



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 8

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**APR 22 2014**

Ref: 8P-R

Ms. Tracy Stone-Manning, Director  
Montana Department of Environmental Quality  
1520 East Sixth Avenue  
P.O. Box 200901  
Helena, Montana 59620-0901

Re: Tier II Report of the State of Montana  
Petroleum Tank Release Cleanup Fund

Dear Ms. Stone-Manning:

Enclosed is the U.S. Environmental Protection Agency (EPA) Region 8 FY 2013 Tier II Report of Montana's Petroleum Tank Release Cleanup Fund (Montana State Fund), completed in close consultation with the Montana Department of Environmental Quality staff and managers.

The data and analysis contained within this report raise concerns regarding the long term soundness of the Montana State Fund. If no action is taken to address the findings in this report, there may not be sufficient funds in the future to pay for the current 841 federally-regulated releases which may take approximately 21 years to clean up. The report includes 16 recommendations for improving the soundness of the Montana State Fund and increasing the rate of cleanups. Your managers and staff have begun to implement several of these recommendations and continue to work collaboratively with EPA staff to improve fund soundness.

We have scheduled a meeting with you and your staff to discuss the highlights of the findings and recommendations of this report. The teleconference is scheduled for May 15, 2014, from 2:00-2:30 pm. Please call conference line (866) 299-3188 and enter code (303) 312-6354. An agenda for this meeting is forthcoming.

The EPA looks forward to continuing our partnership with your agency.

Sincerely,

A handwritten signature in black ink, appearing to read "Debra H. Thomas", is written over a horizontal line.

Debra H. Thomas  
Acting Assistant Regional Administrator,  
Office of Partnerships and Regulatory Assistance

Enclosure

cc: Tom Livers, Deputy Director, MT DEQ  
Terry Wadsworth, Executive Director, Petroleum Tank Release Compensation Board  
Timothy McDermott, Member, Petroleum Tank Release Compensation Board  
Jerry M. Breen, Member, Petroleum Tank Release Compensation Board  
Steve Sendon, Member, Petroleum Tank Release Compensation Board  
Kate Cassidy, Member, Petroleum Tank Release Compensation Board  
Tom Downey, Member, Petroleum Tank Release Compensation Board  
Roy Morris, Member, Petroleum Tank Release Compensation Board  
Carolyn Hoskinson, Director, EPA OUST

# TIER II SOUNDNESS ASSESSMENT OF THE MONTANA STATE FUND

## U.S. Environmental Protection Agency Region 8 State of Montana

### Final Report

April 7, 2014

The U.S. Environmental Protection Agency (EPA) annually reviews and assesses the soundness of state cleanup funds established to fulfill the federal financial responsibility requirement for owners/operators of federally-regulated underground storage tanks (FR USTs). The initial findings in EPA's 2012 draft assessment indicated a more detailed analysis was needed to evaluate the soundness of the State of Montana Petroleum Tank Release Cleanup Fund (Montana State Fund). The Montana Petroleum Tank Release Compensation Board (PTRCB) and the Montana Department of Environmental Quality (MT DEQ) agreed to participate in the Tier II review of the Montana State Fund in fiscal year 2013 (FY13) and correct the data in the 2012 State Fund Workbook.

The data and analysis contained within this report raise concerns regarding the long term soundness of the Montana State Fund. If no action is taken to address the findings in this report, the EPA estimates that it will take approximately 21 years to address the current backlog of sites, even if cleanups are increased to 40 per year.<sup>1</sup> This estimate does not include cleanup of newly discovered releases in 2012 and 2013.

### Challenges and Caveats to Tier II Report

The EPA recognizes that until a more detailed assessment of the estimated unassessed 841 open releases in Montana is completed and a reliable cost of the average cleanup is determined, the EPA will be unable to assess the soundness of the Montana State Fund. The findings in this report are based on current available data. Projected liabilities are for deliberative purposes only and do not accurately represent the actual liabilities of the Montana State Fund. This report is not intended to serve as an actuarial review or audit.

### Section I. Major Findings and Recommendations

Major findings and recommendations for improving the soundness of the Montana State Fund follows below. A more detailed analysis of the Montana State Fund can be found in *Section II. Assessment of the Montana State Fund*.

The findings and recommendations for improving fund soundness are divided into sections on administrative/management processes, environmental performance and financing.

#### A. Environmental Performance

*1. There were 841 open cleanups in Montana in 2012; approximately one-third of these sites have not been assessed.*

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<sup>1</sup> Formula: number of open sites divided by cleanups per year = 841/40 cleanups per year = 21.18 years



**Recommendation 1:** Montana should develop a comprehensive strategic plan that integrates both DEQ and PTRCB goals and budgets to move cleanups forward. This plan is a continuation of the EPA's FY12 end-of-year report that calls for Montana State Fund and DEQ Petroleum Tank Cleanup Section managers to develop a comprehensive strategy for federally-regulated fund-eligible (FRFE) cleanups. The strategy should address standardized deadlines for site assessments, in-house reviews, and include incentives to mobilize owners/operators and contractors to follow a standardized timeline and schedule. The strategy should also lay out a process to streamline administrative process to relieve bottlenecks, especially when starting cleanups.

This strategy should integrate applicable policies and administrative policies developed with the lessons learned from the Peer Match Program that took place with Colorado in 2012. Although the EPA Region 8 requested this strategy be developed by September 30, 2013, an extension has been granted so the recommendations of this report can be integrated. A draft strategic plan should be submitted to the EPA by June 1, 2014.

**Recommendation 2:** MT DEQ should establish a team of project managers to assess the priority and current assessment and/or cleanup status of all 841 open sites. This "snapshot assessment" should be completed by July 2014 and sent to the EPA Region 8.

