

**DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY**

FY2011 END OF YEAR REPORT

I. ENVIRONMENT

DWQ

Protect, maintain and enhance the quality of Utah's surface water and ground water to allow appropriate beneficial uses, and protect public health while giving reasonable consideration to economic impacts.

UPDES ENGINEERING/PERMITS

Maintain an acceptable UPDES Program per agreement with EPA. The Utah Department of Environmental Quality (DEQ) shall fully implement and enforce its delegated UPDES program (including, as appropriate, general permitting, pretreatment, biosolids, CAFO, and storm water programs) as required by 40 CFR Parts 122-124, 403, 501 and 503, its delegation MOA July 7, 1987, SEA, Inspection Plan, and any other agreements with EPA regarding program implementation. The PPA may specify goals and objectives for activities beyond the base level of performance, but, in no way, should this be interpreted as relief from full implementation of the base program.

DEQ certifies that it has, maintains, and implements an adequate UPDES program including pretreatment, biosolids, CAFO, and storm water in conformance with federal and state laws and regulations and conditions set forth in program authorization (delegation) documents. As long as the DEQ maintains an adequate program, the EPA and the DEQ agree that this Agreement shall remain in effect, except as amended through mutual agreement.

Grant dollars awarded by the EPA may be used by the DWQ UPDES Program to perform core program activities to adequately maintain its UPDES program, even when these activities are not specifically defined by goals, measures, and/or reporting requirements.

Continue to fully implement the ongoing UPDES pretreatment, biosolids, CAFO, and stormwater management programs as per the following "CORE PROGRAM ACTIVITIES", "COMPLIANCE AND ENFORCEMENT ACTIVITIES" and "PERMIT ACTIVITIES".

UPDES Core Program Activities

1. DWQ will report the number and percent of facilities that have a discharge requiring an individual permit that:
 - (a) are covered by a current UPDES permit (FY 2011 EOY Report Edith)(**WQ-12**)

STATUS: *129 Individual permits, Biosolids permits are not included if they are combined with their POTW permit.*

- (b) have expired individual permits (FY 2011 EOY Report, Edith)

STATUS: *There are currently 24 expired permits, including one inactive permit that we chose not to terminate. Four Biosolids permits are expired due to the corresponding POTW discharge permits currently being expired.*

- (c) have applied for, but have not yet been issued an individual permit (FY 2011 EOY Report, Edith)

STATUS: *We have 9 facilities that have applied for an individual permit, but not yet received their permit as of 9/30/2011.*

- (d) have individual permits under administrative or judicial appeal (FY 2011 EOY Report, Jeff Studenka or John Kennington)

STATUS: *There are currently 5 permits under administrative appeal.*

2. Each year, 95% of priority permits and 90% of all permits are issued or reissued within the 5 year statutory time frame. If the number of backlogged permits is greater than 30% at any time, provide an overall permit issuance/backlog reduction plan showing how the State will expeditiously reduce the backlog to 10%. (FY 2011 EOY, Report Jeff Studenka or John Kennington)

STATUS: *Based upon our entire permit universe, our number of backlogged permits is significantly less than 30%.*

3. Semiannually indicate the number of storm water sources associated with industrial activity, number of construction sites over one acre, and the number of designated storm water sources (including Municipal Phase I and Phase II) that are covered by a current individual or general UPDES permit or other enforceable mechanism. (March 31, 2011 and September 30, 2011, Jeff Studenka)

STATUS: *Completed by March 31 and September 20, 2011. Currently there are 573 industrial, 1580 construction, and 78 MS4 permits (including 3 Phase I & 75 Phase II Municipal facilities).*

4. Involve regulatory agencies and the public as necessary to effectively permit storm water discharges. (Ongoing, Jeff Studenka and the Storm Water Program Coordinators).
 - a. The State program is accessible by the public and regulated entities (i.e., contact information and web sites, etc.).

STATUS: *Accessible and ongoing.*

- b. Include EPA in the review process prior to issuing general permits for storm water discharges.

STATUS: *Completed and ongoing.*

- c. Track storm water general permit coverage and provide data to EPA on regulated agencies consistent with National efforts for data management (PCS/ICIS).

STATUS: *DWQ tracks storm water permits as required.*

5. Identify in ICIS the following Pretreatment Program statistics:

- a. The number of significant industrial users (SIUs) that discharge to POTWs with approved Pretreatment Programs,

STATUS: *There are 253 SIUs in approved pretreatment programs. This information includes zero discharging CIUs.*

- b. The number of significant industrial users (SIUs) that discharge to POTWs with approved Pretreatment Programs that have adequate control mechanisms implementing applicable pretreatment standards and requirements. (95% coverage is the Regional commitment)

STATUS: *There are 232 SIUs in approved pretreatment programs that are currently permitted. Therefore 92% of SIUs are permitted, which does not meet the 95% coverage, which is stated as the Regional commitment. Nineteen of the SIUs that are not currently permitted are in a pretreatment program that has been issued a NOV for failure to implement its pretreatment program.*

The other two SIUs are in a pretreatment program that thought it did not need to permit zero discharging CIUs. The State has told the pretreatment program that all CIUs are required to be permitted. The pretreatment program is working to get the CIUs permitted.

- c. The number of categorical industrial users (CIUs) that have adequate control mechanisms implementing applicable pretreatment standards and requirements in approved pretreatment programs. (Jen and Edith)

STATUS: *There are 154 CIUs in approved pretreatment programs that are permitted.*

6. a. Perform inspections on 40% of all approved pretreatment programs

STATUS: *An inspection was completed at 7 of the 20 approved pretreatment programs in inspection year 2011. (In Utah all inspections and audits are performed as full audits, so the overall goal of inspecting/auditing 60% of the programs was met.)*

- b. Perform audits on 20% of all approved pretreatment programs. (Ongoing Jen)

STATUS: *An audit was completed at 5 of the 20 approved pretreatment programs in inspection year 2011.*

- c. Provide EPA with the number and percent of local Pretreatment programs that have implemented Pretreatment Streamlining Regulations. (FY 2011 EOY Report Jen)

STATUS: *A pretreatment program has included the streamlining regulations and has implemented the pretreatment streamlining regulations as minor modifications. A pretreatment program has included the streamlining regulations in their rules and regulations as a major modification and the process for approving the modification is completed. Therefore 10% of the twenty programs have adopted the pretreatment streamlining regulations into their control authority.*

Two pretreatment programs are in the process of updating their SUOs to include the streamlining regulations.

The State is currently reviewing two SUOs. A pretreatment program has recently submitted its rules and regulations for review. Also a pretreatment program was required per an audit to update their rules and regulations.

- d. Provide the number of categorical industrial users (CIUs) in non-approved pretreatment programs (FY 11 EOY Report, Jen)

STATUS: *Currently the State is aware of four CIUs in non-approved pretreatment programs.*

- e. Provide the number of CIUs in non-approved pretreatment programs permitted by the State. (FY 11 EOY Report, Jen)

STATUS: *Currently the State permits one CIU in a non-approved pretreatment program. Two of the others have been required by the POTW to not discharge into the POTW.*

7. Continue to assist in implementation of the Utah AFO/CAFO Strategy. Specific commitments include:

- a. Subsequent to CAFO rule promulgation, develop a new General Permit based on the revised CAFO Rules. (Ongoing, Don)

STATUS: *DWQ is finalizing new state CAFO rules. The new general permit should be developed and issued several months following rule promulgation in early 2012.*

- b. For all permitted CAFOs if available, enter permit facility data, permit event data, and inspection data into ICIS. Provide EPA with copies of all CAFO inspection reports. (Ongoing, Don)

STATUS: *Permit event and inspection data are entered into ICIS. Additional permit facility data will be entered when new NOIs & NMPs are received for the new CAFO permit in 2012. Copies of CAFO inspection reports are sent to EPA.*

- c. Inform EPA of animal feeding operations that are impacting water quality annually (FY 2011 EOY Report, Don).

