

3.5.5 Redevelopment and Reclamation

Land reclamation transforms landscapes from previous urban and industrial uses to make them available for other economically viable and ecologically sustainable uses. For example, gravel quarries, old parking lots, exhausted mines and other unused land can become parks, residential and commercial development, restored habitat areas, “green” golf courses and river frontage. Reclamation and closure plans will emerge from negotiation and partnership with the current owners and operators of these properties. The cumulative effect of reclamation along the river offers increased open space, important groundwater protection and recharge, and economic development potential. (See Figure 3-14.)

3.5.6 Habitat Enhancement

Previously, local plant species provided habitat for native fish, birds, and other wildlife. In specific settings on and near the river, protecting and re-creating original environmental conditions can help native plant and animal communities flourish in a place that was once their natural home. Where feasible, hydrological and biological functioning of the river and wetlands is being restored to support native plant and animal communities. This includes removing the exotic plants that have now overwhelmed the local plant species. And new connections between existing habitat areas will help wildlife negotiate an otherwise dense urban area. (See Figure 3-15.)

3.5.7 Water Quality and Supply

Spreading basins, bio-engineered wetlands, rubber dams and other water resource enhancement projects expand water supply capabilities such as groundwater recharge, while also helping cities and agencies meet water quality objectives. The cumulative impact of water supply projects will increase the local water supply, increase the use of reclaimed water, and decrease the amount of imported water needed. Water treatment will provide cleaner waters for other beneficial uses such as recreation and habitat.

By mimicking natural water purification processes, bio-engineered wetlands and streams can effectively meet the objectives of multiple plan elements. Wetlands usually occur along riparian corridors or in artesian areas where the groundwater table is high and where water appears on the surface when the ground is saturated. Engineers and planners can design bio-engineered wetlands in large open spaces downstream of areas where industrial, commercial or heavy residential uses generate polluted stormwater runoff. As shown here, new wetlands send urban runoff through a filter of



Figure 3-13. More people will be able to enjoy recreation along the river.



Figure 3-14. Reclamation projects can creatively blend engineering and ecology.



Figure 3-15. New habitat areas can be designed to allow controlled public access and habitat-friendly uses.

vegetation and soil that cleanses the water. Water either percolates down and recharges the groundwater, or continues as a surface stream back to the river. (See Figure 3-16.)

3.5.8 Studies

Technical and social feasibility research is now exploring the potential for river enhancement projects at specific site locations. These studies will determine the viability of a suggested opportunity, evaluate optional project designs, estimate costs and benefits, and identify likely funding sources—and may lead to specific projects at these targeted locations or to policy changes at a local or regional level. Other studies are larger in scale, looking at complex systems such as watersheds on a regional basis.

These special studies will determine the best long-term management strategy for ecosystem and economic health, land use and water resource management decisions. Specific project and policy recommendations will be derived as well. (See Section 1.5 for more information.)

3.6 MASTER PLAN PROJECTS

Stakeholders representing cities and government agencies, and representatives of local community-based non-profit organizations, developed 134 river enhancement projects (categorized here by reach). They are either entirely new projects or an enhancement of an existing project to increase

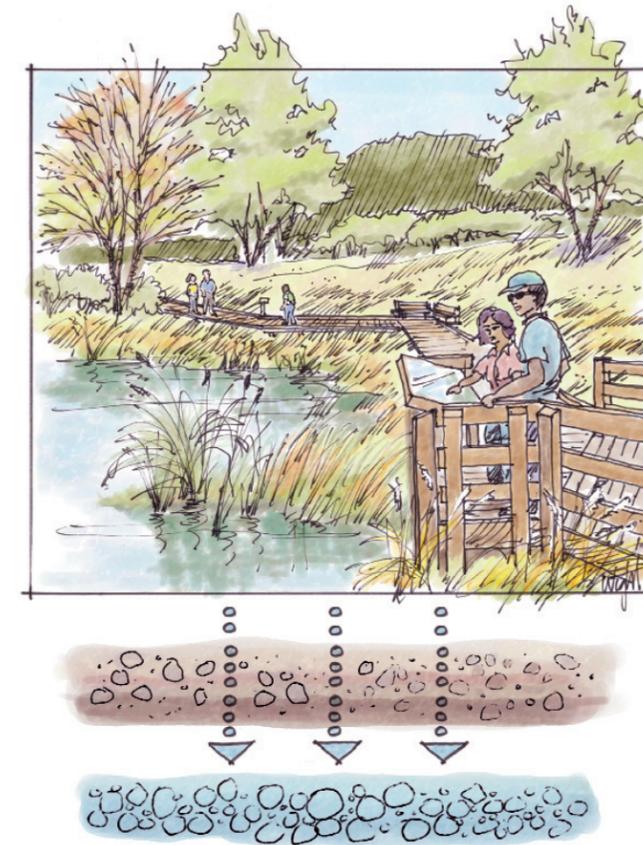
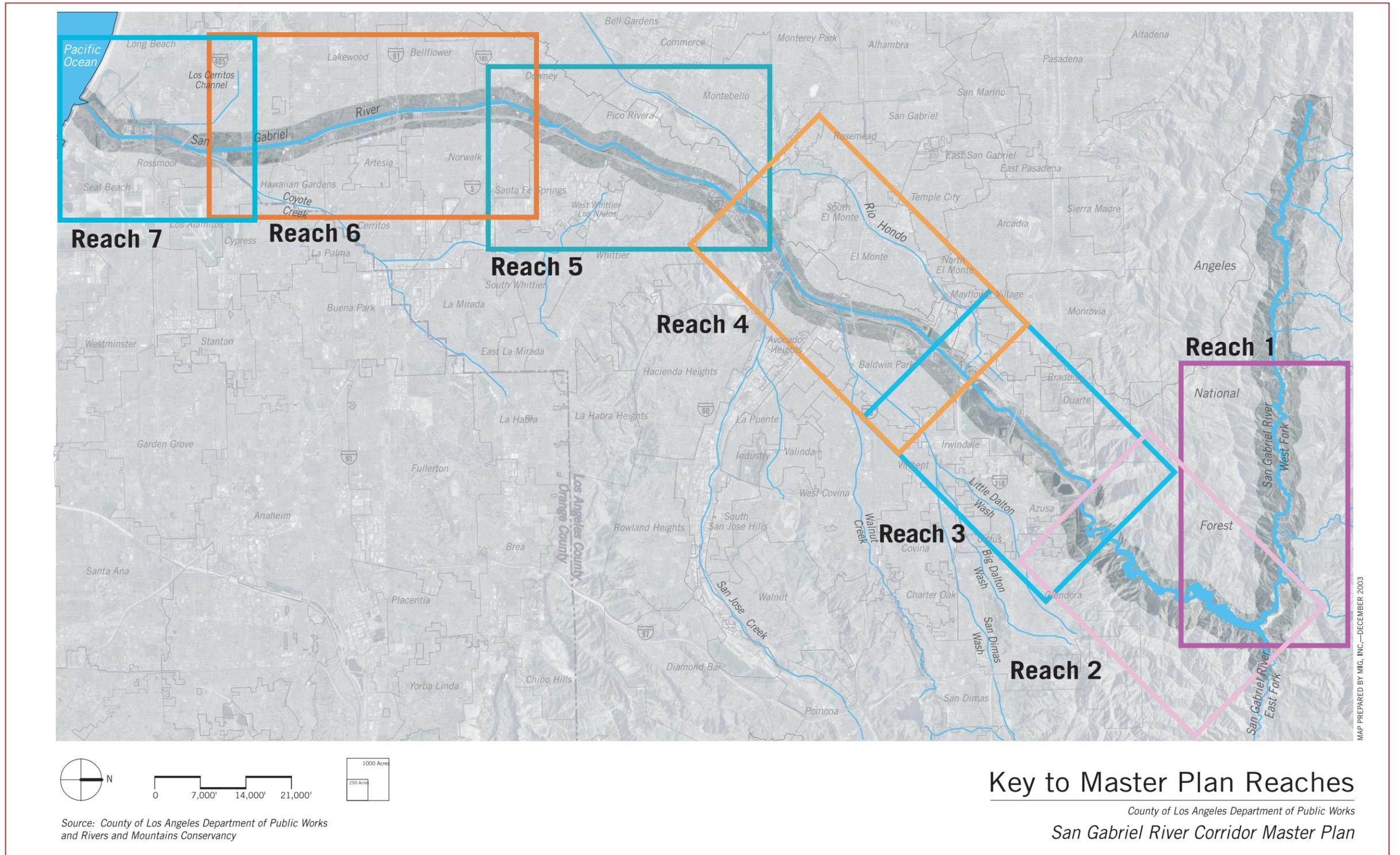


Figure 3-16. Bio-engineered wetlands can increase the local water supply and provide passive recreation opportunities.

its river-friendly functioning. Implementing these projects all along the corridor will help achieve the future vision of the river.

