post-activity Data - 2013									
	Estimated Plants in Sampled Grid Cell(s)	Estimated Plants in Sampled Grid Cell(s) (per 211 ft. sq.)	Mean Density (number of plants per 211 ft. sq.)	Standard Deviation	90% Confidence Interval	Number of Grid Cell(s) Surveyed Based on Previous Occurrences	Number of Surveyed Grid Cells or Partial Grid Cells that Contained Plants in 2013	Total Surveyed Grid Cells or Partial Grid Cells in 2013	Percentage of Surveyed Grid Cells Containing Plants Compared to Baseline
<b>Monterey Spineflower (<i>Chorizanthe pungens</i> var. <i>pungens</i>)</b>									
<b>Baseline Pre-disturbance</b>									
2010	2,355	2,355	196.3	203.2	105.4	12	--	--	--
2012	567	567	40.5	47.8	22.6	14	--	--	--
<b>Activity A - (Ingress/Egress Routes)</b>									
Post-activity 2013	3,349	876	219.0	124.5	146.5	14	4	4	29%
<b>Activity B - (Vegetation Cut/Mag and Dig)</b>									
Post-activity Year 2	3,601	476	158.6	162.0	273.0	14	3	3	21%
<b>Activity C - (Small-scale Excavation)</b>									
Post-activity Year 2	7,763	1,640	410.1	428.8	504.6	14	4	4	29%
<b>2013 Sampling Totals</b>	<b>14,713</b>	<b>2,992</b>				<b>14</b>	<b>11</b>	<b>11</b>	
<b>Reference Plot</b>									
2013 Survey	450	19	19.0	--	--	1	1	1	100%

Table 9-9  
Interim Action Ranges MRA 2013 Presence and Density of Monterey Gilia and Seaside Bird's-beak  
after Remedial Activities A - C in South Range 44 SCA and Central Area NCAs

Post-activity Data 2013									
	Estimated Plants in Sampled Grid Cell(s)	Estimated Plants in Sampled Grid Cell(s) (per 211 ft. sq.)	Mean Density (number of plants per 211 ft. sq.)	Standard Deviation	90% Confidence Interval	Number of Grid Cell(s) Surveyed Based on Previous Occurrences	Number of Surveyed Grid Cells or Partial Grid Cells that Contained Plants in 2013	Total Surveyed Grid Cells or Partial Grid Cells in 2013	Percentage of Surveyed Grid Cells Containing Plants Compared to Baseline
<b>Monterey Gilia (<i>Gilia tenuiflora</i> subsp. <i>arenaria</i>)</b>									
<b>Baseline Pre-disturbance</b>									
2010	605	56	8.0	6.4	4.3	8	--	--	--
2012	94	38	2.7	2.3	1.1	14	--	--	--
<b>Activity A - (Ingress/Egress Routes)</b>									
Post-activity 2013	3	3	3.0	--	--	14	1	1	7%
<b>Activity B - (Vegetation Cut/Mag and Dig)</b>									
Post-activity Year 2	33	28	3.1	2.2	1.5	14	8	8	57%
<b>Activity C - (Small-scale Excavation)</b>									
Post-activity Year 2	11	11	3.7	3.1	5.2	14	3	3	21%
<b>2013 Sampling Totals</b>	<b>47</b>	<b>42</b>				<b>14</b>	<b>12</b>	<b>12</b>	
<b>Reference Plot</b>									
2013 Survey	12	12	12.0	--	--	1	1	1	100%
<b>Seaside Bird's-beak (<i>Cordylanthus rigidus</i> subsp. <i>littoralis</i>)</b>									
<b>Baseline Pre-disturbance</b>									
2010	365	365	91.3	40.3	47.4	4	--	--	--
2012	84	84	9.3	7.8	4.9	9	--	--	--
<b>Activity A - (Ingress/Egress routes)</b>									
Post-activity 2013	2	2	2.0	--	--	9	1	1	11.1%
<b>Activity B - (Vegetation Cut/Mag and Dig)</b>									
Post-activity Year 2	123	123	41.0	62.4	73.4	9	3	4	33.3%
<b>2013 Sampling Totals</b>	<b>125</b>	<b>125</b>				<b>9</b>	<b>4</b>	<b>5</b>	
<b>Reference Plot</b>									
2013 Survey	108	8	8.5	--	--	1	1	1	100%

\* exceeds number of baseline grid cells sampled

Table 9-10  
Interim Action Ranges MRA 2013 Presence and Density of Monterey Spineflower  
after Remedial Activities A - C in Range 47 SCA Subarea C

Post-activity Data - 2013									
	Estimated Plants in Sampled Grid Cell(s)	Estimated Plants in Sampled Grid Cell(s) (per 211 ft. sq.)	Mean Density (number of plants per 211 ft. sq.)	Standard Deviation	90% Confidence Interval	Number of Grid Cell(s) Surveyed Based on Previous Occurrences	Number of Surveyed Grid Cells or Partial Grid Cells that Contained Plants in 2013	Total Surveyed Grid Cells or Partial Grid Cells in 2013	Percentage of Surveyed Grid Cells Containing Plants Compared to Baseline
<b>Monterey Spineflower (<i>Chorizanthe pungens</i> var. <i>pungens</i>)</b>									
<b>Baseline Pre-disturbance</b>									
2010	5,903	5,903	347.2	622.5	263.6	17	--	--	--
2012	30	30	6.0	4.8	4.6	5	--	--	--
<b>Activity A - (Ingress/Egress Routes)</b>									
Post-activity 2013	0	0	0.0	--	--	5	0	5	0%
<b>Activity B - (Vegetation Cut/Mag and Dig)</b>									
Post-activity Year 2	1,716	78	7.8	13.4	9.8	5	7	7	100%*
<b>2013 Sampling Totals</b>	<b>1,716</b>	<b>78</b>				<b>5</b>	<b>7</b>	<b>12</b>	
<b>Reference Plot</b>									
2013 Survey	450	19	19.0	--	--	1	1	1	100%

\* exceeds number of baseline grid cells sampled

Table 9-11  
Interim Action Ranges MRA 2013 Presence and Density of Monterey Gilia  
after Remedial Activities A - C in Range 47 SCA Subarea C

Post-activity Data 2013									
	Estimated Plants in Sampled Grid Cell(s)	Estimated Plants in Sampled Grid Cell(s) (per 211 ft. sq.)	Mean Density (number of plants per 211 ft. sq.)	Standard Deviation	90% Confidence Interval	Number of Grid Cell(s) Surveyed Based on Previous Occurrences	Number of Surveyed Grid Cells or Partial Grid Cells that Contained Plants in 2013	Total Surveyed Grid Cells or Partial Grid Cells in 2013	Percentage of Surveyed Grid Cells Containing Plants Compared to Baseline
<b>Monterey Gilia (<i>Gilia tenuiflora</i> subsp. <i>arenaria</i>)</b>									
<b>Baseline Pre-disturbance</b>									
2010	172	27	3.0	1.8	1.0	11	--	--	--
2012	6	4	2.0	--	--	2	--	--	--
<b>Activity A - (Ingress/Egress Routes)</b>									
Post-activity 2013	8	8	8.0	--	--	2	1	7	50%
<b>Activity B - (Vegetation Cut/Mag and Dig)</b>									
Post-activity Year 2	66	66	6.6	8.9	39.7	2	2	10	100%
<b>Activity C - (Small-scale Excavation)</b>									
Post-activity Year 2	1	1	1.0	--	--	2	1	5	50%
<b>2013 Sampling Totals</b>	<b>80</b>	<b>78</b>				<b>2</b>	<b>4</b>	<b>22</b>	
<b>Reference Plot</b>									
2013 Survey	12	12	12.0	--	--	1	1	1	100%

\*exceeds number of baseline grid cells containing HMP herbaceous species

Table 9-12  
Interim Action Ranges MRA 2013 Presences and Density of Monterey Spineflower, Monterey Gilia and Seaside Bird's-beak after Remedial Activity D in Range 47 SCA Subarea B

Post-activity Data - 2013									
	Estimated Plants in Sampled Grid Cell(s)	Estimated Plants in Sampled Grid Cell(s) (per 211 ft. sq.)	Mean Density (number of plants per 211 ft. sq.)	Standard Deviation	90% Confidence Interval	Number of Grid Cell(s) Surveyed Based on Previous Occurrences	Number of Surveyed Grid Cells or Partial Grid Cells that Contained Plants in 2013	Total Surveyed Grid Cells or Partial Grid Cells in 2013	Percentage of Surveyed Grid Cells Containing Plants Compared to Baseline
<b>Monterey Spineflower (<i>Chorizanthe pungens</i> var. <i>pungens</i>)</b>									
<b>Baseline Pre-disturbance</b>									
2010	5,903	5,903	347.2	622.5	263.6	17	--	--	--
2012	30	30	6.0	4.8	4.6	5	--	--	--
<b>Activity D - (Large-scale Excavation)</b>									
Post-activity Year 1	274	127	3.4	4.0	1.1	5	37	37	100%*
<b>2013 Sampling Totals</b>	<b>274</b>	<b>127</b>							
<b>Monterey Gilia (<i>Gilia tenuiflora</i> subsp. <i>arenaria</i>)</b>									
<b>Baseline Pre-disturbance</b>									
2010	172	27	3.0	1.8	1.0	11	--	--	--
2012	6	4	2.0	0.0		2	--	--	--
<b>Activity D - (Large-scale Excavation)</b>									
Post-activity Year 1	21	15	1.3	0.5	0.2	2	12	37	100%*
<b>2013 Sampling Totals</b>	<b>172</b>	<b>27</b>							
<b>Seaside Bird's-beak (<i>Cordylanthus rigidus</i> subsp. <i>littoralis</i>)</b>									
<b>Baseline Pre-disturbance</b>									
2010	2,198	2,198	104.7	95.6	36.0	21	--	--	--
2012	84	84	9.3	7.8	4.9	9	--	--	--
<b>Activity D - (Large-scale Excavation)</b>									
Post-activity Year 1	1	1	1.0	--	--	9	1	37	11%
<b>2013 Sampling Totals</b>	<b>2,198</b>	<b>2,198</b>							

\*exceeds number of baseline grid cells sampled



Table 9-13  
Interim Action Ranges MRA HMP Annuals in Seeding and Seedbank Polygons  
in Range 47 SCA Subareas A and B (Activity D)

Polygon Type	Total Polygons	Density of HMP Species (individuals per polygon)				Mean Polygon Size (square feet)	Mean Density of HMP Species per Square Foot
		Total Plants	Mean Density Per Polygon	Standard Deviation	90% Confidence Interval		
<b>Polygons within Subarea A</b>							
<b>Monterey Spineflower</b>							
Seeded Area	1	2,748	--	--	--	257.1	10.7
Seedbank	1	1,640	--	--	--	237.3	6.9
<b>Totals</b>		<b>4,388</b>					
<b>Monterey Gilia</b>							
Seedbank	1	8	--	--	--	204.5	0.0
<b>Polygons within Subarea B</b>							
<b>Monterey Spineflower</b>							
Seeded Area	4	6,657	1,664.3	439.2	418.7	108.2	15.4
Seedbank	5	4,602	920.4	584.4	480.8	109.7	8.4
<b>Totals</b>		<b>11,259</b>					
<b>Monterey Gilia</b>							
Seeded Area	2	241	120.5	3.5	15.8	106.8	1.1
Seedbank	6	74	12.3	9.5	7.0	131.0	0.1
Planting	10	320	32.0	1.3	0.7	132.8	0.2
<b>Totals</b>		<b>635</b>					
<b>All Polygons</b>							
<b>Monterey Spineflower</b>							
Seeded Area	5	9,405	1,881.0	616.1	587.4	138.0	13.6
Seedbank	6	6,242	1,040.3	599.6	493.3	130.9	7.9
<b>Totals</b>		<b>15,647</b>					
<b>Monterey Gilia</b>							
Seeded Area	2	241	120.5	3.5	15.8	106.8	1.1
Seedbank	7	82	11.7	8.8	6.5	141.5	0.1
Planting	10	320	32.0	1.3	0.7	132.8	0.2
<b>Totals</b>		<b>643</b>					

Table 9-14  
Interim Action Ranges MRA Range 47 SCA Subarea B  
2013 Container Plant Survival and Volunteer Recruits

Scientific Name	Common Name	Total Number of Container Plantings Baseline March 2013	Container Planting Survival September 2013	Container Planting Survival (%) September 2013	Number of Recruited Individuals* September 2013	Surviving Container Plantings + Recruited Individuals September 2013	Percent Survival - Container Plantings + Recruited Individuals September 2013
<i>Acmipson glaber</i>	deerweed	3,266	2,205	67.5%	7,747	9,952	304.7%
<i>Adenostoma fasciculatum</i>	chamise	2,581	981	38.0%	1,820	2,801	108.5%
<b><i>Arctostaphylos pumila</i></b>	<b>sandmat manzanita</b>	<b>1,596</b>	<b>758</b>	<b>47.5%</b>	<b>1,052</b>	<b>1,810</b>	<b>113.4%</b>
<i>Arctostaphylos tomentosa</i> subsp. <i>tomentosa</i>	shaggy-barked manzanita	553	553	100.0%	2,696	3,249	587.5%
<i>Baccharis pilularis</i> subsp. <i>consanguinea</i>	coyote brush	2,706	1,580	58.4%	1,442	3,022	111.7%
<i>Ceanothus dentatus</i>	dwarf ceanothus	789	789	100.0%	5,706	6,495	823.2%
<b><i>Ceanothus rigidus</i></b>	<b>Monterey ceanothus</b>	<b>980</b>	<b>980</b>	<b>100.0%</b>	<b>2,034</b>	<b>3,014</b>	<b>307.6%</b>
<i>Ericameria ericoides</i>	dune-heather, mock-heather	1,523	1,056	69.3%	1,427	2,483	163.0%
<b><i>Ericameria fasciculata</i></b>	<b>Eastwood's ericameria</b>	<b>3,726</b>	<b>1,807</b>	<b>48.5%</b>	<b>293</b>	<b>2,100</b>	<b>56.4%</b>
<i>Eriophyllum confertiflorum</i>	golden yarrow	2,578	978	37.9%	77	1,055	40.9%
<i>Frangula californica</i> subsp. <i>californica</i>	California coffeeberry	713	330	46.3%	47	377	52.9%
<i>Helianthemum scoparium</i>	rush-rose	1,581	1,581	100.0%	27,055	28,636	1811.2%
<i>Horkelia cuneata</i> var. <i>cuneata</i>	coast horkelia	1,606	1,606	100.0%	17,360	18,966	1180.9%
<i>Lupinus chamissonis</i>	silver bush lupine	1,021	692	67.8%	363	1,055	103.3%
<i>Mimulus aurantiacus</i>	sticky monkeyflower	4,903	2,196	44.8%	1,754	3,950	80.6%
<i>Salvia mellifera</i>	black sage	1,470	1,470	100.0%	20,604	22,074	1501.6%
<b>Totals</b>		<b>31,592</b>	<b>19,562</b>		<b>91,477</b>	<b>111,039</b>	
<b>Mean Survival</b>				<b>61.9%</b>			<b>351.5%</b>

