

March 9, 2006

Core Sampling Event

Sampling for core sites. No problems encountered. All sites sampled despite extensive flooding.



Flooded Wetlands

The Kesterson unit of SLNWR. Near DO-20 Los Banos Creek.

March 10, 2006

Station Maintenance

Met with Nigel Quinn (LBNL) to scout out locations of West Stanislaus Irrigation District diversion canal monitoring station and Patterson Irrigation District diversion canal monitoring station.



DO-41 West Stanislaus ID Diversion canal

Scouting location of West Stanislaus ID diversion monitoring station with Nigel Quinn to clean EC sensor and download data from the Campbell logger for Ron Roos of WSID.



DO-20 Los Banos Creek

Jeremy Hanlon met with Nigel Quinn, Lara Sparks (Grasslands Water District/Fish and Game), and William Stringfellow to review construction by Grasslands Water District on new bridge and to discuss plans for upgrading the Los Banos station equipment installation (see July 28, 2006, September 5, 2006, and October 31, 2006).

DO-40 Patterson ID Diversion Canal

Scouting for location of YSI EC probe for periodic cleaning for Nigel Quinn.



March 21, 2006

USFWS training

Presented a 4 hour instructional clinic for US Fish and Wildlife Staff of the SLNWR on methods for flow monitoring; continuous data collection and compiling; station maintenance; and QA procedures. Training session attendees included: Karl Stromayer, Dennis Wollington, Tom Denniston, Brandon Jordan, Louise Zeringue, Ken Griggs, and Mike Enos.



Field Monitoring Training Station in UOP Hydraulics Laboratory

The training station set up at the UOP Hydraulics laboratory was used to simulate a real field monitoring station and allowed trainees the opportunity for hands-on practice.

March 23, 2006

Core Sampling Event

Sampling for core sites. DO-33 Hospital Creek was dry and DO-57 Ramona Lake had no flow. Neither site was sampled. All other sites were sampled.



DO-16 Merced River at River Road
Parking location for sampling vehicle to grab samples from the Merced River. Photo was taken from the bridge where samples are bucket sampled.

March 30, 2006

Wetland Sampling Event

Sampling for wetland sites. Met with Karl Stromayer (USFW) to deliver data CD. Weir at DO-60 Moffit 1 South was plugged with debris upon arrival. There was standing water and no flow so a sonde measurement was taken but no grab sample. DO-61 Deadmans Slough had no flow out of weir, but Bear creek unit pump was running so samples were collected. No samples were taken at DO-80 Marsh 1 Inlet because the screw gate was closed resulting in no flow at the site.



Photo of Hawk over Wetlands

One of the scenes during wetland sampling trips.

April 6, 2006

Core Sampling Event

Sampling for core sites. Flood conditions existed at most sites. DO-20 Los Banos Creek was not sampled because the access road was flooded. However, DO-33 Hospital Creek was dry and not sampled.

DO-21 Orestimba Creek at River Rd.

Photo of flooded Orestimba Creek. At non-flood stage the flow is a small stream at the bottom of the gorge.



DO-08 San Joaquin River at Crows Landing

Our normal access site at the Turlock sportsmans club is from the floating dock at the end of the normally dry boat ramp. High flows in the SJR made access impossible so samples were taken from the bank just to the left of this photograph's view.

DO-07 San Joaquin River at Patterson

Student Intern collecting grab samples from the Patterson Irrigation District diversion platform on the SJR. Water level in the SJR was just a couple feet below the platform.



April 11, 2006

YSI Training in Sacramento

YSI sponsored a free sonde features and calibration seminar at a hotel in Sacramento.



YSI Training

Remie Burks and Jeremy Hanlon attended an all day training seminar. This was a good opportunity for Remie to learn calibration procedures and for Jeremy to learn some trouble shooting tips and maintenance techniques.

April 20, 2006

Core Sampling Event

Sampling for core sites. River at flood conditions. DO-25 Miller Lake and DO-33 Hospital Creek had no flow and were not sampled. DO-59 SJR at Laird Park was not sampled because Laird Park was closed. DO-30 TID Lat 6&7 was not sampled because there was no access key. DO-36 Del Puerto Creek and DO-08 SJR at Crow's Landing were not sampled because they were flooded.



DO-44 San Luis Drain End
Remie Burks and Student Intern collecting samples.



DO-19 Salt Slough at Lander Avenue
Student Intern and Remie collecting samples.



DO-08 SJR at Crows Landing
Turlock Sportsman Club under water after flooding. Grab samples are normally pulled from a site just beyond the big tree in the center of the picture.



DO-07 SJR at Patterson
Sampling site off a PID pump structure

April 26, 2006

Port of Stockton Aeration Site Visit

Site Visit for Demonstration of Dissolved Oxygen Aeration Facility U-Tube Drilling at the Port of Stockton, Warehouse 20. The Department of Water Resources and Jones & Stokes invited the DOTMDL Technical Work Group to participate in a tour of the aeration device site.



Port of Stockton

Photos of tour of Dissolved Oxygen Aeration Facility.

April 27, 2006

Wetland Sampling Event
Sampling for Wetland sites. There was no flow at both DO-60 Moffit 1 South and DO-63 Inlet C Canal, so no samples was taken. DO-81 Marsh 1 Outlet was dry and had no water to sample.



DO-60 Moffit 1 South
Student Interns clear debris from a weir in the wetlands.



DO-19 Salt Slough at Lander Avenue
Collecting water samples and recording sonde data.

May 4, 2006

Core Sampling event
Sampling for core sites. River still flooded. DO-08 SJR at Crow's Landing was not sampled since the site was still flooded.



DO-07 SJR at Patterson
Photo of SJR near Patterson during flood conditions.

May 8, 2006

Grasslands Station Maintenance and QA
Met with Lara Sparks (Grasslands Water District/Department of Fish and Game) to assist her with stream ratings and station maintenance at the DO sites she manages within the Grasslands water district.



Wetland ponds near DO-20 Los Banos Creek
Pictures are of drying temporary wetland ponds near DO-20.

May 9, 2006

Westside Maintenance and QA

Assisted in maintenance of Westside stations. Cleaned EC probe at DO-40 Patterson ID diversion canal at Elm Street. Downloaded data and cleaned EC probe at DO-41 West Stanislaus ID diversion canal. DO-57 Ramona Lake station was destroyed due to the high flood levels. Three drain site were backed up from the river, weirboards floated out, and access to road was blocked by telephone pole. Found that DO-38 Marshall Road Drain bubbler line had a leak, removed "T" valve which seemed to fix problem.



DO-57 Ramona Lake

Doing maintenance at the field station at Ramona Lake. The station at DO-57 was destroyed from high water levels in the SJR.



