

**MONITORING AND REPORTING PROGRAM  
ORDER NO. R3-2009-0031**

**FOR RANCH 1-08-073 SCR TIMBER HARVEST  
July 10, 2009**

**This Monitoring and Reporting Program Order No. R3-2009-0031 (MRP) is issued pursuant to Water Code sections 13267 and 13269. Failure to comply with this MRP may subject the Discharger to monetary civil liability in accordance with Water Code section 13268 and 13350. Monitoring shall begin at the onset of timber harvest operations and must comply with this MRP and any subsequent revisions. Monitoring shall continue until this MRP is revised or rescinded.**

**SITE SPECIFIC MONITORING LOCATIONS**

This MRP takes into account specific site conditions and mitigations to establish monitoring locations (see attached map, Attachment 3 Ranch Water Quality Monitoring Map) that will provide functional monitoring information. The Discharger<sup>1</sup> is required to perform monitoring at these locations as described below in Section I – Implementation and Effectiveness Monitoring and Monitoring Frequency; Section II – Data Logging and Reporting; and Section III – Standard Provisions.

**VISUAL MONITORING POINTS:** The Discharger is required to conduct visual monitoring at the points listed below.

**Visual monitoring points shall include the full length of roads, watercourse crossings, landings, skid trails, water diversions, watercourse confluences, known landslides, and all mitigation sites in the Timber Harvest Plan (THP) area (as documented the CDF approved THP).**

**PHOTO-MONITORING POINTS:** The Discharger is required to monitor Photo-monitoring points listed below (guidelines in Exhibit 1). Photo-monitoring points:

**Photo-point #1 (P1) – Class II road watercourse crossing R25. This is an existing permanent crossing of a Class II watercourse on the seasonal road using a 24-inch culvert.**

**Photo-point #2 (P2) – Class II road watercourse crossing R29. This is an existing permanent crossing of a Class II watercourse on the seasonal road using a 24-inch culvert.**

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<sup>1</sup> “Discharger”, “you”, or “your” means the landowner and anyone working on behalf of the landowner in the conduct of timber harvest activities.

**Photo-point #3 (P3) – Class II road watercourse crossing R33. This is an existing permanent crossing of a Class II watercourse on the seasonal road using a 36-inch by 30-foot culvert.**

**WATER COLUMN MONITORING POINTS:** The Discharger is required to measure instream temperature and turbidity conditions at the following water column monitoring points:

**Turbidity monitoring locations:**

**Turbidity monitoring point #1 (T1) – Class II road watercourse crossing R25. This is an existing permanent crossing of a Class II watercourse on the seasonal road using a 24-inch culvert.**

**Turbidity monitoring point #2 (T2) – Class II road watercourse crossing R29. This is an existing permanent crossing of a Class II watercourse on the seasonal road using a 24-inch culvert.**

**Temperature monitoring locations:**

**Temperature monitoring point #1 (T1) – Upstream in the Class I Two Bar Creek at the northern plan boundary.**

**Temperature monitoring point #2 (T2) – Downstream in the Class I Two Bar Creek at the southern plan boundary.**

**CDF FOREST PRACTICE RULES COMPLIANCE MONITORING:** The Discharger is responsible for and is required to ensure timber harvest activities are conducted in accordance with the approved Timber Harvest Plan (THP) and with all applicable sections of the Forest Practice Rules. This includes allowing site access for compliance inspections by California Department for Forestry and Fire Protection and Central Coast Regional Water Quality Control Board pursuant to 40 CFR Article 8, Section 4604.

**ROAD INVENTORY PROGRAM:** The Discharger is required to develop and implement a Roads Management Program (example attached in Exhibit 1, Big Creek Road Inventory Program) within the THP area. The road management program must be approved by the Water Board's Executive Officer prior to implementation.

**FORENSIC MONITORING:** The Discharger is required to conduct forensic monitoring as described in Section I below.

## SECTION I – IMPLEMENTATION AND EFFECTIVENESS MONITORING AND MONITORING FREQUENCY

### VISUAL MONITORING

**VISUAL MONITORING POINTS:** Visual monitoring points must include the full length of roads, watercourse crossings, landings, skid trails, water diversions, watercourse confluences, known landslides, and all mitigation sites (as documented in the CDF approved THP) in the plan area. Visual monitoring points must be at locations within the timber harvest plan area where timber harvest activities have the greatest risk of potential discharge (sites may be established by the Water Board's Executive Officer during or after the pre-harvest inspection).