HMP species in bold

Table 9-15  
Interim Action Ranges MRA Shaggy-barked Manzanita Salvaging and Transplanting in Range 47 SCA Subareas A and B  
(Activity D)

	All Subareas				Subarea A				Subarea B			
	Size Class			Total All Subareas	Size Class			Total Subarea A	Size Class			Total Subarea B
	Small (<20cm*)	Medium (20-30cm*)	Large (>30cm*)		Small (<20cm*)	Medium (20-30cm*)	Large (>30cm*)		Small (<20cm*)	Medium (20-30cm*)	Large (>30cm*)	
Number of Salvaged Manzanitas (December 2012)	53	64	20	137	6	6	1	13	47	58	19	124
Total Surviving Salvaged Manzanitas (September 2013)	37	23	1	61	4	1	0	5	33	22	1	56
Percent Survival for Salvaged Manzanitas (September 2013)	69.8%	35.9%	5.0%	44.5%	66.7%	16.7%	0.0%	38.5%	70.2%	37.9%	5.3%	45.2%
Number of Salvaged Manzanitas Transplanted a Second Time in January 2013	5	11	5	21	1	1	0	2	4	10	5	19
Total Surviving Salvaged Manzanitas that Were Transplanted Twice (September 2013)	3	3	0	6	1	0	0	1	2	3	0	5
Percent Survival of Salvaged Manzanitas that Were Transplanted Twice (September 2013)	60.0%	27.3%	0.0%	28.6%	--	--	--	--	50.0%	30.0%	0.0%	26.3%

\*height

Table 9-16  
Interim Action Ranges MRA South Range 44 SCA and Central Area NCAs  
Vegetation Cover in Areas Subject to Vegetation Cutting Conducted in 2011 (Activity B)

Scientific Name	Common Name	Baseline Data 2010 - 2011					Post-activity Data 2012					Post-activity Data 2013				
		Percent Cover				Frequency	Percent Cover				Frequency	Percent Cover				Frequency
		Mean Absolute Cover	Standard Deviation	90% Confidence Interval	Mean Relative Cover		Mean Absolute Cover	Standard Deviation	90% Confidence Interval	Mean Relative Cover		Mean Absolute Cover	Standard Deviation	90% Confidence Interval	Mean Relative Cover	
<i>Arctostaphylos tomentosa</i> subsp. <i>tomentosa</i>	shaggy-barked manzanita	29.3%	15.6%	4.9%	31.0%	100%	9.4%	4.9%	3.6%	43.7%	100%	11.6%	6.7%	4.9%	36.2%	100%
<i>Ceanothus dentatus</i>	dwarf ceanothus	20.2%	16.0%	5.0%	21.4%	89.7%	0.0%	0.0%	--	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	14.3%
<b><i>Ceanothus rigidus</i></b>	<b>Monterey ceanothus</b>	<b>13.5%</b>	<b>9.3%</b>	<b>2.9%</b>	<b>14.3%</b>	<b>96.6%</b>	<b>0.7%</b>	<b>0.7%</b>	<b>0.5%</b>	<b>3.0%</b>	<b>57.1%</b>	<b>1.1%</b>	<b>1.4%</b>	<b>1.0%</b>	<b>3.3%</b>	<b>71.4%</b>
<i>Adenostoma fasciculatum</i>	chamise	9.0%	6.9%	2.2%	9.5%	89.7%	3.3%	1.5%	1.1%	15.5%	100%	4.5%	2.4%	1.7%	14.2%	100%
<i>Helianthemum scoparium</i>	rush-rose	8.1%	9.1%	2.9%	8.6%	86.2%	2.0%	5.2%	3.8%	9.5%	42.9%	2.0%	4.9%	3.6%	6.4%	85.7%
<i>Salvia mellifera</i>	black sage	5.3%	7.2%	2.3%	5.6%	69.0%	1.5%	2.2%	1.6%	7.1%	85.7%	3.5%	6.1%	4.5%	10.9%	85.7%
<b><i>Arctostaphylos pumila</i></b>	<b>sandmat manzanita</b>	<b>1.6%</b>	<b>2.0%</b>	<b>0.6%</b>	<b>1.7%</b>	<b>65.5%</b>	<b>1.6%</b>	<b>1.3%</b>	<b>0.9%</b>	<b>7.4%</b>	<b>85.7%</b>	<b>2.7%</b>	<b>1.9%</b>	<b>1.4%</b>	<b>8.5%</b>	<b>85.7%</b>
<i>Ericameria ericoides</i>	dune-heather, mock-heather	1.5%	5.6%	1.8%	1.6%	24.1%	0.5%	1.2%	0.9%	2.1%	14.3%	0.6%	1.5%	1.1%	1.8%	14.3%
<i>Eriophyllum confertiflorum</i>	golden yarrow	1.5%	2.2%	0.7%	1.6%	65.5%	0.1%	0.1%	0.1%	0.4%	42.9%	0.3%	0.4%	0.3%	0.9%	57.1%
<i>Acemison glaber</i>	deerweed	1.4%	0.0%	--	1.5%	0.0%	1.2%	1.3%	0.9%	5.7%	85.7%	3.8%	3.9%	2.9%	11.8%	85.7%
<i>Baccharis pilularis</i> subsp. <i>consanguinea</i>	coyote brush	0.7%	1.8%	0.6%	0.7%	24.1%	0.0%	0.0%	--	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Mimulus aurantiacus</i>	sticky monkeyflower	0.5%	0.9%	0.3%	0.5%	27.6%	0.0%	0.1%	0.1%	0.2%	14.3%	0.1%	0.2%	0.1%	0.3%	28.6%
<i>Lepechinia calycina</i>	pitcher sage	0.4%	1.4%	0.5%	0.4%	20.7%	0.0%	0.0%	--	0.0%	0.0%	0.1%	0.2%	0.1%	0.2%	10.0%
<i>Frangula californica</i> subsp. <i>californica</i>	California coffeeberry	0.9%	1.9%	0.6%	1.0%	31.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Lupinus chamissonis</i>	silver bush lupine	0.4%	1.1%	0.4%	0.4%	13.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b><i>Ericameria fasciculata</i></b>	<b>Eastwood's ericameria</b>	<b>0.2%</b>	<b>0.5%</b>	<b>0.2%</b>	<b>0.2%</b>	<b>17.2%</b>	<b>0.1%</b>	<b>0.2%</b>	<b>0.1%</b>	<b>0.3%</b>	<b>14.3%</b>	<b>0.0%</b>	<b>0.1%</b>	<b>0.1%</b>	<b>0.2%</b>	<b>14.3%</b>
<i>Garrya elliptica</i>	coast silk-tassel	0.0%	0.0%	--	0.0%	0.0%	0.4%	1.0%	0.7%	2.1%	28.6%	0.5%	1.4%	1.0%	1.7%	28.6%
<i>Symphoricarpos mollis</i>	creeping snowberry	0.0%	0.0%	--	0.0%	0.0%	0.1%	0.3%	0.2%	0.6%	14.3%	0.3%	0.8%	0.6%	0.9%	14.3%
<i>Quercus agrifolia</i>	coast live oak	0.0%	0.0%	--	0.0%	0.0%	0.0%	0.0%	--	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	14.3%
<i>Toxicodendron diversilobum</i>	poison-oak	0.0%	0.0%	--	0.0%	0.0%	0.1%	0.1%	0.1%	0.3%	28.6%	0.1%	0.2%	0.1%	0.2%	14.3%
<b>Total Mean Percent Shrub and Subshrub Cover</b>		<b>94.5%</b>	<b>5.0%</b>	<b>1.6%</b>	<b>100%</b>		<b>21.1%</b>	<b>1.5%</b>		<b>97.8%</b>		<b>31.3%</b>	<b>2.8%</b>	<b>1.1%</b>	<b>97.5%</b>	
<b>Herbaceous Plants Between Shrubs and Subshrubs</b>		<b>1.3%</b>	<b>2.3%</b>	<b>1.3%</b>	<b>1.4%</b>	<b>90.0%</b>	<b>3.5%</b>	<b>5.3%</b>			<b>90.0%</b>	<b>2.8%</b>	<b>4.4%</b>	<b>2.6%</b>		<b>80.0%</b>
<b>Target Weed Total (<i>Carpobrotus edulis</i>)</b>		<b>0.0%</b>	<b>0.0%</b>			<b>60.0%</b>	<b>0.5%</b>	<b>0.5%</b>	<b>0.4%</b>	<b>2.2%</b>	<b>57.1%</b>	<b>0.5%</b>	<b>0.5%</b>	<b>0.3%</b>	<b>1.6%</b>	<b>71.4%</b>
<b>Total Mean Percent Vegetative Cover</b>		<b>95.8%</b>	<b>--</b>			<b>--</b>	<b>25.1%</b>	<b>--</b>		<b>--</b>	<b>--</b>	<b>34.7%</b>	<b>17.2%</b>	<b>29.0%</b>	<b>--</b>	<b>--</b>
<b>Total Mean Percent Bare Ground</b>		<b>19.3%</b>	<b>9.3%</b>	<b>2.9%</b>	<b>--</b>	<b>100%</b>	<b>75%</b>	<b>7.9%</b>	<b>5.8%</b>	<b>--</b>	<b>100%</b>	<b>68.3%</b>	<b>9.2%</b>	<b>6.8%</b>	<b>--</b>	<b>100%</b>

HMP Species in Bold

Table 9-17  
Interim Action Ranges MRA North Range 44 SCA  
Vegetation Cover in Areas Subject to Vegetation Cutting Conducted in 2012 (Activity B)

Scientific Name	Common Name	Baseline Data 2010 - 2011					Post-activity Data 2013				
		Five Transects areas with Vegetation Cutting Conducted in 2012					Five Transects areas with Vegetation Cutting Conducted in 2012				
		Percent Cover				Frequency	Percent Cover				Frequency
Mean Absolute Cover	Standard Deviation	90% Confidence Interval	Mean Relative Cover	Mean Absolute Cover	Standard Deviation		90% Confidence Interval	Mean Relative Cover			
<i>Arctostaphylos tomentosa</i> subsp. <i>tomentosa</i>	shaggy-barked manzanita	29.3%	15.6%	9.0%	31.0%	100%	7.6%	6.9%	6.6%	21.5%	100%
<i>Ceanothus dentatus</i>	dwarf ceanothus	20.2%	16.0%	9.2%	21.4%	89.7%	1.4%	1.8%	1.7%	4.0%	60.0%
<b><i>Ceanothus rigidus</i></b>	<b>Monterey ceanothus</b>	<b>13.5%</b>	<b>9.3%</b>	<b>5.4%</b>	<b>14.3%</b>	<b>96.6%</b>	<b>0.3%</b>	<b>0.3%</b>	<b>0.3%</b>	<b>0.7%</b>	<b>80.0%</b>
<i>Adenostoma fasciculatum</i>	chamise	9.0%	6.9%	4.0%	9.5%	89.7%	10.2%	7.0%	6.6%	29.1%	100%
<i>Helianthemum scoparium</i>	rush-rose	8.1%	9.1%	5.3%	8.6%	86.2%	4.4%	5.4%	5.1%	12.5%	100%
<i>Salvia mellifera</i>	black sage	5.3%	7.2%	4.1%	5.6%	69.0%	4.5%	4.6%	4.3%	12.9%	60.0%
<b><i>Arctostaphylos pumila</i></b>	<b>sandmat manzanita</b>	<b>1.6%</b>	<b>2.0%</b>	<b>1.2%</b>	<b>1.7%</b>	<b>65.5%</b>	<b>2.3%</b>	<b>1.9%</b>	<b>1.8%</b>	<b>6.5%</b>	<b>80.0%</b>
<i>Ericameria ericoides</i>	mock-heather	1.5%	5.6%	3.3%	1.6%	24.1%	0.0%	0.1%	0.1%	0.1%	20.0%
<i>Eriophyllum conferiflorum</i>	golden yarrow	1.5%	2.2%	1.3%	1.6%	65.5%	1.9%	1.8%	1.8%	5.5%	100%
<i>Acmispon glaber</i>	deerweed	1.4%	0.0%	0.0%	1.5%	0.0%	0.4%	0.6%	0.5%	1.2%	60.0%
<i>Baccharis pilularis</i> subsp. <i>consanguinea</i>	coyote brush	0.7%	1.8%	1.1%	0.7%	24.1%	0.0%	0.0%	--	0.0%	0.0%
<i>Mimulus aurantiacus</i>	sticky monkeyflower	0.5%	0.9%	0.5%	0.5%	27.6%	0.0%	0.0%	--	0.0%	0.0%
<i>Lepechinia calycina</i>	pitcher sage	0.4%	1.4%	0.8%	0.4%	20.7%	0.0%	0.0%	--	0.0%	0.0%
<b><i>Ericameria fasciculata</i></b>	<b>Eastwood's ericameria</b>	<b>0.2%</b>	<b>0.5%</b>	<b>0.3%</b>	<b>0.2%</b>	<b>17.2%</b>	<b>1.0%</b>	<b>1.4%</b>	<b>1.3%</b>	<b>2.9%</b>	<b>40.0%</b>
<i>Frangula californica</i> subsp. <i>californica</i>	California coffeeberry	0.9%	1.9%	0.6%	1.0%	31.0%	0.5%	0.8%	0.8%	1.4%	60.0%
<i>Lupinus chamissonis</i>	silver bush lupine	0.4%	1.1%	0.4%	0.4%	13.8%	0.0%	0.0%	--	0.0%	0.0%
<i>Garrya elliptica</i>	coast silk-tassel	0.0%	0.0%	--	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	20.0%
<i>Symphoricarpos mollis</i>	creeping snowberry	0.0%	0.0%	--	0.0%	0.0%	0.0%	0.0%	--	0.0%	0.0%
<i>Quercus agrifolia</i>	coast live oak	0.0%	0.0%	--	0.0%	0.0%	0.0%	0.0%	--	0.0%	0.0%
<i>Toxicodendron diversilobum</i>	poison-oak	0.0%	0.0%	--	0.0%	0.0%	0.5%	1.2%	1.1%	1.5%	20.0%
<b>Total Mean Percent Shrub and Subshrub Cover</b>		<b>94.5%</b>	<b>5.0%</b>		<b>100%</b>		<b>35.2%</b>	<b>22.5%</b>	<b>21.5%</b>	<b>100%</b>	<b>100%</b>
<b>Herbaceous Plants Between Shrubs and Subshrubs</b>		<b>1.3%</b>	<b>2.3%</b>	<b>1.3%</b>	<b>1.4%</b>	<b>90.0%</b>	<b>14.0%</b>	<b>9.9%</b>	<b>9.4%</b>	<b>33.6%</b>	<b>100%</b>
<b>Target Weed Total (<i>Carpobrotus edulis</i>)</b>		<b>0.0%</b>	<b>0.0%</b>		<b>0.0%</b>	<b>60.0%</b>	<b>0.3%</b>	<b>0.6%</b>	<b>0.5%</b>	<b>0.7%</b>	<b>40.0%</b>
<b>Total Mean Percent Vegetative Cover</b>		<b>95.8%</b>	--		--	--	<b>49.4%</b>	<b>15.6%</b>	<b>14.9%</b>	<b>100%</b>	<b>100%</b>
<b>Total Mean Percent Bare Ground</b>		<b>19.3%</b>	<b>9.3%</b>	<b>2.9%</b>	--	<b>100%</b>	<b>54.1%</b>	<b>13.0%</b>	<b>12.4%</b>	--	<b>100%</b>

