P.O. Box 193
Patterson, CA. 95363
TEL. (209) 892-3026
FAX (209) 892-3026

January 14, 2015

Stanislaus County Board of Supervisors
1010 10th Street, Suite 6500
Modesto, CA 95354

The West Stanislaus Resource Conservation District (WSRCD) board is proud to provide you with the 2014 Annual Monitoring Report of Natural Resources of the Crows Landing Naval Out lease Property. A copy of the report was sent to Supervisor Jim DeMartini, and Keith Boggs, Assistant Executive Officer Economic Development.

The West Stanislaus Resource Conservation District has a contractual agreement to Stanislaus County to provide monitoring of all the natural resources on the Crows Landing Naval Out lease Agricultural Properties. This report was was prepared with both West Stanislaus RCD Directors and the East Stanislaus Resource Conservation Technician. Thank you for your cooperation on the importance of the Natural Resources of the Westside of Stanislaus County. If you have any questions or comments about the Annual Report, please direct those to the WSRCD office at P.O. Box 193, Patterson, California 95363 or by calling the office at (209) 892-3026.

Sincerely,
West Stanislaus Resource Conservation District Board

West Stanislaus Resource Conservation District

Crows Landing Naval Base Easement

Annual Reserve Monitoring Report

East Stanislaus Resource Conservation District
10/21/2014

West Stanislaus Resource Conservation District
P.O. Box 193
Patterson, CA 95363

10/21/2014

As scheduled in the Environmental Resource Plan, an annual monitoring event was conducted on the Crows Landing Naval Airstrip (Agricultural Outlease) on October 21, 2014. The most recent prior monitoring event was conducted in July 2013. In the 2013 report it was noted that there was significant sediment build-up in culverts, drains, and Little Salado Creek, and that wells on the property presented a concern for groundwater contamination. Based on our observations at the time of the monitoring event, we would like to provide an update on the status of the property and corrections that have been made to remedy environmental risks since the last monitoring report.

The sediment build-up and vegetation density in Little Salado Creek appears to have been improved upon in the last year considerably. Marshall Drain, pickup ditches and culverts on the property do continue to have some congestion occurring from sediment and vegetation. These issues likely will be an annual point of note as sediment typically accrues somewhat quickly in drainages in the area of the property due to the clay soil type on the west side of Stanislaus County. The position of Marshall Drain on the northern end of the property is elevated above adjacent property areas making it so that overflow from Marshall Drain is likely to flow into adjacent production areas, including Field 1. One potential concern here is that excess water in Field 1 might extend into Marshall Road and create a hazard to driving vehicles on Highway 33. It is suggested that someone with expertise review this drainage if it has not been done already. We understand that the county has been actively working to improve the areas of concern expressed in the 2013 report and so may already be familiar with the water holding capacity of the Marshall Drain.

It was reported in 2013 that the potential for unwanted contaminants to enter groundwater through irrigations wells on the property was high. We are happy to report that well 6/8-20C1 has been capped and will no longer have the potential for groundwater contamination and no longer continues to provide a direct conduit to groundwater. As stated in the 2013 report, the tenant has reported to the Stanislaus County Department of Environmental Resources that he would like to rehabilitate the well and convert it to an operational system. This appears to have occurred and there is now a pump attached to the well. A stationary engine will be needed to make the well operational. The rehabilitation occurred sometime between the July 2013 and October 2014 monitoring.

We would like to impress that the problems reported here are based only on the observations of the monitors at the time of monitoring, or conversations around the time of monitoring with appropriate officials, and that the monitors do not have specific expertise in the areas of note. It is recommended that this report be reviewed by a party with expertise in the problem areas identified so as to decide on the appropriate management actions as needed.

