

Gem State Air Quality Initiative

1 OVERALL PROJECT SUMMARY AND APPROACH

In March 2023, the state of Idaho submitted to the Environmental Protection Agency a Notice of Intent to participate in the Climate Pollution Reduction Grant program funded through the Inflation Reduction Act.

A year later, March 2024, Idaho submitted one of three deliverables, our Priority Climate Action Plan. Idaho coined this action plan as the Gem State Air Quality Initiative (GSAQI) to recognize the co-benefits of reducing carbon emissions to other air pollutants.

Now, Idaho is submitting this grant application to provide support of the Gem State Air Quality Initiative priority plan to communities throughout Idaho to implement projects that reduce greenhouse gas emissions and enhance carbon sinks.

This application is the first of its kind in Idaho and comes at a crucial time as state agencies and organizations represented in this application have garnered support to implement the proposed projects in this grant application. As identified in our Gem State Air Quality Initiative priority plan, Idaho's focus will be on significant sources of greenhouse gases, the important need for communities, especially those disproportionately burdened by the impacts of a changing climate, and impacts to our most valued resources. This application is transformative in establishing the first statewide approach to reduce carbon emissions while supporting Idaho's unique societal, cultural, and political values.

In Idaho, the agricultural sector represents 43% of the state's total greenhouse gas emissions. Hence, Idaho's focus will start with reduction measures in agriculture by supporting the use of climate smart agricultural practices. Second, is in the commercial sector, by supporting energy efficiency improvements in K-12 public school buildings throughout Idaho. Third, is the land management sector, by supporting healthy lands through sustainable management to address wildfire risk, disease, and pest mitigation, while also supporting programs to conserve and restore landscapes throughout Idaho. Last is the waste sector, by supporting recycling and composting programs to divert waste from landfills.

It's important to note that these focus areas or reduction measures overlap with low-income and disadvantaged communities (LIDAC). Half of Idaho lands are rural and 78% of that is considered LIDAC. Therefore, Idaho expects at least 40% of the benefits from these reduction measures to benefit LIDAC.

The Idaho Department of Environmental (DEQ) coordinated with many stakeholders to determine these focus areas. DEQ coordinated with three state agencies, one university, and one non-profit organization to ensure Idaho will achieve the emission reduction outcomes identified in this application. If awarded, this grant will provide funding to the Idaho Department of Lands (IDL), the Idaho Department of Fish and Game (IDFG), the Idaho State Department of Education (ISDE), the University of Idaho (UI), and the Idaho Coalition of Land Trusts (ICOLT). Eventually extending directly to a diverse group of entities such as public schools, local governments, solid waste districts, farmers, and the agriculture animal production industry. All of which have proven they can successfully complete projects like the ones included in this application.

DEQ has been diligent in selecting these air pollution emission reduction measures and gaining support from fellow agencies to implement them; however, for the agency to be successful DEQ must obtain approval to receive the funds for this grant from the state's legislative body. In preparation for that, DEQ has been in routine contact with the Governor's office and discussed the benefits of the grant with the chairs of the Joint Finance-Appropriations Committee of the legislature. We believe our application reflects the priorities and values of Idahoans and are hopeful if awarded, DEQ will get approval to expend these grant funds.

1.1 Measure 1: Sustainable Agriculture Program

This measure is included in Idaho's Priority Plan under *Support Climate Smart Agriculture* on page 6.

Agricultural production and processing represent 17% of Idaho's economic output (12.5% of GDP) (ISDA, 2022). Agriculture is the largest contributor of greenhouse gas (GHG) emissions in Idaho, accounting for 43% of total emissions. This measure promotes and supports the transformation of agricultural production in Idaho to an industry which grows economically and sustainably through strategies and practices that substantially increase soil carbon and reduce GHG emissions. It is also in alignment with the goals of the CPRG program. Improvements in this sector will also have substantial community benefits by protecting water resources, reducing odors, criteria pollutants, improving soil health, and supporting rural Idaho. This measure will be implemented in two programs: the Animal Operations and Farm Efficiency Program and the Healthy Soils Program. Together, these 2 programs will have a transformative impact and support sustainable agriculture in Idaho.