Each project is labeled on reach maps and color-coded by the river enhancement concept that best applies (see Sections 3.5.1–3.5.7). Virtually all projects are multi-objective and fall into several river enhancement concept categories. The accompanying text contains key information about each project. Taken together, the reach maps provide a graphic picture of the spatial distribution of projects and the stakeholders' collective vision. In addition, a summary overview is available in the Master Plan Projects Action Grid (Appendix A).



Map 3-1. Key to Master Plan Reaches.

3.6.1 Reach 1: Headwaters

Location

This reach plays a special role in the development of the river as we know it today. The West Fork of the San Gabriel River actually begins about 12 miles above Cogswell Dam at the very top of the watershed, near Red Box. It has a unique west to east flow at that point, through undisturbed riparian and woodland habitats. The project area begins near Cogswell Dam. The West Fork flows east from the dam for about 8 miles, where it meets the North Fork, then for another 2 miles to its confluence with the East Fork of the river. (The North Fork and East Fork are not in the project area.)

Character

Located completely within the Angeles National Forest, the Headwaters Reach is characterized by wide, steep canyons, heavily forested slopes and a natural river bottom providing habitat for native fish and other wildlife. Only here in the headwaters is the river unaltered by human-built structures (with the exception of the Cogswell Dam) and is mainly uninhabited. This reach captures the heaviest rainfalls in the watershed, over 30 inches a year, which results in significant flows during the winter and early spring.

Key Issues

As it passes through the Angeles National Forest, the San Gabriel River's West, North and East Forks offer tremendous recreational opportunities for the heavily urbanized communities of LA County. About 3.5 million people visit the Angeles National Forest each year—with inevitable effects on the forest and river environments. The issue is how to balance vitally needed



Figure 3-17. The West Fork is a pristine environment.

recreational use while protecting delicate habitat areas and maintaining flood prevention, water quality, and other beneficial river functions.

Projects Overview

Two significant planning efforts are underway for the river and forest: the San Gabriel River Watershed Management Plan and the Forest Plan. These plans will have a significant impact on natural resource management in both the Angeles National Forest and the urbanized areas of the watershed. Among the projects proposed for the Headwaters Reach are two that have been initiated by recreation-interest groups and include about 5 miles of new trails. Those projects can play an important role in protecting the river's natural beauty while providing recreational opportunities for their members and other enthusiasts. Each project presents possible solutions that can be applied to future efforts, especially as continued population growth places more pressure on the Angeles National Forest. (See Map 3-2 for locations of Reach 1 projects.)

R1.01 Fisherman's Trail Above Cogswell Dam

The Fly Fishers Club of Orange County (FFCOC) has proposed establishing a recreational easement (Trail) across or around the LADPW facility at Cogswell Dam allowing access to the upper West Fork of the San Gabriel River. Pedestrian access to the River was blocked by completion of Cogswell Dam in 1934. Project implementation will require close coordination with LADPW and the U.S. Forest Service. Access to the West Fork of the San Gabriel River above Cogswell Dam now requires a very long hike through the mountains from the area near Mt. Wilson. A trail around Cogswell Reservoir would involve access through LADPW and USFS controlled property. An alternative route would require a new trail around either the north or south side of the reservoir. The Project's scope could be expanded to include access across or around Cogswell Dam, which was recently closed by LADPW due to increased security considerations. This recent closure cut off access to the existing Devil's Canyon trail, the San Gabriel Wilderness area and the stream in Devil's Canyon. The Fisherman's Trail project might be able to provide access to both the West Fork and to the existing Forest Service trail into Devil's Canyon.

R1.02 Sediment Management Plan (Cogswell Reservoir)

Under the Sediment Management Plan, Cogswell Dam will be cleaned out about every 10 years, by means of mechanical excavation. NEPA and CEQA reviews for the Sediment Management Plan were concluded in 1997 and 1998, respectively.

R1.03 Long Term Management Plan: West Fork, San Gabriel River

This plan, developed in 1989 by the West Fork Working Group (WFWG), addresses management of the West Fork, including Cogswell Reservoir. The WFWG includes the USDA Forest Service, County of Los Angeles Department of Public Works (LADPW), California Department of Fish and Game, California Trout, Incorporated, Main San Gabriel Basin Watermaster, San Gabriel Valley Protective Association, and the San Gabriel Water Committee. Six objectives of the Plan include flood control, dam safety, water rights, fisheries optimization, recreation and land use management.

R1.04 Forest Master Plan Update

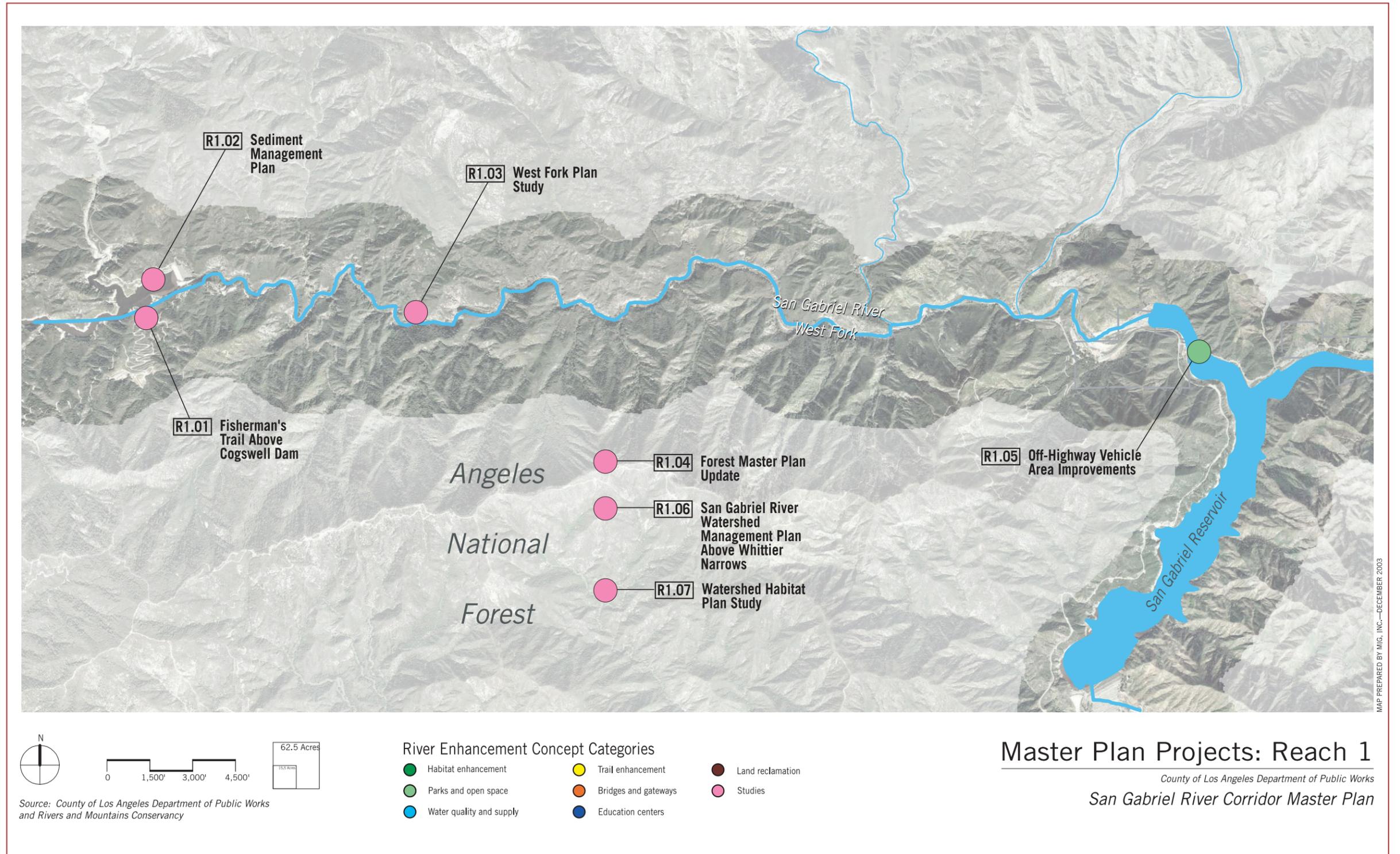
The four southern National Forests including Angeles, San Bernardino, Los Padres and Cleveland, are updating their Master Plans. The Forest Plans address issues of resource management, recreational access issues, habitat and other concerns of forest stakeholders.