East Stanislaus Resource Conservation District

Monitoring Methods

The Crows Landing Naval Airstrip was toured via a vehicle and on foot. Observers included West Stanislaus Resource Conservation District directors Tom Maring and Ed Perry, Jessica Boone, Resource Conservation Technician with the East Stanislaus Resource Conservation District, and Katie Koga, Engineering Technician with the East Stanislaus Resource Conservation District. Monitoring consisted of:

1. Visual observations made on:
    a. airstrip
    b. production areas
    c. Marshall Drain, pickup ditches and culverts, Little Salado Creek
    d. wells
2. Photo documentation

Brief Summary of Findings

1. Airstrip
   Garbage and debris no longer present on airstrip, and was thoroughly cleaned
2. Fields
   The operator is responsibly managing fields, with minor weed presence on field margins (see Figure 4). Due to ongoing drought conditions and lack of water available in the area many fields were left fallowed. We did see one field (Field 10, Figure 11) that had been planted in cannery tomatoes that had recently been harvested. Minor crop residue and weeds were present in fields not currently in production.
3. Marshall Drain, pickup ditches and culverts, Little Salado Creek
   Little Salado Creek appears to have been improved following the 2013 report (see Figure 9). Some waterways are congested by sediment build-up and vegetation, especially culverts adjacent to production areas, and could present a risk for some flooding into production areas as well as the potential to carry sediment downstream (see Figure 10). This is likely an ongoing point of note as sediment will continue to be regularly introduced into these waterways during irrigation and storms. The elevation of Marshall Drain (see Figure 1, Figure 2) on the northern end of the property, and its proximity to Marshall Road, is hypothesized to present the potential that, in high water events, water could flood out of the drain and into adjacent property areas, and could potentially flood into Marshall Road.
4. Wells
   Wells are under the supervision of Stanislaus County Department of Environmental Resources. Well 6/8-20C1 has been rehabilitated and no longer continues to present an environmental risk (Figure 7). It is suggested that the county or property operator consider fencing all wells on the property to protect well areas.

Production Areas (Y/N)

Field	Soil Erosion/Excess Runoff Observed	Drains Obstructed	Debris/Trash Present	Crop Residue Properly Managed	In Compliance with Air and Water Quality Regulations	Noxious Weeds Present	Minimum Tillage Being Practiced	Pesticide and Nutrient Application Decisions Supported by Licensed PCA	Proper Crop Rotation Schedules Followed	Irrigation Water Properly Managed
1	N	N	N	Y	Y	Y	Unknown	Unknown	Unknown	Unknown
2	N	N	N	Y	Y	Y	Unknown	Unknown	Unknown	Unknown
3	N	N	N	Y	Y	Y	Unknown	Unknown	Unknown	Unknown
4	N	N	N	Y	Y	Y	Unknown	Unknown	Unknown	Unknown
5	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
6	N	N	N	Y	Y	Y	Unknown	Unknown	Unknown	Unknown
7	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
8	N	N	N	Y	Y	Y	Unknown	Unknown	Unknown	Unknown
9	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
10	N	N	N	Y	Y	Y	Unknown	Unknown	Unknown	Unknown

Comments/Suggestions: Production areas appear to be under responsible management by the operator. Fields 1, 2, 3, 4, 6, 8 and 10 were observed but were no longer in active production. Crop residue from cannery tomatoes remained in Field 10. Fields 5, 7, and 9 were not observed during the monitoring tour. Monitors did not speak with the operator regarding weed abatement, crop scheduling, tillage, or pesticide and nutrient application and therefore are unaware of the details regarding those aspects of the operation. Unlike what was reported in the 2013 Annual Reserve Monitoring Report, we were not able to monitor property during irrigation season therefore there was no way to assess the potential for ponding water during this monitoring tour. However, the elevated position of Marshall Drain on the northern end of the property suggests that ponding could still be an issue in these fields and others, especially during high water events.

Sediment Basin/Tailwater Return System (Y/N)

Bank Erosion	Marshall Rd Drain Obstructed or in Ill-Repair	Debris/Trash present	Noxious Weeds present	General Weeds and Plant Material Obstructing Flow	Sediment Levels Inhibiting Water Holding Capabilities of Basin	Tailwater Return Pump in Working Condition	Buried Pipelines in Useable Condition	Excessive Tailwater Leaving the Property
N	Y	N	Y	Y	Y	Unknown	Unknown	N

