

# Santa Ana River Parkway



## Minimum Maintenance Guidelines

February 20, 2008

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## **Santa Ana River Parkway Background**

### **Early Planning Efforts**

In 1990 a number of agencies participated in an interagency agreement to prepare the Santa Ana River Corridor Trail System Master Plan (also known as the EDAW Plan). These agencies included:

- Counties of Orange, Riverside, and San Bernardino.
- Cities of San Bernardino, Highland, Redlands, Loma Linda, Colton, Rialto, Corona, Anaheim, and Huntington Beach.
- Orange County Water District.
- State of California – Department of Parks and Recreation.
- US Forest Service.
- National Park Service – Rivers, Trails and Conservation Assistance Program.

The plan was never adopted; however, it addressed several planning objectives important to the counties and cities, including the creation of a continuous trail along the entire Santa Ana River with linkages to feeder-trail systems.

### **Coordinated Parkway Planning**

Since the EDAW Plan, the counties, cities, and other agencies continued to meet, to share information regarding their efforts to plan and implement a parkway and trail system along the river. Eventually, with the ever-increasing demand for public recreation along the Santa Ana River, the counties, the Santa Ana Watershed Project Authority (SAWPA), and the Wildlands Conservancy agreed to jointly coordinate the planning of the Santa Ana River “Parkway”, a linear open space corridor with trails and amenities. As part of this coordinated effort, the Parkway partnership created a Policy Advisory Group (PAG), to monitor the progress of the Santa Ana River Parkway, and to coordinate decision making. The PAG is composed of elected city and county officials, and representatives from SAWPA and the Wildlands Conservancy. To assist the PAG regarding trail signage installation and operations and maintenance, a Technical Advisory Committee (TAC) was created.

### **Operations and Maintenance Subcommittee – Minimum Maintenance Guidelines**

The TAC created the Operations and Maintenance Subcommittee (Committee) to develop a set of Minimum Maintenance Guidelines (Guide) for use by the counties and cities along the Parkway. In early 2007 the Committee began to review local, regional, and national guidelines and standards for trail, bikeway, and parkway operations and maintenance. By early 2008, the Committee had finished a draft version of the Guide for TAC review and approval. The Guide is not intended as an

absolute standard for parkway maintenance, but instead as a set of recommendations acceptable to the PAG. Included in the Guide is a list of maintenance recommendations for:

- Riding and hiking trails
- Class I (paved off-road) bikeways
- Parkway landscaping
- Fixed facilities
- Security
- Work schedule
- Maintenance log
- Trail and bikeway closures for maintenance purposes

### **Guide Terminology**

The following words and phrases are used throughout the Guide, and warrant clarification:

**Class I bikeway** – a paved, off-road thoroughfare for bicyclists and pedestrians.

**Fixed facility** - defined herein as any permanent, parkway-related facility (such as a restroom).

**Inspection** – the act of a monitoring authority to check or test something against established standards.

**Operations and maintenance** – the safe operation of a facility combined with routine and remedial maintenance.

**Remedial maintenance** – When routine maintenance is no longer sufficient and extensive repairs are needed.

**Riding and hiking trail** – An unpaved path for equestrians, pedestrians, and mountain bicyclists.

**Routine maintenance** – A repeated set of maintenance procedures which provide for a desired result. The desired result, for this purpose, is to provide a safe and useful river parkway.

## Minimum Maintenance Guidelines – Riding and Hiking Trails

**Condition:** Keep trail surfaces even and free of erosion damage.

**Inspection:** Inspect Trail surfaces annually.

**Repair:** Grade and replace the trail surface as needed determined by regular inspections. If repairs are conducted annually perform repairs soon after the conclusion of the rainy season. Ensure that trails are at least 10 feet wide.

**Routine Maintenance:** Includes cleaning the trail, incidental repairs to address minor erosion, preventive erosion control (installing or maintaining sand bags, water bars, rolling grade dips and spoons) and weed management.

**Remedial Maintenance:** Includes regrading, resurfacing or repairing a trail.

**Note:** Clean, native, compacted soil provides the ideal trail surface. Where a trail also serves as a maintenance road, shape the trail surface so water sheet-flows to a location where it can safely leave the trail. Design a trail with a center crown or uniform cross-flow as a simple and effective way to reduce erosion and therefore costs. Use soil cement as a way to stabilize native soil on grades exceeding 6 percent.