R1.05 Off-Highway Vehicle Area Improvements

Near the eastern edge of the Headwaters Reach, just above its confluence with the East Fork, is a large, flat river bottom area that is a favorite spot with off-highway vehicle users. The Azusa Canyon Off-Roaders Association (ACORA) is proposing improvements to existing stream crossings and habitat restoration for the Santa Ana sucker to minimize impacts from off-road vehicle use, while providing selected amenities for the benefit of off-highway enthusiasts and other river visitors.



Figure 3-18. Off-road vehicle enthusiasts often congregate at the East Fork confluence.



Master Plan Projects: Reach 1

County of Los Angeles Department of Public Works
San Gabriel River Corridor Master Plan

Map 3-2. Master Plan Projects: Reach 1.

R1.06 San Gabriel River Watershed Management Plan Above Whittier Narrows

This planning study by the San Gabriel Mountains Regional Conservancy (SGMRC) is funded by Proposition 13. The project will develop land use-based recommendations that address water quality and supply, habitat, recreation and open space, and land and water stewardship opportunities. The “Think River! Youth Watershed Conference” is an outgrowth of this project. Within the Angeles National Forest, the focus will be on the heavily used areas of Highway 39 and the North and East Forks of the San Gabriel River. In the lower urbanized sub-watersheds of San Jose and Walnut Creeks, the focus will be on water quality, education, stewardship, habitat linkages and open space.

R1.07 San Gabriel Watershed Habitat Restoration Assessment Project

This study will augment the San Gabriel River Watershed Management Plan (R1.06) by mapping and assessing current habitat conditions in the San Gabriel River Watershed. It will also evaluate the opportunities and constraints for habitat restoration along urban corridors, undeveloped areas, and protected open spaces in a manner that will also protect other resources such as water quality. Attention will be given to potential wildlife corridor improvement opportunities and protection of regional species biodiversity.

3.6.2 Reach 2: San Gabriel Canyon

Location

The San Gabriel Canyon Reach is about 8 miles long. It begins where the main stem of the river joins the East Fork and turns south, and ends at the mouth of the canyon, 1.5 miles south of Morris Dam, just before entering Azusa. A natural flowing section of the river meanders between the San Gabriel Dam and the Morris Dam Reservoir.

Character

This is a breathtaking reach, still within the Angeles National Forest. Here, the river widens as it turns southward and travels down the dramatically steep San Gabriel Canyon. Two major flood control facilities, the San Gabriel and Morris Dams and Reservoirs, are key features of this stretch. The San Gabriel Dam backs sediments up into the East and West Forks—the original river bottom may be 100 feet or more beneath the decades of sediment build-up behind the reservoir.



Figure 3-19. The steep slopes of San Gabriel Canyon provide a dramatic backdrop to the meandering San Gabriel River.

Key Issues

The San Gabriel Canyon Reach has significant recreational potential, but that must be carefully balanced with fundamental flood protection, water supply and water quality functions that take place here.

Projects Overview

Several of the projects in this reach explore the recreational carrying capacity of the river, particularly as they relate to water. The projects determine whether and where river water might be used for recreational pursuits, how to protect water quality where visitor access is deemed feasible, and whether to add water to create year-round flows adequate for supporting fish habitat. These projects could add 40 acres of park and open space and 2 miles of additional trails. (See Map 3-3 for locations of Reach 2 projects.)

R2.01 Black-Fly Vector Research

On behalf of the FFCOC, a funded research study conducted by consultants of the San Gabriel Mountains Regional Conservancy is evaluating the river’s black fly populations, a source of fish food. Fluctuations in black fly populations have implications for stream ecology, interdependent organisms, bio-indicators, as well as human health and vector control methods.

R2.02 San Gabriel Reservoir Recreational Study

This 1992 LADPW study investigated expanding non-water oriented recreational activities at or near the reservoir. Its recommendations need to be updated in light of today’s increased security considerations.

R2.03 Highway 39/San Gabriel River Recreation Needs Assessment

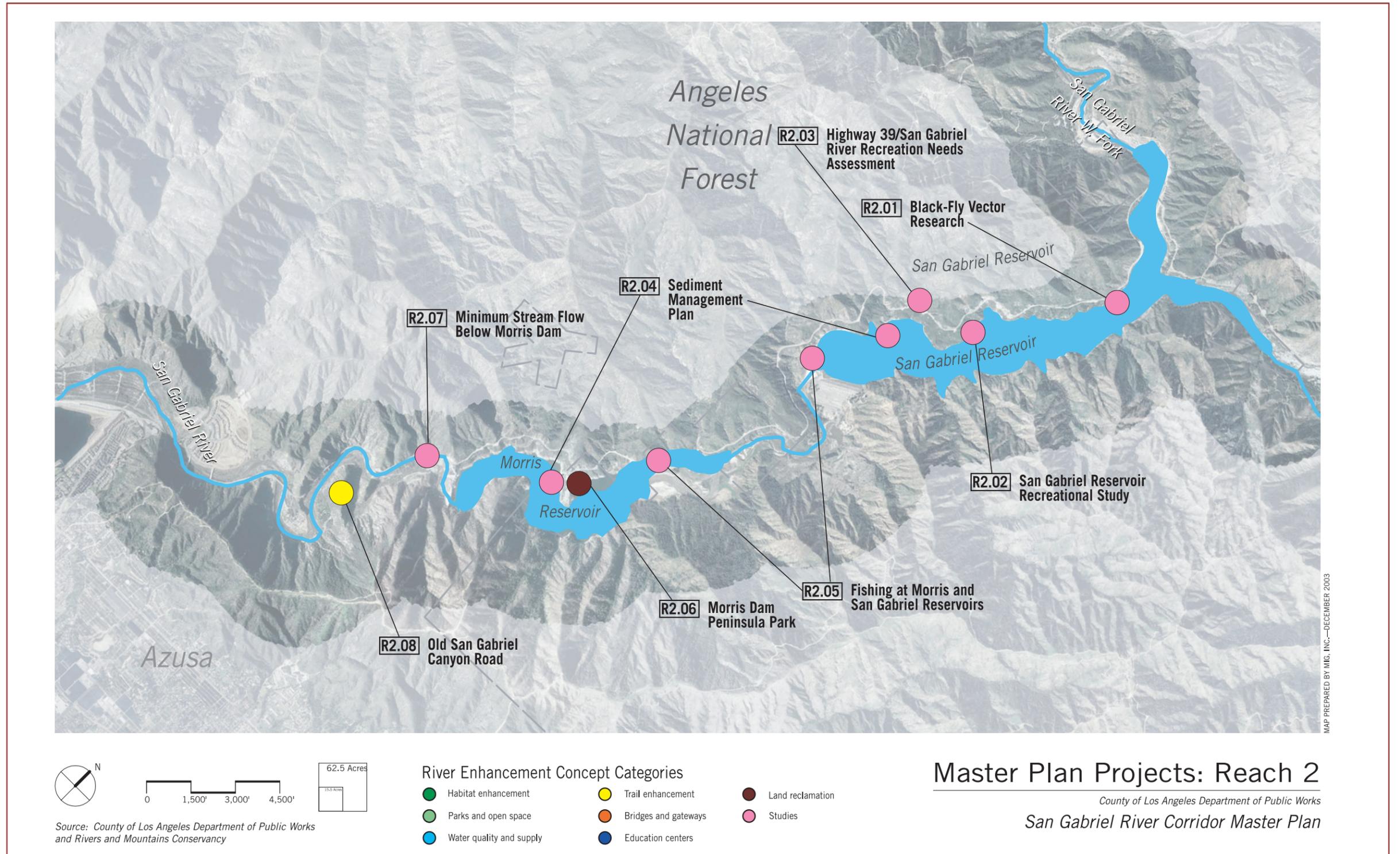
The SGMRC is developing a proposal to address issues relating to high usage along the Highway 39 area of the river, for a Proposition 13 Nonpoint Source Pollution grant. A significant amount of trash has accumulated in the river and along Highway 39. Toilet facilities are insufficient for the thousands of visitors, and more parking, trash and ash receptacles, and information/interpretive kiosks are needed. A needs assessment study will explore current recreational usage and needs, as well as potential impacts on habitat and water quality.