Animal Operations and Farm Efficiency Program

1.1.1.1 Description of GHG Reduction Measures

The Animal Operations and Farm Efficiency (AOFE) Program supports animal operations throughout Idaho by providing financial assistance to farmers and feedlot operators in the form of a rebate. DEQ will implement this program through a competitive application process utilizing participant support cost agreements as the funding mechanism. The AOFE Program will use the process and procedures developed for the state funded Confined Animal Feeding Operation (CAFO) Improvement Fund Program (CAFO program), including the following criteria: minimum of 40% match from other sources; project must start within 1 year and be complete within 3 years of the award; and demonstrate how project/equipment/practice will be maintained over time. DEQ will use the existing CAFO Improvement Fund Committee (CAFO Committee) to evaluate and select projects for funding under the AOFE program. DEQ in coordination with the CAFO Committee will develop scoring criteria that will prioritize projects that result in the greatest GHG emission reductions.

Types of projects eligible under this program include manure management practices that reduce methane, on-farm energy efficiency, biogas development, and nutrient management that reduce enteric fermentation emissions. DEQ anticipates offering 2 application periods and will evaluate applications in a tiered approach to ensure all sizes of projects have equal access to funding. DEQ will obtain a contractor to develop a user-friendly quantification tool that will be used by the applicants and DEQ to estimate GHG and co-pollutant emission reductions. DEQ will collaborate and coordinate with Tribes for any work conducted on Tribal Reservations.

Major features, tasks, and milestones

Planning and Outreach: DEQ will develop outreach, application, and scoring criteria with the CAFO Committee. DEQ will obtain a contractor to develop the quantification tool to be used by the applicants and DEQ. **(Milestone: Spring-Summer 2025)**

Application Period: DEQ announces application period and conducts outreach for the funding opportunity. **(Milestone: July - November 2025)**

Project Selection and Award: DEQ will coordinate with the CAFO Committee to review applications against scoring criteria and select projects for awards. DEQ will use participant support cost agreements to award funds. **(Milestone: March 2026)**

Project Implementation and Support: Once scored, awarded recipients will initiate their project within 1 year of award and complete it within 3 years of award. DEQ will continue outreach and education to awarded recipients to ensure effective implementation and maintenance of sustainable practices and technologies.

Program Monitoring and Evaluation: DEQ will establish a methodology to track the GHG emission reductions, other environmental impacts, and performance of funded projects which could guide additional application periods if appropriate. DEQ will visit randomly selected project sites and complete required reporting. (Semi-Annually)

Underlying assumptions, risks, and mitigation for major features, tasks, and milestones:

This program would be utilizing the processes, procedures, and the CAFO Committee already in place for the state funded CAFO Program. DEQ assumes funds will be awarded, and the project will be completed in 2026 and 2027 after two grant application periods. DEQ has consulted with the Idaho Dairyman's Association and reviewed previous applications submitted for the CAFO Program to estimate the interest for the AOFE program. Risks could include not receiving enough quality applicants to award funding and/or the economics for the industry change and there may be less interest. This risk is very low as the dairy industry in Idaho has been growing for the last 30 years including during the 2009 recession, demonstrating the resilience of the industry.

1.1.1.2 Demonstration of Funding Need:

The existing state funded CAFO Program has demonstrated good success in the 2 years it has been funded, but funding is diminishing with only \$2 million appropriated for state FY 2025, with no certainty of continuing. Federal funding sources (USDA EQIP and other NRCS sources) are less flexible and may prevent some producers from signing on due to grant requirements. The implementation of new technologies comes with minimal history of performance, so they introduce risk into the operations of the dairy and the cost share funding helps to minimize that risk. The Idaho dairy industry is often exploring projects like methane digesters, reverse osmosis, ultra filtration and other manure related technologies that have capital expenditures in the 10's of millions of dollars, so providing cost sharing support helps get the decision on implementation to a 'yes'.

