

Montana Petroleum Fund 2022 BIENNIAL REPORT



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PETROLEUM TANK RELEASE COMPENSATION BOARD

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Montana Petroleum Fund 2022 Biennial Report

Trends in Fund Revenue and Expenditure Activities

Revenue

A fitted line indicates that revenue from fuels sold in the state increased by approximately \$71,000 each year over the last 28 years; 1995-2022. This average increase, estimated from a linear regression of the fuel revenues from 1995 through 2022, is up by \$600/year from the last biennium's estimate of \$70,000, and the coefficient of determination is almost 92%.

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 from 1995 through 2022. This incline is evident in the least-squares analysis used to calculate a straight line that best fits the revenue data for the twenty-eight-year period, for each of the fuel categories. The slopes of the lines predicted from a linear regression are \$21,405; \$45,915; and \$3,298 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 numbers from the recent biennium to the linear regression line, resulted in an increase in the slope for aviation fuel with a decrease in slope for gasoline and diesel fuel.

The linear trends for fuel revenues indicate that the Petroleum Tank Release Cleanup Fund (Fund) could expect combined fuel revenues to increase by approximately \$71,000 each year, with diesel contributing \$46,000 to the expected annual revenue increase, gasoline accounting for \$21,000, and aviation fuel accounting for more than \$3,000. 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 slope of the linear regression line appears to still be the best predictor of future revenues. The slope of a least-squares regression would predict revenues at \$7.75, \$7.82, \$7.89, and \$7.96 million for 2023, 2024, 2025, and 2026 respectively. If revenues for the four years were predicted to remain nearly the same as they have for this biennium, the revenue predictions for 2023 through 2026 would be \$7.7 million annually. The difference in the two prediction methods for the coming biennium averages less than 1%.

The Montana Department of Transportation's projected tax revenue indicates an increase in gasoline tax revenue and a steady diesel tax revenue. Diesel consumption is projected to be constant for the coming biennium. Gasoline sales is estimated to increase on average 1% per year over the next three years, with the largest increase seen in fiscal year 2023.

The U.S. Energy Information Administration's Annual Energy Outlook provides projections of domestic energy markets through 2050 and includes freight transportation energy consumption. Their predictions indicate that overall diesel consumption will drop annually by 1% over the next ten years following a peak consumption in 2024. Their projections indicate that overall gas consumption will remain steady for the next ten years and

will then increase by an annual rate of 2.5% through 2050. This Outlook is based on economic growth being a key driver of the long-term trends in energy consumption. Population growth and productivity assumptions throughout the projection period are shown to be an important part of the economic growth and consumption expectations.

Expenditures

The administrative expenses incurred by the Fund consist of expenses by the Petroleum Tank Release Compensation Board (Board) for fund administration and expenses by the Department of Environmental Quality (Department) for regulatory activities. An assessment of the total expenses indicates that there was funding set aside for special allocations in fiscal years 2015, 2020 and 2021. The allocations were for database development and special legislatively allocated funding for Department remediation projects. Since these unique special allocations were not part of the normal operating expenses, they were not considered in the analysis. There appears to be a shift in the operating expenses in fiscal year 2011. The change is attributed to the loan repayment and reduction of legal cases. A linear regression of operating expenses of the years of 1995 through 2011 show an annual increase of approximately \$18,000 as contrasted to the period of 2012 to the present that exhibits an annual increase of approximately \$10,000.

The slope of a linear regression analysis of the total combined expenses for both the Board and the Department from 1995 to 2022, excluding the special allocations, indicates that the slope of the trend for total expenses exhibits an annual increase of 1.9%. The expenses associated with personnel only shows an increase of 2% per year over the last 28 years.

A linear regression equation for the combined total expenses for fiscal years 1995 through 2022 estimates that the total costs will increase approximately \$38,000 per year. This indicates that the total program expenditures for FY2023 and FY2024 can be estimated at approximately \$2.3 million per year.