Figure 3-20. Lack of visitor facilities and amenities are serious issues for visitors to the Angeles National Forest.

R2.04 Sediment Management Plan (San Gabriel Canyon)

A current LADPW study explores options for removing sediment that has accumulated behind both the San Gabriel Dam and the Morris Dam. In the wake of the 2002 Curve and Williams Fires, LADPW is planning to undertake a 5-million cubic yard emergency clean out of San Gabriel Reservoir, which is anticipated to start in 2004 and last for several years.



Map 3-3. Master Plan Projects: Reach 2.

R2.05 Fishing at Morris and San Gabriel Reservoirs Study

This FFCOC study will investigate the feasibility of providing limited access to Morris and San Gabriel Reservoirs for non-body contact fishing and related recreational activities, including allowing float tubes and non-motorized boats onto the reservoirs. The feasibility study will use the existing Department of Health Services Guidelines for non-body contact public access onto reservoirs, and access limitations successfully employed at other locations where recreational fishing is permitted at public reservoirs. It will address all concerns related to necessary operations at LADPW facilities. The study recognizes that access may be seasonally limited, with further restrictions required to accommodate maintenance of the reservoirs and associated facilities. As with all projects in the Master Plan, it will be important to ensure that the multi-objective framework of habitat, recreation, open space, flood protection, water quality, and regulatory compliance is maintained. Both LADPW and the Upper San Gabriel Valley Water District will jointly fund the feasibility study.



Figure 3-21. The U.S. Navy tested over 50 types of torpedoes and bombs in the Morris Dam Reservoir during World War II.

R2.06 Morris Dam Peninsula Park

The largest available open space along the national forest section of the river, this 40-acre peninsula juts into the Morris reservoir at the former site of a Navy torpedo testing facility adjacent to Highway 39. It can be reclaimed and developed for recreational day-use, over-night camping, trails and an interpretive center for the national forest, including a historic military interpretive site. The development of this park would provide additional needed park facilities with parking and other site amenities to relieve the serious weekend congestion of Angeles National Forest visitors.

R2.07 Minimum Stream Flows Below Morris Dam Project

Upon further consideration among all interested groups, this proposal is withdrawn for the time being.

R2.08 Old San Gabriel Canyon Road

This two-mile County service road extends south from Morris Dam at a pump station down to Azusa by the El Encanto Restaurant. A City of Azusa project, this road can provide river access for hikers and bikers and could also be linked to the nearby San Gabriel River Bike Trail via the Canyon Inn and El Encanto properties. A safe crossing of Highway 39 is needed.

3.6.3 Reach 3: Upper San Gabriel Valley

Location

The Upper San Gabriel Valley Reach extends seven miles from the mouth of the San Gabriel River Canyon above Azusa, south to the Santa Fe Dam in Irwindale.

Character

This complex, tenuous urban/wildland interface features large remnants of natural wilderness that commingle with residential, gravel mining and industrial land uses. The mouth of the canyon opens up to the broad alluvial plains of the Upper San Gabriel Valley in Azusa as the river leaves the mountains. This reach lies above the San Gabriel Basin, which begins at the base of the impermeable bedrock layers of the mountains. The reach has very deep alluvial deposits, offering some of the most productive recharge opportunities in the river system. The river itself is mainly in a natural state with sandbars and riparian and alluvial fan sage scrub habitat. However, the soft-bottomed channel is confined to engineered

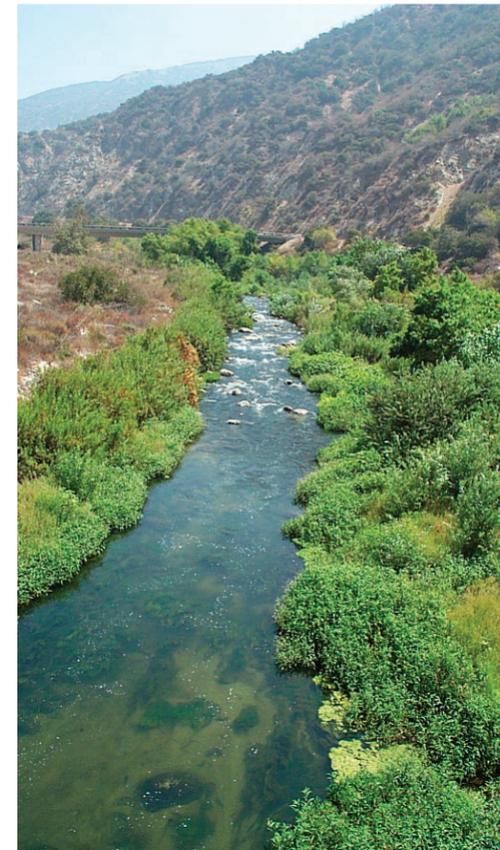


Figure 3-22. The river flows through a natural floodplain in this area.

levees and check dams crossing the river at regular intervals. The Santa Fe Dam Recreation Area is a large open space with stands of alluvial fan sage scrub.

Key Issues

This “edge zone” is in a period of transition. Over the coming decades, quarry sites and other industrial uses will gradually phase out, creating significant restoration opportunities for parks, trails and habitat, as well as economic development opportunities. Land acquisition for open space protection of remaining undeveloped lands is a long-term strategy. In the

short-term, more readily available river access can be provided, while also retaining all-important flood prevention and water conservation functions. Access to in-mountain creek trails is difficult.

Projects Overview

More than half of the 29 projects proposed for this reach are trails or similar projects that can reconnect people to the nearby, but inaccessible, river. Other projects aim to create new parks and open space that restore natural beauty to the area and provide habitat. New and re-opened interpretive centers will help explain the area's natural and cultural significance. (See Map 3-4 for locations of Reach 3 projects.)

R3.01 Azusa Canyon River Park

This City of Azusa project aims to acquire land to develop a river-focused park at the southern end of San Gabriel Canyon. It includes a visitor's center surrounded by a native plant garden, interpretive signage, restored habitat areas, and paths leading down to the river. Landscaping, picnic tables and a small play area will encourage national forest users to visit. Camping in a natural park area will be available. The City of Azusa has already acquired part of the park. This park is adjacent to the Rainbow Canyon Equestrian Center.

