DRINKING WATER PROGRAM
SFY 2011
WEST VIRGINIA DEPARTMENT OF HEALTH AND HUMAN RESOURCES
Guidance and Report

August 2011

This Guidance and Reporting Checklist attempts to capture all of the tasks which make up a state's drinking water program. This includes all primacy elements and other statutory requirements under the Safe Drinking Water Act, and those activities which could be funded with the DWSRF set-aside funds, Operator Certification Expense Reimbursement Grants (ERG) or the state Water Protection Coordination (Security) grants.

This Guidance links the various aspects of the drinking water program to EPA's Strategic Plan goals, objectives, and subobjectives. Example Outputs and Outcomes have been included, but states are encouraged to identify as many Outputs and Outcomes under the various program components as possible.

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All reporting is considered to be via the semi-annual self-assessments, unless noted otherwise.

New Focus Activities for SFY **2011**

These are the activities which need special emphasis during the year due to their importance or due to a regulatory deadline. These are listed here to capture your attention. These activities should not reduce the focus placed on responding to acute health contaminants at all public water systems.

- Continuation of Emergency Preparedness/Increased Security Activities with both state staff and public water suppliers, including responding to threats and emergencies. Security integration and efforts related to the 10 features of an active and effective security program are also high priorities.
- New Rule Development and adoption or submission of extension requests. Implementation of new federal rules to the extent possible under state regulations and as per extension or Early Implementation Agreements.
- State specific activities.
- Continuation of Operator Certification Programs and Expense Reimbursement for training.
- Continue to improve quality systems and documentation of these systems, including revisions to QMPs and/or QAPPs as necessary due to the adoption of new regulations.
- Continue to improve data quality in SDWIS.

The reporting on these activities should be done using appropriate tools (e.g., SDWIS reports, grant reports, other updates, etc.).

Description of Joint Evaluation Process

The joint evaluation process will include semi-annual progress reports by the state, including the elements of 40 CFR §§ 35.115 and 31.40-41. **EPA recommends using grant work plans as the template for reporting.** EPA will meet with the state, typically planned for mid-year timeframe, to discuss progress under the grant, any obstacles or short comings and make recommendations to the state for corrective action. EPA will provide all findings in writing to the state and may require the submission of a corrective plan by the state. In the event that resources do not allow EPA to meet with the state, e-mail and telephone discussions will take place to complete this evaluation.

Consistent with the need to be accountable for grant funds, state should identify outputs and outcomes from grant and grant related activities.

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DRINKING WATER PROGRAM GUIDANCE AND REPORTING CHECKLIST

Goal 2: Safe and Clear Water – Ensure drinking water is safe. Restore and maintain oceans, watersheds and their aquatic ecosystems to protect human health, support economic and recreational activities, and provide health habitat for fish, plants and wildlife.

Objective 1: Protect human health by reducing exposure to contaminants in drinking water (including protecting source water), in fish and shellfish, and in recreational waters.

Subobjective 1: Water safe to drink.

Workplan Component/Program: PWSS **Work years:** 2010-11

EPA Contacts: Wanda F. Johnson, SPM/PO
Anthony Meadows, Team Leader

State Contact: Walter Ivey, EED Director

PRC: 2010B03E

2.
Activities Required to Maintain PWSS Primacy See elements of §§142.10, 142.12, 142.14, 142.15, and 142.16

Outcomes: Implementation of an effective drinking water program as described in the work plan, increasing the knowledge and awareness of water suppliers of drinking water regulations; improved public health protection; increased public awareness of drinking water quality; achievement of compliance with drinking water regulations; measurable progress toward achievement of all outputs.

Task 2.1 **Data Management**
Outputs: Ensuring accurate and complete data related to inventory, compliance and enforcement activities are provided to EPA in a timely manner, each quarter;

Task 2.1.1
Participate in and follow-up to EPA **Data Verification Audit findings.** State will address major findings of the report and report to EPA on its activities/plans to prevent future occurrences.

Outputs/Progress to Date [Relationship between discrepancies from most recent DV Report (February 2006) with current Action Plan (March 2006) to address those discrepancies.]

- A "program review" was conducted in July 2008, formerly known as a Data Verification Audit.
- A draft report was received and jointly reviewed with EPA Region 3 and comments submitted during this reporting period.
- WVBPH has reviewed the final report and implemented recommendations, where practical.
- WVBPH has been working with EPA to contract with CADMUS, through in-kind funds, to review the last data verification audit and provide recommendations for improvements to the state.

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Outcomes/Benefits (Lessons learned, if any) [Discuss any proactive measures to avoid reoccurrence of discrepancies.]

Future Plans [Next review is scheduled for 2011.]

- Next review is scheduled for 2011.
- Will work with EPA and Cadmus to develop action plan to address any past and future recommendations.

Task 2.1.2

Maintain a database management system that accurately tracks the inventory (including routine updates of system information), tracks water quality monitoring information, and calculates monitoring and reporting (M/R) and maximum contaminant levels (MCL) violations for all rule implementation priorities. §142.14(c)

Outputs/Progress to Date

- The Office of Environmental Health Services (OEHS) updates the system inventory information, as the public water systems (PWSs) make the changes and provides the information to our district offices (DOs).
- SDWIS/State Web Release 2 (SSWR2) was recently installed in August 2009, and is used to enter/track/review water quality monitoring (bacteriological, radiological, and chemical) data, determine PWS monitoring/reporting compliance, track monitoring schedules, and assist in generating regulatory correspondence.
- SSWR2 is also used to run appropriate violation reports.

Outcomes/Benefits (Lessons learned, if any)

Future Plans

- We continue to evaluate our procedures to receive and process monitoring/sampling information.
- OEHS works with a SDWIS contractor to assist with any SDWIS problems.
- OEHS will move to SDWIS 3.0 in August or September after our contract is approved for the new year beginning July 1, 2011. SDWIS 3.0 involves the Groundwater Rule.

Task 2.1.3

Report quarterly (within 45 days of the end of the quarter) all violations and inventory updates for all systems, and for all rule implementation priorities, to the Safe Drinking Water Information System (SDWIS)/Operational Data System (ODS). Also report any problems in reporting to SDWIS/ODS on time. §142.15(a) & (b)

Outputs/Progress to Date

- The current procedure is to run SDWIS FedRep beginning about 30 days after the end of each calendar quarter, review the FedRep error report and make modifications in SSWR2 to correct the errors. This process is repeated until 45 days after the end of the quarter. Near the 45th day, the completed reports (Inventory, Actions, Samples) are electronically uploaded to the EPA CDX internet site.
- No problems in timely reporting to SDWIS/ODS during this reporting period.

Outcomes/Benefits (Lessons learned, if any)

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Future Plans

- OEHS plans to continue this procedure for the foreseeable future.

Task 2.1.4

SDWIS/ODS reporting includes the following activities. Particular emphasis should be placed on continuing efforts to improve data quality and reporting in the areas of Nitrate monitoring and reporting (M/R) and MCL violations; Lead and Copper Rule M/R violations; Total Coliform Rule violations and reporting of all enforcement actions.

a. Report all inventory updates with at least all of the mandatory reporting elements that determine grant eligibility. Refer to *Appendix A of the Consolidated Summary of State Reporting Requirements for the Safe Drinking Water Information System (SDWIS)* documentation, for the details on this reporting.

Outputs/Progress to Date

- Inventory information is entered by DO staff, who are the individuals that primarily discover inventory changes for OEHS. OEHS is currently using SSWR2. Mandatory reporting elements must be entered or an error message is shown to the person entering the data, in most instances. The DO staff enters deactivation data into SSWR2.
- When FedRep is used prior to upload to SDWIS/ODS, a completeness and error report may indicate missing data elements. As a result of this process, all mandatory reporting elements for inventory updates are being reported.
- OEHS is running additional data quality reports for inventory data in addition to using SDWIS/ODS on a quarterly basis.

Outcomes/Benefits (Lessons learned, if any)

- SSWR2, in conjunction with FedRep, are excellent tools to use to avoid missing mandatory data elements that determine grant eligibility.

Future Plans

- OEHS will continue to input inventory updates either directly into SSWR2 or via migration of data through a contractor developed tablet PC field tool that works with SSWR2.

Task 2.1.4

b. Report all M/R, MCL, Public Notification (PN), and treatment technique violations for all rules including M/R violations for unregulated contaminant monitoring. This activity includes tracking monitoring results, and recording violations for all community water systems (CWS), non-transient non-community water systems (NTNCWS), and transient non-community water systems (TNCWS).

Outputs/Progress to Date

- OEHS enters PWS test results, public notification (PN), Consumer Confidence (CCR) and Lead certification receipts into SSWR2 as data is received.
- No sooner than 10 days after the end of the applicable compliance period, OEHS personnel generates a pre-compliance violation list (which includes M/R, MCL, PN, and TT potential violations) from the data that has been entered into SSWR2. Designated personnel double check the data, and validate or reject the preliminary violation. A notice of violation (NOV) letter and, if applicable, appropriate PN templates are mailed to the PWS. The violations are reported to SDWIS/ODS on a calendar quarter basis.
- Unregulated monitoring requirements are directly implemented by EPA; the state role is coordination only.

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- Compliance Officers are using a work calendar and Violation summary spreadsheet to process the violations on a timely schedule.
- Data quality reports on test results, public notification, and violations are being run on a quarterly basis to minimize erroneous data being reported to FED.

Outcomes/Benefits (Lessons learned, if any)

Future Plans

- OEHS plans to continue with this process for the foreseeable future.
- A current round of UCMR monitoring ended December 31, 2010.
- OEHS plans to assist with UCMR3 as necessary and available.

Task 2.1.4

c. Report all formal enforcement actions and successfully link them to all appropriate violations.

d. Report all variances and exemptions.

e. Report all milestone information required under the regulations.

f. Report all required SWTR data (e.g., treatment codes for all surface water, purchased surface water, GUDI and purchased GUDI sources, seller's public water system identification (PWSID) number for purchased surface water and purchased GUDI sources, filtration reason codes, etc.).

g. Report compliance achieved, identify and correct erroneous data, and submit deactivation data to SDWIS/ODS for all applicable systems, especially Significant Non-compliers (SNCs).

Outputs/Progress to Date

- When a formal enforcement action is levied against a PWS, a copy of the enforcement document is sent to appropriate OEHS personnel and Federal EPA, if necessary. The enforcement actions are then linked to the violation in SSWR2.
- No exemptions or variances were in effect during this reporting period.
- Milestone information is reported via the quarterly uploads from SSWR2 to EPA/ODS in the Actions module.
- All Surface Water Treatment Rule (SWTR) data is reported via the quarterly uploads from SSWR2 to EPA/ODS in the Inventory module.
- Any PWS that returns to compliance is assigned the appropriate enforcement code in SSWR2. Erroneous data that are found are corrected as soon as possible after discovery, including unwarranted violations that are generated due to the erroneous data. The DO staff promptly enters deactivation data into SSWR2. This information is reported each calendar quarter via the Actions and Inventory modules in the EPA/ODS upload.

Outcomes/Benefits (Lessons learned, if any)

Future Plans

- The procedures outlined above are proposed to be continued for the foreseeable future.
- Exemptions, when issued, will be reported to EPA upon issuance.

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Task 2.1.5
Plan for and make system programming changes to meet any changes to the reporting requirements that will be effective in FY 2011 (Appendix A of Document EPA-812-B-95-001 summarizes all of the current reporting requirements). Specifically, plan for SDWIS modernization, new regulation reporting requirements in sufficient time to meet reporting deadlines of these new rules. Also see Implementation Guidances for each new rule for details on data management/data reporting requirements. §142.15

Outputs/Progress to Date
- OEHS has been reporting via http://cdx.epa.gov for multiple years, which is an integral part of SDWIS modernization.
- OEHS staff review Implementation Guidance for each new rule as they become available, and upgrade to the newest version of SDWIS/State that incorporates the reporting elements for the new rules.
- OEHS converted to SSWR2 in August of 2009.

Outcomes/Benefits (Lessons learned, if any)
- Using the most current version of SDWIS/State to the maximum extent possible keeps OEHS up-to-date with new regulation reporting requirements in sufficient time to meet reporting deadlines of new rules.

Future Plans
- The procedures outlines above are proposed to be continued for the foreseeable future.

Task 2.1.6
Verify and ensure the accuracy of SDWIS/ODS data when SDWIS printouts are made available to the State.

Outputs/Progress to Date
- SDWIS/ODS error reports are usually available within a few weeks after the data upload, and errors are usually problems between what is in the State database and what is in the Federal database.
- OEHS personnel works with EPA Region 3 personnel to minimize the differences between the two databases.

Outcomes/Benefits (Lessons learned, if any)
- Discrepancies between the State and Federal databases should decrease over time.

Future Plans
- OEHS plans to continue with the procedure outlined above for the foreseeable future.

Task 2.1.7
LCR unaddressed violations – Update data on PWSs that received a violation for monitoring or missed milestones and that do not have a follow-up action reported for compliance achieved (i.e., SOX) that is linked to the violation. §142.16(c)(4)

Outputs/Progress to Date
- Lead and Copper violations are addressed with State Administrative Orders (AOs) when they appear on the EPA Enforcement Targeting Tool (ETT) report sent to OEHS on a quarterly basis.
- There have been no unaddressed Lead and Copper Rule (LCR) violations during this reporting period.

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Outcomes/Benefits (Lessons learned, if any)

Future Plans

- This rule will continue to be implemented in its entirety for the foreseeable future.
- OEHS is looking at purchasing a tool that will allow us to evaluate all unaddressed violations and prepare AOs and Food Suspend (TNC systems with liquor/food permits) before we receive EPA's quarterly ETT report.

Task 2.1.8

Report **Public Notice (PN)** violations on a routine basis where appropriate. §142.15(a)(1)

Outputs/Progress to Date

- **504** PN violations were issued during this reporting period.

Outcomes/Benefits (Lessons learned, if any)

- Due to the change in EPA ETT reporting (including PNs as part of the non-complier prioritization process), more emphasis has been placed on requiring PWSs to complete older PNs.

Future Plans

- PN violations will continue to be reported and recorded in SSWR2 for the foreseeable future.
- Unaddressed PN violations will be included in our enforcement actions with AOs and Food Suspends.

Table 2.1.9

For **drinking water program rules**, (CCR, PN, M/DBP, LCRMR, Rads, Arsenic, **FBRR, IESWTR, LT1,** LT2, S2DBPR, LCRSTR, and GWR) enter data into SDWIS. State not using SDWIS/State must develop the capability of reporting to SDWIS as per Extension/Implementation Agreements. For new rules which are in effect, but **for which** the state does not have Primacy, reporting information **to and** for EPA, Region III, to make compliance determinations (see specific reporting needs in applicable Extension or Letter Agreements).

Outputs/Progress to Date

- Data is being entered into SSWR2 for all current rules. OEHS moved to SSWR2 in August of 2009. OEHS tries to upgrade to a newer version of SDWIS/State as they become available in order to allow reporting for new rules.

Outcomes/Benefits (Lessons learned, if any)

- Keeping current with the most recent version of SDWIS/State allows the entered data and other necessary information to be transferred into SDWIS/ODS.

Future Plans

- OEHS plans to convert to the latest version of SDWIS/State as soon as practical after release by EPA.
- OEHS plans to move to SSWR3 in SFY 2012.

2.2 Compliance and Enforcement including Implementation of all PWSS Program Activities required by 40 C.F.R. §§142.15 & 142.16. Activities are listed by general first and then by National Primary Drinking Water Regulation (NPDWR).

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Outputs: Undertaking enforcement program with informal and formal actions; making compliance determinations consistent with federal regulations; developing and delivering training programs for staff and public water suppliers.

Task 2.2.1
Complete **Annual Compliance Report** by July 1st, for previous year. Provide report to EPA Washington DC with copy to Region. SDWA Section 1414(c).

Outputs/Progress to Date **[Provide date of latest compliance report submitted]**
- The 2010 ACR was submitted on June 30, 2011.

Outcomes/Benefits (Lessons learned, if any)
- OEHS used EPA/CDX to generate our 2010 ACR report once the data was available.

Future Plans
- OEHS will continue to meet the July 1 deadline.

Task 2.2.2
Promote compliance with regulations. Notifying all systems of regulatory requirements and responding to questions (this includes CWSs, NTNCWSs and TNCWSs), taking enforcement action against recalcitrant or noncompliant systems, providing technical assistance, and issuing waivers, variances and exemptions, where appropriate.

Outputs/Progress to Date
- During this reporting period, the compliance officers responded to at least **1,132** phone calls.
- The following numbers of enforcement documents were issued:
  - **4,742** NOV letters
  - **26** Administrative Orders (AOs) without Penalty
  - **10** Food Permit Suspension Warning Letters
  - **4** Food Permit Suspension Request
- Compliance & Enforcement (C&E) has been working closely with Capacity Development (CD) to identify those PWSs that have a better chance of returning to compliance with assistance or consolidation into a better managed PWS than with enforcement tools.
- DO staff continues to work with their assigned PWSs to address problems before they occur.

Outcomes/Benefits (Lessons learned, if any)
- The Food Permit Suspension Request continues to be a valuable tool in returning to compliance those PWSs that require a food permit.
- The Food Permit Suspension Warning letters save interagency efforts to revoke a permit and appear to have the desired effect of returning most PWSs to compliance.

Future Plans
- An AO with Penalty tool is being developed to strengthen enforcement actions.
- Recalcitrant PWSs appearing on the ETT Report will be noted on our OEHS website.
- Approximately **1,037** PWSs will receive their 2012 monitoring schedules from the OEHS in early 2012 to remind them of their upcoming

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monitoring requirements.

- In addition to the Food Permit Suspension Requests, C&E will continue to issue Food Permit Suspension Warning letters that alert a PWS to an impending enforcement action if "return to compliance" actions are not quickly implemented. The OEHS will continue to enlist assistance from the local county health departments.
- C&E will continue to develop specific tools to deal with small water associations and businesses that are chronically out of compliance.

Task 2.2.3
Maintain records of pertinent State decisions (e.g., filtration decisions, waiver determinations, public notification provisions). Report to system files all responses to M/R and MCL violations in accordance with escalation procedures as negotiated in the State Compliance Strategy. Report to system files all documentation of informal enforcement activities. §142.14

Outputs/Progress to Date [Discuss implementation of compliance strategy to address violations during reporting period]

- All enforcement documents are maintained for the appropriate retention times with the corresponding system's file in OEHS's Central File Room.
- Violations and other pertinent documents are being scanned for quicker access by C&E and DO personnel to aid in enforcement issues, and as a backup QA/QC tool to the Central File Room.