Comments/Suggestions: The position of Marshall Drain is elevated above adjacent fields. Some vegetation exists in parts of the channel but appears to have been improved upon considerably since the last monitoring tour. It is not known if the drainage has been dredged or what the actual water holding capacity of the drain is at this time. We understand that the county has been actively working to improve the condition of the drain and Little Salado Creek since the 2013 report, and so may already be familiar with the capacity of the drain at this time. Observers recommend that the Marshall Drain on the northern end of the property be reviewed by someone with expertise if it has not been done so already. Although there was no flooding at the time of monitoring, all fields adjacent to the Marshall Drain look like they could still be susceptible to ponding during irrigation and especially during storm events. If flooding occurs in Field 1, particularly during high water events, it could extend into Marshall Road and has potential to be hazardous to traffic on the road. Trash was not observed in or near the channel of Marshall Drain or Little Salado Creek. Some trash was present along the banks of Marshall Drain and Little Salado Creek. At this time, irrigation was not observed and we were unable to witness tailwater being channeled into pickup ditches.

Wetland and Wildlife Habitat (Y/N)

Site	Bank Erosion	Culverts Obstructed (sediment/plant material)	Debris/Trash Present	Noxious Weeds Present	Waterways Obstructed (sediment/plant material)	Damage to Native Vegetation
Little Salado Creek	N	N/A	N	Y	N	N
Boy Scout Wildlife Area	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown

Comments/Suggestions: Little Salado Creek appears to be in good condition, and was reported to have received considerable attention since the last monitoring tour. The Boy Scout Wildlife Area was not visited during this monitoring event. It is unknown if the vegetation in the channel near the Boy Scout Wildlife Area noted in the last report might still be causing some obstruction; additionally, the actual sediment build-up in the channel is unknown by monitors. With this in mind, it is suggested that the water-holding capacity of the drain be reviewed by a party with expertise in this area, if it has not been done so already.

Water Wells (Y/N)

Well Number & Field Location	Stationary Internal Combustion Engine(s) Comply with Rule 4702, Diesel Emissions	Surface Water Runoff Able to Reach Wellhead?	Mixing, Loading, Rinsing, or Storage of Pesticides Occurring Adjacent to Wellhead
6/8-8J, Field 3	Unknown	N	Unknown
6/8-20C1, Field 8	Unknown	N	Unknown
6/8-20G, Field 10	Unknown	N	Unknown

Comments/Suggestions: Tw o wells are currently being utilized by the tenant: well 6/8-8J in Field 3, and well 6/8-20G in Field 10. Both active wells are operated with a stationary diesel engine. Compliance with rule 4702 is unknown by monitors. Well 6/8 -20C1 in Field 8 has been rehabilitated and is no longer considered a conduit for contaminants to reach groundwater. Well 6/8-20C1 appears to be in the process of becoming operational, though it is not hooked up to a stationary engine at this time. At the time of monitoring, the areas surrounding the wells appeared to be clear of garbage and well maintained by the tenant. It is suggested that all wells have a fence constructed around the well pump and stationary engine to provide a level of protection, as most wells are currently prone to vandalism.

Restrictive Covenant Area (Y/N)

New Well Construction	Groundwater from Existing Wells Being Utilized	Construction Activities Creating Groundwater Recharge
N	Y	Unknown

Comments/Suggestions: Well 6/8 – 20G in Field 10 and well 6/8-8J are reported to be in use at this time. No other known wells are currently in use. However, in the 2013 monitoring report, the tenant had expressed to Stanislaus County Department of Environmental Resources that Well 6/8-20C1 will be rehabilitated and put into operation last fall. The well had been rehabilitated prior to the 2014 monitoring event. It is currently not operational, but a pump has been placed on top of the well as if to be attached to a pump engine.

Pickup Ditches (Y/N)

Bank Erosion	Culverts Obstructed (sediment/plant material)	Debris/Trash Present	Noxious Weeds Present	Water Flow Obstructed (sediment/plant material)
N	Y	Y	N	Y

Comments/Suggestions: Irrigation water pickup ditches in and around culverts look to be in need of maintenance. Culverts viewed at the time of monitoring on the property appeared moderately congested by sediment build-up, woody debris, and weeds. It is hypothesized that these obstructions of flow could result in stream diversion through adjacent property areas during heavy irrigation events and especially during large storm events. It was verbally reported to monitors that there is a plan for improvement in these areas by the tenant in cooperation with the county. However, monitors are unaware of the details regarding this matter and did not consult the tenant on the issue, and so cannot comment further than acknowledging the current presence of sediment and weeds in the culvert.

