MEMORANDUM

TO: Members, Wyoming Legislature and Other Interested Parties

FROM: John V. Corra, Director
Wyoming Department of Environmental Quality

DATE: October 3, 2011

SUBJECT: Fiscal Year (FY) 2011 Storage Tank Program Annual Report

Pursuant to W.S. 35-11-1414(d), the attached FY2011 Storage Tank Program (STP) Report is respectfully submitted for your information. This report summarizes environmental restoration expenditures and tank compliance activities for the STP during the state fiscal year ended June 30, 2011.

WYOMING DEPARTMENT OF ENVIRONMENTAL QUALITY
SOLID & HAZARDOUS WASTE DIVISION
STORAGE TANK PROGRAM
122 WEST 25th STREET
HERSCHLER BUILDING - 4W
CHEYENNE, WY 82002

FISCAL YEAR 2011
STORAGE TANK PROGRAM
ANNUAL REPORT

October 3, 2011

Prepared by:

Karen L. Halvorsen, P.E.
STP Manager

SECTION A
MAJOR PROGRAM ACCOMPLISHMENTS IN FY2011

The Wyoming Department of Environmental Quality/Solid & Hazardous Waste Division's Storage Tank Program (STP) has been actively remediating contaminated sites since 1991. During each year, the program has initiated aggressive environmental remedial actions at the highest priority sites within each district office using available resources.

The STP has an active inspection program to monitor compliance with Wyoming Water Quality Rules and Regulations (Chapter 17) and the Environmental Quality Act (EQA). An effective notification and enforcement program helps Wyoming maintain one of the highest compliance rates in the country.

STP major accomplishments for FY2011 include:

A. Environmental remediation management of 43 active projects. At the end of the fiscal year, 341 contaminated source sites were included in these active projects. Remediation at affected third-party sites is also an ongoing activity within most active projects. The majority of this work involved continued operation and maintenance for constructed remediation systems for 39 of the projects. The work also included design of remedial systems for 13 of the projects, subsurface investigation for 7 of the projects, construction of remedial alternatives for 14 of the projects, and decommissioning for 8 of the projects. One project, SW Casper (14 sites) was started during FY2011. Consultant selection for the Rawlins #2 project (11 sites) was completed, however, work has not yet started.

B. Work continued on development of a geographic information system (GIS) database to store remediation project information. The database is operational. The consultant has been retained for continued hosting of the database until it can be migrated to the state's system. Modifications to the compliance database are ongoing. Minor modifications to both the GIS and compliance database will continue into fiscal year 2012.

C. Management of operator compliance with state rules and regulations for tank owners and operators continued. As of June 30, 2011, there were 3,844 facilities (gas stations, emergency power generator locations, etc.) with tanks or that had tanks in the past. There were 8,606 permanently out-of-use (POU) tank systems, 1,906 active tank systems, and 123 temporarily out-of-use (TOU) tank systems for a total of 10,634 tank systems regulated by the STP (see Table 3).

D. During FY2011, the STP conducted 407 on-site underground storage tank (UST) inspections, 57 on-site aboveground storage tank (AST) inspections, and reviewed 623 operator annual inspection reports.

E. EPA recognizes three measurements of program performance. These are called Significant Operational Compliance (SOC) measures. By EPA definition, SOCs are calculated over a 12-month period. The compliance rate is based on the number of UST inspections completed during the period and the number of facilities inspected that were out-of-compliance. AST inspections are not included when determining SOCs.

SOC-1, measures how well operators are following leak detection requirements. Sixteen facilities were in violation of SOC-1, which is a compliance rate of 96%. SOC-2 measures how well operators are complying with corrosion protection requirements. Ten facilities were in violation of SOC-2, which is a 98% compliance rate.
SOC-3 is a combination of SOC-1 and SOC-2. The SOC-3 compliance rate was 94%.

EPA's current strategic plan is for a baseline SOC-3 of 68% by federal fiscal year 2015. Wyoming's SOC compliance rates are significantly higher than the rates most other states report to the EPA and well above EPA's goals. Wyoming's excellent compliance rates have been achieved because:

1. The STP, Compliance Section, tracks every required test for every tank. Using this system, operators are notified in writing before the test is due to give them time to have the test done before it becomes past due.