Claim Expenditures

The annual claim expenditures for FY1995 through FY2022 reflects a decreasing trend. The claim data shows a range of variation in annual claim expenditure from FY1995 through FY2022 from about \$3 million to \$8 million. The claim expenditure data was analyzed using regression techniques on FY1995 through FY 2020. Performing a least-squares linear regression analysis to calculate a straight line that best fits the claim expenditure data for FY1995 through FY2020 yields a decreasing regression line with a \$23,000 per year rate of decline, less than half a percent per year. The regression estimates over the years continue to be erratic. Regression analysis for this data exhibits a low coefficient of determination, 0.03, and is therefore not likely the most reliable predictor of future claim expenditures.

Given that the Consumer Price Index, (CPI), has an annual increase of approximately 3% and that the claim expenditures are declining, rather than keeping pace with CPI, the amount of remediation activity being performed appears to be declining over the past 28 years. This could be a contributing factor to the increase in the Fund balance. The Board would encourage additional cleanup activities to be conducted in the amount of approximately \$500,000 additional claim expenditures per year, over the next decade, to leverage the available revenues to accomplish a greater number of site closures. The Board is pursuing strategies with the Department to accomplish this goal.

Future Claim Projections

Using the average of claim expenditures for the past 28 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. The biennial report for 2020 projected claim expenditures to be at approximately \$5 million based on the average calculated from the prior 26 years. The average claim expenditures for FY2021 through FY2022 was \$4.9 million. The claim expenditures are a function of requested cleanup activity, site condition factors and costs of goods and services, 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 \$4.7 million per year.

Legislative Transfers and Allocations

Projecting expenditures becomes problematic due to transfers and allocations made by the Legislature to other budget areas. The combination of leveraging funding sources, transfers from the Fund, and allocations from the Fund to other programs, complicates the expected expenditures.

The legislature approved a \$1.0 million appropriation of state special revenue from the Fund to the Waste Management & Remediation Division for tank cleanup. The allocation to the Department began in FY20 consisting of \$500,000 per year for both FY20 and FY21. These types of allocations create a problem in accurate projections of future expenditures.

The Board has entered into Guarantee of Reimbursements for several Brownfields sites. This means that cost recovery for cleanup expenditures at those sites are postponed beyond the current fiscal years. While Brownfields loans are not income to the Fund, the agreements allow the delay of reimbursement from the Fund for some site cleanups to occur at a future date, allowing today's funding to go further. Currently the Board has only a couple of Guarantee of Reimbursements totaling about \$200,000.

Exposure to Long-Term Liabilities

Liabilities to 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 are the total cleanup for each current active release reduced by the amount of current cleanup accomplished; the amount of insurance coverage for the release; and the facility's compliance. The future liabilities to the fund consist of active petroleum storage tanks, releases that are currently being remediated, releases that have been discovered and no corrective action has been performed, and existing contamination yet to be discovered at old petroleum storage facilities (former gas stations).

Fund liabilities for active tanks are affected by prevention efforts, facility compliance, regulatory changes and insurance coverage. The only liability to the Fund that insurance can be obtained for is the active tanks. The remaining liabilities have no available insurance coverage and therefore cannot be removed from the Fund's liability considerations. The number of those liabilities has a limit, and that limit will be reached with site closures. The sites that have active and current cleanup need to proceed through the remediation phases, which requires requests for work to be done, the implementation of that work and time. All open releases for which no work has been requested need to become part of the work process; starting with a work plan request, which results in the Board receiving an eligibility application. History has shown that former petroleum storage facilities have varying degrees of contamination yet to be discovered. It is known that there is a limited number of these facilities and federal petroleum Brownfield's activities are assisting in finding and investigating these facilities. There will come a time when all historical storage facilities have

been investigated and are working toward cleanup and closure. These liabilities can only be assessed based on rates of discovery followed by application for assistance to the Fund.