General Maintenance Areas (Y/N)

Airstrips Damaged from Track-Laying Equipment	Paved Roads Damaged from Track-Laying Equipment	Weed Infestations Along Roadsides and Storage Areas	Existing Fences in Disrepair	Trash and Debris Present on Property
N	N	Y	N/A	N

Comments/Suggestions: The property appears to have been thoroughly cleaned compared to reports from 2012 and prior. No significant trash or unused equipment was seen on the airstrip or in production areas during this monitoring tour. Weeds are present along the perimeter of the airstrip, but do not appear to be presenting a notable problem for the integrity of the airstrip.

Images of Monitoring Areas

Figure 1. Marshall Drain, bordered by Field 1

Figure 2. Fields 1 and 2, slope demonstrating elevated position of Marshall Drain in bottom left corner of image: photo from 2013 report

Figure 3. Fallowed field near airstrip

Figure 4. Fallowed Field 8; weeds alongside

Figure 5. Well 6/8-8J

Figure 6. Well 6/8-20G

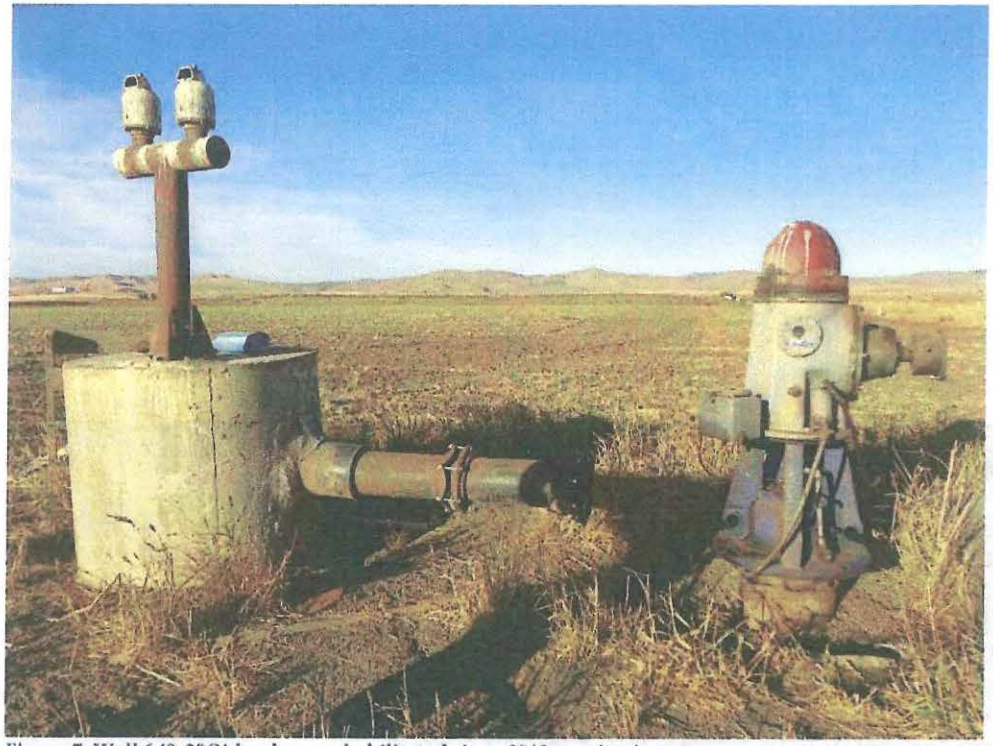


Figure 7. Well 6/8-20C1 has been rehabilitated since 2013 monitoring

Figure 8. Airstrip

Figure 9. Little Salado Creek has recently been cleaned out; there is still some congestion in culvert under the road

Figure 10. Drainage culvert, moderately congested (near Airstrip); significantly cleared out since 2013 monitoring

