

**Annual Vegetation and Noxious Weed Management Report
Santa Felicia Project
2013 Reporting Period**

Santa Felicia Project FERC P-2153-029

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Abstract

This annual report presents information related to monitoring and control activities conducted between March 1, 2013 and December 31, 2013, 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. During this reporting period, a survey was performed on June 12, 2013 to determine the effectiveness of eradication activities implemented during the previous reporting period. A substantial amount of tamarisk was observed. United developed a strategy to treat the identified tamarisk that included the “cut stump” method that was implemented in the previous eradication effort for larger more mature tamarisk plants in combination with foliar spray application of an herbicide for regrowth and new growth populations. Observations made during field reconnaissance visits on July 18 and August 20, 2013 indicated tamarisk infestations in the management area had increased since the June 2013 survey. A second eradication treatment was implemented between November 7, and November 18, 2013. A follow-up survey will be performed during the spring of 2014 to evaluate the effectiveness of the treatment activities.

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. 2153-012). 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 results of monitoring and control efforts conducted throughout the prior year (reporting period). This report describes monitoring and control activities performed since submittal of the last annual report (February 28, 2013) through the end of the year (December 31, 2013). The purpose for terminating this reporting period on December 31 is to adjust the reporting schedule to provide for future annual reports to document activities based on a calendar year schedule (January 1 through December 31).

The 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.

1.1 Summary of activities presented in prior annual reports

This report serves as the third 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 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 streambed alteration 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 required. The activities outlined in the Eradication Plan were implemented between January 30 and February 6, 2013.

2.0 Vegetation and Noxious Weed Management Activities March 1 to December 31, 2014

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

The Management Area was surveyed on June 12, 2013 to determine the effectiveness of eradication activities implemented during the previous reporting period (between January 30 and February 6, 2013). Aerial maps of the surveyed area with delineated polygon areas representing tamarisk infestations are shown in Figures 1 and 2. A characterization of observations based on quantity of plants observed and percent coverage of tamarisk within each polygon is presented in Table 1. Results from the 2011 baseline survey are also shown in Table 1 for comparison purposes.

A comparison of data collected during the 2011 baseline survey and data collected in June of 2013 indicates that the quantity and density of tamarisk infestations observed in the Management Area following the January/February 2013 eradication activities was greater than baseline conditions identified during the 2011 survey. The tamarisk that was observed in the management area during the June 12, 2013, survey can be characterized as three types of infestations.

1. New growth.
2. Regrowth from the cut stumps of tamarisk plants that were treated during the January/February 2013 eradication effort.
3. Tamarisk plants that were present during the January/February 2013 eradication effort but were not treated.

A majority of the tamarisk plants observed during the survey conducted during this reporting period were from new growth, particularly in locations that were previously submerged below the wetted perimeter of the reservoir. There appears to have been a substantial, viable seed bank along the shallow shoreline. Water surface elevation in the lake has decreased significantly since the baseline survey was completed and most of the new growth is in the recently exposed area between the high water mark and the current wetted perimeter of the reservoir.

Additional regrowth and new growth was witnessed in the Management Area during field reconnaissance visits on July 18 and August 20, 2013. A second eradication treatment was completed in November of 2013 (described below in Section 2.3). All tamarisk infestations identified in Figures 1 and 2 (with the exception of polygon 11 which is located on private property) were targeted for treatment. A survey will be performed in spring of 2014 to determine the effectiveness of the treatment measures and results will be presented in the annual report for 2014 activities.

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 point and polygon data for identified target noxious weed populations (tamarisk) are presented in Figures 1 and 2.

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

Eradication activities were implemented on two occasions over the last year. The first effort was implemented during the previous reporting period between January 30, and February 6, 2013, and was discussed in the last annual report (reporting period March 1, 2012, through February 28, 2013). The second effort was implemented during the current reporting period, between November 7 and November 18, 2013. The priority infestations that were targeted for removal during the second effort include all tamarisk populations observed during the June 2013 survey shown in Figures 1 and 2 (with the exception of plants identified as polygon 11), as well as additional regrowth and new infestations identified in the vicinity during field reconnaissance visits on July 18 and August 20, 2013. During this effort, tamarisk was removed from an area of approximately 40 acres in Reasoner Canyon (Figure 1), and 1.7 acres below the Santa Felicia Dam spillway channel (Figure 2).