Outcomes/Benefits (Lessons learned, if any)

- Access to scanned documents has been proven to be a more efficient means of accessing required documents, as well as making for efficient use of Compliance Officer time.

Future Plans

- Other documents will be evaluated to determine if additional scanning is value-added.

Task 2.2.4
Provide responses on SNC systems, on a quarterly basis using the standard format supplied with quarterly lists, to the Ground Water and Enforcement Branch. Work with EPA SNC Coordinator to determine why problems are occurring and take steps to correct.

Outputs/Progress to Date **[Provide dates of quarterly responses to SNC reports]**

- OEHS has been working with the EPA Region 3 ETT Coordinator on a quarterly basis to determine the status of ETT violations, actions, taken/to be taken to return PWSs to compliance, and to determine the best way to reduce the number of PWSs on the ETT report.
- The 2Q10, 3Q10 and 1Q11 ETT reports were sent to EPA on October 1, 2010, December 13, 2010, and June 1, 2011, respectively.
- The 2Q10 ETT report was the first report utilizing EPA's new ETT to target PWSs by overall system non-compliance rather than focusing on specific violations.

Outcomes/Benefits (Lessons learned, if any)

- The ETT initially required more time to evaluate but may lead to more accurate targeting of significant non-compliers since it focuses on the broad compliance picture rather than individual violations.

Future Plans

- OEHS will continue to evaluate new tools and procedures to reduce the number of PWSs on the ETT report.
- Evaluating new tools to more efficiently address ETT tasks.

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2.2.5 Government Performance and Results Act (GPRA) State Reporting Measures and Key PWSS Program Performance Indicators.

GPRA Measures: Reporting is met by reporting the required quarterly SDWIS compliance data or through other reporting already done under other initiatives such as the Source Water Matrix or Wellhead Protection Program reports. For information not already reported to EPA, **reporting frequency is semi-annual.** The **following are the GPRA State Core Performance Measures and Associated Reporting Requirements: A** – EPA Region III PWSS Key Performance measures – FY'05 will serve as the baseline for the **FY '10 – '11** time frame. See Table in PWSS Guidance, Attachment B. Compliance with many of these measures is tracked in SDWIS. Further reporting is required for measures relating to source water protection and sanitary surveys.

Task 2.2.6

TCR: Implement the entire rule for all system types.

Implementation includes: enforcing routine and repeat monitoring, making compliance determinations, conducting sanitary surveys, and reviewing sample site plans. Enforce additional routine monitoring the month following a positive sample and PN requirements.

Report the number of sample site plans reviewed, and discuss any major TCR implementation issues or problems.

Outputs/Progress to Date

- During this reporting period, community PWSs had a monthly TCR compliance rate of **95%**, while non-community PWSs had a quarterly TCR rate of **87%**.
- Sample site plans are reviewed during Sanitary Surveys.
- See Task 2.4.1 for number of sanitary surveys (number of sample site plans reviewed are the same).
- This rule is being implemented in its entirety.

Outcomes/Benefits (Lessons learned, if any)

Future Plans

- OEHS will continue to educate all PWSs on the importance of regularly monitoring for Total Coliform whenever possible.

Task 2.2.7

Phase II and V Rule for nitrates and nitrites: Implement the entire rule for all system types. **Implementation includes:** enforcing initial and follow-up monitoring, making compliance determinations and following up on violations.

Outputs/Progress to Date

- The Phase II and V rule for nitrates and nitrites M/R compliance rates for quarterly and annual nitrate sampling were **72%** and **81%**, respectively.
- The M/R compliance rate for the one-time nitrite test (over the 2008 – 2010 time period) was **33%**.
- This rule is being implemented in its entirety.

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Outcomes/Benefits (Lessons learned, if any)

Future Plans

- The Phase II and V rule for nitrates and nitrites will continue to be implemented in its entirety for the foreseeable future.

Task 2.2.8

Phase II and V Rule for Chronic Contaminants: Implementation includes making compliance determinations for monitoring that has been conducted, enforcing follow-up monitoring where results are greater than the MCL, and follow-up on MCL violations. States are also encouraged to make development and implementation of waiver programs a priority implementation activity. Enforce follow-up monitoring requirements where results are less than the trigger level. Enforce initial monitoring, and enforce follow-up monitoring where results are between the trigger level and the MCL.

Outputs/Progress to Date

- The Phase II and V rule for Chronic Contaminants compliance rate during this reporting period was as follows:
  - Annual IOC – **95%**
  - Triennial IOC – **89%**
  - Quarterly SOC – **50%**
  - Annual SOC – **83%**
  - Triennial SOC – **87%**
  - Quarterly VOC – **41%**
  - Annual VOC – **92%**
  - Triennial VOC – **94%**

Outcomes/Benefits (Lessons learned, if any)

Future Plans

- The Phase II and V rule for Chronic Contaminants will continue to be implemented in its entirety for the foreseeable future.

Task 2.2.9

Lead and Copper Rule (LCR) including the **Minor Revisions** for all PWSs: Implement the entire rule for all systems. **Continue efforts to improve PWSs timely monitoring of lead and copper.** Enforce routine water quality parameter monitoring and additional lead and copper monitoring. Enforce public education for all systems. Report action level exceedances and milestone information to SDWIS.

Outputs/Progress to Date

- The LCR (including minor revisions) monitoring compliance rates during this reporting period were:
  - 6-month – **97%**
  - Annual – **94%**
  - Triennial – **90%**

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- Action level exceedances and milestone information are reported to SDWIS/ODS on a quarterly basis.
- This rule is being implemented in its entirety.

Outcomes/Benefits (Lessons learned, if any)

- In general, the non-compliance PWSs are "basket cases" that have limited or no resources.
- Many have been turned over to Capacity Development and other WV agencies for assistance.

Future Plans

- The LCR (including minor revisions) will continue to be implemented in its entirety for the foreseeable future.

Task 2.2.10

ST 1 DBP: Continue implementation of the Stage 1 DBP Rule. Ensure that systems upgrade their monitoring plan if they change any of their sampling locations or dates.

Outputs/Progress to Date

- During this reporting period, compliance rates for the Stage 1 DBP rule follows:
  - Quarterly M/R DBP – **91%**
  - Annual M/R DBP – **92%**
  - Triennial M/R DBP – **96%**
  - Quarterly MCL DBP – **98%**
  - Quarterly M/R TOC – **89%**
  - 4ppm chlorine residual MRDL – **100%**
  - TOC TT – **90%**

Outcomes/Benefits (Lessons learned, if any)

Future Plans

- Interviews are being conducted to hire additional staff to help with C&E.

Task 2.2.11

SWTR: Implement the entire rule. **(§141.70 - §141.76, subpart H)** Complete all GUDI determinations.

Report in semi-annual self-assessment, the number of GUDI assessments completed and expected timeframe for completion of remainder. Source type changes should be recorded in SDWIS. Deadlines to install filtration must be met.

Give status of %s for active/seasonal systems and unresponsive/orphan systems.

Outputs/Progress to Date

- For reporting purposes, we have established January 1, 2004, as a benchmark. PWSs that became active or existing PWSs that added new sources after January 1, 2004, are separated and considered new.
  - Ground Water Under the Direct Influence (GUDI) Status PWSs Active Prior to January 1, 2004:
    - Community **100%**

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- GUDI Status through December 31, 2010, of PWSs Active after January 1, 2004, and for existing evaluated systems adding new wells after January 1, 2004:
  - Community **3** testing new wells **2** new systems testing
  - NTNC **2** testing new wells **8** new systems testing
  - NC **3** testing new wells **34** new systems testing, plus one doing additional testing
- PWSs are advised of treatment requirements if the source is determined GUDI.

Outcomes/Benefits (Lessons learned, if any)

- OEHSs goals to achieve 100% testing and evaluation for PWSs active before January 1, 2004, has been completed.

Future Plans

- New PWSs and sources for existing PWSs have been and will continue to be contracted to complete testing.
- New PWSs and sources for existing PWSs are added to the GUDI inventory on an ongoing basis.

Task 2.2.12

Interim Enhanced Surface Water Treatment Rule (IESWTR): Continue implementation of IESWTR. Provide a list of systems that have had a sanitary survey completed during the previous year and an annual evaluation of your state's program for conducting sanitary surveys §142.15(c)(5). **NOTE: IESWTR only applies to surface and GWUDI system with a population over 10,000.**

Outputs/Progress to Date

PWSID	System Name	Date Completed
WV3302016	WVAWC – Kanawha Valley District	07/19/2010
WV3300212	Martinsburg, City of	08/18/2010
WV3304203	Elkins, City of	09/01/2010
WV3302502	Fairmont, City of	10/26/2010
WV3300218	Berkeley County PSD/Potomac River	01/07/2011
WV3304902	Buckhannon Water Board	02/15/2011
WV3302031	St. Albans MUC	06/14/2011

Outcomes/Benefits (Lessons learned, if any)

Future Plans

PWSID	System Name	Date Scheduled
WV3300516	Weirton Area Water Board	11/18/2011
WV3303516	Wheeling, City of	11/19/2011
WV3300608	WVAWC – Huntington	01/21/2012
WV3300104	Philippi, City of	02/10/2012
WV3301307	Lewisburg	03/06/2012
WV3304605	Taylor County PSD	05/21/2012
WV3301705	Clarksburg Water Board	07/10/2012
WV3304513	WVAWC – Bluestone Plant	07/29/2012
WV3301046	WVAWC – New River Regional	09/14/2012

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WV3303111	Morgantown Utility Board	10/06/2012
WV3302364	Logan County PSD – Northern Regional	12/03/2012
WV3301905	Charles Town	12/09/2012
WV3300202	Berkeley County PSD – Bunker Hill	01/13/2013
WV3302835	WVAWC – Bluefield District	02/23/2013
WV3304011	Putnam PSD	03/15/2013
WV3302104	WVAWC – Weston District	03/30/2013
WV3304104	Beckley Water Company	06/15/2013

Task 2.2.12.a

Implement the Long Term 2 Enhanced Surface Water Treatment Rule (LT2). Prepare systems for second round of source water monitoring beginning April 2015 for Schedule 1 systems. Provide the bin classification of each system subject to source water monitoring of 141.710 after the first and second rounds of monitoring. §142.15(c)(6).

Outputs/Progress to Date

- OEHS District Offices (DO) worked with systems to approve sampling schedules for either **24** months of Cryptosporidium/E. coli/turbidity (**Schedule 1, 2, or 3**) or **12** months of E. coli with **12 to 24** months of Cryptosporidium if E. coli trigger exceeded (**Schedule 4**).
- After sampling was completed, DOs also determined if any uncovered finished water reservoirs existed.
- Through the bin classification determinations, PWSs are being advised of a future second round of monitoring that must begin according to the following timetable:

  Schedule 1 Systems – no later than April 2015
  Schedule 2 Systems – no later than October 2015
  Schedule 3 Systems – no later than October 2016
  Schedule 4 Systems – no later than October 2017
  Schedule 5 Systems – no later than April 2019

Outcomes/Benefits (Lessons learned, if any)

Future Plans

- DOs will continue working with PWSs on initial bin classifications and providing reminders for upcoming second round sampling.

Task 2.2.12.b

Implement the Ground Water Rule.

Report on implementing rule, sanitary surveys, corrective action requirements, compliance monitoring. §142.15(c)(7).

Outputs/Progress to Date

- OEHS DOs worked with all applicable systems in determining if the PWS is providing at least 4-log treatment of viruses. State has received letters from all applicable systems acknowledging the minimum chlorine levels required for 4-log treatment of viruses.
- All systems have had an initial sanitary survey and will be on a **5 year** frequency schedule, if providing at least 4-log treatment.

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Schedule of **3 years** for community PWSs if not meeting the 4-log treatment.
- All systems providing a monthly reporting form to report disinfectant levels.
- **Systems under 3,300 population** are taking grab samples. **Systems over 3,300 population** have installed continuous disinfectant monitoring and recording equipment.
- DO staff is reviewing continuous monitoring equipment and compliance staff is reviewing all monthly report submittals.
- M/R violations issued to GW Systems (code 31) - **622**

Outcomes/Benefits (Lessons learned, if any)

Future Plans
- When new PWSs are added to the inventory, determinations will be made for 4-log treatment of viruses and initial sanitary surveys will be performed.
- This rule will continue to be implemented in its entirety for the foreseeable future.

Task 2.2.13
Rads: Implement the Radionuclides Rule. Work with PWSs, as needed, to ensure they are aware of their regulatory requirements.

Work with the appropriate state agency to identify systems designated as "contaminated" or "vulnerable to contamination" by nuclear effluents and monitor accordingly.

Outputs/Progress to Date
- During this reporting period, the quarterly Rad M/R and MCL compliance rates were **27%** and **100%**, respectively.
- This rule is being implemented in its entirety.

Outcomes/Benefits (Lessons learned, if any)
- In general, the non-compliant PWSs are "basket cases" that have limited or no resources.
- Many have been turned over to Capacity Development (CD) and other WV agencies for assistance.

Future Plans
- This rule will continue to be implemented in its entirety for the foreseeable future.

Task 2.2.14
Arsenic: Implement the Arsenic rule. Work with PWSs, as needed, to ensure they are aware of their regulatory requirements and can meet lower MCL effective January 22, 2006. Initiate compliance agreements with systems out of compliance.

Outputs/Progress to Date **[Report positive change in population protected by new MCL achievement.]**
- During this reporting period, the compliance rates were:
  - Quarterly M/R – **100%**
  - Quarterly MCL – **100%**
  - Annual M/R – **95%**
  - Triennial M/R – **84%**

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- This rule is being implemented in its entirety.

Outcomes/Benefits (Lessons learned, if any)

Future Plans

- This rule will continue to be implemented in its entirety for the foreseeable future.

Task 2.2.15

FBRR: Review plant recycling information during sanitary surveys.

Outputs/Progress to Date

PWSID	System Name	Date Completed
WV3302016	WVAWC – Kanawha Valley	07/19/2010
WV3305104	WVAWC – Webster Springs	07/20/2010
WV3303917	Terra Alta, Town of	08/11/2010
WV3300806	Clay Roane PSD/Procious	04/19/2011

Outcomes/Benefits (Lessons learned, if any)

Future Plans

PWSID	System Name	Date Scheduled
WV3305517	Pineville Municipal	07/18/2011
WV3301204	Petersburg, City of	04/08/2012
WV3304513	WVAWC – Bluestone	07/29/2012
WV3303404	Summersville Municipal Water	08/06/2012
WV3301714	Lumberport, Town of	11/18/2012
WV3301905	Charles Town	12/09/2012
WV3302835	WVAWC/Bluefield Plant	02/23/2013
WV3301405	Romney, City of	02/23/2013
WV3304011	Putnam PSD	03/15/2013
WV3303206	Red Sulphur PSD	05/04/2013
WV3304104	Beckley Water	06/15/2013

Task 2.2.16

LT1: Continue to implement the LT1 Rule. Inform the affected systems of their requirements under the rule and report any violations to SDWIS/ODS. §142.12.

Outputs/Progress to Date

- Monthly Operational Reports (MORs) are submitted by applicable PWSs to OEHS, where the turbidity and chlorine residual data are entered into SSWR2 on a routine basis by Data Management (DM) staff.

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- The turbidity data is provided to the DOs, where it is then entered into the AWOP TURBOPT spreadsheet/graphing program and subsequently reviewed with the PWS operator.
- During this reporting period:
  - Turbidity violations (vio code 41) – **49**.
  - Insufficient chlorine residual reading violations (vio code 36) – **83**.
  - Insufficient turbidity reading violations (vio code 38) – **28**.
- This rule is being implemented in its entirety.

Outcomes/Benefits (Lessons learned, if any)

Future Plans

- This rule will continue to be implemented in its entirety for the foreseeable future.

Task 2.2.17

All Other Currently Regulated Chemicals: Take enforcement actions for all arsenic MCL and M/R violations. Enforce total trihalomethane monitoring and MCL violations. Enforce current radionuclide standards. Enforce monitoring for other contaminants. Enforce against systems with other MCL violations.

Outputs/Progress to Date

- The SDWIS/State Compliance Decision Support (CDS) Reports are run routinely to identify potential M/R and MCL violations.
- When violations are verified, NOV letters with PN requirements are sent to the administrative contact and the violations are recorded concurrently in SSWR2, with appropriate enforcement actions electronically linked to the violation.

Outcomes/Benefits (Lessons learned, if any)

Future Plans

- OEHS will continue to update CDS reporting and Pre-Compliance evaluations to keep up with any regulatory revisions in SSWR2.

Task 2.2.18

PN Rule: Include public notification requirements in compliance assistance and enforcement actions that are taken on MCL, treatment technique, and M/R violations following all aspects of Revised PN Rule effective May 2002.

Outputs/Progress to Date

- PN requirements are included with each NOV letter addressing MCL, TT, and M/R violations in accordance with the PNR.
- PN violations are issued and recorded in SSWR2 for failure to perform PN requirements.
- This rule is being implemented in its entirety.

Outcomes/Benefits (Lessons learned, if any)

Future Plans

- This rule will continue to be implemented in its entirety for the foreseeable future.

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Task 2.2.19
Revise the **State Compliance Strategy** to reflect changes in the State and Federal regulations, including revised Penalty Authorities, any new or revised State MCLs, any new SNC definitions, State procedural or organizational changes, and State/U.S. EPA Enforcement Agreements. The revisions should also include updated timely and appropriate flow charts for TCR, total trihalomethane, Radionuclides, Phase 2 & 5, SWTR, Lead Ban, and LCR violations, the CCR rule, IESWTR and DDBP rule, LCRMR, Arsenic, FBRR, LT1, and other new rules when available. The charts should trace the State's response from identification of a violation through the State's most formal enforcement tools to final compliance. §142.11.

Outputs/Progress to Date [Revised compliance strategy.]
- A Compliance Strategy Program Committee meeting was held to review a "strawman" format describing the C&E work process in validating violations for each individual rule.
- If approved, the "strawman" would be used by the various EED groups to generate work processes that outline how regulatory requirements are implemented.

Outcomes/Benefits (Lessons learned, if any)
- The Committee recommended that the program revision focus on defining:
  - Progressive enforcement action levels;
  - Triggers required to reach each level; and,
  - The QA/QC steps taken to ensure consistent enforcement at each progressive action level.