STATUS: *EPA is informed of AFOs that impact water quality through inspection reports and/or enforcement actions.*

- d. Conduct meetings of the AFO/CAFO committee and maintain critical partnerships with NRCS, UACD, the Farm Bureau and the agricultural community.

STATUS: *Two AFO/CAFO committee meetings were conducted in 2011 with partners from UDAF, NRCS, UACD, Utah Farm Bureau, producers, and other representatives from the agriculture community. Other meetings of smaller workgroups were held to discuss the draft state rule, nutrient management planning practices and partnership work agreements as finalized in Fall 2011.*

- e. EPA will provide CAFO rule development updates, to keep DWQ informed. (Ongoing, Don)

STATUS: *EPA R8 provides updates of the CAFO rule as information becomes available.*

8. Implement the Sewage Sludge (Biosolids) regulations

- a. % and # of UPDES permits that contain biosolids language. (FY 2011 EOY Report Mark)

STATUS: *92%, 61 permits*

- b. Maintain data in the ICIS database.

STATUS: *Ongoing*

UPDES Compliance and Enforcement Activities

1. Ensure maintenance of information management systems sufficient to plan, track, assess, and make adjustments to program activities.

- a. Properly enter data into the ICS data system such that the federally required data

fields are current. (Ongoing, Edith)

- b. Provide to the maximum extent possible the RIDE elements required. This depends on information that is obtainable with the permittee's cooperation and economic restraints. (Ongoing, Edith)
- c. ICIS data is entered accurately which includes permitting, compliance, and enforcement data. (Ongoing, Edith)
- d. DWQ will continue to assess the Watch List on a quarterly basis and coordinate the QNCR with EPA. (Ongoing, Edith, Jeff Studenka and John Kennington)

STATUS: *For a, b, c, & d above, all are current and ongoing within DWQ.*

2. Non Major Facilities Compliance Report.

Continue to report non-major facilities compliance data the same as majors through the ICIS data management system. (Ongoing Edith)

STATUS: *This is current and ongoing within DWQ.*

3. Coordinate inspection activities among programs and between the State and USEPA. Incorporate targeted USEPA national and regional priority sectors, as agreed upon between DWQ and USEPA. Include those sectors, as agreed upon, when planning IU inspections by DWQ or USEPA. Consider planning inspections to complement timing and focus on watershed efforts. Inspections will be made in accordance with the mutually agreed to annual inspection plan. Utah's Annual Inspection Plan will, to the extent possible, incorporate the EPA NPDES Compliance and Monitoring Strategy (Oct. 17, 2007) to include details of inspection commitments for both traditional NPDES core programs and wet weather priority areas identified in the EPA strategy. (Ongoing Lonnie, Jeff)

- a. Submit draft inspection plan for FY12 by September 1, 2011, and final inspection plan by October 1, 2011 or within 15 of days of receiving EPA's formal comments on the draft plan if EPA comments are received later than September 15, 2011. (Lonnie, Jeff S.)

STATUS: *The draft plan was submitted to EPA on August 24, 2011 and the final inspection plan was submitted to EPA on September 30, 2011.*

- b. Track inspections in ICIS. (Ongoing Lonnie, Jeff)

STATUS: *This is current and on going within DWQ.*

- c. As noted in the inspection plan, DWQ will conduct the following minimum number of inspections during FY11:

UPDES INSPECTION SUMMARY TABLE		
INSPECTION/FACILITY TYPE	NO.	COMMENTS
Major Permittee Facilities - CEI	16	
Minor Permittee Facilities - CEI	16	
Minor Industrial Permittee - RI	24	
Minor Municipal Permittee - RI	18	
Pretreatment (Audit and PCI)	12	4 audits and 8 inspections
Biosolid Program Inspections	6	20% of permitted facilities
Stormwater Const. Phase 1	62	10% of active facilities as of July 2010
Stormwater Const. Phase 2	34	5% of active facilities as of July 2010
Stormwater Industrial	53	10% of active facilities as of July 2010

STATUS: *DWQ completed 17 CEIs at Major Facilities, 17 CEIs at Minor Facilities, 25 RIs at Minor Industrial Facilities, and 16 RIs at Minor Municipal Facilities. The additional CEIs completed are counted towards the overall inspection numbers, including any shortages of RIs as previously agreed to with EPA R8. DWQ also completed 62 Stormwater Construction Phase I and 73 Phase II inspections, as well as 65 Stormwater Industrial inspections. Other DWQ inspections completed include 12 Pretreatment and 6 Biosolids.*

- d. EPA Region 8 may conduct up to 4 joint oversight inspection with DWQ in FY11.

STATUS: *Completed by EPA.*

- 4. Sanitary Sewer Overflows (SSOs)
 - a. Respond to SSO when requested by districts, municipalities and local health departments as requested or if waters of the State are threatened. (Ongoing Jen)
 - b. Continue to inventory (ask questions of) permittees for SSO occurrences and resolutions through the Municipal Wastewater Planning Program (MWPP) questionnaire.
 - c. Submit to EPA Region 8 a report by October 15, 2010, with information for FY10, that will include:
 - i Number of UPDES inspections at major facilities where SSO information was received. (Jen)
 - ii An updated SSO inventory and the causes of the SSOs. (Jen)
 - iii The number and percent of SSO inspections in priority watersheds (as defined by the State) including the name of the priority watershed.

- iv The number and type of informal and formal enforcement actions taken in response to SSOs;
- v. The percent of enforcement actions in priority watersheds (as defined by the State) for SSO; and
- vi A description of how 20% of the SSOs, that were reported, were addressed.

STATUS: *This report was completed and submitted.*

- d. The State will take enforcement action whenever deemed necessary to protect Waters of the State. SSO enforcement actions will be entered into ICIS NPDES as single event violations. Copies of SSO inspection reports will be provided to EPA. (Ongoing Jen)

STATUS: *Ongoing.*

5. Storm Water

- a. Division personnel will conduct the minimum numbers of storm water inspections of permitted and unpermitted facilities shown in the "UPDES Inspection Summary Table" in Section 3.c. above. All inspections will be entered into ICIS and copies of inspection reports and enforcement actions will be provided to EPA Region 8. Utah's Annual Inspection Plan will include the industrial sectors that will be focus areas for FY11 as well as any geographic areas targeted for construction inspections (Ongoing, Jeff Studenka & the Storm Water Program Coordinators).

STATUS: *DWQ completed the storm water inspections as listed above in Section 3.c. Inspections are entered in ICIS and copies are sent to EPA.*

- b. Continue implementation of MS4 permits which will ensure adequate sediment control inspections at local construction sites. This should increase the number of overall storm water inspections performed in the state. (Ongoing, Rhonda Thiele and Harry Campbell).

STATUS: *Current and on going.*

- c. EPA Region 8 will identify the difference between the rough draft Enforcement Management System that the DWQ submitted to EPA and the Enforcement Response Guide. DWQ will work with EPA Region 8 to develop Utah's Enforcement Response Guide (ERG) to include storm water within 6 months of the issuance of EPA Region 8's final storm water ERG.

STATUS: *On going with EPA.*

- d. DWQ agrees to inspect all new sites, as we become aware of them, associated with a permittee that has been cited in any national enforcement case that Utah has joined after the national consent decree is final. The inspection of such sites will count toward the inspection totals in this PPA.