MT DEQ's 841 open federally-regulated tank releases can be characterized in two groups; sites needing assessment (228) and sites in active cleanup (613). MT DEQ should approach the cleanup plans for both categories on two parallel tracks: For site assessments, MT DEQ has agreed to complete 114 assessments (50% of the universe) by December 15, 2015; For active cleanups, MT DEQ has agreed to produce strategic cleanup plans for all 613 federally-regulated releases, to be submitted to the EPA no later than December 15, 2015.

*2. Many of the open cleanups may be low risk, but MT DEQ has not closed many sites with risk-based closures. Complicating this issue are the different approaches regarding risk-based closure of leaking underground storage tank (LUST) releases within MT DEQ. The remediation staff at MT DEQ is required to clean up sites to maximum contaminant levels (MCLs), which may delay closure, while PTRCB promotes cleaning up and closing sites based on risk.*

**Recommendation 3:** The Montana State Fund and MT DEQ Remediation Program need to share unified goals and implement the strategic plan together. An initial step allows for MT DEQ Remediation Program and the Montana State Fund to develop protocols and delineate roles and responsibilities. The Montana State Fund and MT DEQ Remediation Program also need to have a mutual understanding of risk-based decision making.

**Recommendation 4:** MT DEQ program managers and staff are open to risk-based closures and are working to develop a risk-based closure process. This process will take time for stakeholder involvement and implementation.

**Recommendation 5:** Consider implementing Tier 2 risk-based corrective action (RBCA).

*3. The pace of cleanup is protracted and needs to be improved. As described above, even if Montana increases cleanups to 40 releases per year, it will still take approximately 21 years to address the current backlog of 841 sites. This does not take into consideration newly discovered releases, with 11 new releases in 2012 and 12 in 2013.*



**Recommendation 6:** Management from the EPA Region 8 and MT DEQ should meet to discuss the pace of cleanup and goals for future cleanup. Results of meetings should be implemented into the strategic plan.

## **B. Management/Administrative Processes**

*1. Owners and contractors direct the pace of cleanup and, in many cases, slow phasing of assessment and remediation according to their preferences.*

**Recommendation 7:** Establish new protocols and deadlines for assessment and cleanup.

**Recommendation 8:** Establish a low interest loan program to provide funding for the \$17,500 co-pay or change the co-pay to be more affordable. For example, the co-pay could be lowered to 10% of first \$100K spent, then 100% coverage.

**Recommendation 9:** Increase rates of enforcement to require timely cleanup.

**Recommendation 10:** MT DEQ should review incentives and other solutions to motivate owners and/or operators to upgrade UST systems and cleanup sites.

*2. Inefficient administrative processes slow down the cleanup process.*

**Recommendation 11:** Integrate protocols, procedures, and business practices into a standard operating plan to be implemented by both the MT DEQ Remediation Program and the Montana State Fund.

**Recommendation 12:** The current database is not designed for project management and tracking. The EPA Region 8 supports the development of Montana's new remediation database and encourages MT DEQ to ensure that project management is streamlined by the new database.

*3. Assessment and remediation contractors do not appear to clean up sites in a timely manner and may be slowing the cleanup process and extending cleanups. There is also some concern with the knowledge base of the contractor universe in Montana and the capacity of contractors to handle an increase in cleanups.*

**Recommendation 13:** Add cost controls and deadlines to assure that cleanup costs are contained and releases are cleaned up in an efficient manner.

*4. Current MT DEQ project management staff may not be sufficient in size to handle the complexity and large number of cleanups. However, MT DEQ cautions the EPA that increased staffing may not necessarily increase cleanups due to contractor inability to take on more cleanups and Montana's desire to balance available state assistance. Currently manpower is limited for both MT DEQ and their contractors.*

**Recommendation 14:** MT DEQ should consider options for increasing cleanup productivity with current staff once the status of the 841 sites has been determined.

*5. Average cleanup costs appear to be rising, but Montana and the EPA need to further analyze methods for calculating cleanup costs.*

*6. Cleanups need to be quicker and more efficient and Montana should consider risk-based closures where appropriate.*



*7. The Underground Storage Tank Prevention Program has been a success and should be continued.*

## C. Funding

*1. The Montana State Fund does not appear to be funded to cleanup the backlog of open sites.*

**Recommendation 15:** Montana and the EPA need to work together to determine a more accurate number for the average cost of cleanup. Without a reliable estimate of the cost of cleanup, the liabilities of the Montana State Fund cannot be determined.

**Recommendation 16:** Once Montana has developed a realistic cost of cleanup and completed an assessment of all 841 sites, the state should consider having an independent actuarial review of the Montana State Fund. The EPA's review is limited in scope and is not a substitute for an actuarial review.

*2. A majority of the closed releases have been small and there is concern that the average costs of cleanup per release will continue to climb in future years as more releases are resolved.*

*3. The federally-regulated fund-eligible (FRFE) releases are not the full universe of tanks that form the liability to the fund. Although the scope of this review is limited to FRFEs, the additional liabilities from non-FRFE eligible releases make it even more imperative that soundness is assured.*

## Section II. Assessment of the Montana State Fund

### Is the fund financed to further reduce its FRFE backlog?

Without more information on the status and priority ranking of the 841 open releases, the EPA cannot determine if the fund is financed to reduce the FRFE backlog. The EPA can only estimate liabilities until more reliable data is available. For the purposes of this report however, the Montana State Fund and the EPA agreed that total liabilities are estimated at \$52 million (but are likely much higher). The average amount of funds available for spending from 2010-2012 was \$7,471,815. The PTRCB Executive Director, Terry Wadsworth, and Theresa Martella, EPA Region 8, developed this estimate based on several formulas that will be explained later in this report.

