

MONTANA DEQ - PTRCB BIENNIAL REPORT 2016



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PETROLEUM TANK RELEASE COMPENSATION BOARD
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Trends in Fund Revenue and Expenditure Activities

Revenue

A fitted line indicates that revenue from fuels sold in the state increases by approximately \$67,000 each year over the last 22 years (1995-2016). This average increase (\$67,291) estimated from a linear regression of the fuel revenues from 1995 through 2016 is down by a couple hundred dollars per year from the last biennium estimate (\$67,500) and the coefficient of determination has improved from 88% to 90%.

The fuel revenue comes from fees levied on gasoline, diesel, and aviation fuels, each of which exhibits a different trend. The data indicates that when comparing the three fuels, diesel fuel revenue still has the steepest incline over the period 1995 through 2016. This incline is evident in the least-squares analysis used to calculate a straight line that best fits the revenue data for the twenty two-year period, for each of the fuel categories. The slopes of the lines predicted from a linear regression are \$11,317, \$54,144 and \$1,830 per year for gasoline, diesel, and aviation fuels, respectively. The slope provides an estimate of the annual increase in revenue for each category. Even though the slopes of the three trend lines are all positive, gasoline and aviation fuel revenues do not exhibit as significant a trend as diesel fuel. The addition of the two recent years resulted in an increase in the slope for gas and a decrease in slope for both diesel and aviation fuel.

The linear trends for fuel revenues indicate that the Fund could expect combined fuel revenues to increase by approximately \$67,000 each year, with diesel contributing \$54,000.00 to the expected annual revenue increase, gasoline accounting for \$11,000.00, and aviation fuel accounting for nearly \$2,000.00. The revenue estimate predicts that fuel use will increase by about 1% per year. Although this indicates an increase in revenue, it probably is not significant enough to consider in a future estimate.

The linear regression line appears to still be the best predictor of future revenues. Least-squares regression would predict revenues at \$7.28, \$7.34, \$7.41, and \$7.48 million for 2017, 2018, 2019, and 2020

respectively. If revenues for the four years were predicted to remain nearly the same as they have for this biennium, the revenue predictions for 2017 through 2020 would be \$7.2 million annually. The difference in the two prediction methods for the coming biennium averages no more than 2 percent.

Expenditures

The administrative expenses incurred by the Fund consist of expenses by the Board for fund administration and expenses by the Department of Environmental Quality (Department) for regulatory activities. The slope of a linear regression analysis of the total combined expenses for both the Board and the Department from 1995 to 2016 indicates that the trend of expenses has increased slightly from the trend seen in the 2014 Biennial Report. There was a spike in the total expenses during the year of 2015 which correlates to the legislatively appropriated development of a new Department database. The expenses associated with personnel decreased in 2015 – 2016 over that of 2013-2014 by three and a half percent.

A linear regression equation for the combined total expenses for fiscal years 1995 through 2016 estimates that the total costs will increase approximately \$44,600.00 per year. If the expenditures associated with the database are removed, it reduces the projected annual increase to \$40,300. This indicates that the total program expenditures for FY2017 and FY2018 can be estimated at approximately \$2.1 million.

Claim Expenditures

The annual claim expenditures for FY 1995 through FY 2016 reflect a slight decreasing trend. In FY 1997 a \$2 million litigation settlement was paid as a claim. This has impacted our data by showing a great range of variation in claim expenditure from FY 1995 through FY 2016 from about \$3.0 million to \$7.6 million. The claim expenditure data was analyzed using regression techniques on all the data (FY 1990 – FY 2016), as well as on various subgroups of the data. Attempts were made to identify the leading influential parameter(s), including litigation settlements, board of investment loans, discovered releases, work plan activity and personal services expenditures. However, no leading indicators were identifiable in the analysis and no predictive model was found to be representative of the data. Performing least-squares linear regression analysis to calculate a straight line that best fits the claim expenditure data for 1995-2016 yields a relatively flat regression line, less than one percent (1%) rate of decline. The regression estimates over the years have exhibited a slight increasing trend and a slight decreasing trend. Regression analysis for this data exhibits a very poor coefficient of determination (0.0639) and is therefore not likely the most reliable predictor of future claim expenditures.