STATUS: *On going.*

- f. DWQ will provide EPA with a copy of Utah's current storm water database on 3-31-11, and 9-30-11 either electronically or on CD-rom.

STATUS: *DWQ completed.*

- 6. Assure proper implementation and consistent enforcement of WET requirements in UPDES permits.

- a. Following EPA's review and comment, revise Utah's WET policy and guidelines in order to assure alignment with EPA's national WET policy and/or regulations. Target 120 days following receipt of EPA's final comments. EPA Region 8 will notify DWQ when the EPA comments received are considered final. (Ongoing, Mike Herkimer)

STATUS: *This is on going, as we await EPA's final comments.*

- b. Enforce UPDES permit WET limits and compliance schedule violations in accordance with the enforcement guidance contained in its February 15, 1991 "Permitting and Enforcement Guidance Document for Whole Effluent Toxicity Control," and any subsequent revisions. (Ongoing, Mike Herkimer)

STATUS: *On going.*

- c. Utah will submit as part of their FY2011 EOY report: a list of the facilities which are required to have WET limits or WET monitoring, a list of facilities that have entered into a TIE/TRE during FY11, and a list of any formal enforcement actions which included WET violations, (Mike Herkimer).

STATUS: *DWQ maintains a list of facilities that have WET limits and/or monitoring and has previously provided EPA R8 with this information. Only one facility, South Davis Sewer District, did a TIE/TRE in response to WET issues in FY11. No enforcements were performed related to WET issues in FY11.*

- 7. Biosolids-Promote the beneficial use of biosolids

- a. Continue to conduct Biosolids inspections as indicated under UPDES Compliance and Enforcement Activities, Part 3c. (Ongoing Mark Schmitz)

STATUS: *Ongoing*

- b. Reissue all biosolids permits which will expire in FY2011 and transition into consolidated permits as needed. (Ongoing Mark Schmitz)

STATUS: *Ongoing*

- c. Submit an End-of-Year report to EPA for the preceding calendar year containing a summary of DWQs actions under their biosolids program. Also include a list of facilities that beneficially reuse biosolids, methods of reuse and the tons reused. (4/1/2011, Mark Schmitz)

STATUS: *Done*

8. Enforcement Agreement.

- a. EPA will conduct quarterly conference calls with DWQ to discuss the Quarterly Noncompliance Report for major and minor facilities and current and projected enforcement cases to address concerns early in the process.

STATUS: *On going.*

- b. EPA will identify and provide copies, if possible, of any policy or guidance documents used when evaluating the appropriateness of DWQ's enforcement actions. DWQ agrees to evaluate all violations and determine an appropriate response and take that action.

STATUS: *On going.*

- c. DWQ will take timely and appropriate enforcement against facilities in Significant Non-compliance.

STATUS: *On going.*

- d. DWQ understands that EPA Region 8 will continue to participate in and to initiate regional and national enforcement cases, and will promptly inform and discuss with DWQ any national and regional enforcement cases in Utah.

STATUS: *On going.*

- e. Region 8 agrees to coordinate with and appropriately notify DWQ when it conducts inspections and investigations for regional and national enforcement cases.

STATUS: *On going, EPA.*

- f. Until State resources become available, EPA will review the DMR-QA results and follow up with facilities. Utah DWQ will be copied on any follow-up.

STATUS: *On going, EPA.*

- g. DWQ will incorporate approved compliance schedules and deadlines into enforcement actions such that these schedules and deadlines are enforceable under the NOV/Order.

STATUS: *On going.*

- h. In cooperation with DWQ, EPA Region 8 may perform inspections in regional and national priority areas according to national guidance. EPA may conduct inspections and issue enforcement actions as appropriate and will advise, consult with, and coordinate with DWQ prior to such activity.

STATUS: *On going, EPA.*

- i. DWQ will work with EPA Region 8 to implement the National Wet Weather SNC Policy.

STATUS: *On going.*

9. Concentrated Animal Feeding Operations (CAFOs) (Ongoing Don)

- a. Continue to implement “Utah’s Strategy To Address Pollution From Animal Feeding Operations” This will include continuing to submit Utah’s annual AFO/CAFO Strategy report to EPA Region 8 by February 28th of each year.

STATUS: *On going. The report was sent to EPA Region 8 in March, 2011. A working draft of the Utah Strategy has been implemented, primarily through work funded by agreements with Utah State University Extension, Utah Farm Bureau, and the Utah Association of Conservation Districts. The strategy includes inspection of medium AFOs with potential to discharge.*

- b. Maintain an inventory of all permitted CAFOs during FY2011

STATUS: *The inventory is maintained.*

- c. Inspect at least 20% of the permitted CAFOs during FY2011. (this will include, at a minimum, inspection of each permitted CAFO at least once during the life of its 5 year permit period)

STATUS: *In FY2011, there were 55 permitted large CAFOs in Utah, of which 13 permitted CAFOs were inspected, or ~24%.*

- d. Inspect at least 20% of any unpermitted large CAFOs only to determine if they are discharging (each unpermitted large CAFO will be inspected during the next 5 years)

STATUS: *Based upon the known large CAFOs and information from the agricultural partners report, DWQ estimates that there were 9 unpermitted large CAFOs in Utah for FY2011, of which DWQ inspected 2 or ~22%.*

- e. All permits, inspections and appropriate enforcement data for permitted CAFOs are entered into ICIS. (hard copies of inspection reports and enforcement actions will be submitted to EPA Region 8).

STATUS: *Permit, inspection and enforcement data are entered into ICIS with hard copies submitted to EPA R8 as appropriate.*

- f. Include in the End-of-Year report for FY2011 (Don):

- i. Total known number of permitted CAFOs in Utah.

STATUS: *55*

- ii. Total known number of permitted CAFOs in priority watersheds.

STATUS: *18*

- iii. Numbers and percent of permitted CAFOs inspected.

STATUS: *13 permitted CAFOs inspected, which is ~24%.*

- iv. Number of CAFOs that are determined to be discharging to waters of the State.

STATUS: *Two in FY2011.*

- v. Numbers and percent of total permitted CAFOs inspected in priority watersheds.

STATUS: *4, which is ~22%.*

- vi. Number of enforcement actions taken against un-permitted facilities and permitted CAFOs, including:
- Number of Settlement Agreements
- For each case, any penalty amount assessed and collected

STATUS: *One NOV was issued in FY2011 with a Settlement Agreement currently pending, but 2 Settlement Agreements were finalized in FY2011 from previous year's NOVs. Morgan Dairy was assessed a \$1,000.00 penalty with full payment*

received on time. Pyrenees Dairy was assessed \$15,000.00 total penalty, with the first of two payments made in FY2011 (second payment due in FY2012).

- vii. Number of compliance assistance workshops, training sessions, and/or presentations given for AFO/CAFO operators and/or Ag organizations.

STATUS: *Four total through the USU Extension Program.*

- viii. After rule revision and issuance of the next CAFO permit, Nutrient Management Plans for CAFOs shall be tracked in ICIS.

STATUS: *NMP information will be included and tracked in ICIS as required.*

- ix. For unpermitted CAFOs the number of complaints received.

