

Specific Recommendations Matrix with Benefits

The following pages outline the multiple benefits of each recommended action described in the Specific Reach Recommendations section. The benefits are organized into four general categories: Hydrology, Ecology, Recreation and Culture/Education.

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	RECOMMENDATION	BENEFITS				IMPLEMENTATION
	Short Term	HYDROLOGY	ECOLOGY	RECREATION	EDUCATION	
Executive Summary	E1S Create San Diego River Park Trail head and waystation at Dog Beach.	Increase awareness of estuarine hydrologic function through interpretation.	Interpretation of habitat value, use and function for shorebirds and other wildlife will increase awareness of estuarine function and wildlife habitat and balance the impact of the dog park.	Provide a gateway and introduction to the SDRP. Provide a starting point and staging for users of the San Diego River Park multi-use trail. Cultivate awareness of the San Diego River, The San Diego River Park, estuarine ecology, the river's history, and the San Diego River Park multi-use trail.	Introduce and interpret the historic activities of Native Americans on the beach and estuary, the significance of river and valley to the origins of San Diego and as a transportation corridor to the uplands.	Collaborate with appropriate community and special interest groups to install signage, interpretive kiosks and furnishings in vicinity to provide information about estuarine function, wildlife habitat and trail system. Throughout the San Diego River Park, signage, kiosks, and furnishings should be unified by a continuity of materials and graphics while also incorporating materials that reflect the adjacent environment and neighborhoods. Link trail head and Waystation to existing bike lanes, bike routes, and trails in surrounding communities.
Introduction	E2S Maintain Dog Beach as an off-leash recreational destination and community asset. Enhance existing Dog Beach signage to include information about the river park.			Retains existing recreational amenity for dog owners.		Support appropriate community and special interest groups to manage Dog Beach and integrate it with the San Diego River Park.
Principles	E3S Coordinate with Mission Bay Park to support marsh restoration that is underway.		Restoring marsh will expand estuarine wildlife habitat.		Interpret unique habits, sensitivities and characteristics of estuary function, wildlife habitat and seasonal nesting requirements for sensitive species.	Collaborate with appropriate community groups to install signage in vicinity to provide information and create awareness about estuary function and wildlife habitat.
Recommendations	E4S Create San Diego River Park Trail head, waystation and historic and natural interpretation zone at Robb Field.			Opportunities for staging and access to the San Diego River Park multi-use trail. Provide interpretation that cultivates awareness of the San Diego River for recreational users of Robb Field.	Interpret Native American use of beach, creation of Derby Dike, historic river delta pattern, estuary and natural hydrologic condition, and San Diego River Park Trail.	Collaborate with appropriate community and special interest groups to install signage, interpretive kiosks and furnishings in vicinity to provide information. Coordinate with Community Plans in future to integrate park and river trail. Unify interpretive signage, furnishings, and construction with other San Diego River Park projects. Maintain Robb Field as multi-use recreational complex, and expand in future as community recreation needs increase.
Design Guidelines	E5S Explore potential to improve and expand connection of the Famosa Slough with the San Diego River estuary. Investigate feasibility of augmenting the connection with appropriate engineering study. Potential conflict with Famosa Slough Master Plan.	Improving connection will increase extent of functioning tidal marsh area. The study may reveal that an increased tidal exchange in the Slough may create a more desirable result than existing conditions.	Improving connection will expand estuarine habitat and promote fish, bird and terrestrial habitat connections.	Improving connection will enhance awareness and recreational experience for users of the multi-use river trail.		Collaborate with appropriate community and special interest groups including friends of Famosa Slough to initiate feasibility study to explore benefits and impacts of replacing existing culvert with larger structure and improve trail connectivity between the San Diego River Park Trail and Famosa Slough. Consider linking existing Famosa Slough trail with the existing Class I Bike Path. Increase passive park areas into new river alignment and/or new link with Famosa Slough.
	E6S Coordinate with Mission Bay to support marsh restoration that is underway.		Restoring marsh will expand estuarine wildlife habitat.		Interpret unique habits, sensitivities and characteristics of estuary function, wildlife habitat and seasonal nesting requirements for sensitive species.	Collaborate with appropriate community and special interest groups to extend feasibility study to explore the potential to modify current plan to consider effect of improving hydrologic systems of Mission Bay and the river. Such a study should identify and develop trail connections from the San Diego River Park to Tecolote Canyon and with Mission Bay Park.
Implementation	E7S Develop temporary multi-use programs for under-utilized lands that are proposed for other future uses.		Potential to establish native plant nurseries as a temporary land use to support restoration efforts in the corridor and to supplement habitat. May also serve as a site to conduct phytoremediation research.	Temporary recreation events could be held in underutilized open spaces. This site could also be considered for use as an active recreation park with viewpoints, markers, overlooks and a naturalized buffer along estuary edge. Link to Class I Bike Paths to the east and west.		Collaborate with appropriate community and special interest groups to explore opportunities to fully utilize land for ecologic, educational and recreational uses.
Appendices	E8S Create estuary overlook platforms along the San Diego River Park Trail at estuary surface level.			Providing overlooks improves accessibility to bird and wildlife viewing.	Interpret unique habits, sensitivities and characteristics of estuary function, wildlife habitat and seasonal nesting requirements for sensitive species.	Collaborate with appropriate community and special interest groups to develop, design, and select specific locations for interpretive overlooks on both the north and south sides of the San Diego River estuary. Sites for consideration: Famosa Slough, Mission Point, historic confluence of Tecolote Creek and the San Diego River, estuary restoration projects, and Sports Arena (Bay to Bay Bridge).

Recommended Plant Species

Native Habitat Species

Re-vegetation / habitat areas

Rl riparian - lower mixed willow woodland (to marsh line)

Ru riparian - upper mixed willow woodland

C/css chaparral / coastal sage scrub upland

Trees - riparian

Platanus racemosa	California Sycamore	ru	deciduous tree
Populus fremontii	Fremont Poplar	ru	deciduous tree
Quercus agrifolia	Coast Live Oak	ru,c/css	evergreen tree
Salix gooddingii	Black Willow	rl	deciduous tree
Salix hindsiana	Sandbar Willow	rl	deciduous tree
Salix laevigata	Red Willow	rl	deciduous tree
Salix lasiolepis	Arroyo Willow	rl	deciduous tree
Sambucus mexicana	Mexican Elderberry	ru	deciduous tree



Salix Lasiolepis

<http://ic.ucsc.edu/~wxcheng/wetwul>

Shrubs / groundcovers / grasses / vines

Artemisia douglasiana	Douglas Wormwood	ru, c/css,	woody perennial
Artemisia palmeri	Palmer's Sagewort	ru, c/css,	woody perennial
Artemisia californica	California Sage/ Coastalbrush	c/css	drought-deciduous
Baccharis pilularis	Coyote Brush	c/css	evergreen shrub
Carex spissa	San Diego Sedge	ru	grass
Dudleya pulverulenta	Chalk Lettuce	c/css	succulent
Encelia californica	California Encelia	c/css	woody perennial
Eriogonum fasciculatum	Flat-top Buckwheat	c/css	shrub/perennial
Eriophyllum confertiflorum	Golden Yarrow	c/css	perennial
Heteromeles arbutifolia	Toyon	c/css	evergreen shrub
Isocoma menziesii	Goldenbush	c/css	evergreen shrub
Juncus mexicanus	Mexican Rush	rl	evergreen rush
Keckiella cordifolia	Heart-Leaved Penstemon	ru, c/css	perennial
Lonicera subspicata	San Diego Honeysuckle	c/css	evergreen vine
Malosma laurina	Laurel Sumac	c/css	evergreen shrub
Mimulus puniceus	Monkeyflower	c/css	woody perennial
Mirabilis californica	Wishbone Bush	c/css	evergreen shrub
Muhlenbergia rigens	Deer Grass	c/css	grass
Prunus ilicifolia	Holly-Leaf Cherry	c/css	evergreen tree
Rhamnus californica	California Coffeeberry	c/css	evergreen shrub
Rhus integrifolia	Lemonade Berry	c/css	evergreen shrub
Rhus ovata	Sugar Bush	c/css	evergreen shrub
Ribes indecorum	White-Flowered Currant	c/css	deciduous shrub
Rosa californica	California Wild Rose	ru	deciduous shrub
Salvia apicra	White Sage	c/css	drought-deciduous
Salvia mellifera	Black Sage	c/css	drought-deciduous
Sisyrinchium bellum	Blue-Eyed Grass	c/css	perennial
Typha spp.	Cattail	rl	marsh
Viguiera lanata	Woolly-Leaf Sunflower	c/css	drought-deciduous
Vitis girdiana	Wild Grape	ru	deciduous vine
Yucca whipplei	Chaparral Yucca	c/css	succulent