Future Plans
- The "strawman" will be revised and re-presented to the committee for further review.

Task 2.2.20
Screen data submitted by public water systems for evidence of data falsification, and take **follow-up enforcement action** as appropriate.

Outputs/Progress to Date [Revised compliance strategy.]
- During this reporting period, no enforcement actions were taken.
- DOs have access to scanned MORs to review PWS data, especially those on the SNC list.
- When data integrity issues have been found by DO staff, formal letters of inquiry have been sent to water operators by our Certification and Training Unit requesting explanations with possible license revocation or suspension, if deemed necessary.

Outcomes/Benefits (Lessons learned, if any)

Future Plans
- Emphasis will continue to be placed on identifying discernable data discrepancies on the MORs.

Task 2.2.21
Certify that the responsible State agency (if not the drinking water program) continues to enforce the Lead Ban, through inspections and state enforcement actions. §147.

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Outputs/Progress to Date

- The design standards were revised to not allow lead materials in PWSs.
- WV has adopted and enforced the lead and copper rule, which indirectly monitors individual plumbing systems.

Outcomes/Benefits (Lessons learned, if any)

- Few instances of lead Action Level exceedances.

Future Plans

- WV does not plan on modifying the non-lead requirement in the PWS design standards and will continue to implement the lead and copper rule.

Task 2.2.22

Maintain records of tests, measurements, analyses, decisions, and determinations performed on each PWS to determine compliance with application drinking water regulations; sanitary surveys, enforcement actions, vulnerability determinations, Public Notice, etc.; make records available to the Regional Administrator, upon request. §142.14.

Outputs/Progress to Date

- All tests, measurements, analyses, decisions, and determinations are currently scanned with a hard-copy filed in individual PWS files located in the OEHS Central File Room.

Outcomes/Benefits (Lessons learned, if any)

- Scanning the test results will benefit various units within OEHS by allowing them to look at the data for monitoring/reporting, MCLs and site visits without pulling the actual hard-copy files.

Future Plans

- Data Management (DM) staff will continue scanning chemical results into PWS folders for the future year(s) and entering data into SSWR2.

Task 2.2.23

Consumer Confidence Reports: Implement the CCR Rule (§142.12). Report on implementation of CCR rule [§142.15, §142.16(f)]. States must report violations and enforcement actions directly to SDWIS by November 15th.

Outputs/Progress to Date

- NOV letters and AOs are issued for late or non-submittal of Consumer Confidence Reports (CCRs) in accordance with the CCR rule.
- PWSs are encouraged to submit their CCR certification along with their CCR since a significant number of violations occur due to non-submittal of the certification form by October 1.
- During this reporting period, violations issued for CCR and CCR Certification Form non-compliance was **80** and **76**, respectively.
- This rule is being implemented in its entirety.

Outcomes/Benefits (Lessons learned, if any)

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Future Plans

- This rule will continue to be implemented in its entirety for the foreseeable future.

Task 2.2.24

Consider this a placeholder for the Office of Enforcement and Compliance (OECA) reporting measures. [As far as we know, there are no additional reporting requirements for the States. OECA primarily looks at SNCs, SNCs which have returned to compliance, and those SNCs which are Exceptions. OECA priorities include implementation and enforcement of microbial rules and Federal enforcement of new rules.]

2.3 Regulation Development and Authority

Adopt all rules on schedule as required by §142.12 and any Special Primacy requirements found at §142.16. States are strongly encouraged to adopt rules within the two years deadline to avoid a crunch in future years. Complete all primacy application packages as specified in any applicable memorandum of agreement or extension agreement. Report on any major implementation issues or problems. Apply for extension of time to adopt new regulations within two years of promulgation. Region III prefers **at least a 3 month lead time** to complete Extension Agreements by this deadline.

NOTE: All rule effective dates, primacy revision package/extension request due dates are included in Appendix A of the PWSS Guidance Document.

Task 2.3.1

Analytical Method Rule Changes: Revise the State rules so that these are as stringent as the analytical methods published in the Federal Register. §142.12

Outputs/Progress to Date

- WV has adopted all federal rules in 40 CFR 141 by reference as promulgated by April 21, 2011, which includes all of the above analytical method rule changes.

Outcomes/Benefits (Lessons learned, if any)

- Adopting federal rules by reference has simplified the primacy application process.

Future Plans

- WV plans to adopt all federal rules, by reference, whenever feasible, as soon as practical.

Task 2.3.2

Maintain required statutory and regulatory authorities (those upon which primacy approval was based). Report on the status of any State reorganizations, and their effects on statutory or regulatory authorities, on implementation.

Report on any changes to statutory, regulatory, or laboratory certification status of the State Primacy Agency. §142.12.

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Outputs/Progress to Date

- No reorganizations occurred during this reporting period.
- A minor problem was found in the state regulations in reference to the primacy application for the Ground Water Rule. Modified language was submitted to DHHR Legislative Review for revision in the 2012 State Legislative Session (64 CSR 3).
- Submissions have been made to change the PWS Operator Rules (64 CSR 4) and the Public Water System Design Standards (64 CSR 77) for consideration in 2012.

Outcomes/Benefits (Lessons learned, if any)

Future Plans

- No problems are anticipated in obtaining approval for the proposed change all three rule changes.

Task 2.3.3

Prepare for and adopt **Lead and Copper Rule Short-Term Revisions (LCRSTR).** §142.12 and §142.16.

Outputs/Progress to Date

- WV was granted primacy for this rule in July 2010.

Outcomes/Benefits (Lessons learned, if any)

Future Plans

- WV plans to implement and enforce the provisions of this rule in its entirety.

Task 2.3.4

Prepare for and adopt **Ground Water Rule (GWR).** §142.12 and §142.16.

Outputs/Progress to Date

- EPA Headquarters objected to the use of the word "variance" in the state regulations, because this term has a different meaning in the federal regulations. The federal regulations are adopted by reference in the state rules. WV committed to change the wording in a future Legislative Session, and primacy was conditionally approved in July 2010.

Outcomes/Benefits (Lessons learned, if any)

Future Plans

- WV plans to implement and enforce the provisions of this rule in its entirety.

Task 2.3.5

Prepare for **Radon Rule**. Identify systems which may have elevated levels and work with systems to reduce risk of exposure. §142.12.

Outputs/Progress to Date

- No activity on this task during this reporting period, based on the currently anticipated action date by EPA.

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Outcomes/Benefits (Lessons learned, if any)

Future Plans

- Preparation will begin for adoption and implementation when finalization of the rule is nearer.

Task 2.3.6
Adopt and implement new rules (including LT2/Stage2 DBP/GWR). §142.12 and §142.16.

Outputs/Progress to Date [Describe implementation activities.]

- WV has implemented LT2, Stage 2 DBP, GWR, and LCRSTR.

Outcomes/Benefits (Lessons learned, if any)

Future Plans

- WV will make plans to adopt and implement all new rules that are proposed and finalized by EPA.

2.4 Surveillance and Technical Assistance

Outputs: Conduct # or % sanitary surveys and other inspections/visits of water systems; permitting of drinking water facilities to assure that the design and construction of facilities will be capable of compliance with drinking water standards;

Task 2.4.1
Maintain an adequate sanitary survey program. Document deficiencies found in the surveys and follow-up to correct these deficiencies within the State's authority. Please provide the number of CWSs, NTNCWSs, and TNCWSs which are scheduled for sanitary surveys in FYs 2011 and 2012 in the State's workplan and provide an update on the number of surveys completed. Please report on any key survey deficiencies or issues at SNC systems. §142.16.

Report in semi-annual self-assessment the number of sanitary surveys, key survey deficiencies or issues and the number of GUDI assessments completed and expected timeframe for completion of remainder. Give status of %s for active/seasonal systems and unresponsive/orphan systems. **TOTAL PROJECTED SANITARY SURVEYS FOR SFY 2011: 280**

Source type changes should be recorded in SDWIS. Deadlines to install filtration must be met.

Outputs/Progress to Date

# of sanitary surveys conducted at:

Ground Water CWS	**42**	NTNCWS	**34**
Surface or GWUDI CWS	**115**	TNCWS	**71**

TOTAL NUMBER OF SANITARY SURVEYS CONDUCTED DURING THIS REPORTING PERIOD: 262

Outcomes/Benefits (Lessons learned, if any)

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Future Plans

- OEHS will conduct required number of Sanitary Surveys per EPA frequency guidelines as follows:

	FY 2012 (July 1, 2011 – June 30, 2012)	FY 2013 (July 1, 2012 – June 30, 2013)
CWS	118	133
NTNCWS	20	13
TNCWS	74	78
TOTALS	**212**	**224**

Task 2.4.2

Maintain adequate plan and specification review program to assure that design and construction of new and modified drinking water system facilities will be capable of complying with the drinking water regulations.

Please provide an update on the number of reviews completed or key problem areas in semi-annual self-assessment. §142.10.

Outputs/Progress to Date

	FY 2011 Plan	FY 2011 Actual
Water plan reviews (#)	**230**	**210**
Water permits issued (#)	**150**	**148**

- Central Office staff has the responsibility of reviewing plans and issuing permits to construct.
- District Office staff review plans and input suggestions for improvements and corrections for deficiencies as part of the plan review.

Outcomes/Benefits (Lessons learned, if any)

- OEHS staff will comply with state statute during the review of all design plans and issue permits for those that meet required federal and state standards.

Future Plans

- All newly proposed or revised community water projects are designed and issued a permit to construct facilities meeting design standards.

Task 2.4.3

Maintain the capability to respond to emergency circumstances and to ensure provision of potable drinking water under emergency circumstances. Update Plans as necessary. Please report on any ongoing emergency issues in self-assessment. §142.10.

Outputs/Progress to Date [Describe efforts, e.g., revisions to state plan]

- OEHS staff identified as key emergency responders and provided with cell phones and Global Position System (GPS) Units.
- OEHS staff participated in classroom and online National Incident Management System (NIMS) and Incident Command System (ICS) training.
- OEHS staff trained in use of special portable radios which may enable emergency communications when cell phones and conventional landline phones are inoperable.

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- Summer interns updated OEHS emergency contact information for the state's Public Water Systems (PWS) and local health departments (July 1, 2010 – August 6, 2010).
- Internal and other emergency contact lists updated.
- Staff surveyed community PWSs to determine the existence of pipeline interconnections.
- Contracted vendor assessed backup power generation capabilities of the PWSs and maintained a database of emergency generator information for PWS use.
- Participated in West Virginia Water/Wastewater Agency Response Network (WV WARN) meetings and activities.

Outcomes/Benefits (Lessons learned, if any)

- Cell phones and GPS Units enhance communication between OEHS emergency responders and other key responders (other government agencies, PWSs, law enforcement, and local health departments) during emergencies.
- OEHS staff is prepared to utilize NIMS and ICS principles during emergency situations.
- Staff is prepared to utilize special portable radios during emergency situations.
- Special portable radios provide a means of emergency communication when cell phones and landline phones are inoperable.
- Updated emergency contact information enhances communication between OEHS emergency responders, PWSs and/or local health departments during emergencies.
- PWS and county Office of Emergency Services personnel effectively utilize temporary backup generators and/or emergency generator database information to obtain those resources during emergencies, maintenance outages, securing funds for purchasing generators.
- Potable drinking water can be obtained in a variety of methods and in a timely manner during emergencies.
- Mutual aid programs (WV WARN) enhance PWSs emergency preparedness, response, and resiliency.

Future Plans

- Continue providing OEHS staff identified as key emergency responders with cell phone and GPS Units.
- New OEHS staff members will participate in NIMS and ICS training.
- Purchase additional special portable radios for use by OEHS staff.
- Train existing and new staff in the use of the special portable radios.
- Summer intern will update emergency contact information (July 18, 2011 – August 12, 2011, and summer 2012).

Task 2.4.4

Maintain documentation for and implement a Quality Management System which includes an adequate laboratory certification program. Update the State Quality Management Plan for the PWSS Program. The State **PWSS Quality Management Plan (QMP)** documents the Standard Operating Procedures (SOP) and QA/QC requirements for the laboratory and the PWSS quality assurance systems. The QMP will include management and organization regarding QA, descriptions of technical tools of QA for all program functions including: laboratory certification and SOPs; PWS compliance, inventory and monitoring data; personnel qualifications and training, and other information. This plan is mandatory for all PWSS grant recipients and must be updated annually or as needed.

Submit additional requested documentation for conditional approved plans to make QMPs approvable.

40 C.F.R. §30.54 and 31.45 and EPA Guidance-EPA QA/R-2.

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Outputs/Progress to Date

- A combined QAMP/QAPP was submitted to EPA in September 2010. Comments were received by EPA in January 2011 and modifications were made and submitted to EPA on March 24, 2011.

Outcomes/Benefits (Lessons learned, if any)

Future Plans

- Upon EPA approval, OEHS will distribute the Plan to appropriate personnel internally.

Task 2.4.5

Develop, implement and update documentation for **Quality Assurance Project Plans (QAPP)** for collection, transport, and analysis of samples intended for developing information or data to be used for implementation of the PWSS Program. QAPPs are to follow EPA guidance on plan development. QAPPs are not necessary if State PWSS Program staff do not collect any samples in the implementation of the PWSS Program. These plans must be updated as needed. 40 CFR §§30.54 and 31.45, EPA Guidance EPA QA/R-5. Review QAPPs of contractors.

Outputs/Progress to Date

- Please see Task 2.4.4.

Outcomes/Benefits (Lessons learned, if any)

Future Plans

- Please see Task 2.4.4.

Task 2.4.6

Establish and maintain a state program for the certification of laboratories conducting analytical measurements of drinking water; assure availability to the state of laboratory facilities certified and capable of performing analytical measurements of all contaminants.

State Lab should complete PT sample studies and repeating of any analysis that were unacceptable in make-up studies. **TOTAL PROJECTED ONSITE EVALUATIONS FOR SFY 2011: 2 CHEMICAL LABORATORIES AND 7 BACTERIOLOGICAL LABORATORIES.**

Provide EPA ESC with NELAP certificates of all commercial laboratories.

§142.10(b)(3) & (4) To the extent possible, place listing of labs on website.

Outputs/Progress to Date

- WVs laboratory certification for the drinking water program is located within the Office of Laboratory Services (OLS) within the Bureau for Public Health (BPH). There are two divisions dealing with laboratories: Environmental Microbiological (EM) and Environmental Chemistry (EC).
- A list of commercial labs (including the EM and EC labs) is published on the OLS website at

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http://www.wvdhhr.org/labservices/shared/docs/EnvMicro/waterqualitylabs.pdf.

- EC received **5** requests for out-of-state laboratory certification.
- **3** certified chemistry laboratories expanded their scope of accreditation.
- **1** certified chemistry laboratory had their scope of certification downgraded to "not certified" for selected contaminants and methods.
- **1** certified chemistry laboratory did not renew their certificate for 2011.
- **1** provisionally certified lab had their scope of accreditation upgraded to "Certified" for selected contaminants and methods.
- **3** certified chemistry laboratories had their scope of accreditation downgraded to "provisionally certified" for selected contaminants and methods.
- EC lab performed **2** on-site evaluations.
- Updated the WV Manual for the Certification of Drinking Water Laboratories for Chemical Parameters.
- The EC lab successfully passed a make-up Proficiency Test for NO_3 and NO_3+NO_2.
- The EC Lab successfully passed a proficiency testing study for metals by EPA method 200.8.
- EC Lab was granted Interim Certification for EPA method 200.8 by EPA Region 3 for the primary regulated metal contaminants.
- The EC lab successfully passed the initial Proficiency Testing Water Study for all parameters in which they currently hold certification.
- The EC lab is in the process of submitting the initial Demonstration of Capability Study data to EPA Region 3 to become certified on the Discrete Analyzer by EPA method 353.2 following the ATP's provided by SEAL Analytical.
- EC lab installed the Perkin Elmer Gas Chromatograph (GC) / Mass Spectrometer with an I O Analytical Purge and Trap attached for the analysis of Volatile Organic Compounds and Trihalomethanes by EPA method 524.2.
- A Thermo Scientific Gas Chromatograph / Electron Capture Detector (ECD) and JASCO High Performance Liquid Chromatograph (HPLC) Fluorescence Detector / UV Detector were donated to the EC lab for the analysis of Haloacetic acids and Pesticides. The ECDs on the Thermo Scientific GC need to be replaced due to oxidation of the Ni-63 source. Everything appears to be working properly on the JASCO HPLC.
- **1** EC Chemist transferred to a different section within the OLS.
- Hired **1** Chemist who is in the six-month probationary period for new employees.
- Hired **2** Chemists in late 2010, both are past their six-month probationary period for new employees.
- EC lab is fully staffed after the recent departure of personnel.
- EC Lab received monies for the initial startup of an organics laboratory to fulfill primacy requirements of the Principle State Laboratory.
- EM lab received almost **10,900** water samples for Total Coliform analysis. Of that number, approximately **3,200** samples were from PWSs and approximately **30** were from raw source waters.
- EM Certification Officers performed **4** on-site evaluations of drinking water laboratories.
- **2** additional out-of-state laboratories requested to be certified for drinking water microbiology for the calendar year 2011.
- EM lab provided training for Water Operator Class I certification courses.
- The EM lab performed and passed proficiency tests for Total Coliforms, Fecal Coliforms/*E. coli* and Heterotrophic Bacteria by methods SM9221B/E, SM9222B, SM9223B, SM9223B-QT, and SM9215B.

Outcomes/Benefits (Lessons learned, if any)

Future Plans

- EC Lab submitted a purchase order for 3 Gas Chromatograph / Electron Capture Detector instruments and will be reviewing the bids in August 2011. The GC/ECD instruments will be used for the analysis of pesticides, herbicides, and Synthetic Organic Compounds

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analysis.

- EC lab should have the Initial Demonstration of Capability Study data completed for several of the organic methods by mid-year 2012 for the triennial EPA Region 3 inspection due in the 4th quarter of 2012. The listing of parameters and methods for initial organic startup, year 2012 is as follows:
    - Volatile Organic Compounds by EPA Methods 524.2
    - Trihalomethanes by EPA Method 524.2
    - Haloacetic Acids by EPA Method 553.2
    - Pesticides by EPA Methods 505 and 531.2
    - SOC by EPA Method 504.1
    - Herbicides by EPA Method 515.4

  Future organic parameters for year 2013 is as follows:
    - Diquat by EPA Method 549.2
    - Endothall by EPA Method 548.1
    - Glyphosate by EPA Method 547
    - SOC by EPA Method 550.1
- EM plans to conduct **6** on-site evaluations of drinking water microbiology laboratories throughout the state during the next 6 months.
- In an effort to reduce operating costs, the EM lab is exploring the use of Colitag and will be participating in a proficiency test for that method.