Based on this estimate and the data and trends reported in the 2012 Annual Soundness Workbook, the EPA is concerned that the Montana State Fund may not be financed adequately to reduce its backlog.

There are several ways to calculate the liabilities of the Montana State Fund. One way is to multiply the average cost of cleanup by the number of open sites. However, the average cost of cleanup cannot be accurately determined at this point in time because the data is not reliable. As a first step, the EPA and MT DEQ agreed to use the 2009 national average cost of cleanup: \$103,817<sup>2</sup> and adjust the number for inflation for an average cost of \$120,000. The liabilities against the Montana State Fund using this formula are \$100,920,000.<sup>3</sup> However, this formula does not account for funds already spent on sites and the average cost to cleanup both low risk and high risk sites.

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<sup>2</sup> ASTWMO 2009 State Survey

<sup>3</sup> 841 open cleanups x \$120,000 = \$100,920,000

The Montana State Fund management and staff proposed another formula for the purposes of determining the liability of the Montana State Fund during this Tier II review. The first step is to determine the approximate liability of open releases where some work has already occurred. The average reimbursed costs for open FRFE release in Montana is estimated at \$120,000 (per release). The Montana State Fund determined that out of the 841 open releases, 613 of these releases have had some work performed on them at an average of \$64,000 per release. Still, there is remaining work to be done on these sites. The EPA and Montana agreed to use the difference between \$120,000 and \$64,000 to project the estimated liabilities for these releases at \$34,328,000.<sup>4</sup> The second step is to determine the estimated liability of all open releases where no work has been performed. There are 228 releases in this category with an estimated liability of \$27,360,000.<sup>5</sup>

Combining the liabilities for the 228 releases where no work has been performed with the 613 releases where some work has been performed gives an estimated total liability to the Montana State Fund of \$61,678,000.<sup>6</sup>

Both formulas suggest that the total liability of the Montana State Fund for FRFEs is in the range of \$61-\$101 million. Although the scope of this review is limited to FRFEs, it is important to note that the Montana State Fund is also liable for above ground storage tanks (ASTs) which further increases the liability to the fund. Currently, the Montana State Fund reports 79% of reimbursements are for FRFEs and 21% are for ASTs.

Montana faces several challenges in addressing its backlog of FRFE sites. There has been no increase in revenue since the program began in 1989, sites are costing more to cleanup and site specific conditions are creating more expensive remediation. The number of staff at MT DEQ to manage all of the backlogged sites is limited. During the review it was noted that consultants were also challenged in their capacity to handle the large number of cleanups by a lack of manpower.

The backlog of open releases appears to be caused by several factors including: Montana's strict water quality standards which lead to lengthy times to closure; responsible parties that do not cleanup sites in a timely manner; and a database that does not track workflow processes consistently from one project manager to another. While the Montana State Fund's expenditures have generally kept pace with the FRFE cleanups being directed by the MT DEQ, this pace has not equaled the total number of cleanups needed to reduce FRFE backlog. At the end of FY12 approximately 841 FRFE cleanups needed to be completed.

In an effort to intentionally address these backlogged FRFE cleanups, MT DEQ has begun to implement several work prioritization and procedural changes that have significantly shifted Montana State Fund expenditures. During discussions with the EPA, the Montana DEQ Hazardous Waste Site Cleanup Bureau, Petroleum Tank Cleanup Section (PTC), explained that FY12 was the first year of a legislative mandate to complete increased cleanups. In 2011, EPA's National LUST Cleanup Backlog report offered recommendations for increasing Montana's cleanup completion rate. In response, MDEQ's PTC modified its work priorities to incorporate the EPA's recommendations and achieve legislative mandates

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<sup>4</sup> National average cleanup cost = average cost per release already spent x releases = \$120,000 - \$64,000 x 613 releases = \$34,328,000.

<sup>5</sup> Number of releases where no work has been performed x national average cost of cleanup = 228 x \$120,000 = \$27,360,000

<sup>6</sup> Liabilities for open releases where some work has been performed + liabilities for open releases where no work has been performed = \$34,328,000 + \$27,350,000 = \$61,678,000.

to reduce cleanup backlog. Workload priorities shifted to get cleanups plans initiated which had the highest probability of completion in the shortest amount of time and lead directly to release resolution. In Montana, the quickest cleanups to resolve were those lower-risk sites that had been deferred for many years due to focus on work at higher-risk sites. The consequent shift in work to these older lower-risk cleanups contributed to the increased age of cleanups completed in 2012. In 2013, Montana began to move on to focus on cleaning and closing higher risk releases.

One of the reasons for conducting the Tier II review of the Montana State Fund is to gather more information on the length of time for cleanups. Although MT DEQ is working hard to reduce its backlog, the data and conclusions in this report indicate that Montana is addressing its backlog of open sites at a protracted pace, with an average cleanup project taking more than 10 years to complete. The Montana State Fund reports average cleanup time is closer to five years but the 2012 Soundness Workbook shows that the projected number of years to complete cleanup increased, from 10.6 years in FY10, to 13.2 years in FY12. However, the three-year trend from FY10-FY12 does not factor in that FY12 was the first year of mandated closures. The EPA also takes into account that Montana has had to clean up groundwater to maximum contaminant levels (MCLs). Many of the sites remain in active remediation or monitored natural attenuation (MNA) for a long period. All of these factors increase the duration of site cleanup. In fact, the EPA anticipates that the length of cleanup time will increase as more backlogged sites are cleaned up.