Future Claim Projections

Using the average of claim expenditures for the past 22 years would project the expenditures for the next few years to be at approximately \$5 million. The average annual claim expenditure is probably the best available predictor to provide an estimate for future claim expenditure projections. This analysis focused on the data and did not take into consideration any impacts from potential influential outside actions, such as regulatory changes, or any long-term strategic plans. Average claim expenditures should be calculated using just the claim expenditures and litigation settlements. The biennial report for 2014 projected claim expenditures to be at approximately \$5 million based on the average calculated from the prior 18 years. The claim expenditures are predominantly a function of available revenue and therefore the best predictor would be an average of the more recent years. Using the average of claim expenditures for the past 10 years would project the expenditures for the next few years to be at approximately \$4.9 million.

Exposure to Long-Term Liabilities

Liabilities for the Fund consist of cleanup costs for current eligible releases, future eligible releases and possibly releases where ineligibility has been contested. The liabilities associated with the current eligible releases is the total cleanup for each current active release reduced by the amount of on-going effort required to accomplish cleanup, the amount of insurance coverage for the release, and the facility's compliance. The liabilities associated with future releases are affected by the aspects mentioned as well as the rate at which new releases are being discovered, and eligibility applications filed. An autopsy of leaks for 2006 through 2015 is available in DEQ MUST News publications. 2015 Tank Autopsies can be found in the Spring Issue 2016 (<http://deq.mt.gov/Land/mustnews>) and those for 2014 can be found in the Spring Issues 2015 (<http://deq.mt.gov/Portals/112/Land/UST/Documents/MUSTnews/MUSTSpring2015.pdf>). Thirty-seven new leaks were discovered in calendar year 2015 from both aboveground tanks and underground tanks.

The number of releases applying for eligibility is most certainly affected by the number of confirmed releases. The number of releases that applied for eligibility in 2016 totaled eleven. The number of releases that applied for eligibility in 2015 totaled twenty four.

The Board is concerned that the number of aboveground storage tanks (ASTs) releases may become the majority of the long-term liabilities. Therefore, the Board is examining strategies associated with development of inspection requirements for ASTs. This effort is intended to reduce the number and severity of releases from aboveground storage tanks. Many ASTs do not comply with current storage tank standards. Over the long term, compliance with current standards will result in a decline in the number of releases from ASTs. The Board also recognizes that it is important to balance this strategy with available funds.

Impacts of changes, in State and Federal Regulations, on Underground and Aboveground Storage Tanks

Within the past two years several pieces of legislation have passed in the State of Montana that will have a positive impact on the Fund. Senate Bills (SB) 49, 96 and 355 were written into law as well as House Bill (HB) 613.

HB613 (2011) established reporting requirements to the Environmental Quality Council (Council) regarding the closure of petroleum storage tank release sites as it relates to the base budget and the benchmarks. This legislation placed a higher priority on release closure than the investigation of new releases and mandated a specified release closure rate, for the period of December 31, 2011 through July 1, 2015. The department was required to report the release closure activity to the Council after the passing of each established benchmark. The reporting on the established benchmarks continued into 2016. The department indicated they are closing about three-times the number of releases that are confirmed each year. This trend went back to 2008. The total number of releases that are confirmed per year is around 30 and the department has consistently closed about 100 releases per year since 2008.

Senate Bill 49, the Petroleum Mixing Zone Bill, was signed by the Governor on Monday, March 23, 2015. It is an act expanding where a Petroleum Mixing Zone may be used; providing rulemaking authority; amending Sections § 75-11-307 and § 75-11-508, MCA; and providing an immediate effective date. This bill changed the statutory reference regarding a recorded easement and was expanded to include a restrictive covenant or other institutional control. In addition, the "unconfined aquifer" language was removed. The Department estimates that over forty (40) sites could potentially reach closure as a result of SB49. This legislation is expected to assist in getting sites to closure and reduce the site cleanup costs on some release sites. If site cleanup costs are reduced, claim expenditures will also be reduced as will the demand on Fund reimbursements.

Senate Bill 96, the Orphan Share Bill, allows the Department to use allocated orphan share account funds to take remedial actions to address risks to human health or the environment at hazardous substance and petroleum sites where there is no readily apparent potentially liable person that is financially viable. SB96 also allows DEQ to use a portion of the funds to monitor the performance of remedial actions as well as to assess sites and collect data with a goal of closing those sites. The orphan share funds are being leveraged to assist certain petroleum storage tank owners meet their fifty percent share of the first \$35,000 of eligible cleanup costs per § 75-11-307, MCA. SB96 went into effect July 1, 2015. Since July of 2015, the Department has provided status reports to the Environmental Quality Council identifying the contract status for cleanup work, the project sites, and the release closures that are a result of the funding.