2. Owner/operators that do not complete the tests required are subject to effective enforcement action. As a goal, the STP tries to initiate enforcement within 6 months of a test becoming overdue.

F. Corrosion protection systems must be tested once every 3 years. Not all tanks in Wyoming have corrosion protection as some tanks do not corrode (e.g., fiberglass, clad, and composite tanks).

At the end of FY2011 there were 655 tanks that were protected against corrosion using sacrificial anodes. Within the last 3 years, 25 of these tanks had not been tested. These tanks were located at 24 facilities. This is a 96% compliance rate. There were 442 tanks that were protected against corrosion using impressed current systems. Only 19 tanks at 19 locations were not current for the required testing. This is a 96% compliance rate.

G. Thirty-five formal enforcement actions were taken by the department during the year. Four actions resulted in enforcement penalties totaling $46,000 with $2,000 stayed for up to 3 years pending future compliance. Nine red-tag orders (fuel delivery prohibition) were issued due to non-compliance; as of the end of the fiscal year, three of these had been lifted.

H. During FY2010, the program was awarded American Recovery and Reinvestment Act LUST Trust Funds to complete two projects. One project included investigation, design, and removal of contaminated soil at two adjacent sites in Rawlins. The Rawlins project is ongoing. Sampling will be completed and the project will be closed before the end of the 2011 calendar year. The second project included records research of 19 pre-law tank sites. Thirteen of these sites were closed. The project was completed during FY2011.

SECTION B
PROGRAM ADMINISTRATION

I. STP Organization. The WDEQ/SHWD organizational chart and STP district office information are attached. The department would not be able to accomplish this ambitious state program without these dedicated professionals.

II. Funding. W.S. 35-11-1414 through 1428 provides that the department's financial obligations for remediation actions are limited to the funds available in the Corrective Action Account (CAA). The department is remediating eligible contaminated storage tank sites as funding in the CAA allows and staff is available to manage new projects.

The State Revolving Fund (SRF) loan program prepared an Intended Use Plan (IUP) for completing STP corrective actions and municipal wastewater treatment system improvement projects in Wyoming for fiscal year 2011. This document was the subject of a public hearing process, and projects are being implemented in accordance with the plan. Tables 1 and 2 (attached) present a summary of the STP/SRF cumulative balances as of June 30, 2011.

The Financial Responsibility Account (FRA) provides financial assurance coverage required by federal law for the purpose of compensating third parties for a portion of damages caused by releases from program-eligible leaking USTs and ASTs. The statutes also provide that nothing in the EQA shall be construed to authorize commitments to cover property or personal injury damages in excess of the available balance in the FRA. Since program inception, there have been no claims against the FRA.

Owners of tanks are required to pay annual tank fees. Owners of contaminated sites are required to pay contaminated site fees. Fees must be paid for a site to remain eligible for the state STP.

III. Underground Storage Tank/Leaking Underground Storage Tank (UST/LUST) Program Primacy Application to EPA. A program primacy application package was prepared and submitted by the department to EPA, Region VIII, Denver, Colorado, in March 1999 with supplemental information provided to EPA in July 1999. A follow-up letter was sent to the EPA Regional Office on July 9, 2003, requesting reconsideration of an informal decision by EPA not to delegate full responsibility of the federal UST/LUST program to Wyoming. The initial (and continuing) concern of EPA was timeliness of remedial actions; an aspect that the department cannot control due to resources allocated by the state legislature.

The program intends to resubmit its primacy application after EPA finalizes proposed changes to the tank laws. New federal rules are expected to be out within the next year or two. If Wyoming is granted program primacy, citizens and tank owners and operators will not see any significant changes in the day-to-day program administration. However, the state will receive full responsibility for program administration with a large reduction in direct federal program oversight.

SECTION C
STORAGE TANK OVERVIEW

Table 3 (attached) provides an overview of the number of UST and AST facilities and tanks in the state. Tank facilities include any location that has a tank or has had a tank in the past. Many facilities have more than one tank. An active tank is currently dispensing a product. A temporarily out-of-use (TOU) tank has had the product removed to within 1-inch of the bottom and all corrosion protection systems on the tank remain in working order. Tanks that are TOU may be placed back into service at any time with notification to the department. A permanently out-of-use (POU) tank has been taken out of service permanently either by closing the tank in place (cleaning and filling with an inert material) or by removing the tank.