Montana DEQ Petroleum Technical Section (PTS) officials also noted that the shift in work to easier-to-complete sites also significantly decreased the amount of State Fund dollars necessary to clean up the year's total load of FRFE releases. Where Montana used \$6.5 million to complete 27 cleanups in 2011, it only took \$6.0 million to complete 56 cleanups in 2012. This 120% increase in cost effectiveness is directly related to the fact that these older, low-risk cleanups take considerably less funds to complete. Prioritizing work at low-risk sites also requires much less work effort per site, which results in fewer funds expended on a larger number of cleanups. An unexpected consequence in this trend is that this shift in work priority has also led to underutilizing all the State Fund funding available for cleanup in a given year, as reflected in the Fund's unspent balance increasing from \$0.7 million at the end of 2011 to \$2.0 million at the end of 2012. This is probably due to deferring higher-risk cleanups that will require larger, more expensive work to a future date in lieu of the cheaper low-risk cleanups currently being completed.

Montana DEQ is currently initiating several process changes in site cleanups that have potential to significantly increase cleanup efficiency when applied to the higher risk cleanups. This could add considerable strain on the State Fund's expenditures. PTS received funding from ASTWMO for a peer match with Colorado to implement improved business processes. The goal of the peer match was for Montana to learn about Colorado's business practices and bring back lessons learned to implement within Montana DEQ. The peer match took place in Denver, Colorado on March 12-14, 2013, with the PTS manager, Rebecca Ridenour, and managers from Colorado's UST/LUST Programs.

Montana is implementing its new petroleum mixing zone statute which allows releases to be closed where low-risk soil contamination and residual groundwater concentrations exist above Montana water quality standards. The Montana Legislature has approved the State Fund to purchase easements on impacted properties to facilitate petroleum mixing zone closures. This is one of the tools MT DEQ is using to close a sector of releases rather than keep them open for long-term groundwater monitoring.

MT DEQ is also implementing its progressive enforcement program. Historically, MT DEQ enforcement against owners and operators was not actively pursued. Starting in FY12, MT DEQ began



actively implementing its progressive enforcement process. The EPA encourages the continued use of progressive enforcement and encourages MT DEQ to include progressive enforcement practices as part of MT DEQ's standard operating procedures.

The number of open FRFE cleanups that received payment from the fund in 2012 is a third of the number of cleanups that Montana is obligated to finance as a Financial Responsibility mechanism. In 2012, there were 1,043 open cleanups of federally-regulated USTs; 841 were eligible for fund coverage. When the number of open FRFE cleanups that received a payment in a given year is considered, it appears that there are 605 fund-eligible cleanups without any fund financing in 2012. This same pattern and proportion are evident in FY10 and FY11. Montana reports that the owners of many of these open cleanups have not applied for eligibility. However, there remains uncertainty about how many of these sites have no work being performed or are in a different status (such as MNA etc.).

There is a small but encouraging trend observed through the decrease in the number of deferred FRFE cleanups and in the number of open FRFE cleanups at the end of the fiscal year. More FRFE cleanups have been completed by the Montana DEQ in each successive year. Another positive trend is the annual decrease in the backlog in 2012. However, although Montana is moving in the right direction, there were still 841 open cleanups at the end of FY12.

As discussed earlier in the report, the cleanup pipeline time raises concern for the EPA. Between FY10 and FY12, there has been a 20% increase in the number of months from release report to the start of fund approved remediation. This trend may indicate an impediment or obstruction in processing workplans within the current project management system. Over the same period, there has also been a 31% increase in the average months from start of remediation to completion of FRFE cleanups and a 23% increase in the average months from release report to completion of FRFE cleanups financed by the fund. As of 2012, remediation took 8.9 years to begin and 13 years to complete. Site cleanups are taking longer to start and finish. However, Montana DEQ PTS officials urged EPA to further analyze the data and consider that the apparent increase in cleanup time coincides with a nearly 100% increase in total cleanups completed in 2012, due to the focus on easy-to-close sites.

During discussions with the EPA, Montana State Fund officials noted that the average calculated in the workbook does not take into account several sites that may have been in long term monitoring before closure. A low priority site that has been open for 35 years may largely distort the average. An example is a site in MNA with a three-year cycle of monitoring to confirm plume status because flow rates are so low. Montana State Fund officials also report that the emphasis of the Montana State Fund is now on cleanup, rather than on monitoring only. Almost all current obligations are for cleanup activities.

MT DEQ also points out that the average time to close a site is five years once remediation begins, therefore it may be more appropriate to take a five- year average, rather than a three-year average.

There is a positive trend in payments for FRFE cleanups. More payments were made in FY12 than in FY10, although there was a decrease in FY11. The data suggest several positive trends in income and spending. Total fund income increased 11% and money available for spending increased by 15% from FY10 to FY12. Another positive trend is that the Montana State Fund has significantly reduced its unpaid claims from FY10 to FY11.

One area of concern for the EPA is the unspent end-of-year balance which, as explained by Montana DEQ PTS, is related to the work priority shifting to completion of low-risk cleanups rather than cleaning up higher-risk releases. The requirements for cleanup of the higher risk releases is still pending and the funding needed to clean them up will be necessary. This shift in work priority has effectively pushed the

funding needs further into the future. With the easy-to-complete, low-risk cleanups decreasing, DEQ staff is shifting their work priority back to higher-risk cleanups which will probably require significantly more funds to address. While the current end-of-year balance indicates Montana's State Fund has adequate funding to address the current workload, this does not take into account the true liabilities of the Montana State Fund. It remains unclear whether revenues will be adequate to address increased cleanup needs for the higher risk cleanups that must be addressed in the future.

The EPA is also concerned that there are administrative or workflow delays that are hampering the fund's ability to address cleanups it could otherwise pay for. MT DEQ is addressing these workflow delays as part of the larger MT DEQ LUST Strategic Plan that will be submitted to the EPA. Improved procedures include reducing the number of hours to close releases, streamlining review of workplans, and incentivizing owners and/or operators and contractors to submit comprehensive workplans that will lead to timely closure. An example of this is that there are currently more workplan requests than there are funds available to obligate.