Senate Bill 355, the Federal Brownfields bill, changes the language pertaining to co-pays, allowing eligible costs reimbursed by grants or insurance to be 100% attributable to petroleum storage tank owners fifty percent share of the first \$35,000 of eligible cleanup costs. The bill also allows the owner to designate the Grantor for reimbursement so the owner is not unduly enriched. Owners will be able to leverage monies from multiple sources for remediating a release. This bill provides an owner with incentive to clean-up their property, especially in cases where the clean-up costs exceed the value of the property. As of the writing of this report there have been a couple of Brownfields projects that leveraged grant funding on the owners co-pay requirements. Many of these Brownfields projects are incorporating a Brownfields loan to address release cleanup and site redevelopment. The Board has been working with the rural development authorities to guarantee the reimbursement of eligible costs that are part of the cleanup. This bill has provided incentive for some owners to cleanup and conduct improvements to their properties, which is facilitating sites closure. The board expects this activity to continue over the coming years. This Bill was signed by the Governor on April 24, 2015.

Availability of Petroleum Storage Tank insurance and Trends

EPA publishes a list of known insurance agents and brokers to help provide information for financial responsibility coverage. In the last published list, "List of Known Insurance Providers for Underground Storage Tank Owners and Operators," (EPA 510-B-16-001) dated July 2016; there are a total of 142 insurance agents and brokers listed, with 55 that offer coverage for underground storage tank owners and operators within the whole United States. One agency specifically indicated Montana was an area of coverage. This list is periodically updated and can be accessed at <https://www.epa.gov/sites/production/files/2016-07/documents/listofknowninsuranceproviders7-20-16.pdf>. This means that Environmental Policies within the state of Montana are difficult to obtain and the Fund is a valuable source for both continued protection of public safety and as an ongoing mechanism for financial responsibility.

Continuing Collection of Petroleum Tank Release Cleanup Fees

The Fund continues to protect public health and safety and the environment, and allow underground storage tank owners to demonstrate financial responsibility as required by the EPA. The Fund continues to provide financial resources for partial reimbursement for costs, expenses and other obligations incurred as a result of releases of petroleum products from active, inactive and historical petroleum storage tank systems. The Board and the Department continue to find ways to encourage owners to improve tank facilities in an effort to minimize the likelihood of accidental releases.

The Fund continues to play a significant role in the cleanup of releases from underground and aboveground petroleum storage tanks. Since financial responsibility is only required for certain active underground storage tanks, many of the discovered releases would not likely be remediated without the Fund. Many of the owners

are unaware of the subsurface contamination and most environmental insurance policies are focused on coverage for active UST systems and don't cover historical contamination. Without the Fund, remediation of releases from historical contamination, releases from most aboveground petroleum storage tanks, and some underground storage tanks would be stalled, resulting in delayed cleanup and less protection of public health and safety and the environment.

The Board feels the fee should remain imposed and collected to help owners and operators comply with UST obligations under federal requirements, to fund reimbursement of corrective action related to historical releases and assist certain petroleum storage tank owners with cleanup of petroleum releases in order to protect public health and safety and improve the condition of the environment. Given the cleanup activity associated with the discovered releases, the fund balance has not approached the ceiling established by law (§75-11-314 MCA). The fund continues to only collect \$0.0075 on each gallon of fuel sold. Therefore, the fund continues to reimburse cleanup costs with funds as they come available, which, to some extent, delays the cleanup process. At some point raising the fee on each gallon of fuel sold may need to be considered.

Definitions

Coefficient of Determination - Compares the fitted (estimated) curve and actual data, and ranges in value from 0 to 1. If it is 1, there is a perfect correlation between the fitted curve and the data. — At the other extreme, if the coefficient of determination is 0, the fitted equation is not helpful in predicting values.

Correlation - Refers to relationship between two variables during a period of time which indicates whether and how strongly pairs of variables are related.

Fiscal Year - The State of Montana Fiscal Year begins on July 1 of each year and ends on June 30 of the following year.

Least-squares - The method of least-squares analysis assumes that the best-fit curve of a given type is the curve that has the minimal sum of the deviations squared (least square error) from a given set of data. The least-squares line method uses a straight line ($y=mX+b$) to approximate the given set of data $(x_1,y_1), (x_2,y_2), \dots,(x_n,Y_n)$.