## Minimum Maintenance Guidelines – Class I Bikeways

**Condition:** Keep bikeway surfaces smooth and even, and free of cracks or holes of 1 inch width or wider.

**Inspection:** Inspect bikeway surfaces annually.

**Repair:** Unlike trails, bikeways require a smooth and clean surface to ensure safe use.

**Routine Maintenance:** Includes minor repairs (or patching) to asphalt or concrete surfaces and edges.

**Remedial Maintenance:** Includes major repairs, such as replacing large areas of the bikeway, filling-in eroded sections, re-stripping, re-surfacing, and asphalt sealing.

Note: Re-stripe annually. Re-seal every 2-3 years or when the eroded surface exposes the underlying aggregate. Bikeway re-surfacing (re-covering with asphalt) is performed 7 - 10 years. Consult your Transportation Operations Department for recommendations about their routine and remedial maintenance. Use durable materials and processes as a way to extend the usable life of a bikeway surface.

## **Minimum Maintenance Guidelines – Trail and Bikeway Closures**

Trails and Bikeways, like any other facility, must periodically close for maintenance or repair. It is the goal of the partnering agencies to provide a detour so as not to interrupt the public's use of the bikeway or trail. Include detours as a budgeted, programmed part of a Parkway construction or maintenance project.

Some closures are unanticipated. When a closure must occur, the agency or its contractor is requested to provide at least one safe alternate off-road route. Where an off-road route is not feasible, an on-road route should instead be provided.

The Santa Ana River Trail is frequently constructed on Flood Control District or Water district property. Other agencies such as utility companies may have easements on or across the trail which require periodic inspection or maintenance. Those agencies shall provide warning signage and detour while working on or adjacent to the trail.

### **Off-road Detour**

Off-Road detours are generally more desirable than an on-road detour. Off-road detours are comparable to the original Class I Bikeway, in that users remain separated from roadway vehicle traffic. Off-road cyclists and trail users may have less experience riding on-road parallel to vehicle traffic.

### **On-Road Detour**

Where an off-road detour is not possible provide an on-road detour. Coordinate the on-road detour with the regional or local roadway department. Where possible, provide on-road detours through other public right of way including local or neighborhood streets, parks or along other flood control facilities. Develop a Detour Plan, to be approved by the appropriate jurisdiction that provides the route of the detour, detour signage, barricades, flag-persons (as needed), illumination, enclosed boxes (see Caltrans) and other protective measures.

### **Full Trail or Bikeway Closure**

When neither an off-road or on-road trail nor bikeway detour is possible, it is advisable to develop a trail closure policy with pre-arranged steps to inform the public, and others, about the closure prior to the closure.

Basic inform steps may include, but are not limited to:

- Install information signs at least one month prior to the start of work alerting users to the pending closure
- Include dates when the closure is to begin and when the route is to reopen. If a reopening date is expected to be change, notify users as soon as possible of that change
- Provide project information for the contractor and the agency
- Provide notification on the agencies web site
- Where appropriate mail notices to key user groups or businesses

**Note:**

When a maintenance project requires the closure of a portion of the bikeway or trail, structure the maintenance or repair work in such a way that only one travel lane of the bikeway or trail is closed. Segregate users from the repair work with temporary dividers such as a wood fence, a plywood partition or bollards. Temporary surfaces, like heavy metal plates, allow users the ability to ride over trenches or other excavated work areas.

Keep detours on-site and within public right of way. Obtain a temporary construction easement from an adjacent private property owner if there is insufficient public right of way.

## **Minimum Maintenance Guidelines – Parkway Landscaping**

### **Turf**

**Condition:** Maintain turf so that it is not long or weed-like. Turf should not be brown or spotty unless this is the seasonal characteristic of the grass.

**Inspection:** Inspect Turf areas quarterly.

**Repair:** Monitor damaged turf as part of a regular maintenance schedule to avoid brown spots, invasive weeds, and over-watering.

Routine Maintenance: Mow turf (every 1 – 2 weeks), fertilize and re-seed as needed.

Remedial Maintenance: Replace large areas of turf, may include removing weed infested turf.

**Note:** Turf is an expensive Parkway amenity. Turf requires regular maintenance and inspection, often through contracted labor. Turf and other plants requiring a high volume of water should not be planted adjacent in the Parkway. Turf may be appropriate at select locations such as a staging area or a rest stop located at the edge of the Parkway.