**VISUAL MONITORING FREQUENCY:** The Discharger is required to monitor all visual monitoring points established by the Water Board's Executive Officer during or after the pre-harvest inspection for existing or potential sources of erosion. The Discharger is required to perform visual monitoring within 12 to 24 hours of storm events of two inches of rain or greater within a 24-hour period.

**"Year One"** – You are required to monitor a minimum of three times over each 12 months during **"Year One"** monitoring. **"Year One"** monitoring begins with the onset of timber harvest operations. **"Year One"** monitoring then continues during the entire length of time active timber harvest operations occur plus one year past the end of active timber harvest operations.

Monitoring Event One:

The Discharger is required to perform the first monitoring event within 12 to 24 hours of the first storm event that yields two inches of rain or greater within a 24-hour period.

Monitoring Events Two and Three:

The Discharger is required to perform the next two monitoring events within 12 to 24 hours of the next two storm events (one monitoring event each storm) that yield two inches of rain or greater within a 24-hour period and soil saturation after the start of the winter period on October 15.

**Years 2-5** – In years two through five, following completion of timber harvest operations and a determination by the Water Board's Executive Officer that implemented management practices are functioning to protect water quality and beneficial uses (as documented by information contained in the annual report and post-harvest inspection conducted by Water Board staff), visual monitoring shall be implemented according to the Road Management Program developed by

the Discharger and approved by the Water Board's Executive Officer (example attached in Exhibit 1, Big Creek Road Inventory Program).

It is your responsibility to schedule a post-harvest inspection with Water Board staff. You may call to schedule an inspection no sooner than 10 months after the timber harvest plan is complete.

Important Note: You may not begin Year Two monitoring until you are directed to do so in writing by the Water Board's Executive Officer.

If implemented management practices are not adequately protecting water quality and beneficial uses, as determined by the Water Board's Executive Officer, the Discharger is required to repeat "Year One" monitoring. In addition to supplementary monitoring, the Water Board's Executive Officer will determine additional management measure implementation required.

#### **Summary of Visual Monitoring Frequency:**

**"Year One":** minimum of three events  
**Year Two – Five:** consistent with the Road Management Program developed by the Discharger and approved by the Water Board's Executive Officer.

#### **PHOTO-MONITORING**

**PHOTO-MONITORING POINTS:** Photo-monitoring points shall be at locations within the timber harvest plan area where timber harvest activities have the greatest risk of potential discharge (sites may be established by the Water Board's Executive Officer during or after the pre-harvest inspection). Photo-monitoring points must include **sites** up and down stream of each newly constructed or reconstructed Class I and Class II watercourse crossings and landings within a Class I or II Watercourse or Lake Protection Zone (WLPZ). Monitoring photos need to be of sufficient quality to record the effectiveness of the implemented management practice.

The Discharger must:

- i. Utilize the attached document titled "Standard Operation Procedure 5.2.3 - Photo Documentation Procedure" (including any subsequent revisions to SOP 5.2.3) as the protocol for all photo-monitoring (attached in Exhibit 1).
- ii. Utilize flagging, rebar, or another method of establishing the photo-monitoring point site locations.
- iii. Utilize all photo-monitoring point locations until this Monitoring and Reporting Program is revised or rescinded.

**PHOTO-MONITORING FREQUENCY:** The Discharger is required to monitor all photo-monitoring points established by the Water Board's Executive Officer during or after the pre-harvest inspection.

**"Year One"** - You are required to photo-monitor according to the following four conditions during "Year One" monitoring.

- Prior to the onset of timber harvest operations as baseline monitoring. (One Photo Set)
- Following the first significant storm event (First Storm) (One Photo Set).
- Following completion of timber harvest activities (One Photo Set).
- Following a significant storm event during the month of April (April Storm) (One Photo Set). A significant storm event means any storm with two inches of rain or greater within a 24-hour period and soil saturation (i.e., soil saturation typically occurs after a minimum of four inches of precipitation after the start of the winter period on October 15).

