

MSP Roadmap Management Objectives Available for Implementation, July 2017

THREATS	Types of Objective/Actions Included (examples)
Altered Hydrology	Erosion control, install flow control devices, revegetate eroded areas, etc
Human Uses of the Preserves	Install fencing, gates, signage, implement biosecurity BMPs, establish Recreational Area Patrols
Invasive Animals	Implement biosecurity and management measures, Argentine ant removal
Invasive Plants	Removal of Level 4 and 5 (and special cases Level 3) invasive plants where impacting MSP species and habitats
Loss of Connectivity	Linkage improvements, implement SR94 & SR67 plans
Urban Development (Edge Effects)	Dump site & trash cleanup, noise & light reduction

Species Name	Mgt Category
ANIMALS	
Arroyo toad	SO
California least tern	SO
Coastal cactus wren	SO
Hermes copper	SL
Northern harrier	SO
Pallid bat	SL
Quino checkerspot butterfly	SL
Southwestern pond turtle	SL
Stephens' kangaroo rat	SO
Townsend's big-eared bat	SO
Western burrowing owl	SL
PLANTS	
Aphanisma	SL
Blochman's dudleya	SL
Coast wallflower	SL
Dehesa nolina	SO
Encinitas baccharis	SO
Gander's ragwort	SO
Jennifer's monardella	SL
Mexican flannelbush	SL
Nuttall's acmispon	SO

Species Name	Mgt Category
PLANTS CONTINUED	
Orcutt's birds-beak	SL
Orcutt's brodiaea	SO
Orcutt's hazardia	SL
Orcutt's spineflower	SL
Otay tarplant	SS
Salt marsh bird's-beak	SL
San Diego ambrosia	SO
San Diego goldenstar	SS
San Diego thorn-mint	SO
San Miguel savory	SL
Shaw's agave	SL
Short-leaved dudleya	SL
Small-leaved rose	SS
Sticky dudleya	SS
Thread-leaved brodiaea	SS
Variegated dudleya	SS
Willow monardella	SL
VEGETATION	
Vernal pools & alkali playa	

MSP Roadmap Species, Vegetation, and Threat Management Objectives Available for Implementation, November 2017

Name	Mgt Cat	Obj Code	Obj Number	Obj Mod	MU	Short Description
ANIMALS						
Arroyo toad	SO	IMP	ANACAL-1	FMGT	3,4,5,6,8,9,10,11	Implement fire management
Arroyo toad	SO	IMP	ANACAL-2	IMG	3,4,5,6,8,9,10,11	Implement routine management identified as part of IMG monitoring
California least tern	SO	IMP	STEANT-1	PRED	1,7	Implement predator control
California least tern	SO	IMP	STEANT-5	IMG	1,7	Implement routine management identified as part of IMG monitoring
Coastal cactus wren	SO	IMP	CAMBRU-1	MGTP	2,3,4	Implement a species, vegetation, or threat management plan
Coastal cactus wren	SO	IMP	CAMBRU-6	NUR	2,3,4,6	Implement a nursery
Coastal cactus wren	SO	IMP	CAMBRU-7	IEX	5,6	Implement management actions to expand an occurrence or establish a new occurrence (not part of a MSP species management plan)
Coastal cactus wren	SO	IMP	CAMBRU-9	FMGT	2,3,4,5,6	Implement fire management
Hermes copper	SL	IMP	LYCHER-7	MGTP	2,3,4,6,10,11	Implement a species, vegetation, or threat management plan
Northern harrier	SO	IMP	CIRCYA-3	IMG	1,3,4,5,6,7,8	Implement routine management identified as part of IMG monitoring
Pallid bat	SL	IMP	ANTPAL-3	IMG	1,2,3,4,5,6,7,8,9,10,11	Implement routine management identified as part of IMG monitoring
Quino checkerspot butterfly	SL	IMP	EUPEDI-12	FMGT	3,4,6,9	Implement fire management
Southwestern pond turtle	SL	IMP	EMYMAR-5	IMG	3,4,5,6,8	Implement routine management identified as part of IMG monitoring
Southwestern pond turtle	SL	IMP	EMYMAR-12	FMGT	3,4,5,6,8	Implement fire management
Stephens' kangaroo rat	SO	IMP	DIPSTE-2	IMG	5,9	Implement routine management identified as part of IMG monitoring
Townsend's big-eared bat	SO	IMP	PLETOW-3	IMG	1,2,3,4,5,6,7,8,9,10,11	Implement routine management identified as part of IMG monitoring
Western burrowing owl	SL	IMP	ATHCUN-4	IMG	3,4,5,6,9	Implement routine management identified as part of IMG monitoring
Western burrowing owl	SL	IMP	ATHCUN-6	MGTP	3,4,5,6,9	Implement a species, vegetation, or threat management plan