DO-41 West Stanislaus Irrigation District Diversion

Photo looking upstream of West Stanislaus Irrigation District Diversion monitoring station house.

May 11, 2006

Wetland Sampling Event
Sampling for wetland sites. DO-80 Marsh 1 Inlet had no flow and DO-81 Marsh 1 Outlet was dry, so samples were not taken.



DO-80 Marsh 1 Inlet
No flow at site, so no samples were taken.



DO-81 Marsh 1 Outlet
Photo of dry Marsh 1 Outlet



DO-82 Marsh 3 Inlet
Photo of Marsh 3 Inlet.

May 17, 2006

BMP Maintenance

Visited Perez Farms and Westside Patterson Farms to look at ideas for BMP project.



Drainage Ditch at Perez Farms

Cement weir structure at end of drainage ditch. Water is colored brown with tannins from the alfalfa field.



Westside Patterson Farms

Picture of Westside Patterson Farms and ditch next to the alfalfa fields.

May 18, 2006

Core Sampling Event

Sampling for core sites. Flood levels still high. DO-08 SJR at Crow's Landing was not sampled. DO-21 Orestimba Creek had stagnant water, so no samples were taken.



DO-7 SJR at Patterson

Photo of pipe structure near DO-07 SJR at Patterson.

May 31, 2006

BMP Maintenance

Will Stringfellow and Jeremy Hanlon met with Chris Linneman (Summers Engineering) at Westside Patterson Farms. Crew installed weir in un-vegetated ditch and created vegetated ditch for water to flow down. Survey work was done on the two ditches.



Head of Vegetated Ditch
Dirt pile from digging out canal. Notice the un-vegetated ditch next to the vegetated ditch.



Un-vegetated Ditch
Student Intern and Matt Rogers (LBNL) surveying ditch on Westside Patterson Farms.



Vegetated Ditch
Sonde in vegetated ditch. Water barely covered the sensors.



DO-101 WPF-UD-IN
Jeremy Hanlon working on weir structure for inflow into un-vegetated ditch.

June 01, 2006

Core Sampling Event

Sampling for core sites. DO-36 Del Puerto Creek and DO-23 MID Lat 5 to Tuolumne had no flow and were not sampled. DO-21 Orestimba Creek was backed up with water from the San Joaquin River, no sample was taken.



DO-07 SJR at Patterson
Saturated San Joaquin River near
Patterson

June 06, 2006

Westside Station Maintenance and QA

Accompanied Kyle Kearney (Tetra Tech) to provide assistance in maintenance of Westside stations. DO-38 Marshall Drain, DO-64 Moran Drain, DO-65 Spanish Grant Drain, DO-36 Del Puerto Creek, DO-35 Westley Wasteway, and DO-31 New Jerusalem Drain were visited for data downloads, cleaning, flow, EC and temperature QA.



DO-31 New Jerusalem Drain
Exit of New Jerusalem Drain into the San Joaquin River.



DO-31 New Jerusalem Drain
San Joaquin River at high water level near DO-31.



Three Drain Site
Road leading up to levee with the three drain sites: DO-38, DO-64, and DO-65.



DO-35 Westley Wasteway
Westley Wasteway pond before being re-installed (see July 07, 2006 and August 01, 2006).

June 07, 2006

BMP Sample Site Scouting

Met with Matt Rogers (LBNL) at Westside Patterson Farms to discuss potential BMP sampling locations.



Un-vegetated Ditch near DO-86
Will Stringfellow and Matt Rogers (LBNL) follow irrigation runoff from Westside Patterson Farms.



DO-88 Ramona Drain at Apricot
Trash and Duckweed floating on top of the water at DO-88.



DO-88 Ramona Drain at Apricot
Matt Rogers looking at debris near DO-88.



DO-57 Ramona Lake
Cattle blocking the road near DO-57.

June 08, 2006

Boat Sampling

Tried to take the boat out for sampling. Started to go out, but engine kept lagging. Went back to dock and tried to locate problem. Called boat manufacturer, suggested fuel filter problems or auxiliary fuel intake getting air into it. Took boat out of water. Replaced fuel filter and capped off extra auxiliary fuel line at a later date. No further problems were encountered.



Photo of Boat

The boat is used in boat sampling events and boat studies on the San Joaquin River.

June 15, 2006

Core Sampling Event

Sampling for core sites. DO-36 Del Puerto Creek was not sampled because it had no flow.



DO-29 Harding Drain

Drain was backed up and full of debris.
Crew sampled from clear area on the side.



DO-57 Ramona Lake

Student Intern and Justin Graham collecting
water samples from Ramona Lake pump
platform.

June 21, 2006

Boat Work

Cabinet was built and installed on back of boat to house gear and laptop for sampling trips.



Boat Work

Student Intern and Justin Graham worked on building and installing a cabinet for the boat. The cabinet houses boat equipment and a laptop for sampling (See July 27, 2006).

June 22, 2006

BMP Sampling Event

Sampling for BMP sites. DO-57 Ramona Lake and DO-91 Paradise at Prune had no flow and were not sampled. DO-90 Ramona at Almond was not accessible. DO-94 Paradise at Almond was blocked by a pipeline. Sample was taken south of actual sample site. DO-88 Ramona at Apricot was flowing in reverse to the south.



DO-91 Paradise at Prune
Site had no flow and was not sampled.



DO-92 Paradise at Apricot
Student intern and Justin Graham collecting samples from drain on side of road.



