# CHAPTER 4.0
# OPPORTUNITIES AND CONSTRAINTS

Numerous opportunities exist for implementation of specific projects related to the overall project objectives. Opportunities were defined as a potential for changing the existing conditions to suit the project objectives of: improving water quality related to TMDLs, improving water quality for native fish, restoring creek and riparian habitat, and improving recreational and educational facilities and features.

In order to effectively evaluate opportunities, constraints must also be identified. Constraints within the study area are conditions that would increase the expense, longevity, or physical difficulty of implementing any identified opportunity within the study area. There are some common constraints that projects would encounter, and those unique to specific locations along each of the creeks.

An important general constraint that would be faced by any restoration project is the California Environmental Quality Act (CEQA) review process. This process could include an Environmental Impact Report (EIR), and permits from regulatory agencies such as the U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, California Department of Fish & Game and California Regional Water Quality Control Board. Because of the various requirements of the review process, permits and CEQA documentation can add considerable cost and time to even a small habitat improvement project. A programmatic approach that completed the CEQA and permitting process for many of the restoration projects at once would provide significant savings.

## 4.1 IMPROVING WATER QUALITY TARGETING THE SPECIFIC TMDLs

### 4.1.1 Opportunities

As stated previously, the identified TMDLs in the study area include: coliform (bacteria), nutrients, organic enrichment, scum/foam, sedimentation, Selenium and trash. There are numerous options for reducing each of the specific TMDLs through a combination of source control and structural BMPs. In addition to various controls on the contaminants, there should be improvements made in the water quality monitoring program throughout the study area to target TMDL pollutants in a manner that would provide conclusive data on compliance with

required water quality standards. With improved monitoring data more appropriate decisions could be made using the most up-to-date data.

An additional option for general water quality improvement is the implementation of a comprehensive storm water management program targeting TMDLs. This program, currently under development by the City, would provide source control measures for residential, commercial, and open space areas within the City. Potential source control options within this plan could include implementing Integrated Pest Management (IPM) practices, which would reduce the quantity of pesticide and herbicide currently applied in the study area by City Public Works contractors.

**Coliform**

Opportunities for reducing coliform will depend on the type of coliform identified in the study area. Coliform levels can be elevated from the decomposition of organic matter or from the feces of animals or humans. Water quality testing for total and fecal coliform can be used to determine relative levels of coliforms from organic versus feral sources. However, the difference between the two sources of fecal coliform (animal or human) can only be determined by more comprehensive water quality testing, which may include DNA testing.

Typically, organic matter can be controlled through source control options. These can include: increased frequency of street sweeping, proper disposal of lawn cuttings and similar landscape maintenance debris, and public outreach to inform the public of the concern.

If the bacteria are determined to be from feces then a different approach is required. This approach would include a comprehensive survey of all regions within the study area to determine the use of septic systems, the presence of livestock facilities and the condition of the sanitary sewer lines in the area. These three operations make up the primary sources of coliform in the study area.

After determining the locations of active septic systems in relation to local water courses and ground water elevations, it should be determined whether the systems are operating correctly. If any septic systems are determined to not be functioning properly immediate corrective action should be taken. Depending on the quantity and condition of septic uses in the area, it may be beneficial to implement a program to monitor the systems and require reporting on routine inspection and maintenance conducted by the facility owners.

Any existing livestock facilities should also be mapped relative to study area watercourses. Each facility's animal waste management procedures should be reviewed for adequacy and proper functioning. If a need for additional BMPs is identified, corrective action should be taken

through partnering with the landowners to improve the runoff pollution prevention controls at their facilities.

Sanitary sewer systems are owned and operated by public entities that are required to implement maintenance programs and spill response procedures pursuant to State and Federal law. EPA has recently developed a comprehensive management framework called Capacity, Management, Operations, and Maintenance (CMOM) to further regulate and assist municipalities in developing more comprehensive sanitary sewer system management programs. These proposed EPA regulations will affect all publicly-owned collection systems and publicly owned treatment works (POTW) systems with collection systems attached. In the study area, the sanitary sewer trunk lines are owned and maintained by the local POTW, Las Virgenes Municipal Water District (LVMWD), and the smaller collection system is owned by the City and maintained through the Los Angeles County Sanitation District. Currently, LVWMD has an informal policy to provide immediate response and containment to overflows on the City's system until the Los Angeles County staff arrives. These partnerships need to be formalized, between the City, the County, and LVMWD to implement the EPA's CMOM programs.

**Nutrients**

As discussed in Chapter 5 and in Appendix A, there are combinations of source control and structural BMPs that can reduce nutrients (nitrate, ammonia, and phosphate) from entering into the study area waterways. The nutrient levels in receiving waters are dependant on source loadings in the watershed, runoff intensity, and physical, chemical, and biological interactions within the aquatic environment. Therefore decreasing the nutrient source within the watershed lowers the nutrient loading. Several of these sources are also coliform sources (sewage, manure, landscape waste, etc.) and can be addressed as discussed above. Additionally, increases in biological and chemical processes increase the removal of nutrients within the watershed.

The results of the modeling indicate that structural BMPs are more effective in reducing ammonia and phosphate loading than the nitrate loading. The modeling also indicates that nitrate loading is reduced most effectively by source control measure rather than structural BMPs.