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PLANTS						
Aphanisma	SL	IMP	APHBLI-2	IMG	1,7	Implement routine management identified as part of IMG monitoring
Blochman's dudleya	SL	IMP	DUDBLO-2	IMG	1,6	Implement routine management identified as part of IMG monitoring
Coast wallflower	SL	IMP	ERYAMM-2	IMG	6,7	Implement routine management identified as part of IMG monitoring
Dehesa nolina	SO	IMP	NOLINT-2	IMG	3	Implement routine management identified as part of IMG monitoring
Encinitas baccharis	SO	IMP	BACVAN-2	IMG	3,4,6	Implement routine management identified as part of IMG monitoring
Gander's ragwort	SO	IMP	PACGAN-2	IMG	3,4	Implement routine management identified as part of IMG monitoring
Jennifer's monardella	SL	IMP	MONSTO-2	IMG	3	Implement routine management identified as part of IMG monitoring
Mexican flannelbush	SL	IMP	FREMEX-2	IMG	3	Implement routine management identified as part of IMG monitoring
Nuttall's acmispon	SO	IMP	ACMPRO-2	IMG	1,7	Implement routine management identified as part of IMG monitoring
Orcutt's birds-beak	SL	IMP	DICORC-2	IMG	1,3	Implement routine management identified as part of IMG monitoring
Orcutt's brodiaea	SO	IMP	BROORC-2	IMG	2,3,4,6,8	Implement routine management identified as part of IMG monitoring
Orcutt's hazardia	SL	IMP	HAZORC-2	IMG	6,7	Implement routine management identified as part of IMG monitoring
Orcutt's spineflower	SL	IMP	CHOORC-2	IMG	6,7	Implement routine management identified as part of IMG monitoring
Otay tarplant	SS	IMP	DEICON-2	IMG	3	Implement routine management identified as part of IMG monitoring
Salt marsh bird's-beak	SL	IMP	CHLMAR-2	IMG	1	Implement routine management identified as part of IMG monitoring

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San Diego ambrosia	SO	IMP	AMBPUM-2	IMG	3,4,6,8	Implement routine management identified as part of IMG monitoring
San Diego goldenstar	SS	IMP	BLOCLE-2	IMG	3,4,6	Implement routine management identified as part of IMG monitoring
San Diego thorn-mint	SO	IMP	ACAILI-1	FMGT	3,4,5,6	Implement fire management
San Diego thorn-mint	SO	IMP	ACAILI-3	IMG	3,4,5,6	Implement routine management identified as part of IMG monitoring
San Miguel savory	SL	IMP	CLICHA-2	IMG	3,4	Implement routine management identified as part of IMG monitoring
Shaw's agave	SL	IMP	AGASHA-2	IMG	1,6,7	Implement routine management identified as part of IMG monitoring
Short-leaved dudleya	SL	IMP	DUDBRE-2	IMG	6,7	Implement routine management identified as part of IMG monitoring
Small-leaved rose	SS	IMP	ROSMIN-2	IMG	3	Implement routine management identified as part of IMG monitoring
Sticky dudleya	SS	IMP	DUDVIS-2	IMG	3	Implement routine management identified as part of IMG monitoring
Thread-leaved brodiaea	SS	IMP	BROFIL-2	IMG	6,7,8	Implement routine management identified as part of IMG monitoring
Variegated dudleya	SS	IMP	DUDVAR-2	IMG	2,3,4,6	Implement routine management identified as part of IMG monitoring
Willow monardella	SL	IMP	MONVIM-2	IMG	4,6	Implement routine management identified as part of IMG monitoring
VEGETATION						
Vernal pools & alkali playa		IMP	VERPOO-4	VPML1	2,3,4,5,6	Conduct Level 1 management
Vernal pools & alkali playa		IMP	VERPOO-5	VPML2	2,3,4,5,6	Conduct Level 2 management
Vernal pools & alkali playa		IMP	VERPOO-6	VPML3	2,3,4,5,6	Conduct Level 3 management

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THREATS						
Altered Hydrology		IMP	ALTHYD-3	BMP	1,2,3,4,5,6,7,8,9,10,11	Implement BMPs
Human uses of the Preserves		IMP	HUMUSE-3	BMP	1,2,3,4,5,6,7,8,9,10,11	Implement BMPs - biosecurity
Human uses of the Preserves		IMP	HUMUSE-4	BMP	1,2,3,4,5,6,7,8,9,10,11	Implement BMPs - limit recreation in IMAs
Human uses of the Preserves		IMP	HUMUSE-5	BMP	1,2,3,4,5,6,7,8,9,10,11	Implement BMPs - Recreational Area Patrols
Invasive animals		IMP	INVANI-2	IAPL	1,2,3,4,5,6,7,8,9,10,11	Implement the Invasive Animal Strategic Plan
Invasive plants		IMP	INVPLA-7	IPSP	1,2,3,4,5,6,7,8,9,10,11	Implement the Invasive Plant Strategic Plan
Loss of connectivity		IMP	LOSCON-4	LINKPL	1,2,3,4,5,6,7,8,9,10,11	Implement a species, vegetation, or threat management plan
Loss of connectivity		IMP	LOSCON-6	SR94PL	3	Implement SR94 Wildlife Infrastructure Plan
Loss of connectivity		IMP	LOSCON-9	SR67PL	4,5	Implement SR67 Wildlife Infrastructure Plan
Urban development		RSUP	URBDEV-1	TRASH	1,2,3,4,5,6,7,8,9,10,11	Support land managers in preventing or cleaning up dump sites & trash collection