R3.02 San Gabriel River Bike Trail Extension

This project will extend the 38-mile regional bike trail from its current terminus near the southern edge of San Gabriel Canyon by the proposed Interpretive Center, to the proposed Azusa Canyon River Park and eventually all the way to Angeles National Forest. A one-mile extension is being built to the Mountain Cove development, near the mouth of the San Gabriel Canyon

R3.03 Robert's Creek Trail Access

Public access to Robert's Creek will be provided through Mountain Cove private residential development, from Azusa Canyon River Park and/or the San Gabriel River Bike Trail Extension.

R3.04 Robert's Creek Restoration

This will be a habitat restoration and park expansion in the canyon area behind Mountain Cove.

R3.05 Westside Trail

A new, multi-purpose trail at the far edge of the flood plain, running parallel to the San Gabriel River on its west side and opposite to the San Gabriel River Bike Trail will be developed. This one-mile trail will run along the San Gabriel Valley Gun Club and provide a connection between the Robert's Creek and Fish Creek Trails.

R3.06 Forest Gateway Interpretive Center

This project will create a new USDA Forest Service Ranger Station and Interpretive Center at the entrance to Azusa Canyon. Diverse educational opportunities will provide information about the canyon, the national forest and native habitat. "Green" building practices and watershed sensitive design principles will be incorporated into the site. North East Trees has already developed the building and site designs for this open space area. The project is currently funded and will be built in 2004.

R3.07 Glendora Ridge Road Trail Access

Public access for pedestrians and bicycles to the existing fire road through the mountains on the south side of the canyon will be provided, either by an access easement through private property, or by creating a new access point. This road leads to Mount Baldy.

R3.08 San Gabriel Canyon Spreading Grounds (Concept Design Study, see Section 3.8.1)

This project will study possibilities for providing landscaping, native habitat restoration, decorative fencing, interpretive signage, trails and other park amenities for public enjoyment and education at two deep spreading basins adjacent to the San Gabriel River. The 165-acre site project will be compatible with the groundwater recharge function of the two basins. Due to the deepness of the two basins, and the fact that it is a major water supply for Azusa, health and safety issues will be key project determinants.

R3.09 Future Pedestrian Bridge

The City of Azusa has indicated to Vulcan Materials Company (Vulcan) that it would like to investigate the use of the existing conveyor belt that traverses across the San Gabriel River as a potential bicycle and pedestrian bridge (about 30 years from now after mining operations cease). Although Vulcan does not have any objections to using this bridge when mining is completed, it has not yet engaged in negotiations with the City to discuss potential liability and cost for converting the conveyor crossing to a bicycle and/or pedestrian bridge.

R3.10 West Riverbank Tree Planting Project at the San Gabriel Valley Gun Club

The San Gabriel Valley Gun Club has proposed planting 200+ trees on the west levee of the San Gabriel River, beside its facilities on land it leases from Vulcan. The Gun Club serves over 100,000 people each year, including recreationists and training organizations such as law enforcement. The trees will provide much needed shade along the river and dampen the sounds that currently echo up the canyon from Gun Club activities. The City of Azusa, representatives of Vulcan and representatives from the San Gabriel Valley Gun Club are in negotiations to mitigate noise emanating from the Club into residential areas. Vulcan has not included these trees as potential mitigation to noise impacts.

R3.11 Azusa Rock Quarry Restoration

Vulcan is currently pursuing a revised reclamation plan for the Azusa Rock Quarry to rehabilitate and restore the area when mining is complete. The existing reclamation plan is subject to negotiations between Vulcan and the City of Azusa. A revised reclamation plan would change the quality of reclamation that currently exists at this quarry site.

R3.12 Fish Creek Restoration and Public Access

Vulcan is currently working with the City of Duarte on (and discussing with the City of Azusa), limited public access through the Azusa Rock Quarry along Fish Creek. For safety and liability reasons, Vulcan will limit access to daylight hours and non-operational hours of the quarry, probably on weekends and holidays. These discussions are ongoing; an agreement has not been reached as of this writing. After mining is complete at the Azusa Rock Quarry site, and with Vulcan's permission, it may be possible to daylight and restore the stream and provide fuller public access through the quarry site.

R3.13 Todd Avenue Bike Trail Connection

This project will connect an existing City of Azusa bike path at the south end of the spreading grounds with the San Gabriel River Bike Trail. The project will provide the local community with a much needed access point to the River Trail.

R3.14 Azusa Bike Trail Network

This project will develop a system of street-side bicycle paths to help bicyclists enter Azusa Canyon from Sierra Madre Avenue or Azusa Canyon Road and connect to the San Gabriel River Bike Trail.

R3.15 Pacific Electric Rails-to-Trails Project

A proposed multi-city project will create an east-west bike trail on an abandoned rail line running parallel to Foothill Boulevard between Monrovia in the west and Claremont in the east. The proposed bike trail design will need to take into account a potential light rail line which is being considered for this route. This trail may integrate with the Duarte Bike Trail, crossing the San Gabriel River at the Puente-Largo Bridge.

R3.16 Azusa-Largo Quarry

This quarry operation, located north of Foothill Boulevard, houses the current aggregate production facility of Vulcan, as well as shop facilities and asphalt plant production facilities. The plant at the Azusa-Largo Quarry produces material from the area in which it exists, as well as material that is transported via a conveyor system from Azusa Rock Quarry. The operation will supply aggregate, construction grade materials as well as asphalt materials for over 40 years. The eventual land use post-mining will be determined later in negotiations between the City of Irwindale and Vulcan.



Figure 3-23. The historic Puente Largo Bridge is part of the proposed Duarte Bike Trail extension.

R3.17 Reliance #2 Quarry

This is an existing landfill operated by Vulcan at a site located south of Foothill Boulevard bordered by the Foothill Freeway (I-210), and bordered on the east by Irwindale Avenue. This operation is currently being used for silt deposition from the existing Reliance Plant and operates as a landfill facility that can ultimately be filled and used for some commercial activity. It is subject to negotiation between the City of Irwindale and Vulcan to determine potential land use and other issues. The time to complete the landfill is not known at this time.

R3.18 Wright-Romvary Properties

The City of Duarte plans to acquire a total of 365 acres of land for open space protection, trails and habitat restoration. The property is adjacent to Van Tassel Creek, a tributary of the San Gabriel River. This project is dependent on funding availability.

R3.19 Duarte Bike Trail Extension

This project will extend and improve an existing 1.5-mile multi-use trail for an additional mile from Royal Oaks Park in the City of Duarte across the historic Puente Largo Rail Bridge to San Gabriel River Bike Trail in Azusa. Improvements will create a safer connection and will include signage, paint lines, lighting, and pavement resurfacing.

R3.20 Route 66/Foothill Boulevard Gateway

This future City of Duarte gateway project, in partnership with the City of Azusa, is located on the historic Route 66 Highway.

R3.21 Santa Fe Dam Recreation Area and Habitat Enhancements

The County of Los Angeles Department of Parks and Recreation (LADPR) plans improvements to habitat areas and trails, including the protection and restoration of remnant alluvial fan sage scrub plant communities by replanting native plants and removing exotics. Other improvements include improving access to the Park's bicycle path by establishing safe crossings and directional signage.

R3.22 Santa Fe Dam Nature Center

A recently re-opened nature center operated by the SGMRC in partnership with County of Los Angeles, provides interpretive trails, habitat restoration, a native plant demonstration garden, outdoor amenities improvements and possible camping, as well as community education and outreach programs. Project sponsors are seeking outreach partners for docent and interpretive programs.



Figure 3-24. The Peter Schabarum Nature Center provides a venue for school groups and interpretive presentations.

R3.23 United Rock Products Quarry #4

This is currently the processing plant for United Rock Products. Material mined in Quarry #2 and Quarry #3 are processed on the site. Additionally, this site has two asphalt plants, two ready mix concrete plants, and equipment shops. United Rock Products and the City of Irwindale are negotiating the mining and reclamation options for this site.