STATUS: *One.*

10. EPA will determine the number of inspections conducted at midyear (March 31, 2011) and end of year (September 30, 2011) by DWQ in each category above by pulling this information from ICIS. Any inspections, performed on or before March 31, 2011, but which do not appear in ICIS by April 15, 2011, will not be counted in the midyear numbers.
11. EPA Region 8 may propose to inspect, in consultation with the State, certain coal bed methane operations in Region 8 for compliance with the Clean Water Act.
12. Submit to EPA appropriate enforcement documents at appropriate times as follows:
 - a. NOVs as they are mailed to the violator (Ongoing, DWQ Staff)
 - b. DWQ will provide penalty calculations and all necessary background documentation to EPA for enforcement actions against major facilities and wet weather facilities (e.g. cases in priority areas; storm water, CAFOs, SSOs). The penalty calculations and background information should be sent to EPA before the information is shared with the facility to allow EPA to evaluate the proposed penalty. EPA will provide written comments on draft settlement documents and penalty calculations within seven calendar days from the date it is received. If no comments are received within the seven calendar day period the State will proceed to culmination of the enforcement action. (Ongoing, DWQ Staff)
 - c. SAs for minor permittees and non wet weather un-permitted facilities are sent to EPA after they are settled (Ongoing, DWQ Staff)

STATUS: *a, b and c above are all on going.*

13. Federal Facility Inspections

- a. Region 8 will ask DWQ to conduct single and/or multimedia inspections at federal facility NPDES majors with recurrent effluent violations. Region 8 will conduct these inspections if DWQ does not plan to conduct the inspections. Region 8 will ask authorized states to work with EPA to target federal facilities for multimedia inspections. DWQ will be asked to lead the NPDES portion of a multimedia inspection at the selected federal facility. If DWQ does not want to conduct the inspection, EPA will conduct the inspection in lieu of the State.
- b. During FY11, EPA Region 8 may perform inspections at all Federal Facility construction sites that have been awarded contract dollars for site construction, in cooperation with DWQ inspectors.

14. 404 Enforcement Actions

EPA Region 8 will take the lead on 404 enforcement actions that have associated 402 violations, except where EPA determines combined cases may not be in the best interest of litigation.

UPDES Permit Activities

1. Implement the Phase II Storm Water Program.

- a. Continue outreach/education activities. (Ongoing, Storm Water Program Coordinators)
- b. Encourage DWQ staff, District Engineers and municipal and county staff to assist with inspections as allowed by time and resource constraints. (Ongoing, Storm Water Program Coordinators)

STATUS: *a & b above are on going.*

- c. In FY11, DWQ will conduct one Phase I MS4 audit.

STATUS: *Completed.*

- d. In FY11, DWQ will continue to implement their audit and inspection plan for Phase II MS4s to ensure that compliance determinations for these programs are completed within the next 5 years. The audit and inspection plan was submitted to EPA Region 8 for review and comment on or before March 31, 2009. This plan is subject to change as agreed to by EPA and DWQ.

STATUS: *On going.*

2. Implement the Utah AFO/CAFO strategy.

- a. Implement the new EPA CAFO rules in Utah within FY 2012, and provide progress on adoption of the 2008 final CAFO rule to EPA. (Don).

STATUS: *DWQ plans to have state rules in place in early 2012 with major efforts on going.*

- b. Issue a new CAFO UPDES General permit within six months of promulgation of State rules, (Don).

STATUS: *DWQ plans to issue the new CAFO permit within six months following rule promulgation in early 2012.*

4. Utah Sewer Management Program (USMP)

- a. During FY11 Utah intends to implement a comprehensive state-wide permit program for the planning, operation and maintenance of all public wastewater sewer collection systems. Utah will report to EPA on the status of program implementation in the FY11 End of Year Report. (John Kennington)

STATUS: *In November, 2011 the POTW community agreed to proceed with implementation of a Utah Sewer Management Program, to be implemented through a general permit. The goal is to have the program implemented by September 30, 2012.*

3. Reasonable Potential Process

- a. Utah will develop and submit the process/procedures for RP consistent with 40 CFR 122.44(d). Draft procedures will be submitted to EPA by September 30, 2011. (John Kennington or Jeff Studenka)

STATUS: *Incorporation of the RP process and spreadsheet designed by Bruce Kent of EPA R8 is underway. This process is presently being utilized with permits as they come up as new, or for renewal.*

TMDL/WATERSHED

1. Accomplish an effective program for completion and implementation of TMDLs.

- a. Complete and track scheduled TMDLs for listed waterbodies according to approved TMDL submission pace. (Semi-annual in May and November, Carl Adams) Any waters listed will comply with EPA guidelines to complete TMDLs within a 13 year time frame. **(WQ-8)**

According to current estimates of listed waters on the 2010 IR that will result in TMDLs and the requirement to complete TMDLs within 13 years since first listing, an average of 3 TMDLs will need to be completed per year beginning with

2011. The Division anticipates completing 3 waterbody/pollutant combination TMDLs by the end of FY 2011.

STATUS: *DWQ completed the TMDL for Emigration Creek (E. coli) in 2011 but due in part to the new Utah Water Quality Board approval process prior to formal submission to EPA for approval, the Sept. 30th deadline was not met. Approval for Emigration Creek TMDL is anticipated from EPA in FY 2012. The other two waterbodies originally considered for TMDL completion in 2011 have since been recommended for beneficial use change from a cold water designation (3A) to warm water (3B) for Currant Creek which originates from a designated warm water reservoir (Mona Reservoir) and the lower section of Ninemile Creek to reflect natural background conditions.*

- b. Incorporate into rule by reference all TMDLs approved by EPA within 120 days after notification. (Ongoing Carl Adams)

STATUS: *The Emigration Creek TMDL completed in 2011 has been incorporated into rule by reference. Due to the new TMDL approval process established by the Utah Water Quality Board, TMDLs must first be approved by the Board prior to formal submission to EPA for approval.*

2. Monitor implementation activities for completed TMDLs by establishing implementation milestones and tracking their completion. Tracking reports will be updated annually on January 15. (Carl Adams)

STATUS: *TMDL implementation tracking is ongoing and has been included in DWQ TMDL coordinators' annual performance plans. Information on implementation activities is also provided from several sources including DWQ TMDL coordinators, local Watershed Coordinators, partner agencies such as the Dept. of Natural Resources via the Watershed Restoration Initiative and NRCS' EQIP program.*

3. Determine the number of waterbodies on the 2002 303(d) list that have EPA approved TMDL, 4b, or 5m documents (WQ-21).

STATUS: *The number of waterbodies on 2002 303(d) with EPA approved TMDL, 4b, or 5m documents (WQ-21) is 77. This is 12 more than reported in 2010, the result of an intensive cross reference of ADB, ATTAINS and NTTS databases performed by EPA and DWQ staff during the past year to ensure the most up to date and accurate representation of listings, approved TMDLs, and other actions such as establishment of site specific criteria.*

4. Maintain sound fiscal management of contracts by tracking contract amount, expenditures to date and availability of funds to meet contractual obligations via quarterly reports. (Ongoing Carl Adams & Stacy Carroll).

STATUS: *Contract tracking is ongoing. Regular coordination between Carl, Stacy and Jim Bowcutt (State NPS Coordinator) occurs to confirm remaining budget amounts to ensure sufficient funds are available to complete future work.*

5. Implement the watershed approach to effectively and efficiently support the development and implementation of TMDLs in Utah for impaired waters according to the approved 303(d) list.

STATUS: *Section Staff are actively implementing the watershed approach throughout the State in support of TMDL implementation and development activities. Focus areas for TMDL implementation this year are the Weber River and Sevier River. Focus areas for TMDL development include the Jordan River Watershed and the Colorado River for Selenium.*

6. Continue to implement the Nonpoint Source Program based on strong State and local institutional capabilities using the Watershed Approach in support of TMDL development.

Measures:

- a. Conduct a review of the NPS Management Program jointly with key partners and stakeholders to improve the 319 funding process and strengthen overall program operation and management.

