

# Water Hyacinth Control Program 2010 Annual Report

## Submitted Pursuant to: Statewide General NPDES Permit (CAG990005)

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate information submitted. Based on my inquiry of the persons who manage the program, Terri Ely – *Senior Environmental Scientist*, or those persons directly responsible for gathering the information, *Paul Ryan –Water Hyacinth Control Program Environmental Scientist*, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

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Lucia C. Becerra, Acting Director

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Date

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## EXECUTIVE SUMMARY

Water hyacinth (*Eichhornia crassipes*) is a non-native, free-floating, invasive aquatic plant. It grows in wetlands, marshes, shallow water bodies, slow moving waterways, lakes, reservoirs, and rivers. Water hyacinth negatively influences biodiversity, recreation, and agriculture. It de-stabilizes dissolved oxygen (DO) cycles, shades out important shallow water fish habitat, prevents boat passage, and blocks agriculture intakes.

In 1982, SB 1344, Chapter 2, Article 2, Sec.64 amended the statutes of the California Harbors and Navigation Code to designate the California Department of Boating and Waterways (DBW) as the lead agency for controlling water hyacinth in the Sacramento-San Joaquin Delta (Delta), its tributaries, and the Suisun Marsh.

This program operates under the regulations imposed by the National Pollutant Discharge Elimination System (NPDES) Statewide General Permit (CAG990005) issued by the State Water Resources Control Board (SWRCB) and administered by the Central Valley Regional Water Quality Control Board (CVRWQCB), the U.S. Fish and Wildlife Service Biological Opinion (USFWS BO ) (1-1-02-F-157 and 1-1-03-F-0114), and the National Oceanic and Atmospheric Administration Biological Opinion (NOAA Fisheries BO) (151422SWR2005SA00681:JSS).

As part of the permit and biological opinions, a monitoring program and reporting schedule have been developed to evaluate the effects of the WHCP on water quality and federally listed threatened and endangered species. This annual report fulfills reporting requirements for the above named permits. The report also records the progress and evolving changes the program has made over the time the program has been in effect.

In 2010, the WHCP used 879 gallons of 2, 4-D, 109 gallons of glyphosate, and 424 gallons of Agridex to effectively treat a total of 1024 acres of water hyacinth in the Delta and its tributaries. The water hyacinth acreage instead of descending as it has the previous years (2007 and 2008), is ascending back up by 31.2% (comparing 2009 and 2010) in total acreage treated. This is not a surprise as this seems to support the trend illustrated by Graph B, on page 17. Based on observations made at the end of this season, the Delta very well could see the trend continue upward. Currently we are in the middle of data compilation that the program hopes in the near future may show some of the variables that cause the increase and decreases in population the overall use of herbicides remains lower than in previous years, this is a trend the program hopes to continue in the future. During 2010, all herbicide (and Agridex) residue concentrations at receiving water locations were all below (or not detected) limits specified in the WHCP NPDES permit.

# 1 INTRODUCTION

## 1.1 *Extent of Infestation*

The DBW is responsible for controlling water hyacinth, a floating aquatic weed that can potentially grow in 50,000 surface acres of the Sacramento/San Joaquin Delta and its tributaries. Determining the annual extent of infestation has been difficult because both individual plants and large mats move with river current and diurnal tidal movement. Historically pre and post season infestation have been measured through visual estimates conducted by each WHCP application crew.

Each crew visually surveys all the sites in their application region. Herbicide applications are then prioritized such that nursery areas and areas that are critical to public, agricultural and industrial use are treated first. Logistics such as tide and travel times and daily weather conditions such as wind speed are also factored into daily site selections.

## 1.2 *Setting*

The WHCP includes portions of eleven counties that encompass much of the Delta and its upland tributaries. The eleven counties include Alameda, Contra Costa, Fresno, Madera, Merced, Sacramento, San Joaquin, Solano, Stanislaus, Tuolumne, and Yolo. The general boundaries for the treatment area in the Delta and its tributaries are as follows:

- West up to and including Sherman Island, at the confluence of the Sacramento and San Joaquin Rivers;
- West up to the Sacramento Northern Railroad to include water bodies north of the southern confluence of the Sacramento River and Sacramento River Deep Water Ship Channel;
- North to the northern confluence of the Sacramento River and Sacramento River Deep Water Ship Channel, plus waters within Lake Natoma;
- South along the San Joaquin River to Mendota, just east of Fresno;
- East along the San Joaquin River to Friant Dam on Millerton Lake;
- East along the Tuolumne River to LaGrange Reservoir below Don Pedro Reservoir; and
- East along the Merced River to Merced Falls, below Lake McClure.

Within the 2010 WHCP project area, there were 369 possible treatment sites that average between one and two miles in length. See Figure 1-1 , Appendix C, for a map of the WHCP project area and sites sampled in 2010.

## **2 SB 1344**

### **2.1 Section 64 of the Harbors and Navigation Code**

Reads as follows:

“(a) The Legislature hereby finds and declares that the growth of water hyacinth and *Egeria densa* in the Sacramento-San Joaquin Delta, its tributaries, and the Suisun Marsh has occurred at an unprecedented level and the resulting accumulations of water hyacinth and *Egeria densa* obstruct navigation, impair other recreational uses of waterways, have the potential for damaging manmade facilities, and may threaten the health and stability of fisheries and other ecosystems within the delta and marsh. Accordingly, it is necessary that the state, in cooperation with agencies of the United States, undertake an aggressive program for the effective control of water hyacinth and *Egeria densa* in the delta, its tributaries, and the marsh.

“(b) The department is designated as the lead agency of the state for the purpose of cooperating with agencies of the United States and other public agencies in controlling water hyacinth and *Egeria densa* in the delta, its tributaries, and the marsh.”

## 3 COMPLIANCE

### 3.1 Summary of Regulatory Permits

The following constitutes a summary of the permits required to implement the WHCP. Each permit has regulations that are designed to ensure avoidance or minimization of significant impacts to beneficial uses of waters of the U.S or federally threatened and endangered species protected by the Endangered Species Act.

#### 3.1.1 Reporting Requirements

The NPDES Statewide General Permit for Aquatic Pesticide Use requires the DBW to submit an annual report March 1 following the WHCP application season. Reporting per NPDES guidelines must include an executive summary discussing permit compliance or violation of permit terms and conditions to beneficial waters of the U.S., the effectiveness of the WHCP Operation Management Plan (OMP), the discharge of pollutants associated with aquatic pesticide applications, summarize monitoring data, including changes to water quality, and violations of compliance with water quality objectives as outlined in the Central Valley Basin Plan issued by the CVRWQCB, identification of Best Management Practices (BMP's) and their effectiveness in meeting permit requirements, a discussion of modifications or management corrections for any violations that occurred, maps showing application area, acreage and sampling station stations, types and amounts of aquatic pesticides used at each application event, information on surface area, volume and rate of application, and sampling results for all required monitoring.

Both the WHCP USFWS BO/Take Permit and the WHCP NOAA Fisheries BO/Take Permit require annual reports to be submitted January 31, following the application season. These reports must summarize compliance with the terms and conditions listed including species and habitat protection, water quality monitoring, and any additional monitoring and studies that may have been conducted as part of regulatory requirements from other participating state or federal agencies. Additional reporting requirements are on a case-by-case basis in the event that a take should occur with any of the species discussed in these permits. Take reports begin with immediate notification to the USFWS or NOAA biologist (based on jurisdiction) in charge of administering this permit and require legal documentation of information, such as where take occurred, number of species, water quality conditions, chain of custody, and prescriptive action for preventing future occurrences.

#### 3.2.1 Statewide General NPDES Permit [Permit No. CAG990005]

Below is a summary of the provisions of the Statewide General NPDES Permit. A complete copy of the permit is available upon request.

##### **RECEIVING WATERS**

There is a clear distinction in the NPDES about application area, treatment area, and receiving waters. In the NPDES, an application area is defined as the area in which aquatic pesticides are directly applied. The treatment area is the area that is treated by the aquatic pesticide to control weeds. It is the responsibility of the Control Agency to define the treatment area. The receiving waters are defined in two manners: 1) waters directly down flow of the treatment area and 2) waters within the treatment area when herbicide residue levels fall below minimum effective concentrations. As the WHCP sprays on floating plants and does not inject to treat submerged plants, the application and treatment areas are effectively the same geographic place.

Herbicides applied to aquatic plants are not considered a pollutant until residues reach receiving waters. This is because an herbicide designed to treat aquatic plants and approved by the EPA cannot also be a pollutant under the Clean Water Act when it is doing what it was designed and approved to do under federal pesticide use regulations.

**NUMERIC LIMITS**

The following is a summary of the numeric limits required under the NPDES permit. Figures 1-2 and 1-3, Appendix C, geographically show where these basin limits occur in the WHCP project area.

***Dissolved Oxygen:***

Within the legal boundaries of the Delta, the dissolved oxygen concentration shall not be reduced below:

- 7.0 mg/l in the Sacramento River (below the I Street Bridge) and in all Delta waters west of the Antioch Bridge;
- 6.0 mg/l in the San Joaquin River (between Turner Cut and Stockton, 1 September through 30 November); and
- 5.0 mg/l in all other Delta waters.

For surface water bodies outside the legal boundaries of the Delta, the monthly median of the mean daily dissolved oxygen (DO) concentration shall not fall below 85 percent of saturation in the main water mass, and the 95-percentile concentration shall not fall below 75 percent of saturation. The dissolved oxygen concentrations shall not be reduced below the following minimum levels at any time:

- Waters designated WARM 5.0 mg/l
- Waters designated COLD 7.0 mg/l
- Waters designated SPWN 7.0 mg/l

In the water bodies listed below, dissolved oxygen concentrations shall not be reduced below the amount indicated during the stated time period.

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**SPECIFIC DISSOLVED OXYGEN WATER QUALITY OBJECTIVES**

<u>Amount</u>	<u>Time</u>	<u>Place</u>
9.0 mg/l *	1 June to 31 August	Sacramento River from Keswick Dam to Hamilton City (13)
8.0 mg/l	1 September to 31 May	Feather River from Fish Barrier Dam at Oroville to Honcut Creek (40)
8.0 mg/l	all year	Merced River from Cressy to New Exchequer Dam (78)
8.0 mg/l	15 October to 15 June	Tuolumne River from Waterford to La Grange (86)

\* When natural conditions lower dissolved oxygen below this level, the concentration shall be maintained at or above 95 percent of saturation.

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### **3.2.2 WHCP USFWS BO/Section 7 Take Permit [Permit No. 1-1-04-0149]**

Below is a summary of the terms and conditions required under this Biological Opinion. A complete copy of the BO is available upon request.

#### ***DELTA SMELT***

Page 46, WHCP USFWS Sect 7 Permit (1-1-03-F-0114), items a-b and 6 outline specific mitigation measures to minimize impact to *Hypomesus transpacificus* (Delta smelt) and associated habitats.

#### ***Avoidance***

There is no longer any start or end date restrictions for the use of the herbicides 2,4-D, glyphosate and the adjuvant Agridex® in Delta smelt habitat.

#### ***Toxicity evaluation***

In the 2001 WHCP USFWS permit, the DBW was directed to determine the level of impact that WHCP herbicides might have on the Delta smelt. These impacts were to be determined for critical life stages only. Originally, the USFWS Permit required egg and larvae 96-hr. definitive toxicity tests and “live-car” exposure studies. It was later determined by the USFWS that only 96-hr. definitive studies on larvae were necessary. It was also determined that 96-hr. acute toxicity tests using application-exposed field water from treatment sites was acceptable in lieu of live car studies. Both studies for Delta smelt were completed and submitted to the USFWS in March 2004. After evaluation of these reports in the spring of 2004, the USFWS determined that acute exposure from 2,4-D, glyphosate and Agridex® does not cause significant impacts and issued new terms and conditions for unrestricted use of these two herbicides and one adjuvant.

#### ***VALLEY ELDERBERRY LONGHORN BEETLE***

Page 47, WHCP USFWS Sect 7 Permit (1-1-03-F-0114), items 8-10 outline specific mitigation measures to minimize impact to *Desmocerus californicus dimorphus*, Valley elderberry long horn beetle, (VELB) and associated Elderberry shrug (*Sambucus sp.*) habitat.

#### ***Avoidance***

The DBW was directed to avoid impact to VELB by surveying for *Sambucus ssp.* (elderberry tree), and treating at low tide if any elderberry trees are within 100' of water's edge. In areas where treatment cannot occur away from habitat, a maximum of one-half of the area may be treated at one time. Wind speed and direction are also factors as to whether or not a treatment could occur in these areas.

### *Environmental Training*

The permit requires that personnel involved with the WHCP will receive USFWS approved worker environmental awareness training. Under the training program, personnel will be informed about the presence of VELB and habitat associated with the species including 1) the life history of VELB, 2) the importance of elderberry shrubs as habitat 3) that unlawful take is a violation of the Endangered Species Act (ESA), and 4) all terms and conditions of the 2004 USFWS WHCP BO for protection, avoidance and minimization of impacts to protected species under ESA.

### **GIANT GARTER SNAKE**

Page 47, WHCP USFWS Sect 7 Permit (1-1-03-F-0114), items 5-7 outline specific mitigation measures to minimize impact to *Thamnophis gigas* (giant garter snake).

### *Avoidance*

The only restrictions to giant garter snakes in the 2004 USFWS WHCP BO apply to any land based operations, which occur on Delta banks other than existing roads or boat ramps. Currently all operations occur on existing roadways or boat ramps. However, mitigation measures beyond the requirements of the 2004 USFWS permit have been implemented to avoid impacts to giant garter snakes and their habitat. All of the WHCP project area has had a giant garter snake habitat evaluation. This evaluation has been incorporated into the GIS technology used by application crews. The application crews have also been provided with a set of maps so that they can minimize impact where giant garter snakes are most likely to be found.

### *Toxicity Evaluation*

The 2001 WHCP USFWS permit required tests to evaluate acute toxicity of a representative species of garter snakes. The DBW conducted oral and dermal exposure tests using the program herbicides and adjuvant on *Thamnophis elegans* (mountain garter snake) and *Thamnophis sirtalis* (common garter snake) in the spring of 2003. A final report of this study was submitted to the USFWS in the spring of 2004. The study found there were no observable effects to these two species when oral and dermal exposure was at maximum label concentrations. A final report of this study was submitted to the USFWS in the spring of 2004. Results of this study were incorporated into the USFWS 2004 EDCP BO/Take Permit. A copy of this report is available upon request.

### *Environmental Training*

The permit requires that personnel involved with the WHCP will receive USFWS approved worker environmental awareness training. Under the training program, personnel will be informed about the presence of giant garter snake (*Thamnophis gigas*) and habitat associated with the species including: 1) the life history of the giant garter snake, 2) the importance of irrigation canals, marshes/wetlands, and seasonally flooded areas to the giant garter snake, 3) that unlawful take is a violation of the Endangered Species Act (ESA), and 4) all terms and conditions of the USFWS WHCP BO for protection, avoidance and minimization of impacts to protected species under ESA.

### **3.2.3 WHCP NOAA Fisheries BO/Sec. 7 Permit [151422SWR2005SA00681:JSS]**

Below is a summary of the terms and conditions required under this Biological Opinion. A complete copy of the BO is available upon request.

**SACRAMENTO RIVER WINTER-RUN CHINOOK SALMON, CENTRAL VALLEY SPRING-RUN CHINOOK SALMON AND CENTRAL VALLEY STEELHEAD TROUT**

The Biological Opinion outlines specific mitigation measures to minimize impact to *Oncorhynchus tshawytscha* (Sacramento River winter-run Chinook salmon & Central Valley spring-run Chinook salmon) and *Oncorhynchus mykiss* (Central Valley steelhead trout).

***Avoidance***

The NOAA Fisheries BO notes that, dependent upon type of year and in-stream flows; juvenile steelhead may be present in the Delta through May and spring-run Chinook salmon through June. The DBW was permitted to apply beginning April 1 in stations that are not considered salmon habitat. The permit lists the following as April 1 start date stations: the San Joaquin River upstream of the confluence with the Merced River (Hills Ferry), associated sloughs and canals in Merced and Fresno Counties and the following Central Delta eastside stations: Fourteen Mile Slough east of Shima Tract, Pixley Slough, Rio Blanco Tract, White and Disappointment Slough east of Honker Cut, Sycamore Slough, Hog Slough, Beaver Slough, Lost Slough, Snodgrass Slough above the Delta Cross Channel, and the Stone/Beach Lakes Area. April 15 start dates applied to portions of the South Delta within the portions of the Middle and Old River behind the South Delta Temporary Barriers. The remainder of the action area may be treated after June 1, provided that IEP Real-Time Monitoring shows the pulse has migrated through the system, increase in water temperatures prohibit species survival, and NOAA Fisheries issued written verification.

***Toxicity Evaluation***

The permit does not require species-specific or EPA standard 3-species toxicity evaluations.

***Environmental Education***

The permit no longer contains education mitigation. However, it does require that DBW staff and assigned agents follow all Federal and State laws applicable to the use of herbicides including mitigation outlined in the current EDCP BO/Take permit. Thus, the DBW continues to require applicators to be informed about the presence of salmon, steelhead, and habitat associated with the species including: 1) the life history, 2) the importance of migratory routes; and 3) the terms and conditions of the biological opinion.

***Fish Passage Protocol***

There are specific guidelines for ensuring fish are not impacted by WHCP applications. The following practices are incorporated into the WHCP Protocols and Procedures Manual to ensure fish passage: applicators may only treat 3 acres or less per site, maintain buffer zones, treat at specific dissolved oxygen levels, and never block escape routes. Each WHCP crew received a copy of the protocol and refresher training on the Fish Passage Protocol before the 2010 application season began.

## 4 PERSONNEL, MATERIALS AND METHODS

### 4.1 Personnel

#### 4.1.1 Application Crews

During 2010, the DBW had six full-time crews, each consisting of a specialist and a technician, which carried out herbicide application activities. Similarly, under contract with DBW, Merced and Fresno Counties each have one crew that conduct treatment activities for the 2010 WHCP. Each crew contains a minimum of one member possessing a Qualified Applicators Certificate, category "F" (aquatics), administered by the California Department of Pesticide Regulation.

#### **APPLICATION PERSONNEL EDUCATION AND TRAINING**

##### *Qualified Applicator Certificate*

DBW field crewmembers attended the California Department of Fish and Game Pesticide Applicators Seminar on September 22nd of this year for continuing education credit.

##### *Environmental Awareness Training*

As per WHCP USFWS Sect 7 Permit (1-1-03-F-0114) Condition 5 and 10 and WHCP NOAA Fisheries Sect. 7 Permit (151422SWR2005SA00681:JSS) Section II (C) (3), environmental awareness training was conducted April 26th and 27<sup>th</sup> of 2010. This training included the following items.

- Species identification and impact avoidance guidelines on all threatened and endangered species associated with the WHCP
- Identification and protection of elderberry trees (*Sambucus ssp.*) and protocol for monitoring species fitness during an application season
- Identification and protection of the giant garter snake (*Thamnophis couchi gigas*), including life history; importance of irrigation canals, marshes, wetlands, and seasonally flooded areas as habitat; and the terms and conditions of the biological opinion
- Identification and protection of Delta smelt (*Hypomesus transpacificus*), Chinook salmon (*Oncorhynchus tshawytscha*), steelhead (*Oncorhynchus mykiss*), and associated protected habitats, closure dates, and other agency requirements
- Protocol for "take", including reviewing the "Incidental Take Statement," collection and handling of dead species, completion of chains of custody, and notification of either the USFWS or NOAA Fisheries

##### *Equipment Training*

Refresher training with staff, and crews under contract, on the use/calibration of the DO meters, use of the Xplore iX104C® GPS system, and ArcPad application took place on April 15th, 2010.

#### 4.1.2 Monitoring Personnel

Monitoring activities are overseen by an environmental scientist and conducted by qualified personnel, which may include an environmental scientist and scientific aids. All water sampling events are carried out in accordance with the WHCP Quality Assurance Project Plan (QAPP) and the WHCP environmental monitoring protocol as approved by the Central Valley Regional Water Board, NOAA Fisheries and USFWS.

Environmental scientists are responsible for understanding and adhering to the permit and biological opinion terms and conditions. They are also responsible for training other monitoring crewmembers concerning monitoring protocols, water sampling techniques, and the calibration and use of field equipment necessary to collect accurate data. Paul Ryan, Environmental Scientist, conducted monitoring training for all monitoring personnel during 2010 on environmental monitoring and field equipment protocols.

## **4.2 Materials**

### **4.2.1 Herbicide Application**

#### ***HERBICIDES AND ADJUVANT***

The herbicides used in 2010 by the WHCP include the following.

#### ***Herbicides***

- 2,4-Dichlorophenoxyacetic acid, dimethylamine salt (2,4-D) (Weedar® 64). EPA Registration Number 71368-1.
- Glyphosate (N-(phosphonmethyl) glycine, in the form of isopropylamine salt) (Rodeo® Herbicide; Aquamaster®). EPA Registration Number 524-343-ZF

#### ***Adjuvant***

- Agridex® (active ingredients: paraffin base petroleum oil and polyoxyethylate polyol fatty acid esters). California State Registration 5905-50017-AA.

#### ***APPLICATION EQUIPMENT***

The application of herbicides in 2010 was conducted with hand held sprayers operated from 16 to 21 foot air or outboard aluminum boats. The boats are equipped for direct metering of herbicides, adjuvant and water into the pump system of the spraying unit.

Each crew uses a Hach® HQ-10 Dissolved Oxygen Meter and an Xplore iX104C® GPS system to record pre-spray and post-spray temperature, dissolved oxygen, start/end UTM coordinates, amount of herbicide used, acreage treated, and date/time of treatment.

### **4.2.2 Environmental Monitoring**

#### ***MONITORING EQUIPMENT***

A 19-21 foot air or outboard aluminum boat is used for monitoring activities. New boats were purchased for sampling and have never been used for herbicide applications.

Water samples are collected using the Masterflex E/S (Cole-Parmer), Model number 07571-05 self contained Environmental Sampler.

Water quality parameters are measured with a Hydrolab® Model MS5 mini datasonde. Water quality parameters measured by the Hydrolab® are geographically referenced with a Trimble® GPS unit and captured electronically using Hydroplus® software specifically modified for the WHCP. All data is backed up on hardcopy and used for data validation purposes. A digital camera, the Canon® 560A, is used to provide visual records of sampling locations and other notable factors that may affect water quality or species of concern. Sites may be flagged for quick identification in the future.

## ***EQUIPMENT CALIBRATION AND MAINTENANCE***

To avoid contamination, boats used for monitoring are not used for spray treatments and are periodically washed. A blank sample (de-ionized water collected using the sampling device) is collected at every sampling event to detect potential contamination. To ensure that water quality data is reliable, Hydrolabs® are calibrated on a regular basis based on the manufacturer's requirements.

### **4.2.3 Contract Laboratory Standard Operating Procedures**

The analytical methods used by the contract laboratories are published in the U.S. EPA Test Methods for Evaluating Solid Waste Physical/Chemical SW 846 or U.S. EPA Method for Chemical Analysis of Water and Waste. The primary method used for the WHCP is the Method 8270/625 (or equivalent) by GC/MS.