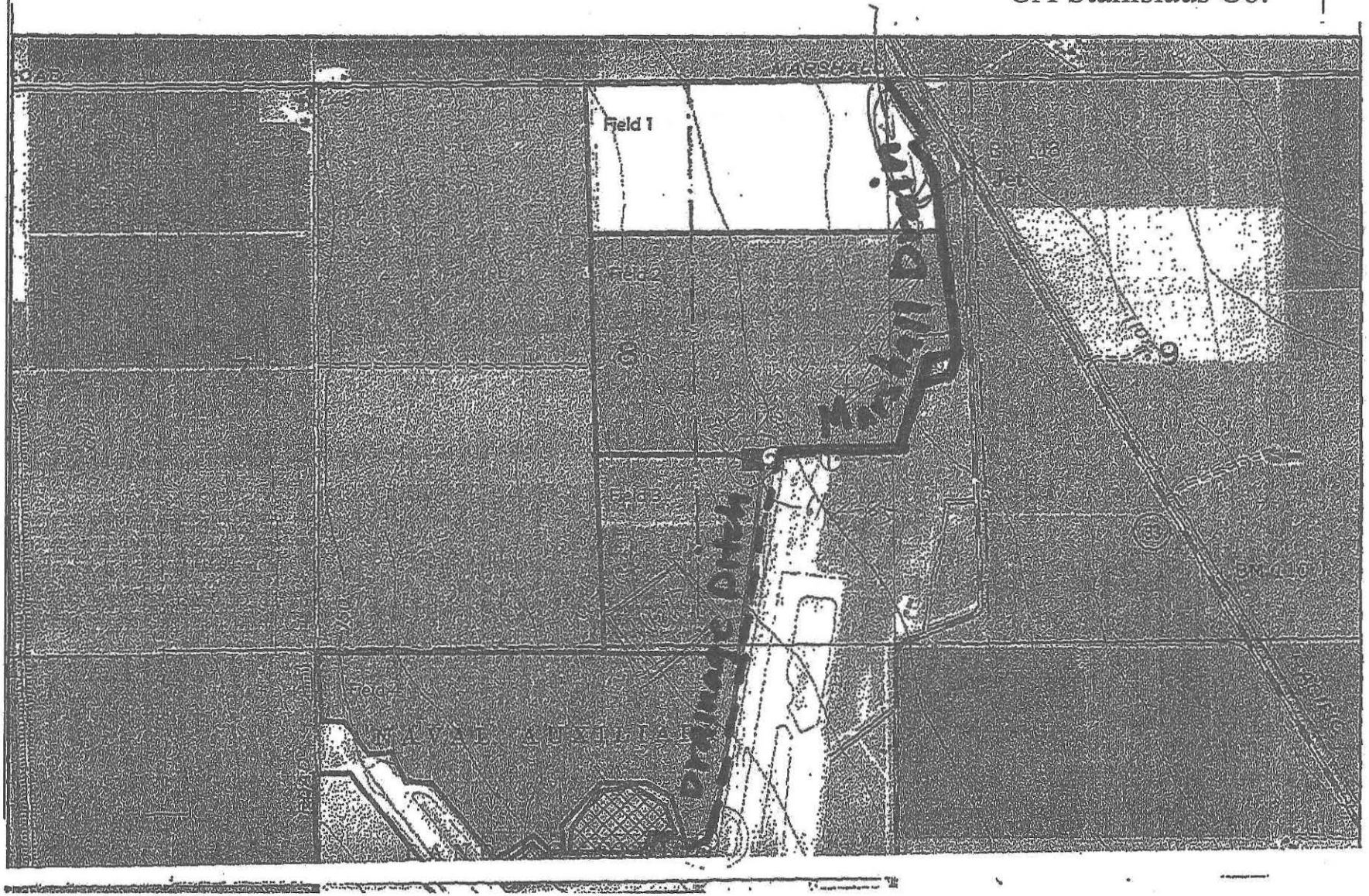
Figure 11. Field 10 production area; recently harvested tomatoes