DO-94 Paradise at Almond

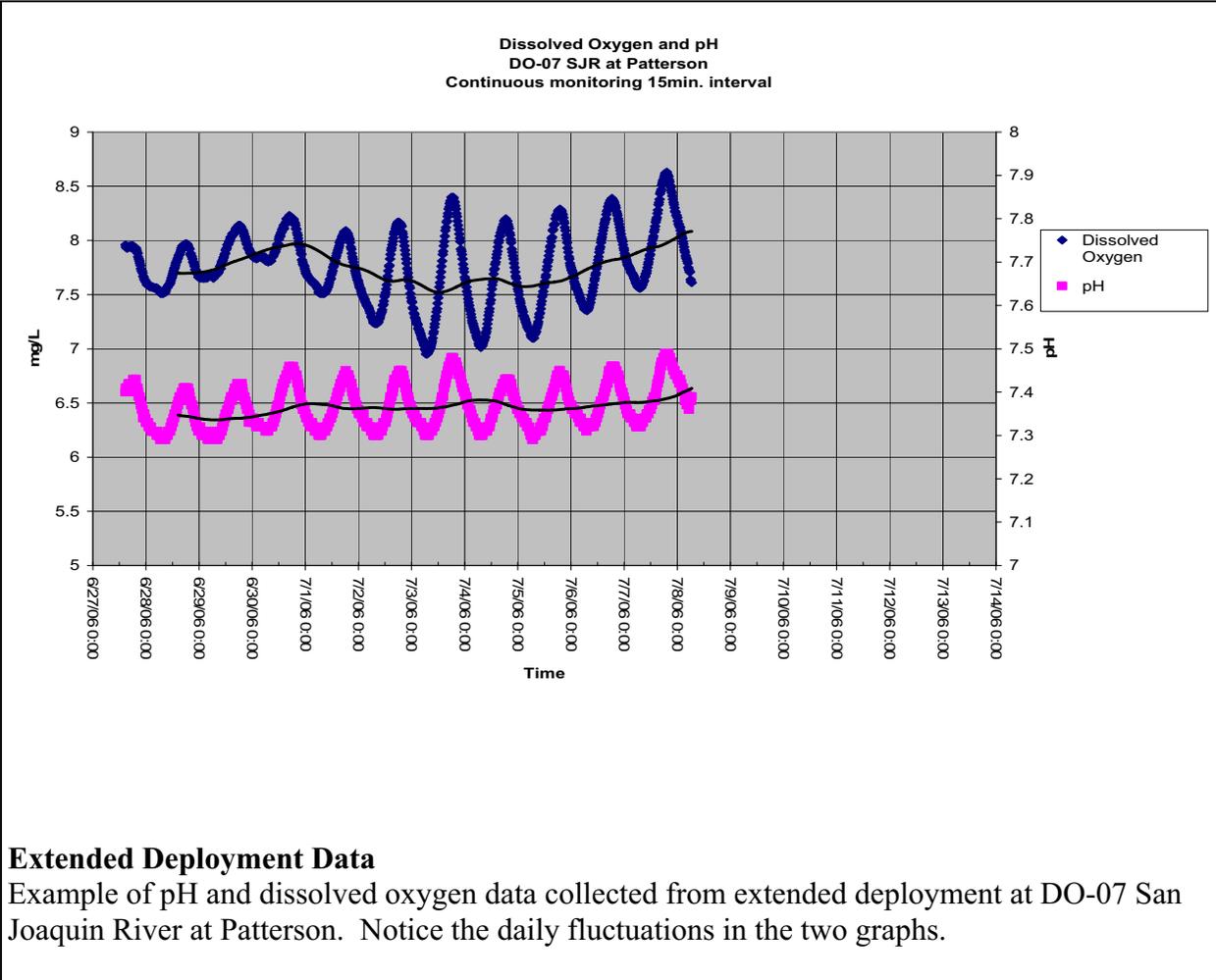
Pump was blocking access to actual sample site. Pump was taking water out of paradise drain and putting it onto adjacent fields. Velocity was flowing towards the pump intake.



June 27, 2006

Extended Deployment

Crew deployed sondes in field for extended deployment. Sondes were deployed at DO-44 San Luis Drain End, DO-19 Salt Slough at Lander, DO-08 SJR at Crows Landing, DO-07 SJR at Patterson, and DO-05 SJR at Vernalis.



Extended Deployment Data

Example of pH and dissolved oxygen data collected from extended deployment at DO-07 San Joaquin River at Patterson. Notice the daily fluctuations in the two graphs.

June 29, 2006

BMP sampling event

Sampling for BMP sites. No problems encountered.



Westside Patterson Farms

Photo of the landscape around Westside Patterson Farms.

July 06, 2006

Core Sampling Event

Sampling for core sites. No problems were encountered.



Photo of Sampling Vehicle

This is the EERP van that is used by one of the two field crews to collect grab samples.

July 11, 2006

Station Maintenance and QA

Stations in the San Luis National Wildlife Refuge were visited for cleaning, downloads, flow, and EC QA. DO-60 Moffit 1 South, DO-61 Deadmans Slough, DO-62 Mallard Slough, DO-63 Inlet C Canal, DO-53 Salt Slough at Wolfsen, DO-40 Patterson Irrigation District Diversion, and DO-41 West Stanislaus Irrigation District Diversion were visited. A flow rating was performed at DO-53. Mallard Slough's weir boards were clogged with mud and plants. Stopped by DO-35 Westley Wasteway to check on progress of station re-installation.



DO-35 Westley Wasteway

Checked on progress of Westley Wasteway. Irrigation District was installing a new weir board structure and reshaping canal. Installed new bubbler and EC line at a later date (see Aug 01, 2006).

July 13, 2006

Core Sampling Event and Extended Deployment

Sampling for core sites. Sampling Crew picked up and deployed extended deployment sondes at Sites DO-44 San Luis Drain End, DO-19 Salt Slough at Lander, DO-08 SJR at Crows Landing, DO-07 SJR at Patterson, and DO-05 SJR at Vernalis.



Post Deployment Sonde
Sonde covered in algae after extended deployment. Notice how the wipers kept the sensors free of algae.



DO-08 SJR at Crows Landing
Student Intern and Justin Graham Sampling from boat dock at Turlock Sportsman Club.



DO-19 Salt Slough at Lander
Custom fabricated PVC housing covered in algae.



DO-10 SJR at Lander
Custom float holds sonde off of river bottom to take water quality measurements. The green tint is due to suspended algae in river.

July 20, 2006

Intermittent Sampling Event

Sampling for Intermittent sites. Samples taken at DO-54 Los Banos Creek at Ingomar Grade, DO-45 Volta Wasteway at Ingomar Road, DO-46 Mud Slough at Gun Club Road, DO-67 Newman Wasteway at Brazo Road, DO-38 Marshall Road Drain, DO-65 Spanish Grant Drain, DO-64 Moran Drain, DO-35 Westley Wasteway, DO-32 El Soyo Grayson Drain, DO-27 TID Lat 2 to SJR, DO-66 Maze Blvd Drain, and DO-31 New Jerusalem Drain.



DO-54 Los Banos Creek at Ingomar
Student intern taking samples from bridge over Los Banos creek.



DO-46 Mud Slough at Gun Club
Sampling crew deploying sonde and taking water samples from bridge.



DO-64 Moran Drain
Student intern and Justin Graham taking samples from manhole.



DO-31 New Jerusalem Drain
Student intern and Justin Graham using bucket to sample down manhole over New Jerusalem Drain.

July 21, 2006

Westside Station Maintenance and QA

Accompanied Kyle Kearney (Tetra Tech) to provide assistance in maintenance of Westside stations. DO-38 Marshall Drain, DO-64 Moran Drain, DO-65 Spanish Grant Drain, DO-36 Del Puerto Creek, DO-34 Ingram Creek, DO-33 Hospital Creek, and DO-31 New Jerusalem Drain were visited for data downloads, cleaning, flow, EC, and temperature QA.