The “cut stump” treatment described in the Eradication Plan was implemented to remove tamarisk material that had not been treated during the previous eradication effort. Regrowth on cut stumps of tamarisk plants that were treated in the previous eradication effort was either treated by an additional “cut stump” treatment or application of foliar spray. New growth was either hand pulled or treated with application of foliar spray. Tamarisk plants located within 20 horizontal feet of standing water were

treated with a dilute concentration of Imazapyr (Polaris) mixed with a colorant. Plants located further than 20 horizontal feet of standing water were treated with an undiluted concentrate of triclopyr (Garlon 3A) mixed with a colorant. No work was performed in running water. Cut material was removed from the work site and covered and stored for burning at an appropriate time in the future. Burn permits will be obtained prior to the event.

2.4 *Brief evaluation of priority treatment areas*

The results of the survey performed June of 2013, in-between implementation of the two eradication treatments, indicate that a substantial amount of tamarisk was present in the management area following the first eradication treatment. A plausible explanation for the presence of mature tamarisk plants that were missed during the first eradication treatment is associated with the timing of the eradication treatment. The first treatment was originally scheduled to occur in fall of 2012. However, it was postponed to allow for completion of CEQA compliance activities and was not implemented until late January and February of 2013. The condition of the tamarisk plants had changed from what was observed during a site reconnaissance conducted earlier in the fall. A majority of the tamarisk plants present during the eradication activities had lost their foliage making it difficult to identify all of the tamarisk material for removal. Consequently, some tamarisk stalks were not removed during the first eradication treatment.

Observations made during the field reconnaissance visits on July 18 and August 20, 2013, indicate that the “cut stump” method is more effective in treating larger, mature tamarisk plants. The majority of regrowth witnessed in the treatment area was at the base of the smaller cut stumps with stalk diameters less than one-half inch. This is likely attributed to the amount surface area available for uptake of the herbicide.

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

United will monitor the treatment areas in spring of 2014 to determine the effectiveness of the control measures. If appropriate, additional treatments may be proposed.

2.6 *Description of revegetation efforts conducted during the reporting period*

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 conducted within the last 3 years.

2.8 *Summary of proposed revegetation areas*

United will monitor the treatment areas in spring of 2014 to determine the effectiveness of the control measures. If appropriate, revegetation activities may be proposed.

3.0 USFS Consultation

3.1 *Development of strategies to control and treat additional tamarisk in environmentally sensitive areas within the Management Area*

Tamarisk plants within the Management Area 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 currently under environmental review, and an Environmental Impact Statement (EIS) has been filed with the Federal Registry (LPNF 2012). Upon completion of the environmental review United will 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 agencies and FERC to determine how to proceed.

3.2 *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 February 6, 2013, to provided an update to LPNF on license activities and the vegetation and noxious weed management planning process as well as anticipated future management activities. This consultation meeting was discussed in the last annual report (reporting period March 1, 2012, through February 28, 2013). No additional consultation occurred during this reporting period.

4.0 *Future Activities*

United will continue to consult with LPNF to develop strategies to control and treat tamarisk plants within the Management Area 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. In the mean time, United will re-survey the eradication treatment areas in spring of 2014 to determine the effectiveness of the control measures. If appropriate, additional treatments or revegetation activities may be proposed.