Encelia californica

<http://www.laspilitas.com/plants>



Baccharis pilularis

<http://www.coestatepark.com>



Mimulus puniceus

http://www.sci.sdsu.edu/plants/sdpls/plants/Mimulus_aurantiacus.html

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Buffer Species

Br buffer - riparian
 Bu buffer - upper riparian and chaparral transition

Trees

Platanus racemosa	California Sycamore	br	deciduous tree
Populus fremontii	Fremont Poplar	br	deciduous tree
Quercus agrifolia	Coast Live Oak	br, bu,	evergreen tree

Shrubs / groundcovers / grasses / vines

Artemisia californica 'montara ridge'	Dwarf California Sage	bu,	evergreen shrub
Artemisia californica	California Sage/ Coastal Sagebrush	bu	evergreen shrub
Baccharis 'centennial'	Centennial Baccharis	bu	evergreen shrub
Baccharis pilularis	Coyote Bush	bu	evergreen shrub
Ceanothus griseus horizontalis	Carmel Creeper	bu	evergreen shrub

Ceanothus hybrids	Hybrid Ceanothus	bu	evergreen shrub
Dendromecon harfordii	Island Bush Poppy	bu	evergreen shrub
Dendromecon rigida	Bush Poppy	bu	evergreen shrub
Encelia californica	California Encelia	bu	deciduous shrub
Erigeron glaucus	Compact Beach Aster	bu	perennial
Eriogonum fasciculatum	Flat-top Buckwheat	bu	shrub/perennial
Eriogonum fasciculatum 'dana point'	Hybrid Dwarf Buckwheat	bu	evergreen shrub
Galvezia speciosa	Bush Island Snapdragon	bu	evergreen shrub

Heteromeles arbutifolia	Toyon	bu	evergreen shrub
Iris douglasiana	Pacific Coast Iris	br, bu,	perennial
Juncus patens	Rush	br	rush
Keckiella cordifolia	Heart-Leaved Penstemon	br, bu,	evergreen shrub

Lobelia laxiflora	Red Cardinal Flower	br, bu,	perennial
Lonicera subspicata	San Diego Honeysuckle	bu	evergreen vine
Malosma laurina	Laurel Sumac	bu	evergreen shrub
Mimulus puniceus	Monkeyflower	br, bu,	shrub/perennial
Mirabilis californica	Wishbone Bush	bu	evergreen shrub
Muhlenbergia rigens	Deer Grass	bu	grass
Prunus ilicifolia	Holly-Leaf Cherry	bu	evergreen shrub
Prunus lyonii	Catalina Island Cherry	bu	evergreen shrub/tree



Mirabilis californica
<http://www.santabarbarahikes.com/flowers>



Rhus integrifolia
<http://www.calflora.net/bloomingplants>



Vitis girdiana
<http://www.sbs.utexas.edu/deathvalley/plants/oitispag.htm>

Rhamnus californica	California Coffeeberry	bu	evergreen shrub
Rhus integrifolia	Lemonade Berry	bu	evergreen shrub
Ribes indecorum	White-Flowered Currant	br, bu,	deciduous shrub
Rosa californica	California Wild Rose	br	deciduous shrub
Salvia clevelandii 'allen chickering'	Allen Chickering Sage	bu	evergreen shrub
Salvia greggii 'salmon'	Salmon Autumn Sage	bu	evergreen shrub
Salvia greggii 'white'	White Autumn Sage	bu	evergreen shrub
Salvia leucophylla 'pt. Sal spreader'	Hybrid Purple Sage	bu	evergreen shrub
Salvia mellifera 'repens'	Prostrate Black Sage	bu	evergreen shrub
Salvia mellifera 'tera seca'	Tera Seca Sage	bu	evergreen shrub
Salvia 'winifred gilman'	Winifred Gilman Sage	bu	evergreen shrub
Sisyrinchium bellum	Blue-Eyed Grass	bu	perennial
Viguiera lanata	Woolly-Leaf Sunflower	bu	shrub/perennial
Vitis girdiana	Wild Grape	br, bu,	deciduous vine
Woodwardia fimbriata	Giant Chain Fern	br, bu,	fern

Urban Species

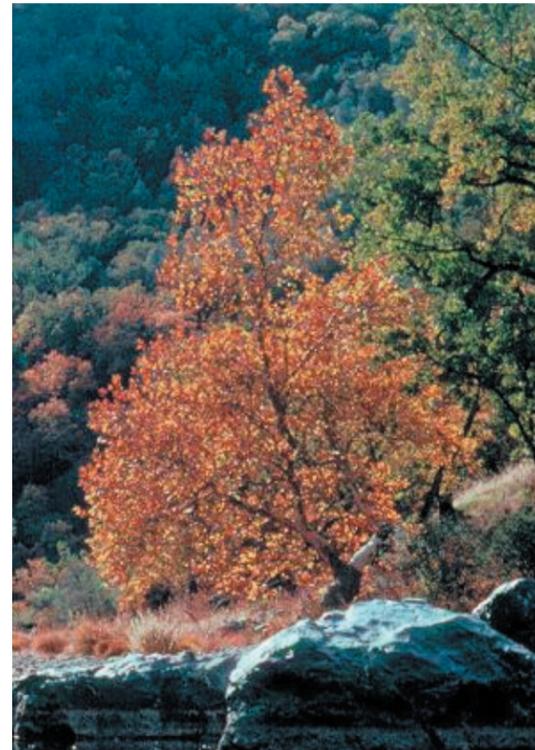


Quercus agrifolia
<http://www.coestatepark.com>
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Muhlenbergia lindhamaerii*	Deer Grass	grass
Muhlenbergia rigens	Deer Grass (native)	grass
Prunus ilicifolia	Holly-Leaf Cherry	evergreen shrub
Prunus lyonii	Catalina Island Cherry	evergreen shrub
Rhamnus californica 'eve case'	Coffeeberry	evergreen shrub
Rhus integrifolia	Lemonade Berry	evergreen shrub
Rosmarinus officianalis*	Rosemary	evergreen shrub
Salvia clevelandii 'allen chickering'	Allen Chickering Sage	evergreen shrub
Salvia greggii*	Autumn Sage	evergreen shrub
Salvia leucophylla 'pt. Sal spreader'	Hybrid Purple Sage	evergreen shrub
Salvia mellifera 'repens'	Prostrate Black Sage	evergreen shrub
Salvia mellifera 'tera seca'	Tera Seca Sage	evergreen shrub
Salvia 'winifred gilman'	Winifred Gilman Sage	evergreen shrub
Sisyrinchium bellum	Blue-Eyed Grass	perennial
Vitex agnus-castus*	Chaste Tree	deciduous shrub
Vitis girdiana	Wild Grape	deciduous vine
Westringia rosmariniformis*	Coast Rosemary	evergreen shrub
Woodwardia fimbriata	Giant Chain Fern	fern



Sisyrinchium bellum
<http://www.laspilitas.com>



Platanus racemosa
<http://www.coestatepark.com>
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Executive Summary

All plants are California-native or cultivated hybrids of natives, except those marked with asterisk (*).

Trees

Platanus racemosa	California Sycamore	deciduous tree
Populus fremontii	Fremont Poplar	deciduous tree
Quercus agrifolia	Coast Live Oak	evergreen tree

Introduction

Shrubs / groundcovers / grasses / vines

Agave spp.*	Agave	succulent
Aloe spp*	Aloe	succulent
Anisodonteia hybrids*	Cape Mallow	evergreen shrub
Arbutus unedo, arbutus u. 'Compacta'*	Strawberry Tree	evergreen shrub
Artemisia californica 'montara ridge'	Dwarf California Sage/ Coastal Sagebrush	evergreen shrub
Baccharis 'centennial'	Centennial Baccharis	evergreen shrub
Baccharis pilularis ssp. consanguinea	Coyote Bush	evergreen shrub
Ceanothus griseus horizontalis	Carmel Creeper	evergreen shrub

Principles

Recommendations

Ceanothus hybrids	Hybrid Ceanothus	evergreen shrub
Cistus spp*	Rockrose	evergreen shrub
Dendromecon harfordii	Island Bush Poppy	evergreen shrub
Dendromecon rigida	Bush Poppy	evergreen shrub
Encelia californica	California Encelia	deciduous shrub
Erigeron glaucus (and hybrids)	Compact Beach Aster	perennial

Design Guidelines

Eriogonum fasciculatum 'dana point'	Hybrid Dwarf Buckwheat	evergreen shrub
Galvezia speciosa	Bush Island Snapdragon	evergreen shrub
Helictotrichon sempervirens*	Blue Oat Grass	grass