### **Recommendation:**

Remove turf and other plants that require a high volume of water. It is also recommended that new turf not be installed; instead install drought-tolerant native plants.

### **Trees**

**Condition:** Parkway trees are a particularly valuable resource and an important amenity. Properly maintain trees that line the Parkway or are found at rest stops and entry locations.

**Repair:** Trim trees properly. Assess and treat sick or damaged trees. Remove dead or dying trees unless the tree serves as habitat and does not pose a threat to public safety.

**Inspection:** Inspect Parkway trees annually. Monitor trees for damage from wind, age, and disease. Remove damaged trees within 24 hours or as soon as possible. Inspect Parkway trees regularly, especially where the public may gather.

**Routine Maintenance** (for younger trees) includes watering, proper pruning, and removal of damaged or diseased branches. Remove fallen leaves and limbs as needed. Stake and replace trees where needed. Monitor tree health to avoid loss. Treat damaged trees to avoid loss. Take corrective measures as needed. Maintain Parkway trees in a good condition except those trees which succumb to natural causes.

**Remedial Maintenance** include expanded pruning of larger branches and tree removal or replacement. May also include larger reforestation efforts and landscape planning.

Note: Use native trees in the Parkway. Line the trail and bikeway with trees and provide shade where access points and rest stops are planned. When a tree is removed replace with palette-approved trees. Install new trees in locations as part of a larger landscape plan. Introduce new trees so they are at least 10 feet from the edge of the trail or bikeway. Use root-barriers and deep watering techniques to protect infrastructure. Use drought-tolerant and native trees in the Parkway to provide habitat along the Santa Ana River.

Adopt basic tree care techniques such as those promulgated by the International Society of Arboriculture. Properly pruned young trees will require less maintenance while producing full and attractive trees. Parkway trees are an important Parkway resource. Trees moderate climate, provide shade, improving air quality, conserve water, and harbor wildlife.

**Note:**

By adopting a plant palette the partners will help reduce the use of non-native and other invasive plants along or near the Parkway. A Parkway Plant Palette will also act as a Guide for future Parkway planners to ensure that undesirable plants are always excluded from the Parkway.

Where feasible, recreate the historic riverine plant community of the river. Use the recreated plant areas to develop public/private partnerships, expand volunteerism and provide for opportunities for interpretation. The historic riverine plant community and native plant palette will change with elevation changes and localized micro environments along the length of the river. Enhance localized conditions and changes in habitat whenever possible.

## Minimum Maintenance Guidelines – Fixed Facilities

Fixed facilities are defined (herein) as any permanent parkway-related facility. Fixed facilities will include both above-ground facilities and related subsurface infrastructure. Common above-ground facilities are the trail and bikeway, restrooms, signs, and trail-related amenities. Common below-ground facilities include irrigation lines, valves, and electric lines and buried footings. Fixed facilities will likely be owned and managed by the local or regional Parkway provider.

The Committee does not recommend which of these facilities are to be provided along the Parkway. The Committee does however list what it believes are a range of common facilities found along Parkways. Fixed Facilities and their corresponding maintenance tasks are discussed below. It is recommended that the Parkway planners also agree where fixed facilities will be located.

Install fixed facilities (when and where appropriate) which can be maintained to the Minimum Maintenance Guidelines. Parkway operators, individually or cooperatively, may decide to expand their fixed facilities when resources are available.

### Signs

**Condition:** Maintain Parkway signs in good repair so they are useful to the visitor.

**Inspection:** Inspect Parkway signs quarterly or as part of other routine inspection.

**Repair:** Repair or replace damaged signs as soon as possible especially if they are minimally placed. As with other Parkway items, keep a ready supply of different signs for easy replacement.

**Routine Maintenance:** includes replacing missing or damaged signs, cleaning signs and adding or replacing stickers or reflective decals.

**Remedial Maintenance:** includes upgrading or replacing a substantial part of Parkway signage.

**Note:** Install signs only where needed. Place signs at all entry locations to the Parkway and junctures along the Parkway. Design Parkway signs to be sturdy and vandal resistant.

Use a unified logo design, expressed, at a minimum, as a small decal or plastic sign that can be inexpensively produced and easily installed. The logo sign may be used as a supplement to existing signage or developed as part of a larger Parkway sign plan.