Additionally, the Discharger shall photograph new or reconstructed Class I and Class II water crossings:

- Before construction begins, after construction is completed, and after the crossing structure is removed (if crossing is temporary).

You are required to conduct photo-monitoring within seven days of all of the following:

1. The first storm.
2. Completion of timber harvest activities.
3. April storm events. If no significant storm event occurs in the month of April, the Discharger must complete photo-monitoring by April 30 of the same year.

**Years 2 and 5** - In years two and five, following completion of timber harvest operations and a determination by the Water Board's Executive Officer that implemented management practices are functioning to protect water quality and beneficial uses (as documented by information contained in the annual report and a post-harvest inspection conducted by Water Board staff), the Discharger must conduct the April storm photo-monitoring.

It is your responsibility to schedule a post-harvest inspection with Water Board staff. You may call to schedule an inspection no sooner than 10 months after the timber harvest plan is complete.

Important Note: You may not begin Year Two monitoring until you are directed to do so in writing by the Water Board's Executive Officer.

If implemented management practices are not adequately protecting water quality and beneficial uses, as determined by the Water Board's Executive Officer, the Discharger must repeat "Year One" monitoring. In addition to supplementary monitoring, the Water Board's Executive Officer will determine additional management measure implementation required.

#### **Summary of Photo-monitoring Frequency:**

**"Year One":** 2 photo sets (minimum)  
**Year Two:** 1 photo set  
**Year Five:** 1 photo set

#### **TEMPERATURE MONITORING**

**TEMPERATURE MONITORING POINTS:** The Discharger is required to monitor temperature continuously as prescribed in the document Central Coast Regional Water Quality Control Board, Timber Harvest Program, Standard Operating Procedures for Continuous Temperature Monitoring (April 2006) (attached in Exhibit 1) during the months of May 1 through October 15. Monitoring sites will be established by the Water Board's Executive Officer during or after the pre-harvest inspection. Continuous water temperature monitoring is required.

If no Class I watercourse exists on the parcel where timber harvest activities occur, and there is water in the Class II during the months of May 1 through October 15, the Discharger is required to conduct temperature monitoring in the Class II watercourse.

**TEMPERATURE MONITORING FREQUENCY:** The Discharger is required to monitor all temperature monitoring points.

**"Year One"** - The Discharger is required to program data loggers to record point measurements every hour during the months of May 1 through October 15 at all established temperature monitoring points.

**Years Two and Five** - In years two and five, following completion of timber harvest operations and a determination by the Water Board's Executive Officer (as documented by information contained in the annual report and a post-harvest inspection conducted by Water Board staff) that implemented management practices are functioning to protect water quality and beneficial uses, the Discharger is required to program data loggers to record point measurements every hour during the months of May 1 through October 15 at all established temperature monitoring points.

It is your responsibility to schedule a post-harvest inspection with Water Board staff. You may call to schedule an inspection no sooner than 10 months after the timber harvest plan is complete.

Important Note: You may not begin Year Two monitoring until you are directed to do so in writing by the Water Board's Executive Officer.

If implemented management practices are not adequately protecting water quality and beneficial uses, as determined by the Water Board's Executive Officer, the Discharger shall **repeat "Year One" monitoring**. In addition to supplementary monitoring, the Water Board's Executive Officer will specify any additional required management measures.

#### **Summary of Temperature Data Sets:**

**"Year One":** 1 data set  
**Year Two:** 1 data set  
**Year Five:** 1 data set

#### **TURBIDITY MONITORING**

**TURBIDITY MONITORING POINTS:** The Discharger is required to monitor turbidity as prescribed for storm event-based turbidity monitoring and forensic monitoring consistent with the requirements in the document Central Coast Regional Water Quality Control Board, Timber Harvest Program, Standard Operating Procedures for Instream Turbidity Monitoring October 2006 (attached in Exhibit 1). The Discharger is required to monitor all newly constructed or reconstructed Class I and II crossings within the timber harvest plan area in place after October 15 for turbidity (a hand held turbidimeter is acceptable for this purpose). The Discharger is required to measure turbidity approximately 25 feet upstream and downstream of all newly constructed or reconstructed Class I and II road crossings or combination of sites if there is close site proximity (sites may be established by the Water Board's Executive Officer during or after the pre-harvest inspection). The Water Board's Executive Officer may require turbidity monitoring if no newly constructed or reconstructed crossings exist within a proposed timber harvest plan and the plan has activity within a Class I or II WLPZ.