The number of open releases that remain from the first 10 years of program implementation, the years of 1990 through 1999, is 568. Of those open releases 82% have applied for assistance from the Fund and 82% of those that have applied were determined eligible for assistance, resulting in 67% of the open releases in that time period receiving assistance.

The number of open releases that remain from the last 21 years of the program, 2000 through 2021, is only 278. Although this period is twice the amount of time of the first 10-year period, the number of open releases is only half the early 10-year period. Of the open releases from 2000 through 2021, 72% have applied for assistance from the Fund and 91% of those that have applied were determined eligible for assistance, again resulting in 67% of the open releases in this time period receiving assistance.

Of the remaining open releases from 1990 through FY2022, records indicate that approximately 78% of those release owners applied for eligibility to the Fund. Roughly 85% of those that applied were determined eligible, resulting in 66% of releases determined eligible given the number that have applied for assistance.

Throughout time, there have been nearly 5,000 discovered releases, and of those less than 1,000 remain open. Of the open releases, there remain less than 200 releases that have never applied. If all known and open releases were in some phase of active remediation, the Fund's liability would be easier to define and a possible transition date for the Fund could be predicted. We can estimate that if there were a closure rate of 90 releases a year and an average of 30 releases discovered each year, it would take approximately 14 years to address all of the known and open releases.

Based on this assessment, there is sufficient revenue to be able to continue to address releases with the expectation of 90 closures and 30 new discoveries per year. Over time, there will be new release discoveries as a result of Brownfields investigative activities, phase II environmental site assessments associated with property transfers, and monitoring of active tank systems.

The Board has noticed that open releases apply for assistance when the owner is asked to conduct cleanup by the Department. As more of the releases in these time periods are required to perform cleanup, the Board would expect to have more applications for assistance. If the Fund eligibility rate holds true, the expected result would be that 67% of the releases that have not yet applied would eventually be determined eligible. The liability to the Fund could be calculated by assuming 67% eligibility on all open releases. The attached [Appendix A](#) is the start of calculating this long-term liability.

The best estimate of liability to the fund would be the total remaining costs for each of the open eligible releases plus any expected future liability. The table in Appendix A identifies sites with open releases that have not applied to the Fund, those that have applied to the Fund and were granted eligibility, those that have applied and were determined ineligible for assistance, those that have applied and are in process, those that have applied and are suspended awaiting additional information, and those that have applied and have withdrawn their application.

Releases proceed through a remediation process of Remedial Investigation, Remedy Selection, Remedy Implementation, Follow-up Activity, and Closure Activity. The open releases, as of the end of FY2022, are listed in Appendix A. The outstanding financial liability to the Fund for these open releases is greatly affected by the amount of time spent in the phases of remediation, the degree with which a release cycles within those phases of the process, and the amount of time a release goes without entering the phases of the process. Time spent in the phases of remediation is a function of the chosen cleanup technology, the amount of

time that technology will be applied at the site and the timing of work requests by the Department. The time a release cycles within a phase, or group of phases, depends on the experience of the contractor and the project manager have with the technology, the effectiveness of that technology, and the timing of work requests by the Department. The time a release goes without starting the Remedial Investigation phase is a result of when an owner receives a cleanup request from the Department. At some release sites an owner has not received a cleanup request for several decades.

Liabilities are often separated between current and long-term liabilities to help assess an organization's financial standing in short-term and long-term periods. The inability to predict the length of time that a release remains a Fund liability, makes it difficult to assess the distribution of costs over the years. The long-term liabilities provide more information about the long-term needs of the Fund while the short-term liabilities provide an assessment of the annual (or Biennial) operating condition of the Fund. The timing of the Department's actions and associated communication impairs the Board's ability to predict a reliable estimate for both the short and long-term.

The expected future liability includes known releases that have yet to apply for eligibility and releases that will be discovered. The known releases that have yet to apply, as of the end of FY2022, are shown in Appendix A. The releases that have yet to apply total over 200 releases. Over 100 of those have been discovered more than 20 years ago, indicating there has been no cleanup request by the Department prompting the owner to recognize their liability and apply to the Fund for assistance. The filing for assistance from the fund appears to be correlated to the cleanup requests by the Department.

