

**Annual Vegetation and Noxious Weed Management Report
Santa Felicia Project
2015 Reporting Period**

Santa Felicia Project FERC P-2153

December 31, 2015

Prepared by:



UNITED WATER CONSERVATION DISTRICT

Environmental Planning and Conservation Department

Table of Contents

Abstract.....	2
1.0 Background.....	2
1.1 Summary of activities presented in prior annual reports.....	3
1.1.1 Reporting period February 14, 2011 through February 28, 2012.....	3
1.1.2 Reporting period March 1, 2012 through February 28, 2013.....	3
1.1.3 Reporting period March 1, 2013 through December 31, 2013.....	4
1.1.4 Reporting period January 1, 2014 through December 31, 2014.....	4
2.0 Vegetation and Noxious Weed Management Activities January 1 to December 31, 2015.....	4
2.1 Summary of target noxious weed populations including existing and new populations in areas tied-to Project actions or effects	4
2.2 Project area map depicting point and polygon data for target noxious weed populations as recorded for the Noxious Weed GIS Data Layer.....	5
2.3 Description of control areas and treatments used over the past year	5
2.4 Brief evaluation of priority treatment areas	5
2.5 Recommended control measures for each population/treatment area including proposed chemical controls	5
2.6 Description of revegetation efforts conducted during the reporting period.....	6
2.7 Evaluation of revegetation efforts conducted prior to (within 3 years) and within the reporting period.....	6
2.8 Summary of proposed revegetation areas	6
3.0 Description of revegetation activities conducted in Reasoner Canyon Creek for bank stabilization purposes.....	6
4.0 USFS Consultation.....	6
4.1 Development of strategies to address new colonization and regrowth of tamarisk in the Management Area.....	6
4.2 Development of strategies to control and treat additional tamarisk in environmentally sensitive areas	6
4.3 Annual coordination meeting	6
5.0 Future Activities.....	7
References.....	11

Abstract

This annual report presents information related to implementation activities conducted between January 1 and December 31, 2015, in accordance with the “Vegetation and Noxious Weed Management Plan” developed to comply with requirements of United Water Conservation District’s license issued by the Federal Energy Regulatory Commission. Activities conducted during 2015 included incidental observations and consultation with regulatory agencies to develop future strategies and obtain authorizations for conducting noxious weed management activities. No eradication treatments or formal surveys were conducted during this reporting period. On December 28, 2015 the California Department of Fish and Wildlife issued a draft Lake and Streambed Alteration Agreement that will authorize implementation of noxious weed management activities for a term of 5 years.

Tamarisk infestations in the priority Vegetation and Noxious Weed Management Area (priority Management Area) are composed of regrowth and new growth that has occurred since initiation of control measures. New tamarisk infestations have been observed in Reasoner Canyon Creek and in the Spillway Channel pools. Small to mid-sized tamarisk infestation sites that were treated during prior control events have regrowth sprouting from the cut and treated stalks. Additional control treatments are required for these infestations. Mature tamarisk plants (with stalk diameters of 4 inches or greater) identified during the 2011 baseline survey within the priority Management Area have been successfully treated.

1.0 Background

United Water Conservation District (United) owns and operates the Santa Felicia Project (Project) on Piru Creek in Ventura County, California. The Federal Energy Regulatory Commission (FERC) issued a new license to United for the operations of the Project on September 12, 2008 (FERC Project No. 2153). Article 405 of the License requires United to file a vegetation and noxious weed management plan for lands within the project boundary that incorporates provisions of United States Forest Service’ (USFS) 4(e) Condition 18(b). United filed the “Vegetation and Noxious Weed Management Plan September 2010” (Management Plan), on October 12, 2010 and FERC issued an order modifying and approving the Management Plan on February 14, 2011.

The Management Plan requires United to produce annual technical reports presenting the results of monitoring and control efforts conducted throughout the prior year (reporting period). This report describes activities performed between January 1, 2015 and December 31, 2015.

The Management Plan specifically identifies that the report must contain the following components:

1. Summary of target noxious weed populations including existing and new populations in areas tied-to Project actions or effects.
2. Project area map depicting point and polygon data for target noxious weed populations as recorded for the Noxious Weed GIS Data Layer.
3. Description of control areas and treatments used over the past year.
4. Brief evaluation of priority treatment areas.