**Organic Enrichment/Low Dissolved Oxygen**

Organic enrichment/low dissolved oxygen can be the result of several different issues occurring within the study area. Among other possibilities, it is certainly related to a combination of organic inputs into the study area creeks, as well as an increase in the water temperature and available sunlight. When there is high organic input into the creek, nutrient levels also increase.

When a creek with high organics is subjected to warmer water temperatures and increased sunlight, plant (algae) growth increases. As the algae uses up the available nutrients it starts to die off. As the algae dies and decomposes, oxygen from the water consumed during this process and can reach levels too low to sustain aquatic life.

The opportunities for improving organic enrichment/low dissolved oxygen are interrelated with the nutrient controls and reductions outlined in the previous section. Additional measures that reduce organic enrichment and increase dissolved oxygen include; reducing the amount of concrete, which acts as a heat source, in the stream channel to reduce temperatures, increasing the shade canopy along the creek corridor, and allowing the creek to pass over rocks for turbulence to increase the quantity of dissolved oxygen in the water.

**Scum/Foam**

There are numerous ways that scum/foam can be created in the study area creeks. Some of the ways it can be created are from natural processes and some unnatural. An example of a natural process would be the growth of plants that produce natural surfactants, while an unnatural process would be the introduction of detergents from illegal dumping or illegal connection of washing facilities into the storm drain system. This TMDL is directed towards the unnatural processes. In addition to detergents, there are a variety of contaminants that when agitated in the creek can create foam. Reduction of scum and foam is accomplished by overall reductions in other non-point source contaminants such as nutrients, coliform, and trash.

**Sedimentation/Selenium**

Selenium is a naturally occurring element within the soils of the study area. Reducing soil erosion within the study area can reduce sedimentation and selenium within the creeks. Numerous opportunities exist for reducing erosion. The exact locations of these sites are identified in the riparian habitat enhancement section 4.1.3. In addition to the sites within the creek corridor, erosion also occurs along the shoulders of the main roadways within the study area. The road shoulders along Las Virgenes Road and Mulholland Highway are cleared of vegetation to reduce the fire potential. However, once this vegetation is cleared the soil is not held in place and erodes during storm events. If another acceptable fire control option can be identified it should be implemented along the two main highways within the study area. One possible option that could be evaluated for the road shoulders could be a combination of gravel and some type of porous pavement.

**Trash**

Opportunities for reducing the trash entering the study area creeks include increased street sweeping, increased public outreach to the problem, and coordinated efforts with adjacent jurisdictions, and Caltrans. Caltrans is needed in the coordination so that any trash from the 101 Freeway can be removed before entering the study area. The primary area identified for trash reduction was a dirt turn-out next to the 101 Freeway just east of the westbound off ramp at Las Virgenes Road.

### 4.1.2 Constraints

Constraints for all water quality parameters within the study area relate to water quality monitoring data. Up to this point there has not been a comprehensive program in place to conduct simultaneous flow measurement and water quality sampling and analysis for the specific TMDL contaminants. Without comprehensive monitoring in place it will be extremely difficult to measure the effectiveness of either source control measures or structural BMPs on the water quality within the study area. Water quality sampling and testing is costly, including a high level of staff commitment, equipment costs, and laboratory fees. Flow monitoring is also costly, and has the added challenge of needing to install structural equipment within waterways. Not only is the equipment expensive, but the process of obtaining all necessary permits to install and operate the flow meters can also be a significant cost as well.

An additional constraint involves mapping of the current storm water conveyance system within the study area. For appropriate structural BMP placement it is imperative to accurately map the storm water drainage area for each specific region. Currently the available AutoCad mapping of the City's storm drain system is in need of updates and should be converted to GIS format so that it can be used in conjunction with local topographic mapping to identify the correct location for the structural BMPs. The majority of the municipal storm drain system is owned and maintained by Los Angeles County Public Works Department, with a few drains still under developer ownership in the process of transfer to the County and some drains owned by the City but maintained by the County through contracted services. Although Los Angeles County is in the process of creating GIS based maps of their storm drain systems, there are proprietary issues that are impeding information sharing between the County and the cities within the County. At this time, the City would be required to purchase the current maps from the County at significant costs.

## 4.2 IMPROVING WATER QUALITY FOR STEELHEAD TROUT

### 4.2.1 Opportunities

Currently, steelhead trout (*Oncorhynchus mykiss*) are not found in the study area creeks. As identified in Native Fish Habitat Assessment Report (Appendix B), the steelhead were historically found in Las Virgenes Creek. Opportunities for improving the current water quality for the steelhead coincide with the TMDL improvement opportunities including shading the creek and reducing water temperatures. Reductions of algae blooms are also needed for optimal steelhead habitat. Steelhead require cool, highly oxygenated water for optimum survival rates. Currently, habitat is available within the study area for the steelhead.

The removal of barriers and concrete, as stated in the next section, *Opportunities for Aquatic and Riparian Habitat Enhancement and Restoration*, also facilitate steelhead movement. In addition, this section includes project sites identified for creating riffles, which benefit stealhead by providing one of their food sources, macro-invertebrates, with ideal their habitat. Increasing the survival of their food source may increase chances of steelhead's own survival if re-introduced.