For the 2,4-D GC/MS analysis, a linear calibration with options of using an average response factor or a linear regression is specified. An initial five-point calibration curve is completed, where the low-level standard concentration is less than or equal to the analyte quantization limits. Glyphosate and Agridex undergo liquid chromatographic analysis with the same 5 point calibration curve. The 2,4-D results are also compared to percent recovery of the surrogate chemical 3,4-D to ensure accuracy of results. There are no comparable surrogates for glyphosate and Agridex at this time

## **4.3 Methods**

### **4.3.1 Herbicide Application**

#### ***WHCP OPERATION MANAGEMENT PLAN***

The WHCP has instituted an Operations Management Plan (WHCP OMP). This WHCP OMP details general requirements, a pre-application planning protocol, application/monitoring coordination protocol, the application protocol and Best Management Practices (BMP) for herbicide handling, spray equipment maintenance and calibration, spill contingency plan, Delta smelt avoidance, Chinook salmon avoidance, giant garter snake habitat evaluation, dissolved oxygen/temperature measurement, fish passage protocol, daily log completion, and GPS data download and use.

#### ***SITE SELECTION***

Following the terms and conditions specified in the NPDES permit and biological opinions the sites available for treatment on April 1, included sites 214-239, 203, 205, 207, 401-427, and 900-929. On June 1, sites open for treatment include 500-501 and 706-718 depending on the Interagency Ecological Program (IEP) data showing the absence of special status fish species. On July 1, all treatment sites were open for herbicide treatment. Figures 1-4 and 1-5, Appendix C, are maps showing the sites and their corresponding starts dates. Sites selected for treatment were based on impacts to navigation, threats to agricultural pumping facilities, and high levels of infestation. During the 2010 WHCP, site selection criteria also included information and concerns received from area residents and business owners.

#### ***EQUIPMENT MAINTENANCE***

Spray equipment was calibrated on a weekly basis, after changing injection pumps, and when there were apparent problems with the equipment. Injection systems were cleaned daily and hoses were cleaned as needed. Pump oil was changed every 50 hours. Boat maintenance was conducted on a regular basis; boat maintenance records are available upon request.

## 4.3.2 Monitoring

### ***WATER HYACINTH CONTROL PROGRAM NPDES ANNUAL MONITORING PROTOCOL***

All WHCP water quality monitoring follows the WHCP NPDES Annual Monitoring Protocol as outlined in the WHCP Aquatic Pesticide Application Plan, which was approved in 2006 by the Central Valley Regional Water Quality Control Board. Quality control and quality analysis measures are outlined in the WHCP Quality Assurance Project Plan (QAPP). Monitoring activities include recording WHCP impacts on beneficial waters of the United States, federally listed endangered species, and associated endangered species habitats. DBW is required to document residues in receiving waters and monitor water quality parameters such as dissolved oxygen, temperature, conductivity, pH, and turbidity at representative locations.

### ***SITE SELECTION***

Monitoring sites have been selected based on requirements listed under the NPDES permit and biological opinions issued by the USFWS and NOAA Fisheries, which are outlined below.

- *NPDES Permit Monitoring Site Selection Criteria*

The SWRCB Statewide General NPDES Permit requires that dischargers monitor a certain proportion of sites based on the number of sites treated. Sites treated under the Water Hyacinth Control Program (WHCP) shall be classified by the DBW as falling into one of two site types:

- Tidal
- Riverine

For each aquatic pesticide used, the DBW will monitor 10 percent of the sites it treats with that aquatic pesticide (per water body type).

Table C, page 18, lists the 2010 WHCP monitoring sites. (*USFWS Biological Opinion Monitoring Site Selection Criteria*)

The USFWS mitigation requires that representative monitoring occur in two sites per species (per season) with favorable habitat for that species *Thamnophis gigas*, Delta smelt (*Hypomesus transpacificus*), valley elderberry longhorn beetle (VELB) (*Desmocerus californicus dimorphus*).

The locations of the sites monitored in 2010 are mapped in Figure 1-1, Appendix C.

Table D, page 18, shows how the selected sites meet the selection requirements for the habitat quality for each of the listed species. Giant garter snake habitat has been rated as low, medium or high, while VELB and smelt habitat is classified as being absent or present based on the known distribution of smelt and the known locations of valley elderberry trees in the project area.

## 5 MONITORING RESULTS AND DISCUSSION

### 5.1 Endangered Species

There was no incidental take in the 2010 season.

### 5.2 Herbicide Application Data

Each crew completes a daily log to record herbicide treatment activities. The 2010 WHCP daily log information along can be found on pages 23 through 43, Appendix A.

Herbicide applications may be made only when DO levels are either above the Basin Plan limit adopted by the Central Valley Regional Water Quality Control Board or below 3.0 mg/L. Basin plan DO limits for the entire WHCP project area are shown in Figures 1-2 and 1-3, Appendix C

### Summary of 2010 Use

Figures 1-2 and 1-3 document when WHCP sites were available for treatment in 2010. The first WHCP herbicide application of 2010 occurred on June 1st and the final application was concluded on October 15.

In 2010, the WHCP used 879 gallons of 2, 4-D, 109 gallons of glyphosate, and 425 gallons of Agridex to effectively treat a total of 1024 acres of water hyacinth in the Delta and its tributaries. Table A shows a summary of the herbicides used and acres treated in 2010.

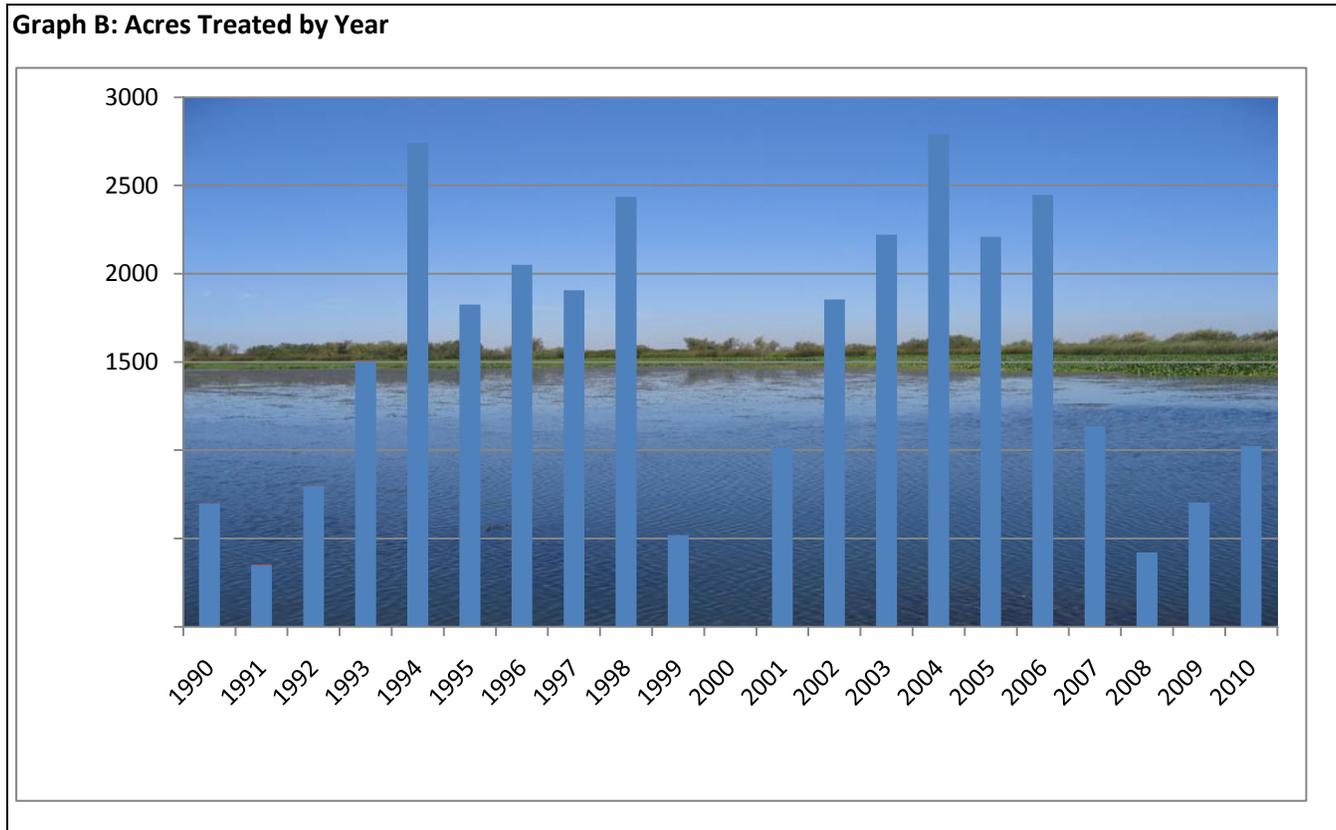
**Table- A: 2010 Summary of Herbicide Use and Acreage Treated by Month**

Month	2,4-D		Glyphosate		Agridex
	Gallons	Acres	Gallons	Acres	Gallons
June	52.5	52.5	31.0	41.3	35.0
July	182.5	182.5	25.0	33.3	91.8
August	235.1	235.1	18.0	24.0	116.4
September	287.1	287.1	21.5	28.7	128.7
October	121.4	121.4	13.5	18.0	52.8
<b>Total</b>	<b>878.6</b>	<b>878.6</b>	<b>109.0</b>	<b>145.3</b>	<b>424.7</b>

Graph B shows the number of acres treated from 1990 to 2010. There was no water hyacinth treatment in 2000 as the program was the subject of legal and regulatory changes, which prevented treatment during that year. The number of acres treated in a given year can reflect the magnitude of infestation; however other factors can affect the amount of treatment that occurs (regulatory limits, local conditions, weather, and staff levels). These kinds of variables make it difficult to show efficacy throughout the years, although we are in the process of trying to identify possible predictors. For example, this year, 2010, DBW treated 1024 acres of water hyacinth using both 2, 4-D and glyphosate. Last year DBW treated 704 acres using the same herbicides, staffing, equipment, and protocols. This is a difference of 31.2% when comparing these two years. The difference in this percentage from the previous two years is that this percentage is a positive number, where the

previous two years (2007 and 2008) were negative percentages. The water hyacinth acreage instead of descending as it has the previous years, is ascending back up by 71.4% (2009 and 2010). This in no way answers the questions as to why; just merely an illustration to show that there seems to be a pattern to the amount of hyacinth the unit might encounter in a given year. If this pattern were to remain constant and was reliable, DBW would expect the population to ascend more in 2011.

**Graph- B: Water Hyacinth Acres Treated from 1990-2010**



### 5.3 Monitoring Data and Laboratory Results

All WHCP water quality monitoring follows the WHCP NPDES Annual Monitoring Protocol as outlined in the WHCP Aquatic Pesticide Application Plan, which was approved in 2006 by the Central Valley Regional Water Quality Control Board. Quality control and quality analysis measures are outlined in the WHCP Quality Assurance Project Plan (QAPP). Monitoring activities include recording WHCP impacts on beneficial waters of the United States, federally listed endangered species, and associated endangered species habitats. DBW is required to document residues in receiving waters and monitor water quality parameters such as dissolved oxygen, temperature, conductivity, pH and turbidity at representative locations.

The NPDES permit has identified receiving water limitations of herbicide concentrations, dissolved oxygen, turbidity, and pH restrictions. The USFWS and NOAA Fisheries BO's have adopted water quality limitations identified in the NPDES permit, established take limits for threatened and endangered species, and outlined the terms and conditions necessary to minimize the impact of incidental take on threatened and endangered species.

Sampling stations at all representative locations are identified as “A,” “B,” and “C.” Sampling station “A” represents the treatment area where water hyacinth was treated (1A: Treatment Area Pre-Treatment). Sampling station “B” represents receiving water that is downstream from the treatment area (2B: Receiving Water Post-Treatment). Sampling station “C” represents a control site that is sampled before herbicide treatment upstream of the treatment area (1C: Upstream Pre-Treatment). In addition to sampling on the day treatment occurred, follow up sampling was conducted at the same locations (designated as 3C, 3A and 3B) within 7 days after treatment. The complete set of site maps, data (both field and lab data) collected to measure the parameters identified in the NPDES permit and BO’s for the selected monitoring sites have been summarized and placed in Appendix C.

**Table- C: 2010 WHCP Monitoring Sites**

Site	Water body Type	Chemicals
14- San Joaquin River	Tidal	2,4-D/Agridex
15- Empire Tract Sl.	Tidal	2,4-D/Agridex
16- Mandeville Cut	Tidal	Glyphosate/Agridex
17- Potato Sl.	Tidal	Glyphosate/Agridex
19- San Joaquin River	Tidal	Glyphosate/Agridex
20- Seven Mile Cut	Tidal	Glyphosate/Agridex
21- San Joaquin River	Tidal	Glyphosate/Agridex
44- Potato Sl.	Tidal	2,4-D/Agridex
104- Old River	Tidal	2,4-D/Agridex
311- Finnegan Cut	Riverine	2,4-D/Agridex
313- San Joaquin River	Riverine	2,4-D/Agridex
319- San Joaquin River	Riverine	2,4-D/Agridex
321- San Joaquin River	Riverine	2,4-D/Agridex
323- San Joaquin River	Riverine	2,4-D/Agridex

**Table- D: 2010 WHCP Monitoring Sites and Habitat Quality**

Site	GGG Habitat Quality	Smelt Habitat	VELB Habitat
14- San Joaquin River	High	Present	Present
15- Empire Tract Sl.	Moderate	Present	Present
16- Mandeville Cut	Moderate	Present	Present
17- Potato Sl.	Moderate	Present	Present
19- San Joaquin River	Moderate	Present	Present
20- Seven Mile Cut	Moderate	Present	Present
21- San Joaquin River	Moderate	Present	Present
44- Potato Sl.	Low-Moderate	Present	Absent
104- Old River	Low	Present	Absent
311- Finnegan Cut	Moderate	Absent	Absent
313- San Joaquin River	Moderate	Absent	Absent
319- San Joaquin River	Low-Moderate	Absent	Absent
321- San Joaquin River	Low-Moderate	Absent	Absent
323- San Joaquin River	Low-Moderate	Absent	Absent

### 5.3.1 Dissolved Oxygen

The Basin Plan limits for receiving water dissolved oxygen levels are shown in Figures 1-2 and 1-3, Appendix B.

During the 2010 season, all Basin Plan limits were in compliance.

### 5.3.2 Turbidity

Basin Plan standards for turbidity are as follows:

*“The discharge shall not cause the following in the receiving water:...*

*...The 30-day average turbidity to increase as follows:*

- a. *More than 1 Nephelometric Turbidity Units (NTU) where natural turbidity is between 0 and 5 NTUs.*
- b. *More than 20 percent where natural turbidity is between 5 and 50 NTUs.*
- c. *More than 10 NTUs where natural turbidity is between 50 and 100 NTUs.*
- d. *More than 10 percent where natural turbidity is over 100 NTUs*

Since sites are not monitored for 30 days, the average of the turbidity measurements taken at the “A” and “C” locations on the sampling day in question will constitute the 30-day average against which the receiving water (“B” location) measurements will be compared.

### 5.3.3 PH

The Basin Plan Limit for pH is the following:

*“The discharge shall not cause the following in the receiving water:...*

*...The ambient pH to fall below 6.5, exceeds 8.5, or change by more than 0.5 units”*

During the 2010 monitoring season, all measured pH levels complied with basin plan limits.

### 5.3.4 Herbicide Residue Concentrations

#### *Chemical Concentrations*

Maximum residue limits are based on the Environmental Protection Agency (EPA) municipal drinking water standards. The herbicide shall not exceed the following concentrations in receiving waters:

<u>Chemical</u>	<u>Concentration</u>
2, 4-D	70 µg/L
Glyphosate	700 µg/L

During 2010, all herbicide (and Agridex) residue concentrations at receiving water locations were all below (or not detected) limits specified in the WHCP NPDES permit.

### ***EQUIPMENT CALIBRATION AND MAINTENANCE***

To avoid contamination, boats used for monitoring are not used for spray treatments and are periodically washed. A blank sample (de-ionized water collected using the sampling device) is

collected at every sampling event to detect potential contamination. To ensure that water quality data is reliable, Hydrolabs® are calibrated on a regular basis based on the manufacturer's requirements.

### **5.3.5 Contract Laboratory Standard Operating Procedures**

The analytical methods used by the contract laboratories are published in the U.S. EPA Test Methods for Evaluating Solid Waste Physical/Chemical SW 846 or U.S. EPA Method for Chemical Analysis of Water and Waste. The primary method used for the WHCP is the Method 8270/625 (or equivalent) by GC/MS.

For the 2,4-D GC/MS analysis, a linear calibration with options of using an average response factor or a linear regression is specified. An initial five-point calibration curve is completed, where the low-level standard concentration is less than or equal to the analyte quantization limits. Glyphosate and Agridex undergo liquid chromatographic analysis with the same 5 point calibration curve. The 2,4-D results are also compared to percent recovery of the surrogate chemical 3,4-D to ensure accuracy of results. There are no comparable surrogates for glyphosate and Agridex at this time.

## **5.4 Special Studies**

### **5.4.1 Valley Elderberry Longhorn Beetle Habitat Monitoring**

The Water Hyacinth Control Program U.S. Fish and Wildlife Service (USFWS) Biological Opinion Take Permit Terms and Conditions require monitoring of the Valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) elderberry shrub (*Sambucus sp.*) habitat before and after applications to ensure there were no significant impacts from the WHCP. In 2003, the Department of Boating and Waterways (DBW) proposed an alternate three-year quantitative study. A draft was submitted to Mike Nepstad in February of 2003 and the Biological Opinion (BO) was amended on March twenty-fourth of 2003 to accept the Elderberry Shrub Monitoring Protocol (available upon request) and new study. This elderberry-monitoring study will allow the DBW to continue monitoring and assess the effects of the WHCP herbicide applications on elderberry shrubs that are adjacent to waterways being treated. The data for year three of the study was collected during 2006. The data is inconclusive and DBW has made the decision to return to the original protocol approved by USFWS (original BO). This decision is based mainly on the fact that the plants are hard to access in the spring when they are blooming and this makes the current protocol ineffective to measure beetle habitat.

### **5.4.2 Handpicking**

Due to time restrictions and treatment limitations for the chemical application of water hyacinth, the Handpicking Program has been implemented as part of the WHCP's integrated pest management plan. The goals of the Handpicking Program are to aid in the control of water hyacinth by clearing areas that are 1) not accessible to chemical treatment, 2) subject to high infestation, and 3) within emergent vegetation to reduce the impacts of chemical application. Specific protocols have been established to ensure the protection of water quality and protected species. Copies of the WHCP Handpicking Protocols are available upon request. It is hoped that this method will reduce overall chemical use by the WHCP and, potentially, eliminate the need for chemical application in some areas.

## **APPENDIX A**

### 2010 WHCP Herbicide Application Daily Logs

# June 2010 Daily Logs

Date	Site ID	County	DO Before	DO After	2,4-D (Gals.)	Glyphosate (Gals.)	Agridex (Gals.)	Chem Rate	2,4-D Acres	Glyphosate Acres	Wind Speed
6/1/2010	409	MER	9.20	8.70	2.00		0.50	32	2.00		0-2
6/7/2010	408	MER	9.80	10.30	2.75		0.75	32	2.75		0-2
6/8/2010	410	MER	10.90	9.10	2.25		0.75	32	2.25		0-2
6/8/2010	401	MER	7.10	7.00	2.50		1.00	32	2.50		0-2
6/10/2010	401	MER	7.44	7.00	2.00		1.00	32	2.00		2-4
6/14/2010	410	MER	9.30	8.10		1.75	0.50	48		2.33	0-2
6/14/2010	401	MER	7.50	7.10	2.50		1.25	32	2.50		0-2
6/14/2010	409	MER	2.80	3.80		2.00	0.75	48		2.67	2-4
6/15/2010	408	MER	7.80	7.00	1.00		0.50	32	1.00		0-2
6/15/2010	409	MER	9.40	7.30	2.00		0.50	32	2.00		0-2
6/21/2010	408	MER	5.05	5.50	1.50		1.00	32	1.50		4-6
6/21/2010	409	MER	6.20	6.50		0.25		48		0.33	6-8
6/21/2010	413	MER	9.30	8.20		2.00	0.50	48		2.67	0-2
6/23/2010	409	MER	5.70	5.40	2.00		1.00	32	2.00		0-2
6/23/2010	410	MER	8.30	7.60	1.00		0.25	32	1.00		0-2
6/23/2010	412	MER	7.60	7.50	1.00		0.25	32	1.00		0-2
6/24/2010	409	MER	5.40	6.20	2.50		1.25	32	2.50		0-2
6/24/2010	408	MER	7.90	8.30	2.75		1.00	32	2.75		0-2
6/25/2010	409	MER	5.70	5.10	2.00		1.00	32	2.00		0-2
6/25/2010	408	MER	8.50	9.10	2.75		1.00	32	2.75		0-2
6/1/2010	216	SAC	7.90	7.40		1.00	0.50	48		1.33	0-2
6/1/2010	219	SAC	8.90	8.30		2.00	0.50	48		2.67	4-6
6/7/2010	219	SAC	10.50	11.20		2.00	1.00	48		2.67	2-4
6/10/2010	217	SAC	6.30	6.10		2.00	1.50	48		2.67	4-6
6/14/2010	217	SAC	5.80	6.70		2.00	0.75	48		2.67	2-4
6/15/2010	214	SAC	7.80	7.50		2.00	1.00	48		2.67	2-4
6/15/2010	215	SAC	7.50	6.90		0.50	0.25	48		0.67	2-4
6/22/2010	217	SAC	6.20	8.60		2.00	0.50	48		2.67	2-4
6/22/2010	219	SAC	6.50	6.10		2.00	1.00	48		2.67	0-2
6/24/2010	215	SAC	8.10	11.30		0.75	0.25	48		1.00	2-4
6/24/2010	217	SAC	7.80	7.60		0.50	0.50	48		0.67	6-8
6/24/2010	219	SAC	6.60	8.70		2.00	1.00	48		2.67	2-4
6/25/2010	217	SAC	8.10	9.00		0.75	0.50	48		1.00	4-6
6/25/2010	219	SAC	9.40	7.40		2.00	1.00	48		2.67	6-8
6/28/2010	215	SAC	7.70	8.50		2.00	1.00	48		2.67	0-2
6/29/2010	215	SAC	9.70	9.50		0.50	0.25	48		0.67	4-6
6/29/2010	217	SAC	9.40	9.90		1.50	0.75	48		2.00	4-6
6/30/2010	216	SAC	8.80	9.60		2.00	1.00	48		2.67	2-4
6/25/2010	26	SJ	7.50	6.40	2.25		1.00	32	2.25		2-4
6/28/2010	313	ST	10.10	9.30	2.50		1.25	32	2.50		0-2
6/28/2010	323	ST	7.20	8.10	2.75		1.00	32	2.75		0-2
6/29/2010	700	ST	8.65	8.85	1.50		0.75	32	1.50		2-4
6/29/2010	313	ST	9.50	9.10	1.50		0.75	32	1.50		0-2
6/29/2010	322	ST	9.50	7.30	2.25		0.75	32	2.25		2-4
6/29/2010	323	ST	7.30	7.10	0.75		0.25	32	0.75		2-4
6/30/2010	316	ST	7.90	7.80	2.50		1.25	32	2.50		0-2
6/30/2010	315	ST	7.90	8.50	1.50		0.75	32	1.50		0-2
6/30/2010	320	ST	7.80	9.10	2.50		0.75	32	2.50		0-2
					52.50	33.50	36.50		52.50	44.67	