DO-34 Ingram Creek

While working on the monitoring station, this school of fish was spotted near the outflow of a drainage pipe.

July 25, 2006

Extended Deployment

Crew picked up sondes left in field for extended deployment. Deployed sondes were picked up at DO-44 San Luis Drain End, DO-08 SJR at Crows Landing, DO-07 SJR at Patterson, and DO-05 SJR at Vernalis.



Post Deployment

Sondes were covered in algae and small aquatic macro invertebrates after being left in the field for an extended deployment. Sondes were put into coolers to keep the sensors moist while transporting.

July 27, 2006

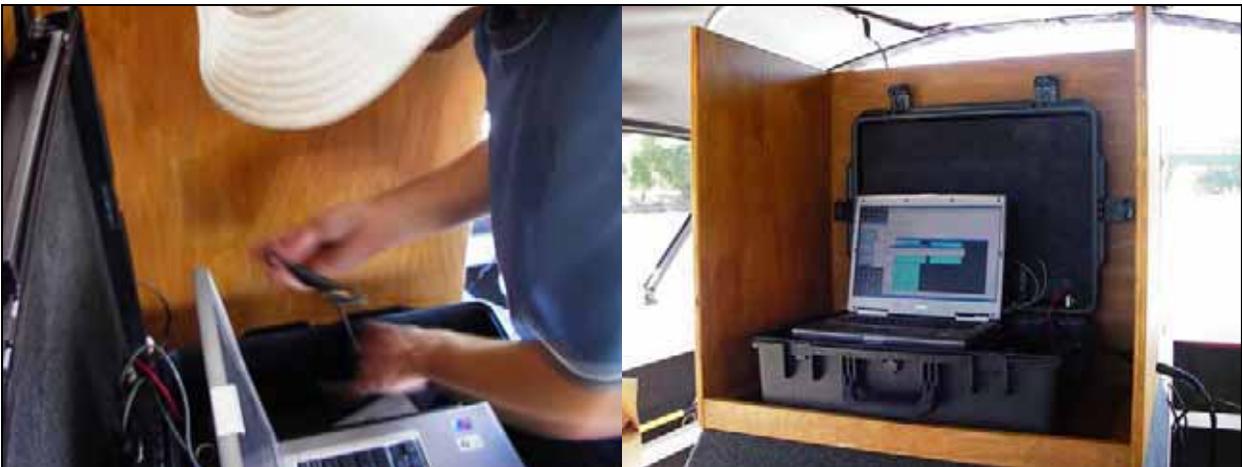
Core Sampling Event

Sampling for core sites. Delta sites were sampled by boat.



Boat Sampling

Jeremy Hanlon (left) driving the boat. Will Stringfellow (right) collecting water samples off bow of boat.



Boat Sampling Equipment

Jeremy Hanlon putting cables through cabinet box. Jeremy Hanlon created a linked Sontek, sonde, and GPS unit to provide his laptop with correlated sampling data while on the boat.

July 28, 2006

Grasslands Station Maintenance and QA

Met with Lara Sparks (Grasslands Water District/Department of Fish and Game) to assist her with stream ratings and station maintenance at the DO sites she manages within the Grasslands water district. DO-20 Los Banos Creek, Fremont Canal, DO-46 Mud Slough at Gun Club, DO-68 S-Lake Basin, Volta Wasteway, and DO-53 Salt Slough at Wolfsen were visited for maintenance and flow ratings.



DO-20 Los Banos Creek

Performed a flow rating at DO-20. Took pictures to get ideas for installation of bubbler, EC, and Sontek (See September 5, 2006 and October 31, 2006).

August 01, 2006

Station Upgrade

Visited DO-35 Westley Wasteway Flow station. Cut and installed five weir boards for a total of eight. Allowed pond to fill up and equilibrate. Took measurement for installation of bubbler line and EC probe (see September 5, 2006).



DO-35 Westley Wasteway

Pictures taken after weir boards installed. Bubbler and EC line have not yet been installed.

August 03, 2006

BMP sampling event

Sampling for BMP sites. DO-91 Paradise Drain at Prune Ave had no flow and was not sampled. A flow rating was done at DO-86 Ramona Drain at Apple Ave.



DO-86 Ramona Drain at Apple Ave.
Jeremy Hanlon performing a stream rating across Ramona Drain.



DO-101 WFP-UD-IN
Will Stringfellow looking at weir structure at start of un-vegetated ditch on Westside Patterson Farms.



DO-88 Ramona Drain at Apricot Ave.
Sonde deployed off of pipe. The site has large amounts of duck weed and other aquatic vegetation.



DO-101 WFP-UD-IN
The sonde is in the un-vegetated ditch with a custom made shield to protect it from the plants in the ditch.

August 04, 2006

San Luis Drain Extended Deployment Study

Crew deployed sondes in the San Luis Drain for extended deployment. No samples were taken. Sites deployed at were DO-103 Check 18, DO-106 Check 14, DO-108 Check 12, DO-110 Check 10, DO-112 Check 8, DO-114 Check 6, DO-116 Check 4, DO-118 Check 2, and DO-44 San Luis Drain End.



DO-115 Check 5

Photo of water flowing over weir structure during extended deployment. Note the green color due to algae in the water.

August 10, 2006

San Luis Drain Study

Sampling for San Luis Drain extended deployment sites. Samples were taken at sites where Sondes had been left for extended deployment. Sites sampled were DO-103 Check 18, DO-48 San Luis Drain Site A (Check 17), DO-104 Check 16, DO-105 Check 15, DO-106 Check 14, DO-107 Check 13, DO-108 Check 12, DO-109 Check 11, DO-110 Check 10, DO-111 Check 9, DO-112 Check 8, DO-113 Check 7, DO-114 Check 6, DO-115 Check 5, DO-116 Check 4, DO-117 Check 3, DO-118 Check 2, DO-119 Check 1, and DO-44 San Luis Drain End.



DO-106 Check 14

Student Intern and Justin Graham collecting water samples over drain.



DO-115 Check 5

Student Intern and Justin Graham deploying sonde and collecting water samples.

DO-103 Check 18

Sampling sonde next to extended deployment sonde in PVC housing.

August 17, 2006

Core Sampling Event

Sampling for core sites. DO-34 Ingram Creek wasn't well mixed at normal sample location. Grab samples were taken on other side of road where stream had a better chance to mix. Sonde was kept at normal sample location, downstream was too aerated to put sonde in.