HMP Species in Bold

Table 9-18  
Interim Action Ranges MRA Range 47 SCA Subarea C  
Vegetation Cover in Areas Subject to Vegetation Cutting Conducted in 2011 (Activity B)

Scientific Name	Common Name	Baseline Data 2010 - 2011					Post-activity Data 2012				
		Three Areas with Vegetation Cutting Conducted in 2011					Three Areas with Vegetation Cutting Conducted in 2011				
		Percent Cover				Frequency	Percent Cover				Frequency
Mean Absolute Cover	Standard Deviation	90% Confidence Interval	Mean Relative Cover	Mean Absolute Cover	Standard Deviation		90% Confidence Interval	Mean Relative Cover			
<i>Arctostaphylos tomentosa</i> subsp. <i>tomentosa</i>	shaggy-barked manzanita	29.3%	15.6%	4.9%	31.0%	100%	30.1%	12.1%	20.3%	61.0%	100%
<i>Ceanothus dentatus</i>	dwarf ceanothus	20.2%	16.0%	5.0%	21.4%	89.7%	0.0%	0.0%	--	0.0%	0.0%
<b><i>Ceanothus rigidus</i></b>	<b>Monterey ceanothus</b>	<b>13.5%</b>	<b>9.3%</b>	<b>2.9%</b>	<b>14.3%</b>	<b>96.6%</b>	<b>0.1%</b>	<b>0.2%</b>	<b>0.3%</b>	<b>0.2%</b>	<b>33.3%</b>
<i>Adenostoma fasciculatum</i>	chamise	9.0%	6.9%	2.2%	9.5%	89.7%	3.9%	2.8%	4.7%	7.8%	100%
<i>Helianthemum scoparium</i>	rush-rose	8.1%	9.1%	2.9%	8.6%	86.2%	0.1%	0.2%	0.3%	0.2%	33.3%
<i>Salvia mellifera</i>	black sage	5.3%	7.2%	2.3%	5.6%	69.0%	1.5%	2.4%	4.0%	3.0%	66.7%
<b><i>Arctostaphylos pumila</i></b>	<b>sandmat manzanita</b>	<b>1.6%</b>	<b>2.0%</b>	<b>0.6%</b>	<b>1.7%</b>	<b>65.5%</b>	<b>0.6%</b>	<b>0.8%</b>	<b>1.4%</b>	<b>1.2%</b>	<b>66.7%</b>
<i>Ericameria ericoides</i>	dune-heather, mock-heather	1.5%	5.6%	1.8%	1.6%	24.1%	0.0%	0.0%	--	0.0%	0.0%
<i>Eriophyllum confertiflorum</i>	golden yarrow	1.5%	2.2%	0.7%	1.6%	65.5%	0.6%	1.0%	1.6%	1.1%	33.3%
<i>Acemison glaber</i>	deerweed	1.4%	0.0%	--	1.5%	0.0%	5.3%	2.5%	4.3%	10.8%	100%
<i>Baccharis pilularis</i> subsp. <i>consanguinea</i>	coyote brush	0.7%	1.8%	0.6%	0.7%	24.1%	0.1%	0.2%	0.4%	0.3%	33.3%
<i>Mimulus aurantiacus</i>	sticky monkeyflower	0.5%	0.9%	0.3%	0.5%	27.6%	0.0%	0.0%	--	0.0%	0.0%
<i>Lepechinia calycina</i>	pitcher sage	0.4%	1.4%	0.5%	0.4%	20.7%	0.9%	0.8%	1.4%	1.8%	66.7%
<i>Frangula californica</i> subsp. <i>californica</i>	California coffeeberry	0.9%	1.9%	0.6%	1.0%	31.0%	0.0%	0.0%	--	0.0%	0.0%
<i>Lupinus chamissonis</i>	silver bush lupine	0.4%	1.1%	0.4%	0.4%	13.8%	0.0%	0.0%	0.0%	0.0%	0.0%
<b><i>Ericameria fasciculata</i></b>	<b>Eastwood's ericameria</b>	<b>0.2%</b>	<b>0.5%</b>	<b>0.2%</b>	<b>0.2%</b>	<b>17.2%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>--</b>	<b>0.0%</b>	<b>0.0%</b>
<i>Garrya elliptica</i>	coast silk-tassel	0.0%	0.0%	--	0.0%	0.0%	0.0%	0.0%	--	0.0%	0.0%
<i>Symphoricarpos mollis</i>	creeping snowberry	0.0%	0.0%	--	0.0%	0.0%	0.0%	0.0%	--	0.0%	0.0%
<i>Quercus agrifolia</i>	coast live oak	0.0%	0.0%	--	0.0%	0.0%	0.0%	0.0%	--	0.0%	0.0%
<i>Toxicodendron diversilobum</i>	poison-oak	0.0%	0.0%	--	0.0%	0.0%	0.1%	0.1%	0.2%	0.1%	33.3%
<b>Total Mean Percent Shrub and Subshrub Cover</b>		<b>94.5%</b>	<b>5.0%</b>	<b>1.6%</b>	<b>100%</b>		<b>43.2%</b>	<b>2.7%</b>		<b>87.7%</b>	
<b>Herbaceous Plants Between Shrubs and Subshrubs</b>		<b>1.3%</b>	<b>2.3%</b>	<b>1.3%</b>	<b>1.4%</b>	<b>90.0%</b>	<b>2.7%</b>	<b>0.61%</b>	<b>1.03%</b>	<b>--</b>	<b>100%</b>
<b>Target Weed Total (<i>Carpobrotus edulis</i>)</b>		<b>0.0%</b>	<b>0.0%</b>			<b>60.0%</b>	<b>3.3%</b>	<b>4.84%</b>	<b>8.16%</b>	<b>6.7%</b>	<b>66.7%</b>
<b>Total Mean Percent Vegetative Cover</b>		<b>95.8%</b>	<b>--</b>		<b>--</b>	<b>--</b>	<b>49.3%</b>	<b>--</b>		<b>--</b>	<b>--</b>
<b>Total Mean Percent Bare Ground</b>		<b>19.3%</b>	<b>9.3%</b>	<b>2.9%</b>	<b>--</b>	<b>100%</b>	<b>53.1%</b>	<b>10.57%</b>	<b>17.82%</b>	<b>--</b>	<b>100%</b>

HMP Species in Bold

Table 9-19

Interim Action Range MRA South Range 44 SCA and Central Area NCAs Vegetation Cover in Areas Subject to Small-scale Excavation Conducted in 2011 (Activity C)

Scientific Name	Common Name	Baseline Data 2010 - 2011					Post-activity Data 2012					Post-activity Data 2013					
		Five Transects in Small-scale Excavations Conducted in 2011															
		Percent Cover					Frequency	Percent Cover				Frequency	Percent Cover				Frequency
		Mean Absolute Cover	Standard Deviation	90% Confidence Interval	Mean Relative Cover	Mean Cover		Standard Deviation	90% Confidence Interval	Relative Cover	Mean Cover		Standard Deviation	90% Confidence Interval	Relative Cover		
<i>Acmispon glaber</i>	deerweed	0.0%	0.0%	--	0.0%	0.0%	1.3%	1.0%	1.0%	17.3%	83.3%	6.1%	9.0%	8.6%	44.7%	100%	
<b><i>Arctostaphylos pumila</i></b>	<b>sandmat manzanita</b>	0.0%	0.0%	--	0.0%	0.0%	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	40.0%	
<i>Helianthemum scoparium</i>	rush-rose	8.1%	9.1%	8.6%	9.7%	86.2%	0.8%	0.9%	0.9%	11.2%	100%	1.2%	0.6%	0.6%	15.7%	100%	
<i>Salvia mellifera</i>	black sage	5.3%	7.2%	6.8%	6.3%	69.0%	0.1%	0.2%	0.2%	1.0%	33.3%	0.0%	0.1%	0.0%	0.5%	40.0%	
<i>Eriophyllum confertiflorum</i>	golden yarrow	1.5%	2.2%	2.1%	1.7%	65.5%	0.1%	0.1%	0.1%	0.9%	83.3%	0.1%	0.2%	0.2%	1.3%	60.0%	
<i>Ericameria ericoides</i>	dune-heather, mock-heather	0.0%	--	--	0.0%	0.0%	0.0%	--	--	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	20.0%	
<i>Arctostaphylos tomentosa</i> subsp. <i>tomentosa</i>	shaggy-barked manzanita	29.3%	15.6%	14.9%	35.0%	100%	0.0%	0.0%	0.0%	0.4%	67%	0.0%	--	--	0.0%	0.0%	
<b><i>Ceanothus rigidus</i></b>	<b>Monterey ceanothus</b>	13.5%	9.3%	8.8%	16.1%	96.6%	0.0%	0.0%	0.0%	0.1%	16.7%	0.0%	0.0%	0.0%	0.1%	40.0%	
<i>Ceanothus dentatus</i>	dwarf ceanothus	20.2%	16.0%	15.2%	24.1%	89.7%	0.0%	0.0%	0.0%	0.1%	16.7%	0.0%	0.0%	0.0%	0.2%	40.0%	
<i>Symphoricarpos mollis</i>	creeping snowberry	5.3%	7.2%	6.8%	6.3%	69.0%	0.0%	0.0%	0.0%	0.1%	16.7%	0.0%	0.0%	0.0%	0.1%	20.0%	
<i>Baccharis pilularis</i> subsp. <i>consanguinea</i>	coyote brush	0.7%	1.8%	1.7%	0.8%	24.1%	0.0%	0.0%	0.0%	0.0%	16.7%	0.0%	--	--	0.0%	0.0%	
<b>Total Mean Percent Shrub and Subshrub Cover</b>		<b>83.9%</b>	<b>9.7%</b>	<b>9.2%</b>	<b>--</b>	<b>--</b>	<b>2.3%</b>	<b>0.4%</b>	<b>0.4%</b>	<b>31.2%</b>	<b>--</b>	<b>7.6%</b>	<b>1.8%</b>	<b>1.7%</b>	<b>52.8%</b>	<b>--</b>	
<b>Herbaceous Plants Between Shrubs and Subshrubs</b>		<b>0.0%</b>	<b>0.0%</b>	<b>--</b>	<b>0.0%</b>	<b>--</b>	<b>5.1%</b>	<b>4.0%</b>	<b>3.8%</b>	<b>68.8%</b>	<b>100.0%</b>	<b>6.8%</b>	<b>10.8%</b>	<b>10.3%</b>	<b>47.2%</b>	<b>100%</b>	
<b>Target Weed Total (<i>Carpobrotus edulis</i>)</b>		<b>0.0%</b>	<b>0.0%</b>	<b>--</b>	<b>0.0%</b>	<b>--</b>	<b>0.0%</b>	<b>0.0%</b>	<b>--</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>--</b>	<b>0.0%</b>	<b>0.0%</b>	
<b>Total Mean Percent Vegetative Cover</b>		<b>83.9%</b>	<b>10.0%</b>	<b>9.5%</b>	<b>--</b>	<b>--</b>	<b>7.5%</b>	<b>2.6%</b>	<b>2.5%</b>	<b>--</b>	<b>--</b>	<b>14.4%</b>	<b>11.8%</b>	<b>11.3%</b>	<b>100%</b>	<b>100%</b>	
<b>Total Mean Percent Bare Ground</b>		<b>0.0%</b>	<b>0.0%</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>92.5%</b>	<b>3.8%</b>	<b>3.6%</b>	<b>--</b>	<b>100.0%</b>	<b>85.7%</b>	<b>11.8%</b>	<b>11.2%</b>	<b>--</b>	<b>100%</b>	

HMP Species in Bold

Table 9-20  
Interim Action Ranges MRA North Range 44 SCA  
Vegetation Cover in Areas Subject to Small-scale Excavations Conducted in 2011 (Activity C)