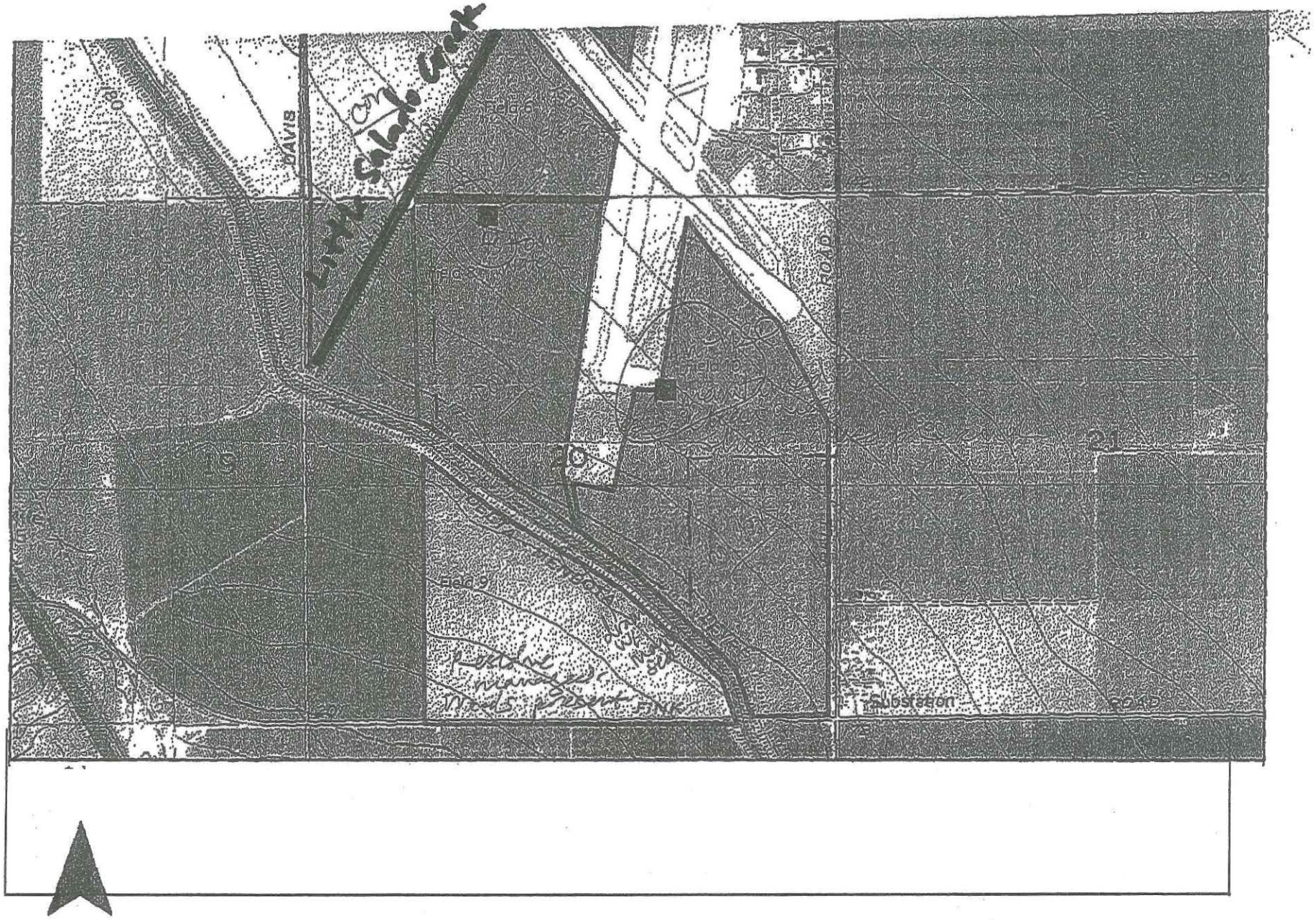
Figure 12. Marshall Drain, looking toward Marshall Road

There are more images available from the date of monitoring if needed to further understand this report, as well as images taken during the 2013 monitoring tour. Please contact the West Stanislaus Resource Conservation District if access to these images is necessary.

Naval Base Monitoring Site

Crow's Landing,
CA Stanislaus Co.




Little Salado Creek
DAVIS
ROAD
19
20
21
Substation