SECTION D
STP REMEDIATION ACTIVITIES

I. Summary. W.S. 35-11-1414 through 1428 require that the department remediate contamination caused by program-eligible releases based on a priority ranking score. Four primary factors affect the prioritization ranking score: 1) the degree of immediate adverse health exposure and/or safety hazards to people in nearby buildings or to public utilities, 2) surface and groundwater quality protection, 3) potential for contaminants to migrate, and 4) ecological protection.

As of June 30, 2011, a total of 1,599 contaminated STP source sites, requiring some degree of active environmental remediation, existed in the state. (This is 26 less than reported last year. The STP has been completing a thorough review of the database, and we have found errors, which we continue to correct.) For comparison, the number of contaminated sites requiring remediation in December 1991, when the program was started, was 475. Of these 1,599 contaminated source sites, 955 have been remediated or resolved by the STP, leaving a balance of unresolved contaminated sites of 644. Of the 644 unresolved contaminated sites, 341 were in corrective action projects. The remaining 303 sites have been scheduled for future projects. See Table 4 attached.

II. Remediation Projects. The goal of the STP is to complete subsurface investigations at known contaminated sites on a priority basis and to initiate full remediation actions at the worst sites first. To accomplish these tasks, the STP currently has prequalified 12 consultants to investigate sites, design environmental remediation technologies, and complete operation and

maintenance of the installed systems; 16 construction firms to install the designed remediation systems; 6 equipment companies to supply the remediation equipment and enclosures; 43 contaminated soil excavation firms; and 8 analytical laboratories.

STP projects average about 12 contaminated source sites and affected third party locations that may have been contaminated by a source site. STP remediation projects are completed in five phases: 1) subsurface investigations including drilling and soil and groundwater sampling to determine the lateral and vertical extent of petroleum contaminants, 2) design of remedial alternatives to complete remediation, 3) construction and installation of the designed remediation technologies, 4) operation and maintenance of the remediation technologies until state soil and groundwater standards have been achieved, and 5) project decommissioning to remove and/or permanently seal subsurface remediation system components. In general, tasks associated with each project phase are:

- STP subsurface investigation (SSI) tasks include drilling, drilling oversight, soil and groundwater sampling and analyses, and report preparation. Modified subsurface investigation (MSSIs) have been completed at numerous lower priority sites to determine if natural attenuation has achieved state soil and groundwater standards, or if the site(s) must remain on the contaminated site list for future remedial work. These investigations include installation of three to four monitoring wells per site and soil and groundwater sampling and analyses. Based on past experience, approximately 40 percent of these sites can be closed upon completion of the MSSI.

- Design includes preparation of the Remedial Action Plan (RAP) and plans and specifications for the selected remediation technologies. Plans and specifications are used by the STP to bid construction and equipment supply of the remedial alternatives selected.

- Construction of the designed systems includes installation of wells and piping, remediation equipment installation, and consultant management of the construction contractor and equipment supplier. The consultant oversees the equipment supplier and construction contractor during installation of the designed remediation systems and represents the STP during construction.

- After the systems are installed, they are operated and maintained until state soil and groundwater standards are met. Of all project phases, operation and maintenance of the remediation systems requires the most time.

- Decommissioning sites that have been remediated is the final phase of a project. After soil and groundwater standards have been met, the sites are restored to pre-construction conditions. This includes removing equipment, abandoning wells, plugging pipelines, and surface restoration.

Table 5 (attached) provides project cost summaries, including project name, number of sites in the project, and the total project cost-to-date for all phases. Not all sites are included in all phases of a project. For example, a project may have included 32 sites in the original SSI, but only 12 of those sites may have been included in the design phase. This is because, based on information collected during the SSI, some sites may not require active remediation. The one remaining site in the West Laramie project was moved into the Laramie 3rd Street project and the West Laramie project was closed during FY2008. This will reduce staff time administering the West Laramie project contract. The Glenrock/Douglas sites were put into the S. Converse County Project for O&M; again to reduce staff time administering the contract.