Implementation

Heteromeles arbutifolia	Toyon	evergreen shrub
Iris douglasiana	Pacific Coast Iris	perennial
Juncus patens	Rush	rush
Lavandula spp*	Lavender	perennial
Lavatera bicolor*	Bush Mallow	evergreen shrub
Keckiella cordifolia	Heart-Leaved Penstemon	evergreen shrub
Lobelia laxiflora	Red Cardinal Flower	perennial
Malosma laurina	Laurel Sumac	evergreen shrub
Mirabilis californica	Wishbone Bush	evergreen shrub

Appendices



Dendromecon harfordii
<http://www.theodorepayne.org>



Salvia clevelandii 'allen chickering'
<http://www.laspilitas.com>

Short Term	RECOMMENDATION BENEFITS				IMPLEMENTATION STRATEGY	
	HYDROLOGY	ECOLOGY	RECREATION	EDUCATION		
E9S	Explore potential to create a new park with a connection to the river and neighborhood as the Sports Arena redevelops. If possible, expand river into this area similar to Famosa Slough.	Improving connection will expand riparian habitat and promote fish, bird and terrestrial habitat connections.	Improving connection will enhance awareness and recreational experience for users of the multi-use river trail. While added park space provides additional recreational opportunities along San Diego River Park and Trail.		Collaborate with North Bay Redevelopment Plan to integrate it with the San Diego River Park .if the Sports Arena redevelopment plans move forward, seek opportunities to engage with the process to integrate those plans by creating trail connections, installing interpretive kiosks, and potentially a Community Park.	Executive Summary
E10S	Mission Bay Park interface zone		Improving connection will enhance awareness and recreational experience for users of the multi-use river trail.	Interpret unique habits, sensitivities and characteristics of river function, and wildlife habitats.	Coordinate with appropriate community/special interest groups for the Mission Bay Park Master Plan and South Shores General Development Plan to ensure appropriate park and river interaction and possible interpretive opportunities.	Introduction
E11S	Continue San Diego River Park multi-use trail east of the I-5 and create connections from Friars Road to Pacific Highway.		Improving connection will enhance awareness and recreational experience for users of the multi-use river trail.		Coordinate with Community Plan, North Bay Redevelopment Plan and San Diego Bicycle Master Plan.	
E12S	Establish Green Gateway along I-5 across the river valley.	Re-vegetate rights-of-way and open space adjacent to freeways and major roadways with appropriate native vegetation.			Initiate dialogue with Caltrans, the City of San Diego and appropriate community/special interest groups. Plans to explore the methods for implementing native plant palette in rights-of-ways. Where appropriate, identify existing undeveloped parcels contiguous with rights-of-way and explore potential to acquire or establish open space easements to expand connectivity of Green Gateways.	Principles
E13S	Create a waystation, trail connection and naturalized open space between Old Town San Diego / Presidio Park and the river corridor.	Utilize existing public lands to support the Green Gateway concept. Explore opportunities with Caltrans to expand support of River Park goals.	Waystation and open space will provide a recreational link between Old Town and the San Diego River Park. Waystation staging area will provide access to the San Diego River Park multi-use trail and public transportation. Links Old Town/ Presidio Park with Mission Valley Preserve and Mission Bay Park. Waystation will serve as a portal to coastal communities along the San Diego River Park.	Potential to interpret historic value of the river valley to establishing Old Town and the Presidio as well as its historic flood activities.	Prepare detailed design study for location of waystation, trail connections, bicycle staging, and explore creation of shuttle links from trolley at Old Town/Linda Vista to Ocean Beach, Sea World and Mission Beach. Initiate dialogue with City of San Diego to create shuttle links from trolley at Old Town/ Linda Vista and Ocean Beach/ Sea World/ Mission Beach.	Recommendations
E14S	Create recreational trail connection between the San Diego River Park and the San Diego Bay.		Improving connection will enhance awareness and recreational experience for users of the multi-use river trail.		Implement bikeways along Rosecrans Street and Taylor Streets as proposed by the City of San Diego Bicycle Master Plan	Design Guidelines
E15S	Improve trail and open space connection between Tecolote Canyon and Mission Bay.	Improving Tecolote creek by relocating Fiesta Island Dike and providing larger culverts reduces overall flow restrictions on the creek.	Improving connection will expand riparian and canyon habitats and promote fish, bird and terrestrial habitat connections.	Improving connection will enhance awareness and recreational experience for users of the multi-use river trail.	Explore potential to reconstruct I-5 and railroad crossings over Tecolote Creek with larger bridges or culverts that can accommodate pedestrian movement. Consider multi-use path adjacent to riparian channel, and link to proposed (City of San Diego Bicycle Master Plan) Class I Bike Path adjacent to railroad right-of-way.	Implementation
E16S	Create connection between the San Diego River Park and adjacent neighborhoods to the north.		Improving the connections from Bay Park, Linda Vista, and San Diego University will increase recreational use of the San Diego River Park.		Coordinate with San Diego Bicycle Master Plan and appropriate community/special interest groups to develop detailed study to confirm specific alignment. Implement Bikeway along Morena Boulevard to Taylor Street as proposed by the City of San Diego Bicycle Master Plan. Improve connection of existing Class I Bike Path (from East Mission Bay Drive to Fashion Valley Road) to Morena Boulevard and to Morena Linda Vista Trolley Station. Coordinate with Mission Valley Community Plan to include in update as amendment.	Appendices

	RECOMMENDATION	BENEFITS			IMPLEMENTATION STRATEGY	
	Short Term	HYDROLOGY	ECOLOGY	RECREATION	EDUCATION	
Executive Summary	E17S	Broaden river channel and meander throughout Mission Valley Preserve.	Increases potential river meander, improving water quality and reducing flooding impact.	Expand estuarine and riparian habitat and diversify fish, bird and terrestrial habitat connections to Mission Bay. Old burn site; Residue is hazardous in Mission Valley Preserve.	Potential to interpret historic patterns of river delta and development of landfill.	Collaborate with appropriate agencies and community/special interest groups to prepare specific plans and identify funding sources to modify river channel.
Introduction	E18S	Connect Morena Blvd. Bikeway and San Diego River Park multi-use trail.		Connecting the bikeway and multi-use trail will provide a safe and simple bicycle connection to the San Diego River Park from neighbors north and south.		Coordinate with San Diego Bicycle Master Plan. Study feasibility of connecting (future) Morena Boulevard bridge Bikeway (per Plan Report City of San Diego Bicycle Master Plan) and proposed San Diego River Park multi-use trail at south edge of Morena Blvd. bridge. The Bikeway is at street level; the multi-use trail is down in the river valley.
	E19S	Support and build upon access and interpretation zone at Mission Valley Preserve.		Access to the Mission Valley Preserve from the San Diego River Park multi-use trail provides an opportunity for interpretation and increases awareness.	Interpret historic Old Town, Presidio and Rancheria of Cosoy, as well as estuary function and physiography of coastal plain and terraces.	As San Diego River Park Trail is implemented, develop trail head with signage, interpretive kiosks and furnishings.
Principles	E20S	Create short term bike trail alignments through Riverwalk Golf Club in the trolley right-of-way		Improving connection will enhance awareness and recreational experience for users of the multi-use river trail.		Coordinate with the appropriate agency, community/special interest groups, land owners and golf course management to explore the potential bike trail. Trail would be relocated closer to river channel in the future when the golf course redevelops.
	E21S	Support efforts to create a Presidio Park Master Plan.				Coordinate with appropriate agencies, community and special interest groups to begin discussions about initiating a master planning effort and to identify potential funding sources.
Recommendations	E22S	Create a Presidio Park entry monument on Taylor Street that incorporates its historic connection with the river.				Coordinate with appropriate agencies and community groups to initiate study to design and locate entry signage on north side of Presidio Park.
	E23S	Remove 1.5 acre area of cobble fill on south side of river under I-5.				Identify potential donors or funding sources to remove fill and lower grade to river channel level. Fill could potentially be used to fill undesirable ponds upstream or may have value as structural fill for development projects elsewhere.
Design Guidelines	Long Term					
Implementation	E1L	Explore potential to improve and expand connection of the Famosa Slough with the San Diego River estuary. Investigate feasibility of augmenting the connection with appropriate engineering study. Potential conflict with Famosa Slough Master Plan.	Improving connection will increase extent of functioning tidal marsh area. The study may reveal that an increased tidal exchange in the Slough may create a more desirable result than existing conditions.	Improving connection will expand estuarine habitat and promote fish, bird and terrestrial habitat connections.	Improving connection will enhance awareness and recreational experience for users of the multi-use river trail.	Suggested for feasibility study purposes only. Collaborate with appropriate community and special interest groups to initiate a feasibility study to explore the benefits and impacts of removing the jetty through hydrologic modeling and other methods.
	E2L	As Robb Field is improved in the future, create a landscape that relates to estuary and river edge.		Reinforce river character and expand native riparian and upland landscapes.		Coordinate with appropriate agencies and community/special interest group plans for future improvements.
	E3L	Explore potential to realign and terrace south river edge and expand estuary.	Reducing channelization encourages additional stream meander, increase extent of functioning tidal marsh area, improving water quality and increasing flood capacity.	Expands estuarine habitat and diversifies range of habitat based on additional topography.	Realign bike path along North side of channel and create pedestrian trail.	Collaborate with appropriate community and special interest groups to initiate feasibility study to modify the river channel embankment to create a varied edge with native vegetation.