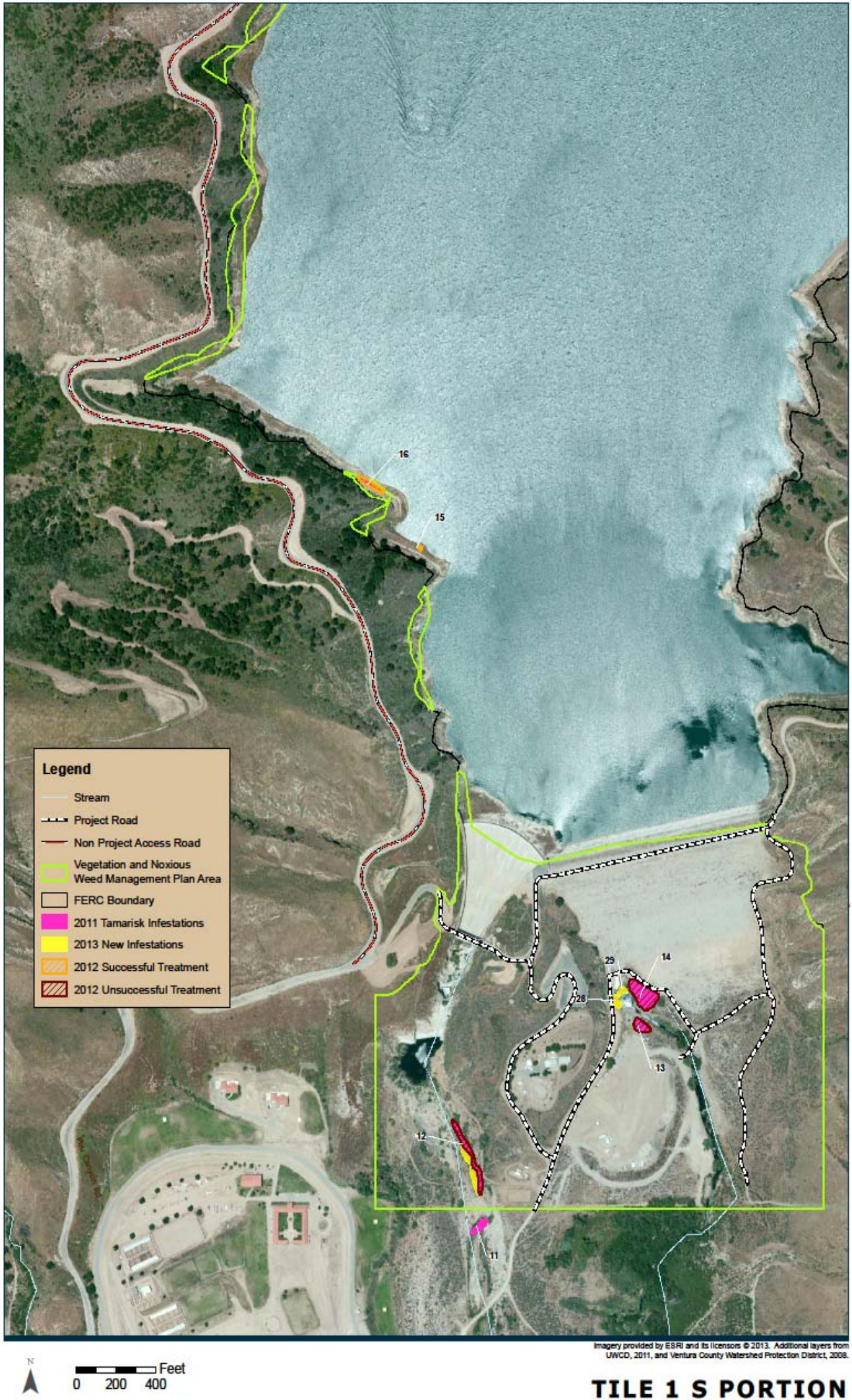


Figure 1 – Project area map for target tamarisk populations (Tile 1)