5. Recommended control measures for each population/treatment area including proposed chemical controls.
6. Description of revegetation efforts conducted during the reporting period.
7. Evaluation of revegetation efforts conducted prior to (within 3-years) and within the reporting period.
8. Summary of proposed revegetation areas.

In addition, on January 29, 2013, FERC issued an order approving and amending a plan to use existing vegetation in Reasoner Canyon Creek to satisfy bank stabilization requirements of Article 407 of the license. The order requires United to include a description of any revegetation activities conducted during the year in Reasoner Canyon Creek for bank stabilization purposes in this annual report.

1.1 Summary of activities presented in prior annual reports

This report serves as the fifth annual report documenting monitoring and control activities conducted in accordance with the Management Plan. Activities described in prior annual reports are summarized in this section.

1.1.1 Reporting period February 14, 2011 through February 28, 2012

United performed a baseline inventory survey of targeted noxious weed species within the Vegetation and Noxious Weed Management Area (Management Area). The inventory survey was conducted in April of 2011. The only targeted noxious weed that was observed during the baseline survey was *Tamarix ramosissima* (tamarisk). The Plan required that United finalize, in consultation with the Los Padres National Forest (LPNF), the priority infestations and treatment methods based on information obtained from the baseline inventory survey. United consulted with the LPNF on February 2, 2012 and presented results of the baseline inventory. Following guidance from the LPNF, United developed a draft “Strategy for Treatment and Eradication of *Tamarix ramosissima*” (Eradication Plan) based on a draft model developed by the LPNF for the purpose of eradicating tamarisk from Piru Creek, Lockwood Creek, Cuyama River, Santa Ynez River, Sisquoc River, and Arroyo Seco River. United provided a draft of the Eradication Plan to LPNF for review.

1.1.2 Reporting period March 1, 2012 through February 28, 2013

Following guidance from LPNF, the Eradication Plan was finalized. United’s Board of Directors determined that tamarisk removal activities, as described in the Eradication Plan, are categorically exempt from the California Environmental Quality Act (CEQA) and a Notice of Exemption was filed with the Ventura County Clerk of the Board of Supervisors on December 31, 2012. United consulted with the U.S. Army Corps of Engineers (ACOE) on November 9, 2012, and was informed that the proposed activities would not require a permit under section 404 of the Clean Water Act. United submitted the Eradication Plan along with a Lake and Streambed Alteration Agreement (LSAA) notification to the California Department of Fish and Wildlife (CDFW) on December 17, 2012. CDFW responded in a letter dated January 14, 2013, with a determination that the project would not substantially adversely affect any existing fish or wildlife resource, and therefore, a lake or streambed alteration agreement was not required¹. The activities outlined in the Eradication Plan were implemented between January 30 and February 6, 2013.

¹ During follow-up consultation, CDFW requested that United submit a LSAA notification to obtain authorization for all general maintenance activities conducted at the Lake Piru Recreation Area and the Santa Felicia Project. Activities discussed in this (2015) annual report include submittal of the requested notification.

1.1.3 Reporting period March 1, 2013 through December 31, 2013

The Management Area was surveyed during June 2013 to determine the effectiveness of eradication activities implemented between January 30 and February 6, 2013. A substantial amount of tamarisk was observed. During preparation for a follow-up eradication treatment, several site reconnaissance visits were conducted. Observations made during field reconnaissance visits in July and August, 2013, indicated tamarisk infestations in the Management Area had increased since the June 2013 survey. The follow-up eradication treatment was implemented between November 7 and November 18, 2013. The eradication treatment included the “cut and paint” method (which was implemented in the prior eradication effort) for larger more mature tamarisk plants, in combination with foliar spray application of an herbicide for regrowth and new growth populations.