Long Term	RECOMMENDATION	BENEFITS				IMPLEMENTATION STRATEGY	
		HYDROLOGY	ECOLOGY	RECREATION	EDUCATION		
E4L	As Sea World may evolve in the future, encourage redevelopment that engages San Diego River Park and estuary and creates trail connection to San Diego River Park Trail.		Potentially expand estuarine habitat.	Connect San Diego River Park Trail to provide access to Sea World, linking tourist attractions and hotels along the river corridor.		Collaborate with Sea World to engage in their planning process to create awareness of the goals of the San Diego River Park. Encourage better connections and access, use of native vegetation, education about the river, and integration of Sea World as one of the linked amenities of the San Diego River Park.	Executive Summary
E5L	Explore potential to realign and terrace north river edge and expand estuary.	Reducing channelization encourages additional stream meander, increase extent of functioning tidal marsh area, improving water quality and increasing flood capacity.	Expands estuarine habitat and diversifies range of habitat based on additional topography.	Realign bike path along North side of channel and create pedestrian trail.		Collaborate with appropriate community and special interest groups to initiate feasibility study to modify the river channel embankment to create a varied edge with native vegetation. Collaborate with appropriate community and special interest groups to explore potential to replace Fiesta Island dike with a bridge located north of Tecolote Creek.	Introduction
E6L	If results of feasibility study proposed in short term recommendations are positive, implement improvements to estuary between Mission Bay and the river.	Improving connection will increase extent of functioning tidal marsh area. The study may reveal that an increased tidal exchange in the Slough may create a more desirable result than existing conditions.	Improving connection will expand estuarine habitat and promote fish, bird and terrestrial habitat connections.	Improving connection will enhance awareness and recreational experience for users of the multi-use river trail.	Interpret unique habits, sensitivities and characteristics of estuary function, wildlife habitat and seasonal nesting requirements for sensitive species.	Collaborate with appropriate agencies and community/special interest groups to prepare specific plan and identify funding sources improve estuarine environment.	Principles
E7L	Investigate potential for locating a River and Estuary Interpretive Center that supports the Mission Bay Park Master Plan interpretive program.		Promote awareness and experience of natural function and form of Mission Bay as part of river delta, function of estuary and relationship to Tecolote Canyon.			Initiate dialogue with appropriate community and special interest groups to explore potential to consider another location for the Nature Center or to develop an additional Interpretive Center associated with the river and estuary.	
E8L	Collaborate with Mission Bay and Land Fill Study to explore the potential to expand estuary.	Increases extent of functioning tidal marsh area and could allow river flow into Mission Bay, potentially increasing water movement within the Bay.	Restore estuarine function and value to Mission Bay.		Potential to reestablish Mission Bay as part of the San Diego River delta pattern.	Collaborate with appropriate agencies and community/special interest groups to initiate feasibility study to create an estuarine link between Mission Bay and the San Diego River. Extensive study and modeling will be required to fully understand the impact of linking the River and the Bay on flows and water quality. Engage the Mission Bay Landfill Study in the process. Could be explored through a joint science coalition.	Recommendations
E9L	Explore potential to create a greenway connection with San Diego Bay.		Potentially create some expanded habitat connections by building upon Green Gateway, aggregating public lands and rights-of-way. Refer to Lateral Connections in General Recommendations.	Create multi-use path and open space link to San Diego Bay and bike paths to south.		Collaborate with North Bay Redevelopment as it moves forward.	Design Guidelines
E10L	Create major San Diego River Park access node at Linda Vista and integrate with potential Green Gateway at I-5 and Friars Road.					Coordinate with Community Plans to identify sites and land owners to explore potential acquisition or to establish easements for access and interpretive trail head locations.	
E11L	Create San Diego River Trail on north side of river through Riverwalk development.			Connect trolley stations. Connect along Linda Vista Road and Morena to Tecolote. Trail connection Tecolote could be through estuary or along old PCH.		Coordinate with San Diego Bicycle Master Plan and redevelopment of Riverwalk Golf Club. When Riverwalk redevelops coordinate with appropriate agencies, community/special interest groups and land owners to identify trail alignment and development concept that orient to the river.	Implementation

RECOMMENDATION BENEFITS

IMPLEMENTATION STRATEGY

Long Term

HYDROLOGY

ECOLOGY

RECREATION

EDUCATION

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L1S	Aggregate undeveloped land of YMCA, Sefton Fields, and MTDB as open space to broaden river channel and expand habitat.	Improve stream dynamic, water quality, groundwater recharge and reduce flooding.	Expand aquatic, riparian and upland habitats. Create upland habitat areas within floodway. Refer to General Recommendations regarding naturalizing floodplain areas.	Improving connection will enhance awareness and recreational experience for users of the multi-use river trail. While added park space provides additional recreational opportunities along San Diego River Park and Trail.	Interpret natural stream processes.	Coordinate appropriate agencies and community/special interest groups to identify means of aggregating land. Integrate with Mission Valley Preserve to aggregate land to initiate specific study to develop design concept.
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Introduction

L2S	Explore potential to develop Neighborhood Park. Engage Riverwalk Golf Course land owner in discussion to explore options to extend trail along trolley corridor, to modify river edges in golf course in the short term, and to modify proposed development plan in the long term. See page 59.		Redesign trail for compatibility with river or relocate. Create upland habitat areas within floodplain. Refer to General Recommendations on naturalizing floodplain areas. Coordinate ball fields in potential park to better relate to the river and habitat.	Potential to partner with YMCA to relate recreational and educational events to the river. Creating a Neighborhood Park at YMCA and Sefton Fields will increase Mission Valley's compliance with park standards established by the city's General Plan.		Engage land owner to discuss potential for land acquisition or easement for trail connection and to improve river edges through golf course. Coordinate with San Diego Bicycle Master Plan and Riverwalk GC owner. Engage bicycle master planners in process to explore potential revised alignment following trolley right-of-way. Initiate dialogue to explore long term intent and potential of land to accommodate park and/or trails. Coordinate with Mission Valley Community Plan, and appropriate agencies and community/special interest groups to identify alignment and buffer to incorporate into plan update as amendment.
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Principles

L3S	Explore potential to acquire under-developed land site. Vacant parcels are an opportunity to create new river-oriented community amenity.			Potential to coordinate with link to Old Town with additional pedestrian trail on south side of Sefton Park.	Potential to interpret archaeological and historical site context.	Engage land owner to discuss potential for land acquisition, easement or to develop a river oriented amenity with trail connection. Current use is parking / storage. Investigate potential archeological value of the site.
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Recommendations

L4S	Create historic interpretation of Kosoy Rancheria and agriculture adjacent to trail.			Linking the multi-use trail and interpretative zone will enhance the recreational experience	Interpret Rancheria of Cosoy, agriculture in valley, El Camino Real and valley as movement corridor.	Engage land owner to discuss potential for land acquisition and/or easement for trail connection and interpretive waystation. Integrate with trail implementation project.
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Design Guidelines

L5S	Create trail under SR-163 to connect existing Class I Bike Paths to the east and west of SR-163.			Connecting the San Diego River Park multi-use trail (Class I Bike Path) below Highway 163 strengthens the contiguousness of the multi-trail and improves the recreation experience in the San Diego River Park.		Implement Class I Bike Path below Highway 163 north of the river as proposed by the City of San Diego Bicycle Master Plan.
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L6S	Establish Green Gateway along SR163 across the river valley by introducing native landscapes along the roadway.		Improve visual and wildlife habitat continuity across the valley. Refer to General Recommendations regarding Green Gateways.			Initiate dialogue with Caltrans, City of San Diego Streets and Mission Valley Community Plan to explore the methods for implementing native plant palette in rights-of-ways and undeveloped easements.
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Implementation

L7S	Create open space and trail connection to upland communities along Ulric Road.		Trail connections to side canyons with native vegetation will benefit upland habitat and wildlife movement between open spaces.	Improve pedestrian access between upland neighborhoods and river corridor.		Coordinate with San Diego Bicycle Master Plan and Mission Valley Community Plan to identify specific route alignment.
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L8S	Establish Green Gateway interchanges throughout by introducing native vegetation along roadways		Improve visual and wildlife habitat continuity across the valley. Refer to General Recommendations regarding Green Gateways.			Initiate dialogue with Caltrans and appropriate community groups to explore means of changing right-of-way plant palette.
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L9S	Explore potential to connect FSDRIP bike trails across intersections with grade separated crossings on northside of river.			Improve continuity of bike path. Eliminate necessity for pedestrians and bicycles to move to traffic signal to cross street at Mission Center Road and Camino del Este. Improved crossings are important to improve continuity of multi-use trail.		Follow proposed alignment of Class 1 Bikeway in accordance with San Diego Bicycle Master Plan. Initiate dialogue with Bicycle Master Planners and City of San Diego Streets to identify funding source and develop detail design and construction plan.
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Appendices