**TURBIDITY MONITORING FREQUENCY:** The Discharger is required to monitor turbidity within 12 hours of a storm event which yields two inches or more of rain within a 24-hour period. If a qualifying storm terminates or two inches is reached between the hours of 3:00 pm (1500 hour) and 9:00 pm (2100 hour) you are required to conduct turbidity monitoring within 18 hours.

**"Year One"** You are required to monitor a minimum of three times over each 12 months during "Year One" monitoring.

Monitoring Event One:

The Discharger is required to perform the first monitoring event within 12 hours of the first storm event that yields two inches of rain or greater within a 24 hour period.

Monitoring Events Two and Three:

The Discharger is required to perform the next two monitoring events within 12 hours of the next two storm events (one monitoring event each storm) that include two inches of rain or greater within a 24 hour period and soil saturation after the start of the winter period on October 15.

**Years 2-5** - In years two through five, following completion of timber harvest operations and a determination by the Water Board's Executive Officer (as documented by information contained in the annual report and a post-harvest inspection conducted by Water Board staff) that implemented management practices are functioning to protect water quality and beneficial uses, the Discharger is required to conduct turbidity monitoring based on need as determined by forensic monitoring.

It is your responsibility to schedule a post-harvest inspection with Water Board staff. You may call to schedule an inspection no sooner than 10 months after the timber harvest plan is complete.

Important Note: You may not begin Year Two monitoring until you are directed to do so in writing by the Water Board's Executive Officer.

If implemented management practices are not adequately protecting water quality and beneficial uses, as determined by the Water Board's Executive Officer, the Discharger will be required to **repeat "Year One" monitoring**. In addition to supplementary monitoring, the Water Board's Executive Officer will specify additional required management measures.

**Summary of Turbidity Data Sets:**

**"Year One":** 1 data set (minimum of three events)  
**Year Two – Five:** as needed based on forensic monitoring.

**FORENSIC MONITORING**

1. If at any time during implementation or effectiveness monitoring, the Discharger observes failed management measures and/or evidence of discharge, the Discharger is required to conduct forensic monitoring to identify the source. Management measure failure is defined as: 1)

whenever an implemented management measure creates a condition of pollution, contamination, or condition of nuisance, as defined by CWC Section 13050, or 2) when lack of implementation of a necessary management measure creates a condition of pollution, contamination, or condition of nuisance, as defined by CWC Section 13050.

2. If management measures fail (this includes failure to implement appropriate management measures as determined by CDF and documented by CDF as a violation of the Forest Practice Rules) the Discharger is required to photo<sup>2</sup> document them and is required to implement management practices immediately to prevent discharge and impacts to water quality.
3. If timber activities cause a discharge (sediment, soil, other organic material, etc.) into waters of the State, the Discharger is required to measure in-stream turbidity (using grab samples) at the point of discharge into waters of the state. If there is a discharge into a Class III watercourse and water is no longer flowing, the Discharger is required to measure in-stream turbidity in the closest Class I or Class II watercourse downstream of the discharge.
4. If at any time during implementation or effectiveness monitoring, the Discharger observes a discharge (sediment, soil, other organic material, herbicides, pesticides, fluids from timber equipment (oil, hydraulic fluid, etc), etc.), the Discharger is required to notify the Water Board within 24 hours.
5. The Discharger is required to submit to the Water Board a written report, including photo documentation, water quality data, and the management measures or corrective actions and a description of their effectiveness within 10 working days. Upon review of the report, the Water Board's Executive Officer will determine completeness of the report and the need for additional actions necessary for the protection of water quality and beneficial uses.

**FORENSIC MONITORING AREAS OF CONCERN:** The following areas must be addressed during forensic monitoring if water diversion, feral pig activity, or trespass activity are causing or threatening to cause impacts to water quality.