The larger concern for the EPA is the looming costs associated with cleaning up the remaining sites that will be more expensive and whether the Montana State Fund will have enough funds for these future needs. Montana State Fund management acknowledges that future revenue will likely increase only 1% a year through 2016<sup>7</sup> and the cost of cleanup is increasing. The report also includes projected revenues through 2016, shown below in Table 1. The highest revenue reported, \$7.2 million, is well below what is needed to cleanup and close sites for that given year.

<b>Fiscal Year</b>	<b>Projected Revenue</b>
<b>2013</b>	<b>\$7.0</b>
<b>2014</b>	<b>\$7.1</b>
<b>2015</b>	<b>\$7.2</b>
<b>2016</b>	<b>\$7.2</b>

**Source:** Petroleum Tank Release Cleanup Fund Biennial Report 2012

The EPA and MT DEQ have discussed this issue in detail and agree that the average cost of cleanup needs to be tracked better in order to begin to determine the true liability of the Montana State Fund. In addition, the EPA recommends that Montana DEQ systematically categorize the 841 open releases to determine priority for cleanup and potential cost of cleanup.

Montana State Fund officials emphasized during discussions with the EPA that if every claim was submitted, the Montana State Fund could borrow funds at a low interest rate. Although borrowing funds may be an appropriate tool, it should be done only when the Montana State Fund has a clear sense of its

<sup>7</sup> The Montana Petroleum Tank Release Cleanup Fund Biennial Report (2012).

liabilities, and a coordinated multi-year strategy between PTS and Montana State Fund management to prioritize and address cleanups efficiently has been implemented.

Only with a more realistic and valid cost of average cleanup and status of all 841 open releases will the EPA and Montana be able to determine the potential liabilities against the Montana State Fund.

### Section III. Background

Montana is the fourth largest U.S. state by area, but with an average of just six people per square mile, it is also one of the least densely populated states. LUST remediation challenges differ from region to region within Montana. For example, much of eastern Montana has tight clay soils that are not good candidates for in-situ remediation technologies. Other areas of eastern Montana are agricultural where the land is not highly valued and therefore the owner and/or operator has little incentive to spend the deductible of \$17,5000 to clean up a LUST release unless a real estate transaction is underway. Although the oil and gas development in the Bakken field may increase the value of some of the land in Eastern Montana, LUST cleanups are not expected to be driven by the owners of these sites without additional incentives.

In most cases, soil type determines the type of remediation for LUST releases. There are two distinct types of remediation in Montana. The first, dig outs, are considered by many to be the most cost-effective cleanup option in locations where soil types restrict natural biodegradation factors and/or where groundwater does not move quickly through the soils. The soil-types that are best for excavation, or “dig outs,” are fine grained and typically dominated by clay and/or silt-sized particles. Source removal through excavation tends to have large up-front costs.

In-situ (in place) remediation technologies that require movement of water, air, or oxidants do not work favorably in clay-dominated soil because it inherently holds onto groundwater and contaminants, thus restricting water, air, or oxidant movement.

#### What the fund covers:

The Montana State Fund covers underground storage tanks used to store petroleum, heating oil and used oil, farm tanks, aboveground storage tanks and abandoned storage tanks.

An owner/operator must be in compliance with all requirements to receive reimbursement from the fund. Requirements include: (1) tank performance standards; (2) general operating requirements including spill & overfill control, operation and maintenance of corrosion protection, operating permit; (3) reporting and recordkeeping requirements; (4) release detection requirements; (5) release reporting, investigation, and confirmation; (6) financial responsibility requirements; and (7) registration and registration fee requirements.

If the PTRCB Fund is the mechanism selected by owner/operator, first dollar coverage is split evenly between the owner and the Fund until the eligible cleanup costs reach \$35,000 resulting in the owner contributing \$17,500 towards cleanup costs.



### Organizational setting and structure of the Montana State Fund:

The State of Montana Petroleum Tank Release Cleanup Fund is administered by the Petroleum Tank Release Compensation Board, which is autonomous from the Montana Department of Environmental Quality. The PTRCB staff is administratively attached to MT DEQ and provides support for the Petroleum Tank Release Compensation Board. Board staff review costs of corrective action plans, prepares eligibility recommendations for the Board, and review and process all claims for reimbursement.

The MT DEQ Hazardous Waste Site Cleanup Bureau, Petroleum Technical Section, oversees the cleanup of petroleum contamination resulting from LUSTs and ASTs. Cleanup funding sources come from the owner/operator (“self-funded”), the owner/operator private insurance, or are reimbursed by the Petroleum Tank Release Compensation Fund (PTRCF).

The PTRCB staff consists of an executive director, three administrative officers and two support staff. The Board and the Montana State Fund were established by the 1989 Montana Legislature to provide the following: adequate financial resources and effective procedures through which tank owners and operators could partake, and be reimbursed for; cleanup of petroleum contamination and payment to third parties for damages caused by releases from petroleum storage tanks; assistance to tank owners and operators in meeting financial assurance requirements under state and federal law governing operation of petroleum storage tanks; assistance in protecting public health and safety and the environment by providing cleanup of petroleum tank releases; and to provide tank owners with incentives to improve petroleum storage tank facilities in order to minimize the likelihood of accidental releases. The Board administers the Montana State Fund in accordance with the provisions of the law, including the reimbursement of owners and operators for eligible corrective action costs.

The Montana State Fund obligates money to workplans for releases based on priority. Reimbursement of eligible costs is approved by the board based on obligated funds. When the Montana State Fund contains sufficient money, eligible costs are reimbursed subsequently in the order in which they were approved by the board.