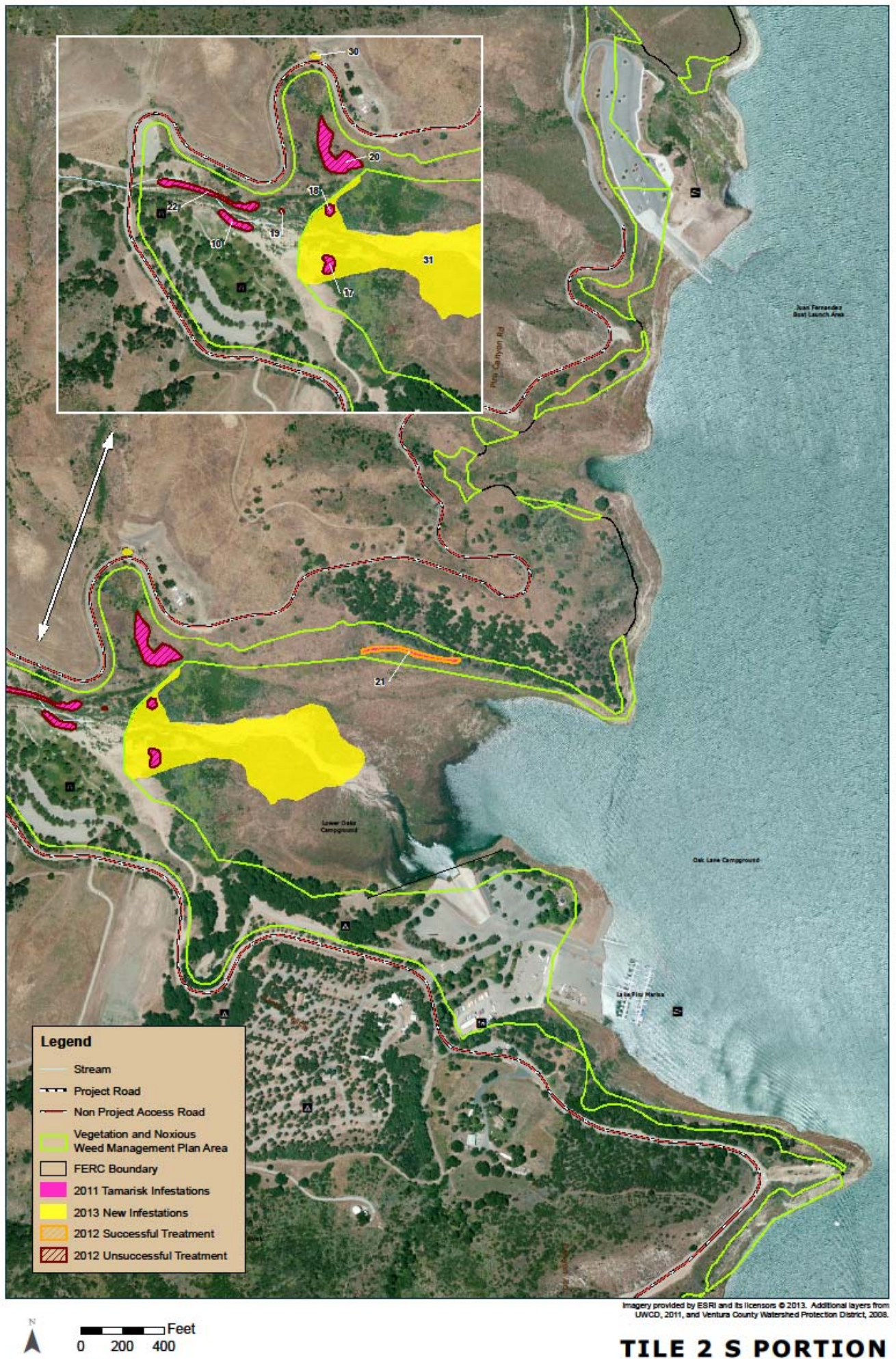


Figure 2 – Project area map for target tamarisk populations (Tile 2)

Table 1 - Tamarisk Observation Characteristics

Tile #	Polygon ID	2011 Qty Observed	2011 % Coverage	2013 Qty Observed	2013 % Coverage	Latitude	Longitude	2011 Total Plants Per Tile	2013 Total Plants Per Tile
1	11	8	10	8	10	34.456437	-1 18.754693	50	79
	12	25	8	35	9	34.457353	-1 18.754869		
	13	2	10	3	10	34.459013	-1 18.752020		
	14	12	10	25	12	34.459416	-1 18.751989		
	15	1	1	0	0	34.465101	-1 18.755754		
	16	2	3	0	0	34.465906	-1 18.756588		
	28	-	-	5	1	34.459335	-118.752469		
	29	-	-	3	1	34.459443	-118.752423		
2	10	10	20	15	20	34.478981	-1 18.769098	53	159+
	17	4	3	4	3	34.478516	-1 18.767564		
	18	2	1	2	1	34.479228	-1 18.767611		
	19	1	1	20	1	34.479163	-1 18.768366		
	20	10	8	15	8	34.479980	-1 18.767611		
	21	20	10	0	0	34.479918	-118.763518		
	22	6	5	20	6	34.479317	-1 18.76955		
	30	-	-	3	1	34.481248	-118.768032		
	31	-	-	80+	5	34.478770	-118.766761		
3	8	1	1	N/A	N/A	34.511757	-1 18.759101	63	N/A
	9	8	5	N/A	N/A	34.512731	-1 18.760761		
	23	25	10	N/A	N/A	34.504999	-1 18.758088		
	24	1	1	N/A	N/A	34.509658	-1 18.760615		
	25	8	5	N/A	N/A	34.512408	-1 18.759205		
	26	20	15	N/A	N/A	34.514673	-1 18.755845		
4	1	8	5	N/A	N/A	34.519027	-1 18.757669	130	N/A
	2	10	5	N/A	N/A	34.520538	-1 18.756979		
	3	6	8	N/A	N/A	34.521997	-1 18.757430		
	4	8	5	N/A	N/A	34.522137	-1 18.757185		
	5	50	8	N/A	N/A	34.521791	-1 18.757385		
	6	10	5	N/A	N/A	34.520150	-1 18.757636		
	7	8	5	N/A	N/A	34.518951	-1 18.757916		
	27	30	20	N/A	N/A	34.517715	-1 18.757451		

- : No tamarisk observed in the area during 2011 surveys
 N/A: No inventory conducted in 2013

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.