### 4.2.2 Constraints

As related to the constraints for the TMDL requirements, appropriate water quality data are currently lacking to make a determination on potential steelhead reintroduction. The existing data do not include flow measurements, adequate temperature records, nor dissolved oxygen profiles necessary to make an informed decision on the success of steelhead reintroduction.

In addition to the water quality constraints for the steelhead, there are numerous structural barriers both within and outside the City. These barriers include the Rindge Dam and numerous concrete bridges and culverts on Malibu Creek as well as Las Virgenes Creek (Appendix B). This combination of constraints can also be viewed as a listing of opportunities to improve the water quality and habitat for reintroduction in the future.

## 4.3 AQUATIC AND RIPARIAN HABITAT ENHANCEMENT AND RESTORATION

### 4.3.1 Opportunities

Through analysis of the baseline data collected in January and March 2003, a number of opportunities for enhancement and restoration of riparian and aquatic habitat were identified for Las Virgenes, Dry Canyon, and McCoy Creeks (Figures 4.1, 4.2, and 4.3). Table 4.1 summarizes the types of improvements that could be implemented to improve habitat in and

around the creeks. Most of the improvements involve the direct creation or restoration of wetland and riparian areas. Some improvements are related to maintaining existing habitat, such as removing sediment, controlling exotic plant species, and stabilizing banks to reduce erosion. Others would involve improving structural aspects of the stream by removing artificial structures such as a concrete bottom, or adding a channel meander.

**Table 4.1. Number of Locations for Habitat Improvement Opportunities**

| Habitat Improvement Opportunity | LVC | DCC | MC |
|---|---|---|---|
| Stabilizing creek banks/channel incision/erosion | 8 | 5 | 8 |
| Monitoring channel incision/erosion | 4 | 1 | 3 |
| Pulling back creek banks | 11 | 2 | 2 |
| Creating/restoring wetland habitat | 13 | 4 | 3 |
| Creating/restoring riparian habitat | 1 | 1 | 1 |
| Removing concrete to reestablish soft creek bottom | 2 | 2 | |
| Removing artificial structural stabilization (e.g., crib walls, rip-rap) | 4 | | |
| Revegetating creek banks/floodplain | | 4 | 1 |
| Removing exotic plant species | 3 | 2 | 1 |
| Removing sediment | | 1 | 3 |
| Improving physical creek structure | 3 | 3 | 3 |
| Adding pools/riffles or creating channel meander | | 3 | |

LVC = Las Virgenes Creek
DCC = Dry Canyon Creek
MC = McCoy Creek

Each of the three creeks within the study area presents a unique set of opportunities with respect to habitat improvement based on existing channel modifications, adjacent land uses, and natural conditions.

Las Virgenes Creek

The largest category of habitat improvement opportunities for Las Virgenes Creek, 13 locations, is wetland habitat creation or restoration activities. Twelve sites have been identified where erosion or channel incision could be stabilized or monitored. The remaining opportunity sites would involve removal of artificial stabilization structures, channel maintenance, and improvement of the physical structure of the channel.

Locations that have been identified as possible wetland creation/restoration sites most often include channel alteration (pulling back the creek banks). These sites include the northernmost reach of the creek (near the Ventura County jurisdictional boundary within the City limits), directly north of the existing concrete portion of the Las Virgenes Creek channel (the reach located northwest of the intersection of Las Virgenes Road and the 101 Freeway), three areas

south of Agoura Road adjacent to a commercial area, three areas along the reach flanked by residential uses (south to the intersection of Lost Hills Road and Las Virgenes Road), and five locations within Malibu Creek State Park.

Erosion control and monitoring could be implemented at the northernmost reach of the creek upstream of the concrete trapezoidal channel, along the channel as it passes northeast of Las Virgenes Road and the Ventura Freeway, in a number of locations along the reach that is restricted by commercial and residential uses between Agoura Road and the intersection of Lost Hills Road and Las Virgenes Road, and five identified locations within Malibu Creek State Park.