1.1.4 Reporting period January 1, 2014 through December 31, 2014

The Management Area was surveyed between May 28 and June 26, 2014 and data collected indicated the extent of the area available for tamarisk colonization, size and age class of tamarisk plants present, and level of tamarisk infestation, had changed significantly since initiation of the control efforts. Drought conditions had reduced the wetted perimeter of Lake Piru, resulting in an expansion of the area available for tamarisk colonization. The mature tamarisk plants identified during the baseline survey in 2011 appeared to be successfully treated. Treatment for many of the small to mid-sized tamarisk plants were partially successful and many of the treated plants had regrowth sprouting from the cut and treated stalks. Tamarisk infestations had increased substantially with significant recruitment occurring in areas where previously submerged shoreline had become exposed by receding water surface elevations.

2.0 Vegetation and Noxious Weed Management Activities January 1 to December 31, 2015

2.1 Summary of target noxious weed populations including existing and new populations in areas tied-to Project actions or effects

An aerial map with delineated polygon areas representing tamarisk infestations within the priority Management Area is presented in Figure 1. Insets shown in Figure 1 are expanded to present more detail in Figures 2 (Reasoner Canyon Creek) and 3 (Santa Felicia spillway pools and outlet works). The maps are based on results of surveys performed in 2014. Data collected during the 2014 reporting period, and presented in the prior annual report, indicated an increase in tamarisk infestations (new recruitment), particularly in areas surrounding Lake Piru below the high water mark (elevation 1,055 feet msl). Observations made during this reporting period (2015) indicate that tamarisk recruitment has continued to increase in newly exposed areas as the wetted perimeter of Lake Piru has receded in response to drought conditions. Tamarisk infestations in the transitional area between the wetted perimeter of the lake and the high water mark are not located within the priority Management Area, and not shown on the aerial maps. Tamarisk infestations in this transitional area are not expected to survive once the lake fills and they become submerged.

New tamarisk plants have also been observed in Reasoner Canyon Creek and in the Spillway Channel pools. New growth in these areas is not as dense as new growth surrounding the wetted perimeter of the lake. Observations made during this reporting period confirm that the mature tamarisk plants (with stalk diameters of 4 inches or greater) identified during the 2011 baseline survey within the priority Management Area have been successfully treated. Small to mid-sized tamarisk infestation sites that were treated have regrowth sprouting from the cut and treated stalks. Additional control treatments are required for these infestations. Lack of success for control treatments on tamarisk plants with smaller stalk diameters is likely attributed to the limited surface area for herbicide uptake following treatment.

2.2 *Project area map depicting point and polygon data for target noxious weed populations as recorded for the Noxious Weed GIS Data Layer*

Project area maps depicting the spatial extent of identified target noxious weed populations (tamarisk) within the prioritized Management Area are presented in Figures 1, 2, and 3.

2.3 *Description of control areas and treatments used over the past year*

No eradication treatments or formal surveys were conducted in the Management Area during this reporting period. Activities conducted during 2015 included incidental observations and consultation with regulatory agencies to develop future strategies and obtain authorizations for conducting future control activities.

United consulted with LPNF on March 3, 2015. Discussion related to this consultation is presented in Section 4 of this report. On August 28, 2015, United submitted a LSAA notification to CDFW to authorize maintenance activities conducted at the Lake Piru Recreation Area and Santa Felicia Project. The maintenance activities included noxious weed management activities in accordance with the Management Plan. United staff met with representatives of CDFW to tour the Lake Piru Recreation Area and Santa Felicia Project to discuss maintenance activities proposed for coverage under the LSAA on September 16, 2015. On October 15, 2015 United staff met with a representative from the ACOE to discuss the activities proposed for coverage, tour the facility and receive guidance on jurisdictional requirements to determine which of the maintenance activities require authorization from the ACOE and the Regional Water Quality Control Board under sections 404 and 401, respectively, of the Clean Water Act. United was informed that the noxious weed management activities are not subject to section 404 authorization.

On November 16, 2015, CDFW submitted a draft LSAA to United. United reviewed the draft and provided comments to CDFW. CDFW submitted a revised draft LSAA to United on December 28, 2015 and United anticipates executing the agreement in the beginning of 2016. The LSAA will provide authorization for noxious weed management activities for a term of 5 years.