1.1.1.3 Transformative Impact:

Incentivizing agricultural practices to reduce GHG for animal operations encourages the use of new technologies and makes a transformative impact on the future of agricultural emissions in Idaho. This program can assist producers in making incremental changes in practices that will encourage other agricultural industries to follow. The acceleration and deployment of new technologies and best practices that are adopted today will have a long-lasting impact on future emissions. In addition, this program will help reach the US Dairy Council which has set a goal of achieving GHG neutrality, optimizing water usage, and improving water quality by 2050.

Healthy Soils Program

1.1.1.4 Description of GHG reduction measure:

The Healthy Soils Program will provide incentive payments to agricultural producers to implement climate smart practices to reduce GHG and increase soil carbon. This funding will leverage an existing USDA funded project lead by the UI called Innovation Agriculture and Marketing Partnership (IAMP) to provide per acre incentive payments to encourage producers to implement NRCS climate smart practices with known reductions in GHG emissions and/or increased soil carbon. This funding will extend the IAMP project but will select commodities and practices that do not duplicate ongoing research to reach more producers in Idaho. The UI's role in this project is to leverage the existing structure and partnership established through the IAMP project to enroll an additional 35,000 acres of agricultural land to climate smart practices and cropping strategies.

A barrier that limits small producers from adopting certain practices is the lack of ability to purchase the costly equipment needed. The Healthy Soils Program has also allocated \$200,000 of funding, not available in IAMP, that will be awarded to farming co-op groups, soil and water conservation districts, or

other entities that demonstrate the need and benefit to purchase equipment (e.g. no-till drills) allowing for the adoption of conservation practices. DEQ will collaborate and coordinate with Tribes for any work conducted on Tribal Reservations.

Major features, tasks, and milestones

Planning and Outreach: UI will use university extension offices and existing partnerships to identify additional partners who have an interest and capacity to participate in the project (January 2025-May 2025). Implementing partners with feedback from growers will further identify and define climate smart practice descriptions and define the metrics necessary to ensure the practices were successfully implemented. **(Milestone: June 2025-August 2025)**

Application Period: UI will use established IAMP two-phased online application system that connects interested producers to specific implementing partners based on location in the state and producer preference and generate an application pool for funding. **(Milestone August 2025-March 2026)**

Project Selection and Award: UI will select applications based on an agreed prioritization and ranking system that maximizes potential GHG reductions per invested dollar as well as other considerations including LIDAC. **(Milestone: August 2025-August 2026)**

Project Implementation: The implementing partner works with producers to develop and sign a 3–4-year cropping plan to implement climate smart strategies. **(Milestone: August 2025-August 2029)**

Program Monitoring and Evaluation: UI will collect soil, plant, and gas samples to establish a baseline and determine efficacy of the treatment. UI will compile a report of acreage, GHG reductions and report progress. **(Semi-Annually)**

Underlying assumptions, risks, and mitigation for major features, tasks, and milestones:

The existing UI IAMP framework, existing partnerships, and application process will be used to implement and measure performance of the Healthy Soils program. The actual reduction in GHG emissions for a particular year will be dependent upon the weather and other limiting factors. Therefore, UI will be taking soil samples to document the change in soil carbon and GHG for a particular practice as well as using regionally specific parameterized models to capture the future long-term impact of adoption at a particular field site. UI will also identify other soil fertility factors that might limit crop response and thereby reduce vegetative (i.e. carbon biomass) growth. There is a potential risk that a grower goes back to their former cropping practices after the end of the project and therefore the GHG reductions are not permanent. UI will use annual meetings with the grower after harvest to demonstrate to the producer simple techniques to document and quantify resource (e.g. water and nutrient) efficiency and impacts on short and long-term profitability through target soil and crop sampling and monitoring. UI anticipates new commodity markets to develop that will place higher premiums on commodities produced through climate smart or sustainable practices. By tracking resource efficiency to maximize profitability and through new markets producers will be more likely to permanently adopt these cropping strategies.