## July 2010 Daily Logs

Date	Site ID	County	DO Before	DO After	2,4-D (Gals.)	Glyphosate (Gals.)	Agridex (Gals.)	Chem Rate	2,4-D Acres	Glyphosate Acres	Wind Speed
7/7/2010	99	CC	8.30	7.40	0.50		0.15	32	0.50		4-6
7/9/2010	110	CC	7.10	7.30	2.50		1.25	32	2.50		4-6
7/12/2010	83	CC	6.67	6.50	2.00		1.00	32	2.00		0-2
7/12/2010	115	CC	7.70	7.80	2.50		1.25	32	2.50		4-6
7/12/2010	116	CC	8.10	7.90	2.50		1.25	32	2.50		4-6
7/13/2010	112	CC	7.70	7.60	2.50		1.25	32	2.50		4-6
7/13/2010	114	CC	7.70	7.90	2.50		1.25	32	2.50		4-6
7/14/2010	113	CC	8.10	7.90	2.50		1.25	32	2.50		4-6
7/14/2010	116	CC	8.30	8.50	1.50		0.75	32	1.50		2-4
7/14/2010	117	CC	8.20	8.10	2.50		1.25	32	2.50		4-6
7/14/2010	98	CC	7.20	7.30	0.75		0.50	32	0.75		0-2
7/14/2010	99	CC	7.60	7.00	1.00		0.50	32	1.00		0-2
7/21/2010	115	CC	8.30	8.50	1.50		0.75	32	1.50		4-6
7/21/2010	116	CC	8.60	8.70	0.50		0.25	32	0.50		4-6
7/21/2010	117	CC	8.80	8.90	1.00		0.50	32	1.00		4-6
7/22/2010	19	CC	8.10	8.50	2.50		1.25	32	2.50		4-6
7/22/2010	97	CC	8.10	7.40	1.00		0.50	32	1.00		2-4
7/26/2010	113	CC	8.60	8.80	1.00		0.50	32	1.00		4-6
7/26/2010	115	CC	8.10	8.50	2.50		1.25	32	2.50		4-6
7/27/2010	93	CC	8.90	9.20	2.50		1.25	32	2.50		2-4
7/28/2010	109	CC	7.50	7.60	2.00		1.00	32	2.00		4-6
7/28/2010	110	CC	7.40	7.40	2.00		1.00	32	2.00		4-6
7/29/2010	110	CC	8.00	8.30	2.00		1.00	32	2.00		4-6
7/8/2010	409	MER	5.12	5.29	0.20		0.09	32	0.20		2-4
7/9/2010	408	MER	5.10	6.18	0.16		0.08	32	0.16		4-6
7/9/2010	408	MER	5.33	5.78	0.09		0.05	32	0.09		0-2
7/9/2010	409	MER	5.78	5.10	0.09		0.05	32	0.09		0-2
7/12/2010	410	MER	5.73	5.98	0.17		0.09	32	0.17		2-4
7/12/2010	412	MER	5.71	5.73	0.19		0.09	32	0.19		2-4
7/13/2010	409	MER	5.31	5.24	0.17		0.09	32	0.17		2-4
7/13/2010	409	MER	5.67	5.85	0.13		0.06	32	0.13		4-6
7/13/2010	410	MER	5.24	5.67	0.14		0.07	32	0.14		2-4
7/13/2010	324	MER	8.20	8.80	2.00		1.00	32	2.00		0-2
7/14/2010	405	MER	5.81	7.18	0.17		0.90	32	0.17		2-4
7/14/2010	407	MER	5.55	5.81	0.20		0.10	32	0.20		2-4
7/14/2010	408	MER	5.09	5.55	0.09		0.05	32	0.09		2-4
7/15/2010	405	MER	5.83	7.73	0.14		0.07	32	0.14		6-8
7/15/2010	407	MER	5.18	5.83	0.25		0.12	32	0.25		4-6
7/15/2010	408	MER	5.04	5.18	0.08		0.04	32	0.08		2-4
7/19/2010	404	MER	5.50	10.34	0.05		0.02	32	0.05		2-4
7/19/2010	404	MER	6.08	5.08	0.03		0.02	32	0.03		2-4
7/19/2010	405	MER	5.08	5.50	0.16		0.08	32	0.16		2-4
7/19/2010	413	MER	9.70	7.10		2.00	0.50	48		2.67	0-2
7/20/2010	400	MER	11.10	13.92	0.11		0.06	32	0.11		2-4
7/20/2010	401	MER	13.70	11.10	0.03		0.02	32	0.03		2-4
7/20/2010	402	MER	5.90	13.70	0.02		0.01	32	0.02		2-4
7/22/2010	520	MER	7.30	7.80	2.50		0.75	32	2.50		2-4

7/28/2010	410	MER	5.20	5.76	0.09		0.05	32	0.09		4-6
7/28/2010	412	MER	5.26	5.20	0.16		0.08	32	0.16		2-4
7/29/2010	409	MER	5.54	5.93	0.09		0.05	32	0.09		4-6
7/29/2010	409	MER	5.46	5.78	0.06		0.03	32	0.06		4-6
7/29/2010	410	MER	5.78	5.54	0.13		0.06	32	0.13		4-6
7/1/2010	214	SAC	8.90	9.40		1.00	0.75	48		1.33	4-6
7/6/2010	219	SAC	5.90	6.90		1.00	0.50	48		1.33	6-8
7/9/2010	212	SAC	8.40	10.50		0.75	0.25	48		1.00	4-6
7/9/2010	214	SAC	7.20	8.20		0.75	0.25	48		1.00	4-6
7/19/2010	121	SAC	9.10	9.10	0.50		0.25	32	0.50		4-6
7/19/2010	129	SAC	9.40	9.20	1.00		0.50	32	1.00		4-6
7/19/2010	209	SAC	9.40	13.60		1.00	0.50	48		1.33	2-4
7/20/2010	125	SAC	8.50	8.90	1.00		0.50	32	1.00		4-6
7/20/2010	210	SAC	8.60	8.90		0.50	0.25	48		0.67	4-6
7/27/2010	219	SAC	6.90	7.60		1.75	1.00	48		2.33	4-6
7/28/2010	215	SAC	8.30	8.70		2.00	0.75	48		2.67	4-6
7/29/2010	215	SAC	8.60	8.80		1.50	0.75	48		2.00	2-4
7/6/2010	301	SJ	7.50	8.30	2.75		1.00	32	2.75		2-4
7/7/2010	39	SJ	8.70	8.00		1.50	0.75	48		2.00	4-6
7/7/2010	26	SJ	5.50	6.40	2.00		1.00	32	2.00		4-6
7/7/2010	203	SJ	10.00	10.30		1.00	0.75	48		1.33	6-8
7/8/2010	62	SJ	6.04	7.50	2.75		1.00	32	2.75		4-6
7/8/2010	26	SJ	6.20	6.50	1.00		0.50	32	1.00		2-4
7/8/2010	204	SJ	10.10	9.20		0.50	0.25	48		0.67	4-6
7/8/2010	205	SJ	5.70	10.40		0.50	0.25	48		0.67	4-6
7/9/2010	13	SJ	7.20	7.00	1.00		0.50	32	1.00		0-2
7/9/2010	61	SJ	6.88	7.20	2.00		0.75	32	2.00		2-4
7/9/2010	303	SJ	6.30	6.80	1.50		0.50	32	1.50		2-4
7/9/2010	305	SJ	9.50	8.20	2.75		1.00	32	2.75		2-4
7/12/2010	84	SJ	6.30	7.00	1.50		0.75	32	1.50		0-2
7/12/2010	99	SJ	8.20	8.00	2.75		1.00	32	2.75		0-2
7/12/2010	31	SJ	7.00	8.60	1.50		0.75	32	1.50		4-6
7/13/2010	84	SJ	6.70	7.00	1.50		0.75	32	1.50		0-2
7/13/2010	85	SJ	7.00	7.20	1.50		0.75	32	1.50		2-4
7/13/2010	12	SJ	8.30	8.00	2.00		1.00	32	2.00		4-6
7/13/2010	28	SJ	7.20	6.90		2.00	1.00	48		2.67	6-8
7/14/2010	75	SJ	9.00	8.10	2.00		1.00	32	2.00		0-2
7/14/2010	82	SJ	9.50	9.30	1.00		0.50	32	1.00		0-2
7/14/2010	13	SJ	8.50	8.00	1.25		0.50	32	1.25		2-4
7/14/2010	99	SJ	7.60	7.00	1.00		0.50	32	1.00		0-2
7/14/2010	65	SJ	7.44	8.41	2.75		1.00	32	2.75		4-6
7/14/2010	100	SJ	7.79	7.82	1.25		0.50	32	1.25		2-4
7/14/2010	28	SJ	6.90	6.50	0.25			32	0.25		4-6
7/14/2010	30	SJ	7.20	9.50	1.00		0.50	32	1.00		4-6
7/14/2010	31	SJ	6.70	6.80	0.25			32	0.25		4-6
7/14/2010	201	SJ	11.50	11.80		0.50	0.25	48		0.67	2-4
7/14/2010	202	SJ	8.60	11.90		2.00	1.00	48		2.67	4-6
7/14/2010	300	SJ	7.60	7.40	2.00		1.00	32	2.00		0-2
7/14/2010	301	SJ	7.10	7.50	2.00		1.00	32	2.00		0-2
7/19/2010	50	SJ	8.00	7.80	2.00		1.00	32	2.00		0-2
7/19/2010	51	SJ	8.37	8.10	2.00		1.00	32	2.00		0-2
7/19/2010	61	SJ	6.30	7.20	2.75		1.00	32	2.75		0-2
7/19/2010	28	SJ	6.00	6.50	0.50			32	0.50		2-4

7/19/2010	29	SJ	6.40	7.70	0.50		0.25	32	0.50		2-4
7/19/2010	200	SJ	11.50	13.30		0.75	0.25	48		1.00	4-6
7/19/2010	209	SJ	8.80	10.10		1.00	0.50	48		1.33	4-6
7/20/2010	50	SJ	8.27	8.50	1.00		0.50	32	1.00		0-2
7/20/2010	51	SJ	8.50	8.00	1.00		0.50	32	1.00		0-2
7/20/2010	60	SJ	6.33	10.20	2.75		1.00	32	2.75		4-6
7/20/2010	100	SJ	7.22	6.10	1.75		0.50	32	1.75		6-8
7/20/2010	16	SJ	8.30	11.00	1.50		0.75	32	1.50		4-6
7/20/2010	33	SJ	7.30	6.20	1.00		0.50	32	1.00		2-4
7/20/2010	200	SJ	8.70	9.30		1.00	0.50	48		1.33	4-6
7/21/2010	72	SJ	6.80	7.00	1.50		0.75	32	1.50		2-4
7/21/2010	75	SJ	5.60	7.10	1.00		0.50	32	1.00		2-4
7/21/2010	99	SJ	8.20	7.40	2.75		1.00	32	2.75		0-2
7/21/2010	12	SJ	7.20	5.40		2.00	0.75	48		2.67	2-4
7/21/2010	13	SJ	6.30	6.70	2.75		1.00	32	2.75		2-4
7/21/2010	16	SJ	6.30	12.50	2.75		1.00	32	2.75		4-6
7/21/2010	40	SJ	9.40	11.60	1.75		1.00	48	1.17		4-6
7/21/2010	301	SJ	7.20	7.60	2.75		1.00	32	2.75		2-4
7/22/2010	47	SJ	6.10	6.30	2.00		1.00	32	2.00		0-2
7/22/2010	48	SJ	5.82	6.10	1.00		0.50	32	1.00		0-2
7/22/2010	18	SJ	8.90	8.70	1.50		0.75	32	1.50		2-4
7/22/2010	57	SJ	7.60	7.90	2.75		1.00	32	2.75		0-2
7/22/2010	68	SJ	7.72	8.62	2.75		1.00	32	2.75		4-6
7/26/2010	46	SJ	5.20	6.10	2.00		1.00	32	2.00		0-2
7/26/2010	47	SJ	6.50	6.80	2.00		1.00	32	2.00		0-2
7/26/2010	13	SJ	8.02	10.00	2.75		1.00	32	2.75		4-6
7/26/2010	301	SJ	8.10	7.30	1.00		0.25	32	1.00		2-4
7/27/2010	45	SJ	7.20	6.80	1.00		0.50	32	1.00		2-4
7/27/2010	46	SJ	7.80	7.20	1.50		0.75	32	1.50		2-4
7/27/2010	13	SJ	7.30	7.70	0.75		0.25	32	0.75		6-8
7/27/2010	57	SJ	7.20	7.40	1.50		1.25	32	1.50		0-2
7/28/2010	53	SJ	7.60	6.80	1.50		0.75	32	1.50		0-2
7/28/2010	54	SJ	8.10	8.40	1.00		0.50	32	1.00		0-2
7/28/2010	55	SJ	8.40	8.10	1.00		0.50	32	1.00		0-2
7/28/2010	31	SJ	6.50	11.30	1.00		0.25	32	1.00		6-8
7/29/2010	49	SJ	7.10	8.10	1.00		0.50	32	1.00		0-2
7/29/2010	52	SJ	6.70	6.10	0.50		0.25	32	0.50		0-2
7/29/2010	8	SJ	7.20	7.70	2.75		1.00	32	2.75		2-4
7/29/2010	10	SJ	9.06	7.87	1.00		0.25	32	1.00		6-8
7/29/2010	91	SJ	8.30	7.60	1.50		1.00	32	1.50		0-2
7/29/2010	28	SJ	7.00	5.20	1.00		0.50	32	1.00		4-6
7/1/2010	319	ST	8.95	9.00	2.50			32	2.50		0-2
7/1/2010	320	ST	8.00	7.50	1.75		0.50	32	1.75		2-4
7/7/2010	316	ST	9.10	10.20	1.50		0.50	32	1.50		0-2
7/7/2010	317	ST	10.20	8.90	1.50		0.50	32	1.50		2-4
7/8/2010	316	ST	7.60	9.20	1.25		0.50	32	1.25		2-4
7/8/2010	317	ST	9.20	10.30	1.75		0.75	32	1.75		2-4
7/12/2010	324	ST	8.10	8.40	1.50		0.50	32	1.50		0-2
7/13/2010	323	ST	8.80	8.40	1.00		0.50	32	1.00		0-2
7/20/2010	319	ST	7.60	10.20	1.00		0.25	32	1.00		2-4
7/20/2010	321	ST	9.30	8.10	1.25		0.25	32	1.25		2-4
7/26/2010	321	ST	7.90	8.10	1.50		0.50	32	1.50		2-4
7/26/2010	323	ST	10.30	7.50	1.00		0.25	32	1.00		2-4

7/28/2010	311	ST	8.20	7.30	1.25		0.50	32	1.25		2-4
7/28/2010	313	ST	10.30	9.20	1.00		0.25	32	1.00		2-4
7/29/2010	320	ST	10.60	8.30	2.75		0.75	32	2.75		0-2
					182.45	25.00	91.33		181.87	33.33	

# August 2010 Daily Logs

Date	Site ID	County	DO Before	DO After	2,4-D (Gals.)	Glyphosate (Gals.)	Agridex (Gals.)	Chem Rate	2,4-D Acres	Glyphosate Acres	Wind Speed
8/2/2010	113	CC	8.30	8.10	1.50		0.75	32	1.50		4-6
8/2/2010	114	CC	8.30	8.50	2.00		1.00	32	2.00		4-6
8/3/2010	108	CC	8.40	8.70	0.50		0.25	32	0.50		4-6
8/3/2010	109	CC	8.30	8.70	0.50		0.25	32	0.50		4-6
8/3/2010	97	CC	7.40	7.00	1.50		1.00	32	1.50		2-4
8/4/2010	115	CC	8.20	8.40	2.50		1.25	32	2.50		4-6
8/4/2010	19	CC	7.80	8.20	2.50		1.00	32	2.50		4-6
8/4/2010	92	CC	9.20	9.00	2.00		1.00	32	2.00		2-4
8/4/2010	95	CC	8.80	8.40		1.50	1.00	48		2.00	0-2
8/4/2010	96	CC	9.70	9.70		1.00	1.00	48		1.33	2-4
8/4/2010	17	CC	8.80	9.40	0.25			32	0.25		4-6
8/5/2010	116	CC	8.40	8.60	1.00		0.50	32	1.00		4-6
8/5/2010	117	CC	8.30	8.10	1.00		0.50	32	1.00		4-6
8/11/2010	97	CC	8.40	8.10	2.50		1.25	32	2.50		2-4
8/12/2010	115	CC	8.10	8.30	2.50		1.25	32	2.50		4-6
8/12/2010	117	CC	7.90	8.00	1.00		0.50	32	1.00		4-6
8/12/2010	21	CC	9.40	9.30		0.50	0.25	48		0.67	4-6
8/12/2010	97	CC	8.10	8.40	1.50		0.75	32	1.50		2-4
8/13/2010	102	CC	9.10	8.70	2.50		1.00	32	2.50		2-4
8/16/2010	101	CC	9.50	9.00	1.25		1.00	32	1.25		2-4
8/16/2010	21	CC	9.70	8.50	2.75		1.50	32	2.75		4-6
8/16/2010	96	CC	8.10	8.50	1.00		0.50	32	1.00		0-2
8/16/2010	97	CC	7.10	8.00	1.50		0.75	32	1.50		0-2
8/17/2010	102	CC	9.30	9.60	1.50		1.00	32	1.50		2-4
8/17/2010	95	CC	7.50	8.30	2.00		1.00	32	2.00		0-2
8/18/2010	96	CC	8.00	7.60	0.50		0.25	32	0.50		2-4
8/18/2010	97	CC	8.90	8.00	1.00		0.50	32	1.00		2-4
8/18/2010	116	CC	9.30	9.00	1.50		0.75	32	1.50		4-6
8/18/2010	117	CC	9.20	9.40	1.00		0.50	32	1.00		4-6
8/18/2010	102	CC	6.80	7.10	1.00		0.50	32	1.00		2-4
8/18/2010	95	CC	8.40	8.70	2.00		1.00	32	2.00		0-2
8/23/2010	19	CC	9.20	9.10	2.50		2.00	32	2.50		4-6
8/23/2010	21	CC	9.50	9.60	2.00		1.00	32	2.00		2-4
8/24/2010	19	CC	8.70	9.30	2.75		1.25	32	2.75		0-2
8/25/2010	115	CC	8.80	8.70	2.00		1.00	32	2.00		0-2
8/25/2010	117	CC	9.00	8.90	2.00		1.00	32	2.00		2-4
8/30/2010	107	CC	8.80	8.60	1.50		0.75	32	1.50		2-4
8/30/2010	110	CC	8.90	9.00	1.00		0.50	32	1.00		2-4
8/31/2010	103	CC	8.70	8.90	2.50		1.25	32	2.50		2-4
8/31/2010	107	CC	8.60	8.90	2.00		1.00	32	2.00		2-4
8/2/2010	526	MER	10.43	10.04	0.03		0.02	32	0.03		0-2
8/2/2010	528	MER	8.28	10.43	0.05		0.02	32	0.05		0-2
8/5/2010	514	MER	8.65	9.77	0.05		0.02	32	0.05		4-6
8/5/2010	515	MER	9.00	8.65	0.06		0.03	32	0.06		4-6
8/5/2010	517	MER	8.09	9.00	0.17		0.09	32	0.17		2-4
8/5/2010	518	MER	8.16	8.09	0.05		0.02	32	0.05		0-2
8/6/2010	514	MER	8.13	9.67	0.05		0.02	32	0.05		2-4

8/6/2010	515	MER	8.38	8.13	0.09		0.05	32	0.09		2-4
8/6/2010	517	MER	8.15	8.38	0.06		0.03	32	0.06		2-4
8/6/2010	518	MER	8.12	8.15	0.02		0.01	32	0.02		2-4
8/9/2010	409	MER	5.16	5.22	0.41		0.20	32	0.41		2-4
8/10/2010	408	MER	5.42	5.73	0.19		0.09	32	0.19		2-4
8/10/2010	408	MER	5.89	5.97	0.13		0.06	32	0.13		4-6
8/10/2010	409	MER	5.73	5.89	0.14		0.07	32	0.14		4-6
8/11/2010	511	MER	7.87	8.67	0.08		0.04	32	0.08		2-4
8/11/2010	512	MER	9.03	7.87	0.06		0.03	32	0.06		0-2
8/11/2010	513	MER	8.26	9.03	0.05		0.02	32	0.05		0-2
8/12/2010	407	MER	6.06	6.02	0.13		0.06	32	0.13		4-6
8/12/2010	408	MER	5.71	6.06	0.08		0.04	32	0.08		4-6
8/12/2010	408	MER	6.02	6.08	0.11		0.05	32	0.11		4-6
8/16/2010	404	MER	6.68	7.63	0.06		0.03	32	0.06		2-4
8/16/2010	405	MER	6.17	6.68	0.23		0.12	32	0.23		2-4
8/16/2010	407	MER	5.91	6.17	0.22		0.11	32	0.22		2-4
8/17/2010	405	MER	6.05	6.72	0.23		0.12	32	0.23		4-6
8/17/2010	407	MER	5.45	6.05	0.19		0.09	32	0.19		4-6
8/18/2010	402	MER	6.97	8.18	0.19		0.09	32	0.19		4-6
8/18/2010	404	MER	6.66	6.97	0.25		0.13	32	0.25		4-6
8/19/2010	511	MER	7.76	8.56	0.13		0.06	32	0.13		2-4
8/19/2010	512	MER	9.37	7.76	0.11		0.05	32	0.11		4-6
8/19/2010	513	MER	8.25	9.37	0.05		0.02	32	0.05		4-6
8/20/2010	410	MER	6.17	5.78	0.11		0.05	32	0.11		0-2
8/20/2010	412	MER	5.78	5.24	0.09		0.05	32	0.09		0-2
8/23/2010	410	MER	5.34	6.03	0.09		0.05	32	0.09		6-8
8/23/2010	411	MER	5.67	5.34	0.28		0.14	32	0.28		0-2
8/24/2010	506	MER	8.50	8.93	0.03		0.02	32	0.03		2-4
8/24/2010	507	MER	8.74	8.50	0.05		0.02	32	0.05		0-2
8/24/2010	508	MER	7.55	8.74	0.06		0.03	32	0.06		0-2
8/24/2010	509	MER	7.63	7.55	0.05		0.02	32	0.05		0-2
8/24/2010	510	MER	7.28	7.63	0.03		0.02	32	0.03		0-2
8/25/2010	501	MER	9.31	9.43	0.02		0.01	32	0.02		2-4
8/25/2010	502	MER	9.20	9.31	0.02		0.01	32	0.02		0-2
8/25/2010	503	MER	7.55	9.20	0.03		0.02	32	0.03		0-2
8/25/2010	504	MER	7.28	7.55	0.03		0.02	32	0.03		0-2
8/25/2010	505	MER	7.12	7.28	0.02		0.01	32	0.02		0-2
8/26/2010	518	MER	8.00	9.28	0.09		0.05	32	0.09		4-6
8/26/2010	519	MER	8.18	8.00	0.03		0.02	32	0.03		4-6
8/26/2010	520	MER	8.12	8.18	0.02		0.01	32	0.02		2-4
8/26/2010	521	MER	8.96	8.12	0.03		0.02	32	0.03		2-4
8/27/2010	515	MER	8.08	8.23	0.02		0.01	32	0.02		2-4
8/27/2010	517	MER	8.02	8.08	0.11		0.05	32	0.11		0-2
8/27/2010	518	MER	8.26	8.02	0.03		0.02	32	0.03		0-2
8/30/2010	409	MER	5.95	6.02	0.13		0.06	32	0.13		0-2
8/30/2010	410	MER	5.38	5.95	0.14		0.07	32	0.14		0-2
8/30/2010	410	MER	6.02	6.17	0.09		0.05	32	0.09		2-4
8/31/2010	522	MER	9.60	10.39	0.02		0.01	32	0.02		4-6
8/31/2010	523	MER	9.39	9.60	0.03		0.02	32	0.03		2-4
8/31/2010	524	MER	8.94	9.39	0.02		0.01	32	0.02		2-4
8/2/2010	19	SAC	8.10	10.10	2.00		1.00	32	2.00		4-6
8/2/2010	20	SAC	8.60	9.50	2.00		1.00	32	2.00		4-6
8/3/2010	19	SAC	8.80	8.50		1.50	0.75	48		2.00	2-4