DO-28 TID Westport Drain
Pictures of DO-28 and sampling from levee road.



August 18, 2006

San Luis Drain Extended Deployment Study

Crew retrieved sondes left in the San Luis Drain for extended deployment. Sondes were picked up from DO-103 Check 18, DO-106 Check 14, DO-108 Check 12, DO-110 Check 10, DO-112 Check 8, DO-114 Check 6, DO-116 Check 4, DO-118 Check 2, and DO-44 San Luis Drain End. No grab samples were taken.



DO-44 San Luis Drain End

Photo of platform at San Luis Drain End.

August 22, 2006

Westside Station Maintenance and QA

Accompanied Kyle Kearney (Tetra Tech) to provide assistance in maintenance of Westside stations. DO-38 Marshall Drain, DO-64 Moran Drain, DO-65 Spanish Grant Drain, DO-36 Del Puerto Creek, DO-35 Westley Wasteway, DO-34 Ingram Creek, DO-40 Patterson Irrigation District Diversion Canal, and DO-41 West Stanislaus Irrigation District Diversion canal were visited for data downloads, cleaning, EC and temperature QA. Flow QA was measured at Marshall Drain, Spanish Drain, Moran Drain, Del Puerto Creek, Westley Wasteway, and Ingram Creek.



Wildlife in the Road

An occasional scene during Westside Station Maintenance.

August 24, 2006

Core Sampling Event and meeting with Summers Engineering
Sampling for core sites. The sonde cable for the southern sampling crew would not stay connected. Crew was able to fix problem by briefly connecting to sonde and having it log every 10 seconds. Will Stringfellow and Jeremy Hanlon met with Chris Linneman (Summers Engineering) at Marshall Road Pond.



Marshall Road Pond
Will Stringfellow and Jeremy Hanlon met with Chris Linneman at Marshall Road Pond to plan scientific studies examining water quality impact of water reuse facilities.

August 31, 2006

Intermittent Sampling Event

Sampling for intermittent sites. Samples were taken from DO-44 San Luis Drain End, DO-09 SJR at Fremont Ford, DO-21 Orestimba Creek, DO-38 Marshal Road Drain, DO-29 Harding Drain, DO-07 SJR at Patterson, DO-14 Tuolumne River, DO-25 Miller Lake, DO-31 New Jerusalem Drain, and DO-04 SJR at Mossdale.



DO-21 Orestimba Creek

Samples were taken from under the bridge at DO-21.



DO-14 Tuolumne River

Justin Graham and Student Intern taking samples from under bridge at DO-14.



DO-25 Miller Lake

Justin Graham and Student Intern taking water samples near outlet from Miller Lake.



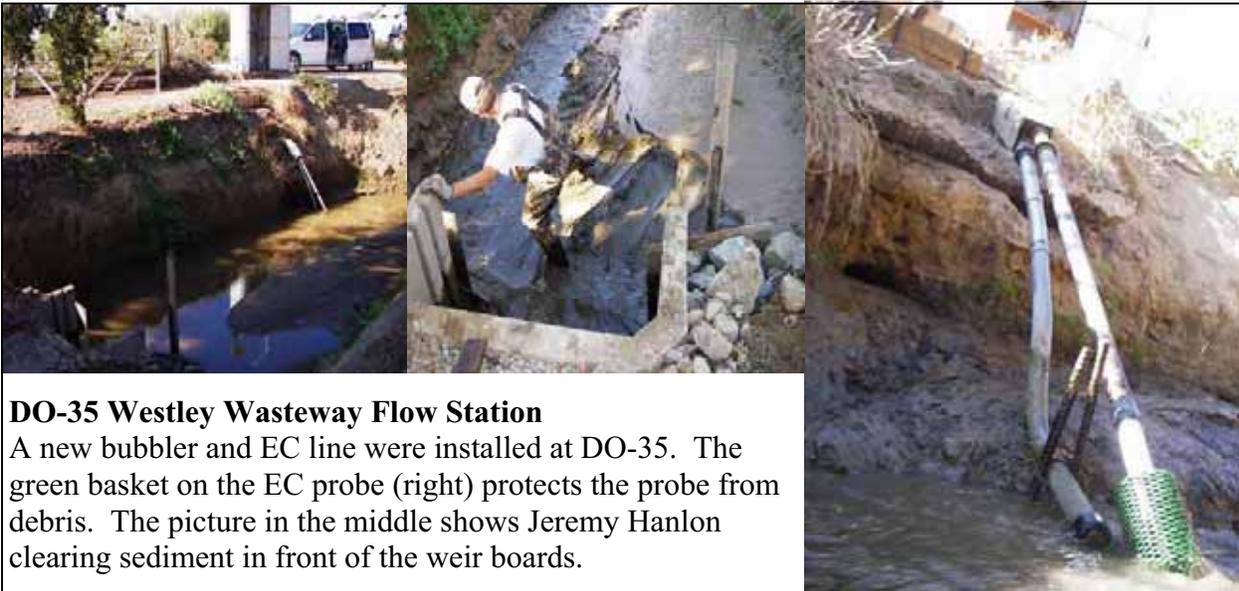
DO-29 Harding Drain

Sampling crew taking water samples. On the left Megan Young (USGS) was collecting samples for her isotope work.