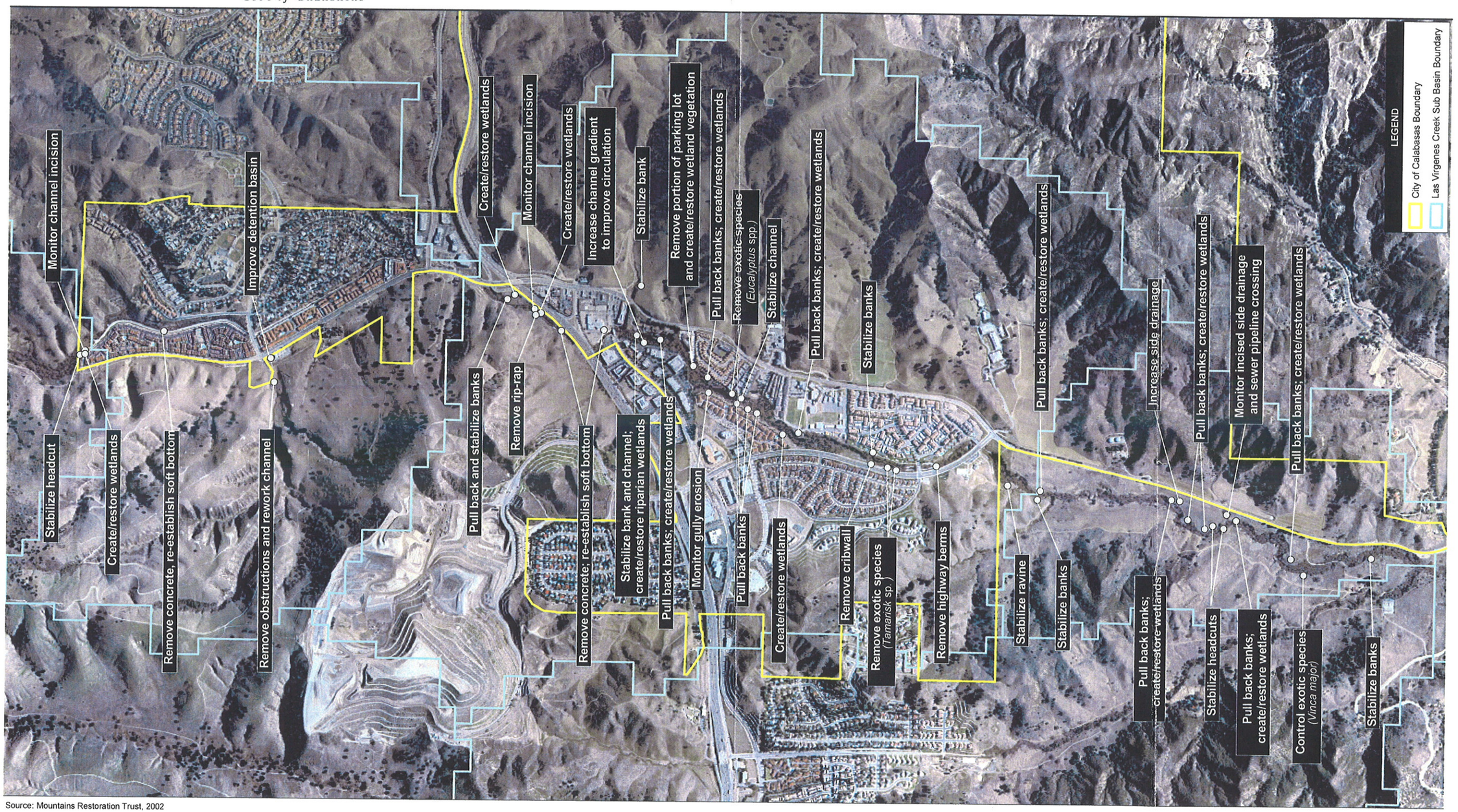
Other opportunities to improve habitat along Las Virgenes Creek include removing a portion of the concrete channel bottom north of Thousand Oaks Boulevard and restoring it to a natural soft creek bottom. The drainage channel and detention basin to the west of Las Virgenes Creek and Thousand Oaks Blvd could be improved by removing obstructions to drainage and reworking the channel and basin. Rip-rap could be removed along the segment of the creek northwest of Las Virgenes Road and the Ventura Freeway and a crib wall along the western bank north of Las Virgenes Road could be eliminated along with highway berms just south of the road. A concrete removal and creek restoration opportunity is also identified along the creek channel between the Ventura Freeway and Agoura Road Bridge, which the City has currently in the planning process.

Exotic species removal would be beneficial in three primary locations, a pocket of eucalyptus located adjacent to residential uses north of A.E. Wright Middle School, tamarisk in the area north of Las Virgenes Road, and *Vinca major* along the creek in Malibu Creek State Park in the southern portion of the study area.

Dry Canyon Creek

Along Dry Canyon Creek, habitat improvement opportunities primarily relate to erosion control (bank stabilization and revegetation of the floodplain), restoration of wetland and riparian habitat, and physical improvement of channel morphology. Six locations have been identified where stabilization or monitoring of erosion or bank incision are needed. Wetland or riparian habitat restoration would be beneficial in five locations. Revegetation of creek banks or the floodplain, or the removal of exotic species could be implemented in six locations. Physical improvements to the channel structure, such as adding pools and riffles or removing a concrete channel bottom, would be beneficial in nine locations.

Bank stabilization opportunities exist along the upper reaches of Dry Canyon Creek, along Mulholland Highway, along the segment adjacent to the Viewpoint School, and at Wrencrest