1.1.1.5 Demonstration of Funding Need:

The adoption of alternative cropping practices is often hindered by initial investment cost, the lack of knowledge of the short and long-term benefits on a particular field or the time required to learn the best approach to implement the practices. Incentive programs such as those offered by the USDA-NRCS (e.g. EQIP) can provide users with incentives to implement practices but do not provide the post-harvest evaluation and feedback necessary to identify the efficiency and profitability of a practice. In addition to the funding necessary to reach commodities not specifically addressed in the IAMP project, the structure of this project takes advantage of the expertise, technology, and training through UI research and extension to quantify short and long-term benefits of this program.

1.1.1.6 Transformative Impact:

The Healthy Soil Program’s approach and database will provide a comprehensive assessment of the success and limitations of climate smart practices across the entire state over a wide range of soil and climate conditions. This information will assist in directing both on-farm as well as focused research at the UI research and extension centers. These data will also provide supporting partners and producers with an ability to learn and encourage further exploration of approaches to modify and improve on the implementation of the cropping practice. This is a positive step which can lead to motivating growers to further increase their knowledge and confidence in innovative cropping systems. Implementing these practices in cropland agricultural systems are key industry where there are win-win opportunities to reduce GHG emissions as well as improve soil and crop production systems that are more sustainable and resilient to extreme weather conditions and other disturbances which will help farmers long-term.

1.2 Measure 2: Idaho K-12 Energy Efficiency Program

This measure is included in Idaho’s Priority Plan under *Support Energy Efficiency Improvements in Buildings Throughout Idaho* on page 8.

Energy efficiency and resiliency in Idaho’s schools is critical to the well-being of students, their families, and communities. The last focused effort on energy efficiency in K-12 schools was in 2009 when Office of Energy and Mineral Resources (OEMR), then called OER, conducted the Idaho K-12 Project with the purpose of reducing energy costs in K-12 schools. Energy audits were conducted on 894 individual school buildings throughout Idaho. Fifty-six percent of K-12 public schools in Idaho are in LIDAC with many still using coal and fuel oil as a heat source, which produces a significant amount of GHG, criteria pollutants, and hazardous pollutants. Despite outdated equipment having several negative impacts on both the environment and human health, upfront replacement costs are the most frequently cited barrier to the installation of safer, more efficient equipment.

Description of GHG reduction measure:

The Idaho K-12 Energy Efficiency Program will provide funding for projects such as, but not limited to, the following: HVAC tune or replacement, replace highly inefficient boilers and coil furnaces with new high efficiency heat pumps and furnaces, new energy efficient windows, doors, weatherization, and programmable lights and thermostats.

ISDE will be the lead agency for the Idaho K-12 Energy Efficiency Program which will build on an existing program set to be implemented by OEMR fall 2024 using Infrastructure Investment and Jobs Act (IIJA) funds. ISDE will use a competitive application process to select applicants based on scoring criteria such as demonstration of need, location, total energy savings, and amount of GHG emission reduced. Applicants will be funded through sub awards from ISDE.

Overall, this program assists K-12 public schools in creating and implementing strategies to increase energy savings and energy resilience and to reduce energy use, GHG emissions, and tax burden. Equipping schools with new and efficient technologies will not only create a healthier learning environment for students, but also a secure place for communities during emergencies such as wildfires, which are a huge threat in our state. DEQ will collaborate and coordinate with Tribes for any work conducted on Tribal Reservations.

Major features, tasks, and milestones

Planning and Outreach: ISDE will conduct outreach to school districts and charters schools about the program. ISDE, with support from OEMR, will establish an advisory committee, develop an application and scoring criteria for application selection. **(Milestone: August 2025)**

Application Period: ISDE will offer 2 application periods and continue outreach to school districts and charter schools throughout application periods. **(Milestone: August 2025 and August 2026)**

Project Selection and Award: ISDE will select and award funding to selected applicants in consultation with the advisory committee. **(Milestone: January 2026- January 2027)**

Project Implementation and Support: DEQ will continue outreach and education to awarded recipients on reporting and compliance requirements under the CPRG grant, such as Davis-Bacon Fair Wages Act and Build America, Buy America.

Program Monitoring and Evaluation: ISDE will track the number and location of buildings and specific upgrades, monitor progress of implementation, evaluate performance of funded projects, and submit semi-annual and final reports as required **(Semi- Annually)**.