L10S	Improve open space connection between Murray Creek and river valley by daylighting Murray Creek within existing right-of-way. Daylight Murray Canyon drainage and create wetland and natural filtration zone. See Page 61.	Improve water quality in river by treating stormwater runoff from Murray Canyon and adjacent development in vegetated swales.	Potential to expand upon Green Gateways and connect wildlife habitat .	Potential to create interpretive waystation and trail connection between river corridor and upland neighborhoods.		Initiate dialogue with appropriate community/special interest groups and land owners to explore means of influencing development in progress modify street extension and integrating creek corridor into future evolution of existing development.
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RECOMMENDATION	BENEFITS				IMPLEMENTATION STRATEGY
	HYDROLOGY	ECOLOGY	RECREATION	EDUCATION	
Short Term					
L11S	Create trail connection from Mission City Trolley Station to Qualcomm Way.			Integrate bicycle trails and trolley system.	Coordinate with San Diego Bicycle Master Plan and Mission Valley Community Plan to identify specific route alignment.
L12S	Utilize existing underpass as a means of connecting to neighborhoods and canyon north of Friar's Road.			Improving connection will enhance awareness and recreational experience for users of the multi-use river trail.	Support City of San Diego and property owners in effort to improve underpass entrances. Provide lighting and potential better pedestrian connections to the underpass.
L13S	Create bike path connection to San Diego River Park Trail from Bachman Place, Camino de la Reina and Avenida del Rio.			Provide a safe bike crossing to San Diego River Trail alignment from Balboa Park, Hillcrest and Mission Hills.	Coordinate with San Diego Bicycle Master Plan and develop specific study to confirm route alignment.
L14S	Explore potential to reconnect Ruffin Canyon with the River	Improve visual and wildlife habitat continuity from canyon to valley.		Improving connection will enhance awareness and recreational experience for users of the multi-use river trail.	Interpret unique habits, sensitivities and characteristics of canyon and wildlife habitats.
L15S	Establish Green Gateway at interchange of I-8 and I-805 and at interchanges of I-805 and Friars Road.	Improve visual and wildlife habitat continuity across the valley. Refer to General Recommendations regarding Green Gateways.			Initiate dialogue with appropriate community groups, land owners and developers to integrate the development with the San Diego River Park. Explore design modifications to extend native plant species and trail connections from Ruffin Canyon through the redevelopment site.
L16S	Explore potential to acquire some or all of undeveloped land adjacent to the river.	Acquisition or easement would create adequate space to increase river channel width and create meanders.	Opportunity to expand aquatic, riparian and create upland habitat areas within floodway. Refer to General Recommendations regarding naturalizing floodplain areas.	Potential to include undeveloped land as part of River Park through acquisition or open space dedication.	Engage land owners in dialogue to explore potential to acquire land or to create easements. Coordinate with Mission Valley Community Plan to include in update as amendment.
L17S	Mission City Parkway Bridge Mitigation Site. Integrate new riparian and sage scrub habitat restoration with San Diego River Park and trail.		Opportunity to expand riparian and sage scrub habitat areas within floodway.	Improving connection will enhance awareness and recreational experience for users of the multi-use river trail. While added open space provides additional recreational opportunities along San Diego River Park and Trail.	Coordinate with appropriate public agencies and community groups.
L18S	River Garden site. Connect to San Diego River Park and trail.			Improving connection will enhance awareness and recreational experience for users of the multi-use river trail. While River Garden Site provides additional recreational opportunities along San Diego River Park and Trail.	Collaborate with San Diego River Park Foundation and appropriate community groups to support River Garden project and connect it to the San Diego River Park Trail. Coordinate with Mission Valley Community Plan to include in update as amendment.
L19S	If stadium redevelops, engage with developer and planner to develop a community park and additional naturalized open space with the San Diego River Park. See page 60.	Increases potential river meander, improving water quality and reducing flooding impact.	Improve visual and wildlife habitat continuity across the valley and along its adjacent canyons.	Mission Valley Community Plan objective is to create a 20 acre Community park with active recreation. Incorporate naturalized park area between trolley and river. (Consider structural turf-system as dual use of overflow parking and active play fields).	Interpret unique habits, sensitivities and characteristics of canyon and naturalized open space habitats.
L20S	If stadium redevelops, engage developers to integrate open space connections between San Diego River Park and canyons. See page 60.		Improve visual and wildlife habitat continuity across the valley and along its adjacent canyons.	Improving connection will enhance awareness and recreational experience for users of the multi-use river trail. While added open space provides additional recreational opportunities along San Diego River Park and Trail.	Coordinate with City of San Diego and stadium developers to create a plan that engages the river and adjacent canyons. Coordinate with Mission Valley Community Plan to include an update as an amendment.

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	RECOMMENDATION	BENEFITS				IMPLEMENTATION STRATEGY
		HYDROLOGY	ECOLOGY	RECREATION	CULTURE / EDUCATION	
Executive Summary	Short Term					
	L21S	Create multi-use trail in conjunction with Qualcomm redevelopment.			Improving connection will enhance awareness and recreational experience for users of the multi-use river trail.	Coordinate with stadium redevelopment process and San Diego Bicycle Master Plan to identify specific alignment.
Introduction	Long Term					
	L1L	Connect to Presidio Park via Taylor Street bridge over I-8.		Expands wildlife habitat and improves habitat connectivity.	Shared habitat and trail connection between Presidio and River Park, linking tourist and recreation amenities with hotels.	Coordinate with Caltrans to explore potential to improve pedestrian component of the Taylor Street bridge to better accommodate pedestrians and bicyclists.
Principles	L2L	Engage land owners to encourage any future redevelopment of Riverwalk GC to address river.		Expands wildlife habitat and improves habitat connectivity.	Shared habitat and trail connection between Presidio and River Park, linking tourist and recreation amenities with hotels.	Create views to river and access from development.
	L3L	Engage landowners to explore potential to create urban park oriented to the river on both sides of river.		Balance impacts of urban edge by doubling the width of the habitat corridor on the opposite side of the river.	Site behind the Union Tribune could offer opportunity to expand River Park corridor.	Create views to river and access from development.
Recommendations	L4L	In the long term, investigate opportunities to improve water quality in FSDRIP. Explore the potential and methods needed to recreate the FSDRIP area as a component of a functional river environment by removing flow restrictions and separating river from pond.	Reestablish stream flow to restore sediment transfer potential of river system, improving water quality and ground water recharge through increased stream meanders.	Riparian habitat is increased by increasing channel width. Improve all at-grade crossings in Mission Valley with bridges to allow for grade separated trail and habitat connections along the river corridor and to canyons and tributaries.		Reestablish a river pattern that is closer to the historic river environment.
	L5L	Improve trail connections between river corridor and canyons.			Connect existing pedestrian trail in canyon through City of San Diego open space with river corridor. Seek easement at the Mission Valley end of trail and explore potential trail heads/ staging areas feasible at both ends.	Coordinate with San Diego Bicycle Master Plan to identify specific alignment and connection priorities.
Design Guidelines	L6L	Create trail and open space connection to Balboa Park.		Expand native plantings to expand upland habitat connection from river valley to Balboa Park.	Create multi-use trail connection between River Park and Balboa Park to enhance and encourage use of bicycle and pedestrian transportation. Create bicycle link to Balboa Park along 163 or via Buchanan Canyon.	Initiate feasibility study to identify specific trail alignment. Coordinate with San Diego Bicycle Master Plan and Caltrans to identify potential trail alignment.
	L7L	Relate and connect open space in development plans with the River Park. Create 'green street' edge with native plant species to improve visual and habitat connection to Murray Canyon		Improve visual and habitat connection to Murray Canyon.	Improving connection will enhance awareness and recreational experience for users of the multi-use river trail.	Create views to river and access from development
Implementation	L8L	Implement bike path as part of the San Diego River Park Trail.		Combine trail with expanded native vegetation to improve habitat connectivity throughout the valley.	Realign Class I Bike Path to follow meander of stream. Link to existing trolley stop. Potential neighborhood park site adjacent to river and trolley stop.	Coordinate with San Diego Bicycle Master Plan to identify specific alignment and implementation priority.
	L9L	Create open space and trail connections to uplands via an improved Texas Street.			Improving connection will enhance awareness and recreational experience for users of the multi-use river trail.	Coordinate with City of San Diego and the San Diego Bicycle Master Plan to improve Texas Street and create a dedicated multi-use trail separated from street with a naturalized open space corridor.
Appendices	L10L	Improve Mission City Parkway over crossing to connect river corridor and upland open space			Improving connection will enhance awareness and recreational experience for users of the multi-use river trail.	Coordinate with Caltran to explore potential to improve Mission City Parkway bridge over I-8 to connect people to uplands. Coordinate with City of San Diego and the San Diego Bicycle Master Plan to improve Texas Street and create a dedicated multi-use trail separated from street with a naturalized open space corridor.