**Water Diversion:** The Discharger is required to monitor the water diversion point(s) for total daily water usage when water is being diverted. The Discharger is required to monitor the creek to ensure no more than 10% of the creek flow is diverted.

**Feral Pig Activity:** During any inspection, the Discharger is required to document all evidence of feral pig activity near watercourses that may be contributing discharges to waters of the state. The Discharger must address the

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<sup>2</sup> Monitoring photos need to be of sufficient quality to record the effectiveness of the implemented management practice.

feral pig activity according to forensic monitoring requirements described in 1 – 5 above.

**Trespass Activity:** During any inspection, the Discharger is required to document all evidence of trespass activity near watercourses that may be contributing discharges to waters of the state. The Discharger must address the trespass activity according to forensic monitoring requirements described in 1 – 5 above.

**FORENSIC MONITORING FREQUENCY:** The frequency of Forensic Monitoring is coincident with implementation and effectiveness monitoring, or at any time a failed management measure and/or discharge is reported or observed.

## **SECTION II - DATA LOGGING AND REPORTING**

**LOGBOOKS:** The Discharger is required to maintain logbooks for recording all visual and water analysis data. Logbooks are required to include documentation of maintenance and repair of management practices. These logbooks must be available for inspection to the Water Board staff.

**HEALTH AND SAFETY:** The Discharger is responsible for ensuring that all monitoring is done in a safe manner. If any monitoring point is too dangerous to sample, then the Discharger is required to report this circumstance to the Water Board within 48 hours.

**ROAD MANAGEMENT PROGRAM:** The Discharger is required to develop and implement a Roads Management Program (example attached in Exhibit 1, Big Creek Road Inventory Program) within the THP area. Prior to implementation, the road management program must be approved by the Water Board's Executive Officer. After each storm event that triggers an inspection, the Discharger is required to perform a field inspection and prepare a field form as described in the protocol for the road management program. The Discharger is required to enter the data into a logbook (same as described in item a. above) and database or spreadsheet which tracks observations, work completed, and dates of last review. If the need for repair is immediate, the Discharger is required to promptly develop an appropriate treatment so that the Discharger can complete corrective action as soon as practical.

**SEDIMENT RELEASE REPORTING:** The Discharger is required to report to the Water Board within 48 hours whenever at least one cubic yard of soil is released to a waterway due to anthropogenic causes or at least five cubic yards of soil is released to a waterway due to natural causes, or when turbidity is noticeably greater downstream compared to upstream (of a crossing or the Plan area). The Discharger is required to submit a written report to the Water Board within 10 days of detection. The Discharger is required to investigate source areas of sediment. If sources are found, the Discharger will locate and document the

source and size of the release. If sources related to timber harvest activities are found, the Discharger is required to immediately correct the source if possible, or schedule corrective action at an appropriate time given the site conditions.

**VIOLATION REPORTING:** The Discharger is required to report any violation of the Forest Practice Rules, to the Water Board within 48 hours. The Discharger is required to provide the report in writing to the Water Board within 10 working days of the violation. The written report must include photo documentation and water quality data (if discharge enters waters of the state) before and after remedial action. Upon review of the report, the Water Board's Executive Officer will determine completeness of the report and the need for additional actions necessary for the protection of water quality and beneficial uses. The Discharger is required to complete any additional monitoring the Water Board's Executive Officer determines is necessary.

**ANNUAL REPORTING:** By November 15 of each year, the Discharger is required to submit an Annual Report to the Water Board using the template that can be downloaded from:

[http://www.waterboards.ca.gov/centralcoast/Facilities/Timber Harvest/index.htm](http://www.waterboards.ca.gov/centralcoast/Facilities/Timber%20Harvest/index.htm)

Under "Monitoring and Reporting" click on "Annual Report Template." In addition to the reporting requirements already set forth in the MRP, the annual report must address each of the following<sup>3</sup>:

Annual Reports must include all of the following:

### **General**

- ❖ The name and address of the person submitting the report as well as the day, month, and year in which the report is being submitted at the top of the first page.
- ❖ The subject line of the annual report must state the THP number, three-letter county code, and plan name as it appears in the approved THP.
- ❖ Time period during which the data was collected.
- ❖ List Tier level and summarize the monitoring requirements.
- ❖ A status of active timber harvest operations including:
  - Day, month, and year the harvest opened and closed for the season.
  - Previous year activities (types of activities, locations, percent harvested, area of harvest, and extent of overall plan completion)
  - Planned activities including estimated month and year harvests activities must resume.