8/3/2010	20	SAC	8.70	8.30		1.50	0.75	48		2.00	2-4
8/4/2010	20	SAC	8.10	9.20	1.75		1.00	32	1.75		4-6
8/5/2010	214	SAC	7.90	8.20		1.00	0.50	48		1.33	6-8
8/11/2010	216	SAC	8.90	13.90		1.00	0.25	48		1.33	6-8
8/12/2010	19	SAC	9.50	9.00		0.50	0.25	48		0.67	2-4
8/12/2010	20	SAC	9.30	8.30		0.50	0.25	48		0.67	2-4
8/13/2010	217	SAC	7.50	8.90		1.50	0.50	48		2.00	4-6
8/17/2010	23	SAC	8.80	8.60	2.50		1.25	32	2.50		4-6
8/17/2010	219	SAC	7.80	8.10		1.50	0.75	48		2.00	4-6
8/18/2010	18	SAC	10.80	10.10	1.75		1.00	32	1.75		6-8
8/23/2010	122	SAC	8.30	8.60	2.50		1.25	32	2.50		2-4
8/23/2010	123	SAC	8.00	8.30	1.00		0.50	32	1.00		2-4
8/23/2010	129	SAC	8.20	8.00	1.00		0.50	32	1.00		2-4
8/24/2010	126	SAC	8.00	8.30	1.00		0.50	32	1.00		2-4
8/24/2010	130	SAC	8.20	8.40	0.50		0.25	32	0.50		2-4
8/24/2010	131	SAC	8.40	8.60	1.00		0.25	32	1.00		2-4
8/25/2010	19	SAC	9.40	10.60	0.50		0.25	32	0.50		0-2
8/2/2010	73	SJ	6.10	5.80	1.50		0.75	32	1.50		0-2
8/2/2010	75	SJ	6.77	6.50	1.00		0.50	32	1.00		0-2
8/2/2010	57	SJ	7.00	7.20	1.25		1.00	32	1.25		0-2
8/2/2010	98	SJ	8.20	7.30	2.50		1.00	32	2.50		4-6
8/2/2010	11	SJ	7.10	7.70	2.75		1.00	32	2.75		6-8
8/2/2010	16	SJ	6.20	13.10	2.75		0.75	32	2.75		4-6
8/2/2010	305	SJ	8.10	7.30	2.75		1.00	32	2.75		2-4
8/3/2010	1	SJ	10.20	9.00	0.50		0.25	32	0.50		0-2
8/3/2010	6	SJ	8.60	6.50	0.50		0.25	32	0.50		0-2
8/3/2010	57	SJ	6.90	7.40	1.00		1.00	32	1.00		4-6
8/3/2010	99	SJ	7.20	7.80	0.50		0.25	32	0.50		4-6
8/3/2010	14	SJ	6.90	7.10	2.25		0.50	32	2.25		6-8
8/3/2010	16	SJ	9.00	10.80	2.00		0.50	32	2.00		4-6
8/4/2010	74	SJ	6.90	7.00	0.75		0.50	32	0.75		0-2
8/4/2010	75	SJ	7.20	6.80	0.50		0.25	32	0.50		0-2
8/4/2010	12	SJ	8.29	6.87		2.00	0.75	48		2.67	6-8
8/4/2010	61	SJ	7.21	8.01	1.75		0.50	32	1.75		8-10
8/4/2010	17	SJ	6.40	9.50	1.75		0.50	32	1.75		4-6
8/5/2010	57	SJ	10.20	10.00	1.00		0.50	32	1.00		2-4
8/5/2010	91	SJ	10.20	9.80	1.50		1.00	32	1.50		4-6
8/5/2010	92	SJ	8.70	7.80	2.50		1.00	32	2.50		0-2
8/11/2010	46	SJ	5.98	6.10	0.75		0.25	32	0.75		2-4
8/11/2010	47	SJ	6.50	5.40	2.00		1.00	32	2.00		2-4
8/11/2010	57	SJ	7.20	8.50	2.75		1.00	32	2.75		2-4
8/11/2010	92	SJ	9.40	9.00	2.00		1.00	32	2.00		0-2
8/11/2010	43	SJ	7.30	9.60	1.50		0.50	32	1.50		0-2
8/12/2010	83	SJ	7.80	6.50	2.00		1.00	32	2.00		0-2
8/12/2010	84	SJ	6.70	6.10	1.50		0.75	32	1.50		0-2
8/12/2010	57	SJ	8.40	8.60	2.00		1.00	32	2.00		2-4
8/12/2010	103	SJ	7.20	6.80	2.75		1.00	32	2.75		2-4
8/12/2010	13	SJ	8.64	7.77	2.75		1.00	32	2.75		6-8
8/13/2010	72	SJ	7.10	6.50	1.00		0.50	32	1.00		0-2
8/13/2010	75	SJ	6.90	7.10	0.75		0.50	32	0.75		0-2
8/13/2010	57	SJ	7.90	7.40	2.25		1.00	32	2.25		2-4
8/13/2010	26	SJ	7.30	7.90	2.00		1.00	32	2.00		2-4
8/16/2010	74	SJ	6.00	5.70	1.50		0.75	32	1.50		0-2

8/16/2010	76	SJ	6.40	6.10	1.00		0.50	32	1.00		0-2
8/16/2010	101	SJ	7.10	7.50	1.50		1.00	32	1.50		0-2
8/16/2010	65	SJ	7.70	7.30	1.25		0.50	32	1.25		8-10
8/16/2010	67	SJ	7.20	6.20	2.75		1.00	32	2.75		6-8
8/17/2010	57	SJ	8.00	7.40	1.00		1.00	32	1.00		2-4
8/17/2010	13	SJ	9.44	8.24	2.75		1.00	32	2.75		6-8
8/17/2010	44	SJ	8.50	5.70	2.00		0.75	32	2.00		4-6
8/18/2010	99	SJ	9.70	9.60	1.00		1.00	32	1.00		4-6
8/18/2010	12	SJ	8.14	8.01		2.00	1.00	48		2.67	6-8
8/18/2010	61	SJ	7.20	6.60	2.25		1.00	32	2.25		6-8
8/23/2010	38	SJ	8.30	8.00	0.75		0.25	32	0.75		4-6
8/23/2010	44	SJ	6.90	6.80	0.50		0.25	32	0.50		2-4
8/23/2010	104	SJ	6.50	10.30	1.00		0.50	32	1.00		4-6
8/23/2010	73	SJ	7.20	6.50	0.75		0.50	32	0.75		0-2
8/23/2010	75	SJ	7.30	7.00	0.50		0.25	32	0.50		0-2
8/23/2010	9	SJ	7.30	8.20	2.00		0.75	32	2.00		6-8
8/23/2010	301	SJ	8.30	7.20	2.75		1.00	32	2.75		2-4
8/24/2010	34	SJ	8.30	9.10	1.50		0.50	32	1.50		0-2
8/24/2010	38	SJ	6.50	8.00	2.25		1.00	32	2.25		0-2
8/24/2010	54	SJ	8.30	8.60	0.50		0.25	32	0.50		0-2
8/24/2010	55	SJ	7.80	8.30	1.00		0.50	32	1.00		0-2
8/24/2010	12	SJ	7.70	7.80		2.00	1.00	48		2.67	2-4
8/24/2010	13	SJ	9.10	8.20	2.75		1.00	32	2.75		4-6
8/24/2010	17	SJ	9.20	11.50	1.25		0.75	32	1.25		0-2
8/25/2010	39	SJ	7.40	8.80	1.50		0.25	32	1.50		2-4
8/25/2010	48	SJ	8.40	8.70	1.00		0.50	32	1.00		0-2
8/25/2010	49	SJ	8.10	8.50	2.00		1.00	32	2.00		0-2
8/25/2010	104	SJ	7.80	7.40	2.75		1.00	32	2.75		0-2
8/25/2010	58	SJ	6.60	6.90	2.00		0.75	32	2.00		4-6
8/25/2010	62	SJ	8.20	9.00	2.75		1.00	32	2.75		4-6
8/25/2010	18	SJ	8.80	9.40	2.75		1.25	32	2.75		0-2
8/25/2010	19	SJ	9.00	10.90	0.75		0.25	32	0.75		0-2
8/30/2010	39	SJ	7.60	8.80	1.50		0.50	32	1.50		0-2
8/30/2010	40	SJ	10.00	9.00	1.25		0.50	32	1.25		6-8
8/30/2010	58	SJ	7.70	6.90	2.25		0.75	32	2.25		2-4
8/30/2010	66	SJ	6.00	6.50	2.00		0.75	32	2.00		4-6
8/31/2010	41	SJ	10.70	9.30	0.50		0.25	32	0.50		6-8
8/31/2010	42	SJ	8.10	8.40	0.75		0.25	32	0.75		2-4
8/31/2010	73	SJ	6.90	6.50	1.00		0.50	32	1.00		0-2
8/31/2010	74	SJ	6.10	5.70	1.00		0.50	32	1.00		2-4
8/31/2010	13	SJ	7.30	7.60	2.75		1.00	32	2.75		0-2
8/31/2010	61	SJ	6.90	7.10	1.50		1.00	32	1.50		4-6
8/31/2010	10	SJ	7.34	8.10	2.75		1.00	32	2.75		4-6
8/31/2010	14	SJ	8.30	11.90	0.50		0.25	32	0.50		2-4
8/31/2010	15	SJ	8.60	8.70	1.50		0.75	32	1.50		2-4
8/16/2010	176	SOL	7.30	7.70	2.50		1.25	32	2.50		4-6
8/3/2010	320	ST	10.70	8.30	1.50		0.50	32	1.50		2-4
8/3/2010	321	ST	8.30	7.10	2.00		0.75	32	2.00		2-4
8/4/2010	321	ST	9.70	8.10	2.75		1.00	32	2.75		2-4
8/5/2010	318	ST	7.20	8.30	2.00		0.75	32	2.00		2-4
8/5/2010	319	ST	8.30	7.80	1.50		0.50	32	1.50		4-6
8/17/2010	318	ST	6.50	6.00	2.00		1.00	32	2.00		0-2
8/17/2010	319	ST	7.80	7.00	2.00		1.00	32	2.00		0-2

8/24/2010	317	ST	10.40	8.10	1.75		0.50	32	1.75		0-2
8/24/2010	318	ST	8.10	7.30	1.25		0.50	32	1.25		2-4
8/25/2010	316	ST	9.50	8.20	1.75		0.50	32	1.75		0-2
8/25/2010	317	ST	8.20	7.20	1.25		0.50	32	1.25		2-4
8/31/2010	315	ST	8.40	8.20	1.75		0.75	32	1.75		2-4
8/31/2010	316	ST	8.40	7.80	1.50		0.50	32	1.50		0-2
					235.09	18.00	116.16		235.09	24.00	

## September 2010 Daily Logs

Date	Site ID	County	DO Before	DO After	2,4-D (Gals.)	Glyphosate (Gals.)	Agridex (Gals.)	Chem Rate	2,4-D Acres	Glyphosate Acres	Wind Speed
9/7/2010	110	CC	8.50	8.80	1.00		0.50	32	1.00		4-6
9/7/2010	112	CC	8.60	8.30	1.50		0.75	32	1.50		4-6
9/13/2010	110	CC	8.30	8.80	1.50		0.75	32	1.50		4-6
9/14/2010	114	CC	8.30	8.10	2.50		1.25	32	2.50		4-6
9/14/2010	117	CC	7.90	8.10	1.00		0.50	32	1.00		4-6
9/15/2010	97	CC	6.40	7.40	2.50		1.50	32	2.50		2-4
9/15/2010	119	CC	8.70	8.50	1.00		0.50	32	1.00		2-4
9/15/2010	120	CC	8.20	8.50	1.50		0.75	32	1.50		0-2
9/20/2010	101	CC	9.10	9.00	1.00		0.50	32	1.00		4-6
9/20/2010	102	CC	9.20	9.50	2.00		1.00	32	2.00		2-4
9/21/2010	99	CC	8.00	8.30	1.25		0.50	32	1.25		2-4
9/23/2010	91	CC	7.10	6.50	1.00		0.50	32	1.00		0-2
9/23/2010	92	CC	7.80	8.00	2.50		1.50	32	2.50		0-2
9/23/2010	99	CC	6.70	6.50	1.50		0.75	32	1.50		2-4
9/23/2010	120	CC	8.60	8.90	1.00		0.50	32	1.00		2-4
9/27/2010	91	CC	8.50	7.30	1.50		0.75	32	1.50		0-2
9/27/2010	92	CC	9.48	9.00	2.00		1.00	32	2.00		0-2
9/27/2010	99	CC	6.60	6.50	2.75		1.00	32	2.75		0-2
9/27/2010	104	CC	7.60	7.80	1.00		0.50	32	1.00		0-2
9/28/2010	104	CC	7.40	7.50	2.75		1.25	32	2.75		2-4
9/28/2010	106	CC	6.80	7.20	2.75		1.25	32	2.75		2-4
9/29/2010	117	CC	7.80	8.10	1.50		0.75	32	1.50		2-4
9/29/2010	119	CC	8.50	8.80	1.50		0.75	32	1.50		2-4
9/30/2010	102	CC	7.40	7.60	1.50		0.75	32	1.50		0-2
9/30/2010	103	CC	7.90	8.00	1.00		0.50	32	1.00		0-2
9/30/2010	105	CC	7.80	7.50	2.00		1.00	32	2.00		4-6
9/1/2010	526	MER	9.92	9.89	0.05		0.02	32	0.05		0-2
9/1/2010	528	MER	9.62	9.92	0.03		0.02	32	0.03		0-2
9/2/2010	514	MER	9.92	9.51	0.06		0.03	32	0.06		0-2
9/2/2010	515	MER	8.36	9.92	0.06		0.03	32	0.06		0-2
9/2/2010	517	MER	8.06	8.36	0.09		0.05	32	0.09		0-2
9/2/2010	518	MER	8.17	8.06	0.11		0.05	32	0.11		0-2
9/10/2010	408	MER	6.84	7.25	0.17		0.09	32	0.17		4-6
9/10/2010	409	MER	6.47	6.84	0.30		0.15	32	0.30		0-2
9/13/2010	408	MER	6.75	7.84	0.37		0.18	32	0.37		6-8
9/14/2010	400	MER	8.69	9.21	0.03		0.02	32	0.03		2-4
9/14/2010	500	MER	8.78	8.69	0.09		0.05	32	0.09		2-4
9/14/2010	501	MER	8.70	8.78	0.08		0.04	32	0.08		2-4
9/15/2010	404	MER	8.94	8.18	0.06		0.03	32	0.06		4-6
9/15/2010	405	MER	10.01	8.94	0.19		0.09	32	0.19		2-4
9/15/2010	407	MER	7.21	10.01	0.28		0.14	32	0.28		2-4
9/16/2010	401	MER	7.29	7.76	0.11		0.05	32	0.11		0-2
9/16/2010	402	MER	7.26	7.29	0.08		0.04	32	0.08		0-2
9/16/2010	402	MER	7.76	8.38	0.09		0.05	32	0.09		0-2
9/17/2010	404	MER	7.07	6.29	0.13		0.06	32	0.13		0-2
9/17/2010	404	MER	7.40	7.97	0.13		0.06	32	0.13		4-6
9/17/2010	405	MER	6.29	7.40	0.09		0.05	32	0.09		2-4

9/22/2010	409	MER	6.14	6.88	0.36		0.18	32	0.36		0-2
9/23/2010	410	MER	5.91	6.59	0.22		0.13	32	0.22		4-6
9/23/2010	412	MER	5.67	5.91	0.20		0.10	32	0.20		2-4
9/24/2010	410	MER	6.17	6.88	0.13		0.06	32	0.13		2-4
9/24/2010	411	MER	5.85	6.17	0.23		0.12	32	0.23		2-4
9/27/2010	514	MER	9.43	10.39	0.03		0.02	32	0.03		0-2
9/27/2010	515	MER	9.27	9.43	0.06		0.03	32	0.06		0-2
9/27/2010	517	MER	8.76	9.27	0.11		0.05	32	0.11		0-2
9/27/2010	518	MER	8.57	8.76	0.02		0.01	32	0.02		0-2
9/28/2010	500	MER	9.08	9.40	0.06		0.03	32	0.06		4-6
9/28/2010	501	MER	9.20	9.08	0.05		0.02	32	0.05		4-6
9/28/2010	502	MER	8.01	9.20	0.02		0.01	32	0.02		0-2
9/29/2010	518	MER	8.51	10.55	0.09		0.05	32	0.09		0-2
9/29/2010	519	MER	8.92	8.51	0.06		0.03	32	0.06		0-2
9/30/2010	511	MER	8.72	9.62	0.06		0.03	32	0.06		2-4
9/30/2010	512	MER	9.41	8.72	0.08		0.04	32	0.08		2-4
9/30/2010	513	MER	8.22	9.41	0.03		0.02	32	0.03		0-2
9/1/2010	19	SAC	10.30	11.00	2.50		1.00	32	2.50		2-4
9/7/2010	20	SAC	7.40	7.80	1.00		0.50	32	1.00		4-6
9/9/2010	126	SAC	8.30	8.60	1.00		0.50	32	1.00		2-4
9/9/2010	129	SAC	8.80	8.70	1.00		0.50	32	1.00		2-4
9/9/2010	131	SAC	8.90	8.80	1.50		0.75	32	1.50		2-4
9/9/2010	215	SAC	7.80	13.10		1.00	0.25	48		1.33	0-2
9/9/2010	216	SAC	8.40	8.50		1.00	0.25	48		1.33	0-2
9/9/2010	251	SAC	7.87	8.01		2.00	0.75	48		2.67	6-8
9/20/2010	121	SAC	8.80	8.60	0.50		0.25	32	0.50		4-6
9/20/2010	128	SAC	8.90	8.60	1.50		0.75	32	1.50		4-6
9/20/2010	130	SAC	8.90	8.90	0.50		0.25	32	0.50		4-6
9/20/2010	131	SAC	8.70	8.10	0.50		0.25	32	0.50		4-6
9/21/2010	23	SAC	8.50	8.30	2.50		1.25	32	2.50		2-4
9/23/2010	131	SAC	8.60	8.80	0.50		0.25	32	0.50		2-4
9/23/2010	213	SAC	8.80	12.20		1.75	0.50	48		2.33	2-4
9/27/2010	23	SAC	9.40	9.70	2.50		1.25	32	2.50		2-4
9/27/2010	252	SAC	7.60	6.90		2.25	1.00	48		3.00	2-4
9/30/2010	18	SAC	8.60	12.20	0.75		0.25	32	0.75		2-4
9/1/2010	13	SJ	7.20	6.90	2.75		1.25	32	2.75		0-2
9/1/2010	18	SJ	7.30	10.60	2.75		1.25	32	2.75		2-4
9/1/2010	35	SJ	5.80	7.70	0.25			32	0.25		2-4
9/1/2010	36	SJ	5.60	7.40	2.25		1.25	32	2.25		2-4
9/1/2010	58	SJ	7.40	6.90	2.75		1.00	32	2.75		2-4
9/1/2010	59	SJ	7.10	6.20	2.00		0.75	32	2.00		2-4
9/1/2010	65	SJ	8.10	7.40	2.75		1.25	32	2.75		0-2
9/1/2010	76	SJ	7.10	7.00	1.00		0.50	32	1.00		0-2
9/1/2010	77	SJ	7.00	6.50	1.50		0.50	32	1.50		0-2
9/1/2010	78	SJ	6.50	6.90	0.50		0.50	32	0.50		0-2
9/7/2010	13	SJ	7.80	7.40	2.75		1.00	32	2.75		0-2
9/7/2010	18	SJ	8.10	7.20	0.75		0.25	32	0.75		6-8
9/7/2010	28	SJ	6.30	6.90	2.75		1.25	32	2.75		2-4
9/7/2010	58	SJ	6.25	7.00	2.75		1.00	32	2.75		4-6
9/7/2010	65	SJ	11.00	10.80	2.75		1.00	32	2.75		0-2
9/7/2010	76	SJ	7.40	7.20	1.00		0.50	32	1.00		0-2
9/7/2010	77	SJ	6.90	6.50	1.00		0.50	32	1.00		2-4
9/7/2010	100	SJ	6.70	7.40	2.50		1.00	32	2.50		6-8