Incidental repairs from damage and fading is as needed determined by regular inspection. If periodic inspection is not possible, ensure that all signs are inspected annually. Keep signs and sign materials in stock for immediate repairs. Keep a 20-30% stock of material initially until a pattern of replacement is established.

All bikeway signs should conform to the Caltrans Traffic Manual and/or the Manual of Uniform Traffic Control Devices (MUTCD) as appropriate.

### **Graffiti Removal**

**Condition:** Keep Parkway facilities free of graffiti.

**Inspection:** Inspect Parkway facilities for graffiti as part of other routine inspection.

**Repair:** Repair or replace damaged signs as soon as possible especially if they are minimally placed. As with other Parkway items, keep a ready supply of different signs for easy replacement.

**Routine Maintenance:** includes repainting graffiti covered or scratched surfaces. Match paint so the repair does not further mar the appearance of the facility.

**Remedial Maintenance:** includes removing or relocating facilities that are prone to excessive graffiti. Replace with facilities that have smaller surfaces or posts to limit exposure.

**Note:** Where feasible, design Parkway facilities with a clear-coat that resists graffiti. Where graffiti is a problem use clear protective coats on signs and painted walls. Limit large flat surfaces.

Document Graffiti and “tagging art”, where appropriate. Contact Local Police before the graffiti is removed or covered.

### **Access Gates/Locations**

**Condition:** Parkway access gates must be in good repair and be able to properly close and lock.

**Inspection:** Inspect Parkway gates quarterly or as part of annual inspection.

**Repair:** Repair or replace damaged gates as soon as possible. Keep a ready supply of materials to repair or replace as needed.

**Routine Maintenance:** includes inspecting and adjusting gates so they properly close. Where needed replace signs, decals or reflective tape that are affixed to the gate. As needed provide aggregate base to the entry and exit area of the access to the gate to avoid creating low or muddy areas.

**Remedial Maintenance:** includes repairing, replacing or relocating a gate or major components of a gate.

**Note:** Provide Knox-box, or similar, key locking devices where emergency access is required. Where possible avoid painting gates. Use materials that will withstand exposure and weathering. Adopt a standard gate design. Design the gate so locks cannot be removed without keyed access. Ensure that additional locks can be added to the gate.

### **Lighting Repair**

**Condition:** Parkway lighting (where provided) is to be kept in good working repair. Footings, poles and fixtures must function properly to provide the necessary illumination.

**Inspection:** Inspect Parkway lighting at least quarterly or as appropriate. Include any recommendations for maintenance and repair as part of an annual inspection.

**Repair:** Repair Parkway lighting as soon as possible. Keep a supply of materials to repair or replace lighting as needed. Use readily available products.

**Routine Maintenance:** includes cleaning globes, replacing bulbs and adjusting lights as needed.

**Remedial Maintenance:** includes replacing missing or damaged poles and fixtures, wiring and footings. Anticipate these cyclical steps by following product manufacturer guidelines.

**Note:** Installing and maintaining lighting is expensive. Use artificial lighting only where it supports Parkway policy such as night time use. Carefully review the purposes artificial lighting serves (including route illumination, public safety and facility illumination) before installing lighting. Explore the benefits and liabilities to allow after hours use and the lighting that may be needed to support such use.

**Recommendation:** Discuss the role of lighting as part of Parkway planning

### **Trash receptacles**

**Condition:** Parkway trash receptacles are to be maintained in good condition free of damage except incidental wear. Keep footings, posts and lids secure and in good working order.

**Inspection:** Inspect Parkway lighting at least quarterly or as appropriate. Include any recommendations for maintenance and repair as part of an annual inspection.

**Repair:** Repair or replace trash cans when the device shows visible and un-repairable damage. Keep a supply of cans, lids, footings and other components in stock.

**Routine Maintenance:** includes replacing trash can liners, cleaning and adjusting cans as needed.

**Remedial Maintenance:** includes replacing missing or damaged trash cans, footings, posts or foundations.

**Note:** Use trash cans that are durable and easily maintained. Determine what types of receptacles are needed at different locations along the Parkway. Provide maintenance vehicle turn-outs where trash cans are located.

**Recommendation:**

### **Tables & Benches**

**Condition:** Maintain Parkway tables and benches so they are free from damage except incidental wear. Benches and tables are to be sound and usable. Securely fix components together.

**Inspection:** Repair and clean as needed, inspect twice per month.

**Repair:** Repair or replace bench and table surfaces that show visible and un-repairable damage. Keep a supply of wood or appropriate material and other components in stock.