In May 2007, the Montana State Fund instituted a new claim reimbursement policy prioritizing reimbursements to obligated corrective action plans because requests for reimbursement exceeded the available revenue. This restrictive policy allowed the highest priority releases to receive timely funding while allowing other owners or operators with lower priority releases to use their own funding and be reimbursed when additional funds became available.

The statutory regulations do not indicate whether financial responsibility is required for the amount of the deductible. However, if an owner/operator uses the Montana State Fund as partial satisfaction of financial responsibility, the owner/operator must demonstrate that remaining coverage requirements are met by certifying a tangible net worth equal to that amount

### Sources and path of fund income:

Each distributor must pay a petroleum storage tank cleanup fee for each gallon of gasoline, aviation gasoline, special fuel and heating oil distributed by the distributor within the state. The fee is three-fourths of a cent for each gallon (\$0.0075/gallon) of gasoline, aviation gasoline, special fuel and heating oil.

The cleanup fee is suspended when the fund balance equals or exceeds \$10 million. The fee is reinstated when the fund balance, less claims anticipated for board approval within the next 90 days, is less than \$6 million.

#### **Section IV. Changes to the Fund**

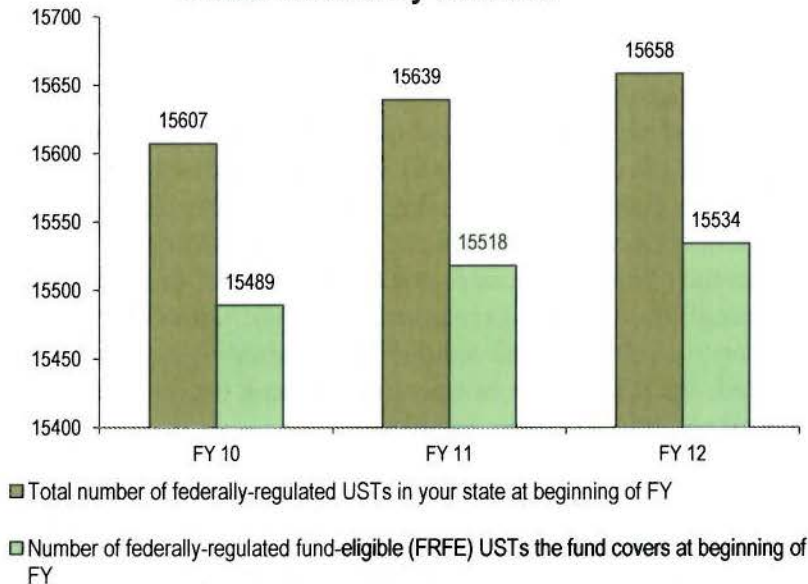
A legislative change in 2011 added a petroleum mixing zone (PMZ) and the option of the Montana State Fund to reimburse costs for easements related to the cleanup using the petroleum mixing zone option. A PMZ is an area where water quality standards for petroleum and petroleum constituents may be exceeded, subject to specific conditions and consistent with rules adopted under the powers and duties of the PTRCB and the Montana Underground Storage Tank Act. A PMZ may be established only under certain conditions. If a petroleum mixing zone is established and maintained, the petroleum release is considered to be resolved, and no further corrective action for the petroleum release is required. The department will issue a no-further-action letter to the owner or operator stating that a PMZ has been established for the release and describing any conditions required to maintain the PMZ. The law provides that when the cleanup of a release has been completed and residual contamination and the groundwater plume has been appropriately treated, the tank owner or operator can seek designation of a petroleum mixing zone in lieu of monitoring until cleanup has been completed.

In 2011 and 2012 the legislature required MT DEQ to develop a list of active releases prioritized by threats to human health and the environment and an anticipated date to closure for all releases. MT DEQ was required to complete 180 closures in two years. MT DEQ completed these closures.

## Section V. Data and Charts

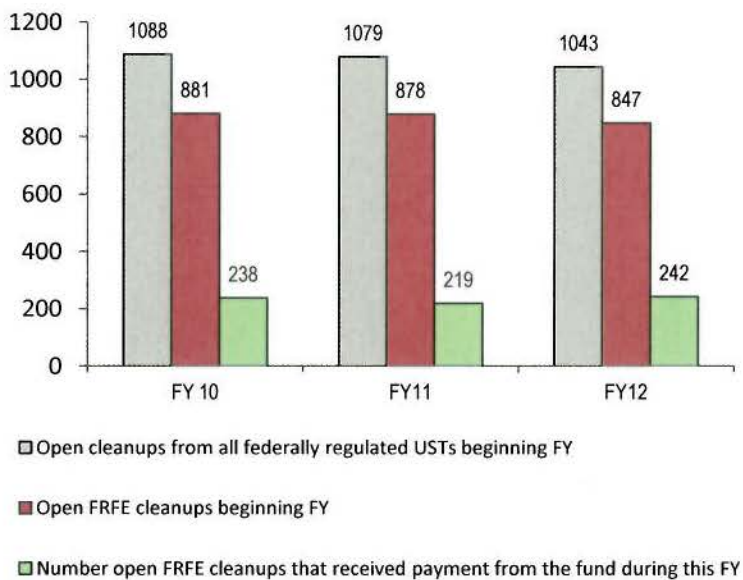
### What share of the state's UST cleanup backlog does the fund cover?

#### 1. USTs Covered By The Fund



The total number of federally regulated USTs increased by 51 from FY10 to FY12. The total number of FRFE USTs increased by 45.