Task 2.4.7

Unregulated Contaminant Monitoring Rule Cycle 2 (UCMR2) – Carry out responsibilities under the mutually agreed upon Partnership Agreement (PA). Specifically those activities occurring in SFY 2011.

- Provide sampling and reporting assistance to those water systems performing monitoring of List 1 and List 2 contaminants;
- Assist EPA in obtaining water system compliance through follow-up contact with those systems non-complying. EPA will provide a list of such systems.
- Review detects reported to SDWARS/UCMR and take action if needed;
- Work with Community Water Systems to include UCMR data in CCRs;
- Work with CWS and NTNCWSs to include a notification of the availability of the results of PNs.

Outputs/Progress to Date

- DO personnel have collected samples for the small PWSs and OEHS has sent reminder letters to the affected PWSs reminding them of the CCR and PN requirements at the end of the calendar year 2010.
- This program is believed to be completed. WV has reviewed the remainder of the analytical results in SDWARS and is entering the remaining analytical results into SSWR2.

Outcomes/Benefits (Lessons learned, if any)

- Sampling began at some PWSs in 2008, with DO personnel encouraging/helping the affected PWSs to collect the samples at the appropriate time.

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Future Plans

- WV will work with EPA when UCMR3 is promulgated.

2.4.8 Training

Task 2.4.8.1

Leverage both PWSS and DWSRF grant set-aside funding to **increase the amount of training** made available to operators of public water systems. Training on regulations, treatment technologies (particularly small system treatment technologies), security and public education should be stressed. **Quantitative Outputs:** Report on the type and numbers of training courses given. **TOTAL PROJECTION FOR TRAINING COURSES IN SFY 2011: 46**

Outputs/Progress to Date

- All certification courses that are required to be completed by PWS operators are provided by OEHS or through OEHS contracts.
  - There were **45** classes for 1D.
  - There were **3** classes for WD [through the WV Environmental Training Center (WVETC) contract].
  - There was **1** class for Class I*.
  - There was **1** class for Class II*.
  - There were **0** classes for Class III.
  - There were **6** Chief Operator classes [through the WV Rural Water Association (WVRWA) contract].

    *OEHS uses the 2% State Revolving Fund Set-aside funding to provide additional water operator certification training courses through WVRWA. These courses are not included in the above totals, but are listed separately in Task 3.0.1.
- Several OEHS staff presented part or all of the following continuing education hour (CEH) courses on drinking water program topics at the WVRWA Annual Conference in September 2010:
  - Asset Management (CUPPS)
  - Proposed Revisions to 64 CSR 4
  - Fund Agencies Roundtable Discussion
  - CAPDEV Class (Sanitary Surveys)
  - Emergency Response Revisited & VA & ERPs
  - New Technologies to Meet Future Regulations
- Several OEHS staff presented the continuing education hour (CEH) course, CAPDEV Class (Compliance and Enforcement) at the WV EXPO in March 2011.
- OEHS staff attended National Capacity Development and Operator Certification Workshop held in Dallas, TX on September 13 – 16, 2010.

Outcomes/Benefits (Lessons learned, if any) [# of individuals trained in (subject) leading to: improved compliance rates and increased number of trainers.]

- A total of **239** individuals trained* in the following courses leading to improved compliance rates and increased number of trainers:
  - **93** received 1D training
  - **33** received WD training (WVETC Contract) NOTE: Not all will apply for certification; may use for CEH only.
  - **35** received Class I Water training*

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- **17** received Class II Water training*
- **0** received Class III Water training*
- **61** received Chief Operator training (WVRWA Contract)

  *OEHS uses the 2% State Revolving Fund Set-aside funding to provide additional water operator certification training courses through WVRWA. These course attendees trained are not included in the above totals, but are listed separately in Section 3.0.1.

Future Plans

- Continue to offer all requirement certification courses at various locations across the state several times per year by OEHS staff or through contracts with other training providers.

Task 2.4.8.2 (Activity also notes statutory/regulatory citations)
Train State and local PWSS program staff on new and current regulations and water treatment technologies with a focus on small system treatment technology. EPA Region III will assist wherever possible.

Outputs/Progress to Date

- OEHS staff participated in webcasts sponsored by EPA and other organizations.
- Staff attended, presented, and provided an exhibit at the EPA Capacity Development/Operator Certification Joint Meeting and WVRWA Annual Conference in September 2010.
- Staff attended regional and national conferences that provided additional information on various topic areas.

Outcomes/Benefits (Lessons learned, if any)

- Training always benefits the agency in hiring more knowledgeable staff in-house.

Future Plans

- OEHS staff is available to attend webcasts or onsite training as is provided.

2.5 Program Management

Task 2.5.1
Prepare DRAFT **SFY 2011** grant application workplans that address all applicable required grant elements, and submit all required grant forms and supporting documentation. 40 C.F.R. Part 31 & 35.

Outputs/Progress to Date

- The SFY 2012 PWSS Grant Application was submitted to EPA by the proposed deadline.
- The SFY 2011 PWSS Grant was awarded to OEHS on July 1, 2010.
- The 2009 DWSRF EPA Appropriations Grant application was awarded to OEHS in July 2010.
- The 2010 DWSRF EPA Appropriations Grant application was awarded to OEHS in August 2010.

Outcomes/Benefits (Lessons learned, if any)

- Award of these grants will enable OEHS to continue its programs to assist drinking water systems.

Future Plans

- SFY 2013 PWSS Grant application (including workplan) should be submitted to EPA by June 30, 2012.

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- The FFY2011 DWSRF Grant application (including workplan) should be submitted to EPA by July 31, 2011.

Task 2.5.2
Prepare and submit a final **SFY 2011** grant application which addresses all Region III comments on the preliminary draft plan, including all budget documentation and supporting information. 40 C.F.R. Part 31 & 35.

Consider two-year applications.

Outputs/Progress to Date [Submission of grant applications]
- The SFY 2012 PWSS Grant Application was submitted to EPA by the proposed deadline.
- The SFY2011 PWSS Grant was awarded to OEHS July 1, 2010.

Outcomes/Benefits (Lessons learned, if any)
- Award of this grant will enable OEHS to continue its programs to assist drinking water systems.

Future Plans
- SFY 2013 PWSS Grant application should be submitted to EPA by June 30, 2012.

Task 2.5.3
Prepare and submit a semi-annual self-assessment which reports State progress in meeting State program plan commitments to the Region. Report on all activities as identified in the work plan including those performed by the recipient, by contractors and through interagency agreements. **Self-assessment shall include:** a progress summary, justification for any outputs not submitted in accordance with the agreed upon schedule, and a discussion of anticipated program problems in the upcoming quarter(s). The first status report should contain a listing of each milestone (output) and their scheduled completion dates for all proposals.

It is expected that this document will also serve as a reporting tool. 40 C.F.R. §31.40 and §142.15

Outputs/Progress to Date [Submission of 2 semi-annual progress reports in **SFY 2011**]
- This report is the semi-annual report for the end-of-year 2011. It contains outputs and outcomes as proposed in the workplan.

Outcomes/Benefits (Lessons learned, if any)
- The semi-annual report provides a tracking system for completion of proposed activities.
- Periodic reporting brings focus to activities completed and attention to activities not yet completed.

Future Plans
- The PWSS mid-year report for SFY 2012 will be submitted to EPA by February 15, 2012.

Task 2.5.4
All **changes to the approved work plan** must be discussed with the EPA State Program Manager prior to making the change in order to determine if this is a *significant program change* requiring an amendment or other written documentation for the grant award. 40 CFR Part 31 & 35.

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Outputs/Progress to Date

- No changes were made to the approved workplan during this reporting period.

Outcomes/Benefits (Lessons learned, if any)

- Discussion and approval from EPA ensures that our program activities remain consistent and in compliance with the SDWA.

Future Plans

- All proposed changes to the workplan will be discussed with EPA staff to determine if it is a significant program change.

Task 2.5.5

Provide a **Final Financial Report (FFR)** documenting **SFY 2010** expenditures within 90 days of end of budget period. If State elects to apply for a two-year budget and project period, **SFY 2010 FFR** will be an interim submittal. 40 C.F.R. Part 31.

Outputs/Progress to Date [Submission of **FFR**]

- FFR was submitted to EPA as required for SFY 2010.

Outcomes/Benefits (Lessons learned, if any)

Future Plans

- FFR documenting SFY 2011 will be submitted as required.

Task 2.5.6

Maintain records as per §142.14.

Outputs/Progress to Date

- All records are maintained in accordance with the above regulatory citation.

Outcomes/Benefits (Lessons learned, if any)

Future Plans

- OEHS plans to continue maintaining records as required by regulation for the foreseeable future.

End of info for PWSS Workplan, although option items #4 and #5 could be listed as well for state to choose from and for tracking purposes.

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3. Activities Required to Receive Drinking Water State Revolving Loan Fund (DWSRF) Program Allocation

Note: Section 3 is included in this Generic Program Guidance for additional background information and to help describe the full breadth of the SDWA programs. If any state activity to meet requirements outlined here in Section 3 are funded under the DWSRF set-aside funds, they should NOT appear in the PWSS Program grant workplan. See additional National and Regional Guidance for more details on DWSRF applications/workplans.

The activities under Section 3.0 General Provisions, 3.1 Capacity Development, and 3.2 Operator Certification are required to receive the entire DWSRF Program Allocation. The activities under 3.3 Source Water Protection, are not required to receive DWSRF funds. However, if the State wishes to adopt alternative monitoring requirements, the State must have an approved source water protection program, and the State can use DWSRF funds to conduct source water assessments.

Goal 2: Safe and Clear Water – Ensure drinking water is safe. Restore and maintain oceans, watersheds and their aquatic ecosystems to protect human health, support economic and recreational activities, and provide health habitat for fish, plants and wildlife.

Objective 1: Protect human health by reducing exposure to contaminants in drinking water (including protecting source water), in fish and shellfish, and in recreational waters.

Subobjective 1: Water safe to drink.

3.0 General Provisions

State is required to prepare a plan that identifies the intended uses of the amounts available to the DWSRF Program annually, including Set-aside funds. SDWA 1452(b)(1).

This portion of the Checklist should be used to capture the 2%, 10%, and 15% Set-aside funded activities only. The 4% Administrative set-aside and the loan portion of the program are handled by the **Office of Infrastructure and Assistance (OIA)** in Region III and as such, as not covered here unless specifically identified.

Outputs are as noted below with each set-aside. **NOTE:** State is required to give "detailed" narrative of work being performed and on the "progress" being made under each funded set-aside. Listing activities in one or two sentences does not give a complete picture. State's narrative should tell a story, connecting the information from previous reports to current. EPA also suggests including numbers where ever it is feasible (e.g. # of courses held) and discuss results or effectiveness of activities being performed. Report on expenditures for Set-aside funded activities will be submitted annually in the DWSRF progress report submitted to the Office of Infrastructure and Assistance.

Outcomes: Improved operational and/or financial efficiency; improved compliance with NPDWR for systems receiving technical assistance or improved operator performance; attainment of Primacy for new rules (for states using program funds for this purpose); improved data quality (for states using program funds for this purpose); reduced treatment expenses for water systems due to source water protection efforts; improved customer and stakeholder satisfaction; improved efficiency through consolidation or regionalization.

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Task 3.0.1: Technical Assistance 2% set-aside **[Relationship to On-going Program:** Improve understanding of the contribution of set-aside funded activities in supporting other aspects of the State drinking water and ground water programs.

Goal 1: Administer the technical assistance program, providing training, enhancing **water operator** education, and promoting **small PWS long-term viability.**

Outputs/Progress to Date [Refer to 2% Set-aside **Objectives under Goal 1** in DWSRF workplan] **Projection: 2011 Workplan Quantitative Outputs: 50+ days of training for CEH; 15+ certification days for Class 1D or higher.**

Goal 1: Administer the technical assistance program, providing training, enhancing water operator education, and promoting small PWS long-term viability.

Proposed for Entire Year	2011 End-of-Year Status
50+ days of continuing education training at regional locations.	**32** days of continuing education training provided during this reporting period. **373** small systems were represented in these CEH and certification classes. More certification training was performed in lieu of continuing education training at our request.
15+ days of certification training at regional locations.	**35** days of Class 1D or higher certification training were provided.
Course manuals and study guides (e.g., math, chemistry) developed or revised to assist water operator training needs.	Revised/Updated Course Manuals (Class 1D, I, & II)
Exam Database maintenance (for class schedules, operator attendance, and certificate completions information).	A database with class schedules, operator attendance, and certificate completions is being maintained.
Drinking water library of written resources and videos maintained for water system operators.	A lending library for audio/visual instructional and informational materials on industry subjects is being maintained. Lending library materials are free of charge to WV water system personnel.
Educational audio/visual and written aids developed for water system operators.	No updates on the audio/visual or written aids have been developed during this reporting period.
Website available and maintained with water operator resources.	WVRWA maintained its website library at the following link: http://www.wvrwa.org/infocentral/library/library.htm. The homepage allows instantaneous updates on training, schedules, audio/visual items, posting of training materials, and the sharing of general information related to drinking water.
Approved annual budget and workplan.	WVRWA budget and workplan was approved and effective November 1, 2010 through October 31, 2011.
Monthly activity report detailing classes conducted, water system and operator attendance, time diaries, and expenses submitted monthly.	WVRWA provides OEHS will monthly reports on these activities. A comprehensive annual report for Hours for Education and Learning Program (HELP) will be issued. OEHS reviews both the financial and program activities in these reports.
Articles published in trade magazines.	WVRWA *Mountain State Water Line* magazine was issued for each quarter of the year.

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Outcomes/Benefits (Lessons learned, if any) [EPA Order 5700.7 to specifically identify outputs and outcomes] Evaluate the success of work funded by the DWSRF set-asides.

- OEHS believes that the WV RWA contract for this 2% set-aside is an effective use of EPA fund to provide water operator training and meet their certification requirements. Classes taught directly relate to water system operation, which helps ensure compliance with the SDWA and is supportive of the set-aside outcomes.
- OEHS believes WV RWA is providing a significant amount of continuing education hours and certification training for water operators throughout the state in regional locations. This regional training minimizes travel for water operators and makes it accessible to them to obtain or maintain their certification.

Future Plans

- Plans are in place to meet the proposed workplan training activities using WV RWA through the sub-recipient agreement. We started development of a new sub-recipient grant agreement continuing education work plan with WV RWA to be effective November 1, 2011.
- OEHS will continue to monitor activities and recommend class changes based on operator needs.
- Continue to work closely with WV RWA to assure timely completion of deliverables in the new contract.

Task 3.0.2: Program Management 10% Set-aside **[Relationship to On-going Program:** Improve understanding of the contribution of set-aside funded activities in supporting other aspects of the Safe drinking water and ground water programs.]

Goal 1: Effectively use the WV SDWIS; **Goal 2:** Improve PWS operator knowledge, skills, and abilities maximizing public health protection, SDWA compliance, and system operation effectiveness; **Goal 3: Support the Interstate Commission on the Potomac River Basin (ICPRB) for coordinating the collaborative effort known as the Potomac River Basin Drinking Water Source Protection Partnership; Goal 4: Implement source water protection activities associated with the Source Water Assessment and Protection (SWAP) program.**

Outputs/Progress to Date [Refer to 10% Set-aside **Objectives under** Goals in DWSRF workplan]

Goal 1: Support the PWSS Program.

Proposed for Entire Year	2011 End-of-Year Status
Training conducted for state personnel implementing and enforcing new rules.	• Personnel are encouraged to attend webinars sponsored by EPA discussing implementation and enforcement of new rules.
Training conducted for PWS personnel complying with new rules.	• PWS personnel are encouraged to attend WV AWWA, WV RWA, and other agency sponsored programs, which include CEHs that address the new rules.
Violations and/or administrative orders issued for SDWA non-compliance.	• Please see Task 2.2.2 for current status.
State legislature approved revised state rules, as needed.	• Please see Task 2.3.2 for current status.
SDWA regulations primacy maintained.	• No primacy applications were submitted during this reporting period. • There are no outstanding primacy applications due to be submitted.
Reports completed accurately and promptly.	• All SRF reports were submitted promptly and accurately as of

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	June 30, 2011.
Concerns or deficiencies identified in the EPA Performance Evaluation Report (PER) addressed concerns or deficiencies.	• **2** of the EPA SFY 2009 PER concerns were resolved during SFY 2010 regarding construction pace and set-aside spending. • Any further follow-up will be included in the SFY 2010 PER. • The SFY 2009 PER had **3** follow-up items of which only **1** regarding the Water Development Authority staffing is still in progress. • The 2010 PER was conducted in May 2011. The draft report was not available by the end of June.
100+ sanitary surveys conducted each year.	• Please see Task 2.4.1 for current status.
District staff reviews permits and plans within established timeframe.	• Please see Task 2.4.2 for current status.
District staff recommendations made to improve PWS operations and correct deficiencies.	• Recommendations are typically made during the sanitary survey. • Please see Task 2.4.1 for current status.
Complaints investigated promptly.	• Complaints are investigated as soon as practical, upon receipt.
Technical assistance provided to water systems.	• Technical assistance is provided as soon as practical, upon request.
Operators throughout the state receive cross-connection control training.	• Please see Section 7: Operator Certification Expense Reimbursement Grant (ERG) Goal 4 of this report.
Cross-connection and backflow prevention plans distributed as requested.	• Please see Task 4.3 for current status.
Adequate training provided at all water operator courses/backflow tester courses (approximately 5 – 10 per year).	• Please see Tasks 2.4.8, 3.0.1 and Section 7: Operator Certification Expense Reimbursement Grant (ERG) Goal 4 of this report.

Goal 2: Effective use the WV SDWIS.