2.4 *Brief evaluation of priority treatment areas*

Tamarisk infestations in the priority Management Area are composed of regrowth and new growth that has occurred since initiation of control measures. New tamarisk plants have been observed in Reasoner Canyon Creek and in the Spillway Channel pools. Small to mid-sized tamarisk infestation sites that were treated during prior control events have regrowth sprouting from the cut and treated stalks. Additional control treatments are required for these infestations. Lack of success for control treatments on smaller stalk diameters is likely attributed to the limited surface area for herbicide uptake during treatment. Mature tamarisk plants (with stalk diameters of 4 inches or greater) identified during the 2011 baseline survey within the priority Management Area have been successfully treated.

2.5 *Recommended control measures for each population/treatment area including proposed chemical controls*

United has scheduled an annual consultation meeting with LPNF on February 2, 2016 and intends to discuss future noxious weed management activities. For tamarisk infestations in the priority Management Area that are not located between the wetted perimeter of the reservoir and the high water mark, United intends to propose a combination of control measures similar to those implemented during the eradication treatment conducted in November of 2013. These

measures include the “cut and paint” method for tamarisk plants with stalk diameters greater than one-half inch, in combination with foliar spray application of an herbicide for regrowth and new growth populations with stalk diameters less than one-half inch.

2.6 Description of revegetation efforts conducted during the reporting period

The Management Plan stipulates conditions that trigger revegetation requirements (i.e., particular project activities resulting in ground disturbance greater than 0.10 acres). No such activities occurred in 2015, and no revegetation activities were conducted during the reporting period.

2.7 Evaluation of revegetation efforts conducted prior to (within 3 years) and within the reporting period

No revegetation activities have been triggered or conducted within the last 3 years.

2.8 Summary of proposed revegetation areas

No project activities expected to trigger revegetation requirements are currently proposed, therefore, no revegetation activities are proposed.

3.0 Description of revegetation activities conducted in Reasoner Canyon Creek for bank stabilization purposes

No revegetation activities occurred during 2015 in Reasoner Canyon Creek for bank stabilization purposes.

4.0 USFS Consultation

4.1 Development of strategies to address new colonization and regrowth of tamarisk in the Management Area

United will consult with LPNF on February 2, 2016, to discuss strategies to address tamarisk infestations within the priority Management Area.

4.2 Development of strategies to control and treat additional tamarisk in environmentally sensitive areas

Tamarisk plants that fall within critical habitat and areas where arroyo toads may be expected to breed have been excluded as priority plants for removal under the Eradication Plan. United’s Eradication Plan is based on a draft model developed by the LPNF for the purpose of eradicating tamarisk from Piru Creek, Lockwood Creek, Cuyama River, Santa Ynez River, Sisquoc River, and Arroyo Seco River. LPNF’s plan, “Los Padres National Forest Tamarisk Removal Project,” is under environmental review, and an Environmental Impact Statement (EIS) has been filed with the Federal Registry (LPNF 2012). United will continue to consult with LPNF, U.S. Fish and Wildlife Service (USFWS), and CDFW to determine if United can safely remove these tamarisk plants without affecting arroyo toad or its critical habitat using the approach developed by LPNF. Depending on the outcome of that consultation, United will work with the consulting agencies and FERC to determine how to proceed.

4.3 Annual coordination meeting

USFS’ section 4(e) conditions 2 and 18(b) require that United consult annually with the USFS on issues related to conditions of the license and implementation of the Management Plan. United met with LPNF on March 3, 2015, to provide an update on license activities and the vegetation and noxious weed management planning process as well as anticipated future management activities. Minutes from the meeting were filed with FERC on March 16, 2015.

5.0 Future Activities

United will consult with LPNF on February 2, 2016, to provide an update on Management Plan activities and request guidance on developing appropriate strategies to address tamarisk infestations within the Management Area. United will also continue to consult with LPNF to develop plans to control and treat tamarisk infestations that fall within arroyo toad critical habitat or in areas where eradication activities have the potential to affect arroyo toads. Depending on the outcome of that consultation, United will work with the agencies and FERC to determine how to proceed.