Scientific Name	Common Name	Baseline Data 2010 - 2011					Post-activity Data 2013				
		Eight Transects in Small-scale Excavations in North Range 44									
		Percent Cover				Frequency	Percent Cover				Frequency
		Mean Absolute Cover	Standard Deviation	90% Confidence Interval	Mean Relative Cover		Mean Absolute Cover	Standard Deviation	90% Confidence Interval	Mean Relative Cover	
<i>Acmispon glaber</i>	deerweed	1.4%	0.0%	--	1.5%	0.0%	0.0%	0.1%	0.0%	1.5%	12.5%
<i>Adenostoma fasciculatum</i>	chamise	9.0%	6.9%	2.2%	9.5%	89.7%					
<b><i>Arctostaphylos pumila</i></b>	<b>sandmat manzanita</b>	1.6%	2.0%	0.6%	1.7%	65.5%	0.1%	0.1%	0.1%	9.5%	50.0%
<i>Arctostaphylos tomentosa</i> subsp. <i>tomentosa</i>	shaggy-barked manzanita	29.3%	15.6%	4.9%	31.0%	100%	0.2%	0.4%	0.3%	5.2%	25%
<i>Baccharis pilularis</i> subsp. <i>consanguinea</i>	coyote brush	0.7%	1.8%	0.6%	0.7%	24.1%	0.0%	0.0%	--	0.0%	0.0%
<i>Ceanothus dentatus</i>	dwarf ceanothus	20.2%	16.0%	5.0%	21.4%	89.7%	0.1%	0.2%	0.1%	6.2%	25.0%
<b><i>Ceanothus rigidus</i></b>	<b>Monterey ceanothus</b>	13.5%	9.3%	2.9%	14.3%	96.6%	0.1%	0.2%	0.2%	6.8%	12.5%
<b><i>Ericameria ericoides</i></b>	<b>dune-heather, mock-heather</b>	1.5%	5.6%	1.8%	1.6%	24.1%	0.0%	0.0%	--	0.0%	0.0%
<b><i>Ericameria fasciculata</i></b>	<b>Eastwood's ericameria</b>	0.2%	0.5%	0.2%	0.2%	17.2%	0.0%	0.0%	--	0.0%	0.0%
<i>Eriophyllum confertiflorum</i>	golden yarrow	1.5%	2.2%	0.7%	1.6%	65.5%	0.0%	0.0%	0.0%	0.4%	25.0%
<i>Frangula californica</i> subsp. <i>californica</i>	California coffeeberry	0.9%	1.9%	0.6%	1.0%	31.0%	0.0%	0.0%	--	0.0%	0.0%
<i>Helianthemum scoparium</i>	rush-rose	8.1%	9.1%	2.9%	8.6%	86.2%	0.1%	0.1%	0.1%	1.9%	37.5%
<i>Lepechinia calycina</i>	pitcher sage	0.4%	1.4%	0.5%	0.4%	20.7%	0.0%	0.0%	--	0.0%	0.0%
<i>Lupinus chamissonis</i>	silver bush lupine	0.4%	1.1%	0.4%	0.4%	13.8%	0.1%	0.1%	0.1%	3.1%	12.5%
<i>Mimulus aurantiacus</i>	sticky monkey flower	0.5%	0.9%	0.3%	0.5%	27.6%	0.0%	0.0%	--	0.0%	0.0%
<i>Quercus agrifolia</i>	coast live oak	0.0%	0.0%	--	0.0%	0.0%	0.1%	0.3%	0.2%	1.2%	12.5%
<i>Salvia mellifera</i>	black sage	5.3%	7.2%	2.3%	5.6%	69.0%	0.0%	0.0%	--	0.0%	0.0%
<i>Symphoricarpos mollis</i>	creeping snowberry	0.0%	0.0%	NA	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	12.5%
<i>Toxicodendron diversilobum</i>	poison-oak	0.0%	0.0%	NA	0.0%	0.0%	0.1%	0.3%	0.2%	5.4%	25.0%
<b>Total Mean Percent Shrub and Subshrub Cover</b>		<b>94.5%</b>	<b>8.0%</b>	<b>2.5%</b>	<b>--</b>		<b>0.8%</b>	<b>0.7%</b>	<b>0.4%</b>	<b>41.7%</b>	<b>87.5%</b>
<b>Herbaceous Plants Between Shrubs and Subshrubs</b>		<b>0.0%</b>	<b>0.0%</b>	<b>--</b>	<b>0.0%</b>	<b>--</b>	<b>0.0%</b>	<b>0.0%</b>	<b>--</b>	<b>0.0%</b>	<b>0.0%</b>
<b>Target Weed Total (Carpobrotus edulis)</b>		<b>83.9%</b>	<b>10.0%</b>	<b>9.5%</b>			<b>2.0%</b>	<b>2.9%</b>	<b>2.0%</b>	<b>58.3%</b>	<b>100%</b>
<b>Total Mean Percent Vegetative Cover</b>		<b>83.9%</b>	<b>10.0%</b>	<b>9.5%</b>			<b>2.8%</b>	<b>3.3%</b>	<b>2.2%</b>	<b>100%</b>	<b>100%</b>
<b>Total Mean Percent Bare Ground</b>		<b>19.3%</b>	<b>9.3%</b>	<b>2.9%</b>	<b>--</b>	<b>100%</b>	<b>97.2%</b>	<b>3.3%</b>	<b>2.2%</b>	<b>100%</b>	<b>100%</b>

HMP Species in Bold



Table 9-21

Interim Action Range MRA 2012 - 2013 Cover and Frequency of Herbaceous Species after Small-scale Excavations in South Range 44 SCA and Central Area NCAs (30 Quadrats)

Scientific Name	Common Name	Post-activity Data 2012					Post-activity Data 2013				
		Thirty Quadrats in Small-scale Excavations in South Range 44									
		2012 Percent Cover				Frequency	2013 Percent Cover				Frequency
		Mean Percent Cover	Standard Deviation	90% Confidence Interval	Relative Percent Cover		Mean Percent Cover	Standard Deviation	90% Confidence Interval	Relative Percent Cover	
<b>Shrub and Subshrubs</b>											
<i>Acmispon glaber</i>	deerweed	0.1%	0.2%	0.1%	0.1%	33.3%	1.6%	5.8%	1.8%	41.7%	46.7%
<i>Arctostaphylos pumila</i>	sandmat manzanita	0.0%	--	--	0.0%	0.0%	0.0%	0.3%	0.1%	0.5%	6.7%
<i>Arctostaphylos tomentosa</i> subsp. <i>tomentosa</i>	shaggy-barked manzanita	0.0%	0.1%	0.0%	0.0%	13.9%	0.0%	--	--	0.1%	3.3%
<i>Baccharis pilularis</i> subsp. <i>consanguinea</i>	coyote brush	0.0%	--	--	0.0%	0.0%	0.0%	--	--	0.1%	3.3%
<i>Ceanothus rigidus</i>	Monterey ceanothus	0.0%	0.3%	0.1%	0.0%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Eriophyllum confertiflorum</i>	golden yarrow	0.0%	0.1%	0.0%	0.0%	5.6%	0.0%	0.2%	0.1%	0.6%	10.0%
<i>Helianthemum scoparium</i>	rush-rose	0.1%	0.3%	0.1%	0.1%	41.7%	0.6%	2.3%	0.7%	16.2%	36.7%
<i>Salvia mellifera</i>	black sage	0.0%	0.2%	0.1%	0.0%	8.3%	0.0%	--	--	0.4%	3.3%
<b>Total Cover by Shrub and Subshrub Species</b>		<b>0.3%</b>					<b>2.3%</b>				
<b>Herbaceous Species</b>											
<i>Acmispon strigosus</i>	strigose lotus	0.0%	0.0%	0.0%	0.0%	22.2%	0.0%	0.2%	0.1%	0.09%	16.7%
<i>Aira caryophyllea</i> *	silver hairgrass	0.0%	--	--	0.0%	0.0%	0.0%	NA	NA	0.09%	3.3%
<i>Calandrinia ciliata</i>	red maids	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	0.0%	0.00%	0.0%
<i>Camissonia micrantha</i>	miniature suncup	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	0.0%	--	0.17%	6.7%
<i>Carex globosa</i>	round-fruited sedge	0.0%	--	--	0.0%	5.6%	0.0%	0.2%	0.1%	0.60%	10.0%
<i>Centaurea mollensis</i> *	totalote	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	0.5%	0.1%	1.11%	13.3%
<i>Chorizanthe diffusa</i>	diffuse spineflower	0.0%	0.0%	0.0%	0.0%	25.0%	0.1%	0.2%	0.1%	1.71%	20.0%
<i>Chorizanthe pungens</i> var. <i>pungen</i>	Monterey spineflower	0.0%	0.0%	--	0.0%	5.6%	0.3%	1.8%	0.6%	8.73%	16.7%
<i>Cirsium occidentale</i>	cobweb thistle	0.0%	--	--	0.0%	0.0%	0.0%	NA	NA	0.09%	3.3%
<i>Crassula connata</i>	pygmy weed	0.0%	0.0%	0.0%	0.0%	8.3%	0.0%	0.0%	0.0%	0.00%	0.0%
<i>Cryptantha clevelandii</i>	Cleveland's cryptantha	0.0%	--	--	0.0%	0.0%	0.1%	0.4%	0.1%	1.54%	16.7%
<i>Cryptantha micromeres</i>	small flowered cryptantha	0.1%	0.0%	0.0%	0.0%	25.0%	0.2%	0.6%	0.2%	4.02%	20.0%
<i>Cryptantha species</i>	cryptantha	0.0%	0.0%	0.0%	0.0%	8.3%	0.0%	0.0%	0.0%	0.00%	0.0%
<i>Erigeron canadensis</i>	horseweed	0.0%	--	--	0.0%	0.0%	0.0%	0.3%	0.1%	0.51%	6.7%
<i>Erodium cicutarium</i> *	red-stemmed filaree	0.1%	0.0%	0.0%	0.1%	22.2%	0.0%	0.0%	--	0.17%	6.7%
<i>Festuca myuros</i> *	rattail sixweeks grass	0.0%	--	--	0.0%	0.0%	0.3%	0.0%	0.1%	7.71%	6.7%
<i>Festuca octoflora</i>	sixweeks fescue	0.1%	0.0%	0.0%	0.1%	47.2%	0.2%	0.3%	0.1%	4.02%	53.3%
<i>Horkelia cuneata</i> var. <i>cuneata</i>	coast horkelia	0.6%	0.0%	NA	0.4%	5.6%	0.0%	0.5%	0.1%	1.11%	13.3%
<i>Hypochaeris glabra</i> *	smooth cat's ear	0.1%	0.0%	0.0%	0.0%	22.2%	0.0%	0.5%	0.2%	1.03%	10.0%
<i>Hypochaeris radicata</i> *	hairy cat's ear	0.0%	NA	NA	0.0%	2.8%	0.0%	NA	NA	0.00%	0.0%
<i>Lessingia pectinata</i>	common lessingia	0.0%	NA	NA	0.0%	0.0%	0.1%	1.3%	0.4%	1.80%	6.7%
<i>Logfia californica</i>	California cottonrose	0.0%	NA	NA	0.0%	0.0%	0.0%	NA	NA	0.09%	13.3%
<i>Logfia gallica</i> *	narrowleaf cottonrose	0.0%	0.0%	0.0%	0.0%	16.7%	0.0%	0.2%	0.1%	1.03%	13.3%
<i>Lupinus bicolor</i>	miniature lupine	0.0%	NA	NA	0.0%	0.0%	0.0%	NA	NA	0.09%	3.3%
<i>Monardella undulata</i>	curly-leaved monardella	0.0%	NA	NA	0.0%	2.8%	0.0%	0.0%	0.0%	0.00%	0.0%
<i>Navarretia hamata</i> subsp. <i>parviloba</i>	hooked navarretia	0.1%	0.0%	0.0%	0.0%	16.7%	0.2%	0.6%	0.2%	4.45%	30.0%
<i>Plantago erecta</i>	California plantain	0.0%	NA	NA	0.0%	0.0%	0.0%	NA	NA	0.09%	3.3%
<i>Portulaca oleracea</i> *	common purslane	0.0%	NA	NA	0.0%	2.8%	0.0%	0.0%	0.0%	0.00%	0.0%
<i>Pseudognaphalium ramosissimum</i>	pink everlasting	0.0%	0.0%	0.0%	0.0%	5.6%	0.0%	NA	NA	0.09%	3.3%
<i>Sagina apetala</i>	annual pearlwort	0.0%	NA	NA	0.0%	0.0%	0.0%	NA	NA	0.09%	3.3%
<b>Total Cover by Herbaceous Species</b>		<b>1.2%</b>					<b>1.6%</b>				
<b>Total Mean Percent Vegetative Cover</b>		<b>1.5%</b>	<b>0.1%</b>	<b>0.0%</b>			<b>3.9%</b>	<b>0.5%</b>	<b>0.1%</b>		
<b>Total Mean Percent Native Vegetative Cover</b>		<b>1.3%</b>			<b>83.2%</b>		<b>3.4%</b>			<b>88.2%</b>	
<b>Total Mean Percent Non-native Cover</b>		<b>0.3%</b>			<b>16.8%</b>		<b>0.5%</b>			<b>11.8%</b>	
<b>Total Mean Percent Bare ground</b>		<b>98.5%</b>					<b>96.1%</b>				

\*non-native species

HMP species in bold

Table 9-22  
Interim Action Ranges MRA 2013 Cover and Frequency of Herbaceous Species  
after Small-scale Excavations in North Range 44 SCA (36 Quadrats)