9/8/2010	13	SJ	6.90	7.20	2.00		1.00	32	2.00		4-6
9/8/2010	80	SJ	6.70	6.50	1.50		0.75	32	1.50		4-6
9/8/2010	81	SJ	7.60	7.10	1.00		0.50	32	1.00		2-4
9/8/2010	203	SJ	10.30	14.50		1.00	0.25	48		1.33	6-8
9/9/2010	13	SJ	8.10	8.00	2.75		1.00	32	2.75		0-2
9/9/2010	32	SJ	7.00	7.00	2.75		0.50	32	2.75		2-4
9/9/2010	34	SJ	8.80	8.10	0.75		0.25	32	0.75		4-6
9/9/2010	53	SJ	7.10	6.20	0.50		0.25	32	0.50		2-4
9/9/2010	56	SJ	7.80	7.00	2.50		1.25	32	2.50		0-2
9/9/2010	65	SJ	8.40	8.30	2.75		1.00	32	2.75		2-4
9/9/2010	301	SJ	7.10	8.20	2.75		1.00	32	2.75		0-2
9/13/2010	13	SJ	8.20	8.10	2.75		1.00	32	2.75		6-8
9/13/2010	15	SJ	6.90	6.20	2.75		1.00	32	2.75		6-8
9/13/2010	35	SJ	6.40	6.80		0.50	0.25	48		0.67	2-4
9/13/2010	36	SJ	5.40	5.50	0.50		0.25	32	0.50		4-6
9/13/2010	37	SJ	5.60	5.90		2.00	1.00	48		2.67	6-8
9/13/2010	54	SJ	6.10	6.00	1.50		0.75	32	1.50		0-2
9/13/2010	56	SJ	7.70	6.80	2.50		1.25	32	2.50		0-2
9/13/2010	57	SJ	8.30	8.10	2.75		1.00	32	2.75		0-2
9/13/2010	99	SJ	8.80	8.60	1.75		1.00	32	1.75		2-4
9/13/2010	308	SJ	8.20	8.40	1.50		0.50	32	1.50		0-2
9/13/2010	309	SJ	7.80	8.20	2.75		0.75	32	2.75		0-2
9/14/2010	13	SJ	9.06	8.72	2.75		1.00	32	2.75		4-6
9/14/2010	15	SJ	8.10	12.50	2.25		1.50	32	2.25		4-6
9/14/2010	32	SJ	7.40	7.70	2.50		1.25	32	2.50		4-6
9/14/2010	37	SJ	7.90	8.70		2.00	1.00	48		2.67	4-6
9/14/2010	47	SJ	7.50	6.00	1.00		0.50	32	1.00		0-2
9/14/2010	48	SJ	7.80	7.50	1.00		0.50	32	1.00		0-2
9/14/2010	60	SJ	6.25	7.14	2.75		1.00	32	2.75		6-8
9/15/2010	10	SJ	7.70	8.20	2.75		0.75	32	2.75		2-4
9/15/2010	15	SJ	11.90	11.80	1.75		0.50	32	1.75		2-4
9/15/2010	32	SJ	8.10	9.10	2.50		1.25	32	2.50		2-4
9/15/2010	54	SJ	6.50	6.60	1.00		0.50	32	1.00		0-2
9/15/2010	55	SJ	7.80	7.10	1.00		0.50	32	1.00		0-2
9/15/2010	98	SJ	7.70	7.90	1.00		0.50	32	1.00		2-4
9/20/2010	14	SJ	7.20	7.70	2.50		1.25	32	2.50		4-6
9/20/2010	15	SJ	6.40	11.30	1.75		1.50	32	1.75		4-6
9/20/2010	101	SJ	9.00	8.90	1.75		1.00	32	1.75		4-6
9/20/2010	307	SJ	8.20	9.70	1.50		0.50	32	1.50		0-2
9/20/2010	308	SJ	9.70	7.30	1.00		0.25	32	1.00		2-4
9/20/2010	309	SJ	7.30	7.60	2.50		0.75	32	2.50		2-4
9/21/2010	10	SJ	7.70	8.10	2.75		1.00	32	2.75		6-8
9/21/2010	13	SJ	8.10	8.20	2.25		1.00	32	2.25		2-4
9/21/2010	14	SJ	8.00	8.40	2.75		1.50	32	2.75		2-4
9/21/2010	32	SJ	7.70	8.80	2.50		0.50	32	2.50		0-2
9/21/2010	68	SJ	9.10	9.10	2.75		0.50	32	2.75		2-4
9/21/2010	98	SJ	7.90	8.10	2.00		1.00	32	2.00		4-6
9/21/2010	99	SJ	8.20	7.30	1.50		1.00	32	1.50		0-2
9/21/2010	305	SJ	8.20	8.10	2.75		0.75	32	2.75		0-2
9/21/2010	307	SJ	7.80	8.00	1.50		0.50	32	1.50		0-2
9/23/2010	8	SJ	8.30	7.70	2.75		1.00	32	2.75		2-4
9/23/2010	10	SJ	7.90	8.00	2.75		1.00	32	2.75		4-6
9/23/2010	103	SJ	7.30	7.00	2.00		1.00	32	2.00		0-2

9/23/2010	305	SJ	7.80	8.10	1.50		0.50	32	1.50		0-2
9/23/2010	306	SJ	7.90	7.80	2.75		0.75	32	2.75		0-2
9/27/2010	13	SJ	8.40	7.90	2.75		1.50	32	2.75		0-2
9/27/2010	65	SJ	9.60	9.80	1.00		0.25	32	1.00		0-2
9/27/2010	68	SJ	9.10	8.80	2.75		1.00	32	2.75		0-2
9/27/2010	104	SJ	7.80	7.60	1.75		1.00	32	1.75		0-2
9/27/2010	300	SJ	8.20	8.40	2.50		0.75	32	2.50		0-2
9/27/2010	302	SJ	8.40	8.30	1.50		0.50	32	1.50		0-2
9/27/2010	303	SJ	8.30	8.50	2.75		0.75	32	2.75		0-2
9/28/2010	14	SJ	9.20	11.40	2.00		0.25	32	2.00		0-2
9/28/2010	16	SJ	7.70	9.50		0.50	0.25	48		0.67	0-2
9/28/2010	17	SJ	9.20	6.10		0.75	0.50	48		1.00	2-4
9/28/2010	32	SJ	7.50	7.30	2.75		0.75	32	2.75		0-2
9/28/2010	37	SJ	9.30	9.10		1.00	0.25	48		1.33	4-6
9/28/2010	47	SJ	7.70	8.20	1.50		1.00	32	1.50		0-2
9/28/2010	48	SJ	7.30	7.60	2.50		1.50	32	2.50		0-2
9/28/2010	60	SJ	6.50	6.20	1.25		0.50	32	1.25		4-6
9/28/2010	100	SJ	7.20	6.70	2.75		1.00	32	2.75		2-4
9/29/2010	15	SJ	8.50	8.90	2.75		1.25	32	2.75		0-2
9/29/2010	32	SJ	8.30	7.70	1.50		0.50	32	1.50		2-4
9/29/2010	37	SJ	6.90	6.90		2.00	0.75	48		2.67	0-2
9/29/2010	69	SJ	7.80	6.20	2.75		1.00	32	2.75		2-4
9/29/2010	73	SJ	6.00	5.80	1.00		0.50	32	1.00		0-2
9/29/2010	82	SJ	7.80	6.40	2.50		1.25	32	2.50		0-2
9/29/2010	100	SJ	7.20	6.90	2.75		1.00	32	2.75		4-6
9/29/2010	104	SJ	7.80	7.50	2.50		1.00	32	2.50		0-2
9/29/2010	300	SJ	8.30	8.10	2.75		0.75	32	2.75		0-2
9/29/2010	302	SJ	7.90	7.80	2.75		0.75	32	2.75		0-2
9/30/2010	18	SJ	8.40	8.70	0.50		0.25	32	0.50		2-4
9/30/2010	44	SJ	10.80	10.70	2.25		0.75	32	2.25		2-4
9/30/2010	67	SJ	6.90	6.80	2.75		1.00	32	2.75		2-4
9/30/2010	69	SJ	7.20	6.20	2.75		1.00	32	2.75		0-2
9/30/2010	70	SJ	9.10	10.10		1.00	0.25	48		1.33	2-4
9/30/2010	71	SJ	8.80	8.90	0.75			32	0.50		0-2
9/30/2010	71	SJ	8.80	8.90		0.75	0.75	48		1.00	0-2
9/30/2010	72	SJ	7.40	8.10	2.75		1.25	32	2.75		0-2
9/30/2010	73	SJ	7.20	7.80	2.75		1.25	32	2.75		0-2
9/30/2010	103	SJ	8.20	7.80	1.50		0.50	32	1.50		2-4
9/30/2010	304	SJ	7.60	8.00	2.75		0.75	32	2.75		0-2
9/30/2010	305	SJ	8.00	8.20	2.50		0.75	32	2.50		0-2
9/9/2010	262	SOL	7.00	7.40		2.00	0.75	48		2.67	4-6
9/28/2010	176	SOL	8.60	8.90	2.50		1.25	32	2.50		2-4
9/1/2010	312	ST	8.40	8.70	1.50		0.50	32	1.50		0-2
9/1/2010	313	ST	8.70	10.90	1.75		0.75	32	1.75		2-4
9/7/2010	311	ST	7.60	7.70	2.00		0.75	32	2.00		2-4
9/7/2010	312	ST	7.70	7.60	1.50		0.50	32	1.50		0-2
9/8/2010	310	ST	7.60	8.40	2.75		1.00	32	2.75		0-2
9/8/2010	700	ST	9.20	8.90	0.50		0.25	32	0.50		0-2
9/8/2010	701	ST	8.90	8.70	0.25			32	0.25		0-2
9/8/2010	702	ST	8.70	8.30	0.25		0.13	32	0.25		0-2
9/8/2010	703	ST	8.30	8.80	0.25		0.13	32	0.25		4-6
9/14/2010	709	ST	8.70	10.30	1.50		0.50	32	1.50		0-2
					287.16		21.50	128.73		286.91	28.67

# October 2010 Daily Logs

Date	Site ID	County	DO Before	DO After	2,4-D (Gals.)	Glyphosate (Gals.)	Agridex (Gals.)	Chem Rate	2,4-D Acres	Glyphosate Acres	Wind Speed
10/6/2010	21	CC	9.40	10.10	0.75		0.25	32	0.75		0-2
10/6/2010	99	CC	8.40	8.10	1.50		0.50	32	1.50		0-2
10/7/2010	98	CC	8.40	8.30	1.00		0.50	32	1.00		0-2
10/7/2010	115	CC	8.30	8.00	1.00		0.50	32	1.00		4-6
10/7/2010	116	CC	8.00	8.30	1.00		0.50	32	1.00		4-6
10/13/2010	114	CC	9.60	8.60	1.00		0.50	32	1.00		0-2
10/13/2010	117	CC	8.70	8.30	1.00		0.50	32	1.00		0-2
10/1/2010	511	MER	8.60	9.28	0.13		0.06	32	0.13		4-6
10/4/2010	506	MER	9.06	9.96	0.03		0.02	32	0.03		2-4
10/4/2010	507	MER	9.20	9.06	0.02		0.01	32	0.02		2-4
10/4/2010	508	MER	8.45	9.20	0.03		0.02	32	0.03		4-6
10/4/2010	509	MER	8.67	8.45	0.02		0.01	32	0.02		4-6
10/4/2010	510	MER	8.34	8.67	0.03		0.02	32	0.03		2-4
10/6/2010	501	MER	10.04	10.29	0.02		0.01	32	0.02		0-2
10/6/2010	502	MER	10.20	10.04	0.02		0.01	32	0.02		2-4
10/6/2010	503	MER	9.23	10.20	0.03		0.02	32	0.03		2-4
10/6/2010	504	MER	8.92	9.23	0.03		0.02	32	0.03		2-4
10/6/2010	505	MER	8.68	8.92	0.02		0.01	32	0.02		0-2
10/7/2010	409	MER	6.25	6.67	0.27		0.13	32	0.27		2-4
10/7/2010	520	MER	7.40	7.50	2.75		0.75	32	2.75		0-2
10/7/2010	521	MER	2.30	1.80	1.50		0.50	32	1.50		0-2
10/8/2010	410	MER	5.94	6.90	0.17		0.09	32	0.17		2-4
10/8/2010	412	MER	6.20	5.94	0.13		0.06	32	0.13		0-2
10/11/2010	521	MER	4.00	4.20	2.75		0.75	32	2.75		0-2
10/12/2010	528	MER	8.70	10.33	0.06		0.03	32	0.06		0-2
10/13/2010	514	MER	9.76	10.54	0.03		0.02	32	0.03		0-2
10/13/2010	515	MER	9.32	9.66	0.08		0.04	32	0.08		0-2
10/13/2010	517	MER	9.09	9.32	0.06		0.03	32	0.06		0-2
10/13/2010	518	MER	8.91	9.09	0.05		0.02	32	0.05		0-2
10/14/2010	408	MER	6.77	6.99	0.27		0.13	32	0.27		0-2
10/15/2010	402	MER	7.40	7.71	0.06		0.03	32	0.06		0-2
10/15/2010	404	MER	7.71	8.00	0.08		0.04	32	0.08		4-6
10/6/2010	20	SAC	9.40	13.70	0.50		0.25	32	0.50		0-2
10/6/2010	122	SAC	8.50	8.80	1.50		0.75	32	1.50		0-2
10/6/2010	129	SAC	8.20	8.10	1.50		0.75	32	1.50		2-4
10/11/2010	22	SAC	8.10	8.00	2.50		1.25	32	2.50		4-6
10/11/2010	216	SAC	9.40	9.00		2.00	0.75	48		2.67	0-2
10/12/2010	37	SAC	9.30	7.80		2.00	0.50	48		2.67	4-6
10/12/2010	128	SAC	7.90	8.00	1.00		0.50	32	1.00		2-4
10/12/2010	129	SAC	8.30	8.10	1.00		0.50	32	1.00		2-4
10/12/2010	216	SAC	8.10	9.30		2.00	1.00	48		2.67	2-4
10/12/2010	219	SAC	9.70	9.40		1.00	0.50	48		1.33	0-2
10/4/2010	43	SJ	9.80	9.00	1.00		0.25	32	1.00		4-6
10/4/2010	44	SJ	11.40	10.80	2.75		1.00	32	2.75		4-6
10/4/2010	72	SJ	7.80	9.00	2.50		1.25	32	2.50		2-4
10/4/2010	98	SJ	8.30	8.10	1.50		0.50	32	1.50		0-2
10/4/2010	101	SJ	7.60	7.80	1.00		0.50	32	1.00		2-4
10/4/2010	300	SJ	8.10	7.80	2.75		0.75	32	2.75		0-2

10/4/2010	302	SJ	7.80	7.90	2.75		0.75	32	2.75		0-2
10/5/2010	16	SJ	8.40	10.20	1.75		0.50	32	1.75		6-8
10/5/2010	32	SJ	7.30	7.20	2.00		1.00	32	2.00		4-6
10/5/2010	47	SJ	8.50	7.80	1.00		0.50	32	1.00		2-4
10/5/2010	48	SJ	7.90	8.50	1.50		0.75	32	1.50		4-6
10/5/2010	57	SJ	11.20	11.50	2.75		1.00	32	2.75		4-6
10/5/2010	69	SJ	8.70	8.60	0.50		0.25	32	0.50		4-6
10/5/2010	92	SJ	13.20	9.70	1.00		0.50	32	1.00		2-4
10/5/2010	99	SJ	8.20	8.00	1.00		0.50	32	1.00		4-6
10/5/2010	301	SJ	7.60	7.80	2.50		0.75	32	2.50		0-2
10/5/2010	303	SJ	7.60	7.90	2.75		0.75	32	2.75		2-4
10/6/2010	1	SJ	7.90	7.50	2.50		1.25	32	2.50		0-2
10/6/2010	10	SJ	8.20	8.10	2.75		1.00	32	2.75		0-2
10/6/2010	16	SJ	11.80	10.30	1.75		0.50	32	1.75		2-4
10/6/2010	69	SJ	7.53	6.66	2.75		1.00	32	2.75		0-2
10/6/2010	70	SJ	7.40	7.90	2.75		1.50	32	2.75		0-2
10/6/2010	104	SJ	7.80	8.00	2.75		1.50	32	2.75		0-2
10/6/2010	301	SJ	7.70	8.30	1.50		0.50	32	1.50		0-2
10/6/2010	303	SJ	7.60	9.60	2.50		0.75	32	2.50		0-2
10/7/2010	32	SJ	8.50	9.20	2.00		0.75	32	2.00		2-4
10/7/2010	33	SJ	8.60	8.80	1.00		0.25	32	1.00		0-2
10/7/2010	57	SJ	9.60	9.50	2.00		1.00	32	2.00		0-2
10/7/2010	69	SJ	9.30	12.90	1.50		0.50	32	1.50		2-4
10/7/2010	75	SJ	8.10	7.60	0.50		0.50	32	0.50		0-2
10/7/2010	76	SJ	7.20	7.50	1.00		0.50	32	1.00		0-2
10/7/2010	98	SJ	8.30	8.50	1.50		1.00	32	1.50		0-2
10/7/2010	100	SJ	8.70	9.80	2.50		1.00	32	2.50		0-2
10/11/2010	32	SJ	7.40	8.00	0.25			32	0.25		2-4
10/11/2010	35	SJ	8.20	8.30	0.50		0.25	32	0.50		8-10
10/11/2010	37	SJ	8.70	9.10		1.50	0.50	48		2.00	6-8
10/11/2010	52	SJ	7.20	7.00	1.00		0.50	32	1.00		4-6
10/11/2010	53	SJ	7.90	7.00	2.50		1.25	32	2.50		2-4
10/11/2010	57	SJ	8.60	8.40	2.00		1.00	32	2.00		4-6
10/12/2010	14	SJ	6.80	7.30	2.50		1.00	32	2.50		0-2
10/12/2010	15	SJ	9.10	8.66	2.75			32	2.75		0-2
10/12/2010	32	SJ	6.30	7.60	2.25		0.75	32	2.25		2-4
10/12/2010	33	SJ	8.51	8.40	1.75			32	1.75		8-10
10/12/2010	38	SJ	7.10	7.60	2.00		0.75	32	2.00		2-4
10/12/2010	49	SJ	7.60	7.40	2.50		1.25	32	2.50		0-2
10/12/2010	52	SJ	7.60	7.00	1.50		0.75	32	1.50		0-2
10/13/2010	13	SJ	8.30	8.10	2.75		1.00	32	2.75		2-4
10/13/2010	36	SJ	7.20	8.30	1.50		0.50	32	1.50		2-4
10/13/2010	37	SJ	8.30	7.70		2.00	0.50	48		2.67	2-4
10/13/2010	61	SJ	7.10	7.30	2.75		1.00	32	2.75		4-6
10/13/2010	73	SJ	6.20	6.40	1.00		0.50	32	1.00		0-2
10/13/2010	75	SJ	6.50	6.10	2.50		1.25	32	2.50		0-2
10/13/2010	200	SJ	10.70	9.80		0.50	0.25	48		0.67	0-2
10/13/2010	201	SJ	8.40	8.10		0.50	0.25	48		0.67	0-2
10/13/2010	202	SJ	8.20	10.50		2.00	0.75	48		2.67	0-2
10/12/2010	714	ST	8.20	8.30	1.00		0.25	32	1.00		0-2
10/12/2010	715	ST	8.30	8.60	1.50		0.50	32	1.50		0-2
10/12/2010	716	ST	8.60	8.80	0.75		0.25	32	0.75		0-2
					121.39		13.50	52.83		121.39	18.00

## **APPENDIX B**

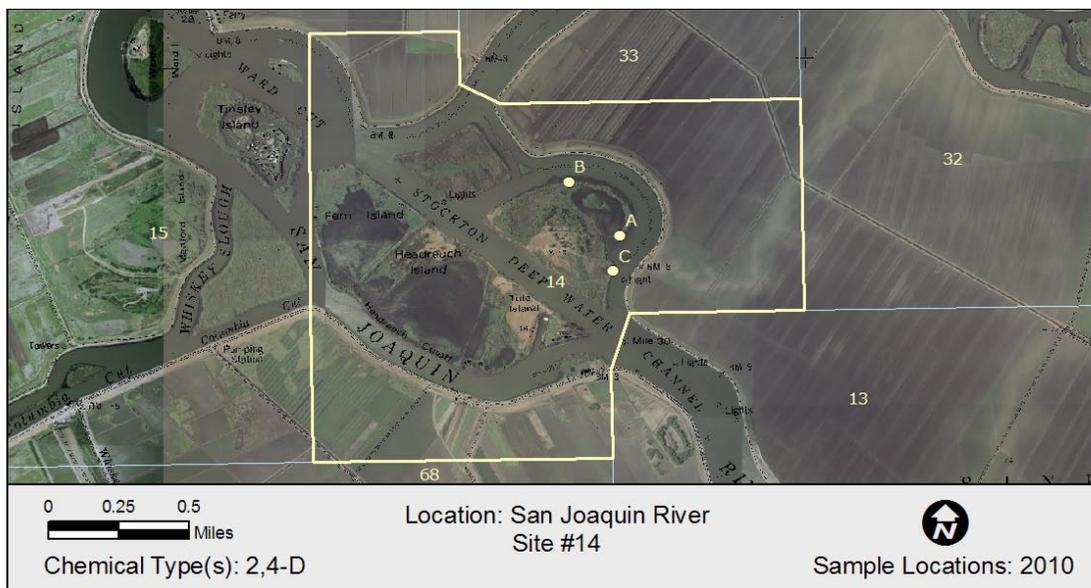
### Site Maps and Monitoring and Laboratory Data

### Site 14: Sampling Reports

2,4-D Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	2,4-D (ppb)
1A	2010-0814	H014-083110-3	8/31/2010	9/3/2010	9/7/2010	9/23/2010	0.17
1C	2010-0813	H014-083110-2	8/31/2010	9/3/2010	9/7/2010	9/23/2010	0.14
2B	2010-0816	H014-083110-5	8/31/2010	9/3/2010	9/7/2010	9/23/2010	0.13
3A	2010-0828	H014-090310-3	9/3/2010	9/3/2010	9/7/2010	9/22/2010	1.56
3B	2010-0830	H014-090310-5	9/3/2010	9/3/2010	9/7/2010	9/22/2010	0.54
3C	2010-0827	H014-090310-2	9/3/2010	9/3/2010	9/7/2010	9/22/2010	0.9

Agridex Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	Agridex (ppb)
1A	2010-0814	H014-083110-3	8/31/2010	9/3/2010	9/28/2010	9/28/2010	ND
1C	2010-0813	H014-083110-2	8/31/2010	9/3/2010	9/28/2010	9/28/2010	ND
2B	2010-0816	H014-083110-5	8/31/2010	9/3/2010	9/28/2010	9/28/2010	ND
3A	2010-0828	H014-090310-3	9/3/2010	9/3/2010	9/29/2010	10/1/2010	ND
3B	2010-0830	H014-090310-5	9/3/2010	9/3/2010	9/29/2010	10/1/2010	ND
3C	2010-0827	H014-090310-2	9/3/2010	9/3/2010	9/29/2010	10/1/2010	ND

Water Quality								
Sample Location	Sample ID	Date	UTM Easting	UTM Northing	Time	Water Temp (°C)	Conductivity (mS/cm)	Turbidity (NTU)
1A	H014-083110-3	08/31/10	634122.84	4210527.81	09:28:37	22.13	0.210	0
1C	H014-083110-2	08/31/10	634082.93	4210322.73	09:19:39	22.25	0.216	0
2B	H014-083110-5	08/31/10	633826.70	4210834.26	11:52:32	23.15	0.211	0
3A	H014-090310-3	09/03/10	634122.84	4210527.81	09:30:37	23.0	0	0
3B	H014-090310-5	09/03/10	633826.70	4210834.26	09:45:32	22.7	0	0
3C	H014-090310-2	09/03/10	634082.93	4210322.73	09:25:39	22.8	0	0