September 05, 2006

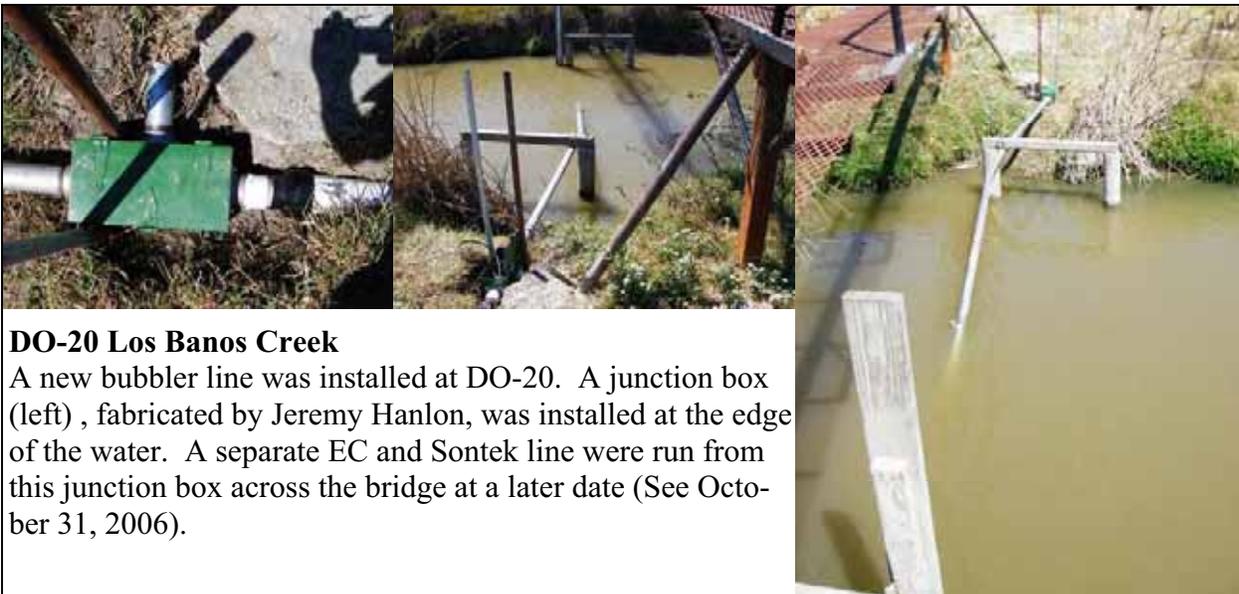
Station Upgrades

DO-35 Westley Wasteway Flow station and DO-20 Los Banos Creek were upgraded. A new bubbler and EC line were installed at DO-35. A junction box and bubbler liner were installed at DO-20. Two weir boards were added at DO-65 Spanish Grant Drain.



DO-35 Westley Wasteway Flow Station

A new bubbler and EC line were installed at DO-35. The green basket on the EC probe (right) protects the probe from debris. The picture in the middle shows Jeremy Hanlon clearing sediment in front of the weir boards.



DO-20 Los Banos Creek

A new bubbler line was installed at DO-20. A junction box (left), fabricated by Jeremy Hanlon, was installed at the edge of the water. A separate EC and Sontek line were run from this junction box across the bridge at a later date (See October 31, 2006).

September 07, 2006

Core Sampling Event

Sampling for core sites. Sonde for northern crew was having chlorophyll sensor wiper parking problems. Data was still usable. DO-25 Miller Lake was sampled at a new location upstream in the same channel on opposite bank 100 ft downstream of bridge because old sample location was no longer safe to access due to a slippery embankment.



DO-25 Miller Lake

Photo of the usual sampling site. Due to the slippery slope that makes it unsafe to sample, samples were taken a few hundred feet to the right of this photo where it was safe to sample.

September 12, 2006

Extended Deployment

Crew deployed sondes in field for extended deployment. Sondes were deployed at DO-20 Los Banos Creek, DO-44 San Luis Drain End, DO-19 Salt Slough at Lander, DO-08 San Joaquin River at Crows Landing, DO-07 San Joaquin River at Patterson, and DO-05 San Joaquin River at Vernalis.



Sonde Deployment

At DO-20 Los Banos Creek (left) sonde was deployed from bridge in a pvc housing using cable. At DO-07 SJR at Patterson (Right) sonde was deployed from pump housing platform.



DO-44 San Luis Drain End

Sonde was deployed along the side of the outflow pipe at DO-44. The sonde was secured using a cable and padlock.



DO-08 SJR at Crows Landing

Picture shows the dock structure at the Turlock Sportsman Club. The sonde was deployed on the far side of the dock.

September 14, 2006

Wetland Sampling Event and Station Maintenance.

Sampling for wetland sites. Downloaded data from stations. Extra samples were taken at three sites for experiments at LBNL. Did not take a sample at DO-60 Moffit 1 South because there was no water. No flow and no sample taken at DO-61 Deadmans Slough and DO-62 Mallard Slough. A flow rating was done at DO-53 Salt Slough at Wolfsen.



DO-81 Marsh 1 Outlet

Pictures of flooded marsh and outflow structure of Marsh 1 in San Luis National Wildlife Refuge.



DO-82 Marsh 3 Inlet

Justin Graham and Student Intern at DO-82 taking water samples and Sonde measurements.



DO-120 Marsh 1 Intermediary

Sampling crew and EERP van next to sample site DO-120.

September 19, 2006

Grasslands Station Maintenance and QA

Met with Lara Sparks (Grasslands Water District/Department of Fish and Game) to assist her with stream ratings and station maintenance at the DO sites she manages within the Grasslands water district. Performed stream ratings at DO-46 Mud Slough at Gun Club Road, DO-20 Los Banos Creek, and Fremont Slough.



Station in the Grasslands

One of the stations managed by Lara Sparks.

September 21, 2006

Core Sampling Event

Sampling for core sites. Sonde got stuck in weir at DO-29 Harding Drain. Crew was able to retrieve it after thirty minutes. Sonde values were not recorded for DO-29.