R3.24 Buena Vista Wetlands

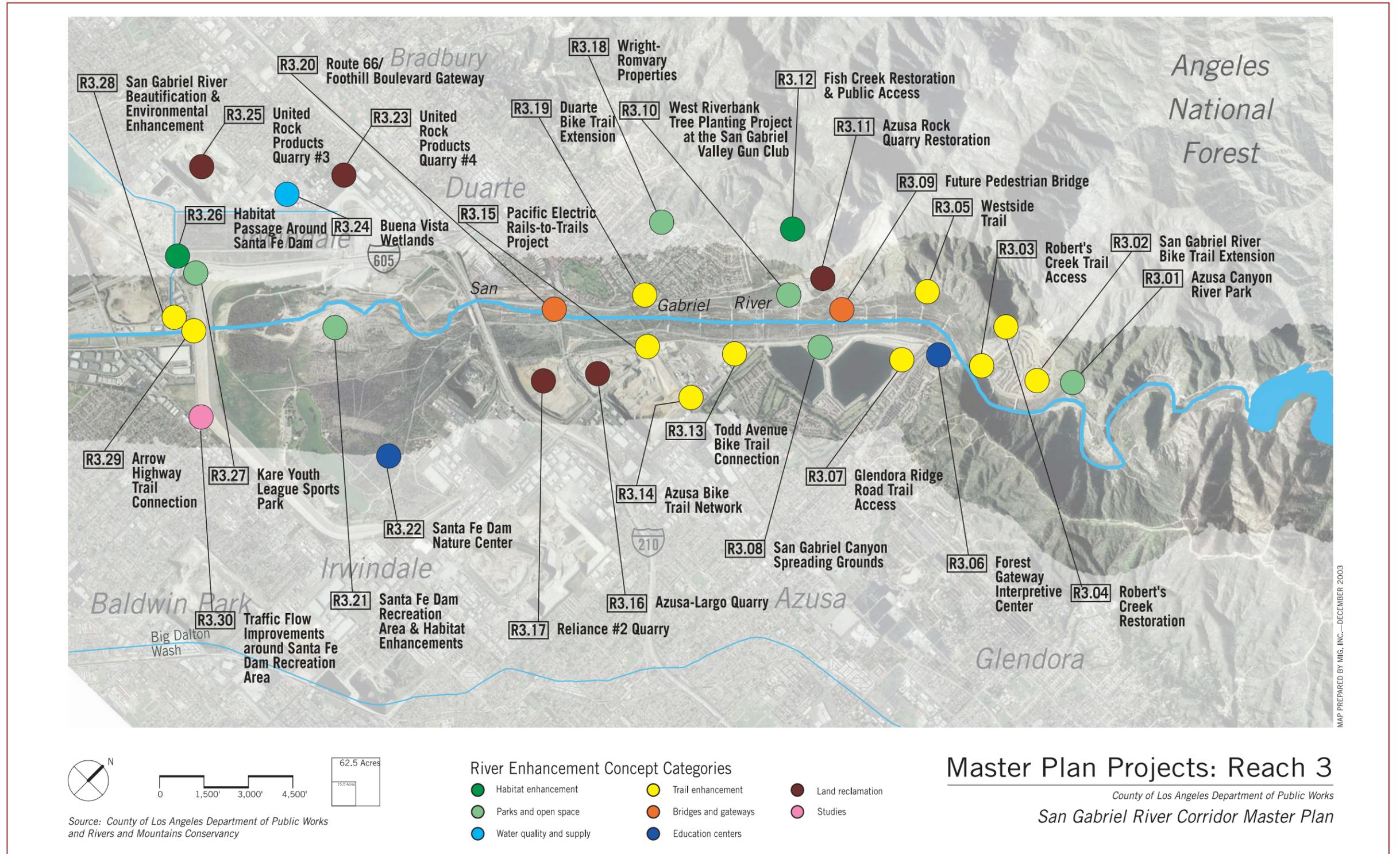
This project will create bio-engineered wetlands for habitat restoration in a LADPW spreading basin west of Santa Fe Dam. A conveyor line, operated by United Rock Products, runs across the westerly part of this property. The line has been in operation since 1983 and is scheduled to be in use until circa 2035. The design and implementation of the wetlands will need to ensure the continued safe operation of this conveyor.

R3.25 United Rock Products Quarry #3

This is an active quarry that will be in operation until 2035. United Rock Products and the City of Irwindale are in negotiations for the reclamation of this site, which is scheduled to be completed in 2061.

R3.26 Habitat Passage around Santa Fe Dam

This project will provide a habitat linkage at this "pinchpoint" to complete the Puente Hills to San Gabriel Mountains habitat corridor. The U.S. Army



Map 3-4. Master Plan Projects: Reach 3.

Corps of Engineers (COE) owns key parcels in this area. COE is willing to partner with other agencies and private groups to identify opportunities for creating this linkage.

R3.27 Kare Youth League Sports Park

This under-used open space area is at the base of the Santa Fe Dam, north of Arrow Highway. It is owned by COE. Kare Youth League is a potential lessee, that would build a soccer field with some amenities on existing disturbed paved areas. There is an existing habitat on the property that could be restored as part of the habitat corridor. There will be a trail linkage to the San Gabriel River Bike Trail.

R3.28 San Gabriel River Beautification and Environmental Enhancement

An environmental beautification opportunity for the City of Irwindale in partnership with the Hollywood Beautification Team, this 1.4-mile enhancement of the existing bike trail would including a bike staging area and other improvements designed to provide a better interface between the Santa Fe Dam and the San Gabriel River Bike Trail south of Arrow Highway. The project includes landscaping, drought-tolerant trees, irrigation, signage and other amenities.

R3.29 Arrow Highway Trail Connection

Bike trail users need a safer passage across Arrow Highway. An assessment on best connection needs to be made. Alternatives include building a new bridge over Arrow Highway, or going underneath through an existing tunnel, which also needs drainage repairs.

R3.30 Traffic Flow Improvements Around Santa Fe Dam Recreation Area

The LADPW proposed this study of vehicular traffic circulation patterns to identify improvements that will enhance public safety and improve pedestrian and bicycle access near the Santa Fe Dam.

3.6.4 Reach 4: Lower San Gabriel Valley

Location

This 8.5-mile reach extends from the Santa Fe Dam to the Whittier Narrows Dam. The “Whittier Narrows” is a natural gap in the hills that divides the Main San Gabriel Basin from the Central Basin to the south, and forms the southern boundary of the San Gabriel Valley, the Puente Hills to the east and the Montebello Hills to the west. The San Gabriel River passes through this gap as it flows south.



Figure 3-25. Although confined to engineered levees, the river still flows through a habitat-rich environment.

Character

This is a densely developed area within the San Gabriel Valley. Because there are extensive river deposits in the upper portion of the reach, major sand and gravel mining still occurs in this area. Most of the reach lies over the lower Main San Gabriel Basin, the primary source of water for the San Gabriel Valley. This basin contains contaminated plumes traveling southwards toward the Central Basin. These plumes are toxins that have percolated into the groundwater aquifer from decades of industrial waste dumping in the San Gabriel Valley. The river itself is soft-bottom, and runs through a wide channel contained by levees. COE owns and maintains this stretch. Whittier Narrows Recreation Area is a 1,400-acre open space area with flood protection, habitat and recreational land uses.

Key Issues

Many of the densely developed communities along this stretch of the river need more parks and open space, but lack easy access to the river. Often development is right to the river’s edge. Some industrial sites are becoming available to be reclaimed for recreation and habitat, as well as for new economic development that can be designed to take advantage of the river’s proximity. This gradual “greening” of the river can add water where needed to recreate attractive natural landscapes that also provide important habitat connections.

Projects Overview

If implemented, these 31 projects will significantly transform and enhance the character of the river along this reach. Many projects are designed to provide people with easier access to the river, while other land reclamation and water conservation projects ensure they will find a more aesthetically appealing environment once they enter the area. The new parks and open space areas will complement other projects that are designed to provide habitat enhancement and connectivity from the Puente Hills to the San Gabriel Mountains. (See Map 3-5 for locations of Reach 4 projects.)

R4.01 United Rock Products Quarry #1

United Rock Products Quarry #1 is currently being reclaimed, according to agreements with the City of Irwindale. The property will be returned to a condition suitable for development. The anticipated completion is 2020.