III. Immediate Response. STP immediate response actions are taken at program-eligible sites when imminent contamination of a water supply is threatened. Immediate response actions are also taken when complaints of petroleum vapors inside homes, businesses, or occupied confined spaces are received and an on-site evaluation confirms an imminent potential environmental health problem may exist. These immediate response actions are taken to contain the subsurface plume, to determine the extent of any imminent health and/or safety hazards, and to take necessary action to stabilize the site. The STP completed one immediate response project during FY2011:

A. Due to a release at the Fresh Start service station in Sundance, fuel entered the storm sewer. The STP installed and is operating a mitigation system at the site. This site was a contaminated site and had recently been resolved by the STP as part of the Sundance project. Costs associated with the immediate response work were included in the Sundance project.

IV. Laboratory Certification. A significant portion of STP remediation costs involve laboratory chemical analyses. Associated with laboratory analyses are potential quality control issues and standardized procedures to maintain consistency between projects and contractors. Analytical data are used extensively to justify spending millions of taxpayers' dollars to remediate leaking tank sites. If laboratory data results are questionable, management decisions to spend state funds to remediate sites may also be in question.

In an effort to maintain the highest quality control and to standardize chemical analyses procedures, a laboratory certification program was implemented at no cost to the STP. This certification program is administered by the American Association for Laboratory Accreditation (A2LA). A2LA performs laboratory inspections and audits to ensure the laboratories maintain the high degree of performance required to retain certification. Eight laboratories have achieved and maintained A2LA certification for the Wyoming STP.

FIGURES AND TABLES

Solid and Hazardous Waste Organizational Chart

STP District Office Information

Table 1. Storage Tank Program (STP) State Revolving Fund Balances as of June 30, 2011

Table 2. Storage Tank Program (STP) State Revolving Fund (SRF) Account Activity as of June 30, 2011

Table 3. UST and AST Overview as of June 30, 2011

Table 4. Remediation Overview as of June 30, 2011

Table 5. Project Cost Summary Through Fiscal Year 2011

Solid and Hazardous Waste

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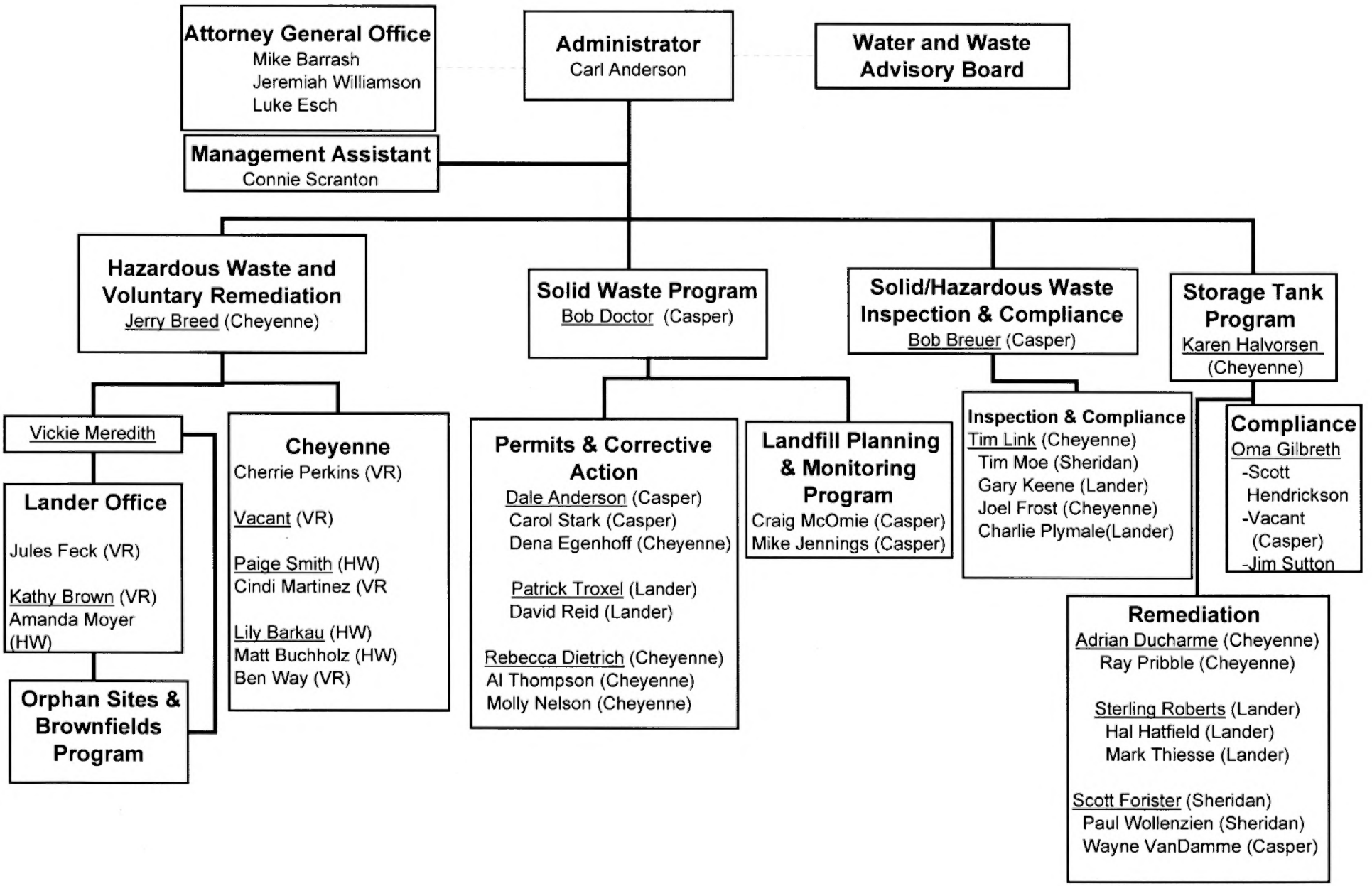