**Routine Maintenance:** includes inspecting and tightening all nuts and bolts as needed.

**Remedial Maintenance:** includes replacing missing or damaged table tops and benches as needed.

**Note:** Use semi-gloss or high gloss paint instead of a flat or pearl finish to extend the surface life of wood. Use colored and recycled plastic wood instead of real wood.

**Recommendation:**

### **Drinking Fountains and Animal Waters**

**Condition:** Fountains should work properly, have adequate water pressure and be clean and free of foreign objects.

**Inspection:** Inspect Parkway fountains monthly or as appropriate. Include recommendations for remedial maintenance as part of an inspection.

**Repair:** Damaged or non-working fountains are to be repaired, replaced or removed as soon as possible. Keep a supply of pipe valves and fittings in stock. Alert the public when potable water is no longer provided.

**Routine Maintenance:** includes cleaning fountains head and bowls, adjusting the water stream and water pressure.

**Remedial Maintenance:** includes replacing missing or damaged fountain heads, bowls, footings and water lines or pumps.

**Note:** Ensure drinking fountains are all-access. Select simple but durable fountains components that are readily available and easy to install. Locate fountains where they best serve the public. Alert the public where potable is not available.

**Recommendation:**

## **Restrooms**

**Condition:** Maintain rest rooms in good operating condition showing only minimal wear.

Operators will determine which restroom features are to be provided. Common features include a permanent restroom building, flush toilets, urinals, sinks, soap dispensers, hand dryers or towels dispensers, lighting and signage.

**Inspection:** Inspect Parkway restrooms daily or as needed unless contracted then once per week

**Repair:** Repair or replace damaged or non-working restroom as soon as possible.

**Routine Maintenance:** includes cleaning, minor repairs, and general servicing.

**Remedial Maintenance:** includes replacing missing or damaged features such as sinks, toilets bowls, entrance doors and water lines.

**Note:** Unlock and open the restroom in the morning and close and lock at dusk (unless the facility is continuously open). Use waterless urinals where appropriate. Locate restrooms where they best serve the public. Provide maintenance vehicles turn-outs to allow for servicing of the restroom. Indicate restroom locations on all kiosk maps and brochure graphics.

## **Temporary Restrooms (Portables)**

**Condition:** Maintain portable rest rooms in good, operating condition showing only minimal wear.

Common portable features include a moveable single or a double facility, chemical toilet, urinal, and sink.

**Inspection:** Inspection: Inspect Parkway restrooms daily or as needed unless contracted then once per week

**Repair:** Repair or replace damaged restrooms as soon as possible.

**Routine Maintenance:** includes daily cleaning, minor repairs, and general servicing.

**Remedial Maintenance:** includes replacing missing or damaged restroom features, skirting (if any).

**Note:** Use portable restrooms as a way to provide inexpensive restroom service. Unlock and open the restroom in the morning and close and lock at dusk (unless the facility is continuously open). Locate portable restrooms where cost or other factors preclude installing a permanent restroom. Where possible, provide maintenance vehicles turn-outs to allow for servicing of the restroom. Indicate portable restroom locations on all kiosk maps and brochure graphics.

Design Parkway facilities to use portable restrooms where appropriate. The design might include a concrete pad, lattice enclosure, bike rack and horse tie. Use ADA-approved all-access portable restrooms where needed.

### **Staging and Rest Areas**

**Condition:** Parkway staging facilities are an entry (and therefore a face) to the entire Parkway. Staging facilities often receive intensive use by the public, particularly where vehicle parking is permitted. As such, a staging facility may require a higher level of inspection and maintenance to avoid becoming overused.

**Inspection:** Inspect staging facilities daily.

**Repair:** Replace or repair staging amenities as soon as they become worn or damaged.

**Routine Maintenance:** includes trash removal and general cleaning and minor repairs. Replace sign boards or kiosk maps as needed.

**Remedial Maintenance:** includes regrading and repaving parking surfaces, adding aggregate rock and correcting improper drainage.

**Note:** Well designed staging facilities should include parking for at least 7 vehicles with at least 2 spaces reserved for vehicles with horse trailers. Basic features include signage, a kiosk board, horse ties and waterers and parking barriers. Other amenities may include potable water, benches, shelters and a restroom.

Use durable, easily replaced staging facility components. Design the site surface to have proper drainage. Install a bio-swale to collect and drain water into the ground.

