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Western Municipal Water District Standard Operating Procedures

Brine Line Conveyance System Right-of-Way Maintenance Procedures

Comments

- No clearing or cutting of habitat behind prads between Mar 15 - and Sept. 25th.
- maintain 25ft radius around mas.
- maintain 10ft wide access road.

APPROVED:

Wastewater Operations Manager

Date

- Is there a separate SOP for use of herbicide to clear right-of-way?

Annual Reviewer				
Review Date	8/2011	8/2012	8/2013	8/2014

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Purpose

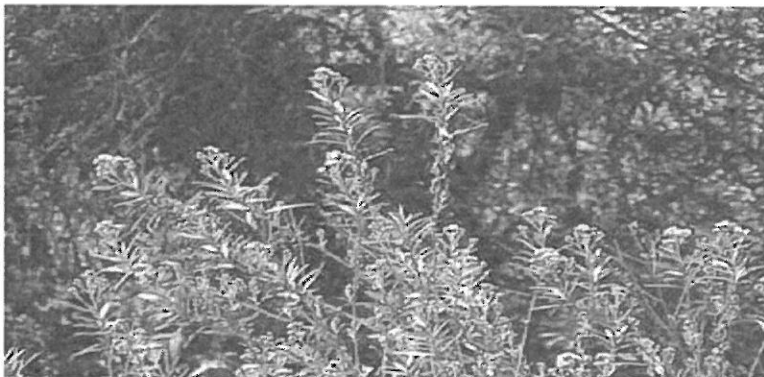
The Santa Ana Regional Interceptor, or SARI Line, as it is more commonly referred to, is comprised of approximately 93 miles of 16 inch to 84 inch diameter pipes running through San Bernardino, Riverside and Orange Counties. The Upper SARI System includes reaches that are upstream of the Orange County Sanitation District service area. The total length of these upper reaches is approximately 72 miles. Portions of this conveyance system require maintenance due to natural vegetation that grows on the easement sections.

The maintenance of easement sections due to natural growth requires the clearing and cutting of brush, trees, and debris to gain ~~and maintain~~ access to SARI Line and its appurtenances, ~~that includes grading, tree trimming for access to Maintenance Access Structures and access in general.~~ When conducting right-of-way maintenance activities, staff must take into consideration habitat protection regulations established by the California Department of Fish and Game.

Aquatic Habitat Protection

Aquatic habitats are protected by law in California. It is important to learn to identify these areas and contact a supervisor before working in an aquatic habitat. In some cases, California Department Fish and Game, the Regional Water Quality Control Board and the US Fish and Wildlife Service may need to issue permits for work in these areas.

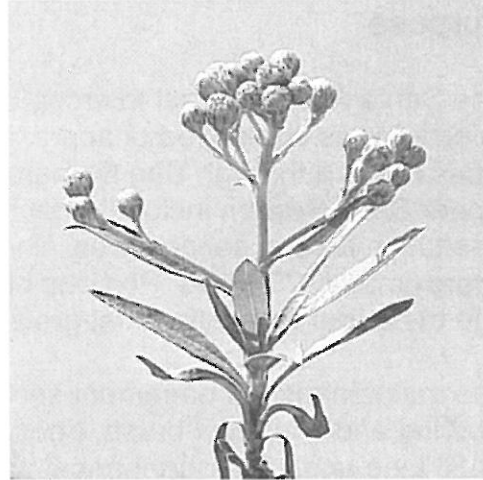
Aquatic habitats need not be wet. In our region, many of these areas are dry most of the year. If you come across any of the plants below, (Mule fat, willow, or cottonwood) be sure to check with a supervisor before working in the area. As much of the SARI is located along river and stream corridors, it is important to recognize these plants.