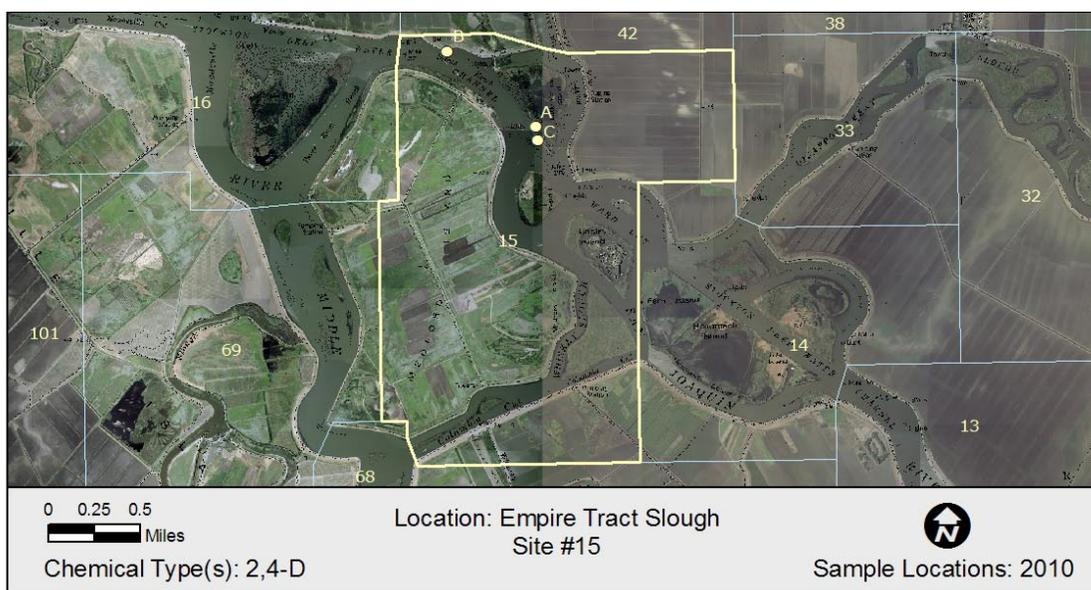


### Site 15: Sampling Results

2,4-D Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	2,4-D (ppb)
1A	2010-0821	H015-083110-3	8/31/2010	9/3/2010	9/8/2010	9/24/2010	0.1
1C	2010-0820	H015-083110-2	8/31/2010	9/3/2010	9/8/2010	9/24/2010	0.1
2B	2010-0823	H015-083110-5	8/31/2010	9/3/2010	9/8/2010	9/24/2010	ND
3A	2010-0835	H015-090310-3	9/3/2010	9/3/2010	9/7/2010	9/22/2010	0.31
3B	2010-0837	H015-090310-5	9/3/2010	9/3/2010	9/7/2010	9/22/2010	0.2
3C	2010-0834	H015-090310-2	9/3/2010	9/3/2010	9/7/2010	9/22/2010	0.18

Agridex Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	Agridex (ppb)
1A	2010-0821	H015-083110-3	8/31/2010	9/3/2010	10/4/2010	10/5/2010	ND
1C	2010-0820	H015-083110-2	8/31/2010	9/3/2010	10/4/2010	10/5/2010	ND
2B	2010-0823	H015-083110-5	8/31/2010	9/3/2010	10/4/2010	10/5/2010	ND
3A	2010-0835	H015-090310-3	9/3/2010	9/3/2010	10/4/2010	10/5/2010	ND
3B	2010-0837	H015-090310-5	9/3/2010	9/3/2010	10/4/2010	10/5/2010	ND
3C	2010-0834	H015-090310-2	9/3/2010	9/3/2010	10/4/2010	10/5/2010	ND

Water Quality								
Sample Location	Sample ID	Date	UTM Easting	UTM Northing	Time	Water Temp (°C)	Conductivity (mS/cm)	Turbidity (NTU)
1A	H015-083110-3	08/31/10	631434.79	4212177.70	08:51:30	22.13	0.217	0
1C	H015-083110-2	08/31/10	631456.98	4212058.48	08:45:45	22.11	0.220	0
2B	H015-083110-5	08/31/10	630660.02	4212844.36	11:41:43	22.26	0.236	0
3A	H015-090310-3	09/03/10	631434.79	4212177.70	08:51:30	21.9	0	0
3B	H015-090310-5	09/03/10	630660.02	4212844.36	09:05	22.2	0	0
3C	H015-090310-2	09/03/10	631456.98	4212058.48	08:45:45	22.6	0	0

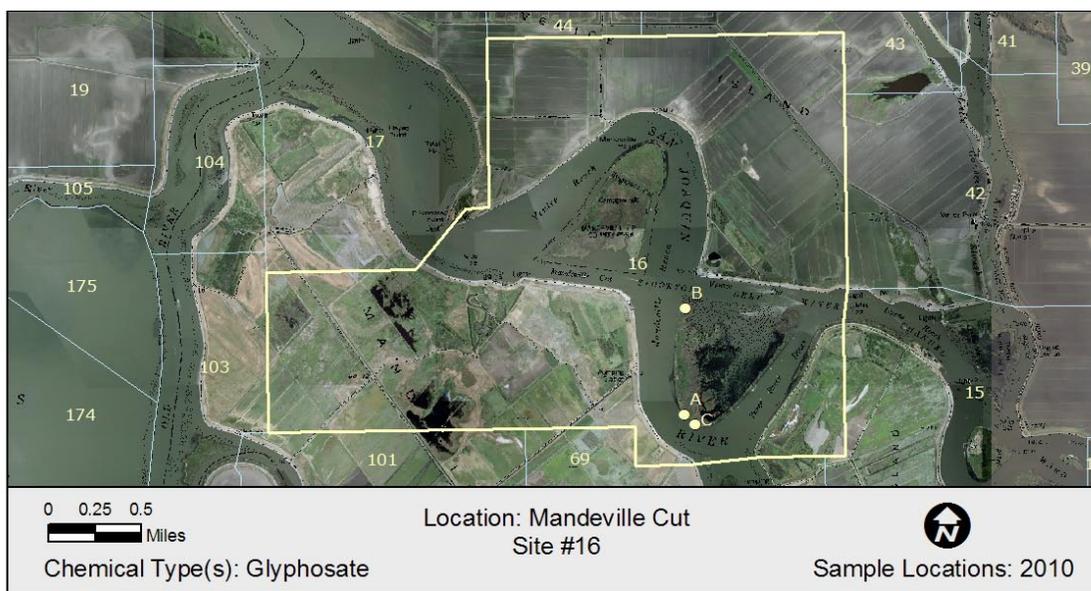


### Site 16: Sampling Reports

Glyphosate Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	Glyphosate (ppb)
1A	2010-0917	H016-092810-3	9/28/2010	9/29/2010	12/1/2010	12/1/2010	ND
1C	2010-0916	H016-092810-2	9/28/2010	9/29/2010	12/1/2010	12/1/2010	ND
2B	2010-0919	H016-092810-5	9/28/2010	9/29/2010	12/1/2010	12/1/2010	ND
3A	2010-0931	H016-093010-3	9/30/2010	10/1/2010	12/7/2010	12/7/2010	ND
3B	2010-0933	H016-093010-5	9/30/2010	10/1/2010	12/7/2010	12/7/2010	ND
3C	2010-0930	H016-093010-2	9/30/2010	10/1/2010	12/7/2010	12/7/2010	ND

Agridex Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	Agridex (ppb)
1A	2010-0917	H016-092810-3	9/28/2010	9/29/2010	10/5/2010	10/6/2010	ND
1C	2010-0916	H016-092810-2	9/28/2010	9/29/2010	10/5/2010	10/6/2010	ND
2B	2010-0919	H016-092810-5	9/28/2010	9/29/2010	10/5/2010	10/6/2010	ND
3A	2010-0931	H016-093010-3	9/30/2010	10/1/2010	10/6/2010	11/4/2010	ND
3B	2010-0933	H016-093010-5	9/30/2010	10/1/2010	10/6/2010	11/4/2010	ND
3C	2010-0930	H016-093010-2	9/30/2010	10/1/2010	10/6/2010	11/4/2010	ND

Water Quality								
Sample Location	Sample ID	Date	UTM Easting	UTM Northing	Time	Water Temp (°C)	Conductivity (mS/cm)	Turbidity (NTU)
1A	H016-092810-3	09/28/10	628824.08	4211888.75	09:17:37	21.41	0.274	0
1C	H016-092810-2	09/28/10	628964.14	4211787.73	09:09:04	21.39	0.275	0
2B	H016-092810-5	09/28/10	628832.21	4212816.74	12:42	23.1	0.26	0
3A	H016-093010-3	09/30/10	628822.99	4211887.72	09:02:54	21.59	0.282	0
3B	H016-093010-5	09/30/10	628832.21	4212816.74	09:16:52	21.61	0.277	0
3C	H016-093010-2	09/30/10	628915.41	4211804.53	08:57:47	21.63	0.283	0

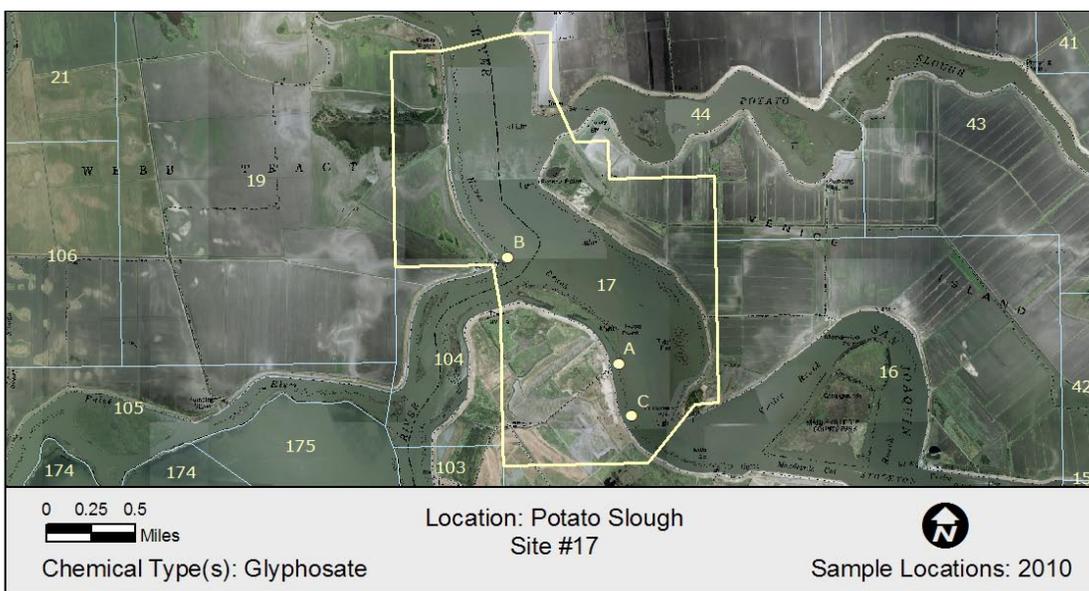


### Site 17: Sampling Reports

Glyphosate Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	Glyphosate (ppb)
1A	2010-0922	H017-092810-3	9/28/2010	9/29/2010	12/1/2010	12/1/2010	ND
1C	2010-0921	H017-092810-2	9/28/2010	9/29/2010	12/1/2010	12/1/2010	ND
2B	2010-0924	H017-092810-5	9/28/2010	9/29/2010	12/1/2010	12/1/2010	ND
3A	2010-0936	H017-093010-3	9/30/2010	10/1/2010	12/7/2010	12/7/2010	ND
3B	2010-0938	H017-093010-5	9/30/2010	10/1/2010	12/7/2010	12/7/2010	ND
3C	2010-0935	H017-093010-2	9/30/2010	10/1/2010	12/7/2010	12/7/2010	ND

Agridex Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	Agridex (ppb)
1A	2010-0922	H017-092810-3	9/28/2010	9/29/2010	10/5/2010	10/6/2010	ND
1C	2010-0921	H017-092810-2	9/28/2010	9/29/2010	10/5/2010	10/6/2010	ND
2B	2010-0924	H017-092810-5	9/28/2010	9/29/2010	10/5/2010	10/6/2010	ND
3A	2010-0936	H017-093010-3	9/30/2010	10/1/2010	10/6/2010	11/4/2010	ND
3B	2010-0938	H017-093010-5	9/30/2010	10/1/2010	10/6/2010	11/4/2010	ND
3C	2010-0935	H017-093010-2	9/30/2010	10/1/2010	10/6/2010	11/4/2010	ND

Water Quality								
Sample Location	Sample ID	Date	UTM Easting	UTM Northing	Time	Water Temp (°C)	Conductivity (mS/cm)	Turbidity (NTU)
1A	H017-092810-3	09/28/10	626217.59	4214049.23	08:39:15	21.2	0.310	0
1C	H017-092810-2	09/28/10	626329.11	4213581.72	08:42:40	21.22	0.312	0
2B	H017-092810-5	09/28/10	625212.60	4215014.92	11:30	21.8	0.36	0
3A	H017-093010-3	09/30/10	626217.59	4214049.23	09:39:15	21.40	0.310	0
3B	H017-093010-5	09/30/10	625212.60	4215014.92	09:51:49	21.33	0.422	0
3C	H017-093010-2	09/30/10	626336.30	4213572.69	09:30:32	21.53	0.331	0

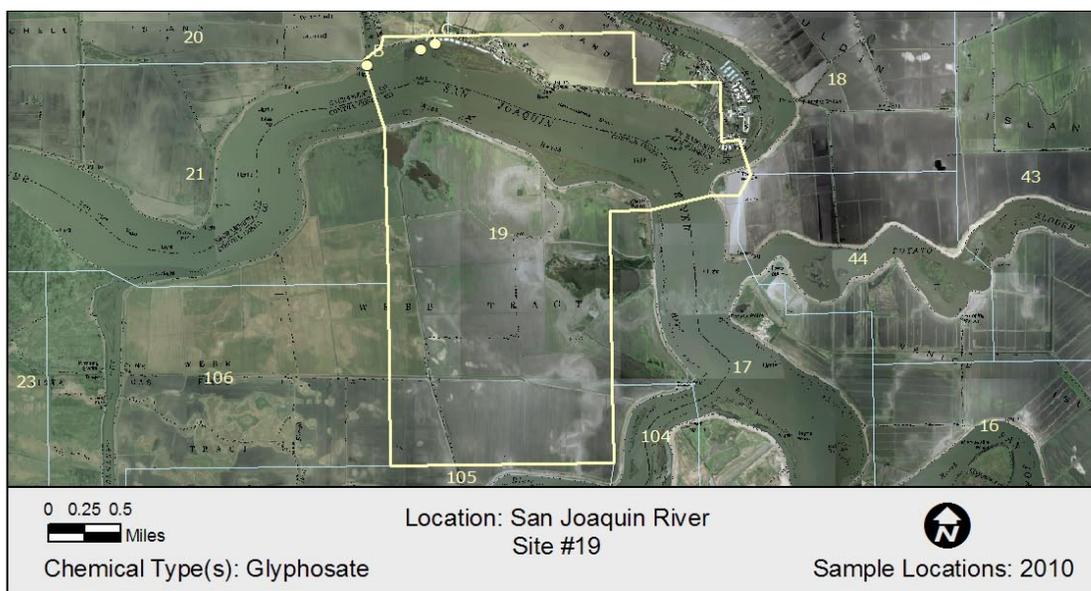


### Site 19: Sampling Reports

Glyphosate Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	Glyphosate (ppb)
1A	2010-0683	H019-081210-3	8/12/2010	8/13/2010	8/24/2010	9/20/2010	ND
1C	2010-0682	H019-081210-2	8/12/2010	8/13/2010	8/24/2010	9/20/2010	ND
2B	2010-0685	H019-081210-5	8/12/2010	8/13/2010	8/24/2010	9/20/2010	ND
3A	2010-0706	H019-081610-3	8/16/2010	8/18/2010	9/9/2010	9/9/2010	ND
3B	2010-0708	H019-081610-5	8/16/2010	8/18/2010	9/9/2010	9/9/2010	ND
3C	2010-0705	H019-081610-2	8/16/2010	8/18/2010	9/9/2010	9/9/2010	ND

Agridex Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	Agridex (ppb)
1A	2010-0683	H019-081210-3	8/12/2010	8/13/2010	9/28/2010	9/29/2010	ND
1C	2010-0682	H019-081210-2	8/12/2010	8/13/2010	9/28/2010	9/29/2010	ND
2B	2010-0685	H019-081210-5	8/12/2010	8/13/2010	9/28/2010	9/29/2010	ND
3A	2010-0706	H019-081610-3	8/16/2010	8/18/2010	8/31/2010	9/20/2010	ND
3B	2010-0708	H019-081610-5	8/16/2010	8/18/2010	8/31/2010	9/20/2010	ND
3C	2010-0705	H019-081610-2	8/16/2010	8/18/2010	8/31/2010	9/20/2010	ND

Water Quality								
Sample Location	Sample ID	Date	UTM Easting	UTM Northing	Time	Water Temp (°C)	Conductivity (mS/cm)	Turbidity (NTU)
1A	H019-081210-3	08/12/10	622045.75	4218675.18	09:04:15	21.05	0.1973	0
1C	H019-081210-2	08/12/10	622216.85	4218739.42	08:57:35	20.91	0.1912	0
2B	H019-081210-5	08/12/10	621451.36	4218497.50	12:03:47	21.31	0.231	0
3A	H019-081610-3	08/16/10	622046.62	4218675.00	11:14:39	21.57	0.1791	0
3B	H019-081610-5	08/16/10	621455.69	4218504.00	11:26:56	21.07	0.260	0
3C	H019-081610-2	08/16/10	622214.68	4218738.42	11:08:02	21.52	0.1839	0

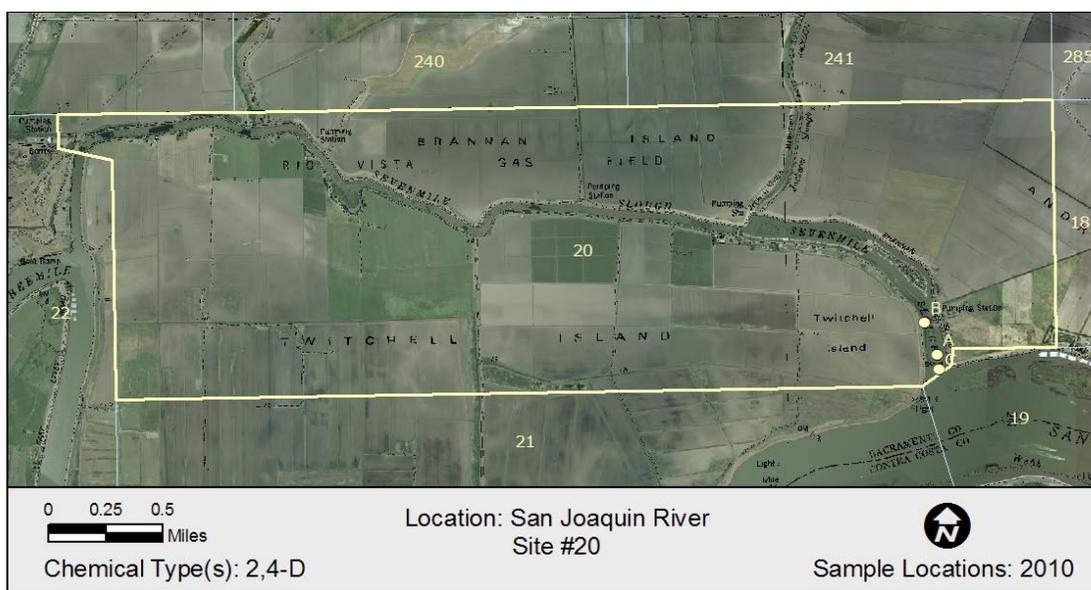


### Site 20: Sampling Reports 8/12

Glyphosate Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	Glyphosate (ppb)
1A	2010-0693	H020-081210-3	8/12/2010	8/13/2010	8/24/2010	9/14/2010	ND
1C	2010-0692	H020-081210-2	8/12/2010	8/13/2010	8/24/2010	9/14/2010	ND
2B	2010-0695	H020-081210-5	8/12/2010	8/13/2010	8/24/2010	9/14/2010	ND
3A	2010-0711	H020-081610-3	8/16/2010	8/18/2010	9/9/2010	9/9/2010	ND
3B	2010-0713	H020-081610-5	8/16/2010	8/18/2010	9/9/2010	9/9/2010	ND
3C	2010-0710	H020-081610-2	8/16/2010	8/18/2010	9/9/2010	9/9/2010	ND

Agridex Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	Agridex (ppb)
1A	2010-0693	H020-081210-3	8/12/2010	8/13/2010	9/28/2010	9/29/2010	ND
1C	2010-0692	H020-081210-2	8/12/2010	8/13/2010	9/28/2010	9/29/2010	ND
2B	2010-0695	H020-081210-5	8/12/2010	8/13/2010	9/28/2010	9/29/2010	ND
3A	2010-0711	H020-081610-3	8/16/2010	8/18/2010	8/31/2010	9/20/2010	ND
3B	2010-0713	H020-081610-5	8/16/2010	8/18/2010	8/31/2010	9/20/2010	ND
3C	2010-0710	H020-081610-2	8/16/2010	8/18/2010	8/31/2010	9/20/2010	ND

Water Quality								
Sample Location	Sample ID	Date	UTM Easting	UTM Northing	Time	Water Temp (°C)	Conductivity (mS/cm)	Turbidity (NTU)
1A	H020-081210-3	08/12/10	621501.57	4218773.13	08:48:00	20.93	0.218	0
1C	H020-081210-2	08/12/10	621526.21	4218682.70	08:43:00	20.94	0.244	0
2B	H020-081210-5	08/12/10	621422.86	4219011.77	11:21:01	21.99	0.1875	0
3A	H020-081610-3	08/16/10	621510.49	4218780.15	10:19:13	20.81	0.218	0
3B	H020-081610-5	08/16/10	621420.51	4219009.07	10:50:35	21.49	0.1936	0
3C	H020-081610-2	08/16/10	621529.52	4218678.00	10:11:10	21.46	0.1773	0