RECOMMENDATION		BENEFITS			IMPLEMENTATION STRATEGY		
Short Term - Confluence		HYDROLOGY	ECOLOGY	RECREATION	CULTURE / EDUCATION		
C1S	Develop city owned property as wetland habitat preserve integrate with potential water reclamation plant. Potential for Caltrans property to be developed for habitat and areas for the San Diego River Park Trail.	Improve stream dynamic, water quality, groundwater recharge and reduce flooding.	Retains wetland habitat and provides additional wildlife habitat	Improving connection will enhance awareness and recreational experience for users of the multi-use river trail.	Potential to interpret wetland habitat and its associated species.	Integrate Caltrans property as part of riparian open space and pursue dedication of new river open space preserve.	Executive Summary
C2S	Create San Diego River Park Trail along north edge of river.			Improving connection will enhance awareness and recreational experience for users of the multi-use river trail.		Coordinate with the appropriate agencies, community groups and the Grantville Redevelopment Study to identify specific route alignment of potential multi-use trail on north side of the river.	Introduction
C3S	Coordinate with proposed Grantville redevelopment to create improved open space at the bend in the river.	Future benefit when implemented in long term.	Future benefit when implemented in long term.	Creates potential active / passive recreation site at confluence with connection to San Diego River Park Trail. Park program could include picnicking, bicycle staging area, interpretive element and parking.	Potential to interpret confluence of Alvarado Creek and the San Diego River.	Coordinate with Grantville Redevelopment Study to identify potential land for park or open space through acquisition or open space easements.	
C4S	Improve open space and trail connection with Alvarado Canyon and Navajo Canyon.	Potential to improve creek dynamic, water quality, groundwater recharge and reduce flooding with a single entity managing the public lands.	Improve visual and habitat connection to Alvarado Canyon.	Creates visual and physical connection from river corridor to Alvarado Canyon and Adobe Falls, Kensington and College West communities, Create multi-use bridge near Mission.		Coordinate with appropriate agencies and community/special interest groups to study potential and to identify specific route alignment of potential multi-use trail on south side of Alvarado Creek. Coordinate with public agencies to explore potential to aggregate public lands under a single management.	Principles
C5S	Improve open space and trail connection with Alvarado Canyon.			Improving connection will enhance awareness and recreational experience for users of the multi-use river trail.		Coordinate with appropriate agencies to improve on-street bike lane and provide signage.	
C6S	Augment ponds by removing barriers between sections. A larger deep water body is better than a number of smaller, divided segments. If possible, divert low flow of river around the ponds.	Improve river dynamic, water quality, groundwater recharge and reduce flooding.		Potential to improve the open space and trail connection to the Grantville Redevelopment Area.		Coordinate with Grantville Redevelopment Study and appropriate agencies and community groups to identify potential for open space easements or land acquisition to increase open space on east edge of ponds.	Recommendations
C7S	Create San Diego River Park Trail along east edge of river.			Improving connection will enhance awareness and recreational experience for users of the multi-use river trail.		Coordinate with appropriate agencies, community groups and the Grantville Redevelopment Study to study potential and to identify specific route alignment of potential multi-use trail on east side of the river if land can be acquired. Identify location for pedestrian bridges crossing the river and creating connection to Mission San Diego de Alcala. If land cannot be acquired study alternative alignment on west side of river.	Design Guidelines
Short Term - Upper Valley							
U1S	Coordinate with proposed Grantville redevelopment to preserve additional open space along Alvarado Creek Corridor at the confluence with the San Diego River.	Future benefit when implemented in long term.	Future benefit when implemented in long term.			Coordinate with appropriate agencies, community groups and the Grantville Redevelopment Study to identify potential land for habitat, trail and recreation through acquisition or open space easements. Coordinate with Navajo Community Plan. Refer to Alvarado Confluence Enhancement on preceding pages.	Implementation
U2S	Create habitat and continuous multi-use trail near river adjacent to Admiral Baker Golf Course.	Future benefit when implemented in long term.	Future benefit when implemented in long term.	Improving connection will enhance awareness and recreational experience for users of the multi-use river trail.	Create views to river and access from golf course.	Continue dialogue with Navy planners to explore opportunities to modify golf course to create space for trail corridor and to improve relationship of golf course with the river. Coordinate with Navajo Community Plan.	
U3S	Engage land owner and ongoing planning effort to explore potential to acquire land as improved open space.		Increases open space, visual and wildlife habitat connections with canyons and Allied Gardens neighborhood.			Initiate dialogue with Superior Mine land owners and planners to explore potential to acquire land or establish open space easements to create a significant open space and/or park somewhere within the undeveloped land in addition to a habitat corridor that follows the 100 year floodway, broaden the river channel with potential to create meander, and a continuous multi-use trail.	Appendices
U4S	Coordinate with the anticipated redevelopment of Superior Mine to create interpretation zone of valley history, mining operations, and future redevelopment where appropriate at edge of active operation.				Interpret Mission Dam Flume, milling sites and history of extraction industry.	Initiate dialogue with Superior Mine land owners and planners to explore potential to create interpretive kiosk in the short term and begin discussions to consider trail and open space as an integral part of the future redevelopment of the site.	

	RECOMMENDATION	BENEFITS	IMPLEMENTATION STRATEGY				
Executive Summary	Long Term - Confluence		HYDROLOGY	ECOLOGY	RECREATION	CULTURE / EDUCATION	
	C1L	Implement trail and open space plans	Potential to improve water quality through expanded native vegetation filtration.	Potential to improve wildlife connectivity through expanded open space.	Potential for natural open space and passive recreation park somewhere within this area.	Prepare specific plan for design of trail alignment and natural open space as land or easement is acquired	
	C2L	Implement open space identified through Grantville Redevelopment Study to improve habitat and recreation.	Increased open space could create adequate space to accommodate a broader river channel, increased river meander separate from pond.	Increased open space could create a functional wildlife habitat corridor through this constrained section of the river valley between Friar's Road and I-5.	Existing condition is very constrained, and San Diego River Trail may require terracing to continue through the confluence reach without acquisition of additional land area.	It is anticipated that the Grantville Redevelopment Study will identify lands that are appropriate for open space to continue the San Diego River Park and Trail. If land is acquired, initiate specific development plan for the San Diego River Park and Trail.	
Introduction	C3L	Implement trail connection and interpretive signage to Mission San Diego De Alcalá connecting via Rancho Mission Road and San Diego Mission Road.			Connect to Mission, pedestrian only on North and West side.	Interpret Mission and importance of river to its location along the San Diego River Park Trail.	Coordinate with the San Diego Bicycle Master Plan and Community Plans to identify specific alignment and establish easement. Explore opportunities with willing land owners to establish public access.
Principles	Long Term - Upper Valley						
	U1L	Implement potential improvements to trail and habitat connections with Alvarado Canyon and Navajo Canyon.	Improve stream condition of Alvarado Creek confluence to increase channel width and potential meander to improve water quality and ground water recharge.	Potential to improve wildlife connectivity through expanded open space.	Potential to connect Alvarado Canyon and Adobe Falls to river corridor. Consider new trolley stop near confluence of Alvarado and the river with shared parking with Urban Village Redevelopment.		Prepare specific plan for design of trail alignment, natural open space and daylighting Alvarado Creek
	U2L	Improve open space and trail connection to Elanus Canyon north of Admiral Baker Golf Course.			Consider new neighborhood park with redevelopment, providing active and passive recreation in open space parks in canyons and hillsides. Consider ecologically oriented resource park as component of the San Diego River Park in the floodplain. Connection could follow Santo Road alignment or east end of golf course.		Continue dialogue with Navy planners and Superior Mine land owners and planners to identify potential locations.
Recommendations	U3L	Continue to collaborate with Navy planners to integrate Admiral Baker Golf Course with the river to create expanded riparian corridor, habitat and trail connections.	Potential to improve water quality through expanded native vegetation filtration.	Explore opportunity to improve ecological compatibility of golf course with river and create habitat connections with canyons. If course were to redevelop, consider "links" approach with natural vegetation between tees, landing sites and holes.	Create waystation with access to river corridor and bus node at Mission Gorge Road at Admiral Baker Park.		Continue dialogue with land owners on both sides of river to establish easements or acquire land to create trail and habitat continuity. Coordinate with Navajo Community Plan.
Design Guidelines	U4L	Separate stream flow from ponds as land is redeveloped.	Increase channel width and meander to improve water quality, sediment transport, flood control capacity and ground water recharge, Explore potential to use pond water to create pulse flows in river.	Expand riparian habitat.			Continue dialogue with Navy planners and Superior Mine land owners and planners to identify potential locations and develop specific plan for realignment of river channel.
Implementation	U5L	If land is acquired, develop improved open space with views and access to ponds as habitat and recreation areas.	Increased open space could create adequate space to accommodate a broader river channel, increased river meander separate from ponds.	Expanded open space increases wildlife habitat and habitat connectivity.	Potential for natural open space and passive recreation park somewhere within this area.		Coordinate with appropriate agencies and community groups to prepare specific plan and implement improved open space parks.
	U6L	As Superior Mine redevelops, implement plan to focus development on river corridor and to create riparian habitat and multi-use trail as component of redevelopment plan.		Refer to General Recommendations regarding Lateral Connections.	Creates continuity of San Diego River Park Trail.	Interpret extraction industry, reclamation and restoration, the history of the river and valley, and the efforts of the San Diego River Park Foundation.	Continue dialogue with appropriate agencies, community groups and Superior Mine land owners and planners to integrate the San Diego River Park and Trail with proposed development.
	U7L	Create trail connection to Tierrasanta neighborhood with the San Diego River Park			Trail connection will create access to the River Park from Tierrasanta.		Coordinate with appropriate agencies, community/special interest groups and land owners to identify specific alignment and access points.