### **Bollards**

**Condition:** Maintain bollards in good working repair so they function properly.

**Inspection:** Inspect bollards quarterly or as part of other routine inspection.

**Repair:** Damaged bollards are to be repaired or replaced as soon as possible especially at access locations to the river. Keep a supply of bollards for replacement as needed.

**Routine Maintenance:** includes replacing missing or damaged bollards, painting bollards and/or replacing stickers or reflective decals.

**Remedial Maintenance:** includes adding new bollards or replacing heavily damaged bollards of their footings.

**Note:** Install bollards only where needed. Design bollards with sturdiness in mind. Install the correct number of bollards. Ensure that bollards are highly visible. Use different types of bollards where appropriate. Place bollards on the outside of the fog lines (right and left paint stripes) and on the trail center line. Do not place bollards within the bicycle/pedestrian path of travel.

## **Fences**

**Condition:** Maintain Parkway fences in good condition. Remove old or unnecessary fences and footings.

**Inspection:** Inspect fences quarterly or as part of other routine inspection.

**Repair:** Replace or repair Parkway fences as soon as possible especially where the public must be separated from known hazards.

**Routine Maintenance:** Clean or paint fence boards and posts, reaffixing loose boards and resetting old footings.

**Remedial Maintenance:** Replace or adding new lengths of fence, installing foots, constructing and painting or staining the new fence.

**Note:** Use materials that require the least maintenance. Fence materials should compliment the Parkway. Use fences only as needed. Use fences to identify the trail and bikeway particularly at curves or near slopes.

## **Bikeway Sweeping/Debris Removal**

**Condition:** Bikeway sweeping shall be performed weekly to monthly or as needed. Bikeway is best swept by machine sweepers. Bikeways that require only spot sweeping can be done by hand or with blowers.

**Inspection:** Inspect surfaces as part of other routine inspection.

**Repair:** Sweep bikeway and other hard-surfaces as needed. Where appropriate patch small holes or cracks. Avoid allowing debris to accumulate on the bikeway or trail surfaces.

**Routine Maintenance:** Sweep surfaces as appropriate. Remove accumulated debris away from the bikeway or trail surface.

**Remedial Maintenance:** May require the use of mechanized equipment to remove thick, accumulated debris or large items such trees which might result from flooding or other storm activity. Check paved surfaces following heavy rains or flooding to ensure the paved surface remains sound and usable.

**Note:** Mud and other sediment, leaves and branches should also be removed from the bikeway and trail since they may impact rider safety. Removing debris may also increase the life expectancy of the bikeway and trail. Debris removal should follow mowing and other maintenance operations.

Some areas of the Parkway in Orange County quickly become littered with debris where there are homeless encampments. Review Maintenance Logs periodically to correctly schedule sweeping in these areas. Allow for flexibility in the sweeping schedule.

For Inland areas, inspect and sweep and clean the bikeway following the Santa Ana winds.

**Recommendation:** Develop a Santa Ana Parkway *Adopt-A-Parkway* program

### **Weed and Brush Removal**

**Condition:** Brush and weeds, particularly along the bikeway or at entry location to the Parkway should not become unsightly or present a hazard. In habitat restoration areas, invasive plants should not be allowed to become established. Brush and grass that grow along trails should not be allowed to grow to excessive heights within two feet of the edge of the trail surface. Environmentally safe weed removal methods such as hand and mechanical shall be used especially along the waterway.

**Inspection:** Inspect public areas monthly or as needed.

**Repair:** Brush and weeds should not be allowed to impact Parkway facilities such as the bikeway, fences or signs. Brush or weeds should not obscure signs, entries, block line-of-sight or create prey areas.

**Routine Maintenance:** Includes the use of approved herbicides and pre-emergent chemicals. Focus work on areas where the public may gather such as staging and entry areas.

**Remedial Maintenance:** Remove large areas of invasive or overgrown plants.

**Note:** Set a priority to this work that includes removal of damaging and fast-spreading plants. When removing large areas of invasive plant materials replant with approved native plants to begin to reestablish local flora. Install a 2-foot-wide clear shoulder parallel the edge of the trail and bikeway. Construct the shoulder of compacted soil and aggregate as a way to reduce weed and grass growth.