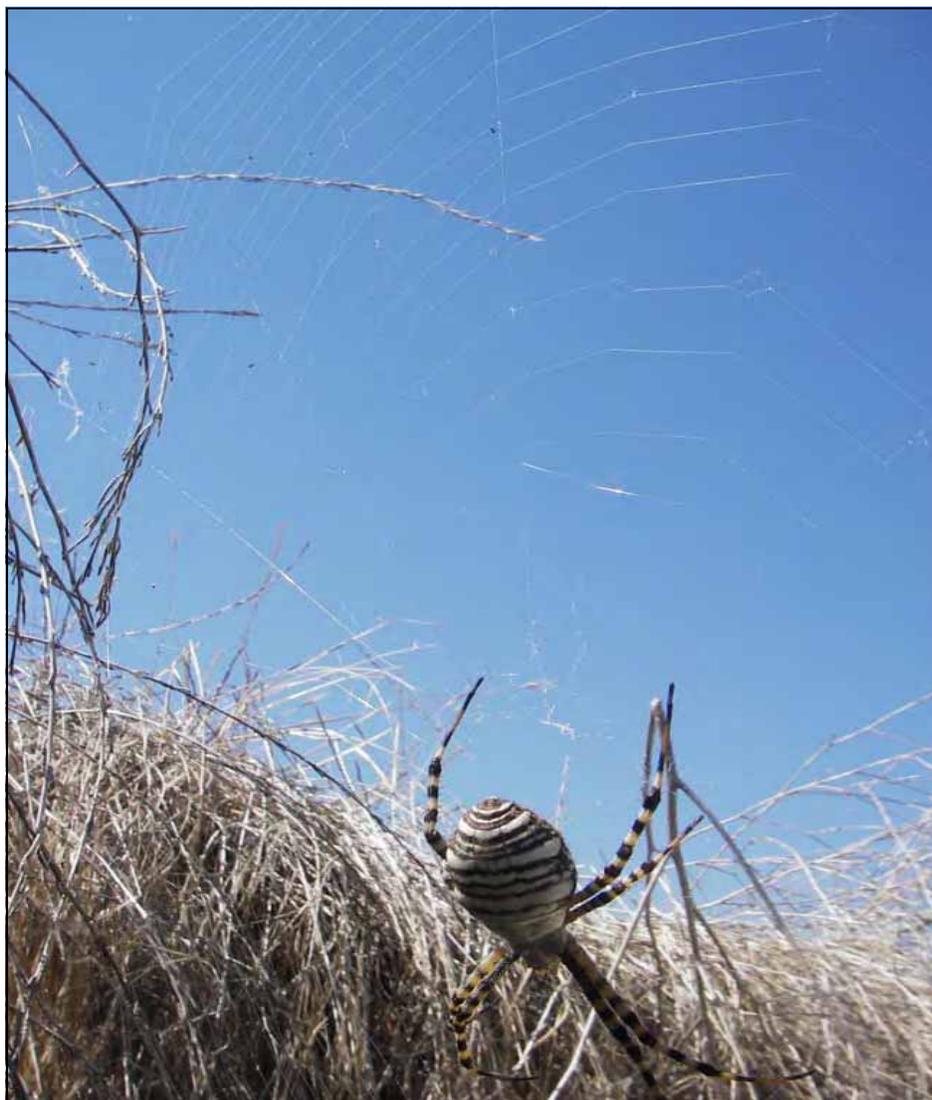


Photo of Spider
Spiders are commonly seen during summer and fall sampling events.

September 26, 2006

Extended Deployment

Crew retrieved sondes left in field for extended deployment. Sondes were retrieved from DO-20 Los Banos Creek, DO-44 San Luis Drain End, DO-19 Salt Slough at Lander, DO-08 San Joaquin River at Crows Landing, DO-07 San Joaquin River at Patterson, and DO-05 San Joaquin River at Vernalis. The Turbidity wiper was not working properly from sonde at DO-05.



DO-20 Los Banos Creek

Sonde was deployed from bridge in a pvc housing using cable. Sonde was halfway out of water, but sensors were still submerged



DO-19 Salt Slough at Lander

Sonde was deployed next to pipe running into the water. Cable was secured around the metal fence post.



DO-07 SJR at Patterson

Sonde was hung from bottom of pump platform. All cables were padlocked to the structure they were secured to.

September 28, 2006

Wetland Sampling Event

Sampling for wetland sites. Jeremy Hanlon and Will Stringfellow scouted new sampling locations for Marsh 1 temporary wetland.



DO-122 Marsh 1 West

(left) Picture of Will Stringfellow taking notes next to DO-122 Marsh 1 West. (right) Picture showing DO-122 Sampling location next to tree in levee road.

October 03, 2006

Westside Station Maintenance

Visited Westside station for routine maintenance. DO-38 Marshall Drain, DO-64 Moran Drain, DO-65 Spanish Grant Drain, DO-36 Del Puerto Creek, DO-35 Westley Wasteway, and DO-31 New Jerusalem Drain were visited for data downloads, cleaning, flow, EC and temperature QA.



YSI 600 XL EC Probe

Photo of YSI 600 XL and hand-held used to measure independent EC for QA.

October 05, 2006

Core Sampling Event

Sampling for core sites. DO-36 Del Puerto Creek was inaccessible due to muddy road conditions.

DO-59 SJR at Laird Park
Remie Burks preparing to collect sample from Laird Park.



DO-25 Miller Lake
Looking north over bridge at start of the drain out of Miller lake. Sample site is north west of picture.

October 12, 2006

Wetland Sampling Event

Sampling for Wetland sites. DO-60 Moffit 1 South and DO-62 Mallard Slough were not sampled because they both had no flow.



Sandhill Cranes

Picture of Sandhill Cranes near a temporary wetland.

October 19, 2006

Core Sampling Event and Boat Study

Sampling for core sites. Jeremy Hanlon and Will Stringfellow used boat to run an integrated GPS, sonde, and Sontek sampling program on the San Joaquin River near Patterson. Boat was put in at the boat ramp at DO-07 SJR at Patterson and taken a few miles upstream.



Boat Study

Picture from bow of boat on San Joaquin River.



DO-07 SJR at Patterson

Picture of Patterson pump platform from the Boat.



Boat Study

Picture looking upstream of the San Joaquin River near Patterson.



DO-07 SJR at Patterson

Will Stringfellow setting up Par light meter for deployment off of boat.

October 24, 2006

Boat Training

Jeremy Hanlon, Remie Burks, and Justin Graham took the EERP boat out on the SJR from the Port of Stockton to Mossdale. Outing was a hands on boat training session for Remie Burks and Justin Graham.



Boat Training

Photo of Remie Burks (left) and Justin Graham (right) driving the EERP boat on the San Joaquin River.

October 26, 2006

Wetland Sampling Event
Sampling for wetland sites. DO-60 Moffit 1 South was not sampled because it had no flow. Dissolved Oxygen values for DO-80 Marsh 1 Inlet were not valid because the DO membrane on YSI sonde # 1 became punctured and had to be changed.



DO-60 Moffit 1 South
Water was below weir and site was not sampled.



DO-80 Marsh 1 Inlet
Canal inlet for Marsh 1. DO membrane became punctured and had to be changed.



DO-121 Marsh 1 East
Student Intern sampling Marsh 1, a temporary wetland.



DO-82 Marsh 3 Inlet
Algae across the surface of the water at Marsh 3, a permanent wetland.

October 27, 2006

Westside Station Maintenance

Accompanied Kyle Kearney (Tetra Tech) to Westside stations and performed flow measurements. No water was flowing through DO-64 Moran Drain. Performed a stream rating at DO-36 Del Puerto Creek. Measured weir width at DO-35 Westley Wasteway Flow Station.



DO-31 New Jerusalem Drain
Station shed at DO-31. Data from monitoring equipment was stored on a data logger located in the station shed and downloaded during station maintenance.

October 31, 2006

Station Maintenance
Upgraded DO-20 Los Banos creek and DO-53 Salt Slough at Wolfsen. Installed Sontek mount to bridge at DO-20 and ran Sontek and EC line across bridge. Installed a solar panel at DO-53. Station was taken off of land power because it kept tripping the circuit breaker of a nearby house.



DO-20 Los Banos Creek
(Above) Nigel Quinn (LBNL) helping install Sontek mount to pylon. (Top right) Lara Sparks (Grasslands Water District/Department of Fish and Game) next to junction box for bubbler, EC, and Sontek lines. (Middle right) Jeremy Hanlon and Nigel Quinn installing Sontek mount.