A follow-up inventory of target noxious weeds will be conducted in spring-summer of 2016. The target noxious weeds are those listed as A, B, or Q species by the California Department of Food and Agriculture and identified as weed species of concern by the LPNF (presented in Table 3.1 of the Management Plan). All target noxious weed populations will be inventoried according to USFS approved protocol that adequately establishes species, location, and percent cover by species. Following the surveys, inventory data will be integrated into a noxious weed database which will include a GIS data layer. Newly identified target noxious weed infestations will be scheduled for control/monitoring activities.

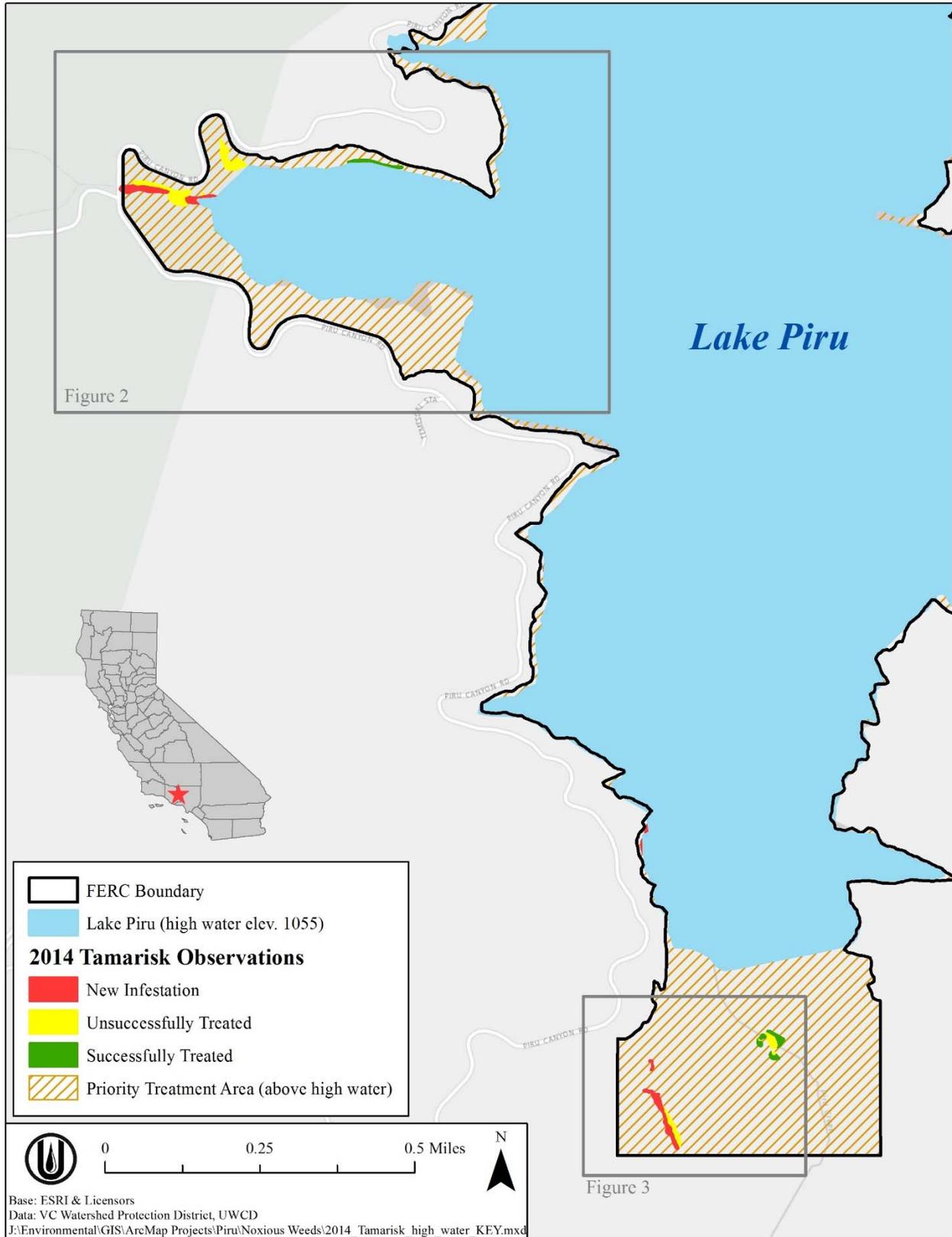


Figure 1 - Noxious Weed Prioritized Management Area