Scientific Name	Common Name	Post-activity Data 2013				
		Thirty-six Quadrats in Small-scale Excavations in North Range 44				
		2013 Percent Cover				Frequency
Mean Percent Cover	Standard Deviation	90% Confidence Interval	Relative Percent Cover			
<b>Shrub and Subshrub Species</b>						
<i>Toxicodendron diversilobum</i>	poison-oak	0.3%	5.7%	1.4%	23.7%	5.6%
<i>Arctostaphylos tomentosa</i> subsp. <i>tomentosa</i>	shaggy-barked manzanita	0.1%	--	--	4.0%	2.8%
<i>Ceanothus dentatus</i>	dwarf ceanothus	0.1%	1.3%	0.3%	4.2%	5.6%
<b><i>Arctostaphylos pumila</i></b>	<b>sandmat manzanita</b>	<b>0.0%</b>	<b>0.4%</b>	<b>0.1%</b>	<b>2.8%</b>	<b>13.9%</b>
<b><i>Ceanothus rigidus</i></b>	<b>Monterey ceanothus</b>	0.0%	--	--	0.2%	2.8%
<i>Eriophyllum confertiflorum</i>	golden yarrow	0.0%	0.0%	--	0.4%	5.6%
<i>Helianthemum scoparium</i>	rush-rose	0.0%	0.0%	--	0.4%	5.6%
<b>Total Cover by Shrub and Subshrub Species</b>		<b>0.5%</b>			<b>35.6%</b>	
<b>Herbaceous Species</b>						
<i>Aira caryophyllaea</i> *	silver hairgrass	0.0%	NA	NA	1.0%	2.8%
<i>Apiastrum angustifolium</i>	wild parsley	0.0%	NA	NA	0.2%	2.8%
<i>Avena barbata</i> *	slender wild oat	0.1%	NA	NA	4.0%	2.8%
<i>Bromus madritensis</i> subsp. <i>rubens</i> *	red brome	0.1%	NA	NA	4.0%	2.8%
<i>Centaurea melitensis</i> *	tochalote	0.1%	NA	NA	7.9%	2.8%
<i>Chorizanthe diffusa</i>	diffuse spineflower	0.0%	NA	NA	2.0%	2.8%
<b><i>Chorizanthe pungens</i> var. <i>pungens</i></b>	<b>Monterey spineflower</b>	0.1%	0.5%	0.1%	4.2%	8.3%
<i>Chrozanthe</i> species (non-flowering)	spineflower	0.0%	0.0%	NA	0.4%	5.6%
<i>Corethrogyne filaginifolia</i>	California aster	0.0%	NA	NA	0.2%	2.8%
<i>Croton californicus</i>	California croton	0.0%	NA	NA	2.0%	2.8%
<i>Daucus pusillus</i>	rattlesnake weed	0.1%	NA	NA	7.1%	2.8%
<i>Erodium cicutarium</i> *	red-stemmed filaree	0.1%	1.4%	0.3%	7.9%	5.6%
<i>Festuca myuros</i> *	rattail fescue	0.1%	0.3%	0.1%	5.0%	19.4%
<i>Festuca octoflora</i>	six-weeks fescue	0.0%	0.3%	0.1%	1.2%	5.6%
<i>Horkelia cuneata</i> var. <i>cuneata</i>	coast horkelia	0.0%	0.1%	0.0%	0.7%	5.6%
<i>Hypochaeris glabra</i> *	smooth cat's ear	0.1%	0.7%	0.2%	5.9%	5.6%
<i>Logfia gallica</i> *	narrowleaf cottonrose	0.0%	0.3%	0.1%	1.2%	5.6%
<i>Marah fabaceus</i>	wild cucumber	0.0%	NA	NA	2.0%	2.8%
<i>Nuttallanthus texanus</i>	blue toad-flax	0.0%	NA	NA	1.0%	2.8%
<i>Navarretia hamata</i>	hooked navarretia	0.0%	0.0%	NA	0.4%	5.6%
<i>Plantago erecta</i>	California plantain	0.0%	NA	NA	0.2%	2.8%
<i>Pteridium aquilinum</i> var. <i>pubescens</i>	western bracken fern	0.1%	0.7%	0.2%	5.9%	5.6%
<i>Sonchus asper</i> *	prickly sow-thistle	0.0%	NA	NA	0.2%	2.8%
<b>Total Cover by Herbaceous Species</b>		<b>0.9%</b>			<b>64.4%</b>	
<b>Total Mean Percent Vegetative Cover</b>		<b>1.4%</b>	<b>0.1%</b>	<b>0.0%</b>		
<b>Total Mean Percent Native Vegetative Cover</b>		<b>0.9%</b>			<b>62.0%</b>	
<b>Total Mean Percent Non-native Cover</b>		<b>0.5%</b>			<b>38.0%</b>	
<b>Total Mean Percent Bare ground</b>		<b>98.6%</b>				

\*non-native species  
HMP species in bold

Table 9-23  
Interim Action Range MRA 2010 – 2013 South Range 44 SCA and Central Area NCAs Grassland Cover and Frequency of Plant Species after Small-Scale Excavation (Activity C)

Scientific name	Common name	2010 Baseline					Post-activity Data 2012					Post-activity Data 2013					
		2010 Percent Cover					Frequency	Six Quadrats in South Range 44 Grassland				Frequency	2013 Percent Cover				Frequency
		Mean Percent	Standard Deviation	90% Confidence Interval	Relative Percent Cover	2012 Percent Cover				Mean Percent Cover	Standard Deviation		90% Confidence Interval	Relative Percent Cover			
						Mean Percent Cover	Standard Deviation	90% Confidence Interval	Relative Percent Cover								
<i>Acmispon strigosus</i>	strigose lotus	0.0%	--	--	0.0%	0.0%	0.0%	--	--	0.0%	0.0%	0.1%	--	--	0.1%	16.7%	
<i>Aira caryophyllaea</i> *	silver hairgrass	0.0%	--	--	0.0%	0.0%	0.0%	--	--	0.0%	0.0%	0.1%	--	--	0.1%	16.7%	
<i>Avena barbata</i> *	slender oat	0.0%	--	--	0.0%	0.0%	0.8%	0.7%	0.6%	0.1%	66.7%	7.3%	13.6%	11.2%	8.8%	50.0%	
<i>Bromus diandrus</i> *	ripgut brome	0.0%	--	--	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	33.3%	21.1%	32.5%	26.7%	25.2%	83.3%	
<i>Bromus hordeaceus</i> *	soft chess	0.0%	--	--	0.0%	0.0%	0.4%	0.6%	0.5%	0.0%	33.3%	1.5%	0.7%	0.6%	1.8%	33.3%	
<i>Camissonia contorta</i>	contorted succups	0.0%	--	--	0.0%	0.0%	0.0%	--	--	0.0%	0.0%	0.5%	--	--	0.6%	16.7%	
<i>Castilleja exserta</i> subsp. <i>latifolia</i>	widleaf purple owl's clover	0.0%	--	--	0.0%	0.0%	0.0%	--	--	0.0%	0.0%	0.8%	2.5%	2.0%	0.9%	33.3%	
<i>Centaurea melitensis</i> *	localote	0.0%	--	--	0.0%	0.0%	0.5%	0.8%	0.6%	0.1%	66.7%	0.8%	2.0%	1.7%	1.0%	50.0%	
<b><i>Chorizanthe pungens</i> var. <i>pungens</i></b>	<b>Monterey spineflower</b>	<b>4.7%</b>	<b>6.4%</b>	<b>5.3%</b>	<b>10.2%</b>	<b>50.0%</b>	<b>1.2%</b>	<b>2.0%</b>	<b>1.7%</b>	<b>0.1%</b>	<b>50.0%</b>	<b>7.2%</b>	<b>4.3%</b>	<b>3.5%</b>	<b>8.6%</b>	<b>66.7%</b>	
<i>Cirsium occidentale</i>	cobweb thistle	0.0%	--	--	0.0%	0.0%	0.0%	--	--	0.0%	0.0%	0.1%	--	--	0.1%	16.7%	
<i>Croton californicus</i>	California croton	2.0%	3.3%	2.8%	4.4%	33.3%	0.0%	--	--	0.0%	0.0%	0.0%	--	--	0.0%	0.0%	
<i>Cryptantha micromeres</i>	small-flowered cryptantha	0.0%	--	--	0.0%	0.0%	0.2%	0.2%	0.2%	1.6%	33.3%	0.0%	--	--	0.0%	0.0%	
<i>Deinandra corymbosa</i> subsp. <i>corymbosa</i>	coast tarweed	5.7%	0.5%	0.4%	10.9%	83.3%	1.8%	2.2%	1.8%	0.2%	83.3%	0.4%	0.3%	0.2%	0.5%	50.0%	
<i>Dichelostemma capitatum</i>	bluedicks	0.0%	--	--	0.0%	0.0%	0.3%	0.7%	0.6%	0.0%	33.3%	0.0%	--	--	0.0%	0.0%	
<i>Erigeron canadensis</i>	horseweed	10.0%	--	--	14.7%	33.3%	0.3%	0.7%	0.6%	0.0%	50.0%	0.3%	0.3%	0.2%	0.4%	50.0%	
<i>Erodium cicutarium</i> *	red-stemmed filaree	0.0%	--	--	0.0%	0.0%	0.1%	0.1%	0.1%	0.0%	16.7%	0.6%	0.8%	0.6%	0.7%	50.0%	
<i>Eschscholzia californica</i>	California poppy	0.0%	--	--	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	16.7%	3.4%	13.8%	11.3%	4.1%	33.3%	
<i>Festuca myuros</i> *	rattail fescue	19.3%	23.4%	19.2%	47.9%	66.7%	1.6%	2.8%	2.3%	0.2%	100%	25.1%	28.5%	23.5%	30.0%	100%	
<i>Frangula californica</i> subsp. <i>californica</i>	California coffee berry	0.7%	1.6%	1.3%	1.5%	16.7%	0.0%	--	--	0.0%	0.0%	0.0%	--	--	0.0%	0.0%	
<i>Galium californicum</i>	California bedstraw	0.7%	1.6%	1.3%	1.5%	16.7%	0.0%	--	--	0.0%	0.0%	0.0%	--	--	0.0%	0.0%	
<i>Hypochaeris glabra</i> *	smooth cat's-ear	0.0%	--	--	0.0%	0.0%	1.5%	2.8%	2.3%	0.2%	83.3%	1.7%	1.7%	1.4%	2.0%	83.3%	
<i>Layia platyglossa</i>	tidytips	0.0%	--	--	0.0%	0.0%	0.2%	0.6%	0.5%	0.0%	16.7%	5.5%	3.6%	3.0%	6.6%	50.0%	
<i>Lessingia pectinata</i> var. <i>pectinata</i>	common lessingia	0.0%	--	--	0.0%	0.0%	0.0%	--	--	0.0%	0.0%	1.3%	2.8%	2.3%	1.6%	33.3%	
<i>Lupinus bicolor</i>	miniature lupine	0.0%	--	--	0.0%	0.0%	0.0%	--	--	0.0%	0.0%	0.1%	--	--	0.1%	16.7%	
<i>Lupinus chamissonis</i>	silver bush lupine	0.0%	--	--	0.0%	0.0%	0.0%	--	--	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	
<i>Lupinus nanus</i>	sky lupine	0.0%	--	--	0.0%	0.0%	0.3%	0.7%	0.6%	0.0%	33.3%	3.5%	13.4%	11.1%	4.2%	33.3%	
<i>Navarretia intertexta</i>	needle-leaved navarretia	0.0%	--	--	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.7%	0.0%	--	--	0.0%	0.0%	
<i>Nuttallanthus texanus</i>	blue toad-flax	0.0%	--	--	0.0%	0.0%	0.0%	--	--	0.0%	0.0%	0.1%	--	--	0.1%	16.7%	
<i>Petrorhagia dubia</i> *	hairy pink	0.0%	--	--	0.0%	0.0%	0.0%	--	--	0.0%	0.0%	1.6%	4.2%	3.4%	1.9%	50.0%	
<i>Plantago erecta</i>	California plantain	0.0%	--	--	0.0%	0.0%	0.0%	--	--	0.0%	0.0%	0.3%	0.4%	0.3%	0.3%	33.3%	
<i>Rumex acetosella</i> *	sheep sorrel	6.0%	12.8%	10.6%	13.1%	33.3%	0.0%	--	--	0.0%	0.0%	0.0%	--	--	0.0%	0.0%	
<i>Trifolium ciliolatum</i>	foothill clover	0.0%	--	--	0.0%	0.0%	0.0%	--	--	0.0%	0.0%	0.3%	--	--	0.4%	16.7%	
<b>Total Mean Vegetative Cover</b>		<b>49.0%</b>					<b>9.2%</b>					<b>83.7%</b>					
<b>Total Mean Native Vegetative Cover</b>		<b>29.7%</b>			<b>60.6%</b>		<b>2.5%</b>			<b>27.2%</b>		<b>23.4%</b>			<b>28.0%</b>		
<b>Total Mean Non-native Cover</b>		<b>19.3%</b>			<b>39.4%</b>		<b>6.7%</b>			<b>72.8%</b>		<b>60.3%</b>			<b>72.0%</b>		
<b>Total Mean Bare ground</b>		<b>51.0%</b>					<b>90.8%</b>					<b>16.3%</b>					

\*non-native species

HMP species in bold

Table 9-24  
Interim Action Ranges MRA Range 47 SCA Subarea B  
Vegetation Cover (Activity D)