DO-53 Salt Slough at Wolfsen
(Bottom right) New solar panel installed at Salt Slough at Wolfsen.



November 02, 2006

Wetland Sampling Event

Sampling for wetland sites. DO-60 Moffit 1 South had no flow but was still sampled.



DO-46 Mud Slough at Gun Club Road

Photo of aquatic vegetation near DO-46 Mud Slough at Gun Club Road.

November 09, 2006

Core Sampling Event

Sampling for core sites. Sample crew was locked out of pump platform at DO-07 SJR at Patterson. Sample taken from boat launch dock.



DO-07 SJR at Patterson

Photo taken from pump platform. Crew was locked out of pump platform and had to sample from boat launch dock seen on left side of photo.

November 16, 2006

Wetland Sampling Event

Sampling for wetland sites. All sites were accessible and no problems were encountered.



DO-20 Los Banos Creek

Student Intern Sampling near recently completed bridge.



DO-46 Mud Slough at Gun Club

Student Intern Sampling from bridge over Mud Slough.

November 17, 2006

Station Maintenance

Visited DO-31 New Jerusalem Drain for maintenance. Tried downloading data from MACE unit but got error. Downloaded config file. Restarted unit and downloaded data again. Cleared stored memory and ran bubble line test for three minutes.



DO-31 New Jerusalem Drain

Photo shows general setup of equipment in station shed. The MACE unit is on the right. Flow data is downloaded from the unit with a laptop connected via com port.

December 07, 2006

Core Sampling Event

Sampling for core sites. DO-25 Miller Lake the spill way was blocked with just a trickle through the boards. Sample was taken.



DO-19 Salt Slough at Lander Ave

Photo of sample location at DO-19. Samples are taken next to bridge.

December 8, 2006

Westside Station Maintenance and QA

Accompanied Kyle Kearney (Tetra Tech) to provide assistance in maintenance of Westside stations. DO-38 Marshall Drain, DO-64 Moran Drain, DO-65 Spanish Grant Drain, DO-36 Del Puerto Creek, DO-35 Westley Wasteway, and DO-31 New Jerusalem Drain were visited for data downloads, cleaning, flow, EC and temperature QA. The logger at DO-31 New Jerusalem Drain stopped recording data and was showing error 145 and 149. The logger was restarted and was able to record data without any further problems. Logger was replaced at a later date (see December 18, 2006).



Station Maintenance

YSI EC probe being cleaned at the three drain site.

December 14, 2006

Wetland Sampling Event

Sampling for wetland sites. DO-122 Marsh 1 West was just mud with no water, no sample was taken. Ground water was being pumped in east of sample site DO-82 Marsh 3 Inlet. The pond was stratified and sampling was depth integrated.



DO-122 Marsh 1 West

Sample location was not sampled because there was just mud and no water.



DO-61 Deadmans Slough

Weir boards were blocked by debris, making an accurate flow rating impossible.



DO-08 SJR at Crows Landing

Student intern taking water samples from dock.



DO-53 Salt Slough at Wolfesen Road

Downstream across bridge. Both a sample and a flow rating were taken at DO-53.

December 18, 2006

DO-31 New Jerusalem Drain Station Maintenance

Jeremy Hanlon switched out the logger at DO-31 New Jerusalem Drain with the logger from the Hydraulics lab training station. The logger at DO-31 randomly shut off and stopped logging data. It was taken to the Hydraulics lab training station to be tested.



H-350XL Design Analysis Logger

Photo of data logger used in the Westside stations.

December 21, 2006

Grasslands Station Maintenance and QA

Met with Lara Sparks (Grasslands Water District/Department of Fish and Game) to assist her with stream ratings and station maintenance at the DO sites she manages within the Grasslands water district.



Stream Ratings

(Left) Jeremy Hanlon performing a stream rating at Volta Wasteway Flow Station. Water was too deep to complete rating safely. (Right) Jeremy Hanlon at DO-20 Los Banos Creek performing another stream rating. Note completed bridge with handrails along both sides and hinged ramps.

In addition to the above sites, Hollow Tree, Fremont Canal, DO-46 Mud Slough at Gun Club, and DO-68 S-Lake Basin were visited for maintenance and flow ratings. DO-33 Hospital Creek was also visited to verify the weir board width.

January 11, 2007

Core Sampling Event

Sampling for core sites. DO-25 Miller Lake had no flow and was not sampled. There wasn't any flow at DO-57 Ramona Lake but a sample was still collected. The outlet structure for Ramona Lake was blocked with mud.



DO-57 Ramona Lake
Mud blocking outlet structure at Ramona Lake. Flow was blocked, but sample was still collected.



DO-57 Ramona Lake
Looking down into manhole. Sample was collected on lake side of levee because of mud blocking outlet from the lake.

January 18, 2007

Wetland Sampling Event

Sampling for wetland sites. DO-61 Deadman's Slough was clogged with debris. Flow rating was taken at the outlet pipes. The gate at Turlock Sportsman's Club was locked blocking access to DO-08 SJR at Crows Landing. The site was sampled under the bridge just upstream of normal sample location.



DO-120 Marsh 1 Intermediary
Student Interns collecting water samples from temporary wetland.



DO-61 Deadman's Slough
Weir boards were blocked by debris from beaver activity.



DO-20 Los Banos Creek
Remie Burks recording water quality data from YSI sonde.

January 19, 2007

Westside Station Maintenance

Accompanied Kyle Kearney (Tetra Tech) to Westside stations and performed flow measurements. DO-38 Marshall Drain, DO-64 Moran Drain, DO-65 Spanish Grant Drain, DO-36 Del Puerto Creek, DO-35 Westley Wasteway, and DO-31 New Jerusalem Drain were visited for data downloads, cleaning, flow, EC, and temperature QA.



Orchard on way to Three Drain site
The trees had ice on their branches from the irrigation sprinklers.



DO-65 Spanish Grant Drain
Kyle Kearney (Tetra Tech) cleaning EC probe at DO-65 Spanish Grant Drain.



DO-35 Westley Wasteway Flow Station
Weir structure at Westley Wasteway.



DO-31 New Jerusalem Drain
Jeremy Hanlon downloading data from the logger inside flow station shed.

February 01, 2007

Core Sampling Event

Sampling for core sites. No sample was collected at DO-25 Miller Lake because there wasn't any flow.



DO-44 SLD End

Chelsea Spier collecting samples from the end of the drain.



DO-21 Orestimba Creek

Looking downhill from side of bridge at sample site.



DO-08 SJR at Crows Landing

Sonde is deployed off of dock at Turlock Sportsman's Club.



DO-57 Ramona Lake

Outlet structure for Ramona Lake on the lake side of the levee.