The Department is the agency responsible for determining if it is necessary to prepare and submit for approval a corrective action plan, 75-11-309, MCA. Without the communication being timely, the application for assistance lags awaiting the Department communication. It is difficult to know which of these releases will apply for assistance and when they will apply. For those releases that do apply, it would be estimated that 67% would be granted eligibility to the Fund, however, the timing of when the associated cleanup will become a liability to the Fund is not easily predicted.

The Fund liability estimate improves once the release eligibility has been determined, however it remains a struggle to estimate a cost when it is unclear what remediation phase the site is currently in. Estimating the remaining cleanup costs for an eligible release is best projected once the nature and extent of the release has been determined, an alternatives analysis has been developed, and a remedial strategy has been proposed. This provides a reasonable estimate of the total costs to reach site closure and some idea of the associated timing, although, again, the timing of the estimated liabilities is a function of the timing of site activities, which is a function of the work requests by the Department.

The table in Appendix A provides a date of the last claim that was received for the open and eligible releases and the amount of time that has elapsed since a claim was filed with the Board for each release. Claims are usually submitted about 45 days after the completion of cleanup tasks or subtasks. Of the open, and pending, suspended, or eligible releases, which number 605, there are more than 260 releases for which the Board has not received a claim for more than 2 years. Of those 260 releases there are 64 releases for which the Board has not received a claim for more than 10 years and one release where the Board has not received a claim for nearly 22 years. Delays in claim activity are often an indication of a lack of cleanup activities for the release which are a function of the site activities and the work requests by the Department. The lack of cleanup activities results in an increased Fund balance.

For the sites that have applied to the Fund and were determined to be eligible, the data exists for the Board to determine; sites currently being remediated, sites that have a planned cleanup, and sites that have an

estimated time to closure. The Board is examining the data in an effort to provide an estimated liability, presuming that the process consisting of the phases of remediation remain linear. If this information was available for all open release sites, then a more accurate estimate of total Fund liability could be calculated. This would also aid in providing a yearly reimbursement estimate that would assist with the assessment of the annual operating condition of the Fund. The inability to predict when the cleanup activities will be conducted impacts the assessment of the long-term liabilities.

The Board remains concerned that the number of AST releases may become the majority of the long-term liabilities. Many ASTs do not comply with current storage tank standards established by the State Fire Marshal. A checklist has been established by the Board to aid owners in determining compliance requirements that affect Fund eligibility. The current AST Fund eligibility requirements can be found on the Board's web site at:

<https://deq.mt.gov/files/DEQAdmin/PET/Documents/Forms/StorageTankChecklist.pdf>

Over the long term, compliance by AST owners with current State standards, specifically the AST check list, will help to reduce the number of releases from ASTs. Since this is a voluntary compliance, there are many AST owners that have tank systems that don't meet these State standards.

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

In October of 2018, the Department changed their rules to reflect the requirements by EPA. The major provisions of these changes include monthly walk-through inspections, UST system fuel compatibility, release detection requirements, annual testing requirements for release detection equipment, 3-year testing requirements for overfill devices and spill buckets and suspected release reporting.

The deadline for the implementation of walk-through inspections, annual testing and 3-year testing inspections was to be completed no later than October 13, 2021. Groundwater monitoring and vapor monitoring are no longer allowed as a leak detection method after October 13, 2023. All other rule changes are effective immediately and thus in effect now. These new regulations have increased the workload for the state's prevention program and the consulting industry that performs the inspections for the owners, however, there appears to be little impact to the Fund. The implementation of these new requirements may have resulted in the increased identification of petroleum releases at a facility; however, it does not appear to have impacted the application for assistance to the Fund.