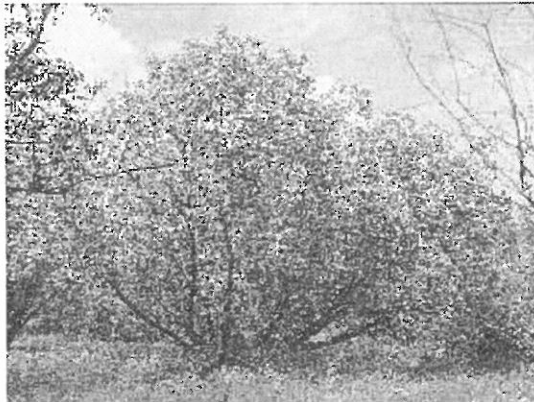
Mule fat



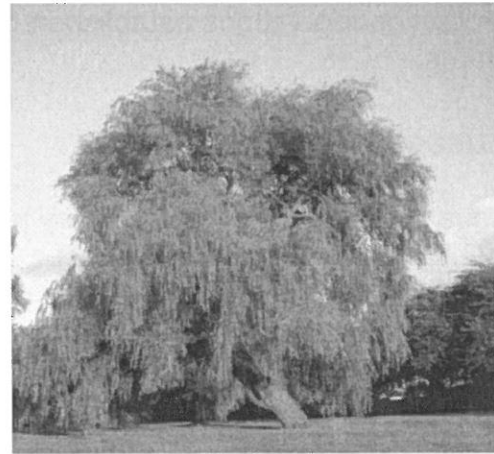
mule fat flowers



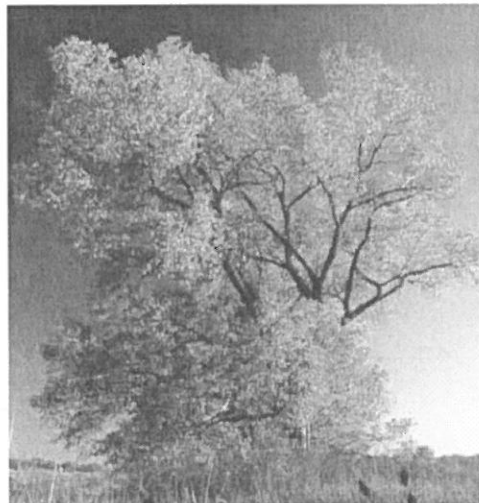
mule fat buds



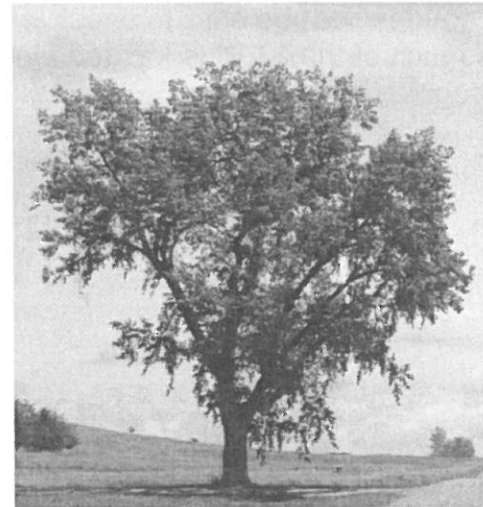
Willow



Willow



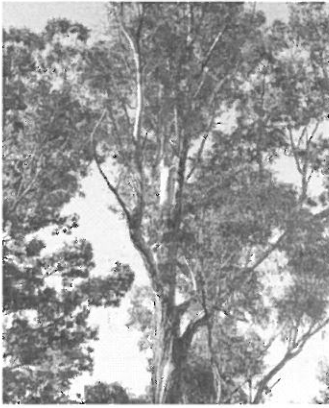
cottonwood



cottonwood

The plant species shown below are also associated with aquatic habitat. They are not native to southern California. After making sure there are no other aquatic habitat issues, you may modify or cut any of the plants listed below

(*Eucalyptus*, *Arundo*, *Tamarisk*) These invasive plants are characteristically adaptable, aggressive, and have a high reproductive capacity. Their introduction does or is likely to cause economic or environmental harm.