Scientific Name	Common Name	2010-2011 Baseline - 3 Transects					Post-activity Data 2013 (Year 1) - 7 Transects in Newly Planted Restoration Area				
		Percent Cover				Frequency	Percent Cover				Frequency
		Mean Cover	Standard Deviation	90% Confidence Interval	Relative Cover		Mean Cover	Standard Deviation	90% Confidence Interval	Relative Cover	
<b>Shrubs and Subshrubs</b>											
<i>Acemison glaber</i>	deerweed	2.3%	2.0%	3.3%	2.0%	66.7%	7.1%	7.4%	5.5%	6.9%	100%
<i>Adenostoma fasciculatum</i>	chamise	4.8%	8.3%	14.0%	4.2%	33.3%	1.0%	0.8%	0.6%	1.0%	85.7%
<b><i>Arcrostaphylos pumila</i></b>	<b>sandmat manzanita</b>	<b>0.3%</b>	<b>0.6%</b>	<b>1.0%</b>	<b>0.3%</b>	<b>33.3%</b>	<b>0.3%</b>	<b>0.3%</b>	<b>0.2%</b>	<b>0.3%</b>	<b>71.4%</b>
<i>Arcrostaphylos tomentosa</i> subsp. <i>tomentosa</i>	shaggy-barked manzanita	20.8%	18.0%	30.4%	18.4%	66.7%	0.1%	0.3%	0.2%	0.1%	57.1%
<i>Baccharis pilularis</i> subsp. <i>consanguinea</i>	coyote bush, coyote brush	13.9%	17.9%	30.2%	12.3%	100%	0.5%	0.4%	0.3%	0.4%	85.7%
<i>Ceanothus dentatus</i>	dwarf ceanothus	21.1%	12.0%	20.1%	18.6%	100%	0.9%	0.4%	0.3%	0.9%	100%
<b><i>Ceanothus rigidus</i></b>	<b>Monterey ceanothus</b>	<b>12.6%</b>	<b>5.8%</b>	<b>9.7%</b>	<b>11.2%</b>	<b>100%</b>	<b>0.3%</b>	<b>0.2%</b>	<b>0.1%</b>	<b>0.3%</b>	<b>85.7%</b>
<i>Ericameria ericoides</i>	dune-heather, mock-heather	0.0%	0.0%	--	0.0%	0.0%	1.3%	0.8%	0.6%	1.3%	100%
<b><i>Ericameria fasciculata</i></b>	<b>Eastwood's ericameria</b>	<b>0.0%</b>	<b>0.0%</b>	<b>--</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.2%</b>	<b>0.3%</b>	<b>0.2%</b>	<b>0.2%</b>	<b>28.6%</b>
<i>Eriophyllum confertiflorum</i>	golden yarrow	0.0%	0.0%	--	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	57.1%
<i>Frangula californica</i> subsp. <i>californica</i>	California coffeeberry	0.0%	0.0%	--	0.0%	0.0%	0.0%	--	--	0.0%	0.0%
<i>Helianthemum scoparium</i>	rush-rose	3.0%	2.0%	3.3%	2.7%	100%	2.1%	1.4%	1.0%	2.0%	100%
<i>Lepechinia calycina</i>	pitcher sage	0.0%	0.0%	--	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	14.3%
<i>Lupinus chamissonis</i>	silver bush lupine	0.0%	0.0%	--	0.0%	0.0%	0.1%	0.2%	0.1%	0.1%	28.6%
<i>Mimulus aurantiacus</i>	bush monkey flower	0.0%	0.0%	--	0.0%	0.0%	1.4%	0.9%	0.6%	1.4%	100%
<i>Salix lasiolepis</i>	arroyo willow	0.0%	--	--	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.3%
<i>Salvia mellifera</i>	black sage	5.3%	5.0%	8.5%	4.7%	66.7%	1.2%	0.8%	0.6%	1.1%	100%
<i>Solanum umbelliferum</i>	blue-witch nightshade	0.0%	--	--	0.0%	0.0%	0.2%	0.2%	0.1%	0.2%	57.1%
<b>Total Cover by Shrub and Subshrub Species</b>		<b>84.1%</b>					<b>16.7%</b>				
<b>Herbaceous Species</b>											
<i>Acemison heermannii</i>	wooly lotus	0.0%	--	--	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	28.6%
<i>Acemison strigosus</i>	strigose lotus	0.0%	--	--	0.0%	0.0%	0.3%	0.5%	0.4%	0.3%	42.9%
<i>Calandrinia ciliata</i>	red maids	0.0%	--	--	0.0%	0.0%	2.6%	1.3%	0.9%	2.6%	100%
<i>Calyptidium monandrum</i>	pussy paws	0.0%	--	--	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.3%
<i>Camissonia contorta</i>	contorted succups	0.0%	--	--	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	14.3%
<i>Camissoniopsis cheiranthifolia</i>	beach-primrose	0.0%	--	--	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	57.1%
<i>Camissoniopsis micrantha</i>	small succups	0.0%	--	--	0.0%	0.0%	0.6%	0.6%	0.4%	0.6%	100%
<i>Cardionema ramosissimum</i>	sand mat	0.0%	--	--	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.3%
<i>Carex globosa</i>	round-fruited sedge	0.0%	--	--	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	28.6%
<i>Caulanthus lasiophyllus</i>	California mustard	0.0%	--	--	0.0%	0.0%	0.3%	0.4%	0.3%	0.3%	57.1%
<i>Chorizanthe diffusa</i>	diffuse spineflower	0.0%	--	--	0.0%	0.0%	0.8%	0.8%	0.6%	0.8%	71.4%
<b><i>Chorizanthe pungens</i> var. <i>pungens</i></b>	<b>Monterey spineflower</b>	<b>0.0%</b>	<b>--</b>	<b>--</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.3%</b>	<b>0.4%</b>	<b>0.3%</b>	<b>0.3%</b>	<b>71.4%</b>
<i>Cirsium occidentale</i>	cobweb thistle	0.0%	--	--	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	14.3%
<i>Crassula connata</i>	pygmy weed	0.0%	--	--	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.3%
<i>Cryptantha clevelandii</i>	coastal cryptantha	0.0%	--	--	0.0%	0.0%	0.1%	0.3%	0.2%	0.1%	14.3%
<i>Cryptantha micromeres</i>	small-flowered cryptantha	0.0%	--	--	0.0%	0.0%	0.5%	0.5%	0.4%	0.5%	71.4%
<i>Daucus pusillus</i>	rattlesnake weed	0.0%	--	--	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	42.9%
<i>Deinandra corymbosa</i> subsp. <i>corymbosa</i>	coast tarplant	0.0%	--	--	0.0%	0.0%	3.5%	4.1%	3.0%	3.4%	100%
<i>Deschampsia danthonioides</i>	annual hairgrass	0.0%	--	--	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	28.6%
<i>Drymocalis glandulosa</i> var. <i>glandulosa</i>	sticky cinquefoil	0.0%	--	--	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	28.6%
<i>Erigeron canadensis</i>	horseweed	0.0%	--	--	0.0%	0.0%	0.3%	0.2%	0.2%	0.3%	100%
<i>Eschscholzia californica</i>	California poppy	0.0%	--	--	0.0%	0.0%	0.1%	0.3%	0.2%	0.1%	14.3%
<i>Festuca octoflora</i>	six-weeks fescue	0.0%	--	--	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.3%
<i>Gamochaeta ustulata</i>	purple cudweed	0.0%	--	--	0.0%	0.0%	0.2%	0.3%	0.2%	0.2%	28.6%
<i>Heterotheca grandifolia</i>	telegraph weed	0.0%	--	--	0.0%	0.0%	0.0%	0.0%	--	0.0%	0.0%
<i>Horkelia cuneata</i> var. <i>cuneata</i>	coast horkelia	0.9%	1.1%	1.9%	0.8%	66.7%	1.5%	0.7%	0.5%	1.5%	100%
<i>Logfia filaginoides</i>	California filago	0.0%	--	--	0.0%	0.0%	0.1%	0.2%	0.1%	0.1%	57.1%
<i>Logfia gallica</i> *	narrow-leaved filago	0.0%	--	--	0.0%	0.0%	0.9%	1.0%	0.7%	0.9%	71.4%
<i>Madia exigua</i>	small tarweed	0.0%	--	--	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	14.3%
<i>Navarretia hamata</i>	hooked navarretia	0.0%	--	--	0.0%	0.0%	1.6%	0.9%	0.7%	1.6%	100%
<i>Nuttallanthus texanus</i>	blue toad-flax	0.0%	--	--	0.0%	0.0%	0.6%	0.3%	0.2%	0.6%	100%
<i>Plagiobothrys collinus</i> var. <i>fulvescens</i>	rusty-haired popcorn flower	0.0%	--	--	0.0%	0.0%	0.3%	0.6%	0.4%	0.3%	42.9%
<i>Pseudognaphalium beneolens</i>	fragrant everlasting	0.0%	--	--	0.0%	0.0%	0.0%	0.1%	0.1%	0.0%	14.3%
<i>Pseudognaphalium ramosissimum</i>	pink everlasting	0.0%	--	--	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	42.9%
<i>Pseudognaphalium stramineum</i>	cottonbatting plant	0.0%	--	--	0.0%	0.0%	0.1%	0.2%	0.1%	0.1%	42.9%
<i>Silene gallica</i> *	windmill pink	0.0%	--	--	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.3%
<i>Stylocline gnaphaliodes</i>	everlasting neststraw	0.0%	--	--	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.3%
<b>Total Cover by Herbaceous Species</b>		<b>0.9%</b>					<b>15.6%</b>				
<b>Total Mean Vegetative Cover</b>		<b>85.0%</b>					<b>32.3%</b>				
<b>Total Mean Native Vegetative Cover</b>		<b>85.0%</b>					<b>31.4%</b>				
<b>Total Mean Non-native Cover</b>		<b>0.0%</b>					<b>1.0%</b>				
<b>Total Mean Bare ground</b>		<b>28.0%</b>	<b>15.3%</b>	<b>25.7%</b>	<b>--</b>	<b>100%</b>	<b>69.6%</b>	<b>9.8%</b>	<b>7.2%</b>	<b>--</b>	<b>24.1%</b>

\*non-native species  
HMP species in bold

Table 9-25  
Interim Action Ranges MRA Vegetation Cover in Range 47 SCA Subarea B with Four Different Treatments  
(Activity D)

Scientific Name	Common Name	Post-activity Data 2013 (Year 1)							
		Subarea B (Fenced, Irrigated, Container Plantings) 7 Transects		Subarea B (Fenced, No Irrigation, Container Plantings) 1 Transect		Subarea B (No Fence, Irrigated, Container Plantings) 1 Transect		Subarea A (Fenced, Irrigated, Seeded, No Containers) 1 Transect	
		Percent Cover		Percent Cover		Percent Cover		Percent Cover	
		Mean Cover	Relative Cover	Mean Cover	Relative Cover	Mean Cover	Relative Cover	Mean Cover	Relative Cover
<b>Shrubs and Subshrubs</b>									
<i>Acmispon glaber</i>	deerweed	7.1%	21.9%	2.3%	9.3%	6.3%	46.1%	1.9%	11.0%
<i>Adenostoma fasciculatum</i>	chamise	1.0%	3.2%	0.1%	0.6%	0.0%	0.0%	0.4%	2.2%
<b><i>Arctostaphylos pumila</i></b>	<b>sandmat manzanita</b>	<b>0.3%</b>	<b>0.9%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.1%</b>	<b>0.7%</b>
<i>Arctostaphylos tomentosa</i> subsp. <i>tomentosa</i>	shaggy-barked manzanita	0.1%	0.4%	0.1%	0.2%	0.0%	0.0%	0.1%	0.8%
<i>Baccharis pilularis</i> subsp. <i>consanguinea</i>	coyote brush	0.5%	1.4%	0.0%	0.0%	2.0%	14.4%	0.1%	0.6%
<i>Ceanothus dentatus</i>	dwarf ceanothus	0.9%	2.7%	1.3%	5.2%	0.0%	0.0%	1.0%	5.8%
<b><i>Ceanothus rigidus</i></b>	<b>Monterey ceanothus</b>	<b>0.3%</b>	<b>0.8%</b>	<b>0.6%</b>	<b>2.4%</b>	<b>0.1%</b>	<b>0.9%</b>	<b>0.0%</b>	<b>0.1%</b>
<i>Ericameria ericoides</i>	dune-heather, mock- heather	1.3%	4.2%	1.3%	5.2%	0.3%	2.1%	0.2%	0.9%
<b><i>Ericameria fasciculata</i></b>	<b>Eastwood's ericameria</b>	<b>0.2%</b>	<b>0.6%</b>	<b>0.6%</b>	<b>2.3%</b>	<b>1.7%</b>	<b>12.6%</b>	<b>0.0%</b>	<b>0.2%</b>
<i>Eriophyllum confertiflorum</i>	golden yarrow	0.1%	0.3%	2.9%	11.8%	0.1%	0.4%	0.7%	4.1%
<i>Fragula californica</i> subsp. <i>californica</i>	California coffeeberry	0.0%	0.0%	0.0%	0.0%	0.2%	1.3%	0.0%	0.2%
<i>Helianthemum scoparium</i>	rush-rose	2.1%	6.4%	2.3%	9.4%	0.3%	2.5%	1.6%	9.2%
<i>Lepechinia calycina</i>	pitcher sage	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Lupinus arboreus</i>	coast bush lupine	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.6%
<i>Lupinus chamissonis</i>	silver bush lupine	0.1%	0.3%	0.0%	0.2%	0.0%	0.0%	0.1%	0.4%
<i>Mimulus aurantiacus</i>	bush monkeyflower	1.4%	4.3%	1.4%	5.6%	0.0%	0.0%	0.2%	1.3%
<i>Salix lasiolepis</i>	arroyo willow	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Salvia mellifera</i>	black sage	1.2%	3.6%	1.6%	6.6%	0.0%	0.0%	0.3%	1.8%
<i>Solanum umbelliferum</i>	blue-witch nightshade	0.2%	0.5%	0.0%	0.0%	0.0%	0.0%	0.2%	0.9%
<b>Total Cover by Shrub and Subshrub Species</b>		<b>16.7%</b>	<b>51.7%</b>	<b>14.5%</b>	<b>58.7%</b>	<b>10.9%</b>	<b>80.3%</b>	<b>6.9%</b>	<b>41.8%</b>
<b>Herbaceous Species</b>									
<i>Acmispon heermannii</i>	woolly lotus	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Acmispon strigosus</i>	Bishop's lotus	0.3%	1.0%	0.2%	0.7%	0.0%	0.0%	0.4%	2.6%
<i>Calandrinia ciliata</i>	red maids	2.6%	8.1%	1.1%	4.3%	0.0%	0.0%	1.6%	9.5%
<i>Calyptidium monandrum</i>	pussy paws	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Camissonia contorta</i>	contorted suncups	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.4%	2.1%
<i>Camissoniopsis cheiranthifolia</i>	beach-primrose	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Camissoniopsis micrantha</i>	small suncups	0.6%	1.9%	0.3%	1.2%	0.1%	0.7%	0.2%	1.4%
<i>Cardionema ramosissimum</i>	sand mat	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
<i>Carex globosa</i>	round-fruited sedge	0.1%	0.2%	0.0%	0.0%	0.1%	0.4%	0.1%	0.6%
<i>Caulanthus lasiophyllus</i>	California mustard	0.3%	1.0%	0.0%	0.0%	0.0%	0.1%	0.3%	1.5%
<i>Chorizanthe diffusa</i>	diffuse chorizanthe	0.8%	2.6%	0.1%	0.2%	0.1%	0.6%	0.0%	0.0%
<b><i>Chorizanthe pungens</i> var. <i>pungens</i></b>	<b>Monterey spineflower</b>	<b>0.3%</b>	<b>0.9%</b>	<b>2.6%</b>	<b>10.6%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.5%</b>	<b>2.7%</b>
<i>Cirsium occidentale</i>	cobweb thistle	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Crassula connata</i>	pygmy weed	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
<i>Cryptantha clevelandii</i>	coastal cryptantha	0.1%	0.4%	0.2%	1.0%	0.1%	0.7%	0.0%	0.0%
<i>Cryptantha micromeres</i>	small-flowered cryptantha	0.5%	1.6%	0.1%	0.6%	0.0%	0.3%	1.3%	7.6%
<i>Daucus pusillus</i>	rattlesnake weed	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Deinandra corymbosa</i> subsp. <i>corymbosa</i>	coast tarplant	3.5%	10.8%	4.1%	16.6%	0.6%	4.3%	0.7%	4.0%
<i>Deschampsia danthonioides</i>	annual hairgrass	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Drymocalis glandulosa</i> var. <i>glandulosa</i>	sticky cinquefoil	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Erigeron canadensis</i>	horseweed	0.3%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Eschscholzia californica</i>	California poppy	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Festuca octoflora</i>	six-weeks fescue	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.7%
<i>Gamochaeta ustulata</i>	purple cudweed	0.2%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Horkelia cuneata</i> var. <i>cuneata</i>	coast horkelia	1.5%	4.7%	1.1%	4.3%	0.7%	4.8%	1.4%	8.4%
<i>Logfia filaginoides</i>	California filago	0.1%	0.4%	0.0%	0.0%	0.0%	0.0%	0.1%	0.5%
<i>Logfia gallica</i> *	narrow-leaved filago	0.9%	2.9%	0.0%	0.0%	0.0%	0.0%	0.3%	1.7%
<i>Madia exigua</i>	small tarweed	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.4%	2.5%
<i>Navarretia hamata</i>	hooked navarretia	1.6%	5.0%	0.4%	1.7%	1.0%	7.6%	0.4%	2.5%
<i>Nuttallanthus texanus</i>	toad-flax	0.6%	1.8%	0.0%	0.0%	0.0%	0.0%	0.5%	2.8%
<i>Plagiobothrys collinus</i> var. <i>fulvescens</i>	rusty-haired popcorn flower	0.3%	1.0%	0.0%	0.0%	0.0%	0.0%	0.2%	1.2%
<i>Pseudognaphalium ramosissimum</i>	pink everlasting	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.5%	3.0%
<i>Pseudognaphalium stramineum</i>	cottonbatting plant	0.1%	0.4%	0.0%	0.0%	0.0%	0.0%	0.3%	1.7%
<i>Stylocline gnaphalodes</i>	everlasting neststraw	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total Cover by Herbaceous Species</b>		<b>15.6%</b>	<b>48.3%</b>	<b>10.2%</b>	<b>41.3%</b>	<b>2.7%</b>	<b>19.7%</b>	<b>9.7%</b>	<b>57.2%</b>
<b>Total Mean Vegetative Cover</b>		<b>32.3%</b>		<b>24.6%</b>		<b>13.6%</b>		<b>16.6%</b>	
<b>Total Mean Bare ground</b>		<b>69.6%</b>		<b>76.4%</b>		<b>87.1%</b>		<b>83.4%</b>	