Source: Mountains Restoration Trust, 2002

NORTH

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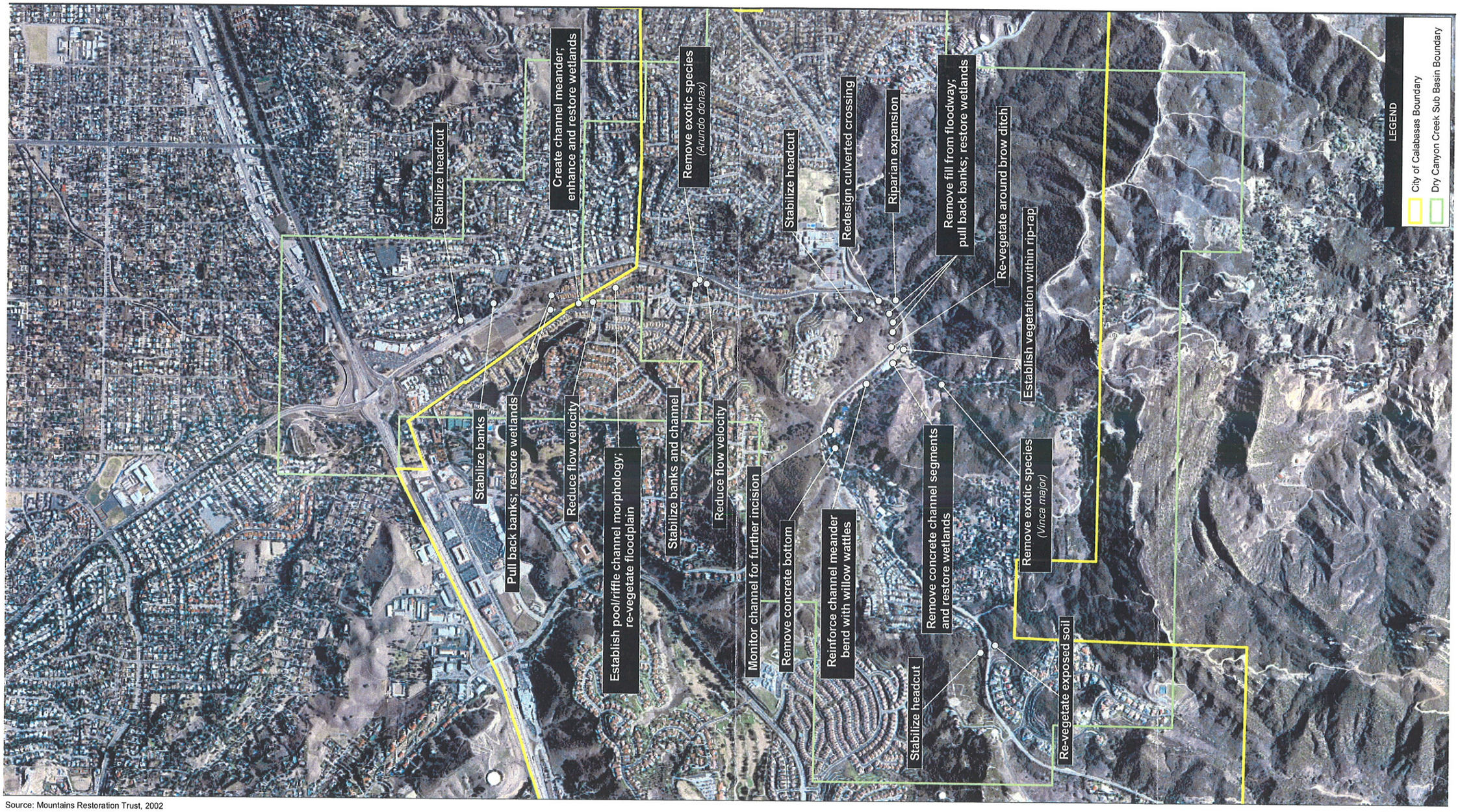
Scale: 1 : 6,000; 1 inch = 500 feet

**Figure 4.1**
**Habitat Improvement Projects**
**Las Virgenes Creek**




Source: Mountains Restoration Trust, 2002

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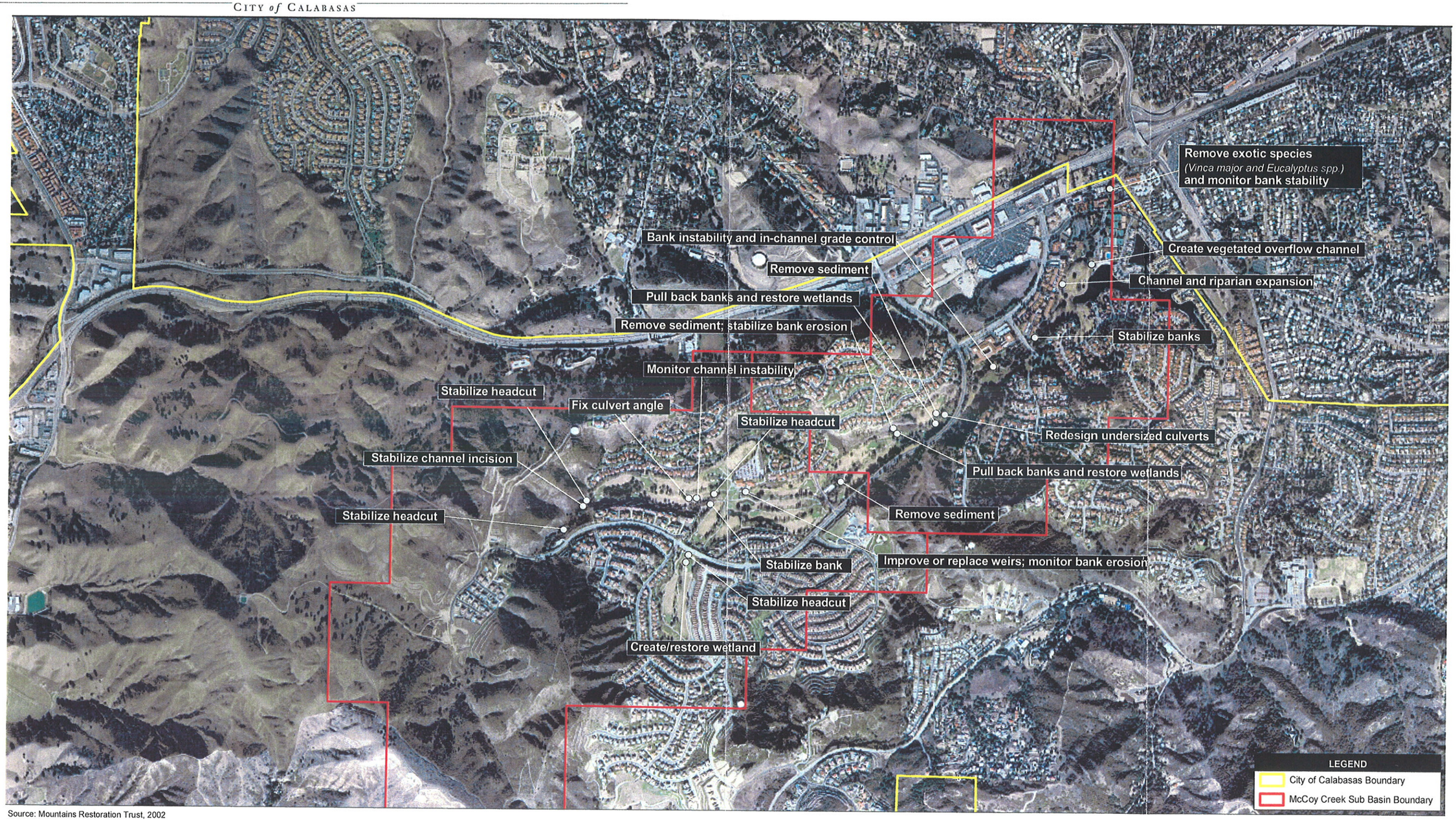
Scale: 1 : 6,000; 1 inch = 500 feet