Availability of Petroleum Storage Tank insurance and Trends

There are many releases still being discovered as a result of property transactions, although they are discovered when a site assessment is conducted, they are historic contamination. There can be no reasonable expectation of an owner having insurance in that situation. Insurance coverage is usually written for a known likely liability, and it generally does not cover pre-existing liabilities. Until the backlog of open releases and newly discovered releases that are tied to historic contamination are closed, it would be very difficult to legislate a mandate for insurance coverage that would responsibly provide for protection of human health and the environment without providing a minimal insurance structure to reach that goal.

It is important to recognize that Montana does not require owners to participate in the Fund. Owners can choose a number of mechanisms to meet the federal Financial Responsibility (FR) requirements. If the owner does not choose the Fund, they can choose coverage of another type to satisfy the Certificate of Financial Responsibility (CFR) requirements, including insurance. Insurance is a valuable part of the owner's portfolio.

Having coverage from both insurance and the Fund, reduces the owner's liability risk. Assistance from a chosen mechanism, such as the Fund or an insurance company, is based on compliance throughout time.

Insurance and state petroleum assistance funds are the most common mechanisms used by owners and operators to comply with federal and state financial responsibility requirements. Montana's Petroleum Tank Cleanup Fund (Fund) requires that insurance be used for cleanup activities before costs are reimbursed from the Fund. The program does allow the owner to leverage any insurance, or other funding sources, to assist with the owner's copay requirements. This model allows the owner to cost effectively meet the financial responsibility requirements. The program has seen an increase in the use of storage tank insurance over the last decade.

There is concern about aging underground storage tank (UST) systems in the nation. Systems that are 30 years old and older continue to make up a larger segment of the UST population. Some owners of aging USTs report having trouble renewing and finding insurance, with smaller UST owners struggling the most. Montana, being a rural state is made up of a number of struggling smaller UST owners. It is recognized that uninsured aging USTs expose the state to cleanup costs if owners don't have financial resources. The Fund bridges this financial gap, and the UST stakeholder work group is mindful of the challenges and are seeking solutions.

All insurance policies contain some type of exclusions. The exclusions are the conditions under which the insurance company will not cover the costs of cleanup. The insurance policy exclusions are seen as problematic insurance policy language. The Association of State and Territorial Solid Waste Management Officials (ASTSWMO) State Funds Task Force published a guide ([Guide to Tank Insurance \(PDF\) October 2011](#)) to assist owners and operators when purchasing UST insurance. It provides information regarding UST insurance policy construction, terminology, definitions, exclusions, and coverage that owners and operators should consider when purchasing their policy.

[EPA undertook a study](#) to assess the effectiveness of UST insurance as a financial responsibility (FR) mechanism, as well as get a sense of how UST insurance is working under the existing federal regulatory framework. The study findings are inconclusive as to whether UST insurance is effective as a FR mechanism. On one hand, the analysis of UST insurance policy language revealed certain definitions, terms, and conditions that could pose coverage and claim challenges for UST owners and operators. Furthermore, the litigation review suggests UST pollution insurance policies do not always respond in a timely manner to provide financing for remediating releases from regulated USTs. Yet under the existing regulatory framework, the insurance policies EPA analyzed were in compliance with the federal UST FR regulation, despite the potentially problematic insurance policy language. In fact, the policies purchased by owners and operators generally complied with the federal UST FR regulation.

Despite EPA's failure to obtain aggregate claims submission and payment data as well as discussions with insurance carriers and the limited information from an insurance survey by the state of Michigan, it did not appear that insurance carriers were excessively or dismissively denying claim payments. Nonetheless, EPA is aware of individual circumstances where owners and operators feel their insurance carriers are inappropriately denying coverage. The study indicated that there is an extensive list of contested issues that allow insurance carriers to pursue legal means to ensure that policyholders (i.e., owners and operators) meet their policies' obligations before agreeing to pay. The study identified several issues that may hinder the effectiveness of UST insurance policies to provide prompt financing of releases. It was unclear to what extent UST insurance as a FR mechanism has led to unremediated releases or stalled remediation. Thus far, EPA has been unsuccessful in obtaining data on backlog sites or abandoned contaminated sites where insurance was the FR mechanism at the time of the confirmed release and why UST insurance did not provide coverage. EPA

also did not obtain sufficient data to indicate whether confirmed releases have been successfully remediated at sites where UST insurance is used as a FR mechanism, regardless of whether the insurance policy was used by the owner or operator.