Underlying assumptions, risks, and mitigation for major features, tasks, and milestones:

The Idaho K-12 Energy Efficiency Program will expand on the program OEMR is set to implement fall 2024. ISDE will have the benefit of learning from OEMR and gain insight for best practices. ISDE will be able to build on OEMR’s outreach and education instead of starting from scratch creating a more efficient program.

This program assumes sufficient school districts apply for funding. ISDE plans on conducting outreach and education about the program prior to opening the application period. During the development of Idaho’s Priority Plan, ISDE conducted a survey of school districts and charter schools to gauge interest in a possible program and received over 58 districts and charter schools expressing interest.

Demonstration of Funding Need

Funding for school facilities in Idaho has long been a challenge, with resources proving severely inadequate. Up until 2024, dedicated facilities funding amounted to only about \$100 annually per student enrolled in a school district. These dollars have now been reallocated with the primary purpose of tax relief. To underscore the shortfall in funding for school facilities, since the Great Recession of 2007, districts have received approximately \$1 billion less in discretionary funding compared to levels seen in 2006. This 2024 Legislature has passed, and the Governor has signed, a bill that will provide about \$100 million per year over the next ten years to school districts and charter schools for facility maintenance. This funding source can include all types of maintenance including energy efficiency projects. However, with 116 school districts, 736 schools, and 74 charter schools throughout Idaho, these funds will not cover all the work that is needed. This measure will provide funding specifically for energy efficiency projects. OEMR is set to implement the Idaho K-12 Energy Efficiency Program in the fall 2024 with IJA funding. However, OEMR’s funding is only \$3.4 million and will not cover the great need for Idaho’s schools.

Transformative Impact:

Idaho ranks near the bottom nationally for funding school building maintenance, both in terms of per-student allocation and per-building gross square footage. When compared to neighboring states, Idaho consistently spends the least amount on school buildings. In a recent survey, approximately 50% of the Idaho schools reported initial facility construction prior to 1965. School district administrators, respondents most frequently, self-reported the conditions of their school buildings as “fair”. The recurring “fair” ratings indicated that there would be significant needed maintenance and repairs on the buildings, either presently or in the very near future, to prevent school buildings from degrading into a worse condition over time. The smaller number of buildings rated as “poor” have even more pressing needs, including issues justifying replacement. Of 35.6 million sq/ft of student occupied space involved in the survey over 22 million or 63 percent were reported as either “fair” or “poor”. The study identified an estimated \$847 million dollars required to improve building conditions to a “reasonable” or “good” level as defined in the study (Office of Performance Evaluation 2022).

1.3 Measure 3: Sustainable Land Management Program

This measure is included in Idaho's Priority Plan under the *Support healthy lands through sustainable land management to manage wildfire risk, disease, and pest mitigation* on page 9.

Idaho is including the Sustainable Land Management Program because Idaho's land use, land use change and forests sector is acting as a source of GHG emissions rather than a sink. Idaho is heavily impacted by wildfire every year but in recent years fires have been increasing in frequency and intensity. These large events have lasting negative impacts on the economy, ecosystem resiliency, and public health from smoke impacting surrounding communities. Improving forest and range resilience to wildfire disturbance will provide for long-term storage of carbon and other GHGs in vegetation, a condition that is improved in vigor due to reduced competition from overstock or unmanaged landscapes.

Description of GHG reduction measure:

The Sustainable Land Management Program will implement vegetation management on private and state lands throughout Idaho, excluding Nez Perce Tribe Lands or lands administered by the Nez Perce Tribe, or utilizing a network of local cooperators (e.g. MOU with counties, cities, fire departments), and seasonal staff, who are the direct link to landowners. These groups implement projects that have the greatest impact to reduce wildfire damage to communities and landscapes by connecting project work from current efforts and past endeavors. Cooperators work with private landowners to develop site specific prescriptions such as fuels mitigation to reduce wildfire risk, while improving forest and land health and resiliency to disturbance. Contracted services procured by cooperators will be employed for the implementation of agreed to prescriptions. Eligible projects for this program include, but are not limited to, creation of fuel breaks, forest stand improvement or enhancement, and brush management using hand thinning, mechanical manipulation, plantings, spraying (control regrowth, sprout, or noxious weed), and grazing.