\*non-native species

HMP species in bold

Table 9-26  
Interim Action Ranges MRA Herbaceous Quadrats in Range 47 SCA Subarea B with Four Different Treatments  
(Activity D)

Scientific Name	Common Name	Post-activity Data 2013 (Year 1)							
		Subarea B (Fenced, Irrigated, Container Plantings) - 42 Quadrats		Subarea B (Fenced, No Irrigation, Container Plantings) - 6 Quadrats		Subarea B (No Fence, Irrigated, Container Plantings) - 6 Quadrats		Subarea A (Fenced, Irrigated, Seeded, No Container Plantings) - 6 Quadrats	
		Percent Cover		Percent Cover		Percent Cover		Percent Cover	
		Mean Cover	Relative Cover	Mean Cover	Relative Cover	Mean Cover	Relative Cover	Mean Cover	Relative Cover
<b>Shrubs and Subshrubs Species</b>									
<i>Acemison glaber</i>	deerweed	5.7%	28.7%	0.2%	2.3%	0.0%	0.0%	0.1%	0.6%
<i>Adenostoma fasciculatum</i>	chamise	2.1%	10.5%	0.0%	0.0%	0.0%	0.0%	0.7%	8.5%
<i>Arctostaphylos pumila</i>	<b>sandmat manzanita</b>	<b>0.2%</b>	<b>0.8%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>
<i>Arctostaphylos tomentosa</i> subsp. <i>tomentosa</i>	shaggy-barked manzanita	0.2%	1.2%	0.1%	1.4%	0.0%	0.0%	0.0%	0.0%
<i>Baccharis pilularis</i> subsp. <i>consanguinea</i>	coyote brush	0.1%	0.3%	1.0%	13.9%	0.0%	0.0%	0.0%	0.0%
<i>Ceanothus dentatus</i>	dwarf ceanothus	0.1%	0.5%	0.7%	10.0%	0.1%	4.1%	1.7%	21.3%
<i>Ceanothus rigidus</i>	<b>Monterey ceanothus</b>	<b>0.2%</b>	<b>1.2%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.1%</b>	<b>0.6%</b>
<i>Ericameria ericoides</i>	dune-heather, mock-heather	0.6%	2.9%	4.0%	55.7%	0.0%	0.0%	0.1%	1.3%
<i>Ericameria fasciculata</i>	<b>Eastwood's ericameria</b>	<b>0.0%</b>	<b>0.1%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.1%</b>	<b>0.6%</b>
<i>Eriophyllum confertiflorum</i>	golden yarrow	0.0%	0.0%	0.2%	2.3%	0.0%	0.0%	0.4%	5.5%
<i>Frangula californica</i> subsp. <i>californica</i>	California coffeeberry	0.2%	0.8%	0.0%	0.0%	0.1%	4.1%	0.1%	0.6%
<i>Helianthemum scoparium</i>	rush-rose	1.1%	5.6%	0.2%	2.3%	0.3%	27.4%	0.3%	4.1%
<i>Lepechinia calycina</i>	pitcher sage	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Lupinus chamissonis</i>	silver bush lupine	0.0%	0.1%	0.0%	0.0%	0.1%	4.1%	0.0%	0.0%
<i>Mimulus aurantiacus</i>	sticky monkey flower	1.0%	5.3%	0.0%	0.0%	0.0%	0.0%	0.2%	2.8%
<i>Salvia mellifera</i>	black sage	0.7%	3.3%	0.4%	6.0%	0.3%	27.4%	0.2%	2.8%
<i>Solanum umbelliferum</i>	blue witch nightshade	0.1%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Total Cover Shrub and Subshrub Species</b>		<b>12.3%</b>	<b>61.8%</b>	<b>6.8%</b>	<b>94.0%</b>	<b>0.8%</b>	<b>67.1%</b>	<b>3.8%</b>	<b>48.8%</b>
<b>Herbaceous Species</b>									
<i>Acemison strigosus</i>	strigose lotus	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.4%	4.9%
<i>Amsinckia intermedia</i>	common fiddleneck	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Calandrinia ciliata</i>	red maids	3.0%	15.3%	0.1%	0.7%	0.0%	0.0%	0.5%	6.4%
<i>Camissoniopsis micrantha</i>	small sun cups	0.5%	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Carex globus</i>	round-fruited sedge	0.0%	0.0%	0.0%	0.0%	0.1%	8.2%	0.0%	0.0%
<i>Caulanthus lasiophyllus</i>	California mustard	0.2%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Chorizanthe diffusa</i>	diffuse spineflower	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Chorizanthe pungens</i> var. <i>pungens</i>	<b>Monterey spineflower</b>	<b>0.2%</b>	<b>0.8%</b>	<b>0.2%</b>	<b>2.3%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>
<i>Crassula connata</i>	pygmy weed	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Cryptantha clevelandii</i>	Cleveland's cryptantha	0.0%	0.0%	0.0%	0.0%	0.1%	4.1%	0.0%	0.0%
<i>Cryptantha micromeres</i>	small-flowered cryptantha	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Cryptantha</i> species (non-flowering)	cryptantha	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Daucus pusillus</i>	rattlesnake weed	0.0%	0.0%	0.1%	0.7%	0.0%	0.0%	0.0%	0.0%
<i>Deinandra corymbosa</i> subsp. <i>corymbosa</i>	coast tarplant	0.5%	2.7%	0.0%	0.0%	0.1%	4.1%	0.1%	0.6%
<i>Deschampsia danthonioides</i>	annual hairgrass	0.1%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Descurainia pinnata</i> subsp. <i>pinnata</i>	tansy mustard	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Dryocallis glandulosa</i> var. <i>glandulosa</i>	sticky cinquefoil	0.1%	0.4%	0.0%	0.0%	0.0%	0.0%	0.3%	4.3%
<i>Erigeron canadensis</i>	horseweed	0.0%	0.2%	0.0%	0.0%	0.1%	4.1%	0.0%	0.0%
<i>Eschscholzia californica</i>	California poppy	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Festuca octoflora</i>	six-weeks fescue	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Gamochaeta ustulata</i>	purple cudweed	0.1%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Heterotheca grandifolia</i>	telegraph weed	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	8.5%
<i>Horkelia cuneata</i> var. <i>cuneata</i>	coast horkelia	0.7%	3.4%	0.0%	0.0%	0.0%	0.0%	1.3%	17.1%
<i>Logfia gallica</i> *	narrow-leaved filago	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Navaretia hamata</i> ssp. <i>parviloba</i>	hooked navaretia	1.0%	5.1%	0.2%	2.3%	0.1%	8.2%	0.4%	5.5%
<i>Nuttallanthus texanus</i>	blue toad-flax	0.3%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Pectocarya penicillata</i>	winged combseed	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Plagiobothrys collinus</i> var. <i>fulvescens</i>	rusty-haired popcorn flower	0.3%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Plantago erecta</i>	California plantain	0.1%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Pseudognaphalium beneolens</i>	fragrant everlasting	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Pseudognaphalium ramosissimum</i>	pink everlasting	0.1%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Pseudognaphalium stramineum</i>	cottonbatting plant	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.3%	3.8%
<i>Stylocline gnaphalioides</i>	everlasting neststraw	0.0%	0.2%	0.0%	0.0%	0.1%	4.1%	0.0%	0.0%
<b>Total Mean Cover Herbaceous Species</b>		<b>7.6%</b>	<b>38.2%</b>	<b>0.4%</b>	<b>6.0%</b>	<b>0.4%</b>	<b>32.9%</b>	<b>4.0%</b>	<b>51.2%</b>
<b>Total Mean Vegetative Cover</b>		<b>19.9%</b>		<b>7.2%</b>		<b>1.2%</b>		<b>7.8%</b>	
<b>Total Mean Bare ground</b>		<b>80.1%</b>		<b>92.8%</b>		<b>98.8%</b>		<b>92.2%</b>	

\*non-native species

HMP species in bold

Table 9-27  
Interim Action Ranges MRA Range 47 SCA Subarea A Vegetation Cover (Activity D)