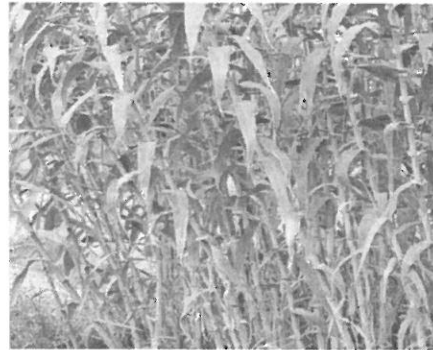
Eucalyptus



Eucalyptus



***Arundo* or giant cane**



Arundo



Tamarisk



Tamarisk

General Maintenance

General maintenance activities that should be conducted during right-of-way maintenance activities would include the following:

1. Clearing of surface material around Maintenance Access Structures

2. General clearing of fallen trees and brush that may impact ability to gain access to MAS structures within the easement
3. Posting of identification markers or location flags for any MAS within the easement
4. Documentation of any required maintenance work for MAS structures
5. Photo documentation of right-of-way maintenance activities

Location

The following matrix describes the Brine Line right-of-way maintenance locations that need to be maintained:

Maintain 10 ft wide access road

Maintenance Access Structures		Reach	Description
Beginning	Ending		
4A-0010	4A-0170	Reach IVA	Behind Prado until intersection of Pomona Rincon and Euclid
4B-0010	4B-0130	Reach IVB	Behind Prado until Butterfield Rd.
4B-0190	4B-0600	Reach IVB	From Lincoln until Radio Rd (Temescal Creek)
Buchanan after 4B-0830	4B-0890	Reach IVB	Arlington Channel
4E-0040	4E-0160	Reach IVE	Colton from when the pipe splits away from Agua Mansa Rd until Rancho Ave.
4E-0190		Reach IVE	Colton beginning at the train tracks and until the end of the Reach
4-0010 (OCS Metering Station)	Prado Dam (connection with IVA and IVB)	Reach IV	Prado Dam
Sta 0+00	Sta 43+090	Reach V (TVRI Reach V)	Temescal Creek Channel (from connection with Reach 4B-0490 (90+53.80) to El Sobrante Rd.
Sta 150+00	Sta 77+36.50	Reach V (TVRI Reach V)	From intersection of Coal and Nichols Rd. to intersection of Baker and Riverside Dr.

Within Flood Control District Right-of-way. No clearing required

** Added bridges to cross creeks and access 4B-0050, 4B, 0050, 4B-0040.*

Equipment

The maintenance of Brine Line right-of way sections will require staff to use a combination of manual labor and mechanical equipment. It is expected that a majority of the cleaning activities will be accomplished using mechanical equipment of some type. The typical equipment available would include trucks, tractor loaders; dozer equipment and miscellaneous types of hand held weed and brush removal equipment.

All equipment utilized by staff when conducting right-of-way maintenance activities will be done so after appropriate training has occurred.

General Safety

Safety/survival is directly related to your level of professionalism which in turn is directly related to knowledge and ultimately certification. This is supported in a Water Environment Federation (WEF) safety survey report that states:

- 43% of all disabling injuries occurred to employees with 0-5 years of wastewater experience
- 73% of the injured had 0-10 years' of experience
- 71% of all injuries were attributed to uncertified employees

It is imperative that WMWD employees conduct all day-to-day activities safety through a combination of awareness and professionalism.

Multiple hazards exist in the performance of the collection system operator's routine daily tasks and work assignments. The following are some of the more common hazards to be aware of:

- Slips
- Falling Objects
- Infections and Infectious Diseases
- Lacerations and Contusions
- Falls
- Explosions
- Poisonous or Toxic Gases
- Strains or Ruptures
- Traffic Mishaps
- Bites (insects, bugs, rodents, snakes)
- Excavations and Trench Shoring
- Drowning
- Fire
- Electrical Shock
- Noise
- Use of heavy equipment
- Rough terrain and uneven ground
- External conditions such as heat, cold and wet weather

Employees are required to follow the WMWD Administrative Policy SAF-04-A, Safety Practices and Procedures. These Administrative Procedures establish guidelines in compliance with the Illness Injury Prevention Program (IIPP) mandates of the Federal Code of Regulations, the State of California Occupational Safety and Health Organization (CalOSHA), and the District's Board of Directors.