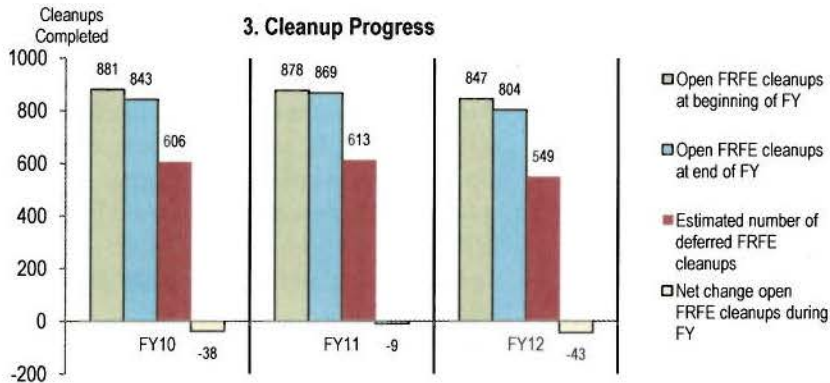
#### 2. The Fund's Share Of Open UST Cleanups



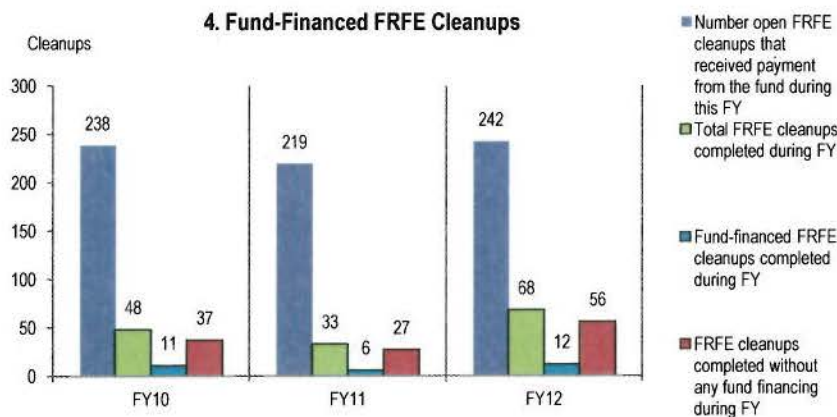
Open cleanups from all federally regulated USTs decreased by 4% (45 cleanups) from FY10 to FY12. Open FRFE cleanups decreased 4% (34 cleanups) during the same period. The number of open FRFE cleanups that received payment from the fund decreased 8% from FY10 to FY11, but increased back to FY10 levels in FY12. Consistently, less than one-third of open cleanups received a payment in the three-year period.



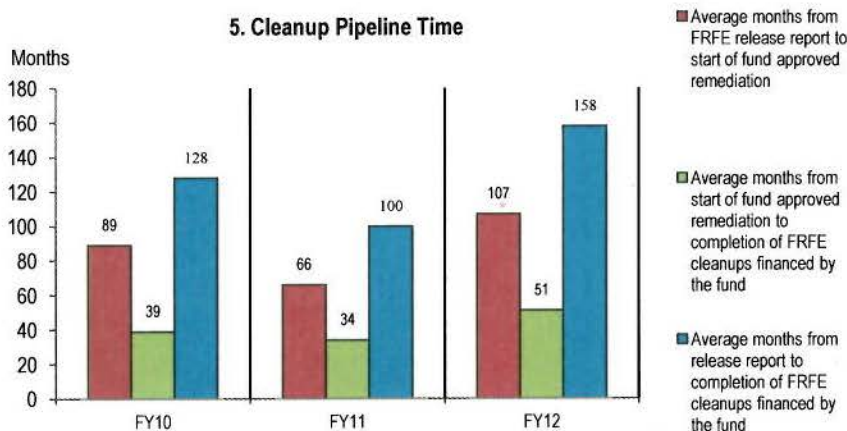
## How quickly is the Fund addressing its FRFE backlog?



The number of open FRFE cleanups at the beginning of the fiscal year decreased 4% from FY10 to FY12. The number of open FRFE cleanups at the end of the fiscal year decreased by 5% during the same period. The number of deferred cleanups overall decreased 9% (57) from FY10 to FY12.



Relatively consistent number of FRFE cleanups that received payment from the Fund during the given three-year period. Total number of FRFE cleanups completed increased 29% from FY10 to FY12. There was one more Fund financed FRFE cleanup in FY12 than in FY10. There were 19 (33%) more FRFE cleanups completed without Fund financing in FY12 than in FY10.