STATUS: *An independent evaluation of the Nonpoint Source Program by qualified researchers Utah State University is ongoing. This evaluation is focusing on the existing administrative infrastructure of the program, including a comparison with other state NPS programs that provide good examples in efficient and effective NPS program administration. A draft of this portion of the study is due by the end of December 2011. Another critical element of this project is an evaluation of improvements to water quality as a result of NPS project implementation which will be completed following field surveys during the summer of 2012. Due to several factors including budget cuts in 319 funding and recent staff retirements at the Utah Dept of Agriculture and Food, 319 contract management assistance is in the process of being shifted from the Dept. of Agriculture and Food to the Utah Association of Conservation Districts which has provided the local level administration for the 319 program for many years.*

- b. Update GRTS annually by entering annual progress report information according to January 1st deadlines. (NPS Plan Task 33)

STATUS: *This task is ongoing and is on schedule. The progress/evaluation form developed by UDAF is being used for all 319 Project Implementation Plans both at DEQ and UDAF.*

- c. Submit NPS Annual Report by January 31 of each year. (NPS Plan Task 34)

STATUS: *The FY-2010 Annual Report was completed in January 2011.*

- d. Complete the Abandoned Mine component to the state's NPS Management Plan and submit to EPA for review by March 31, 2012.

STATUS: *The Abandoned Mine component to the State's NPS Management Plan has been completed as is undergoing review by the State Attorney General's office and is anticipated to be submitted to EPA by the March 31st due date.*

- e. Participate with UDWR through its Blue Ribbon Fishery and Habitat Council programs in the acquisition/protection of stream corridors.

STATUS: *No acquisitions were completed in 2011 although several stream restoration projects utilizing both State and Federal Nonpoint Source funding in coordination with Blue Ribbon and Habitat funding are ongoing in the Price River, Strawberry River and Upper Sevier River watersheds.*

- f. Report non-319 funding in watershed protection and restoration projects in project annual and final reports. (NPS Plan Task 34)

STATUS: *These data have been gathered from NRCS, UDWR, UDAF and will be reported in the 2011 Annual Report for the NPS Program.*

- g. Obtain 319 project final reports from project sponsors and coordinate with EPA to obtain concurrence for grant closure in a 5 year time frame.

STATUS: *Closure of the FY-05 NPS grant was completed and the FY-06 will be closed out in the spring of 2012 due to delays associated with sensitive aquatic species in the Fremont River.*

- h. Implement best management practices appropriately and effectively and achieve natural resource improvements for 319 NPS Watershed Projects. Obtain available information of reductions in nonpoint source loadings for sediments, nitrogen and phosphorus, and improvements in water quality. Report load reduction and water quality information in project annual reports (GRTS), project final reports and NPS Program annual report. (NPS Plan Tasks 2, 6, 36 & 40, **WQ9**)

STATUS: *This task is ongoing. Such information is included in project final reports, in annual project evaluation reports and is summarized in the NPS Program Annual Report.*

- i. Number of watershed-based plans and water miles or acres covered, supported under State NPS Management Programs since beginning of FY-2002 that have been developed and number of watershed-based plans are being implemented per

information reported in GRTS. (WQ-27)

STATUS: *For FY-2011 no additional plans were completed so there remains a total of 18 watershed based/TMDL Plans prepared by DWQ and contractors. New planning efforts are currently underway in the Emigration Creek, Duchesne River and Moab Area watersheds.*

- j. Report the number of waterbodies identified (in 2000 or subsequent years) as being primarily nonpoint source (NPS)-impaired that are partially or fully restored. Target for FY-2011 is 2 watersheds (East Fork Sevier River and Fremont River). (WQ10)

STATUS: *A success story has not yet been submitted to describe the restoration of the Fremont River and East Fork Sevier River due to resource constraints. Submission of these Success Stories will be prioritized for FY-2012.*

- k. Report the number of developed Watershed Plans and identify those in progress. (NPS Plan Task 4)

STATUS: *Eighteen watershed plans are developed and currently twelve are being implemented including: Upper Bear River, Lower Bear, Middle Bear, Cub, East Canyon, San Pitch, Scofield Reservoir, Price River, Middle Sevier, Upper Sevier, East Fork Sevier River, Fremont, Pariette Draw and Beaver River.*

- l. Report the number of watershed steering and (or) technical advisory committees formed and functioning during past year. (NPS Plan Tasks 9 & 10)

STATUS: *Approximately 24 local watershed committees are organized and functioning with DWQ in the development and implementation of TMDLs. Local chairs and sponsors vary including counties, Conservation Districts and Water Districts.*

- m. Report the number of priority NPS watershed areas where EQIP funds are used to implement conservation projects. Report allocation of EQIP funds to 303(d) waters and approved TMDL watersheds. (NPS Plan Task 34)

STATUS: *These data have been requested from NRCS and will be reported in the 2011 NPS Program Annual Report.*

- n. Report the number of priority watershed coordinator positions developed and functioning according to DWQ contract work plans. (NPS Plan Task 9)

STATUS: *Eight local watershed coordinator positions are in place and functioning with contracts with DWQ. One of these positions, the Jordan River coordinator is funded as part time / work share in cooperation with the local sponsoring agency. The remaining coordinator positions in the Middle/Lower Bear River,*

Upper Weber River, Uinta Basin, San Pitch River, Middle Sevier River, Upper Sevier River and West Colorado River watersheds are funded as full time positions.

GROUND WATER PROTECTION

1. Maintain an effective Underground Injection Control Program per agreement with EPA. The Utah Department of Environmental Quality, Division of Water Quality (Utah DWQ) certifies that it maintains and implements an adequate Underground Injection Control (UIC) Program under Section 1422 of the Safe Drinking Water Act (1422 UIC Program) in conformance with federal and state laws, regulations, and conditions set forth in program authorization (delegation) documents. As long as the Utah DWQ maintains a 1422 UIC Program, the Regional Administrator of the United States Environmental Protection Agency (USEPA) Region 8 and the Director of the Utah DWQ agree this Agreement shall remain in effect, except as amended through mutual agreement. Grant dollars awarded by the USEPA may be used by the Utah DWQ to perform core program activities (40 CFR Parts 144 and 147) to adequately maintain its 1422 UIC Program, even when these activities are not specifically defined by goals, measures, and/or reporting requirements. Utah DWQ agrees to conduct core program activities as described in and as evidenced by the submittal of the UIC Program reports itemized in Table I.
2. USEPA agrees to provide the following support to the Utah 1422 UIC Program:
 - a. One annual midyear review of Utah 1422 UIC Program.

STATUS: *Completed June 1, 2011 via teleconference with Jason Deardorff and Candace Cady and updated on July 27, 2011.*

- b. Technical training, as appropriate and as funds allow.
 - c. Seventy-five percent (maximum) of funds necessary to operate the core State 1422 UIC Program, assuming a federal budget funding level near or equal to the past three years. Should funding levels drop significantly, USEPA will review core program elements and provide appropriate revisions.
3. To protect Underground Sources of Drinking Water (USDWs) from contamination by maintaining and implementing an effective core program, the DWQ 1422 UIC Program agrees to
 - a. Evaluation of core program effectiveness, reported in the semi-annual and annual narrative program report to the Administrator. (See Table 1 for specific reporting dates – Semi-Annual and Annual Narratives – Candace Cady).