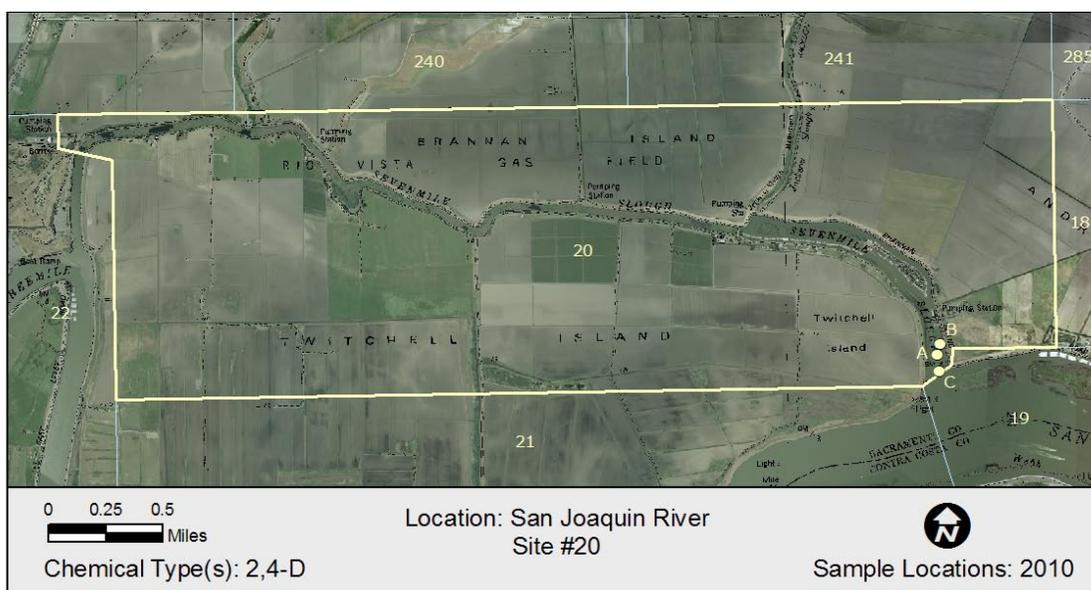


### Site 20: Sampling Reports 10/6

2,4-D Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	2,4-D (ppb)
1A	2010-1092	H020-100610-3	10/6/2010	10/13/2010	10/14/2010	10/18/2010	0.1
1C	2010-1091	H020-100610-2	10/6/2010	10/13/2010	10/14/2010	10/18/2010	0.12
2B	2010-1094	H020-100610-5	10/6/2010	10/13/2010	10/18/2010	10/19/2010	0.16
3A	2010-1102	H020-101310-3	10/13/2010	10/13/2010	10/18/2010	10/19/2010	0.28
3B	2010-1104	H020-101310-5	10/13/2010	10/13/2010	10/18/2010	10/19/2010	ND
3C	2010-1101	H020-101310-2	10/13/2010	10/13/2010	10/18/2010	10/19/2010	0.15

Agridex Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	Agridex (ppb)
1A	2010-1092	H020-100610-3	10/6/2010	10/13/2010	11/8/2010	11/16/2010	ND
1C	2010-1091	H020-100610-2	10/6/2010	10/13/2010	11/8/2010	11/16/2010	ND
2B	2010-1094	H020-100610-5	10/6/2010	10/13/2010	11/8/2010	11/16/2010	ND
3A	2010-1102	H020-101310-3	10/13/2010	10/13/2010	11/4/2010	11/5/2010	ND
3B	2010-1104	H020-101310-5	10/13/2010	10/13/2010	11/4/2010	11/5/2010	ND
3C	2010-1101	H020-101310-2	10/13/2010	10/13/2010	11/4/2010	11/5/2010	ND

Water Quality								
Sample Location	Sample ID	Date	UTM Easting	UTM Northing	Time	Water Temp (°C)	Conduct-ivity (mS/cm)	Turbidity (NTU)
1A	H020-100610-3	10/06/10	621511.29	4218791.27	09:37:02	19.87	0.321	0
1C	H020-100610-2	10/06/10	621527.89	4218668.77	09:31:43	20.06	0.336	0
2B	H020-100610-5	10/06/10	621535.29	4218859.48	12:57:31	20.75	0.328	0
3A	H020-101310-3	10/13/10	621501.66	4218788.94	10:55:02	19.68	0.290	0
3B	H020-101310-5	10/13/10	621433.03	4219000.42	11:08:53	20.25	0.298	0
3C	H020-101310-2	10/13/10	621529.36	4218702.34	10:50:11	19.91	0.285	0

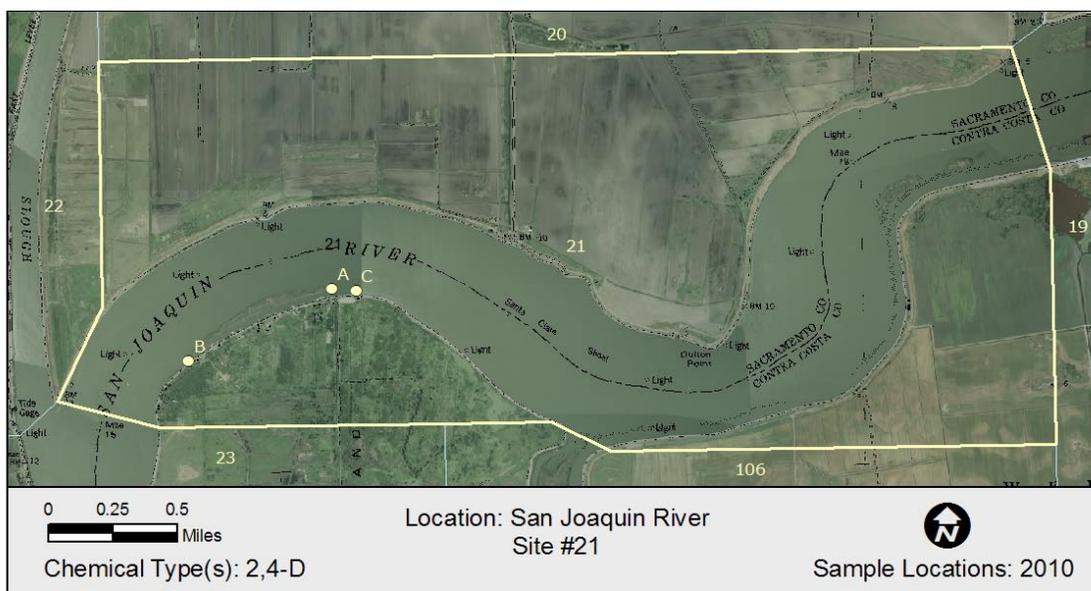


### Site 21: Sampling Reports 8/12

Glyphosate Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	Glyphosate (ppb)
1A	2010-0688	H021-081210-3	8/12/2010	8/13/2010	8/24/2010	9/20/2010	ND
1C	2010-0687	H021-081210-2	8/12/2010	8/13/2010	8/24/2010	9/20/2010	ND
2B	2010-0690	H021-081210-5	8/12/2010	8/13/2010	8/24/2010	9/14/2010	ND
3A	2010-0716	H021-081610-3	8/16/2010	8/18/2010	9/9/2010	9/9/2010	ND
3B	2010-0718	H021-081610-5	8/16/2010	8/18/2010	9/9/2010	9/9/2010	ND
3C	2010-0715	H021-081610-2	8/16/2010	8/18/2010	9/9/2010	9/9/2010	ND

Agridex Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	Agridex (ppb)
1A	2010-0688	H021-081210-3	8/12/2010	8/13/2010	9/28/2010	9/29/2010	ND
1C	2010-0687	H021-081210-2	8/12/2010	8/13/2010	9/28/2010	9/29/2010	ND
2B	2010-0690	H021-081210-5	8/12/2010	8/13/2010	9/28/2010	9/29/2010	ND
3A	2010-0716	H021-081610-3	8/16/2010	8/18/2010	8/31/2010	9/20/2010	ND
3B	2010-0718	H021-081610-5	8/16/2010	8/18/2010	8/31/2010	9/20/2010	ND
3C	2010-0715	H021-081610-2	8/16/2010	8/18/2010	8/31/2010	9/20/2010	ND

Water Quality								
Sample Location	Sample ID	Date	UTM Easting	UTM Northing	Time	Water Temp (°C)	Conductivity (mS/cm)	Turbidity (NTU)
1A	H021-081210-3	08/12/10	617149.56	4217042.70	08:26:12	20.58	0.510	0
1C	H021-081210-2	08/12/10	617298.42	4217029.83	08:16:18	20.51	0.481	0
2B	H021-081210-5	08/12/10	616181.15	4216545.44	09:33:53	20.57	0.503	0
3A	H021-081610-3	08/16/10	617149.72	4217042.03	08:38:03	20.62	0.343	0
3B	H021-081610-5	08/16/10	616247.70	4216589.08	09:01:45	20.53	0.357	0
3C	H021-081610-2	08/16/10	617296.17	4217030.33	08:31:55	20.34	0.364	0

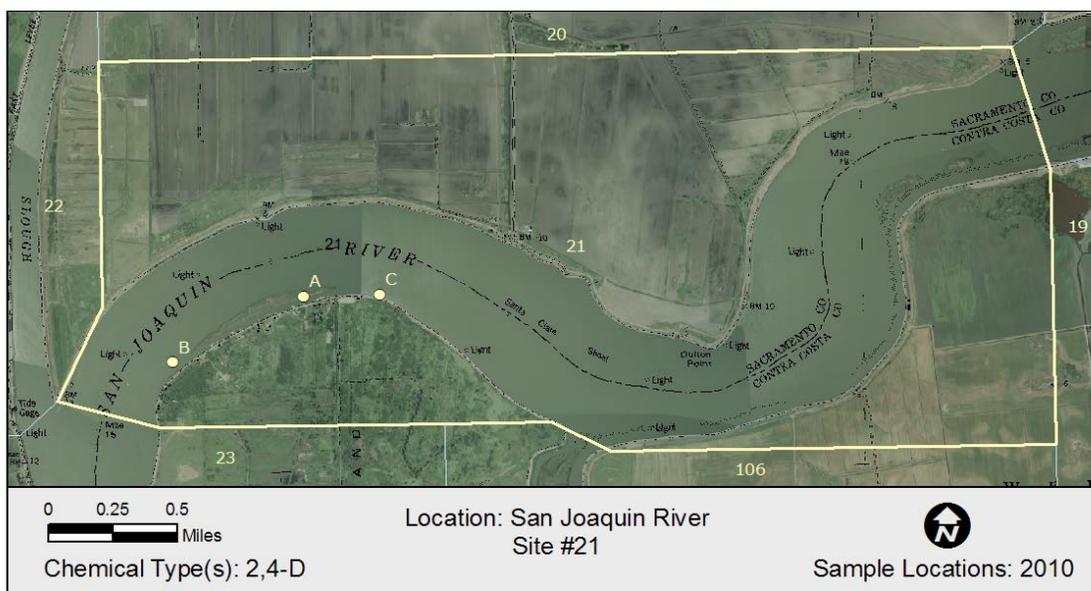


### Site 21: Sampling Reports 10/6

2,4-D Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	2,4-D (ppb)
1A	2010-1097	H021-100610-3	10/6/2010	10/13/2010	10/14/2010	10/18/2010	0.13
1C	2010-1096	H021-100610-2	10/6/2010	10/13/2010	10/14/2010	10/18/2010	0.13
2B	2010-1099	H021-100610-5	10/6/2010	10/13/2010	10/14/2010	10/18/2010	0.13
3A	2010-1107	H021-101310-3	10/13/2010	10/13/2010	10/18/2010	10/19/2010	ND
3B	2010-1109	H021-101310-5	10/13/2010	10/13/2010	10/18/2010	10/19/2010	ND
3C	2010-1106	H021-101310-2	10/13/2010	10/13/2010	10/18/2010	10/19/2010	0.11

Agridex Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	Agridex (ppb)
1A	2010-1097	H021-100610-3	10/6/2010	10/13/2010	11/8/2010	11/16/2010	ND
1C	2010-1096	H021-100610-2	10/6/2010	10/13/2010	11/8/2010	11/16/2010	ND
2B	2010-1099	H021-100610-5	10/6/2010	10/13/2010	11/8/2010	11/16/2010	ND
3A	2010-1107	H021-101310-3	10/13/2010	10/13/2010	11/4/2010	11/5/2010	ND
3B	2010-1109	H021-101310-5	10/13/2010	10/13/2010	11/4/2010	11/5/2010	ND
3C	2010-1106	H021-101310-2	10/13/2010	10/13/2010	11/4/2010	11/5/2010	ND

Water Quality								
Sample Location	Sample ID	Date	UTM Easting	UTM Northing	Time	Water Temp (°C)	Conductivity (mS/cm)	Turbidity (NTU)
1A	H021-100610-3	10/06/10	616981.08	4216989.19	09:09:25	20.41	0.741	0
1C	H021-100610-2	10/06/10	617452.21	4217008.34	08:56:17	20.39	0.715	0
2B	H021-100610-5	10/06/10	616166.28	4216543.52	12:37:39	20.83	0.669	0
3A	H021-101310-3	10/13/10	616981.08	4216989.19	10:16:04	20.04	0.802	0
3B	H021-101310-5	10/13/10	616166.28	4216543.52	10:30:02	19.65	0.600	0
3C	H021-101310-2	10/13/10	617452.39	4217003.22	10:04:17	19.23	0.63	0

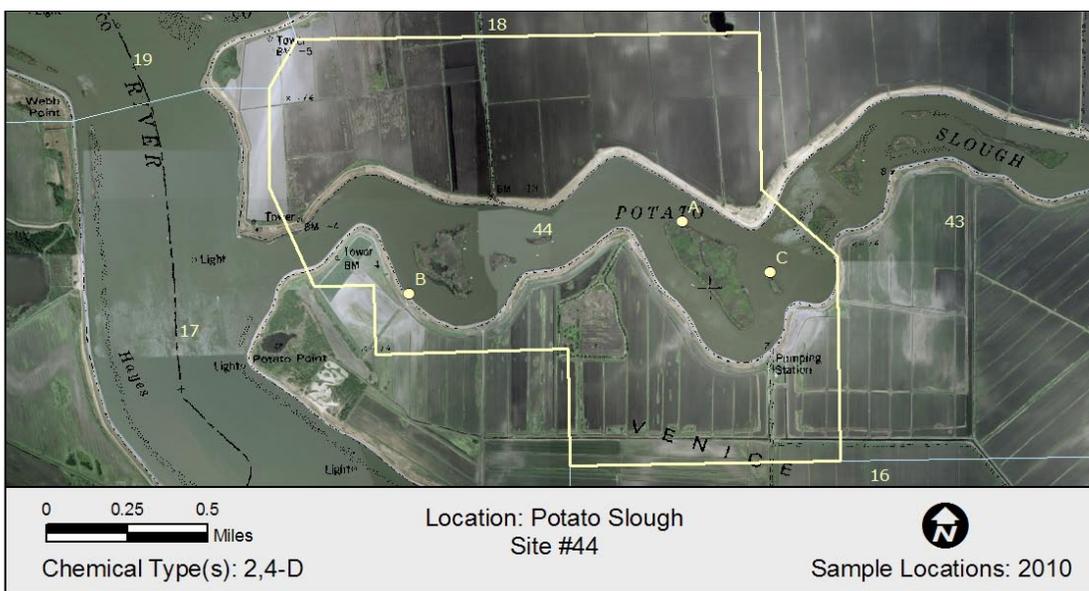


### Site 44: Sampling Reports

2,4-D Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	2,4-D (ppb)
1A	2010-0748	H044-082310-3	8/23/2010	8/24/2010	8/25/2010	9/13/2010	0.18
1C	2010-0747	H044-082310-2	8/23/2010	8/24/2010	8/25/2010	9/13/2010	ND
2B	2010-0750	H044-082310-5	8/23/2010	8/24/2010	8/25/2010	9/13/2010	ND
3A	2010-0766	H044-082510-3	8/25/2010	8/26/2010	8/30/2010	9/21/2010	0.16
3B	2010-0768	H044-082510-5	8/25/2010	8/26/2010	8/30/2010	9/21/2010	ND
3C	2010-0765	H044-082510-2	8/25/2010	8/26/2010	8/30/2010	9/21/2010	ND

Agridex Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	Agridex (ppb)
1A	2010-0748	H044-082310-3	8/23/2010	8/24/2010	9/13/2010	9/22/2010	ND
1C	2010-0747	H044-082310-2	8/23/2010	8/24/2010	9/13/2010	9/22/2010	ND
2B	2010-0750	H044-082310-5	8/23/2010	8/24/2010	9/13/2010	9/22/2010	ND
3A	2010-0766	H044-082510-3	8/25/2010	8/26/2010	9/21/2010	11/18/2010	ND
3B	2010-0768	H044-082510-5	8/25/2010	8/26/2010	9/21/2010	11/18/2010	ND
3C	2010-0765	H044-082510-2	8/25/2010	8/26/2010	9/21/2010	11/18/2010	ND

Water Quality								
Sample Location	Sample ID	Date	UTM Easting	UTM Northing	Time	Water Temp (°C)	Conductivity (mS/cm)	Turbidity (NTU)
1A	H044-082310-3	08/23/10	627659.61	4216384.43	08:50:29	21.32	0.1757	0
1C	H044-082310-2	08/23/10	628095.10	4216131.50	08:42:46	21.82	0.1754	0
2B	H044-082310-5	08/23/10	626296.07	4216022.80	10:31:49	21.98	0.1794	0
3A	H044-082510-3	08/25/10	627659.61	4216384.43	12:55	23.6	0	0
3B	H044-082510-5	08/25/10	626296.07	4216022.80	13:00	23.8	0	0
3C	H044-082510-2	08/25/10	628095.10	4216131.50	12:45	24.4	0	0

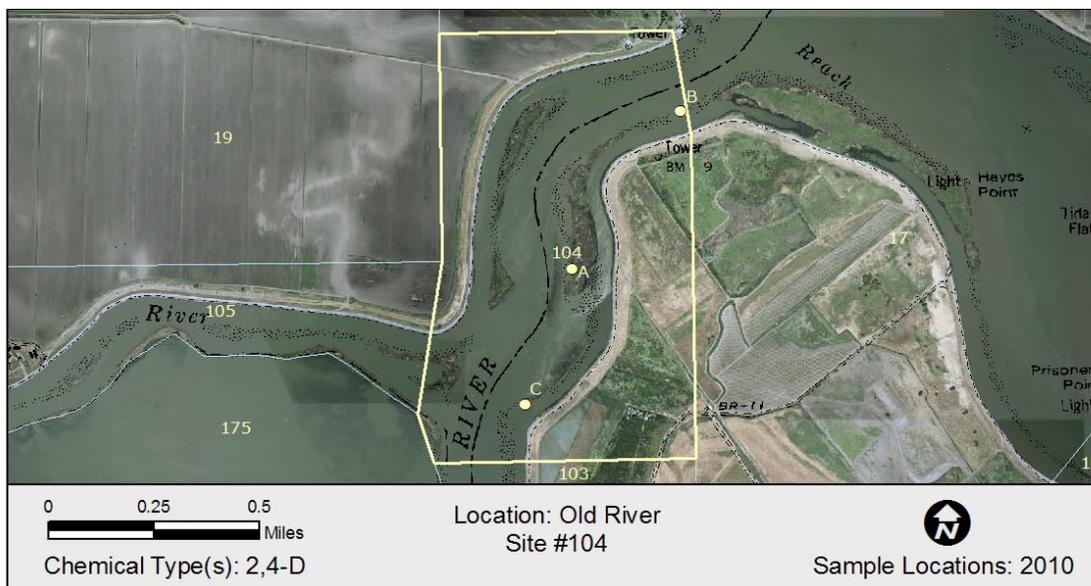


### Site 104: Sampling Reports

2,4-D Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	2,4-D (ppb)
1A	2010-0753	H104-082310-3	8/23/2010	8/24/2010	8/25/2010	9/13/2010	ND
1C	2010-0752	H104-082310-2	8/23/2010	8/24/2010	8/25/2010	9/13/2010	ND
2B	2010-0755	H104-082310-5	8/23/2010	8/24/2010	8/25/2010	9/13/2010	ND
3A	2010-0771	H104-082510-3	8/25/2010	8/26/2010	8/30/2010	9/21/2010	0.43
3B	2010-0773	H104-082510-5	8/25/2010	8/26/2010	8/30/2010	9/21/2010	0.24
3C	2010-0770	H104-082510-2	8/25/2010	8/26/2010	8/30/2010	9/21/2010	0.65

Agridex Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	Agridex (ppb)
1A	2010-0753	H104-082310-3	8/23/2010	8/24/2010	9/13/2010	9/22/2010	ND
1C	2010-0752	H104-082310-2	8/23/2010	8/24/2010	9/13/2010	9/22/2010	ND
2B	2010-0755	H104-082310-5	8/23/2010	8/24/2010	9/13/2010	9/22/2010	ND
3A	2010-0771	H104-082510-3	8/25/2010	8/26/2010	9/21/2010	11/18/2010	ND
3B	2010-0773	H104-082510-5	8/25/2010	8/26/2010	9/21/2010	11/18/2010	ND
3C	2010-0770	H104-082510-2	8/25/2010	8/26/2010	9/21/2010	11/18/2010	ND

Water Quality								
Sample Location	Sample ID	Date	UTM Easting	UTM Northing	Time	Water Temp (°C)	Conductivity (mS/cm)	Turbidity (NTU)
1A	H104-082310-3	08/23/10	624700.84	4214033.39	09:12:09	21.08	0.263	0
1C	H104-082310-2	08/23/10	624518.35	4213515.43	09:07:09	21.22	0.335	0
2B	H104-082310-5	08/23/10	625108.00	4214638.00	11:30	0.0	0	0
3A	H104-082510-3	08/25/10	624700.84	4214033.39	12:30	24.2	0	0
3B	H104-082510-5	08/25/10	625108.00	4214638.00	12:40	23.7	0	0
3C	H104-082510-2	08/25/10	624518.35	4213515.43	12:20	27.6	0	0

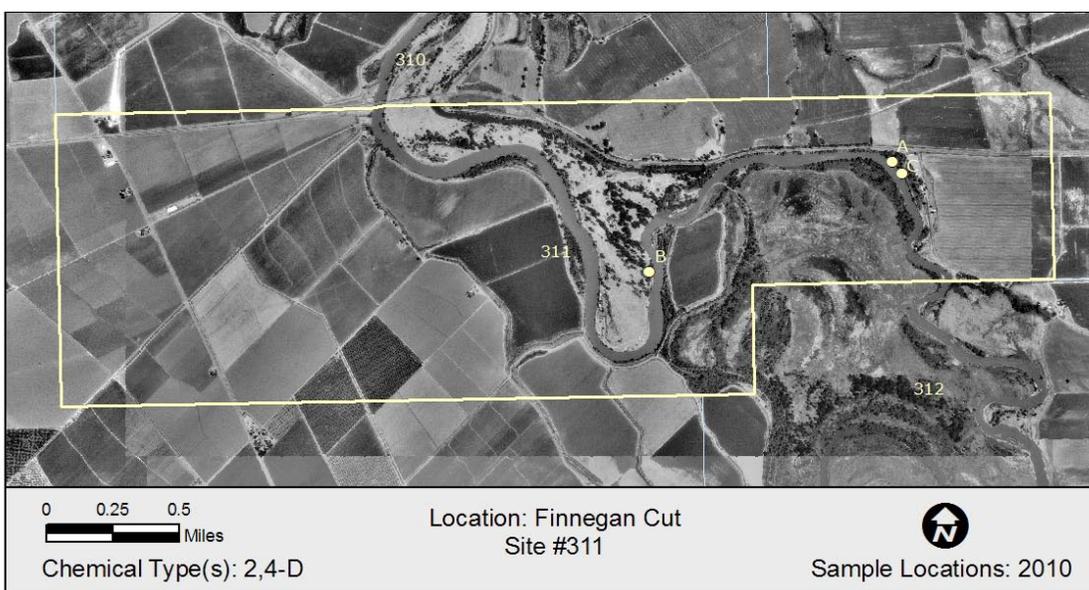


### Site 311: Sampling Reports

2,4-D Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	2,4-D (ppb)
1A	2010-0473	H311-072810-3	7/28/2010	7/30/2010	8/4/2010	8/10/2010	ND
1C	2010-0472	H311-072810-2	7/28/2010	7/30/2010	8/4/2010	8/10/2010	ND
2B	2010-0475	H311-072810-5	7/28/2010	7/30/2010	8/4/2010	8/10/2010	0.55
3A	2010-0501	H311-080210-3	8/2/2010	8/3/2010	8/5/2010	8/23/2010	ND
3B	2010-0503	H311-080210-5	8/2/2010	8/3/2010	8/5/2010	8/23/2010	ND
3C	2010-0500	H311-080210-2	8/2/2010	8/3/2010	8/5/2010	8/23/2010	ND