### **All-access**

**Condition:** Safe use of the Parkway includes providing access to all Parkway visitors.

**Inspection:** Inspect Parkway annually, or as needed, to document and remedy inconsistencies in Parkway access.

**Repair:** Maintain Parkway entries, pathways and facilities in usable condition so as not to limit the public's access.

**Routine Maintenance:** Making minor repairs to Parkway facilities that promote or encourage public access.

**Remedial Maintenance:** Improves or expands all-access type Parkway facilities. Common improvements include staging and entry areas, pathways and restroom facilities, access to water and kiosk information.

**Note:** Parkway facilities should meet or exceed ADA requirements. Identify for improvement those facilities which do not meet ADA requirements. Seek certification for those areas and lengths of the Parkway that can meet ADA standards. As part of routine and remedial maintenance and other future Parkway projects, expand All-access to as much of the Parkway as possible.

#### **MAINTENANCE LOG**

Develop and implement a Maintenance Log process to record routine and remedial maintenance activities. Maintenance Logs should cover all Parkway facilities.

#### **MAINTENANCE SCHEDULE**

Create a Maintenance Schedule for Parkway facilities. When new fixed facilities are built in the Parkway add these facilities to the Maintenance Schedule.

## **Minimum Maintenance Guidelines – Public Safety and Security**

Parkway security is a common concern for users and those living next to a trail. Security, for this Guide, refers to general public safety. As the 1990 EDAW study noted, the river is a natural attraction with or without a trail. Public Safety and Security, in its broadest expression, may include:

- A safe Parkway experience through well-designed facilities
- Useful information about the Parkway and its setting
- Policies appropriate to the use, restrictions, and operation of the Parkway
- Law enforcement
- A Safety Plan

### Parkway Use

It is recommended that the Santa Ana River Parkway remain non-motorized. Except for authorized maintenance or public safety vehicles. The general public's use of the Parkway is limited to walking, running, jogging, horseback riding, mountain and road bicycle uses. If motorized or other uses are proposed, create a Parkway Usage (or similar) Committee to examine the proposal. Non-traditional uses of the Parkway may increase maintenance and operation costs as well as affect the design of new Parkway improvements to accommodate new uses.

### Public Access

It is recommended that Parkway access be managed. Direct the public's access through approved locations. Examine the need, opportunity, safety and setting when planning a new Parkway access.

### Parkway Hours of Operation

Use of the Parkway is limited to day-time hours only (sunrise to sunset). Inviting the public to use the Parkway after hours may require agencies monitor these after-hour uses.

### Private Access to the Parkway

Private access to the Parkway (other than by public rights-of-way) is generally discouraged. Where future commercial or residential developments are proposed adjacent to the Parkway, the agency and the applicant may want to allow access where it serves the public's interest.

Note: As the Parkway develops, its use and development linkages will increase. To address future requests for access, create an entry design to include signs, landscaping and other appropriate amenities, to improve the river through the development entitlement process.

### Agency Coordination

In addition to the developing a common Minimum Design Guidelines, it may prove useful for the partners to also develop a nomenclature of terms and words used to describe the Parkway. It may also benefit the partners to create a single Parkway map, common signage and patrol programs. By creating a single Parkway map, the partners will see their vision begin to grow and unify. A common Parkway map will serve as a base for discussion for future Parkway meetings. A map may also serve public safety departments in their routine patrols and emergency service calls to the

Parkway. This same map can be incorporated into public information displays, brochures and on-line web sites.

#### Locator Signage

In addition to the previously discussed signage, Parkway planners may use locator signage that allows visitors to find themselves along the Parkway. Locator signage may include over or undercrossing roadway signs, distance markers to roadways and Parkway entrances, and mileage markers.

#### Parkway Patrols

Patrol the Parkway on a daily basis or as needed. Service providers may include regional, local or volunteer organizations. Patrols should focus on areas where the public gather particularly at staging areas, rest areas and restrooms.

### **Minimum Maintenance Guidelines – General Parkway Design Considerations**

Parkway operators should discourage the uncontrolled use of the river's edge.

Give attention to identifying and protecting the cultural, historical and natural resources of the Parkway.

Parkway facilities should grow when the means to maintain those facilities exist.

New lengths of the Parkway trail or bikeway should not dead-end, but instead link to another section of existing trail, public road, or Public Park. Unconnected lengths of the Parkway may create a setting that may affect public safety.

Design Parkway facilities and landscaping so as to provide the visitor the maximum visibility along the Parkway and to its closet exit.

Where possible, eliminate prey areas.