EPA acknowledged that the study identified certain aspects of UST insurance that may be at odds with EPA's ideal of how and when a FR mechanism should respond to releases. EPA plans to weigh a number of factors, including the effect of implementation on the availability and affordability of UST insurance as they consider changes to the regulatory framework of FR mechanisms to eliminate or reduce the reasons for which coverage of a release is reduced or denied. Insurance, with its challenges, is available for active petroleum storage tanks, both underground and above ground. The problems identified by EPA in 2011 have not yet been resolved.

The availability, affordability and the viability of insurance is still in question. It is difficult to obtain insurance for: releases that are currently being remediated, releases that have been discovered and no corrective action has been requested or performed, and for existing contamination yet to be discovered at old petroleum storage facilities (such as former gas stations). It is recognized that this historical contamination is limited, and that the limit will be reached with site assessments and site cleanups through the use of state and federal programs working to diminish this backlog.

Insurance coverage is a possibility for active petroleum storage tank systems (PSTs), although as expressed in the EPA studies, there are still certain challenges that exist that should be resolved for insurance to be a viable solution. These active PST owners are the client base for future insurance coverage. Changing the current program model to an insurance only model would leave certain owners without the ability to be successful at affording cleanup costs. Before insurance can become a viable model both statutorily and practically, these challenges need to be overcome.

No matter how many insurance companies there are that provide coverage, without established minimum standards and without the closure of the back log of open releases, it does not make sense for Montana to change the remediation funding model. EPA's research on adequate FR coverage indicated that certain insurance companies issuing policies did not provide sufficient coverage to meet the federal FR requirements. This is a concern for Montana, because it appears that a statutory structure within the Montana Insurance framework does not exist, and therefore there is no state policies that aid UST owners to obtain coverage that would adequately meet FR requirements. If Montana plans to rely solely on insurance coverage to fund remediation efforts resulting from petroleum releases, the state needs to establish minimum insurance requirements for PSTs (USTs, ASTs, farm and ranch, cellar, etc.) pollution coverage. Therefore, owners would obtain insurance from insurance companies in compliance with minimum state standards. Currently there are only federal standards, and not all insurance companies provide insurance policies that meet those standards. Without a minimum insurance requirement structure in place, it is not possible to create a requirement for insurance coverage, much less coverage that comports with FR requirements. This is analogous to the established prerequisites of minimum liability coverage for automobile ownership, set by the Insurance Commissioner. The establishment of minimum standards protects the citizens of this state and ensures sufficient funding is available for cleanup costs.

List of Insurance Companies

List of insurance providers from EPA is available online at: <https://www.epa.gov/ust/list-insurance-providers-ust-financial-responsibility-requirements#list> The current list shows a total of 14 insurance companies that write pollution coverage. There is a total of 12 companies listed that offer coverage for UST owners and

operators within the whole United States. The 2020 Biennial report indicated that a total of 64 insurance companies provided insurance coverage in the United States. Recently, EPA has assessed the insurance companies that meet federal FR requirements, and the results greatly reduced the list that EPA published for available coverage, to a much smaller list of providers.

Continuing Collection of Petroleum Tank Release Cleanup Fees

Given the expressed concerns with insurance at both the national and state level there is still a prevailing need for the Fund and the coverage it provides to assure a clean and healthful environment for the citizens of Montana. There remains a bulk of known releases that are yet to be resolved. Within the set of open releases there are many sites where no corrective action has been requested or performed. Many of those sites will apply for assistance once a request for cleanup is made. There is still historic contamination yet to be found at former petroleum storage tank facilities. Once these challenges are overcome, other models for funding cleanup, such as insurance, can be considered.