STATUS: *See Annual Report*

- b. Enforce the 1999 Class V Rule regarding motor vehicle waste disposal wells (MVWDWs) and large capacity cesspools (LCCs). MVWDWs and LCCs are

closed as they are identified. Priority is given to identifying these wells within groundwater-based source water protection zones as delineated by the Utah Division of Drinking Water, Source Water Protection Program. (See Semi-Annual and Annual Narratives for details. (Ongoing, Candace Cady))

STATUS: *Ongoing*

- c. Identify and report the number and percent of injection wells that are used to inject industrial, municipal, or hazardous waste (Class I) wells that fail mechanical integrity and maximize the number that are returned to compliance within 180 days, thereby reducing the potential to endanger USDWs. EPA Region 8 FY11 PAM SDW-7a target is 95%.

Report:

- Number that lose mechanical integrity.
- Number that lose mechanical integrity that are returned to compliance within 180 days, expressed as numerator over denominator.

STATUS: *See Annual Report*

- d. Identify and report the number and percent of injection wells that are used for salt solution mining (Class III) that lose mechanical integrity and maximize the number that are returned to compliance within 180 days, thereby reducing the potential to endanger USDWs. EPA Region 8 FY11 PAM SDW-7c target is 95%.

Report:

- Number that lose mechanical integrity.
- Number that lose mechanical integrity that are returned to compliance within 180 days, expressed as numerator over denominator.

STATUS: *See Annual Report*

- e. Identify and report High Priority Class V wells identified in sensitive ground water protection areas* and maximize the number that are closed or permitted thereby reducing the potential to endanger underground sources of drinking water. EPA Region 8 FY11 PAM SDW-8 target is 85%.

Report:

- Number of high priority Class V wells in sensitive ground water protection areas that have been identified, and the number closed or permitted in FY11 reporting period.

* Although Utah has not formally delineated "other sensitive ground water areas" throughout the state as defined by the December 7, 1999 final rule, the 1422 UIC Program will continue to prioritize the identification, reporting, and return-to-compliance of MVWDW and other high priority wells within Source Water Protection Zones and other areas, although not formally delineated, where risk to human health and vulnerability to ground water contamination is recognized.

STATUS: *See Annual Report*

- f. Ensure Utah UIC Program monitoring activities are performed according to the EPA-approved Utah DWQ Quality Assurance Plan for the UIC Program (July 5, 1990).

STATUS: *Ongoing*

- g. Track EPA's development of rules for carbon sequestration. (Candace Cady).

STATUS: *Completed*

4. To encourage responsible environmental behavior and promote excellence in environmental quality through environmental education, community-based partnerships and qualitative and quantitative feedback from regulated and non-regulated customers.
 - a. Description of presentations to local government groups, local health departments, public works departments, private sector groups, civil groups, etc. which include UIC concerns and opportunity for feedback. (See Table 1 for specific reporting dates - Semi-Annual and Annual Narratives – Candace Cady).

STATUS: *Completed*

- b. Description of all outreach activities intended to inform local government groups, local health departments, public works departments, private sector groups, civil groups, etc. about the 1999 Class V rule regarding the closure of motor vehicle waste disposal wells (MVWDWs) and large capacity cesspools (LCCs). (See Annual Narrative – Candace Cady).

STATUS: *Completed*

5. Electronic Submittal to the National UIC Database

The Utah Automated Geographic Reference Center will continue working with DWQ on the development and implementation of a tool that will access the National UIC Database Schema and Schematron validation web service in real time as we are editing our database. This will greatly improve the quality of data entered into the database and improve the efficiency of our reporting by ensuring that all data entered into Utah's UIC Geodatabase meets the validation rules for submittal to the National UIC Database.

Priority for entering this data is as follows:

1. all active facilities permitted,
2. all active facilities inventoried since January 2003,
3. all inactive facilities inventoried since January 2003,
4. all inactive facilities permitted,
5. all historical (pre-January 2003) facilities - active and inactive,

It is the goal of DWQ to opt out of traditional reporting within six months after its successful submittal of FY11 annual reporting information.

STATUS: ***Candace is getting assistance from Valois Shea (EPA Region 8) and Trang Le (EPA HQ) in resolving remaining issues pertaining to electronic submittal and in writing queries in the staging Access database to check for the 219 Schematron errors and warnings.***

Table 1 - UIC FY11 Reporting Requirements*

<u>Due Date</u>	<u>Reporting Cycle</u>	<u>Report Required</u>
January 20 (1 st Quarter Date)	Quarterly	Quarterly Exceptions List (Form 7520-4)
April 20 (2 nd Quarter Date)	Quarterly, Semi-Annual	<p>Quarterly Quarterly Exceptions List (Form 7520-4)</p> <p>Semi-Annual Compliance Evaluation and Enforcement (Form 7520-2A) Significant Non-Compliance and Enforcement (Form 7520-2B) Inspections, and Mechanical Integrity Testing (Form 7520-3) Program Activity Measures (PAMs) Electronic Spreadsheet Report OR "Extra Reports" Class V Activities Narrative</p>
July 20 (3 rd Quarter Date)	Quarterly	Quarterly Exceptions List (Form 7520-4)
October 20 (4 th Quarter Date)	Quarterly, Semi-Annual, Annual	<p>Quarterly Quarterly Exceptions List (Form 7520-4)</p> <p>Semi-Annual Compliance Evaluation and Enforcement (Form 7520-2A) Significant Non-Compliance and Enforcement (Form 7520-2B) Inspections, and Mechanical Integrity Testing (Form 7520-3) Program Activity Measures (PAMs) Electronic Spreadsheet Report OR "Extra Reports"</p> <p>Annual Permit Review and Issuance, AOR (Form 7520-1) Annual Program Narrative Class V Inventory Progress</p>

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*Once the State and EPA have determined that electronic reporting has been successfully implemented during FY 11, paper reporting (including 7520s) will no longer be necessary.

5. Continue administration of a comprehensive ground water protection program according to priorities established in Utah Ground Water Protection Strategy and the annual FY11 Division of Water Quality/Goals and Objectives.

Measures:

- a. End-of-year report as required by EPA grant on achievement of FY11 DWQ/Ground Water Proam Goals and Objectives. (Rob Herbert due 11)

STATUS: *Completed*

- b. Continue participation in the Ground Water Protection Council National Ground Water Strategy Committee with EPA Headquarters, Regions, and States. The intent is to help EPA develop a national strategy for refocusing EPA and States efforts on ground-water protection. (Bill Damery ongoing)

WATER QUALITY MANAGEMENT

1. Implement an assessment program for the waters of the State through development and submission of the *Integrated Report*.

Measures:

- a. Finalize the 2008 and 2010 *Integrated Reports*.

STATUS: *Both reports have been finalized and submitted to EPA for approval.*

- b. Update the EPA Assessment Database, (ADB, version 2 or later). (WQ7)

STATUS: *Assessment results have been updated through 2010. EPA has also been working with DWQ on identifying errors and inconsistencies among assessment results from current and historic assessment cycles, which continue to be fixed in this database.*

- c. In collaboration with EPA, develop a plan for modifying analytical methods and reporting for the 2012 *Integrated Report*. In particular, this plan will emphasize: revisions to assessment methods (see below 1(d)), better integration of the 305(b) report and 303(d) list with the ADB, and edits to the text of reports to more effectively convey WQ status and concerns to our stakeholders.