R4.02 United Rock Products Quarry #2

United Rock Products Quarry #2 is currently being mined. United Rock and the City of Irwindale are negotiating the details of the mining and reclamation options. Mining operations are expected to cease by 2061.

R4.03 Bubalo Quarry

A reclamation plan for this quarry is in progress.

R4.04 Quarry Reclamation/Water Storage/Recreational Facilities Development Study

The Upper San Gabriel Valley Municipal Water District, Sierra Club, and the State of California Rivers and Mountains Conservancy (RMC) initiated a study to identify potential reuse of gravel quarries for multiple purposes after mining is completed, including stormwater capture and cleanup, recharge of storm and imported water, flood reduction, recreation and habitat restoration, as well as aesthetic improvements. The study will require several years to conduct and any implementation of this study under the San Gabriel Master Plan will require future environmental review beyond the scope of this Master Plan and EIR. The study will also require substantive conversations with mine operators and other stakeholders such as the City of Irwindale. A separate forum has been proposed to provide study participants with essential mining community input.

R4.05 Hanson Quarry

The City of Irwindale is interested in multiple possible uses for the 400-acre Hanson Quarry site, which offers a significant economic development opportunity. A long-term quarry reclamation plan is being developed to be



Figure 3-26. The Hanson Quarry is one of the largest mining operations along the river.

implemented once mining operations have ceased, including new business and industrial uses, shopping, parks and open space, and possibly groundwater recharge and cleanup.

R4.06 Rodefer Quarry

This privately-owned quarry is an inholding of the City of Arcadia and is currently being filled with inert materials such as dirt and concrete. It is now zoned for industrial land use. Future reclamation plans could include park and open space, and other uses.

R4.07 Durbin Quarry

The City of Irwindale is interested in multiple uses for the Durbin Quarry site, which offers a significant economic development opportunity. It is developing a long-term quarry reclamation plan for reclamation after mining is complete, including new business and industrial uses, shopping, parks and open space, and possibly groundwater recharge and cleanup. However, the Durbin Quarry, owned and operated by Vulcan, will be an ongoing mining operation for the next 30 to 40 years. The City of Irwindale is keenly interested in its potential for economic development and is now negotiating with Vulcan about final reclamation and landform. Development would occur significantly after mining operations cease because of extensive fill requirements.

R4.08 Ramona Boulevard Gateway

The Ramona Boulevard gateway project will provide a key entry point to the San Gabriel River Bike Trail and the City of El Monte.

R4.09 Caltrans Right-of-Way Open Space and Trail

This Baldwin Park project will upgrade an existing 2-acre right-of-way with landscaping and trails to connect Barnes Park, the San Gabriel River Bike Trail, and neighborhood schools.

R4.10 Barnes Park

Baldwin Park plans to improve the existing Barnes Park with habitat enhancements and an interpretive programs center.

R4.11 Walnut Creek Nature Park and Nature Center

Baldwin Park will improve the Walnut Creek Park with a 3,300 square foot community center, walking trails, spray pool, playgrounds, new turf, fencing and irrigation.

R4.12 Durfee School Recreation Area

The City of El Monte wants to develop active recreation and landscaping along the San Gabriel River and provide access to the San Gabriel River Bike Trail.

R4.13 Valley Boulevard Gateway

This City of El Monte project will improve connections from Mountain View High School and surrounding neighborhoods to the San Gabriel River Bike Trail. The project includes entry signage.

R4.14 Inflatable Rubber Dams

LADPW is building two new inflatable rubber dams over existing drop structures in the river. The dams provide temporary water storage and also create rich and attractive natural habitat.

R4.15 Woodland Duck Farm (Concept Design Study; see Section 3.8.2)

The 57-acre Duck Farm Project grants a unique opportunity to provide a much needed open space and recreation area in a densely urbanized portion of the San Gabriel Valley. The property is located along the east side of the San Gabriel River just north of the confluence of the San Gabriel River and San Jose Creek. The portion of the property on the west side of the 605 Freeway had been operated as a Duck Farm. In addition to offering increased area for passive recreation such as bike and pedestrian

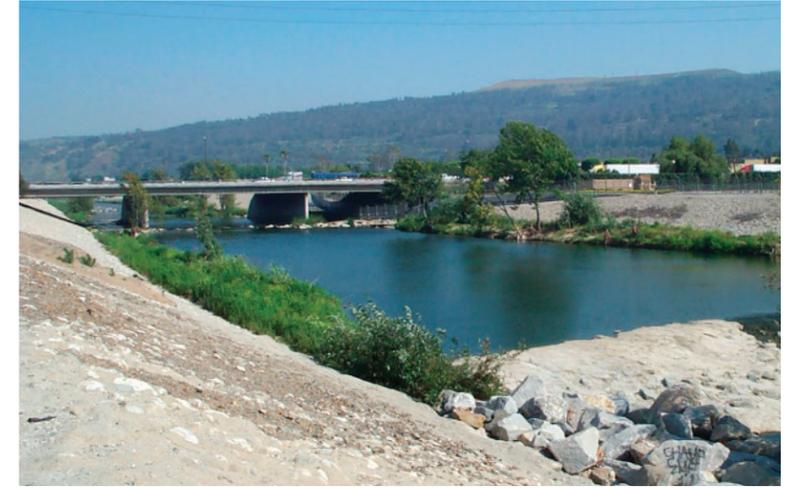


Figure 3-27. San Jose Creek is a major tributary of the San Gabriel River, offering trail and habitat connections.

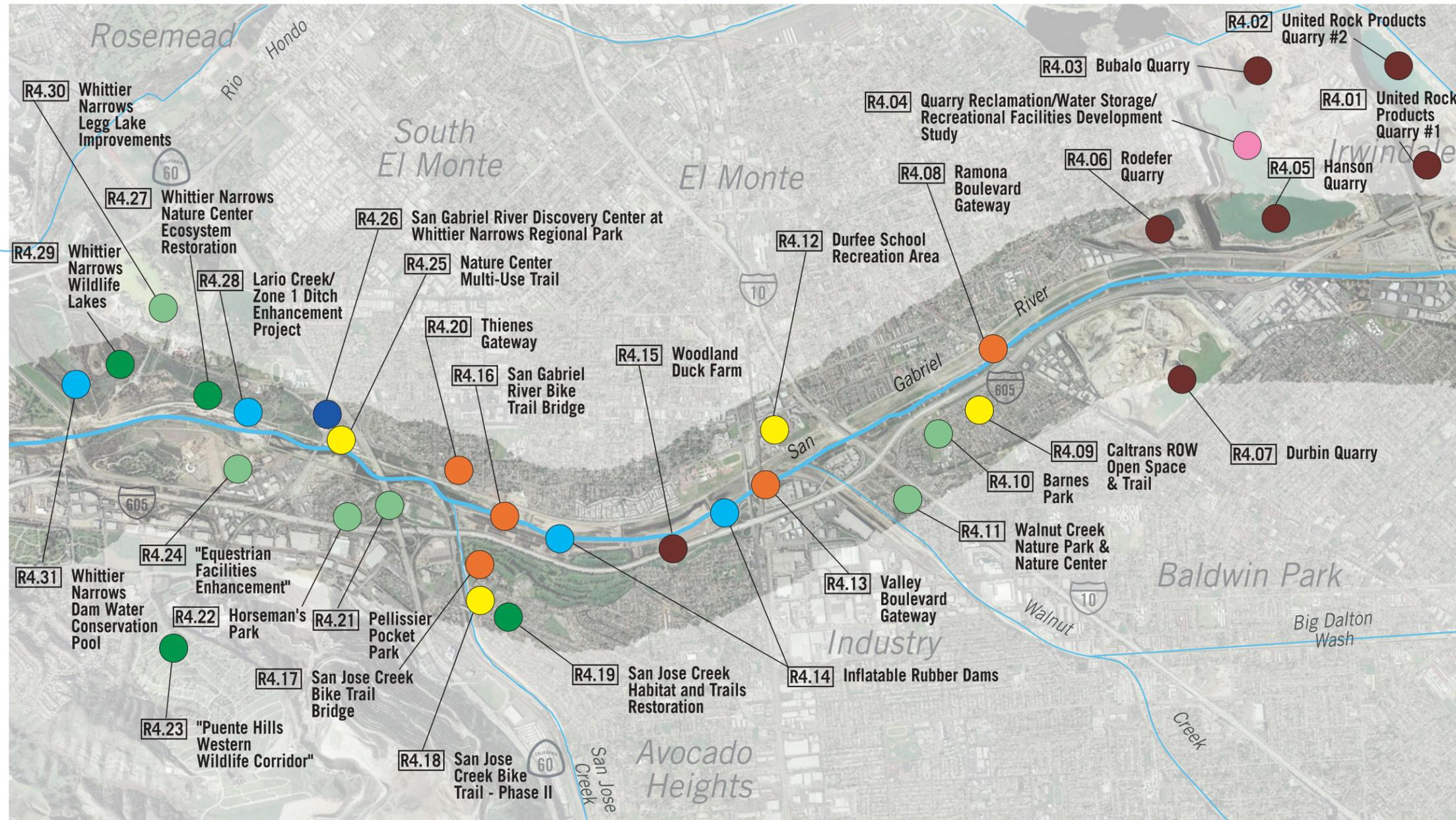
trails, bird watching and rest areas, the project has the potential to incorporate design elements such as groundwater recharge, water quality improvements, flood management, interpretive educational signage, exhibits, displays, as well as the reintroduction of native habitat. The WCA's goal is to create a project that will be a model for sustainable, multi-benefit watershed projects that address the open space recreation and watershed needs of the San Gabriel Valley. By connecting the surrounding communities to the San Gabriel River, the Duck Farm project will establish a local connection to Whittier Narrows Recreation facilities; regional connectivity to the San Gabriel River Trail system and the Emerald Necklace network of recreation facilities.