RECOMMENDATION	BENEFITS			IMPLEMENTATION STRATEGY		
	HYDROLOGY	ECOLOGY	RECREATION	CULTURE / EDUCATION		
Short Term - Gorge						
G1S	Support Mission Trails Regional Park effort to establish a continuous trail system and identify potential connections between the San Diego River Park Trail and Existing hike/bike trails in Mission Trails Regional Park..	Potential to improve water quality through increased soft surface filtration.		Improving connection will enhance awareness and recreational experience for users of the multi-use river trail.		Continue dialogue with Mission Trails Regional Park Master Plan and San Diego Bicycle Master Plan to identify potential alignments within Park and along Mission Gorge Road.
G2S	Support existing and proposed interpretation of the river and history of the park at Mission Trails Visitor and Interpretive Center				Build upon interpretation of significance of river to settlement of region.	Continue dialogue with Mission Trails Regional Park Master Plan and Citizens Advisory Committee.
G3S	Support existing interpretation of the river and the history of valley at campground and Kumeyaay Lakes.				Build upon interpretation of significance of river to settlement of region.	Continue dialogue with Mission Trails Regional Park Master Plan and Citizens Advisory Committee.
G4S	Support the implementation of the Kumeyaay Lakes Dredging and Berm Restoration Capital Improvement Project.	Explore the potential to reintroduce sediment excavated into the river system downstream to invigorate sediment transport process.	Ensure native habitat along Kumeyaay Lakes.			Continue dialogue with Mission Trails Regional Park Master Plan and Citizens Advisory Committee.
G5S	Create soft-surface San Diego River Park Trail segment between Mission Trails Regional Park and proposed segment adjacent to Carlton Oaks Golf Course. Connect to Mast Boulevard Trail head on Park and to Father Junipero Serra trail.	Potential to improve water quality through increased soft surface filtration.		Improving connection will enhance awareness and recreational experience for users of the multi-use river trail.	Create views to river and access from golf course.	Coordinate with Mission Trails Regional Park Master Plan, citizens advisory committee, private land owners and appropriate agencies to identify specific trail alignment, establish easements and means to implement.
G6S	Support the implementation of the Old Mission Dam Dredging Capital Improvement Project.	Explore the potential to reintroduce sediment excavated above dam into the river system downstream to invigorate sediment transport process.	Ensure native habitat value along the river.		Provides for historic interpretation of the Dam, ensures structural integrity of historic dam, and could potentially provide source for sediment downstream if reintroduced into system.	Continue dialogue with Mission Trails Regional Park Master Plan and Citizens Advisory Committee.
Short Term - Plateau						
P1S	Create San Diego River Park Trail head, as a gateway to San Diego at Carlton Oaks Golf Course. Coordinate with City of Santee to create habitat and trail connection to Santee Lakes and to Mast Park.			Provide continuous multi-use trail.		Initiate dialogue with City of Santee planners, golf course owners and City of San Diego to identify potential trail alignment, vegetation changes, and kiosk/trail head location.
P2S	Create historic interpretation zone.			Provide continuous multi-use trail.	Interpret significance of the river to historic settlement at confluence of San Diego River and Santee Lakes as gateway to City of San Diego segment of River Park.	Install signage, interpretive kiosks and furnishings providing information about the San Diego River Valley and its importance to the settlement of the valley as well as the natural systems and ecology of the region. Implement as part of the trail development.
P3S	Capitalize on existing tree galleries in golf course to create buffer along river and remove exotic vegetation from river corridor.	Native vegetation buffer between river channel and golf course will filter runoff and improve water quality.	Native vegetation will expand and improve riparian wildlife habitat and habitat connectivity. Removal of exotic species will also reduce seed source limiting dispersal into Mission Trails Regional Park.		Potential for community educational program for removal of exotic vegetation	Initiate dialogue with golf course owners and City of San Diego to explore potential to evolve golf course edge toward native plant species and to develop a vegetation management plan.

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		HYDROLOGY	ECOLOGY	RECREATION	CULTURE / EDUCATION	
Executive Summary	P4S	Create River Park Trail head, as a gateway to River Park at Carlton Oaks GC. Coordinate with City of Santee to create habitat and trail connection to Santee Lakes and to Mast Park.	Potential for native vegetation to replace non-native species within the golf course.	Provide continuous multi-use trail under SR-52 and through or adjacent to Carleton Oaks Golf Course that will connect to City of Santee trail system.		Initiate dialogue with City of Santee planners, Padre Dam Municipal Water District, golf course owners and City of San Diego to identify potential trail alignment, vegetation changes, and kiosk/trail head location. Coordinate with improvements proposed by Santee Lakes master Plan.
Introduction	Long Term - Gorge					
	G1L	Collaborate with Mission Trails Regional Park to create waystation at edge of Mission Trails Regional Park with interpretive information.		In long term, creates opportunity for rest stop on trail at edge of Mission Trails Regional Park.	Interpret Mission Dam Flume, cultural history and natural habitat of Mission Trails Regional Park.	Install signage, interpretive kiosk and furnishings with implementation of San Diego River Park Trail segment as part of the Superior Mine redevelopment.
Principles	G2L	Continue to support maintenance of the Old Mission Dam dredging. This project may need to recur in the future on a regular basis.	If sediment can be reintroduced below dam some sediment transport can be reestablished.		Provides for historic interpretation of the Dam, ensures structural integrity of historic dam, and could potentially provide source for sediment downstream if reintroduced into system.	Explore the potential to develop a low impact approach to sediment removal that will allow small amounts of sediment to be reintroduced into the river system downstream to invigorate sediment transport process.
	Long Term - Plateau					
Recommendations	P1L	Explore potential to connect with new open space to north and east.	Preserving open space will maintain filtration of runoff and protect water quality.	Preserving open space will protect wildlife habitat and habitat connectivity.	Plan for active recreation facilities commensurate with new East Elliot development.	Monitor future action related to land acquisition and explore opportunities to create wildlife habitat, trail linkages under or over SR-52 to East Elliot and interpretation of San Diego River Valley history.
	P2L	If golf course use were to change in the future, entire site should be preserved for natural open space with a neighborhood scale park as a gateway to the San Diego River Park.	Creating natural open space will maintain filtration of runoff and protect water quality.	Creating natural open space will protect wildlife habitat and habitat connectivity.	Introduces River Park and creates strong interface with City of Santee	Monitor future action related to potential land use change.
Design Guidelines	P3L	Integrate secondary stream channel through golf course with main San Diego River channel and create buffer. Expand native vegetation through golf course for wildlife habitat and to increase filtration to improve water quality.	Natural buffer will improve water quality by filtering runoff from golf course.	Natural buffer will expand wildlife habitat and improve connectivity.		Initiate dialogue with Carlton Oaks Golf Course to identify methods to modify golf course to be more environmentally compatible with river corridor.
Implementation	P4L	Explore potential to realign some golf holes to eliminate dike, recreate stream meander, realign multi-use trails and expand native wildlife habitat. Consider a new concept for the golf course as a links or target course that is substantially native vegetation.	Improves river hydrologic function and water quality.	Expands riparian habitat.	New multi-use trail is critical to continuity of River Park, potentially along south edge of new meandering and braided stream with connections to Santee, Navajo, Lake Murray.	Waystation interpretive opportunities - Upper river, reservoirs, topography, communities, Gateway to San Diego.