Agridex Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	Agridex (ppb)
1A	2010-0473	H311-072810-3	7/28/2010	7/30/2010	8/3/2010	8/30/2010	ND
1C	2010-0472	H311-072810-2	7/28/2010	7/30/2010	8/3/2010	8/30/2010	ND
2B	2010-0475	H311-072810-5	7/28/2010	7/30/2010	8/3/2010	8/30/2010	ND
3A	2010-0501	H311-080210-3	8/2/2010	8/3/2010	8/5/2010	9/2/2010	ND
3B	2010-0503	H311-080210-5	8/2/2010	8/3/2010	8/5/2010	9/2/2010	ND
3C	2010-0500	H311-080210-2	8/2/2010	8/3/2010	8/5/2010	9/2/2010	ND

Water Quality								
Sample Location	Sample ID	Date	UTM Easting	UTM Northing	Time	Water Temp (°C)	Conductivity (mS/cm)	Turbidity (NTU)
1A	H311-072810-3	07/28/10	659396.07	4167134.01	09:12:32	21.92	0.531	0
1C	H311-072810-2	07/28/10	659454.25	4167059.98	09:04:21	21.88	0.528	0
2B	H311-072810-5	07/28/10	657924.05	4166456.25	11:00:22	22.29	0.529	0
3A	H311-080210-3	08/02/10	659398.47	4167132.76	09:40:33	22.58	0.555	0
3B	H311-080210-5	08/02/10	657919.61	4166460.11	09:52:30	22.72	0.562	0
3C	H311-080210-2	08/02/10	659456.04	4167059.31	09:33:02	22.65	0.555	0

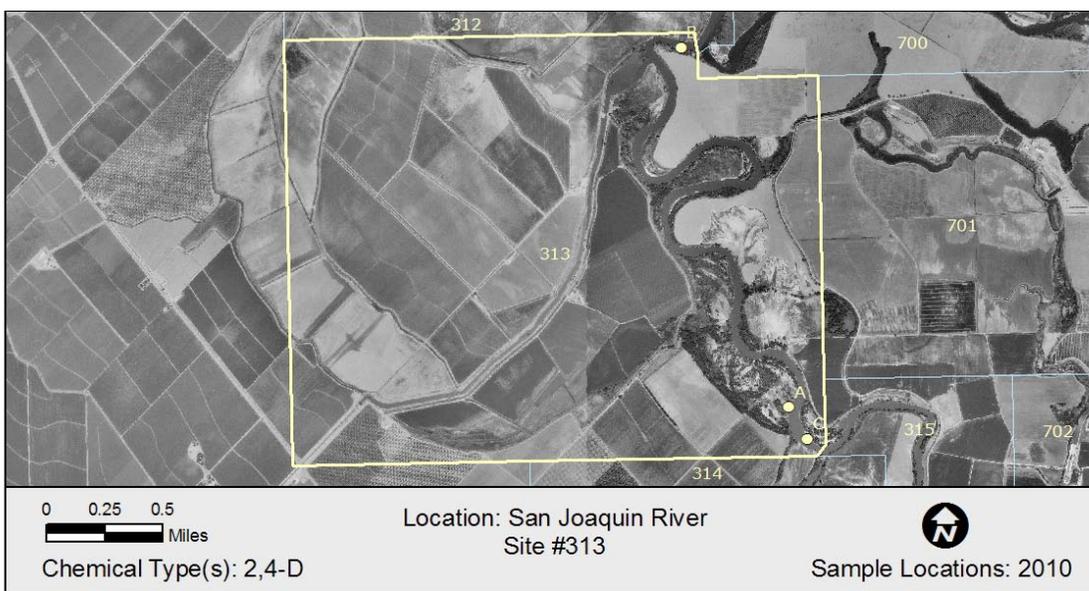


### Site 313: Sampling Reports

2,4-D Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	2,4-D (ppb)
1A	2010-0478	H313-072810-3	7/28/2010	7/30/2010	8/4/2010	8/10/2010	0.12
1C	2010-0477	H313-072810-2	7/28/2010	7/30/2010	8/4/2010	8/10/2010	0.11
2B	2010-0480	H313-072810-5	7/28/2010	7/30/2010	8/4/2010	8/10/2010	0.12
3A	2010-0506	H313-080210-3	8/2/2010	8/3/2010	8/5/2010	8/23/2010	1.33
3B	2010-0508	H313-080210-5	8/2/2010	8/3/2010	8/5/2010	8/23/2010	ND
3C	2010-0505	H313-080210-2	8/2/2010	8/3/2010	8/5/2010	8/23/2010	ND

Agridex Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	Agridex (ppb)
1A	2010-0478	H313-072810-3	7/28/2010	7/30/2010	8/3/2010	8/30/2010	ND
1C	2010-0477	H313-072810-2	7/28/2010	7/30/2010	8/3/2010	8/30/2010	ND
2B	2010-0480	H313-072810-5	7/28/2010	7/30/2010	8/3/2010	8/30/2010	ND
3A	2010-0506	H313-080210-3	8/2/2010	8/3/2010	8/5/2010	9/2/2010	ND
3B	2010-0508	H313-080210-5	8/2/2010	8/3/2010	8/5/2010	9/2/2010	ND
3C	2010-0505	H313-080210-2	8/2/2010	8/3/2010	8/5/2010	9/2/2010	ND

Water Quality								
Sample Location	Sample ID	Date	UTM Easting	UTM Northing	Time	Water Temp (°C)	Conductivity (mS/cm)	Turbidity (NTU)
1A	H313-072810-3	07/28/10	661771.95	4161166.87	09:55:21	23.11	1.022	0
1C	H313-072810-2	07/28/10	661903.59	4160949.25	09:47:58	23.23	1.020	0
2B	H313-072810-5	07/28/10	661027.40	4163661.09	11:30:44	24.13	1.047	0
3A	H313-080210-3	08/02/10	661773.48	4161168.84	10:34:08	23.24	1.002	0
3B	H313-080210-5	08/02/10	661045.81	4163651.49	10:50:12	23.80	0.962	0
3C	H313-080210-2	08/02/10	661909.29	4160940.95	10:23:50	23.39	0.997	0

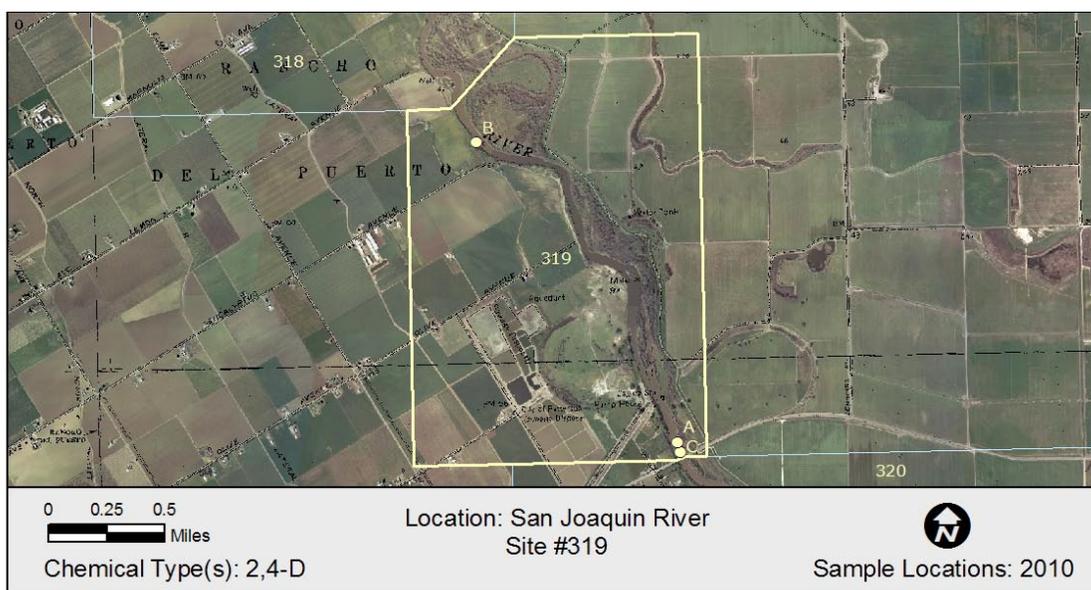


### Site 319: Sampling Reports

2,4-D Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	2,4-D (ppb)
1A	2010-0372	H319-072010-3	7/20/2010	7/21/2010	7/26/2010	8/2/2010	0.16
1C	2010-0371	H319-072010-2	7/20/2010	7/21/2010	7/26/2010	8/2/2010	0.13
2B	2010-0374	H319-072010-5	7/20/2010	7/21/2010	7/26/2010	8/2/2010	1.91
3A	2010-0391	H319-072210-3	7/22/2010	7/23/2010	7/30/2010	8/6/2010	0.3
3B	2010-0393	H319-072210-5	7/22/2010	7/23/2010	7/30/2010	8/6/2010	0.6
3C	2010-0390	H319-072210-2	7/22/2010	7/23/2010	7/30/2010	8/6/2010	0.2

Agridex Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	Agridex (ppb)
1A	2010-0372	H319-072010-3	7/20/2010	7/21/2010	7/27/2010	8/26/2010	ND
1C	2010-0371	H319-072010-2	7/20/2010	7/21/2010	7/27/2010	8/26/2010	ND
2B	2010-0374	H319-072010-5	7/20/2010	7/21/2010	7/27/2010	8/26/2010	ND
3A	2010-0391	H319-072210-3	7/22/2010	7/23/2010	7/28/2010	8/26/2010	ND
3B	2010-0393	H319-072210-5	7/22/2010	7/23/2010	7/28/2010	8/26/2010	ND
3C	2010-0390	H319-072210-2	7/22/2010	7/23/2010	7/28/2010	8/26/2010	ND

Water Quality								
Sample Location	Sample ID	Date	UTM Easting	UTM Northing	Time	Water Temp (°C)	Conductivity (mS/cm)	Turbidity (NTU)
1A	H319-072010-3	07/20/10	669646.47	4151497.78	09:38:59	25.16	1.184	0
1C	H319-072010-2	07/20/10	669668.61	4151427.71	09:34:14	25.10	1.188	0
2B	H319-072010-5	07/20/10	668257.47	4153572.03	11:26:49	25.74	1.185	0
3A	H319-072210-3	07/22/10	669646.80	4151497.75	10:04:09	24.05	1.040	0
3B	H319-072210-5	07/22/10	668257.47	4153572.03	10:25	24.1	1.08	0
3C	H319-072210-2	07/22/10	669669.53	4151428.39	09:58:57	24.03	1.038	0

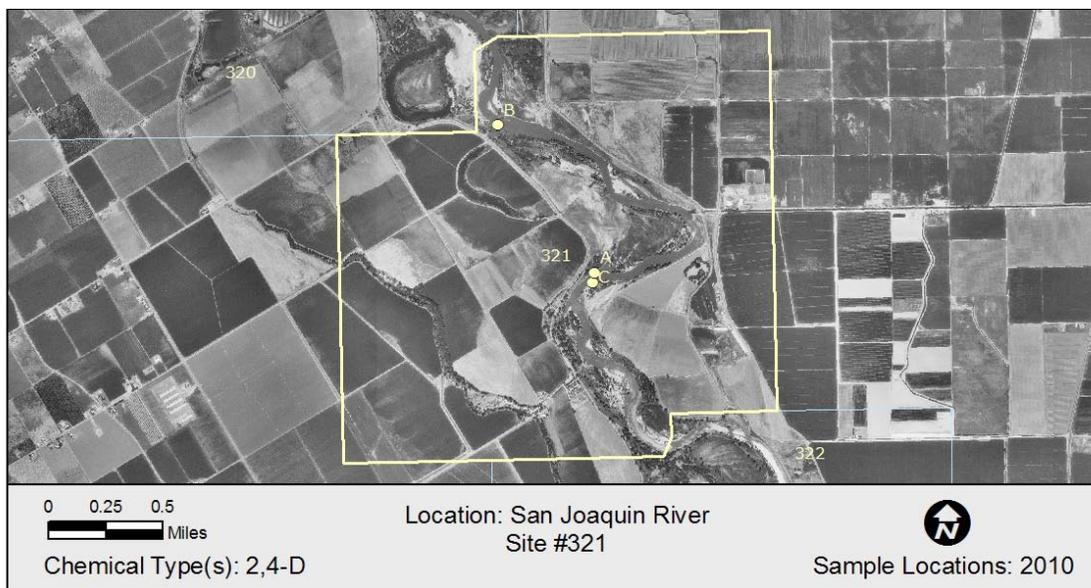


### Site 321: Sampling Results 7/20

2,4-D Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	2,4-D (ppb)
1A	2010-0377	H321-072010-3	7/20/2010	7/21/2010	7/26/2010	8/2/2010	0.12
1C	2010-0376	H321-072010-2	7/20/2010	7/21/2010	7/26/2010	8/2/2010	0.1
2B	2010-0379	H321-072010-5	7/20/2010	7/21/2010	7/26/2010	8/2/2010	8.26
3A	2010-0396	H321-072210-3	7/22/2010	7/23/2010	7/30/2010	8/6/2010	8.3
3B	2010-0398	H321-072210-5	7/22/2010	7/23/2010	7/30/2010	8/6/2010	1
3C	2010-0395	H321-072210-2	7/22/2010	7/23/2010	7/30/2010	8/6/2010	ND

Agridex Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	Agridex (ppb)
1A	2010-0377	H321-072010-3	7/20/2010	7/21/2010	7/27/2010	8/26/2010	ND
1C	2010-0376	H321-072010-2	7/20/2010	7/21/2010	7/27/2010	8/26/2010	ND
2B	2010-0379	H321-072010-5	7/20/2010	7/21/2010	7/27/2010	8/26/2010	ND
3A	2010-0396	H321-072210-3	7/22/2010	7/23/2010	7/28/2010	8/26/2010	ND
3B	2010-0398	H321-072210-5	7/22/2010	7/23/2010	7/28/2010	8/26/2010	ND
3C	2010-0395	H321-072210-2	7/22/2010	7/23/2010	7/28/2010	8/26/2010	ND

Water Quality								
Sample Location	Sample ID	Date	UTM Easting	UTM Northing	Time	Water Temp (°C)	Conductivity (mS/cm)	Turbidity (NTU)
1A	H321-072010-3	07/20/10	673241.78	4147753.35	10:07:59	25.65	1.235	0
1C	H321-072010-2	07/20/10	673224.65	4147694.05	10:01:42	25.55	1.238	0
2B	H321-072010-5	07/20/10	672563.11	4148809.81	11:50:44	26.40	1.228	0
3A	H321-072210-3	07/22/10	673240.86	4147768.76	09:26:32	24.38	1.089	0
3B	H321-072210-5	07/22/10	672559.49	4148811.84	09:40:58	24.40	1.082	0
3C	H321-072210-2	07/22/10	673227.99	4147699.67	09:21:39	24.23	1.077	0

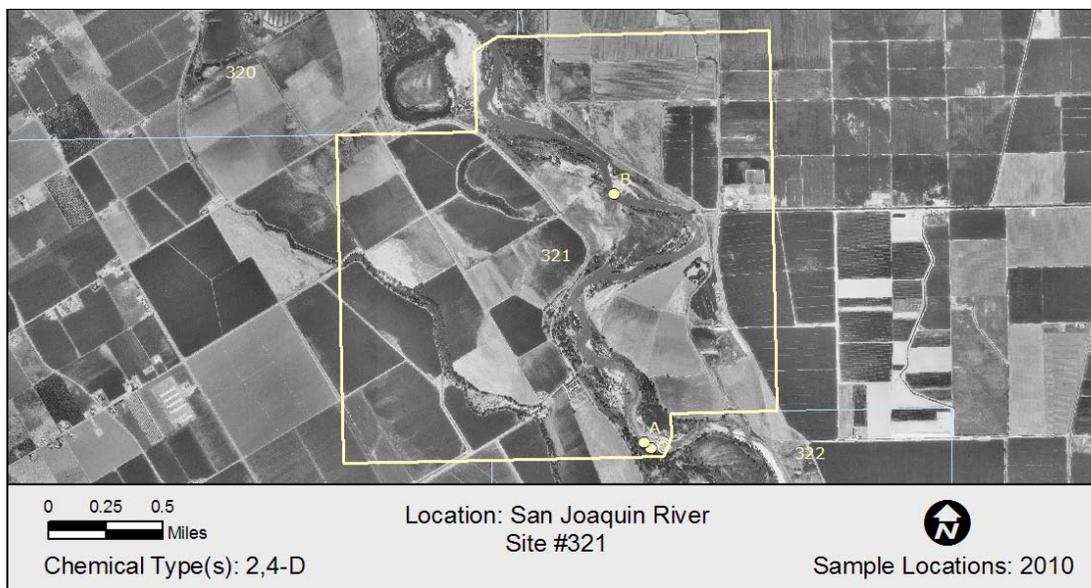


### Site 321: Sampling Results 7/26

2,4-D Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	2,4-D (ppb)
1A	2010-0426	H321-072610-3	7/26/2010	7/27/2010	8/3/2010	8/13/2010	0.11
1B	2010-0428	H321-072610-5	7/26/2010	7/27/2010	8/3/2010	8/13/2010	2.73
1C	2010-0425	H321-072610-2	7/26/2010	7/27/2010	8/3/2010	8/13/2010	ND
3A	2010-0483	H321-072910-3	7/29/2010	7/30/2010	8/4/2010	8/17/2010	0.12
3B	2010-0485	H321-072910-5	7/29/2010	7/30/2010	8/4/2010	8/17/2010	0.11
3C	2010-0482	H321-072910-2	7/29/2010	7/30/2010	8/4/2010	8/17/2010	ND

Agridex Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	Agridex (ppb)
1A	2010-0426	H321-072610-3	7/26/2010	7/27/2010	7/29/2010	8/30/2010	ND
1B	2010-0428	H321-072610-5	7/26/2010	7/27/2010	7/29/2010	8/30/2010	ND
1C	2010-0425	H321-072610-2	7/26/2010	7/27/2010	7/29/2010	8/30/2010	ND
3A	2010-0483	H321-072910-3	7/29/2010	7/30/2010	8/5/2010	9/2/2010	ND
3B	2010-0485	H321-072910-5	7/29/2010	7/30/2010	8/5/2010	9/2/2010	ND
3C	2010-0482	H321-072910-2	7/29/2010	7/30/2010	8/5/2010	9/2/2010	ND

Water Quality								
Sample Location	Sample ID	Date	UTM Easting	UTM Northing	Time	Water Temp (°C)	Conductivity (mS/cm)	Turbidity (NTU)
1A	H321-072610-3	07/26/10	673590.63	4146562.16	09:33:39	24.23	0.934	0
1B	H321-072610-5	07/26/10	673379.97	4148324.10	11:34:39	24.24	0.788	0
1C	H321-072610-2	07/26/10	673641.64	4146525.22	09:29:03	24.21	0.931	0
3A	H321-072910-3	07/29/10	673596.81	4146555.48	10:31:52	23.12	0.931	0
3B	H321-072910-5	07/29/10	673375.44	4148303.91	10:48:15	23.46	0.934	0
3C	H321-072910-2	07/29/10	673637.06	4146526.42	10:25:48	23.10	0.930	0



### Site 323: Sampling Results

2,4-D Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	2,4-D (ppb)
1A	2010-0431	H323-072610-3	7/26/2010	7/27/2010	8/3/2010	8/13/2010	ND
1C	2010-0430	H323-072610-2	7/26/2010	7/27/2010	8/3/2010	8/13/2010	ND
2B	2010-0433	H323-072610-5	7/26/2010	7/27/2010	8/3/2010	8/13/2010	0.13
3A	2010-0488	H323-072910-3	7/29/2010	7/30/2010	8/4/2010	8/17/2010	ND
3B	2010-0490	H323-072910-5	7/29/2010	7/30/2010	8/4/2010	8/17/2010	0.19
3C	2010-0487	H323-072910-2	7/29/2010	7/30/2010	8/4/2010	8/17/2010	ND

Agridex Residue							
Sample Location	Lab Sample ID	DBW ID	Date Sample Taken	Date Sample Received	Date Sample Extracted	Date Sample Analyzed	Agridex (ppb)
1A	2010-0431	H323-072610-3	7/26/2010	7/27/2010	7/29/2010	8/30/2010	ND
1C	2010-0430	H323-072610-2	7/26/2010	7/27/2010	7/29/2010	8/30/2010	ND
2B	2010-0433	H323-072610-5	7/26/2010	7/27/2010	7/29/2010	8/30/2010	ND
3A	2010-0488	H323-072910-3	7/29/2010	7/30/2010	8/5/2010	9/2/2010	ND
3B	2010-0490	H323-072910-5	7/29/2010	7/30/2010	8/5/2010	9/2/2010	ND
3C	2010-0487	H323-072910-2	7/29/2010	7/30/2010	8/5/2010	9/2/2010	ND

Water Quality								
Sample Location	Sample ID	Date	UTM Easting	UTM Northing	Time	Water Temp (°C)	Conductivity (mS/cm)	Turbidity (NTU)
1A	H323-072610-3	07/26/10	677124.06	4143125.53	10:00:47	23.76	0.831	0
1C	H323-072610-2	07/26/10	677112.38	4143100.14	09:54:24	23.73	0.836	0
2B	H323-072610-5	07/26/10	675742.85	4144337.86	12:01:33	24.72	0.848	0
3A	H323-072910-3	07/29/10	677120.11	4143121.00	09:29:05	22.60	0.976	0
3B	H323-072910-5	07/29/10	675736.93	4144320.61	10:10:24	22.73	0.958	0
3C	H323-072910-2	07/29/10	677114.43	4143101.51	09:23:18	22.58	0.976	0