Proposed for Entire Year	2011 End-of-Year Status
Identified errors reduced from the local and federal diagnostic reports.	• Began addressing errors in the ODS report to WV. • Errors are corrected in conjunction with EPA Region 3 personnel.
SDWIS becomes a more accurate tool.	• SDWIS data accuracy is directly dependent on input accuracy of DM staff members. • Their accuracy is directly correlated with their knowledge and experience, which is increasing. • Through cross-training and quality control, the accuracy should improve. • A Data Management Committee (DMC) has been established with scheduled monthly meetings to address SDWIS and related data issues.
The numbers of preliminary violations approach the number of final violations.	• As the compliance staff vacancies are filled and they continue to become more experienced, the number of preliminary violations

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	will approach the number of final violations.
Contractor maintains SDWIS database.	• Contract was renewed for FY 2011. • The contractor continues to work with OEHS for production improvements.
Number of certified laboratories submitted data electronically increased.	• NODE testing has been successful as of March 31, 2010. • Continue to work with contractor and State IT personnel to complete NODE.
Data exchange improves data accuracy.	• The Data Exchange is not in production as of June 30, 2011. • Continue to work with contractor and State IT personnel to complete NODE.
Data entry staff focus shifted to data analysis.	• With new supervisors and almost an entirely new DM staff, the emphasis will be on learning the proper data entry and accuracy. • Once the electronic submission of data has been implemented, there will be a shift on the data entry to data analysis.

Goal 3: Improve PWS operator's knowledge, skills, and abilities, maximizing public health protection, SDWA compliance, and system operation efficiency.

Proposed for Entire Year	2011 End-of-Year Status
Coalition members and other drinking water industry stakeholders provided direction for water operator training.	• WVRWA coordinated and prepared a joint calendar, with input from Coalition members, which details training opportunities for 2011. • It was determined to be more efficient having one calendar with all training opportunities listed. • The Calendar was made available in early December 2010. • OEHS relied on feedback from WV RWA, in-house staff, and OEHS knowledge to establish training needs. • Participated in WV RWA Drinking Water Training Workshop on September 21, 2010.
PWS Operator Certification and Training program compliance with SDWA.	• EPA Approval of C&T Program received via e-mail on September 30, 2010. • C&T Annual Report submitted June 30, 2011. • Pease see Task 3.2.1 for status.
Certificates issued for each completed course.	• CEH course instructors were required and reminded to provide all course participants with certificates that include the CEH numbers, course name, and number of hours approved. • Certification courses also have appropriate completion certificates associated with them through the training provider.
Maintained operator continuing education requirements and completed courses for certification renewal.	• Each operator must submit appropriate CEH documentation as part of renewal requirements using form EW-102D.

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	• This information must then be entered into the Safe Water Operator Certification System (SWOCS) database to process a renewal.
Maintained approximately 2,300 water operator certifications.	• There are approximately **2,224** total certified operators in WV currently. • Please see Task 3.2.1 for status.
Submitted continuing education courses reviewed and approved or rejected.	• The CEH committee schedules monthly meetings, discusses pending course applications, and makes approval/rejection decisions on all CEH applications. • Prior to monthly meetings, the application is circulated to all committee members and sent to WV Drinking Water Education and Training Coalition (WVDWETC) members for review and comment. • This circulation and comment period typically takes between 2 and 4 weeks. • Please see Task 3.2.1 for status.
Certified PWS operators meet renewal requirements and document CEH course attendance.	• Renewal is required 30 – 60 days prior to expiration using form EW-102D which documents CEH course attendance upon completion. • No problems or foreseeable changes with this process.
Required PWS operator certification courses provided.	• All required certification courses are provided by in-house staff or through contract. • Please see Task 2.4.8 for current status.
Educational resources are available to PWS operators.	• WVRWA and OEHS maintain water operator resources readily available to systems and operators. • Course manuals and additional water related resources are available on website and in hard copy form via request.
Information distributed to PWS operators.	• Using website to communicate water operator information and program requirements increasingly more than hardcopy mailings. • Presentations are made at various times throughout the year and information is provided to PWS operators.
PWS operators trained in regulatory changes and best practices.	• Certification exams are reviewed and revised regularly to reflect any changes or additional information. • WVRWA revised several water operator certification course manuals under the 2% set-aside. • OEHS staff regularly teaches as part of various technical conferences (AWWA/WEA, WV Expo, WVRWA).
Outstanding PWS operators recognized.	• Nominated operators in the Spring of 2011 for the US EPA Professional Operator Excellence Award and the WV AWWA Perkins Boyton Award.

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All PWS operator certification examinations are validated.	• Please see Task 3.2.1.

Goal 4: Support the Interstate Commission on the Potomac River Basin (ICPRB).

Proposed for Entire Year	2011 End-of-Year Status
ICPRB activities protected shared drinking water sources.	• Participated in and provided funding for the Potomac River Basin Drinking Water Source Protection Partnership through the ICPRB. • This partnership is composed of water utilities and the various governmental agencies responsible for drinking water protection in the Potomac River Basin.

Goal 5: Implement Source Water Protection activities associated with the Source Water Assessment and Protection (SWAP) Program.

Proposed for Entire Year	2011 End-of-Year Status
Source water protection activities implemented.	• Please review the supplemental grants funds progress activity report for details on status.
Source water protection plans improved.	• Please review the supplemental grants funds progress activity report for details on status.
Water systems facilities will have increased security.	• Please review the supplemental grants funds progress activity report for details on status.

Goal 6: Enhance zone of critical concern (ZCC) and watershed area upstream of a selected water system surface water intake.

Proposed for Entire Year	2011 End-of-Year Status
Updated model generates more accurate ZCCs.	• Agreement (G100989) was approved for $93,247 with the West Virginia University's Natural Resources Analysis Center to update this model. • This project is proceeding.

Goal 7: Oversee and manage remaining set-aside funds.

- Refer to the Supplemental Progress Activity Report for the redirected activity update and outputs.

Outcomes/Benefits (Lessons learned, if any) [EPA Order 5700.7 to specifically identify outputs and outcomes] Evaluate the success of work funded by the DWSRF set-asides.

- See the update and status listed in the Supplemental Progress Activity Report.

Future Plans

- OEHS will continue to implement the redirected activities identified in the Supplemental Progress Activity Report to support the State drinking water and ground water programs.

Task 3.0.3: Local Assistance and Other Activities 15% Set-aside **[Relationship to On-going Program:** Improve understanding of the contribution of set-aside funded activities in supporting other aspects of the State drinking water and ground water programs]

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Goal 1: Establish a West Virginia Utility Management Institute (UMI); Goal 2: Implement source water protection activities associated with the Source Water Assessment and Protection (SWAP) Program; Goal 3: Administer small water system Geographic Information System (GIS) grant funding program; Goal 4: Assess and characterize the hydrogeologic setting of water in flooded abandoned underground coalmines, primarily in southern WV to help determining wellhead protection delineations.

National Goal: Continue working towards 2011 goal which states that 50% of CWS and associated population should be protected though substantial implementation of source water protection strategies.

The 2014 EPA Strategic Target for the Source Water Protection Program is to minimize risk to public health at 50 percent of community water systems and 62 percent of the population served by community water systems through the substantial implementation of source water protection practices.

Outputs/Progress to Date [Refer to 15% Set-aside **Objectives under Goals** in DWSRF workplan]

Goal 1: Establish a West Virginia Utility Management Institute (UMI).

Proposed for Entire Year	2011 End-of-Year Status
A complete UMI course curriculum and classroom training is conducted for water system staff.	• Refer the Supplemental Progress Activity Report for the redirected activity update and outputs.
All funds used effectively.	• Refer the Supplemental Progress Activity Report for the redirected activity update and outputs.

Goal 2: Implement source water protection activities associated the Source Water Assessment and Protection (SWAP) Program.

Proposed for Entire Year	2011 End-of-Year Status
Improved interagency and community PWS access to source water protection information and data through the use of the interactive website.	• A secure website making available the wellhead and source water areas, location of public supply wells and potential contaminant sources for use internally by our agency, other utilities, state emergency management, and federal agencies is available for use through an agreement with the West Virginia State GIS Technical Center. • The website provides maintenance and access at http://157.182.212.215/dhhr/login.php. • As of June 30, 2011, **109** individuals have been granted access for this service. • The community source water assessment reports have been placed on the OEHS website to provide wellhead and source water areas, potential contaminant sources and susceptibility analysis for use by other utilities, state emergency management, and federal agencies. • Access to the reports is available at http://www.wvdhhr.org/oehs/eed/swap/search.cfm.
Inspection and inventory data transferred between agencies.	• OEHS continues to fund the Department of Environmental

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	Protection (WVDEP) Underground Injection Control (UIC) Class V program. • During this reporting period, the DEP UIC Class V Program inspected **220** sites with **63** sites having underground injection systems with a combined total of **105** wells.
Quarterly report summarizing program activities sent to OEHS.	• OEHS continues to receive quarterly reports summarizing UIC activities.
High quality maps produced.	• GIS continues to be used to prepare maps, displaying geographic, geologic, and monitoring data in support of source water/wellhead protection.
Accurate location information is available from GPS data.	• GIS is a fundamental tool used to support the delineations, inventories, and susceptibility analyses required by the SWAP.
Spatially related data used for source water protection and SDWIS.	• GIS continues to use the spatially related data to prepare maps displaying geographic, geologic, and monitoring data in support of source water/wellhead protection.
Source water protection activities implemented.	• Please review the supplemental grants funds progress activity report for details on status.
Source water protection plans improved.	• Please review the supplemental grants funds progress activity report for details on status.

Goal 3: Administer small water system Geographic Information System (GIS) grant funding program.

Proposed for Entire Year	2011 End-of-Year Status
An effective GIS database developed for water systems.	• Please review the supplemental grant funds progress activity report for details on status.

Goal 4: Assess and characterize the hydrogeologic setting of water in flooded abandoned underground coalmines, primarily in southern WV to help determining wellhead protection delineations.

Proposed for Entire Year	2011 End-of-Year Status
Interim progress summaries issued for underground coalmine assessments.	• A progress summary meeting was held on 10/13/10 at the USGS office to provide a summary of progress on the study.
Raw data including sample analysis, physical lithologic characteristics, and borehole geophysical logs will be obtained for underground coalmine assessments.	• Data collection has been completed and is currently being compiled into a report.

Goal 5: To aid public water systems in becoming sustainable through investigation of Cryptosporidium in Source Water.

Proposed for Entire Year	2011 End-of-Year Status
Determine possible public water systems that may be eligible for DWSRF funding due to anticipated capital costs required for additional treatment for *Cryptosporidium* as a result of the bin classification determination.	• PWSs have been identified that still need to complete Cryptosporidium monitoring. • A Request for Quotation (RFQ) has been prepared to pay for the lab testing.

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Additional knowledge concerning the source water for the water system, as a result of the *Cryptosporidium* testing.	• This will be determined once the RFQ is completed and the testing can be paid.
Small systems assisted in becoming sustainable.	• Helping to pay for the testing will aid the small systems in their costs.

Goal 6: Protect source water from future contamination through Source Water Assessment and Protection (SWAP) and Wellhead Protection (WHP) programs.

Proposed for Entire Year	2011 End-of-Year Status
Local efforts create enhanced protection plans.	• Developing grants and contracts to promote source water protection concepts at local level. • Please see Task 3.3.0 and Appendix E for status.
Standardized plans are accessible for interested parties.	• A secure website making available the wellhead and source water areas, location of public supply wells and potential contaminant sources for use internally by our agency, other utilities, state emergency management, and federal agencies is available for use through an agreement with the West Virginia State GIS Technical Center. • The website provides maintenance and access at http://157.182.212.215/dhhr/login.php. • As of June 30, 2011, **109** individuals have been granted access for this service. • The community source water assessment reports have been placed on the OEHS website to provide wellhead and source water areas, potential contaminant sources and susceptibility analysis for use by other utilities, state emergency management, and federal agencies. • Access to the reports is available at http://www.wvdhhr.org/oehs/eed/swap/search.cfm.
Approved SWAP and WHP plans are developed and used.	• Continue to update the source water protection-tracking database, revisions, protection activities and enhancements to the SWAP/WHP assessments (implemented and/or have substantial implementation status determination) are entered into this database.
Source water information presented at relevant conferences and meetings.	• Please see Task 3.3.0, Public Outreach/Educational Activities, for status.
Initial and updated source water reports are completed and used.	• Continue to update the source water protection-tracking database, revisions, protection activities and enhancements to the SWAP/WHP assessments (implemented and/or have substantial implementation status determination) are entered into this database.

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New assessments and revisions are completed.	• Continue to update the source water protection-tracking database, revisions, protection activities and enhancements to the SWAP/WHP assessments (implemented and/or have substantial implementation status determination) are entered into this database.
Informational materials distributed to assist local source water protection efforts.	• Please see Task 3.3.0, Public Outreach/Educational Activities, for status.
Improved interagency and community PWS access to source water protection information and data through the use of the interactive website.	• A secure website making available the wellhead and source water areas, location of public supply wells and potential contaminant sources for use internally by our agency, other utilities, state emergency management, and federal agencies is available for use through an agreement with the West Virginia State GIS Technical Center. • The website provides maintenance and access at http://157.182.212.215/dhhr/login.php. • As of June 30, 2011, **109** individuals have been granted access for this service. • The community source water assessment reports have been placed on the OEHS website to provide wellhead and source water areas, potential contaminant sources and susceptibility analysis for use by other utilities, state emergency management, and federal agencies. • Access to the reports is available at http://www.wvdhhr.org/oehs/eed/swap/search.cfm.
Sources classified as GWUDI or not-GWUDI.	• Please see Task 2.2.11 for status.
Correspondence describing treatment requirements based on GWUDI designation.	• Please see Task 2.2.11 for status.
Inspection and inventory data transferred between agencies.	• OEHS continues to fund the Department of Environmental Protection (WVDEP) Underground Injection Control (UIC) Class V program. • During this reporting period, the DEP UIC Class V Program inspected **220** sites with **63** sites having underground injection systems with a combined total of **105** wells.
Quarterly report summarizing program activities sent to OEHS.	• OEHS continues to receive quarterly reports summarizing UIC activities.
High quality maps produced.	• GIS continues to be used to prepare maps, displaying geographic, geologic, and monitoring data in support of source water/wellhead protection.
Accurate location information is available from GPS data.	• GIS is a fundamental tool used to support the delineations, inventories, and susceptibility analyses required by the SWAP.

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Spatially related data used for source water protection and SDWIS.	• GIS continues to use the spatially related data to prepare maps displaying geographic, geologic, and monitoring data in support of source water/wellhead protection.

Goal 7: Oversee and manage the remaining set-aside funds.

- Refer to the Supplemental Progress Activity Report for the redirected activity update and outputs.

Outcomes/Benefits (Lessons learned, if any) [EPA Order 5700.7 to specifically identify outputs and outcomes]

- See the update and status listed in the Supplemental Progress Activity Report.
- See the outcomes listed in the DWSRF FY 2010 and 2011 workplans.

Future Plans

- OEHS will continue to implement the redirected activities identified in the Supplemental Progress Activity Report to support the State drinking water and ground water programs.

3.1 Capacity Development

The state must document that it is implementing its Capacity Development Program to avoid withholding of 20% of its DWSRF allotment in subsequent years. The documentation of ongoing implementation of both the Capacity Development Authority (New Systems) and the Capacity Development Strategy (Existing Systems) programs will be submitted as a standalone report by November 30 of each year. The withholding decision is based on an assessment of the status of the state's programs as of October 1 of each year covering the previous Federal fiscal year.

3.1.1 Capacity Development Authority (New Systems) SDWA Section 1420

Task 3.1.1.1

The State must document that it is implementing its Capacity Development Authority (New Systems) by describing the activities conducted by the State during the past fiscal year.

Each semi-annual progress report should include: (1) The # of approved new CWSs and NTNCWSs; **(2)** Compliance status of new CWSs and NTNCWSs that commenced operation after 10/1/99.

See Appendix D "U.S. EPA Region III Reporting Criteria for Annual State Capacity Development Program Implementation Report." The Attachment describes the reporting criteria for the Report.

Outputs/Progress to Date [1 Annual Capacity Development Program Implementation Report (due by 11/30 each year)]

- There were no new systems approved this year.
- Capacity Development Program (CDP) Annual Report was completed and submitted to EPA Region 3 by November 30, 2010, and it addressed the on-going impact of the new systems program (overall) and the importance of continued new system education and guidance.
- This report also included updated information (New Water System Status and Compliance Table) on the new systems program status.

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Outcomes/Benefits (Lessons learned, if any) [EPA Order 5700.7 to specifically identify outputs and outcomes]

- Our permitting system continues to eliminate or consolidate new systems, where practical.
- **4** of the systems (detailed in the CDP Annual Report) that we are tracking were having some monitoring issue during this reporting period.
- The CDP is providing an increased, more proactive new system monitoring requirement, education, and guidance (intended to address non-compliance with monitoring requirements).

Future Plans

- The next CDP Annual Report will be prepared and submitted on or before November 30, 2011.

3.1.2 Capacity Development Strategy (Existing Systems) SDWA Section 1420

1452(a)(1)(G)(i) and 1420(c), and page 16 of the February 28, 1997, DWSRF Guidelines. **Background Notes:** A state must document that it is implementing its strategy to avoid withholding of 20% of its DWSRF allotment in subsequent years.

Task 3.1.2.1

A state must document that it is implementing its strategy to avoid withholding of 20% of its DWSRF allotment in subsequent years.

TOTAL PROJECTED ONSITE CAPACITY DEVELOPMENT ASSESSMENTS FOR SFY 2011: 18
TOTAL PROJECTED NUMBER OF CAPDEV MEETINGS FOR SFY 2011: 2

See Appendix D "U.S. EPA Region III Reporting Criteria for Annual State Capacity Development Program Implementation Report." The Attachment describes the reporting criteria for the Report.

Outputs/Progress to Date [1 Annual Capacity Development Program Implementation Report (due by 11/30 each year)]

Proposed for Entire Year	2011 End-of-Year Status
18 or more on-site Capacity Development Assessments (CDA) conducted annually with reports being issued for each CDA.	• **27** CDAs were completed during this reporting period with reports being issued for each.
Only new PWSs demonstrating technical, managerial, and financial (TMF) capacity are issued construction permits.	• All new systems provide proper applications including our form EW-100 and a viable budget before any construction permit is issued. • These documents demonstrate that a system has TMF capacity, is viable, and should be able to sustain itself.
Reference materials and assistance provided to water systems.	• Reference materials distributed at WV Public Service Commission (WVPSC) training, CDAs, follow-up assistance visits, and CAPDEV meetings. • Conducted **2** CAPDEV meeting, maintained CAPDEV website, worked with WVWARN, and provided training at the WV RWA conference.
Contact with each system after assessment to monitor	• OEHS had telephone contact after each assessment.