STATUS: *Kris Jensen from EPA met with DWQ staff on our proposed revisions to the 2012 Integrated Report. Several important revisions are being proposed for the upcoming report, including:*

- *Reformatting and rewriting the 305(b) portion to improve communication with key audiences*
- *Incorporating randomly selected sites to assess all of Utah's rivers and streams*
- *More robust evaluation of impairment causes*
- *Better graphics and layout*

- d. Revise assessment methods to: 1) accommodate DWQ's newly adopted tiered monitoring strategy, 2) describe approaches for the use of randomly selected sites for 305(b) reporting, and 3) to more accurately assess biological uses support of Utah's reservoirs. Document these assessment method changes and submit them for formal public comment (Feb., 2011)

STATUS: *In progress. A draft of the report, including these additions, has been drafted and will be submitted to EPA prior to Feb. 2011.*

- e. Report the number of waterbodies identified in 2002 (baseline) as not attaining water quality standards where standards are now fully attained. (cumulative) (SP-10)

STATUS: *Ongoing. Data will be included in the 2012 Integrated Report.*

- f. Report the specific causes of waterbody impairment identified by states in 2002 (baseline). (cumulative) (SP-11)

STATUS: *Ongoing. Data will be included in the 2012 Integrated Report.*

- g. Report the number of impaired watersheds (at the 12 digit HUC scale), where water quality conditions improve (cumulative). The target measure estimated for the target for 2012 is 4. (Note: Improved means that one or more of the impairment causes identified in 2002 are removed for at least 40 per cent of the impaired assessment units or impaired miles/acres.) (SP-12)

STATUS: *Ongoing. Data will be included in the 2012 Integrated Report.*

- h. Develop a list of priority watersheds at the 12 digit HUC scale.

STATUS: *Ongoing. This is now an integral part of DWQ's planning processes for several water quality programs.*

2. Maintain Water Quality Standards as the basis for effective water quality management and assessment programs.

Measures:

- a. Continue to compile a list of potential water quality standards revisions to be included in the upcoming triennial review, including: clarification of biological assessment uses, a CWA §401 policy, further antidegradation revisions, nutrient criteria (see *Water Quality Management*, Section 4), and appropriate modifications to Great Salt Lake standards (see *Water Quality Management*, Section 3). Submit the existing list of proposed changes and a request for additional changes for public comment and input by April 1, 2011 (**WQ3 & WQ4**)

STATUS: *Complete. DWQ anticipates submitting revisions based on the current triennial review early in 2012.*

- b. Continue to collaborate with the water quality standards workgroup of stakeholders and partners on WQS revisions.

STATUS: *DWQ continues to meet regularly with this workgroup. The group was recently expanded to include several sub-workgroups that will each be working on separate aspects to DWQ's water quality standards.*

- c. Continue to work with EPA and other interested stakeholders on revisions to Utah's antidegradation procedures, particularly with regard to their use in association with general permits and procedures for categorical protection of waterbodies.

STATUS: *Ongoing*

- d. Document modeling procedures for the application of standards to UPDES permits through Waste Load Analyses.

STATUS: *Partially complete. DWQ has completed a QUAPP that provides a process for collecting data required for WLA models. A draft document that identifies calibration procedures is being drafted and should be complete in the early part of 2012.*

3. Development of rules, policies, and procedures to ensure protection of Great Salt Lake and its surrounding wetlands.

- a. Develop and detailed water quality management strategy for Great Salt Lake (GSL)—in collaboration with EPA and other interested stakeholders—that identifies an overarching strategy toward rigorous and defensible standards and assessment methods for the ecosystem. This plan will document specific tasks and identify roles and responsibilities of DWQ and EPA staff to complete key interim goals.

STATUS: *DWQ has identified four key components for an overarching GSL comprehensive strategy. The following list identifies completion dates for each of these documents:*

- *Overall Strategy Complete draft by January 5, 2012*
- *Monitoring Strategy Draft Complete and ready for internal/external review*
- *Standards Development Strategy Complete Draft by January 5, 2012*
- *Communication Strategy Complete draft by July 1, 2012*
- *Resource Needs Draft to be completed in 2012*

- b. Continue numerous efforts to encourage collaboration among DWQs sister State and Federal agencies with related management responsibilities for GSL. In particular, work to ensure that water quality is emphasized by the Governor's newly created GSL Advisory Council and is included in the GSL Management Plan under development by Utah's Division of Natural Resources (DNR).

STATUS: *DWQ continues to work with numerous agencies and water quality plays a major role in the GSL Management Plan. In addition, the recently completed monitoring strategy specifically attempt to capture collaborative efforts among numerous agencies.*

- c. Continue ongoing research activities to better understand the condition of GSL's beneficial uses and associated water quality concerns, including: 1) finalization of a paleolimnology study to quantify historic conditions, 2) finalization of the first phase of a remote sensing project to better understand spatial and temporal patterns of algae blooms, 3) development of specific recommendation for a hydrodynamic models that will allow DWQ to quantify the fate and transport of pollutants within and among the lake's major bays, and 4) revisions to the existing selenium trophic transfer model.

STATUS: *Each element follows:*

- 1) *Scheduled to be complete in the first quarter of 2012*
- 2) *All images have been compiled and other exploratory analyses are underway*
- 3) *In process. DWQ is exploring several possibilities with collaborators.*
- 4) *In process. DWQ is working with USGS and EPA on obtaining the data to conduct this update.*

- d. Complete an extensive review of existing and previous data collection efforts conducted by scientists outside of DWQ. Use data obtained from these surveys to develop a comprehensive 10-year monitoring strategy for the GSL and its surrounding wetlands.

STATUS: *Complete for both open water and wetlands, but still needs to be combined and*

incorporated into DWQ's Strategic Monitoring Plan.

- e. In collaboration with EPA, develop a specific strategy to assess GSL for mercury-related impairments for the 2012 *Integrated Report*. Identify effective methods to fill key data gaps. Actively seek resources to meet data requirements.

STATUS: *Important data gaps were identified in the 2010 IR. Some of these data gaps were addressed with monitoring conducted by DWQ and our collaborators in the summer of 2011. DWQ will summarize these efforts in the 2012 Integrated Report.*

- f. Continue to collaborate with EPA on the 401 certification for Great Salt Lake minerals.

STATUS: *Ongoing*

- g. As resources allow, continue to develop and implement monitoring and assessment methods for GSL wetlands.

STATUS: *Ongoing. Specific approaches and less-nebulous goals are an integral part of the GSL water quality strategy (see above).*

- h. Modify Utah's Water Quality Standards whenever appropriate to accommodate ongoing development of water quality programs for GSL.

STATUS: *Ongoing.*

4. Development of numeric nutrient criteria and associated implementation procedures (WQ-1c).

- a. Revise classification models to incorporate recently collected reference site data.

STATUS: *Ongoing. Analyses should be complete by September 2012.*

- b. Begin development of numeric criteria for phosphorous, nitrogen and algal response (e.g., chl-a, secchi disc measures) with clear ties to aquatic life or recreation uses for lakes/reservoirs.

- c. Begin development of assessment methods that specify how chemical and biological monitoring data—collected from both screening and intensive monitoring tiers—will be used to support nutrient criteria.

STATUS: *Numerous analyses were completed this year to better link nutrients to aquatic life uses and shall continue through the early part of 2012. In addition, surveys were conducted to provide linkages to recreation uses and analysis of these data should be complete by July 1, 2012.*

- d. Begin development of data collection and analytical methods for the purpose of generating site-specific nutrient criteria to allow modification of regional criteria whenever empirical evidence suggests that changes are needed to accommodate unique site characteristics.

STATUS: *Significant progress has been made over the past several months to meeting this objective. Draft field SOPs are complete. Draft analytical SOPs are under development. DWQ anticipates completing the site-specific standard procedures sometime in 2012.*

- e. Begin development of appropriate procedures for implementation of numeric nutrient criteria

STATUS: *A process has been proposed and is currently being vetted with key stakeholders.*

- f. Convene a focused stakeholder group to provide input through the development of nutrient criteria and associated implementation programs.