IDL and IDFG will be the lead agencies for this program as they each have programs that address wildfire related risk through sustainable land management and participant education statewide. IDL and IDFG will use established processes and work with their existing network of cooperators to implement projects. All projects will occur on priority landscapes found within the Idaho State Forest Action Plan and Shared Stewardship Initiative. DEQ will collaborate and coordinate with Tribes for any work conducted on Tribal Reservations.

Major features, tasks, and milestones

Planning and Outreach: IDL and IDFG will coordinate and prioritize projects with significant environmental benefits and GHG emission reductions, identify implementing cooperators, and finalize subawards and agreements with cooperators. **(Milestone: Fall 2025)** DEQ, through a contract, will develop a GHG and co-pollutant emission reductions quantification tool. **(Milestone: Summer 2026)**

Implementation: Cooperators will work with landowners, project unit layout, and contracting to treat ¼ of the target acreage goal per year. **(Milestone: Winter 2025-2029)**

Program Monitoring and Evaluation: IDL and IDFG will track location and number of acres and specific treatment implemented, monitor progress of implementation, and evaluate performance of funded projects and submit semi-annual and final reports as required **(Semi-Annually)**.

Underlying assumptions, risks, and mitigation for major features, tasks, and milestones:

This program will utilize the framework of existing state programs for the implementation and treatment of priority areas. This program assumes that the same acreage will be treated each year of the grant. Adverse weather conditions could pose a risk of meeting the total number of acres that get treated within a year. With habitat biologists and cooperators located in every region of the State, it is

possible to have multiple potential project locations prepared for a given season, allowing staff to make changes to the location of those projects depending on local weather conditions. The acreage goal for this measure was set using the expertise from IDFG and IDL to ensure the number of acres was achievable for this kind of risk.

Demonstration of Funding Need

IDL and IDFG work with cooperators throughout the State to achieve deliverables, such as acres of wildfire risk reduction, acres covered by forest stewardship plans, urban forests enhanced or expanded, acres of lands protected from insects, etc. State land management programs have many more asks than current funding can accommodate. Specifically, within the Wildfire Risk Mitigation program IDL is working in 17 counties with requests from another 8 that are unfilled. Within the Landscape Scale Restoration Program project funds allocated to projects are only a fraction of what is needed to create meaningful impact or implementation is cancelled due to lack of funding. Other funding sources available for this work include Forest Service Forestry Fuels Grant, Forest Service Hazardous Fuel Reduction Grant, Idaho Shared Stewardship Initiative and Forest Service Consolidated Payments Grant however even these opportunities do not meet the need.

Transformative Impact

This measure is transformative in the way it works with private landowners statewide to encourage behaviors and treatments to maintain forest and rangeland health. The more Idahoan's can prioritize ways to mitigate unexpected wildfires on the landscape, the more resilient lands will become and return to their natural fire cycle which will result in fewer catastrophic wildfires. Creating healthy lands will help push this sector back to being a carbon sink rather than a source.

1.4 Measure 4: Conservation and Restoration Program

This measure is included in Idaho's priority Plan under the *Support conservation and restoration of Idaho's lands* on page 11.

Idaho is including the Conservation and Restoration Program because it is a priority to protect Idaho's lands that are at risk for conversion to development or degradation. Idaho's land use, land use change, and forestry sector is currently a source of GHG emissions rather than a sink. By prioritizing land or development-rights acquisitions through conservation easements, the land should be able to protect or provide restoration to enhance the carbon sink, ensure climate smart agriculture practices, support practices that reduce the risk of catastrophic wildfire, and prevent land-use changes from development and sustain working lands. This program aligns with the goals of the CPRG program by reducing GHGs in the long term by enhancing and protecting the carbon sink and complementing other funding sources to reduce GHGs by removing barriers to conserve land.

