WEED MANAGEMENT PROGRAMS
SOLANO IRRIGATION DISTRICT
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Solano Irrigation District Background Information

Solano Irrigation District (SID) was established in 1948 in Solano County. The district is located on the I-80 corridor midway between San Francisco and Sacramento. Napa, Yolo, Contra Costa and Sacramento Counties border Solano County.

SID provides irrigation water for over 80,000 acres of irrigable land. Approximately 70 different commodities are produced, including fruits, nuts, vegetables, grains, seeds, nursery stock and livestock.

SID owns and operates a water delivery system of about 370 miles of pipes, canals and ditches. SID also owns 32 wells, which supplement the surface water deliveries.

SID also operates and maintains the "Solano Project". This project is comprised of Monticello Dam (forming Lake Berryessa), the Putah Diversion Dam (forming Lake Solano), the Putah South Canal and Terminal Reservoir.

SID has partners in water service under "Joint Powers" arrangements to treat and supply domestic water to the residents and businesses in the Cities of Dixon and Suisun City. SID operates and maintains conventional water treatment facilities such as Cement Hill Water Treatment Plant in Fairfield as well as membrane treatment facilities. SID operates ground water wells and domestic distribution systems in these cities.

Non-Crop Weed Management Programs

Terrestrial Weed Management

Bare Ground Herbicide Program

Canal and Drain Roads*:* The majority of the roads are dirt and are maintained weed free. Primary herbicides to be used in 2010:

- Dimension 2EW and Milestone VM

Inside Banks of the Irrigation Canals: The water season ends October 15 and starts again April 1. During the off-irrigation season, the inside banks are maintained weed free. Primary herbicides to be used in 2010:

- Direx 4L
- Prod amine 60WP (in Ground Water Protection Areas)

Bare Ground Herbicide Program (continued)

Municipal and Industrial Sites: This includes well, tank and pump sites, water treatment facilities, meter and valve sites, manholes, etc. Primary herbicides to be used in 2010:

- Dimension 2EW and Milestone VM

Agricultural and Municipal Pipelines and Facilities: This includes turnouts, vent pipes, air relief vents, fire hydrants, etc. Primary herbicides to be used in 2010:

- Dimension 2EW and Milestone VM
- Surflan AS and Goal Tender

Putah South Canal Fence Lines: Firebreaks are maintained along the Putah South Canal near residential areas. Primary herbicides to be used in 2010:

- Dimension 2EW and Gallery 75Dry Flowable

Vegetation Management Programs

Broadleaf Control on Grassed Slopes: SID maintains many slopes in a grass vegetated state for erosion control purposes. Primary herbicides to be used in 2010:

- Milestone VM
- Milestone VM Plus
- Garlon 3A
- Weedestroy AM 40

Grass Height Control on Grassed Slopes: The purpose of this program is to reduce the fire risk on these vegetated slopes. Primary herbicides to be used in 2010:

- Accord Concentrate (very low rates)

Post-Emergent Herbicide Application

Post Emergent Applications: This includes all weeds during the irrigation season, non-aquatic. Primary herbicides to be used in 2010:

- Accord Concentrate
- Garlon 3A

Aquatic Weed Management

Solano Irrigation District has operated under an NPDES permit since 2002. All aquatic weed herbicide applications are scheduled in advance. All of the customers are notified of the schedule and the operating procedures to follow during and after the application. Irrigation canal "spills" are controlled during the herbicide application to prevent herbicides from reaching canals the have been defined as "Waters Of The United States". Water that is in these canals is monitored before and after the application for the

herbicide that was used. A biological evaluation of the canals is conducted after the irrigation season to demonstrate that no damage to the ecosystem has occurred. A full report is then prepared and submitted to the respective California Water Quality Control Board.

Irrigation Canal Inspection During Irrigation Season

One day prior to a scheduled herbicide treatment, a complete inspection of the system is made. A map is constructed that shows the locations of significant aquatic weeds. A rating system is used to indicate the severity of the weed growth:

Green: No significant growth, no flow restrictions
Yellow: Moderate infestation, treatment is recommended
Red: Heavy infestation, canal flow is impacted, treatment needed

Irrigation Canal Treatment During Irrigation Season

Based on the inspection, a treatment plan is implemented that targets the areas of greatest concern. The herbicide/algaecide selected will be specific to the species that are impacting the canal.

Treatment technique will depend on the situation and the herbicide/algaecide being utilized. Solano Irrigation District utilizes drip application, broadcast boom application and slug treatment. The aquatic herbicides and algaecides include the following:

Nautique: Targets Sago, American, Curly Leaf Pond Weed
Clearigate: Targets all of the above plus Water Speedwell, Algae
Cutrine Ultra: Targets Algae
Copper Sulfate: Targets Algae

Irrigation Canal Treatment During Off Season

Sonar AS Herbicide was utilized in during the winter of 2008-2009 on approximately 23 acres of dry irrigation canal. The herbicide was applied utilizing a boom truck. The treated areas received over 6” of rainfall within one month of the treatment. The results were overall positive. Aquatic weed growth was significantly reduced compared to the prior year without the treatment. Solano Irrigation District will continue the program in 2010 and evaluate the effectiveness of the herbicide over two seasons.