**Figure 4.2**
**Habitat Improvement Projects**
**Dry Canyon Creek**




Source: Mountains Restoration Trust, 2002

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Scale: 1 : 6,000; 1 inch = 500 feet

**Figure 4.3**
**Habitat Improvement Projects**
**McCoy Creek**

Drive where the creek emerges from an underground channel.

Creation or restoration of wetland or riparian habitat could be accomplished adjacent to the horse stables west of Old Topanga Canyon Road on Mulholland Highway, on the Mountains Restoration Trust property along the north side of Mulholland Highway east of the intersection with Old Topanga Canyon Road, and adjacent to Park Paloma near the northern boundary of the City.

Revegetation of creek banks or floodplains would be beneficial along the upper reaches of Dry Canyon Creek along Mulholland Highway, around the brow ditch located north of the intersection of Mulholland Highway and Old Topanga Canyon Road, within the rip-rap located at the intersection of Mulholland Highway and Old Topanga Canyon Road, and adjacent to Park Paloma. Exotic plant species removal is needed along the tributary that flows north along Old Topanga Canyon Road (*Vinca major*), where the creek emerges from the underground channel at Wrencrest Drive (*Arundo donax*), and along the Mountain Restoration Trust's property near the intersection of Mulholland Highway and Old Topanga Canyon Road (Virginia Creeper).

Physical improvements of several types could be implemented along Dry Canyon Creek. Concrete channel segments could be removed southwest of the horse stables at Mulholland Highway and Old Topanga Canyon Road. Flow velocity could be reduced near Wrencrest Drive where the creek emerges from an underground channel and adjacent to Park Paloma. The segment near Park Paloma would also be appropriate for establishment of pool/riffle channel morphology, and an upstream reach, near the City boundary, would benefit from an addition of a channel meander.

McCoy Creek

The largest category of opportunities for habitat improvement (11 locations) along McCoy Creek is related to stabilizing the creek banks to prevent or repair erosion and channel incision. Four locations would be appropriate for creating or restoring wetland and riparian habitat, physical channel improvements could be implemented in six locations, and exotic plant removal and revegetation could be performed in two locations.

Stabilization and monitoring of creek bank erosion and incision, as well as the removal of sediment, would be beneficial at a number of locations along McCoy creek. Most of the locations are just upstream of, or within the Calabasas Golf and Country Club, through which the creek flows. Wetland creation or restoration is feasible on the tributary south of Parkway Calabasas, at two locations toward the eastern end of the golf course north of Parkway Calabasas, and riparian expansion could be accomplished along the creek west of Lake Calabasas.

Additional physical improvements to the channel within the Calabasas Golf and Country Club include improvements to culverts and replacement of existing weirs. Bank stabilization and in-channel grade control could also be implemented along the portion of the creek located on Countrywide Financial property.

Exotic plant removal would be beneficial south of Calabasas Road near the northern City boundary, and a vegetated overflow channel for Lake Calabasas could be created near the Calabasas Tennis and Swim Center.

### 4.3.2 Constraints

**Las Virgenes Creek**

Because the suitable area for habitat restoration near the northern City boundary on Las Virgenes Creek extends outside the City, activities there may require coordination with the Los Angeles County Department of Public Works. In addition, removal of the concrete bottom along the trapezoidal channel south of the City's northern boundary or widening of the creek banks for restoration purposes cannot impact the flood capacity of the channel. Residential uses in this area encroach on the floodplain along this reach.