R4.16 San Gabriel River Bike Trail Bridge

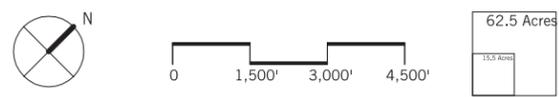
LADPW is studying possibilities for a multi-use bridge to connect El Monte, South El Monte, and unincorporated LA County communities with the San Gabriel River Trail, the San Jose Creek Trail and the Duck Farm.

R4.17 San Jose Creek Bike Trail Bridge

This multi-use bridge would be part of a project to expand the San Jose Creek Bike Trail system. The bridge would connect bicyclists and pedestrians from the south bank of San Jose Creek with the north bank and the San Gabriel River Bike Trail.



MAP PREPARED BY MIG, INC.—DECEMBER 2003



Source: County of Los Angeles Department of Public Works and Rivers and Mountains Conservancy

- River Enhancement Concept Categories**
- Habitat enhancement
 - Trail enhancement
 - Land reclamation
 - Parks and open space
 - Bridges and gateways
 - Studies
 - Water quality and supply
 - Education centers

Master Plan Projects: Reach 4

County of Los Angeles Department of Public Works
San Gabriel River Corridor Master Plan

Map 3-5. Master Plan Projects: Reach 4.

R4.18 San Jose Creek Bike Trail Phase II

LADPW is studying potential expansion of the existing San Jose Creek Bike Trail, beginning along the southern bank of the creek from the San Gabriel River traveling east to Cal Poly Pomona and to Claremont along Thompson’s Creek (a San Jose Creek tributary).

R4.19 San Jose Creek Habitat and Trails Restoration

North East Trees, with funding from Los Angeles County Open Space District, is restoring native plants along the northern slopes of San Jose Creek. The project area includes a 1.5-mile stretch of creek and trails, starting at the San Gabriel River past Workman Mill Road Bridge. The project includes landscaping to enhance the equestrian trail on the north and south bank and removal of exotic arundo in the creek.

R4.20 Thienes Gateway

This gateway is an equestrian staging area and local access point to the equestrian trails along the west bank of the river. Improvements by the Hollywood Beautification Team and Friends of the San Gabriel River, with funding from the Los Angeles County Open Space District, include an artful gate by a local artist, horse tie posts, drinking water, signage, seating and native landscaping including trees.

R4.21 Pellesier Pocket Park

A pocket park was proposed for this location near the San Jose Creek. It has subsequently been determined to no longer be a viable project.

R4.22 Horseman’s Park

This project includes landscaping and a gateway to improve connections between surrounding neighborhoods and Horseman’s Park.

R4.23 Puente Hills Western Wildlife Corridor

This project will create a habitat movement corridor between the Puente-Chino Hills and Whittier Narrows, either near Rose Hills Cemetery along Sycamore Canyon, or down the north slope towards San Jose Creek. A connection facilitating northbound and southbound movement to and from the San Gabriel Mountains may eventually become possible. A study by a biological research institute will be required before terrestrials can be re-introduced to the river area.

R4.24 Equestrian Facilities Enhancement

Potential upgrades and water quality runoff mitigation measures will be considered for these existing equestrian facilities. Planned improvements will mitigate any potential wildlife habitat conflicts.

R4.25 Nature Center Multi-Use Trail

A trail connection between the San Gabriel River Discovery Center at Whittier Narrows and the San Gabriel River Bike Trail will improve user access, safety and convenience. New signage to and from the River Discovery Center will enhance existing unmarked paths.

R4.26 San Gabriel River Discovery Center at Whittier Narrows Regional Park (Concept Design Study; see Section 3.8.3)

LADPR, RMC, and the Upper San Gabriel Valley Municipal Water District are jointly developing a new regional indoor/outdoor museum and conference center on the site of the existing Whittier Narrows Nature Center. It will focus on watershed and water-related topics, historical information and wildlife education. The project’s innovative building design will demonstrate green building technologies and watershed-appropriate site development. A joint powers authority is being set up to build and operate the Discovery Center.

R4.27 Whittier Narrows Nature Center Ecosystem Restoration

This project, supported by LADPR, has been in development for six years, based on a U.S. Army Corps of Engineers project options study. Because the project is located at the northern most boundary of the Montebello Forebay, this area is subject to rising waters, and therefore is not a good site for groundwater recharge. The selected option is to build a .25-acre pond, line two lakes to reduce water loss from percolation, remove invasive plants, and restore native vegetation. The lakes could be interconnected to Lario Creek (see R4.28) and water in the lakes could flow through the system and down to the Rio Hondo Spreading Grounds. The volume of water required to maintain the lakes is minimal compared with the tens of thousands of acre feet that flow through the system annually.

R4.28 Lario Creek/Zone 1 Ditch (Concept Design Study, see Section 3.8.4)

This project is an opportunity to build upon and enhance an already planned LADPW project to expand the flow capacity of an existing canal. North East Trees proposes to temporarily divert high water flows to protect and extend wetlands. This will restore valuable habitat to support wildlife and increase the aesthetic and educational value of the area, which is adjacent to the San Gabriel River Discovery Center.



Figure 3-28. Legg Lake is a popular family picnic destination.

R4.29 Whittier Narrows Wildlife Lakes

LADPR believes it is important to preserve these two large lakes as wetlands. The lakes, located at the Nature Center, could be lined to reduce water consumption.

R4.30 Whittier Narrows Legg Lakes Improvements

These three recreational lakes should be upgraded to improve ADA accessibility and reduce erosion.

R4.31 Whittier Narrows Dam Water Conservation Pool

The COE completed a feasibility study to expand the current water conservation pool behind the Whittier Narrow Dam from 2,500-acre feet at elevation 201.6 feet up to as high as elevation 209 feet. The pool, to be built by the Water Replenishment District (WRD), will increase groundwater percolation for increased water supply; it is expected to save the WRD \$1 million annually. The COE regional headquarters in San Francisco is currently reviewing the study. The project will affect other projects proposed within the Whittier Narrows flood control basin. Opportunities to integrate recreational and habitat uses in the design of the ponding area should be explored.