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<sup>3</sup> Portions of these requirements and sections of the template may not apply to your specific MRP (e.g. If your MRP does not require temperature monitoring, the temperature monitoring requirements should be ignored).

- Estimated month and year harvesting will be completed.
- Wet weather problems observed
- Any other critical information
- ❖ A summary of all violations. If there were no violations, please state it as such.
- ❖ Detailed documentation of rainfall measurement procedures and locations or a reference to the page number in the THP where this is described. Describe the type of rain gauge(s) used. If applicable include the link to the Web site where data for the rain gauge may be viewed.
- ❖ With the first annual report, a copy of the road management program.
  - A summary of the road management program<sup>4</sup> and actions implemented for the protection of water quality and beneficial uses.
- ❖ Recommendations for improving the monitoring and reporting program.

### **Water Quality Monitoring**

- ❖ A summary of the water quality monitoring performed during the previous year. Any monitoring described in the summary must also include an electronic submittal of the data.
- ❖ A detailed map with the following specifications:
  - In color (if possible).
  - Title stating: "Water Quality Monitoring Locations for THP No. XXXX"
  - All monitoring locations and routes clearly marked with unique site identification tags.
  - A Key or Legend identifying all monitoring locations and routes.
  - North Arrow.
  - Scale

### **Visual Monitoring**

- ❖ *A summary of all visual monitoring activities performed during the previous year.*
  - Summary must include dates and times visual monitoring occurred and any corrective actions taken during inspections.
  - Attach inspection forms or copies of logbook pages detailing inspections.

### **Photo-monitoring**

- ❖ Submittal of all data and photos in electronic format.

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<sup>4</sup> Big Creek's Road Inventory Program may be used as a model.

**Turbidity Monitoring**

- ❖ All data submitted electronic format compatible with Excel.
- ❖ Make and model of turbidimeter being used.
  - Copy of the manufacture's protocol / recommendation for proper use of the turbidimeter.
- ❖ A summary of all turbidity monitoring activities performed during the previous year.
- ❖ Completed Field Data Sheet with data from all monitoring events. (if more than four events, there is no need to complete top section on additional pages)

**Continuous Temperature Monitoring**

- ❖ All data submitted electronically in Excel format.
- ❖ Make and model of the data loggers being used at each monitoring location.
  - Copy of the manufacture's protocol / recommendation for proper use of the loggers.
- ❖ Calibration check form for each data logger.
- ❖ Description of any modifications or adjustments made based on the calibration checks and field observations.

**SECTION III - STANDARD PROVISIONS**

1. The Water Board shall be allowed:
  - a. Entry upon premises where timber harvest activities occur;
  - b. Access to copy any records that must be kept under the conditions of these requirements;
  - c. To inspect any timber harvest activity, equipment (including monitoring and control equipment), practices, or operations regulated or required under these requirements; and,
  - d. To photograph, sample, and monitor for the purpose of showing timber harvest requirements compliance.
2. The Discharger is required to maintain records of all monitoring information and results. Records must be maintained for a minimum of three years after the MRP is rescinded. This period may be extended during the course of any unresolved litigation or when requested by the Water Board.
3. Any person signing a report must make the following certification:

"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 the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, 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."

The Water Board's Executive Officer may modify or rescind this Monitoring and Reporting Program at any time. Any such modification or rescission must comply with California Water Code section 13269 or 13267.

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Roger W. Briggs, Executive Officer

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Date

Exhibits:

**Exhibit 1**

Big Creek Road Inventory Program

Standard Operating Procedure 5.2.3 Photo Documentation Procedure

Standard Operating Procedures Continuous Temperature Monitoring

Standard Operating Procedures Instream Turbidity Monitoring