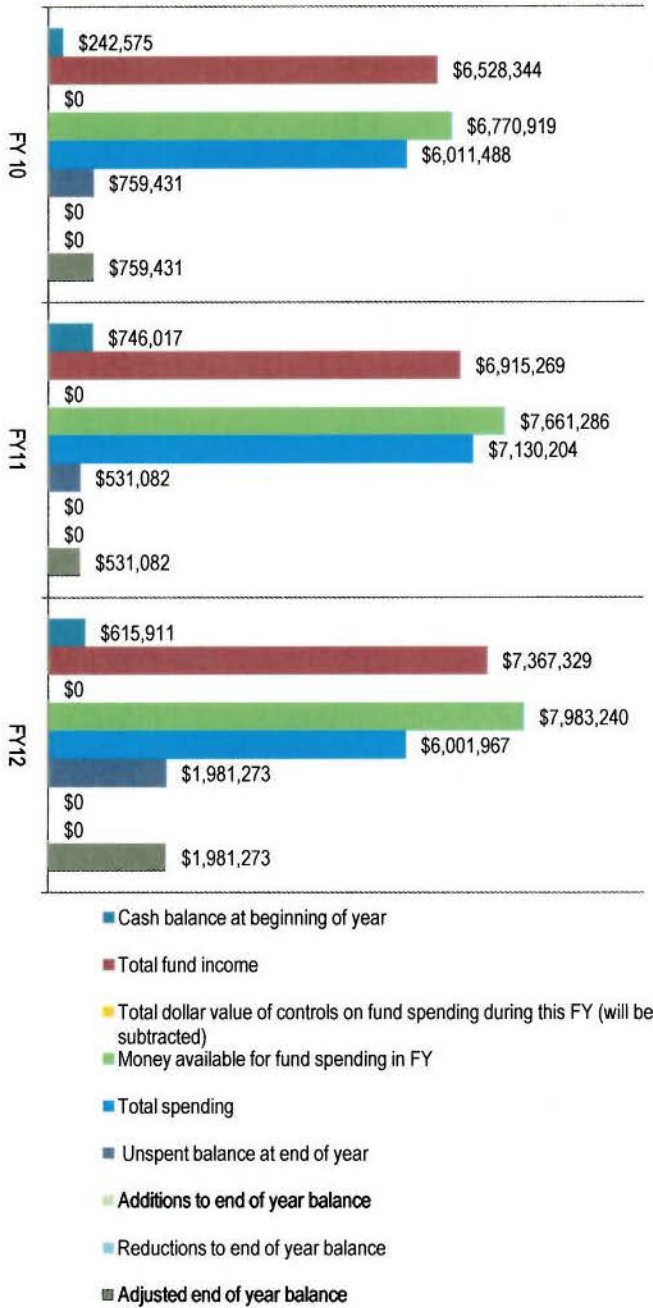


Between FY10 and FY12, there is a 17% increase in the number of months from release report to the start of Fund approved remediation.

Between FY10 and FY12, there is a 24% increase in the average months from start of remediation to completion of FRFE cleanups.

Between FY10 and FY12, there is a 19% increase in the average months from release report to completion of FRFE cleanups financed by the Fund.

## 6. Balances, Income and Spending

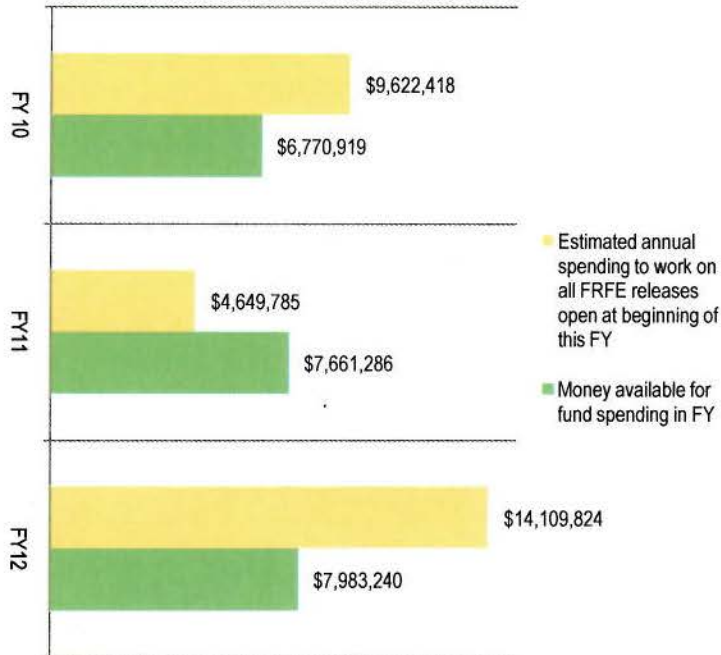


Cash balance at the beginning of the year increased 67% from FY10 to FY11 and decreased 17% in FY12. Total Fund income steadily increased 11% from FY10 to FY12. There were no controls on spending. Money available for spending increased by 15% from FY10 to FY12. Total spending is relatively consistent from year-to-year.

Unspent balances increased significantly from \$759,431 in FY10 to \$1,981,273 in FY12. Adjusted end-of-year balances have also increased significantly from \$759,431 in FY10 to \$1,981,273 in FY12.

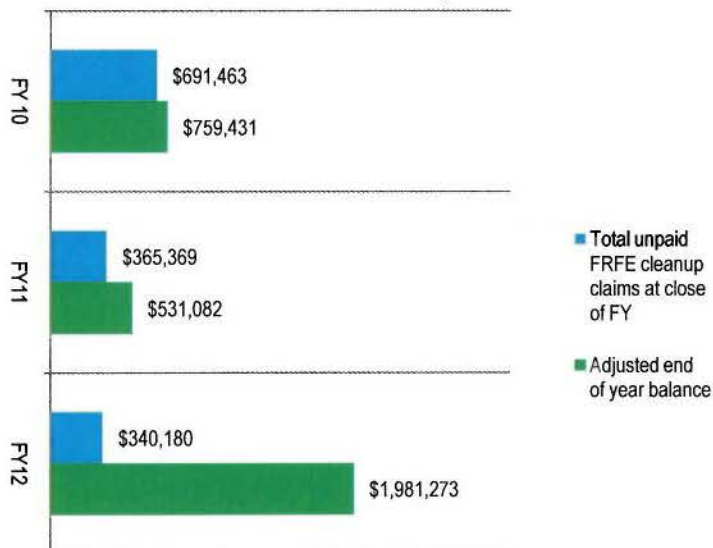
## Has the Montana State Fund had enough money to address its FRFE backlog?

### 7. Available Funding And Estimated Annual Funding To Address All Open FRFE Sites Concurrently



Estimated annual funding needed to work on all FRFE releases at the beginning of the fiscal year increased 32% from FY10 to FY12. Money available for spending in a given year increased by 15% from FY10 to FY12, but is significantly less than the amount estimated needed for annual spending.

### 8. EOY Cash Balance And Unpaid Claims



Face value of all FRFE cleanup claims awaiting approval at close of the fiscal year decreased 51% from FY10 to FY12.

Adjusted end of year balance increased 62% from FY10 to FY12.

End-of-year balances were greater than the amount of unpaid claims each year. However, each year the amount of unpaid claims has become closer to the fund's end-of-year balance.