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improvements.	• OEHS has also provided significant follow-up assistance on **80** instances to water systems to track their progress in addressing areas requiring improvements.
Assistance provided to receptive PWSs.	• Provided **8** direct on-site water system assistance visits and provided daily telephone assistance.
Water system assessment questionnaire completed.	• Questionnaires have been completed for each assessment.
Water system baseline ranking list generated.	• Not required during this reporting period. • Next baseline ranking will be issued in October 2011.
Baseline assessment completed every three years.	• Baseline ranking data collection was started in June. • Next baseline ranking will be issued in October 2011.
Assessed water systems will have a higher capacity increase over the remaining systems.	• The most recent (2008) baseline trends indicate that capacity was improved in assessed water systems versus non-assessed water systems.
Annual program report summarizing activities.	• Annual Report was issued in November 2010.
Governor's Report every three years.	• Governor's Report was last issued in September 2008. • The next report will be issued in September 2011.
§ 1420(b)(1) SNC list every three years.	• SNC list update was issued in July 2009. • Due to the change from SNC to ETT, this list will be modified. • Please see Task 3.1.3.1.
Technical, financial, and managerial seminars presented at Public Service Commission training and WVRWA conference.	• WVPSC Board Member training was conducted in September 2010. • Asset Management/Capital Improvement Plan training was also provided at the WVPSC Board Member training. • Capacity Development was involved in **2** presentations (CAPDEV and Asset Management) at the WV RWA Conference in September 2010.
Financial and managerial capacity including funding recommendation regarding potential loan recipients communicated to DWTRF staff.	• During this reporting period, **3** recommendations to DWTRF staff were made regarding systems seeking their funding.
Annual calendar produced and distributed.	• WV RWA coordinated and prepared a joint calendar, with input from Coalition members, which details training opportunities for 2011. • It was determined to be more efficient to support the WV RWA Calendar with all training opportunities listed. • The Calendar was made available in December 2010.
Cooperative agreements among water systems creating improved capabilities.	• The CAPDEV meetings allow interaction and networking opportunities for participating water systems. • Meetings are informal and encourage free discussion of issues and concerns from the water systems.

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	• Capacity Development staff is also actively involved in WVWARN meetings. • The WVWARN program currently has approximately **50** members and their participation is imperative in the event of an emergency. • OEHS, along with other participating agencies, are actively promoting this program to other water systems.
TMF tools and information disseminated.	• Various handouts (Asset Management information, water conservation information, etc.) were provided to attendees of the various conferences during this reporting period. • Drinking water operators were awarded **2** hours of CEHs for participating in the CAPDEV meetings. • A Contractor has been selected to conduct the WVWSET (TMF assessment tool) project beginning in September 2011. The data collection tool has been secured.
Written meeting summaries compiled and distributed.	• Agendas and attendee lists are posted on the CAPDEV page of the OEHS website.
Two CAPDEV meetings held throughout the State.	• A meeting focusing on Sanitary Surveys was held on September 14, 2010, at the WV RWA Conference at Snowshoe. • A meeting focusing on Compliance and Enforcement Issues was held on March 24, 2011 at the 2011 WV EXPO in Charleston. • Additional meetings will be held if water systems request more frequent meetings.
Drinking water information communicated to the public.	• Brochures and booklets were available for the public at the WV RWA Conference. • Additional information is made available on our website: http://www.wvdhhr.org/oehs/i&cd.

Outcomes/Benefits (Lessons learned, if any) [EPA Order 5700.7 to specifically identify outputs and outcomes]

- Data shows our existing system's assessment activities are having a positive impact on PWSs.
- Most PWSs are addressing portions of the OEHS recommendations.

Future Plans

- Assessments will continue to be prioritized, follow-ups will be pursued, and one staff member will continue to primarily focus on providing Asset Management Plan assistance to PWSs.

3.1.3 Other Annual Reviews and On-going Reporting Requirements

Task 3.1.3.1

Submit, and periodically update, a list of CWSs and NTNCWSs that have a history of Significant Non-Compliance (SNC) and, to extent practicable, the reasons for their noncompliance. (This activity repeats every three years – **Next List Due July 15, 2012)** SDWA §1420(b)

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Outputs/Progress to Date [1 list of CWSs and NTNCWSs on the Historical SNC list.]

- EPA has eliminated the Significant Non-Compliance (SNC) list and replaced it with Electronic Tracking Tool (ETT) which uses SDWIS information to generate a score.
- We have converted to the ETT system and will report as required.
- The most recent Historic SNC List evaluation was submitted to EPA on July 17, 2009.

Outcomes/Benefits (Lessons learned, if any) [EPA Order 5700.7 to specifically identify outputs and outcomes]

- The number of non-compliant PWSs should continue a favorable downward trend provided new requirements are not implemented.
- The ETT system will establish a new baseline for non-compliant water systems.

Future Plans [Next list is due July 15, 2012]

- The next report will be determined by EPA before July 15, 2012, in their guidance for the new tool.

Task 3.1.3.2

The State must **submit a report to the Governor** on the efficacy of the strategy and progress toward improving the technical, managerial, and financial capacity of the PWSs in the State. The report shall also be made available to the public. (This activity repeats every three years – **Next Report Due September 30, 2011**) SDWA §1420(c)

Outputs/Progress to Date [1 Report to the Governor. Next Report is due September 30, 2011]

- The Report to the Governor was last completed in September 2008. No report was required during this reporting period.

Outcomes/Benefits (Lessons learned, if any) [EPA Order 5700.7 to specifically identify outputs and outcomes]

- Small PWSs do not have the economies of scale that large PWSs can achieve and many of them are managed by volunteers or may not have any management.

Future Plans

- The next report will be prepared and submitted by September 30, 2011.

3.2 Operator Certification Programs

Task 3.2.1 **[Relationship to On-going Program:** Improve understanding of the contribution of operator certification program activities in supporting other aspects of the State drinking water and ground water programs.]

APPROXIMATE NUMBER OF WATER OPERATOR CERTIFICATIONS MAINTAINED IN SFY 2011: 2,224

To avoid a 20% SRF withhold, States must continue to implement Programs that meet the baseline requirements of the Guidelines and provide Annual Program Reports as per EPA Guidance memo dated 10/15/2001. **Reports due June 30th each year.**

Outputs/Progress to Date [1 Annual Program Report due June 30, 2011]

- WV Operator Certification Program Annual Report was approved by EPA via e-mail on September 30, 2010. This year's report was submitted on the June 30, 2011, due date.
- A total of **1,222** water operators were certified or recertified and certificates were issued.
  - There were **407** 1D operators certified.

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    - There were **174** OIT operators certified.
    - There were **86** WD operators certified.
    - There were **196** Class I operators certified.
    - There were **193** Class II operators certified.
    - There were **103** Class III operators certified.
    - There were **63** Class IV operators certified.
- A total of **244** CEH courses for water operators were reviewed by the CEH committee:
    - **200** CEH course applications were approved.
    - **2** CEH course applications were rejected.
    - **42** CEH course applications are pending.
- Continued to Chair and actively participate with the Drinking Water Exam Review Committee (DWERC) to develop relevant operator certification training exams for validation purposes. The DWERC meets monthly. During this reporting period, the DWERC:
    - Completed **3** versions of the Class III exam.
    - Currently developing **3** versions of the Class IV exam.
- No *Drips and Drops* newsletter to all water and wastewater operators was published due to staffing changes and overall time constraints.
- SWOCS database functioning more effectively with noticeably reduced reporting times.

Outcomes/Benefits (Lessons learned, if any) [EPA Order 5700.7 to specifically identify outputs and outcomes] Evaluate success of work.

- CEH and DWERC continue to make good progress with steady and strong workloads.

Future Plans

- Continue to develop and issue relevant operator certification exams with DWERC.
- Continue to approve relevant operator training courses with the CEH committee.
- Provide articles for operator related newsletters (i.e., WV WEA-*Mountain Currents*, WV PSC-*Pipeline*, and WV RWA-*Mountain State Water Line*) instead of *Drips and Drops*.
- Work more efficiently with, and improve, our operator certification databases.

3.3 Source Water Assessment and Protection Activities

Task 3.3.0

Implement State Source Water Assessment Program (SWAP) Plan, and **report progress and relevant activities underway.** Include copies of contract agreements, MOUs, etc. with other agencies and contractors as per DWSRF Grant Condition. Discuss any significant barriers to implementation with EPA as soon as possible.

The Strategic Measures are:

a) # and % of population and community water systems (or source water areas) that will achieve minimized risk to public health by substantial implementation, as determined by the state, of source water protection actions in a source water strategy.

b) # and % of community water systems (or source water areas) that have a protection strategy in place.

c) # and % of community water systems (or source water areas) that have implemented some aspect of a protection strategy.

Report this information using the Source Water Assessment and Protection Reporting matrix (Attachment E).

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Outputs/Progress to Date # of assessment conducted

- NOTE: As of June 30, 2005, the SWAP Program has completed assessments for 100% (delineation through public availability) of the community and non-community PWSs that were in existence at the time the program was approved in November 1999. PWSs active after November 1999 are currently being assessed.
- Highlights during this reporting period are:
  - The Wellhead Protection/Source Water Protection Program Annual Report has been completed and submitted for the July 1, 2010 – June 30, 2011, period. Please see Appendix E.
  - Public Outreach/Education Activities continue:
    - Continued participation with the WVDEP Project WET (Water Education for Teachers), a nonprofit water education program for educators and young people ages 5 – 18 on September 17, 2010.
    - The SWAP program continues an educational loan program of groundwater models to schools or watershed groups that compete the Project WET training or are interested in groundwater protection. Information about this program is available on the SWAP website at http://www.wvdhhr.org/oehs/eed/swap/edocuments/Groundwater%20Flow%20Model.pdf. No models were loaned out during this reporting period.
    - The OEHS website continues to provide information for the SWAP/WHP programs and guide municipalities, water suppliers, or other groups through developing a local SWAP program. The OEHS website contains fact sheets, new SWAP posters, general information and an updated online SWAP educational course, "A Guide to Developing a Source Water Protection Plan." The SWAP website is regularly reviewed and updated, which provides PWSs and the public additional access to information.
    - Provide educational materials, posters, and brochures concerning the SWAP/WHP program.
    - Staff attended the Ohio River Basin Water Resources Alliance held in Charleston, WV on August 25 – 26, 2010.
    - Sponsored, provided an exhibit and staff attended the 2010 Groundwater Karst Conference in Jefferson County, WV from September 15 – 17, 2010.
    - Provided an exhibit and presentation at the WV Public Health Association Annual Conference September 22 – 24, 2010, in Davis, WV.
    - Staff participated in a pharmaceutical take-back program in Jefferson County, WV on September 25, 2010.
    - Participated in the River Alert Information Network (RAIN) meeting that was held on September 28, 2010, in Clarksburg, WV. This meeting was seeking participation from WV PWSs located within the Monongahela River drainage area.
    - Hosted the annual source water protection Potomac Partnership annual meeting on October 12, 2010, in Shepherdstown, WV.
    - Participated in sanitarian and water operator training events during this reporting period, providing an opportunity to review the source water protection program and the importance of protecting our drinking water resources.
    - Sponsored, provided an exhibit and staff attended the 2010 WV Water Conference in Morgantown, WV from October 5 – 7, 2010.
    - Staff attended the West Virginia Water Well Drillers Association in Flatwoods, WV, on March 3, 2011.
    - Staff attended the Ohio River Alliance meeting in Indianapolis, IN, on March 14 – 16, 2011.
    - Staff attended the ORSANCO source water protection meeting in Wheeling, WV, on April 27, 2011.
    - Staff attended the new mudflow course, sponsored by the National Groundwater Association for groundwater delineation on May 3 – 6, 2011.

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    - Staff attended and presented on June 2, 2011, at an *Upper Monongahela River Association* (Marcellus Shale meeting) in Morgantown, WV.
    - Staff attended the EPG Region 3 annual source water protection meeting in Maryland on June 7 – 9, 2011.
- Continued participation in the WV Alternative Monitoring Strategy Program (AMSP), determining future monitoring frequency reductions and is dependent on having a SWAP/WHP program in place. Staff has reviewed **25** PWS AMSP waiver applications and has submitted recommendations on determining future monitoring frequency reductions.
- Continued to implement and enforce the revised regulations and design standards for private water wells, approved on April 2, 2008, for the protection of groundwater.
    - Staff offered **8** training and review sessions on the water well design standards and regulations across WV from October 2010 through November 2010 for water well drillers and pump installers.
    - Staff provided a sanitarian in-service training on the water well design standards and regulations on December 17, 2010, in Parkersburg, WV, and January 26, 2011 in St. Albans, WV.
- The City of Vienna was awarded the EPA Region III Source Water Protection Award on October 28, 2010.
- Staff participated with the Centers for Disease Control (CDC) in collecting water samples from **140** private residences and **4** public springs from August through September 2010 to conduct a water quality assessment study of private wells in selected areas within WV. Findings of this study will help understand the quality of groundwater in WV. Final report is currently being prepared by the CDC.
- Evaluation of new PWS water wells or intakes to assure they are located in areas where contamination threats are minimal. Permits for new public water wells now require an initial survey for potential sources of contamination within 2,000 feet of proposed well location with site-specific information used when available.
- Provided grants through Source Water Protection Grants Program to surface water and groundwater community PWSs to establish and implement water protection programs. Please review the supplemental grants funds progress activity report for additional details on status.
- An Expression of Interest (EOI) contract for implementing wellhead and source water protection activities for community water supplies has been awarded to two vendors for work in our St. Albans, Wheeling, Beckley, and Kearneysville District Office areas. Please review the supplemental grants funds progress activity report for additional details on status.
- Contract has been signed with USGS, WVDEP, and WV Geological Survey to study the hydrologic flow in abandoned coal mines in McDowell County. Please review the supplement grants funds progress activity report for additional details on status.
- Updating the Zone Critical Concern (ZCC) and watershed delineation software used in the Source Water Protection Program. The project will integrate new or improved hydrology datasets such as the higher resolution three (3) meter WV Digital Elevation Model maps. Agreement has been awarded to the WV University's Natural Resource Analysis Center and work is proceeding.
- Revising the current Source Water Protection GIS website (http://157.182.212.215/dhhr/login.php?) to a newer GIS ArcServer model. This website disseminates relevant source water information to PWSs, state agencies, federal agencies, and local governments to further source water protection. Agreement has been awarded to the WV University's GIS Technical Center and work is proceeding.
- Our agency has been discussing source water protection signage usage with the WV Division of Highways (WVDOH) for allowing signs to be posted along state highways along the perimeter of the source water protection areas. At this point, the WVDOH will not allow general installation of source water protection signs along highways as a large scale effort. However, the WVDOH has agreed to allow signs in a few documented problem areas or highly critical areas with respect to contamination in a water source. We are asking individual PWSs to identify sites that meet these criteria to contact WVDOH or our agency for possible sign installation. We have informed PWSs that we can provide signs for municipality and non-highway use and plan to have signs made for this purpose. One-hundred (**100**) source water protection signs have been constructed and are available for local PWS use.

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- The Source Water Protection website counter indicated that during this reporting period, the website was accessed **830** times.
- DEP UIC Class V program inspected **220** sites, with **63** sites requiring corrective actions, such as plugging floor drains. Quarterly reports received from DEP.
- Potable Public Water Supply Water Well Permits: **14** permits issued for **12** new potable water wells. **2** permits for well abandonments.
- **16** PWSs were awarded Source Water Security and Source Water Protection and Wellhead Grants during the 2007 and 2008 grant years. Please review the supplemental grants funds progress activity report for updated details on status.
- **18** PWSs were awarded Source Water Security and Source Water Protection and Wellhead Grants during the 2009 grant year. Please review the supplemental grants funds progress activity report for updated details on status.

Outcomes/Benefits (Lessons learned, if any) [EPA Order 5700.7 to specifically identify outputs and outcomes]

Future Plans

- Continue participation and provide funding for the Potomac Drinking Water Source Protection. This partnership is composed of water utilities and various governmental agencies responsible for drinking water protection in the Potomac River Basin.
- Continued participation with ORSANCO Water Source Protection program. This partnership is composed of water utilities and the various governmental agencies responsible for drinking water protection in the Ohio River Basin.
- Development of a yield and drawdown guidance and procedural manual for private and public water wells. Have not discussed or reviewed with the WV Water Well Advisory Committee, waiting on official establishment of the committee.
- Continue to participate in the AMSP, which determines future monitoring frequency reductions and is dependent on having a SWAP/WHP program in place.
- OEHS will continue to fund the WVDEP UIC Class V program.
- Planning and scheduling the 2011 WV Source Water Conference technical meeting for fall of 2011.
- Planning and scheduling the 2011 Source Water Security and Source Water Protection grant program to surface water and groundwater community PWSs to establish and implement water protection programs.
- Will utilize grant program funds for the provision of **10** source water monitoring panels to be installed in ten facilities in or just outside of the Monongahela River Basin through the River Alert Information Network (RAIN). These monitors will serve as early detection and warning of degradation of source water for member systems as well as the general public.
- Provide funding to the West Virginia Consumer Drug Return Partnership (WVCDRP) to address needed expansion of their existing program, educational and outreach efforts within WV. The goal of this program is to have a drug return collection center accessible to all WV citizens.

Task 3.3.1
Coordinate with Clean Water Act programs to promote development of TMDLs or WQs that protect drinking water sources.

Outputs/Progress to Date

- OEHS staff continues to have a working relationship between the State's SDWA program and the Clean Water Act programs (TMDL and WQS programs) at the WVDEP to help provide the most accurate and representative assessment of the state's source waters.

Outcomes/Benefits (Lessons learned, if any) [EPA Order 5700.7 to specifically identify outputs and outcomes]

- Protect water quality in water bodies to the level needed to ensure it can be used for drinking water.

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Future Plans

- Continue to attend Clean Water Act program (TMDL and WQS) meetings.

4 Recommended Activities (These are activities that do not affect PWSS Primacy or the receipt of the Drinking Water State Revolving Fund Set-aside funds. However many of these activities could be funded under either program. **Include only those activities to which the state is committing to conduct n the specific grant workplan.**)

Goal 2: Safe and Clear Water – Ensure drinking water is safe. Restore and maintain oceans, watersheds and their aquatic ecosystems to protect human health, support economic and recreational activities, and provide healthy habitat for fish, plants, and wildlife.