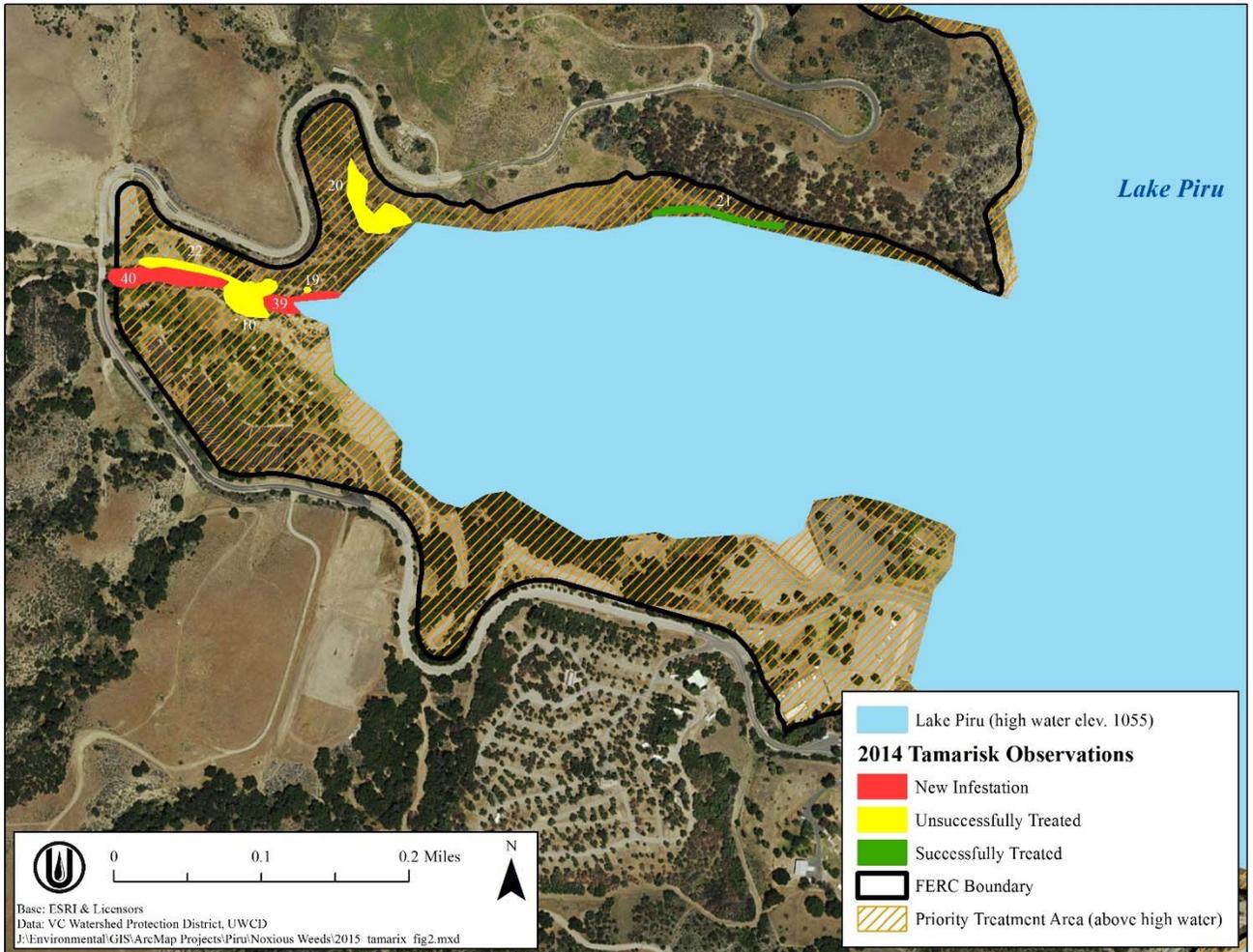


Figure 2 - Reasoner Canyon Creek Detail

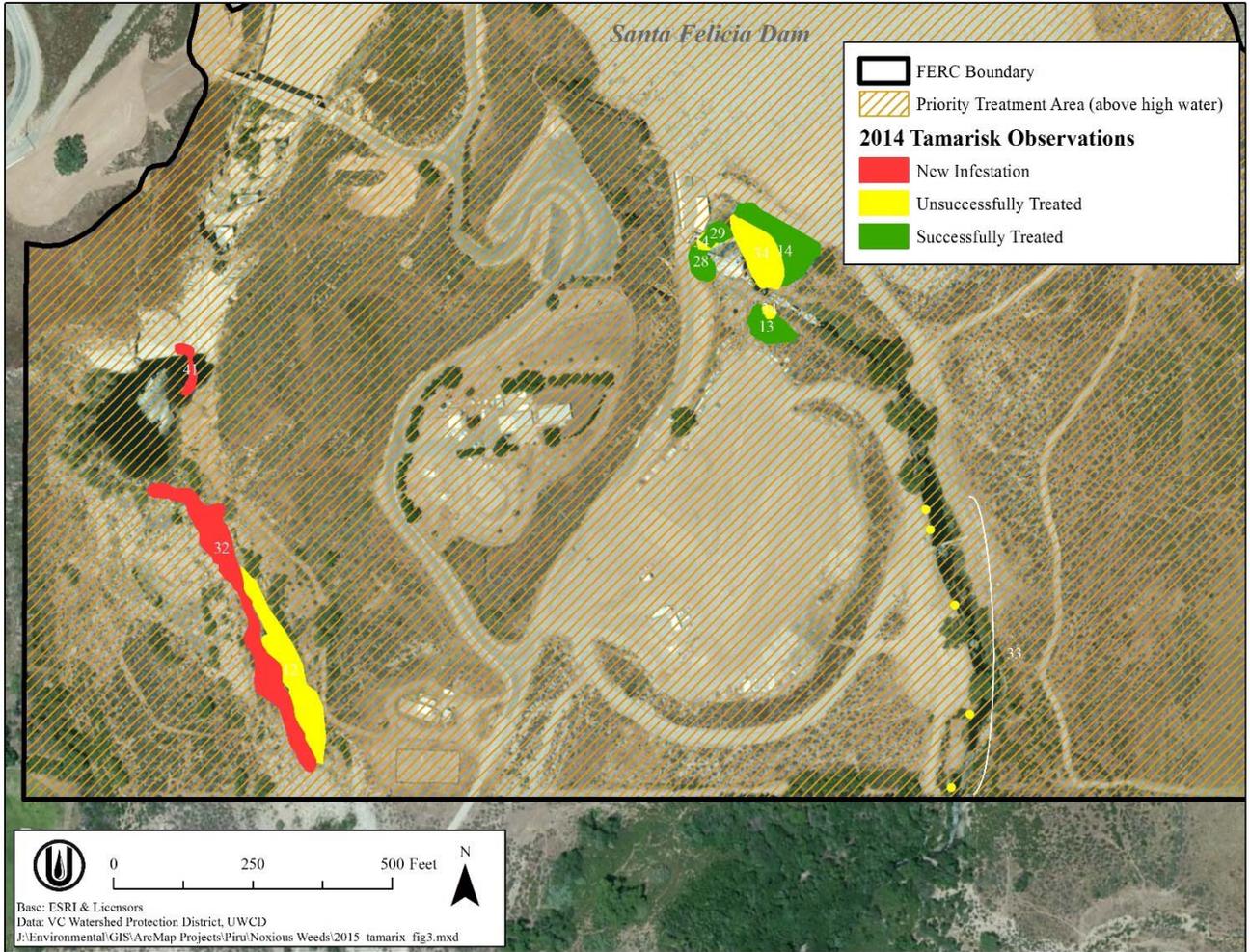


Figure 3 - Santa Felicia Spillway Channel and Outlet Works Detail

References

Los Padres National Forest (LPNF). 2012. *California; Environmental Impact Statement for the Removal of the Noxious Weed Tamarisk on the Los Padres National Forest*. 77 Federal Register 32 (February 16, 2012), pp. 9200-9202.