Both the drainage and detention basin located south of Thousand Oaks Boulevard west of the creek, and the potential restoration area northwest of the intersection of the Ventura Freeway and Las Virgenes Road, lie outside the City boundary within an unincorporated area of Los Angeles County. Projects in these locations would require coordination with Los Angeles County Department of Public Works. For the restoration area, an additional constraint would be providing access to the project site. No access is available from the Ventura Freeway, and the north bank of the creek quickly rises to a steep incline. Access to the reach would only be possible from Las Virgenes Road. An additional restriction is the close proximity of the Ventura Freeway to the southern bank of the creek at this location.

Removal of concrete and reestablishment of a soft channel bottom in the channel between the Ventura Freeway and Agoura Road would be constrained by the encroachment of commercial businesses on both banks of the creek. The floodplain could not be expanded at this site. Locations of utilities in or near the channel would also affect the planning of structural alterations at this site. The City has recently released a Request for Proposals to contract for the creek restoration design work for this specific site. Grant funding is also secured to complete the construction/restoration phase of the project once the restoration design is approved by the granting agencies.

The area south of Agoura Road where restoration of riparian habitat could be implemented is accessed down a steep embankment, and covered with dense vegetation, both of which would make access to the area problematic. In addition, private property encroaches on the floodplain on each side of the creek along this stretch.

The region of the creek located north of A.E. Wright Middle School and adjacent to residential uses presents opportunities for a number of habitat restoration and improvement projects. The only known constraint for these projects is the boundary of private property along the floodplain.

The reach parallel to Lost Hills Road north of its intersection with Las Virgenes Road has been identified as an opportunity to improve habitat by removing a cribwall and exotic species (tamarisk). Access to this area is down a steep hillside where sensitive resources are present. The equipment needed to complete projects at this location could cause unacceptable damage to existing resources while accessing the area. Depending on the desired scope of work, the exotic species could be removed by hand to minimize the disturbance to sensitive habitat, however the concrete removal would require heavy equipment.

The remaining opportunity locations are located south of the City boundary in Malibu Creek State Park. Projects in this area would require coordination with California State Parks. In some locations along this reach of the creek, it may also be necessary to coordinate with Las Virgenes Municipal Water District to identify the location of sewer lines.

**Dry Canyon Creek**

Much of the land through which Dry Canyon Creek flows is private property. In addition, all lands located within 500 feet of Mulholland Highway are within the Scenic Corridor overlay zone. Within the viewshed, all development and proposed land use requires a special land use permit and must include elements that ensure enhancement and beautification of the scenic corridor.

Along the creek parallel to Park Paloma, where floodplain revegetation and channel realignment have been identified as opportunities, mature oaks are present on the floodplain. This would necessitate carefully planning of any change in channel morphology to avoid impacts to these sensitive resources.

No known project constraints exist in the area identified as a possible wetland restoration and channel realignment site located between the City boundary and Lake Calabasas.

**McCoy Creek**

The major constraint on projects proposed for McCoy Creek would be coordination with the owners of the private property, such as the Calabasas Golf and Country Club, through which almost the entire length of the creek flows. An additional constraint exists at the location where the creek emerges from a gated community where a steep hillside would make access difficult. Also, the presence of mature oaks throughout the park adjacent to Lake Calabasas would necessitate careful planning of restoration projects to avoid impacts to this sensitive resource.

## 4.4 IMPROVE RECREATIONAL FACILITIES WITHIN THE STUDY AREA

### 4.4.1 Opportunities

Currently the City Planning Department is in the process of completing a Trails Master Plan for the study area. This Plan is being developed in partnership with the Santa Monica Mountains Conservancy with funding provided by the New Millennium development project. The Trails Master Plan will allow for comprehensive planning for a trail system throughout the study area (Figure 4.4). This Plan is currently undergoing internal review and revision and is expected to be available for public input in 2003. Within the Trails Plan there is a proposed trail (Calabasas-Cold Creek Trail) that would provide access to the McCoy Creek riparian area for recreational purposes.

An additional opportunity is to continue to assist Mountains Restoration Trust with open space acquisition particularly in the Headwaters Corner area. This would allow an additional area of access to the riparian area and provide for a valuable passive recreation, as well as educational area.

Other recreational facilities that are currently being planned by the City include two new parks. One at the intersection of Las Virgenes Road and Lost Hills Road, adjacent to De Anza Park, and the second near the intersection of Mulholland Highway and Old Topanga Canyon Road, to be named Wild Walnut Park.

### 4.4.2 Constraints

Constraints for improving recreational facilities include: purchasing appropriate and available parcels; coordinating between the Planning Department and Public Works Department to determine which Department will lead the effort to identify the appropriate parcels; and determining an adequate funding source for purchase, development and maintenance for any facility.