Objective 1: Protect human health by reducing exposure to contaminants in drinking water (including protecting source water), in fish and shellfish, and in recreational waters.

Subobjective 1: Water safe to drink.

Task 4.1

Enter informal enforcement actions into SDWIS to present more complete picture of violation follow-up.

Outputs/Progress to Date [Discuss informal actions taken that have been entered into SDWIS]

- NOVs, PNs requested, and PNs received are routinely entered into SSWR2. The NOVs are discussed in Task 2.2.2.

Outcomes/Benefits (Lessons learned, if any) [EPA Order 5700.7 to specifically identify outputs and outcomes]

Future Plans

- The NOVs, PNs requested, and PNs received will continue to be entered into SSWR2.

Task 4.2

Enter or correct latitude/longitude information to SDWIS for any remaining systems. Enter or correct the information on surface water systems first. Priorities are for entering data for the remaining systems are groundwater CWSs next, then groundwater NTNCWSs, followed by TNCWSs. Coordinate, as appropriate, with the EPA data management staff to ensure that all needed data storage capabilities for source water protection efforts are accounted for in the modernized EPA STOrage and RETrieval system (STORET), EPA's data management program for ambient water quality. Also coordinate with State Clean Water Act and EPA staff to strengthen State georeferencing capabilities to better track monitoring information for mapping and GIS applications. GIS tools, including the Reach File 3 system that assigns unique location identifiers to the waters of the U.S., will be valuable in source water assessments.

Outputs/Progress to Date

- Latitude and Longitude data in SDWIS is 99% complete.
- New water well sources added into SDWIS as they become active.
- OEHS continued to share source water polygon data with the EPA for use by all federal agencies as the single source of data.

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Outcomes/Benefits (Lessons learned, if any) [EPA Order 5700.7 to specifically identify outputs and outcomes]

Future Plans

- Continue entering Latitude and Longitude data for new sources, as necessary.

Task 4.3
Develop and maintain a Cross Connection Control Program. §142

Outputs/Progress to Date

- OEHS is maintaining a database of certified Backflow Prevention and Assembly Inspector(s)/Tester(s) (BPAITS). OEHS provides information on certified BPAITs through a website (http://www.wvdhhr.org/oehs/backflow/default.aspx) that is searchable by county and the individual's last name, alphabetically. This website also includes a Cross-Connection Fact Sheet and Cross-Connection and Backflow Prevention manuals issued by OEHS and EPA.
- OEHS continues to be the primary agency for implementing and maintaining cross-connection and backflow prevention programs for PWSs as defined by WV Legislative Rule 64CSR15 and 64CSR25. OEHS acts as an information resource by providing a generic information booklet containing all the necessary information required for a PWS to establish and maintain a cross-connection and backflow prevention program. This information is supplemented by the WV EW-114 "Cross-Connection and Backflow Prevention Manual" and EPA 816-R-03-002 "Cross-Connection Control Manual."
- DO staff continue to monitor PWSs for their "Cross-Connection and Backflow Prevention Programs/Plans" and report their findings in a Sanitary Survey. The sanitary survey provides information for correcting deficiencies and non-compliance. Over the past 5+ years, OEHS has provided cross-connection and backflow prevention plans to any PWS that did not already have a plan in place. These plans were mailed out to PWSs requesting them in the earlier years, and in later years, the plans were distributed by DO staff during sanitary surveys. The plans are now provided on an "as requested" basis since the requirement has been in place for so long.
- **9** one-week long initial certification courses and **6** one-day refresher certification courses were held for BPAITs.
- A total of **51** BPAITs certified or recertified and certificates were issued. As of July 25, 2011, there are **341** certified BPAITs.

Outcomes/Benefits (Lessons learned, if any) [EPA Order 5700.7 to specifically identify outputs and outcomes]

- Our generic "Cross-Connection and Backflow Prevention Program/Plan" has proven to be a valuable tool to a great number of PWSs in the state. Also, our participation in classroom settings, on-site visits, sanitary surveys, and CDAs, which are outreach programs, have increased the awareness of community PWSs as to their legal responsibilities for the necessity to implement and to maintain a cross-connection and backflow prevention program.
- Face-to-face contact with water operators and BPAITs result in greater cooperation and accomplishes the desired outcome. We also work closely with the WV RWA to enhance their outreach and training programs.
- The CDP has learned through out assessment process that some systems still do not have an active cross-connection program. As a result of these findings, the CDP continues to provide follow-up assistance in this area to bring these systems into compliance.

Future Plans

- OEHS plans to maintain our status as an informational resource and to continue to monitor PWSs through sanitary surveys and CDAs. Also, OEHS will continue to participate in the classroom training for water operators, BPAITs, and sanitarians. On-site assistance will be provided as per request by PWSs.
- The WV PSC mediates complaints between PWSs and their customers. OEHS will continue to work closely with WV PSC concerning

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cross-connection and backflow complaints.

Task 4.4
Interact with other State programs, local governments, and other stakeholder groups that affect or are affected by the drinking water program (e.g., wellhead protection programs, watershed protection programs and the Potomac River Basin Drinking Water Source Protection Partnership).

Outputs/Progress to Date

- Building partnerships and Inter-Agency cooperation and other alliances:
  - Continuation of the SWAP/WHP Memorandum of Understanding (MOU) that has been signed by a number of state groundwater regulatory agencies, establishes a coordinated effort by all agencies to protect groundwater in delineated SWAP/WHP areas. The MOU enhances the SWAP/WHP program's ability to protect groundwater utilized by PWSs.
  - Provided funding for the WVDEP UIC Class V program to located UIC Class V wells in source water protection and sensitive hydrological areas within WV. This work also includes an inventory of underground and above ground storage tanks in the SWAP/WHP areas.
  - Provided funding and participation with the Potomac River Basin Drinking Water Source Protection Partnership. This partnership is composed of water utilities and the various governmental agencies responsible for drinking water protection in the Potomac River Basin.
  - Participated on the ORSANCO SWAP committee that is composed of water utilities and the various governmental agencies responsible for drinking water protection in the Ohio River Basin.
  - Continuing a working relationship between the federal Safe Drinking Water Act and the Clean Water Act programs within the state to provide the most accurate and representative assessment of source waters, based on available data which the state believes best reflects the quality of the resources.
  - Use hydrogeologic information from the US Geological Survey (USGS) to help define SWAP/WHP areas. Working with the USGS, using existing and new information to help characterize the hydrogeologic setting and develop mathematical simulation of groundwater flow models of different regions of WV to determine the degree of detail appropriate for the source water assessments.
  - Assist in educational and outreach efforts in developing and prioritizing protection measures in conjunction with local drinking water protection efforts.
- Improve cooperation and coordination between state agencies and federal programs with localized and statewide conferences and meetings.

Outcomes/Benefits (Lessons learned, if any)

- Development of a local protection program is an important part in order to provide monitoring relief to a water system.

Future Plans

- OEHS will continue to build inter-agency cooperation per current progress to date.
- Continue to interact with other State programs, local governments, and other stakeholder groups that affect or are affected by the drinking water program (e.g., wellhead protection programs, watershed protection programs, and Potomac River Basin Drinking Water Source Protection Partnership) by continuing to develop partnerships and alliances.
- OEHS plans to continue the efforts to coordinate source water and source water assessments.
- Continue to use current information on the hydrology and hydrogeology within WV to determine the degree of detail appropriate for the

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source water assessments.

Task 4.4.0

Plan for source water protection and source water assessment programs simultaneously. For example, use current information on the hydrology and hydrogeology of different regions of the State to determine the degree of detail appropriate for the source water assessments. These assessments are necessary to support the source water protection programs being considered. Protection programs will likely be necessary in order to provide local flexibility on monitoring relief, ground water disinfection, regulation of Class V underground injection control wells, and filtration.

Outputs/Progress to Date

- Working with the USGS, using existing and new information to help characterize the hydrogeologic setting and develop mathematical simulation of groundwater flow models of different regions of WV to determine the degree of detail appropriate for the source water assessments.
- WHPP and SWAP helps guide local drinking water protection efforts and awareness by helping to prioritize protection efforts and program resources.
- Assist in educational and outreach efforts in developing and implementing protection measures. Improve cooperation and coordination between state agencies and federal programs with localized and statewide conferences and meetings.
- OEHS continues to help fund the DEP UIC Class V Program.

Outcomes/Benefits (Lessons learned, if any)

- Development of a local protection program is an important part in order to provide monitoring relief to a water system.

Future Plans

- OEHS plans to continue efforts to coordinate source water and source water assessments.
- Continue to use current information on the hydrology and hydrogeology within WV to determine the degree of detail appropriate for the source water assessments.

Task 4.4.1

Participate in State implementation of the 305(b) guidelines for drinking water to elevate awareness of drinking water as a designated use within the 305(b) program, increase the percentage of waters assessed for drinking water use support, and enhance the accuracy and value of the assessments. Facilitate a working relationship between the State drinking water and clean water staff to provide the most accurate and representative assessment of source waters, based on available data which the State believes best reflects the quality of the resource. Adopt the Watershed approach. Work with State water quality standard staff to ensure that use designations under the Clean Water Act reflect the location of surface source water areas for drinking water intakes, and wellhead protection areas which may be influenced by surface water (i.e., induced infiltration of surface water into drinking water wells). Be sure upstream dischargers are aware of downstream drinking water intakes. Also, work cooperatively with State ambient monitoring staff, include the 305(b) staff, to ensure that duplication of monitoring efforts in source water assessment projects area not occurring, that existing data are reorganized and used, and that any new data that are collected are appropriate. EPA Region III will assist in the use of STORET data as needed.

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Outputs/Progress to Date

- OEHS staff continues to build a working relationship between the State's SDWIS program and other water quality standards programs at the DEP and the Clean Water Act program to provide the most accurate and representative assessment of source waters, based on available data which the State believes reflects the quality of the resource.
- The OEHS website continues to provide information on the SWAP/WHP programs and guides municipalities, water suppliers, and other groups through developing a local SWAP program.
- OEHS participates with the USGS and DEP on the ambient groundwater monitoring program.
- Developed a secure website providing wellhead and source water protection areas, locations of public supply wells, and potential contaminant sources for use by state emergency management, federal agencies, and utilities.

Outcomes/Benefits (Lessons learned, if any)

- Development of local protection program awareness is an important part in order to provide monitoring relief to a water system.

Future Plans

- Continue to support the WV USGS and DEP on the ambient groundwater monitoring program.
- OEHS staff will continue to build a working relationship between the state's SDWA program and the water quality standards program at the DEP and the Clean Water Act program to provide the most accurate and representative assessment of source waters, based on available data which the State believes reflects the quality of the resource.
- OEHS website will continue to provide information on the SWAP/WHP programs and guide municipalities, water suppliers, and other groups through developing a local SWAP program.
- Continue to use secure website providing wellhead and source water protection areas, locations of public supply wells, and potential contaminant sources for use by state emergency management, federal agencies and utilities.

Task 4.5

Coordinate with national, State, and local agencies to encourage identification and reporting of waterborne disease outbreaks associated with drinking water.

Outputs/Progress to Date

- Continual communication with the Public Health Sanitation Division, Office of Epidemiology and Health Promotion, Centers for Disease Control and Prevention, and Local Health Departments concerning common areas of work, including potential waterborne disease outbreaks.
- No known waterborne disease outbreaks were reported during this reporting period.

Outcomes/Benefits (Lessons learned, if any)

Future Plans

- Continue communication and working with these agencies to encourage identification and reporting of waterborne disease outbreaks associated with drinking water.

Task 4.6

Encourage systems to optimize their treatment plant performance beyond current requirements. (Participation in Partnership for Safe Water and/or Area Wide Optimization Program)

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Outputs/Progress to Date

- Co-sponsored/co-presented a six-hour AWOP seminar with WVRWA (September 7, 2010).
- OEHS District and Central Office staff participated in a Performance Based Training (PBT) conference call with EPA staff (October 14, 2010).
- OEHS staff attended the National Drinking Water Optimization Conference in Hershey, PA (October 19 – 20, 2010).
- OEHS staff attended the EPA Region 3 AWOP meeting in Harrisburg, PA (October 20 – 21, 2010).
- OEHS staff met to discuss AWOP program, including PBT, DBP-PBT pilot, and budget items (October 29, 2010).
- OEHS staff participated in a PBT conference call with EPA staff (January 26, 2011).
- DBP tank mixing seminar/discussion as part of WV EXPO (March 24, 2011).
- PBT follow-up session at Logan City Hall (March 30, 2011).
- Completed and Circulated the AWOP 2010 WTP "Public Health Risk" master list including 130 water plants (April 7, 2011).
- Hosted EPA Region 3 AWOP meeting at Falling Waters, WV (April 12 – 13, 2011).
- Loaned Zeta meter to a Beckley Glade Springs WTP after the Zeta Meter seminar (April 27, 2011).
- PBT Facilitator Training for DBP PBT Training, St. Albans WTP (June 16, 2011).

Outcomes/Benefits (Lessons learned, if any)

- PBT series provides operators with experience in performing special studies at their WTPs, enhancing their operations skills.
- OEHS staff involved in grading WTPs on optimization score sheets and presenting data to WTPs through reports and during site visits.

Future Plans

- 2011 through 2013: Participate in two concurrent PBT series: (1) a microbial pilot with EPA Subcontractor; and (2) an EPA Region 3 Train-the-Trainer DBP Pilot (six sessions each, total of 12 training sessions).
- July 19 and 20, 2011 – Three staff to attend National AWOP Conference in Cincinnati, Ohio.
- September 14, 2011 – AWOP update at WV RWA Conference in Snowshoe, WV.

Task 4.7

Perform public education responsibilities, such as responding to press inquiries, educating the general public, and conducting outreach.

Outputs/Progress to Date

- OEHS partnered with the DEP Water Training Program to train public school teachers and students about drinking water issues.
- Participated in various meetings and conferences across the state to present information on the Source Water Protection Program.

Outcomes/Benefits (Lessons learned, if any)

Future Plans

- Continue to collaborate with the DEP Water Training Program to train public school teachers and students about drinking water issues.
- Sponsor or co-sponsor a Karst and/or Water Protection Conference in 2011.

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Task 4.8
Obtain Internet access to improve communications with other agencies, and outreach to the public. Develop and maintain computer communications with field offices.

Outputs/Progress to Date [Discuss any changes/improvements made or being done to enhance communications]

- Please see Tasks 3.0.1, 3.0.3, 3.2.1, 3.3.0, and 4.3, concerning internet access with other agencies and to the public.

Outcomes/Benefits (Lessons learned, if any)

- Internet technology has facilitated the widespread use of these tools and allows these programs to be quickly updated to reflect changes in Programs.

Future Plans

- OEHS will continue to use internet capabilities and pursue further enhancements to improve communications with stakeholders.

Task 4.9
Track the following compliance assistance activities: small system assistance programs, workshops, onsite assistance, guidance on State regulations and other outreach materials, hot lines or other responses to inquiries from individuals, trade shows, and conferences.

Note: The Office of Enforcement and Compliance Assistance at Headquarters is interested in State compliance assistance efforts. Please provide whatever information is easily available, or that does not require extensive time and resources to collect. (This type of information should also be included in the State's Annual Compliance Report, due each July 1 for the previous calendar year.)

Outputs/Progress to Date

- Participated on the ORSANCO SWAP committee that is composed of water utilities and the various governmental agencies responsible for drinking water protection in the Ohio River Basin.
- Provided funding and participated with the Potomac River Basin Drinking Water Source Protection Partnership. This partnership is composed of water utilities and the various governmental agencies responsible for drinking water protection in the Potomac River Basin.
- Continuation of the SWAP/WHP Memorandum of Understanding (MOU) that has been signed by a number of state groundwater regulatory agencies, establishes a coordinated effort by all agencies to protect groundwater in delineated SWAP/WHP areas. The MOU enhances the SWAP/WHP program's ability to protect groundwater utilized by PWSs.
- Assisted in educational and outreach efforts in developing and prioritizing protection measures in conjunction with local drinking water protection efforts.
- OEHS conducted **1** CAPDEV meeting and maintained an informational booth at the WV RWA Annual Conference in September 2010.
- OEHS conducted **1** CAPDEV meeting concerning compliance and enforcement strategies for water systems at the WV EXPO in March 2011.
- Representatives from CD were also involved in assisting PWSs in violation, to explore available options and provide guidance in their return to compliance.
- Continue to assist water operators in consolidating/generating public notices to educate them on completing the forms and to minimize financial costs to the community.
- Continue to educate the water operators on the reasons for receiving a violation and methods to minimize future violations to attain better compliance.

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- Continue to provide public notice and lead notification templates on the OEHS website, for water system use, to maintain compliance with all EPA regulatory criteria.
- Continue to provide yearly and 3-year compliance schedules to aid water systems in implementing their required sample collection programs.
- Continue participating in intra-agency conferences, EXPO and WVRWA, where water system operators and C&E Personnel have a chance to discuss regulatory issues and ways to minimize violations.

Outcomes/Benefits (Lessons learned, if any)

- The participating PWS representatives have found the CAPDEV meetings to be useful to build networking relationships with other PWSs personnel. This networking has enabled PWS personnel with common goals to share experiences and offer assistance to those in need.

Future Plans

- SWAP staff plans to attend ORSANCO and Potomac River Basin Partnership meetings.
- CAPDEV plans to determine if future meetings will continue to be beneficial to water systems as attendance has declined due to budget constraints of PWSs to send operators to these classes. WVWARN may be taking precedence for PWSs participation in mutual aid activities.

Task 4.10

Water Conservation Guidelines: On August 6, 1998, EPA published a document entitled *"Water Conservation Plan Guidelines."* These voluntary guidelines will encourage conservation by water systems, particularly small systems, thereby extending the life of water treatment infrastructure and reducing costs.

The guidelines do not contain any federal requirements; however, after August 6, 1999, states may require water systems to submit a water conservation plan consistent with EPA's guidelines as a condition of receiving a loan from the State Drinking Water Loan Fund.

Outputs/Progress to Date

- WV does not require "Water Conservation Plan Guidelines" from DWTRF Loan applicants.
- WV PSC has a requirement that water systems should only have a 15% water loss; water losses above that amount should be addressed before new plant upgrades are requested.