WDEQ/SHWD STORAGE TANK PROGRAM
DISTRICT OFFICES

PROGRAM MANAGEMENT
Herschler Building, 4W
122 W. 25th Street
Cheyenne, WY 82002
Fax: (307) 777-5973

Karen L. Halvorsen, P.E., Storage Tank Program Manager,
(307) 777-7244; karen.halvorsen@wyo.gov

Compliance
Oma Gilbreth, Compliance Supervisor,
(307) 777-7097; oma.gilbreth@wyo.gov
Scott Hendrickson, (307) 777-7095; scott.hendrickson@wyo.gov
Clay Bullock, (307) 777-7077; clay.bullock@wyo.gov
Jim Sutton, (307) 777-7619; jim.Sutton@wyo.gov

District #1
Herschler Building, 4W
122 W. 25th Street
Cheyenne, WY 82002

Adrian Ducharme, P.G., District #1 Supervisor,
(307) 777-7073; adrian.ducharme@wyo.gov
Ray Pribble, (307) 777-5640; raymond.pribble@wyo.gov

District #2
510 Meadow View Drive
Lander, WY 82520
Fax: (307) 332-3183

Sterling Roberts, P.E., District #2 Supervisor,
(307) 335-6953; sterling.roberts@wyo.gov
Hal Hatfield, P.G., (307) 335-6944; hal.hatfield@wyo.gov
Mark Thiesse, P.G., (307) 335-6959; mark.thiesse@wyo.gov

District #3
2100 West 5th Street
Sheridan, WY 82801
Fax: (307) 672-2213

Scott Forister, P.E., District #3 Supervisor,
(307) 675-5678; scott.forister@wyo.gov
Paul Wollenzien, (307) 675-5607; paul.wollenzien@wyo.gov

Casper Field Office
Wayne VanDamme, P.G., (307) 473-1393; wayne.vandamme@wyo.gov
PO Box 2640, Casper WY 82602 (mailing address)
2211 King Blvd, Casper, WY 82604 (physical address)
Fax: (307) 473-1393