STATUS: *The group has been convened and regular meetings are ongoing.*

- g. Begin development of a process and associated rule (i.e., variance policy, temporary modification) for implementing numeric nutrient criteria among existing point sources in a manner that is economically tractable, ecologically appropriate, and consistent with CWA rules and regulations.

STATUS: *In development.*

- h. Work with contractors to complete the economic valuations of the net costs and benefits of implementing nutrient criteria. Complete tools that quantify the economic impacts anticipated for individual watersheds or facilities.

STATUS: *A significant economic study was implemented to accomplish this task. DWQ is collaborating with several academic economists and anticipates completion of the project early in 2012.*

5. Develop and implement a long-term biological assessment program (**WQ-3**):

Measures:

- a. Develop an annual biological monitoring strategy that best balances the programmatic needs of stakeholders. Make the list of sites available for review and incorporated into the annual monitoring strategy. (May 15, 2011) (**WQ5**)

STATUS: *Ongoing. DWQ's biological assessment program continues to expand. In particular, DWQ has been forming collaborative efforts with local and federal agencies to collect data following DWQ's collection methods so that data can be better leveraged to meet numerous programmatic needs.*

- b. Develop outreach materials (i.e., website, fact sheets, reports) to more completely describe Utah's biological assessment program to our stakeholders.

STATUS: *Ongoing*

- c. Collect physical habitat, macroinvertebrate, and periphyton samples at ~74 streams annually to provide the data necessary to augment assessment tools and fulfill long-term, TMDL and 303(d) assessment needs. (September-October, 2011)

STATUS: *DWQ, together with our collaborators, more than doubled this goal over the previous collection season.*

- d. Digitize both field and laboratory data and store in a readily accessible database. (ongoing)

STATUS: *DWQ anticipates having all data readily available by July 1, 2012. In addition, DWQ is developing methods of capturing these data electronically in the field to streamline these procedures.*

- e. Collect periphyton samples at all biological monitoring sites and preserve them such that diatoms can be enumerated and identified. (September-October, 2010)

STATUS: *Ongoing.*

- f. Develop stressor-specific tolerance values and associated quantification tools to help determine likely causes of observed biological degradation. Focus initially on developing methods of identifying nutrient-related impacts to stream biota.

STATUS: *Significant efforts are underway and results will be reported in the forthcoming Integrated Report.*

- g. Develop methods of applying existing biological assessment tools to analytical approaches used to extrapolate assessment results from randomly selected sites to streams statewide.

STATUS: *Approaches have been developed and will be incorporated into the 2012 Integrated Report.*

- h. Develop assessment methods that better integrate biological and chemical assessment methods to provide an overall assessment of aquatic life beneficial use

support for Utah's streams.

STATUS: *Ongoing. The forthcoming Integrated Report will document DWQ's continued efforts to improve integration and the analytical rigour applied to both chemical and biological assessments.*

- i. Compile and utilize existing biological data to create preliminary site assessments and include these assessments in the 2010 Integrated Report.

STATUS: *Complete*

MONITORING

1. Continue phase-in of re-tooled Monitoring Program for Utah Division of Water Quality according to established schedules (WQ-5)

STATUS: *Ongoing*

2. Conduct Tier 1 (probabilistic), Tier 2 (targeted) and Tier 3 (programmatic) monitoring on a rotating basin schedule
 - a. Tier 1 Monitoring: Probabilistic
 - Assess biological, chemical and physical integrity of waters of Sevier/Cedar Beaver Basin utilizing selected core and supplemental indicators

STATUS: *Completed 50 site survey of Cedar/Beaver Basin*

-Participate in National Wetlands Condition Assessment (Summer 2011, Jim, Ben Brown, Alex Anderson)

STATUS: *Wetland Survey delayed by Flooding (rescheduled 2012)*

- b. Tier 2 Monitoring: Targeted
 - Complete intensive targeted monitoring in Uinta Basin

STATUS: *Completed Uinta Basin Monitoring*

-Initiate intensive targeted monitoring in Jordan-Utah Lake basin

STATUS: *Jordan River – Utah Lake Targeted Monitoring Ongoing*

- c. Tier 3 Monitoring: Programmatic

1. Continue to implement a statewide mercury in fish tissue monitoring component as part of the long-term monitoring strategy as funding is available. (John Whitehead, Ongoing)
 - a. Utilize established workgroup to provide guidance and recommendations for the mercury monitoring program. (John Whitehead, Ongoing)
 - b. Participate in the issuing of mercury fish consumption advisories as needed. (John Whitehead Ongoing)
 - c. Participate in triennial review preparations/discussion pertaining to Hg.

STATUS: *Ongoing*

2. TMDL monitoring
Discharge in large rivers

STATUS: *Ongoing as part of Targeted Monitoring*

- b. Microbial source tracking

STATUS: *Ongoing (Final Report Preparation planned Spring 2012)*

3. Surface Water Compliance
 - a. Increased DMRs
 - b. QUAL2K

STATUS: *Ongoing (7-9 facilities scheduled for 2012)*

4. Groundwater monitoring.
5. NPS Effectiveness Monitoring
 - a. Long-term monitoring stations

STATUS: *Planned for 2013*

6. E. coli cooperative monitoring

- a. Continue implementation of monitoring program for *E. coli* to facilitate more rigorous assessment of recreational beneficial uses (Jim and Sandy, ongoing)

STATUS: *Ongoing*

3. Oversee and participate in contractor effort to revise, overhaul and implement quality assurance system for water quality division including QAPPs, SOPs, annual monitoring plans, and new documentation requirements for continuous monitoring.
 - a. Oversee contractor development of overhauled quality assurance system for water quality division
 1. QAPPs
 2. SOPs
 3. New documentation requirements for continuous monitoring
 4. Develop and web post Annual Monitoring Plan to include schedule, site locations, monitoring activities, responsible entities, and special studies for meeting program objectives in the SMP. Draft on website: 02/01/2011
 - b. Training

STATUS: *Hired Temporary Employee and re-wrote SOPs, QAPP, etc (will be published March 2012)*

4. Complete development and initiate roll-out of data management tools based on WQX, AQWMS, ATTAINS
 - a. Data management tool roll-out and deployment within water quality division
 1. WQS
 2. AQWMS
 3. ATTAINS
 - b. Training

STATUS: *Database operational and flowing data to WQX*

5. Integrate monitoring strategy elements to full operating levels, including publication of final monitoring strategy and annual monitoring plan for public comment; ongoing maintenance of cooperative monitoring/statewide monitoring council, and monitoring-

related website elements

- a. Finalize monitoring strategy and place on website for public comment

STATUS: *Ongoing (will be published March 2012)*

- b. Continue promotion, chairmanship and support of the Statewide Monitoring Council to facilitate coordination of monitoring activities and special studies by local state and federal agencies as well as researchers and volunteer monitoring groups. (Jim/ Rob B.)

1. Equipment and supplies

2. Training

3. Data management

- c. Maintain water quality monitoring council website

STATUS: *Ongoing*

7. Goal: Participate in design, development and implementation of Great Salt Lake short-, mid- and long-term Monitoring Plan

- a. GSL monitoring plan

- Design and implement Great Salt Lake Assessment, phase 1: 2012 IR target

- Collaborate on revision of GSL assessment framework (nutrients, Hg)

- Monitor for MMI GSL impounded wetlands

- Conduct selenium monitoring

- Purchase necessary equipment

- Plan for and provide additional training

STATUS: *Ongoing (monitoring performed by USGS, Davis Co. and DWQ)*

SPECIAL STUDIES

1. Continue to chair the Statewide Mercury Work Group. (John Whitehead) (FS-1a)

STATUS: *Ongoing*