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

Because of the challenges already noted for adequate insurance coverage to meet federal FR, exclusionary language in policies and the amount of historic contamination known and unknown, there will be an ongoing need from the Fund for assistance in petroleum remediation efforts. This need will continue on some level, for the foreseeable future, both due to the need for an insurance model that requires and sets minimal standards along with the portion of the population for which insurance may never be a coverage mechanism, like the farm and ranch owners and homeowners with heating oil tanks.

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. The fund balance has not approached the ceiling established by law (§75-11-314 MCA) and continues to collect \$0.0075 on each gallon of fuel sold.

The Fund continues to be a significant part of property transfers for petroleum contaminated sites. Petroleum impacted sites that have been granted eligibility to the Fund pose less risk to the buyer in a property transaction. Because eligibility can easily be transferred to the new owner, and the bulk of the environmental liability is carried by the Fund, property sales are more likely to occur. This results in more Montana business properties remaining a business that can continue to serve its community and contribute to the tax base.

The Board continues to research and seek feedback on ways to incentivize owners to pursue implementation of cleanup strategies that bring their releases to closure in a timely manner. This could help to address the backlog of open historic releases, thus allowing for a different funding model. Although participation in the Fund is voluntary, the fee collected comes from all people who purchase aviation fuel, gasoline, diesel and heating oil. Thus, any incentives provided from this Fund need to be beneficial to the citizens at large and the state of Montana.

References

Montana Department of Transportation – LFD Fiscal Report 2023 Biennium

US Energy Information Administration – Annual Energy Outlook 2022, Consumption through 2050

<https://www.eia.gov/outlooks/aeo/narrative/consumption/sub-topic-03.php>

US Energy Information Administration – Reference Case Projections Tables, Table 49 Freight Transportation Energy Use <https://www.eia.gov/outlooks/aeo/data/browser/#/?id=58-AEO2022&cases=ref2022&sourcekey=0>

https://www.eia.gov/outlooks/aeo/tables_ref.php

All Reference Case Tables - https://www.eia.gov/outlooks/aeo/tables_ref.php

Association of State and Territorial Solid Waste Management Officials (ASTSWMO) State Funds Task Force published a guide ([Guide to Tank Insurance \(PDF\) October 2011](#))

EPA Study on Insurance and FR - <https://www.epa.gov/sites/default/files/2014-03/documents/epa-insurance-paper.pdf>

Definitions

Claim – In an actuarial context, a “claim” is typically used to refer to a single event triggering coverage by an insurer. For the Fund, a claim is a request for reimbursement for a single work plan related to the remediation of a site. For the purposes of this report, the term “claim” will have the latter meaning, while “release will be used to signify individual triggering events, per the terminology used by the Fund.

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.

Frequency – Technically speaking, frequency is the average number of releases per insured exposure. For the Fund, an insured exposure is one tank insured for one year. For example, if 250 releases are reported in a year with 10,000 insured tanks, the frequency (average number of releases per insured exposure) is $250/10,000$ insured tanks = 0.025 releases per tank. In spite of this, the term “frequency” is often used to describe simply the number of releases (rather than releases per exposure), such as in the “Frequency Times Severity Method”. The term is clarified is the meaning is unclear from context, and the distinction is important.

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 $(x_1,y_1), (x_2,y_2), \dots,(x_n,y_n)$.

Linear Regression Formula - attempts to model the relationship between two variables by fitting a **linear equation** to observed data. A **linear regression** line has an **equation** of the form $Y = a + bX$, where X is the explanatory variable and Y is the dependent variable.

Severity – Severity is the average cleanup cost of a release for a given collection of release. For instance, if the total cost for three releases is \$45,000, the severity (average size of a release) is $\$45,000 / 3$ releases = \$15,000 severity.