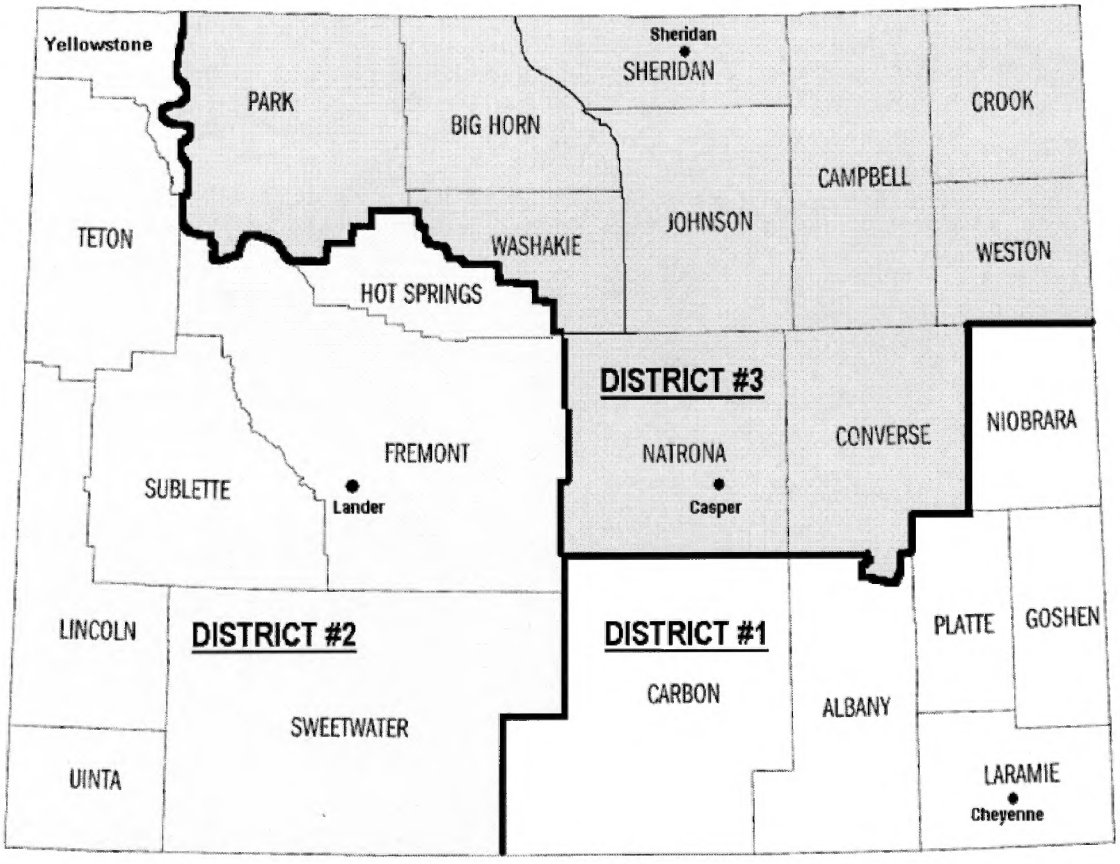

TABLE 1
STORAGE TANK PROGRAM
STATE REVOLVING FUND BALANCES
AS OF JUNE 30, 2011

FUNDING SOURCE	BALANCE
State Corrective Action Account (Available for STP Remediation Projects)	$10,191,031
State Financial Responsibility Account (Available for Court-Awarded STP Third Party Damages)	$1,000,000

TABLE 2
STORAGE TANK PROGRAM
STATE REVOLVING FUND (SRF) ACCOUNT ACTIVITY
AS OF JUNE 30, 2011

PROGRAM ACTIVITY		AMOUNT
Loan Authority Available to STP		$160,014,088
Loan Authority Encumbered and/or Disbursed		
SRF Loans Paid	$93,798,337	
SRF Loans Payable	$50,277,661	
SRF Encumbrances	$14,855,658	$158,931,656
SRF Available Loan Authority		$1,082,432

TABLE 3
UST AND AST OVERVIEW
AS OF JUNE 30, 2011

Description	Number
Total STP Facilities – Active, TOU, and POU Facilities	3,844
Total Tanks of all Types	10,635
Total UST Tanks	10,059
Total AST Tanks	576
Total UST Active and TOU Facilities	727
Total Active USTs	1,756
Total TOU USTs	119
Total POU USTs (includes 43 non-federally regulated pre-law tanks)	8,184
Total AST Active and TOU Facilities	73
Total Active ASTs	150
Total TOU ASTs	4
Total POU ASTs	422

Note: Many facilities have both USTs and ASTs.