Glossary

active recreation	programmed activities requiring specific built facilities, such as baseball fields, soccer fields, swimming pools, etc.	cut-off fixture	a lighting fixture that reduces or eliminates the light emissions above a 90 degree plane; a full cut-off fixture allows no lights to escape above a horizontal line through the fixture, a semi-cutoff allows a reduced amount of light above this angle
aeration	a process of adding oxygen to water, accomplished by natural means such as streambed turbulence or by artificial means such as fountains	daylighting	redirection of a section of a stream or creek that was previously underground into an above-ground channel
alluvial	of or relating to the sediment deposited by flowing water	delta	alluvial deposit at the mouth of a river; area where a river divides before entering a larger body of water
alluvium	sediment deposited by flowing water	disturbance/recovery cycle	the length of time necessary for an ecosystem to restore itself following a damaging event; system resilience
aquifer	an underground layer of porous rock, sand or gravel that bears water	easement	the legal right to use land not owned by the party in question for a particular or limited purpose, such as a highway or utility
basin	a region drained by a single river system	ecostructure	the more constant, stable elements of the biosphere that form the framework of environmental interactions and events
best management practices	structural, nonstructural or managerial methods that protect surface- and groundwater quality; these practices prevent or reduce the movement of sediment, nutrients, pesticides and other pollutants from the land into bodies of water	ecosystem	a self-sustaining system of organisms (plant and animal) and environment that functions as a single ecological unit
biodiversity	variability in different species of plants and animals within and between ecosystems	ephemeral (river)	a river that flows sporadically and briefly, usually following storm events or snowmelt; the flow may last hours or days
biomass	total amount of living matter, both plants and animals, within a given area	evapotranspiration	loss of water from the soil by evaporation and by transpiration of the plants growing in the soil
biota	inclusive term referencing the entire body of plant and animal life of a given region	exotic plants	non-indigenous vegetation; exotic species may be introduced to a region either intentionally or accidentally
braiding	condition in which a river channel has broken into a network of smaller, interwoven channels; erosion, sediment load, and variable flows can all contribute to braiding	filtration	the process of separating materials, as in pollutants or sediment, from the liquid in which they are suspended
Caltrans	California Department of Transportation	floodplain	any normally dry land, usually adjacent to a stream river or lake, that is subject to flooding
channelization	re-design of a river or stream's pathway; channelization will often straighten a waterbody's course to remove meander, and/or armor the banks so that flows can travel downstream faster		
confluence	area where two or more rivers join and flow into each other		

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Executive Summary	floodway	a channel for carrying excess waters downstream, usually following storm events; water velocities tend to be greatest in this area	infiltration basin	a facility constructed within highly permeable soils that provides temporary storage of stormwater runoff, used to remove pollutants and encourage stormwater to seep back into the ground
	flow velocity	the volume of water passing through a specified area in a specified unit of time	infrastructure	the basic services and facilities needed for a community or society to function, such as transportation and utility systems
Introduction	FSDRIP	First San Diego River Improvement Project	interceptor sewer	a sewer designed to convey dry weather flow from the combined sewer system to the treatment plant
	glare	light that is significantly brighter than the level to which the eye is adapted, and which causes annoyance, discomfort or loss of visual performance and visibility	interpretive kiosk	a small structure with one or more open sides that is used to display cultural or other educational materials about a nearby feature or area
Principles	grade-separated crossing	a highway or road crossing that uses an underpass or overpass to allow different modes of travel to cross without interruption over the highway or road	invasive plants	species that disrupt native plant communities; these species compete with and may often displace native vegetation
	groundwater recharge	process by which external water, usually rain or snowmelt, is added to an aquifer	Kumeyaay	late prehistoric peoples inhabiting the San Diego River valley, circa 2000 years ago to mid 1700's.
Recommendations	headwaters	source of a river or stream	levee	an embankment to control flooding
	hydraulic	moved, operated or effected by liquid	light trespass	light which shines into neighboring properties or is of an undesirable or obtrusive nature
Design Guidelines	hydrologic	dealing with the properties, distribution and circulation of water on and below the earth's surface and in the atmosphere	links style golf	golf course characterized by open, rolling terrain, natural vegetation, target landing zone and considerable use of topographic features
	hydrologic regime	sum total of water that falls in or flows through an area on average during a given period	low flow channel	the course or path within a larger channel that typically carries flows during periods of low and/or normal water levels
Implementation	hydromodification	process whereby a streambank or riverbank is eroded by flowing water, typically resulting in suspension of sediments in the water	macrophyte	algae visible to the naked eye; a macroscopic, aquatic plant
	impervious	not allowing the passage of water	maintenance assessment district	a special district that assesses additional property tax within a defined region to fund and maintain unique public amenities that are above city standards, in this case, along the river corridor
Appendices	impound	to collect and confine water in a reservoir or other structure	meander	irregular, turning course of a stream or river
	infill	development of vacant, underutilized or derelict parcels within an already urbanized area		

mitigation site	an area used to compensate for an environmental impact by providing substitute or replacement resources in another location	pocket park	a small park accessible to the public
MTRP	Mission Trails Regional Park	pulse flow	high flows occurring during storm events
multi-use trail	non-vehicular pathway that accommodates a variety of users, which may include pedestrians, bicyclists and, less frequently, equestrians	quasi-governmental entity	a body or organization that carries out, by contract or assigned power, functions normally executed by a government agency
native plants	a region's indigenous vegetation; plant species which existed in an area before human intervention	reach	portion of a stream or river with a unified character or landscape
non-point source load	pollutants that come from a wide variety of sources, rather than a single, specific point of origin	riffle	area of shallow, turbulent water passing through or over stone or gravel of a fairly uniform size
open space	area generally free from development or developed with low intensity uses that respect natural environmental characteristics	right of way	strip of land over which public infrastructure--roads, utilities, railways--is built
outfall sewer	a sewer that discharges treated sewage effluent to a stream or river	rip rap	large rocks of a fairly uniform size used to prevent erosion
overstory	uppermost layer of foliage in the tree canopy	riparian	of, on or related to the banks of a natural water body
passive recreation	hiking trails, cultural interpretation nature study	SANDAG	San Diego Association of Governments
perennial (river)	a river that flows continuously	sediment load	organic and inorganic matter, both large and small, that is suspended in and/or carried by moving water; includes suspended particulate matter, nutrients dissolved in water as well as gravel or stones that move along the bottom of the streambed
physiographic	describing the earth's physical geography	sediment transport	the movement of materials by gravity, water or wind
phytoremediation	use of plants and trees to remove or neutralize contaminants	setback	a required distance between property line and edge of building or structures; setbacks may apply from all (front, side, rear) or no property lines of a particular parcel
pioneer species	the first species or community to colonize a barren or disturbed area	sight line	imaginary line from the eye to a perceived object
plant community	the plant populations existing in a shared habitat or environment	sky glow	a condition where the night sky is illuminated by overly bright electric lights, producing a luminous haze that prevents a clear view of the stars
plant palette	the set or selection of plants chosen for a particular purpose	spill light	light which extends outside the intended area or object of illumination
plume	a subsurface column of one or more pollutants released from a point source		

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Executive Summary	stakeholder	an individual or group who has a particular interest, monetary or otherwise, in a specific topic or project	watershed	a region draining into a river, river system or other body of water; may contain several basins
	substrate	the base on which an organism lives	waystation	a rest or interpretive area occurring between principal destinations along a route such as a bike trail
Introduction	sustainable design	design that meets the needs of the present without compromising the ability of future generations to meet their own needs; the thoughtful use of resources that reduces the negative impacts	xeriscape	the use of drought-resistant and water-conserving plants
	swale	a shallow topographic depression designed to convey water, usually from storm events		
Principles	symbiotic	describing a cooperative relationship of two dissimilar organisms that is mutually beneficial to each		
	synergy	combined energy of two or more organisms or entities that is advantageous to both or all parties		
Recommendations	tidal marsh	low, flat marshlands traversed by channels and tidal hollows, subject to tidal inundation		
	topography	the surface features, both natural and human-made, of a region		
Design Guidelines	tributary	a small river or stream that flows into a larger river or stream		
	trunk sewer	a sewer that receives wastewater from many areas		
Implementation	understory	underlying layer of vegetation, particularly smaller trees and shrubs, in the tree canopy		
	urban runoff	water that collects and quickly runs off of primarily impervious surfaces such as roofs, streets, sidewalks, parking lots; this water, carrying such things as oils, grease, pesticides, soil, pet droppings, is untreated when it enters the storm sewer system and is thus one of the largest sources of non-point waterway pollution		
Appendices	water quality buffer	a vegetated zone adjacent to a water body that helps prevent pollutants from entering surface waters by trapping sediment and the substances contained therein		

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