Outcomes/Benefits (Lessons learned, if any)

- Not applicable at this time.

Future Plans

- OEHs will initiate this requirement when water conservation is required by the State.

Task 4.11

Drought Contingency and Water Supply Assistance: Continue to monitor water systems affected by drought conditions to ensure an adequate supply of water. Assist water suppliers with obtaining alternate sources, handling any contamination associated with the drought, development of contingency plans and assisting with outreach efforts on water conservation.

Outputs/Progress to Date

- PWSs were surveyed for potential and existing drought conditions during low rainfall periods and offered assistance in obtaining

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emergency water tankers and other supplemental supplies.

- Emergency response plans of drought vulnerable PWSs were reviewed for drought planning during sanitary survey inspections. Recommendations were suggested when needed.

Outcomes/Benefits (Lessons learned, if any)

Future Plans

- OEHS will continue assisting PWSs likely to be impacted by drought conditions as they occur and providing assistance to emergency service offices when needed.
- Continue advising PWSs of the need for appropriate backup water supply planning and recommend pipeline repairs to reduce water losses.
- Continue offering assistance to PWSs which are vulnerable to inadequate water supplies.

5. Additional State Activities which are funded with PWSS Grant or DWSRF Set-aside fund monies:

Include here, narrative on any additional projects funded under the PWSS Grant or with DWSRF Set-aside funds. You may also **want to** use this area to give narrative on staffing and GUDI, track equipment purchases, etc., or do so, on a separate page.

Task 5.1
Narrative on Staffing Vacancies
Report on status of staff level and document source of funding for each FTE (e.g., PWSS, SRF, etc.)

Outputs/Progress to Date

- Please see accompanying staffing report.

Outcomes/Benefits (Lessons learned, if any)

Future Plans

- OEHS will continue working towards fully staffing the office.

Task 5.2
Narrative on activities conducting GUDI determinations
Report on issues/concerns, challenges to completing GUDI determinations.

Outputs/Progress to Date

- Please see Task 2.2.11 for current status.

Outcomes/Benefits (Lessons learned, if any) [EPA Order 5700.7 to specifically identify outputs and outcomes]

Future Plans

- Please see Task 2.2.11 for future plans.

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6. Water Protection (Security) Coordination Grants

Separate Guidance is issued regarding these grants. This section of the checklist can be used to list the activities funded so that the Checklist can be used for reporting purposes.

Goal 2: Safe and Clear Water – Ensure drinking water is safe. Restore and maintain oceans, watersheds and their aquatic ecosystems to protect human health, support economic and recreational activities, and provide healthy habitat for fish, plants, and wildlife.

Objective 1: Protect human health by reducing exposure to contaminants in drinking water (including protecting source water), in fish and shellfish, and in recreational waters.

Subobjective 1: Water safe to drink.

NOTE: State should report progress on "Objectives" of revised workplan (01/06/09) and the "Methods" by which objectives will be accomplished.

REPORTING: The state will continue to report semi-annually on the status of Security grant workplan activities. Be sure to report on "Outcomes" listed on page 7 of workplan.

Objective 1: Continue security and emergency response outreach to the state's community and non-transient, non-community water systems.

Outputs/Progress to Date **[Refer to Methods 1 & 2 under Objective 1 in Security grant workplan]**

- OEHS staff distributed security and emergency preparedness outreach materials, including the US EPA ***Tabletop Exercise Tool for Water Systems: Emergency Preparedness, Response, and Climate Resiliency*** CD-ROM to PWS personnel through an exhibit and presentation at the 2010 WVRWA Annual Conference (September 2010).

Outcomes/Benefits (Lessons learned, if any) [EPA Order 5700.7 to specifically identify outputs and outcomes]

- PWS personnel gained security and emergency preparedness knowledge through information offered during exhibits and presentations.
- Proactive security and emergency preparedness measures enhanced protection of consumers' drinking water.

Future Plans

- OEHS will continue hosting a drinking water security/emergency preparedness exhibit during future WVRWA Annual Conferences and other appropriate drinking water industry events.
- Continue developing and distributing security/emergency preparedness outreach materials to PWS personnel, utilizing a variety of formats (i.e., printed materials, CD-ROMs, fliers, etc.).

Objective 2: Update emergency contact information pertaining to the state's community and non-transient, non-community water systems.

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Outputs/Progress to Date **[Refer to Method 1 under Objective 2 in Security grant workplan]**

- Two summer interns updated OEHS PWS emergency contact information (July 1, 2010 – August 6, 2010).

Outcomes/Benefits (Lessons learned, if any) [EPA Order 5700.7 to specifically identify outputs and outcomes]

- Accurate emergency contact information improves communication between OEHS, PWS personnel, emergency responders, and other agencies/organizations involved with response and readiness procedures.
- Accurate emergency contact information increases the ability to rapidly dispense critical homeland security messages or alters to key PWS personnel.

Future Plans

- Hire summer intern(s) who will contact water systems and verify emergency contact information, including information on PWS pipeline interconnections, backup water sources, and emergency response plans.
- OEHS Data Management staff will enter updated emergency contact information into SDWIS.

Objective 3: Maintain rapid communication resources between OEHS staff, public water systems, and other emergency contacts.

Outputs/Progress to Date **[Refer to Method 1 under Objective 3 in Security grant workplan]**

- OEHS provided emergency response employees with cell phones and emergency radios.

Outcomes/Benefits (Lessons learned, if any) [EPA Order 5700.7 to specifically identify outputs and outcomes]

- Enhanced emergency communication between key OEHS central and district office staff, PWS personnel, and other responders.
- Emergency radios provide communication with state central emergency operation centers during adverse conditions when cell phones landline phones are inoperable.

Future Plans

- Continue providing cell phones and emergency radios to OEHS staff identified as key emergency responders.

Objective 4: Conduct security/emergency preparedness training for the state's public water system personnel.

Outputs/Progress to Date **[Refer to Method 1 under Objective 4 in Security grant workplan]**

- WVRWA conducted the remaining four of a series of five 1 ½ day National Incident Management System (NIMS) workshops for the state's PWS personnel (July – October 2010). (The first workshop in the series was conducted during SFY2010).

Outcomes/Benefits (Lessons learned, if any) [EPA Order 5700.7 to specifically identify outputs and outcomes]

- PWS personnel completing the NIMS workshops will be NIMS certified (IS-700, ICS-100, and ICS-200 levels).

Future Plans

- OEHS will enter into contracts with vendors to conduct additional security/emergency preparedness themed training for PWS personnel.

Objective 5: Assess backup power generation capabilities of the state's public water systems.

Outputs/Progress to Date **[Refer to Method 1 under Objective 5 in Security grant workplan]**

- A contracted vendor has entered data for **285 (60%)** of **477** Community Water Systems (CWS) into the emergency generator database. Several CWSs are no longer included in this list since they were taken over by West Virginia American Water. WVAWC maintains their

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generator database for its facilities throughout the state.

- Contracted vendor has sized **779** generators (**128** with existing generators) statewide and entered information into the database. This represents **210** treatment plants (**56** plants or **27%** with existing generators). The remaining **72** existing generators are for raw water intakes, booster pumps, and well pump units throughout the state.
- **651** generator calculations are for treatment plants, booster stations, raw water intakes, and well field pumps for systems with no standby power provisions.
- There are currently **10** PWSs that have been contacted and information is available so calculations for these systems can be completed and entered into the database.
- Additional system contacts and follow-up are currently in progress.

Outcomes/Benefits (Lessons learned, if any) [EPA Order 5700.7 to specifically identify outputs and outcomes]

- Several water systems have used the database to assist in renting generators during emergencies, scheduled maintenance outages, and securing funding for generator purchases.
- Several county offices of emergency services have used the data to specify generator sizes for rent or purchase for use at facilities within their county used as command centers in the event of an emergency.

Future Plans

- Contracted vendor will continue contacting water systems throughout the state to obtain information so generator calculations can be completed or updated for their facilities.
- Systems will continue to be provided with support data and technical assistance to aid in purchasing or renting generators.
- Technical support will remain available to assist in electrical maintenance and reliability of generators and switch gears.

Objective 6: Support Mutual Aid Agreement (MAA) activities involving the state's public water systems.

Outputs/Progress to Date **[Refer to Methods 1 & 2 under Objective 6 in Security grant workplan]**

- OEHS continued to serve as a non-voting member of the West Virginia Water/Wastewater Agency Response Network (WV WARN).
- Various OEHS staff attended quarterly WV WARN Steering Committee meetings and actively participated in various committee activities.
- Provided assistance with the WV WARN exhibit at the 2010 WVRWA Annual Conference (September 2010).
- Provided funding to cover WV WARN expenses (administrative costs) and activities (quarterly meetings).

Outcomes/Benefits (Lessons learned, if any) [EPA Order 5700.7 to specifically identify outputs and outcomes]

- Improved emergency preparedness and disaster recovery for PWSs through WV WARN's mutual aid agreement and activities.
- Continued growth of the WV WARN program through OEHS participation in Steering Committee efforts and various committee activities.

Future Plans

- OEHS will continue actively supporting WV WARN's mission through funding and staff involvement in WV WARN activities.

Objective 7: Obtain additional threat preparedness training for OEHS staff members.

Outputs/Progress to Date **[Refer to Method 1 under Objective 7 in Security grant workplan]**

- OEHS staff attended an emergency preparedness training session (***Emergency Response Revisited***) during the 2010 WVRWA Annual Conference (September 2010).

Outcomes/Benefits (Lessons learned, if any) [EPA Order 5700.7 to specifically identify outputs and outcomes]

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Future Plans

- OEHS staff will continue attending in-state and out-of-state conferences and workshops sponsored by ASDWA, AWWA, NRWA/WVRWA, US EPA, and other water sector organizations.

Status of Grant Expenditures. [Breakout dollar amounts per activity or budget categories state may use financial spreadsheet/chart from DWSRF Set-Aside Supplemental progress report as a reference/example of how this should be done.]

State needs to submit financial status and time schedule for expending grant funds for project period July 1, 2008 – June 30, 2009, which was due August 15, 2009!

Submit progress activity report covering July 1, 2010 – December 31, 2010 that reflects financial status and time schedule for expending all grant funds by the end of the project period. Due February 15, 2011, in addition to the PWSS Progress Report.

Former Expense: [Explain reason(s) for slow drawdown of funding]

- Please refer to the December 31, 2010, Progress Activity Report for details.

Current Year Expense:

- Please refer to the December 31, 2010, Progress Activity Report for details.
- OEHS currently has **3** open grants of which **1** has almost been entirely drawn down.

Future/Projected Expense:

- Our plans are to have only 2 grants remaining with funds at the end of the SFY 2012 based on the current levels of disbursements.

7. Operator Certification Expense Reimbursement Grants (ERG)

Separate Guidance has been issued for these grants. Use this space on the Checklist to capture the funded activities and use this tool for reporting purposes. NOTE: Environmental Results provisions do not apply to these grants. These grants were awarded prior to EPA Order.

Goal 2: Safe and Clear Water – Ensure drinking water is safe. Restore and maintain oceans, watersheds and their aquatic ecosystems to protect human health, support economic and recreational activities, and provide healthy habitat for fish, plants, and wildlife.

Objective 1: Protect human health by reducing exposure to contaminants in drinking water (including protecting source water), in fish and shellfish, and in recreational waters.

Subobjective 1: Water safe to drink.

NOTE: State should report progress on "Goals" of revised workplan (09/07/09) and the "Objectives" by which activities will be accomplished.

REPORTING: The state will submit a financial status report and time schedule covering January 1 – December 31, 2010, that

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reflects all expended and projection of expended grant funds. Due August 15, 2010, and February 15, 2011, IN ADDITION TO the PWSS progress report.

Goal 2: e-Training Vendor Contracts
Trainings held for small system operators to receive CEH hours.

Outputs/Progress to Date **[Refer to Objectives 1 – 3 under Goal 2 in ERG revised workplan]**

- Objective 1: Completed Suncoast Learning Systems, Inc. contract (EHS90075) on December 31, 2009. No additional activity to report or planned. These courses are still available on the WV RWA website as a CEH training option for a reasonable fee.
- Objective 2: Completed E-Train Online, Inc. contract (EHS80365) on August 31, 2009. No additional activity to report or planned other than continued promotion for the use of the WV Basics Course to all water operators for CEHs.
- Objective 3: Completed ContactPointe, Inc. contract (EHS90087) on May 31, 2011, No additional activity to report or planned other than continued promotion for the use of the WV Advanced Course to all water operators for CEHs.
  - Contracted with E-Train Online, Inc. (EHS11007) on November 15, 2010, to develop several additional electronic interactive training courses (Chief Operator, Water Distribution, 1D, and Enhanced Reference Guides) for **$737,000** total cost. These courses will be available on CD-ROM or online to support certification initial and continued training requirements.

Outcomes/Benefits (Lessons learned, if any)

- Objectives 2 & 3: The WV Basics and Advanced Course are 19.5 hours of free CEH training available online and via CD-ROM for all certified water operators. Thee new resources have been very well received by our operators, especially when their work schedules do not allow them to attend the traditional classroom-based courses with a set schedule and location.
- Objective 3: Although EHS11007 is much larger in scope, administration is going well based on the success of the earlier contracts.

Future Plans

- Objective 3: Complete E-Train Online, Inc. (EHS11007) contract by November 14, 2011.

Goal 3: In-house Internet training and Web CT review

Outputs/Progress to Date **[Refer to Objectives 1 – 3 under Goal 3 in ERG revised workplan]**

- Objective 1: Operator Workspaces – No work activity to report or planned.
- Objective 2: Registration fees and travel expenses – Using ERG for C&T staff training and travel supportive of ERG.
- Objective 3: Revise SWOCS software – No work activity to report.

Outcomes/Benefits (Lessons learned, if any)

Future Plans

- Continue to lead program changes.
- Communicate all current requirements and available resources.

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Goal 4: Backflow Prevention Assembly Test(s)

Outputs/Progress to Date [Refer to Objectives 1 – 2 under Goal 4 in ERG workplan]

- The Backflow Prevention Assembly Inspector/Tester (BPAIT) training contract (EHS90081) with WVETC ended December 31, 2009. WVETC is continuing to offer these types of courses without a contract with us. No work activity to report or planned.
- Maintained a website with currently certified BPAITs in WV (http://www.wvdhhr.org/oehs/backflow/default.aspx).

Outcomes/Benefits (Lessons learned, if any)

- WVETC is continuing to offer the required BPAIT training courses without a contract.

Future Plans

- Facilitate future offerings of these required courses without a contract by communicating continued need and interest to WVETC.

Goal 5/Objective 2: Equipment to support electronic training.

Outputs/Progress to Date [Refer to Objective 2 under Goal 5 in ERG workplan]

- Maintaining a summary of online operator training opportunities on OEHS website at http://www.wvdhhr.org/oehs/eed/swap/training&certification/online_training.asp.

Outcomes/Benefits (Lessons learned, if any)

- State purchasing continues to be a challenge.

Future Plans

- Request purchase of CD-ROM duplicator to be completed by December 31, 2011, or cancel.

Goal 5/Objective 3: Identification Card System

Outputs/Progress to Date [Refer to Objective 3 under Goal 5 in ERG workplan]

- Maintained/used the new identification card system for operators at the central and each district office, a total of **6** locations across the State.

Outcomes/Benefits (Lessons learned, if any)

- The ID card system on a state agency network at multiple locations requires continuous C&T staff time for proper maintenance and administration.

Future Plans

- Continue use of ID card system at all **6** locations.

Goal 5/Objective 4: Mobile Training Trailer – Part 2

Outputs/Progress to Date [Refer to Objective 4 under Goal 5 in ERG workplan]

- Contracted with WVRWA (EHS11018) on August 24, 2010, to provide a custom built water operator training trailer. The completed trailer was delivered to OEHS on June 6, 2011. OEHS is working on the purchase requests for various trailer equipment and drafting an RFQ to contract for its future use.

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Outcomes/Benefits (Lessons learned, if any)

- State purchasing continues to be a learning experience as they have staffing and policy/protocol changes as well.

Future Plans

- Purchase needed training equipment for future use in the trailer.

Goal 5/Objective 5: Water Operator Career Awareness Campaign

Outputs/Progress to Date [Refer to Objective 5 under Goal 5 in ERG workplan]

- Providing developed and purchased promotion materials at exhibits, presentations, and other outreach opportunities statewide such as Channing Bete Company's booklets on *Careers in the Water Industry* and *Keeping Drinking Water Safe – It's a Team Effort* personalized with EED contact information and the water operator awareness campaign printed materials.

Outcomes/Benefits (Lessons learned, if any)

- Maintaining a list of interested individuals identified through the awareness campaign.

Future Plans

- Bridge the gap between individuals interested in becoming certified water operators and PWSs looking to hire.

Status of Grant Expenditures [Update Table 1 Chart from Revised Workplan and Submit]

Former Expense: [Explain reason(s) for slow drawdown of funding]

- Reimbursement of outside E-Training contractor and Backflow Prevention and Testing Program (BPAIT) training for small system operators through two contracts was overestimated. Actual reimbursable cost associated with this training was less than originally anticipated.
- Continued unanticipated time requirements for contracts within state purchasing guidelines is very time consuming but is improving as we continue to participate in the purchasing process. Since the ERG was awarded initially, many purchasing processes have also changed and continue to change, which required revision of both documents and work processes. For example, contract formats and required documentation were revised. Personnel and job duty changes within OEHS finance group also delayed ERG projects initially, but this has been improving. It has taken about 6 months to award a contract to a vendor to start an ERG project.
- Unfamiliarity with vendors and technical aspects involved with electronic equipment and software. However, over the past several years the C&T staff has developed a much better working technical knowledge by understanding the technical aspects requirements by working with various vendors and technical experts within these areas on how to develop projects.
- OEHS did not hire any additional C&T staff to work solely on ERG projects, existing staff is working on ERG projects in addition to their other full-time C&T program related work duties. Multiple personnel changes in C&T staff have also delayed progress. C&T staff is fully aware of the importance of fulfilling our end of the work required as part of the approved ERG projects. We feel this arrangement with current staff can successfully complete the ERG projects as planned.

Current Year Expense:

- Financial status report will be supplied by WVDHHR/BPH Central Finance.

Future/Projected Expense:

- Continue to implement the approved Expense Reimbursement Grant (ERG) workplan with minimal if any remaining ERG balance by December 31, 2011.

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