UST- Underground storage tank
AST – Aboveground storage tank
TOU – Temporarily out-of-use
POU – Permanently out-of-use

TABLE 4
REMEDIATION OVERVIEW
AS OF JUNE 30, 2011

DESCRIPTION	FY 2006	FY 2007	FY 2008	FY 2009**	FY 2010**	FY 2011**
Contaminated Source Sites	1,566	1,555*	1,561	1,659	1,625	1,599
Source Sites Remediated/Resolved	753	813	831	902	899	955
Unresolved Source Sites	813	742	730	757	726	644
Unresolved Source Sites in Active Remediation[1]	423	334	307	348	350	341
Source Sites Awaiting Remediation	390	408	423	409	376	303

* Error in database accounting; 11 sites included in years previous to FY2007 that should not have been included
** Error in database accounting. The program is undergoing an extensive database review and cleanup. Errors have been found and corrected to some of the data provided in this table.
[1] Does not include third-party site properties contaminated by the known source site

TABLE 5
PROJECT COST SUMMARY THROUGH FISCAL YEAR 2010

Project Name	Number of Sites	Cumulative Total Expended
Albany County	4	$ 109,942
Baggs	3	$ 1,771,693
Basin SSI	2	$ 47,194
Big Horn Basin	39	$ 199,433
Buffalo	19	$ 2,791,110
CAA Dig/Haul/SSI/IR		$ 1,604,682
Casper Flying J	1	$ 993,051
Casper Sampling SSI	33	$ 42,290
Casper Yellowstone Highway	3	$ 97,467
Central Cheyenne	20	$ 4,560,660
Central Wyoming	8	$ 241,409
East Gillette	22	$ 2,771,569
Ft Bridger	1	$ 357,755
Gillette Stonepile Creek	1	$ 44,861
Glenrock/Douglas	18	$ 2,164,633
Green River	16	$ 3,355,273
Greybull AST	1	$ 64,538
Greybull Emergency Response	1	$ 382,072
Greybull/Basin	19	$ 6,563,191
Hulett	4	$ 1,176,752
Jackson	34	$ 7,372,122
Jackson Quality Cleaners	1	$ 86,321
Kemmerer	18	$ 1,618,191
Kemmerer Old	1	$ 217,617
Laramie 3rd Street	32	$ 11,222,886
Laramie East Grand	5	$ 1,344,503
Lovell	15	$ 1,544,043
Lyman/Mountain View	21	$ 4,903,466
Niobrara/Goshen Counties	6	$ 2,666,045
North Modified SSI	74	$ 220,697
Northeast Central Modified SSI	38	$ 208,042
Northeast Groundwater Sampling	22	$ 55,834
Northeast Modified SSI	32	$ 176,821
Northeast Wyoming	26	$ 2,933,605
Northwest District	19	$ 209,210
Opal	3	$ 1,497,397
Pinedale	13	$ 7,054,653
Platte County	18	$ 4,760,510
Powell	20	$ 5,554,005
Ranchester/Leiter	3	$ 229,562
Rawlins #1	9	$ 1,970,931
Riverton	11	$ 4,408,571

TABLE 5
PROJECT COST SUMMARY THROUGH FISCAL YEAR 2010

Project Name	Number of Sites	Cumulative Total Expended
Riverton 2	16	$ 2,057,712
Riverton 3	16	$ 318,943
Rock Springs North Elk Street	16	$ 7,207,299
Rock Springs Pilot Butte SSI	20	$ 537,170
Sheridan/South Sheridan	29	$ 4,829,408
South Central Casper	8	$ 1,019,180
South Central Modified SSI	40	$ 208,701
South Converse County	11	$ 1,787,155
South Evanston	11	$ 1,605,679
South Modified SSI	80	$ 287,330
Southeast Modified SSI	50	$ 202,745
Southeast II Modified SSI	58	$ 226,779
Southest Casper	14	$ 78,126
Southwest Cheyenne	21	$ 6,830,220
Statewide Mon Well Abandonment	29	$ 4,628
Sundance	7	$ 2,589,112
Sweetwater County	38	$ 1,716,515
Tablerock	1	$ 326,393
Ten Sleep	6	$ 559,014
Teton County	6	$ 3,122,786
Thermopolis	16	$ 1,737,542
Tie Siding	1	$ 121,477
Upper Platte Valley	25	$ 1,673,384
Waste Disposal Feasibility Study		$ 55,624
West Casper	35	$ 4,177,793
West Laramie	6	$ 4,956,268
Weston County	19	$ 74,392
Wind River	30	$ 2,549,469
Worland	14	$ 4,838,938
Yellowstone Nat'l Park	11	$ 2,070,607
Through FY 2011 Totals	1,270	147,364,997
Through FY 2010 Totals	1,256	138,546,279
During FY 2011 Totals	14	8,818,718