Scientific Name	Common Name	Range 47 Baseline SCA Subarea B Vegetation Baseline (3 transects)					Vegetative Cover in 1 Transect in Subarea A - July 2013				
		Percent Cover				Frequency	Percent Cover				Frequency
		Mean Cover	Standard Deviation	90% Confidence Interval	Relative Cover		Mean Cover	Standard Deviation	90% Confidence Interval	Relative Cover	
<b>Shrubs and Subshrubs</b>											
<i>Acmispon glaber</i>	deerweed	2.3%	2.0%	3.3%	2.0%	66.7%	1.9%	--	--	11.0%	100%
<i>Adenostoma fasciculatum</i>	chamise	4.8%	8.3%	14.0%	4.2%	33.3%	0.4%	--	--	2.2%	100%
<b><i>Arctostaphylos pumila</i></b>	<b>sandmat manzanita</b>	0.3%	0.6%	1.0%	0.3%	33.3%	0.1%	--	--	0.7%	100%
<i>Arctostaphylos tomentosa</i>	shaggy-barked manzanita	20.8%	18.0%	30.4%	18.4%	66.7%	0.1%	--	--	0.8%	100%
<i>Baccharis pilularis</i>	coyote brush	13.9%	17.9%	30.2%	12.3%	100%	0.1%	--	--	0.6%	100%
<i>Ceanothus dentatus</i>	dwarf ceanothus	21.1%	12.0%	20.1%	18.6%	100%	1.0%	--	--	5.8%	100%
<b><i>Ceanothus rigidus</i></b>	<b>Monterey ceanothus</b>	12.6%	5.8%	9.7%	11.2%	100%	0.0%	--	--	0.1%	100%
<i>Ericameria ericoides</i>	dune-heather, mock-heather	0.0%	0.0%	--	0.0%	0.0%	0.2%	--	--	0.9%	100%
<b><i>Ericameria fasciculata</i></b>	<b>Eastwood's ericameria</b>	0.0%	0.0%	--	0.0%	0.0%	0.0%	--	--	0.2%	100%
<i>Eriophyllum confertiflorum</i>	golden yarrow	0.0%	0.0%	--	0.0%	0.0%	0.7%	--	--	4.1%	100%
<i>Frangula californica</i>	California coffeeberry	0.0%	0.0%	--	0.0%	0.0%	0.0%	--	--	0.2%	100%
<i>Helianthemum scoparium</i>	rush-rose	3.0%	2.0%	3.3%	2.7%	100%	1.6%	--	--	9.2%	100%
<i>Lepechinia calycina</i>	pitcher sage	0.0%	0.0%	--	0.0%	0.0%	0.0%	--	--	0.0%	0.0%
<i>Lupinus arboreus</i>	coast bush lupine	0.0%	0.0%	--	0.0%	0.0%	0.1%	--	--	0.6%	100%
<i>Lupinus chamissonis</i>	silver bush lupine	0.0%	0.0%	--	0.0%	0.0%	0.1%	--	--	0.4%	100%
<i>Mimulus aurantiacus</i>	sticky monkeyflower	0.0%	0.0%	--	0.0%	0.0%	0.2%	--	--	1.3%	100%
<i>Salvia mellifera</i>	black sage	5.3%	5.0%	8.5%	4.7%	66.7%	0.3%	--	--	1.8%	100%
<i>Solanum umbelliferum</i>	blue witch nightshade	0.0%	--	--	0.0%	0.0%	0.2%	--	--	0.9%	100%
<b>Total Cover by Shrub and Subshrub Species</b>		<b>84.1%</b>					<b>6.9%</b>				
<b>Herbaceous Species (Forbs and Graminoids)</b>											
<i>Acmispon strigosus</i>	Bishop's lotus	0.0%	--	--	0.0%	0.0%	0.4%	--	--	2.6%	100%
<i>Calandrinia ciliata</i>	red maids	0.0%	--	--	0.0%	0.0%	1.6%	--	--	9.5%	100%
<i>Camissonia contorta</i>	contorted suncups	0.0%	--	--	0.0%	0.0%	0.4%	--	--	2.1%	100%
<i>Camissoniopsis micrantha</i>	small suncups	0.0%	--	--	0.0%	0.0%	0.2%	--	--	1.4%	100%
<i>Cardionema ramosissimum</i>	sand mat	0.0%	--	--	0.0%	0.0%	0.0%	--	--	0.1%	100%
<i>Carex globosa</i>	round-fruited sedge	0.0%	--	--	0.0%	0.0%	0.1%	--	--	0.6%	100%
<i>Caulanthus lasiophyllus</i>	California mustard	0.0%	--	--	0.0%	0.0%	0.3%	--	--	1.5%	100%
<b><i>Chorizanthe pungens</i> var. <i>pungens</i></b>	<b>Monterey spineflower</b>	0.0%	--	--	0.0%	0.0%	0.5%	--	--	2.7%	100%
<i>Crassula connata</i>	pygmy weed	0.0%	--	--	0.0%	0.0%	0.0%	--	--	0.1%	100%
<i>Cryptantha micromeres</i>	small-flowered cryptantha	0.0%	--	--	0.0%	0.0%	1.3%	--	--	7.6%	100%
<i>Deinandra increscens</i>	grassland tarweed	0.0%	--	--	0.0%	0.0%	0.7%	--	--	4.0%	100%
<i>Festuca octoflora</i>	six-weeks fescue	0.0%	--	--	0.0%	0.0%	0.1%	--	--	0.7%	100%
<i>Heterotheca grandifolia</i>	telegraph weed	0.0%	--	--	0.0%	0.0%	0.3%	--	--	1.8%	100%
<i>Horkelia cuneata</i> subsp. <i>cuneata</i>	coastal horkelia	0.9%	1.14%	1.92%	0.8%	66.7%	1.4%	--	--	8.4%	100%
<i>Logfia filaginoides</i>	California filago	0.0%	--	--	0.0%	0.0%	0.1%	--	--	0.5%	100%
<i>Logfia gallica</i> *	narrow-leaved filago	0.0%	--	--	0.0%	0.0%	0.3%	--	--	1.7%	100%
<i>Madia exigua</i>	small tarweed	0.0%	--	--	0.0%	0.0%	0.4%	--	--	2.5%	100%
<i>Navaretia hamata</i>	hooked navaretia	0.0%	--	--	0.0%	0.0%	0.4%	--	--	2.5%	100%
<i>Nuttallanthus texanus</i>	toad-flax	0.0%	--	--	0.0%	0.0%	0.5%	--	--	2.8%	100%
<i>Plagiobothrys collinus</i> var. <i>fulvescens</i>	rusty-haired popcorn flower	0.0%	--	--	0.0%	0.0%	0.2%	--	--	1.2%	100%
<i>Pseudognaphalium ramosissimum</i>	pink everlasting	0.0%	--	--	0.0%	0.0%	0.5%	--	--	3.0%	100%
<i>Pseudognaphalium stramineum</i>	cottonbatting plant	0.0%	--	--	0.0%	0.0%	0.3%	--	--	1.7%	100%
<b>Total Cover by Herbaceous Species</b>		<b>0.9%</b>					<b>10.0%</b>				
<b>Total Average Vegetative Cover</b>		<b>85.0%</b>					<b>16.9%</b>				
<b>Total Average Bare Ground</b>		<b>28.0%</b>					<b>100.0%</b>				

HMP Species in Bold

\*non-native species

Table 9-28  
Interim Action Ranges MRA 2013 Cover and Frequency of Herbaceous Species after  
Soil Replacement in Range 47 SCA Subarea B (42 Quadrats)

Scientific name	Common name	Post-activity Data 2013 (Year 1)				
		Mean Percent Cover	Standard Deviation	90% Confidence Interval	Relative Percent Cover	Frequency
<b>Shrub and Subshrub Species</b>						
<i>Acmispon glaber</i>	deerweed	5.7%	37.9%	9.8%	28.7%	21.4%
<i>Adenostoma fasciculatum</i>	chamise	2.1%	26.9%	7.0%	10.5%	7.1%
<i>Arctostaphylos tomentosa</i> subsp. <i>tomentosa</i>	shaggy-barked manzanita	0.2%	2.2%	0.6%	1.2%	14.3%
<i>Baccharis pilularis</i> subsp. <i>consanguinea</i>	coyote brush	0.1%	1.2%	0.3%	0.3%	4.8%
<i>Ceanothus dentatus</i>	dwarf ceanothus	0.1%	--	--	0.5%	2.4%
<b><i>Ceanothus rigidus</i></b>	<b>Monterey ceanothus</b>	<b>0.2%</b>	<b>1.4%</b>	<b>0.4%</b>	<b>1.2%</b>	<b>4.8%</b>
<i>Ericameria ericoides</i>	mock-heather	0.6%	6.8%	1.8%	2.9%	9.5%
<b><i>Ericameria fasciculata</i></b>	<b>Eastwood's ericameria</b>	<b>0.0%</b>	<b>--</b>	<b>--</b>	<b>0.1%</b>	<b>2.4%</b>
<i>Frangula californica</i> subsp. <i>californica</i>	California coffeeberry	0.2%	0.7%	0.2%	0.8%	4.8%
<i>Helianthemum scoparium</i>	rush-rose	1.1%	5.3%	1.4%	5.6%	33.3%
<i>Lepechinia calycina</i>	pitcher sage	0.0%	--	--	0.1%	2.4%
<i>Lupinus chamissonis</i>	silver bush lupine	0.0%	--	--	0.1%	2.4%
<i>Mimulus aurantiacus</i>	sticky monkeyflower	1.0%	6.2%	1.6%	5.3%	23.8%
<i>Salvia mellifera</i>	black sage	0.7%	2.8%	0.7%	3.3%	14.3%
<i>Solanum umbelliferum</i>	blue witch nightshade	0.1%	0.3%	0.1%	0.4%	16.7%
<b><i>Arctostaphylos pumila</i></b>	<b>sandmat manzanita</b>	<b>0.2%</b>	<b>1.9%</b>	<b>0.5%</b>	<b>0.8%</b>	<b>7.1%</b>
<b>Total Mean Cover Shrubs and Subshrubs</b>		<b>12.3%</b>		<b>61.8%</b>		
<b>Herbaceous Species</b>						
<i>Acmispon strigosus</i>	strigose lotus	0.0%	--	--	0.2%	2.4%
<i>Amsinckia intermedia</i>	common fiddleneck	0.0%	--	--	0.2%	2.4%
<i>Calandrinia ciliata</i>	red maids	3.0%	10.9%	2.8%	15.3%	40.5%
<i>Camissoniopsis cheiranthifolia</i>	beach primrose	0.2%	2.1%	0.6%	0.8%	4.8%
<i>Camissoniopsis micrantha</i>	small sun cups	0.5%	2.0%	0.5%	2.5%	19.0%
<i>Caulanthus lasiophyllus</i>	California mustard	0.2%	2.5%	0.6%	1.1%	7.1%
<i>Chorizanthe diffusa</i>	diffuse spineflower	0.0%	--	--	0.1%	2.4%
<i>Crassula connata</i>	pygmy weed	0.0%	0.0%	0.0%	0.1%	7.1%
<i>Cryptantha micromeres</i>	small-flowered cryptantha	0.0%	--	--	0.2%	2.4%
<i>Cryptantha</i> species (non-flowering)	cryptantha	0.0%	--	--	0.0%	2.4%
<i>Deinandra increscens</i> subsp. <i>increscens</i>	grassland tarweed	0.5%	3.3%	0.9%	2.7%	14.3%
<i>Deschampsia danthonioides</i>	annual hairgrass	0.1%	1.9%	0.5%	0.4%	4.8%
<i>Descurainia pinnata</i> subsp. <i>pinnata</i>	tansy mustard	0.0%	--	--	0.0%	2.4%
<i>Drymocallis glandulosa</i> var. <i>glandulosa</i>	sticky cinquefoil	0.1%	--	--	0.4%	2.4%
<i>Erigeron canadensis</i>	horseweed	0.0%	0.0%	--	0.2%	4.8%
<i>Eschscholzia californica</i>	California poppy	0.0%	--	--	0.0%	2.4%
<i>Festuca octoflora</i>	six-weeks fescue	0.0%	0.0%	--	0.1%	9.5%
<i>Gamochaeta ustulata</i>	purple cudweed	0.1%	--	--	0.5%	2.4%
<i>Horkelia cuneata</i> var. <i>cuneata</i>	coast horkelia	0.7%	2.8%	0.7%	3.4%	21.4%
<i>Logfia gallica</i> *	narrow-leaved filago	0.1%	0.3%	0.1%	0.3%	11.9%
<i>Navarretia hamata</i> subsp. <i>parviloba</i>	hooked navarretia	1.0%	5.6%	1.5%	5.1%	26.2%
<i>Nuttallanthus texanus</i>	blue toad-flax	0.3%	0.9%	0.2%	1.3%	26.2%
<i>Pectocarya penicillata</i>	winged combseed	0.0%	--	--	0.0%	2.4%
<i>Plagiobothrys collinus</i> var. <i>fulvescens</i>	rusty-haired popcorn flower	0.3%	1.4%	0.4%	1.4%	4.8%
<i>Plantago erecta</i>	California plantain	0.1%	1.4%	0.4%	0.5%	4.8%
<i>Pseudognaphalium beneolens</i>	fragrant everlasting	0.0%	--	--	0.2%	2.4%
<i>Pseudognaphalium ramosissimum</i>	pink everlasting	0.1%	0.9%	0.2%	0.4%	7.1%
<i>Pseudognaphalium stramineum</i>	cottonbatting plant	0.0%	--	--	0.2%	2.4%
<i>Stylocline gnaphaliodes</i>	everlasting neststraw	0.0%	0.4%	0.1%	0.2%	7.1%
<b>Total Cover by Herbaceous Species</b>		<b>7.6%</b>		<b>38.2%</b>		
<b>Total Mean Vegetative Cover</b>		<b>19.9%</b>				
<b>Total Mean Native Vegetative Cover</b>		<b>19.2%</b>				
<b>Total Mean Non-native Cover</b>		<b>0.7%</b>				
<b>Total Mean Bare ground</b>		<b>80.1%</b>				

\*non-native species

**HMP species in bold**



Table 9-29  
Interim Action Ranges MRA 2013 Cover and Frequency of Herbaceous Species after  
Soil Replacement in Range 47 SCA Subarea A (6 Quadrats)

Scientific name	Common name	Post-activity Data 2013 (Year 1)				
		Mean Percent Cover	Standard Deviation	90% Confidence Interval	Relative Percent Cover	Frequency
<b>Shrub and Subshrub Species</b>						
<i>Acmispon glaber</i>	deerweed	0.1%	--	--	0.6%	16.7%
<i>Adenostoma fasciculatum</i>	chamise	0.7%	--	--	8.5%	16.7%
<i>Ceanothus dentatus</i>	dwarf ceanothus	1.7%	1.7%	0.4%	21.3%	66.7%
<b><i>Ceanothus rigidus</i></b>	<b>Monterey ceanothus</b>	0.1%	--	--	0.6%	16.7%
<i>Ericameria ericoides</i>	mock-heather, dune-heather	0.1%	0.0%	--	1.3%	33.3%
<b><i>Ericameria fasciculata</i></b>	<b>Eastwood's ericameria</b>	0.1%	--	--	0.6%	16.7%
<i>Eriophyllum confertiflorum</i>	golden yarrow	0.4%	1.0%	0.3%	5.5%	50.0%
<i>Frangula californica</i> subsp. <i>californica</i>	California coffeeberry	0.1%	--	--	0.6%	16.7%
<i>Helianthemum scoparium</i>	rush-rose	0.3%	0.4%	0.1%	4.1%	66.7%
<i>Mimulus aurantiacus</i>	sticky monkeyflower	0.2%	0.5%	0.1%	2.8%	33.3%
<i>Salvia mellifera</i>	black sage	0.2%	0.5%	0.1%	2.8%	33.3%
<b>Total Mean Cover Shrubs and Subshrubs</b>		<b>3.8%</b>		<b>48.8%</b>		
<b>Herbaceous Species</b>						
<i>Acmispon strigosus</i>	Bishop's lotus	0.4%	1.2%	0.3%	4.9%	33.3%
<i>Calandrinia ciliata</i>	red maids	0.5%	0.0%	--	6.4%	50.0%
<i>Deinandra increscens</i> subsp. <i>increscens</i>	grassland tarweed	0.1%	--	--	0.6%	16.7%
<i>Heterotheca grandifolia</i>	telegraph weed	0.7%	0.0%	--	8.5%	33.3%
<i>Horkelia cuneata</i> var. <i>cuneata</i>	coast horkelia	1.3%	1.2%	0.3%	17.1%	50.0%
<i>Navarretia hamata</i> subsp. <i>parviloba</i>	hooked navarretia	0.4%	1.0%	0.3%	5.5%	50.0%
<i>Drymocallis glandulosa</i> var. <i>glandulosa</i>	sticky cinquefoil	0.3%	--	--	4.3%	16.7%
<i>Pseudognaphalium stramineum</i>		0.3%	--	--	3.8%	16.7%
<b>Total Mean Cover Herbaceous Perennials and Forbs</b>		<b>4.0%</b>		<b>51.2%</b>		
<b>Total Mean Vegetative Cover</b>		<b>7.8%</b>				
<b>Total Mean Native Vegetative Cover</b>		<b>7.8%</b>				
<b>Total Mean Non-native Cover</b>		<b>0.0%</b>				
<b>Total Mean Bare ground</b>		<b>92.2%</b>				

\*non-native species

HMP species in bold