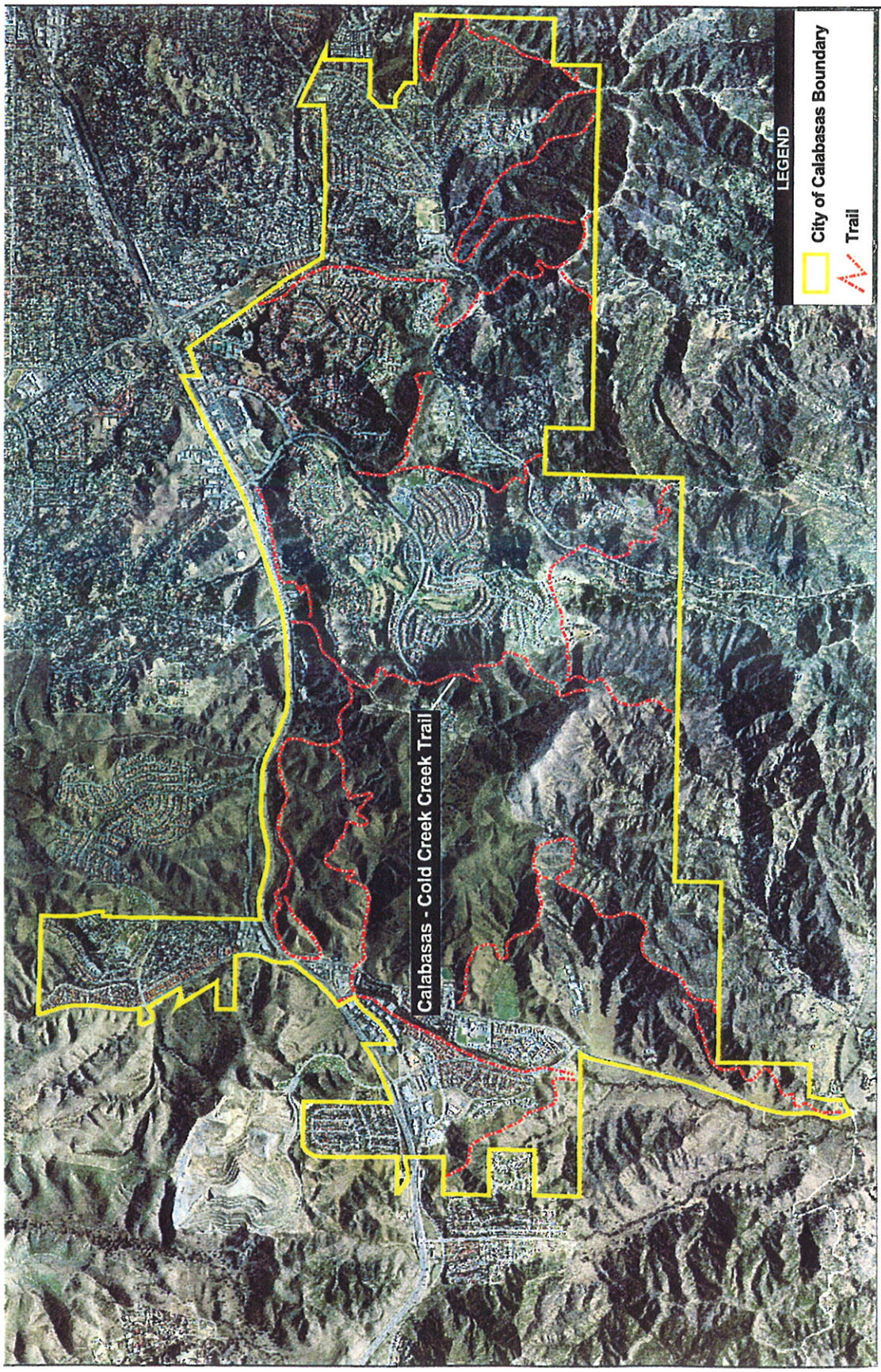


**Figure 4.4**
**Proposed Trail Locations**

Source: Mountains Restoration Trust, 2002; Calabasas Public Works Department; Heal the Bay

## 4.5 IMPROVE EDUCATIONAL OPPORTUNITIES AND FACILITIES WITHIN THE STUDY AREA

### 4.5.1 Opportunities

Opportunities to improve educational facilities are numerous throughout the study area. These opportunities include:

- Placement of roadside signage to indicate the watershed boundaries so that motorists and pedestrians become more aware of the local geography and where the local creeks drain.
- Assist the Mountains Restoration Trust with the continuing effort to purchase the remainder of Headwater Corners and surrounding parcels on Dry Canyon Creek for continuing watershed education programs.
- Assist the Mountains Restoration Trust with the development of a citizen-monitoring program. Also partner with local groups to develop public participation in creek restoration projects.
- Include storm water pollution prevention and habitat protection signage along the proposed A.E. Wright footbridge crossing of Las Virgenes Creek. For example, the City could post a sign/kiosk explaining how the bridge was designed specifically to allow for fish passage as well as allowing flood flows to pass by unimpeded.
- Incorporation of education facilities into every watershed protection or enhancement project established in the City (i.e., educational placards adjacent to restoration sites).
- Implement educational signs with information about the riparian habitat along Las Virgenes Creek in both De Anza Park and the new park across the creek towards Las Virgenes Canyon Road. These signs can incorporate educational material on native plants, wildlife, and pollution prevention.
- Work with local schools to post pollution prevention messages in classrooms and at various locations on campus. This can include working with art classes to paint a clean water mural on campus or simply by placing pollution prevention posters in classrooms.

### 4.5.2 Constraints

Educational facility constraints include determining if the City or a local non-profit corporation would be the operator of the facility, identifying funding sources to purchase and develop the materials or a facility, and funding to maintain any new facility. Maintenance would also be required to remove graffiti defacing any signage. Cooperation and commitment from local schools would also be needed.