Description of GHG Reduction Measure

The Conservation and Restoration Program supports habitat restoration and conservation to increase carbon sequestration, prevent land degradation, and promote healthy lands across Idaho. This program will include funding to purchase land and due diligence costs to remove barriers for conservation easements for existing land acquisition programs and investing in existing habitat management programs to protect, restore, and ensure management encourages carbon sequestration on prioritized lands, excluding Nez Perce Tribe Lands or lands administered by the Nez Perce Tribe. IDFG and IDL have a strong history of conducting restoration work throughout the State and will leverage programs to bolster restoration activities conducted within the existing Wildlife Habitat Program and Landscape Scale Restoration Program. These programs have robust networks of local cooperators to implement restoration activities that can be leveraged to complete this measure.

The IDFG Lands Program, IDL Legacy Programs, and ICOLT are the primary programs that support land conservation actions through conservation easements. These partners are experienced and active landowners and land managers, and currently own thousands of acres of conservation easements across the State. The Conservation and Restoration Program will fund due diligence activities as well as full purchases of conservation easements. The flexibility of these funds will be particularly important for these actions, as each conservation easement is unique and requires careful cooperation with landowners, and being able to use these funds in whole, in part, or as part of a leveraged deal, will make them incredibly powerful. IDL, IDFG, and ICOLT will ensure success of these activities by maintaining records of total number of acres permanently protected under conservation easements, restoration project acreage, as well as number of plantings (trees, shrubs, forbs) within each project area. DEQ will collaborate and coordinate with Tribes for any work conducted on Tribal Reservations.

Major features, tasks, and milestones

Planning and Outreach: IDL, IDFG, and ICOLT will coordinate and prioritize restoration projects with significant environmental benefits and GHG emission reductions or enhancement of carbon sinks, identify implementing cooperators and finalize sub awards and agreements with cooperators.

(Milestone: Summer 2025)

Implementation: Cooperators will work with landowners, project unit layout, and contracting to conserve and restore $\frac{1}{4}$ of the target acreage goal per year. **(Milestone: Winter-Summer 2025-2029)**

Program Monitoring and Evaluation: IDL, IDFG, and ICOLT will track location, number, and type of acres, restoration activities, acreage conserved monitor progress of implementation, evaluate performance of funded projects, and submit semi-annual and final reports as required. **(Semi-annually)**

Underlying assumptions, risks, and mitigation for major features, tasks, and milestones:

The Conservation and Restoration Program builds on existing programs run by IDL, IDFG, and ICOLT and utilizes their extensive networks of cooperators. This program assumes that the same acreage will be treated each implementing year of the grant. Challenges associated with this measure include the unpredictability of weather conditions and potential impacts on planting and restoration activities. With habitat biologists and cooperators located in every region of the State, it is possible to have multiple potential project locations prepared for a given season, allowing staff to make changes to the location of those restoration projects depending on local weather conditions to mitigate this risk. Challenges and risks with conservation actions associated with this measure include changes in the real estate market that could shift landowner willingness or interest to engage in conservation easements. This risk is somewhat mitigated within the State by the fact that IDL, IDFG, and ICOLT have been working for decades developing relationships with willing and interested landowners and already have projects in the queue to move forward.

Demonstration of Funding Need

IDFG is solely funded by the sale of hunting, fishing, and trapping licenses and excise taxes on outdoor sporting goods. IDFG does not receive any taxpayer funding to conduct annual operations, so available funding for restoration projects is limited to the current revenue stream. These funds are not sufficient to meet the needs to conduct work at a scale large enough to significantly reduce GHG emissions. IDFG's Lands Program recently completed a 10-year agreement with the Bonneville Power Administration that provided millions of dollars in funding to conserve lands across southern Idaho. With this funding source eliminated, IDFG's funding options for conservation easements are severely impacted and the limited dedicated funds available are already obligated through State Fiscal Year 2025. The Conservation and Restoration Program will allow IDFG to continue pursuing conservation easement and other land

conservation projects. Grants may fund the acquisition of an easement, but due diligence costs are excluded from the grant funding and have to be paid for by the landowner. Because of this, large grant opportunities are left unused or are unavailable to land trusts without another source of funding for due diligence. Additional federal and non-federal funding sources, such as The Forest Service Legacy Program, Forest Service Consolidated Payments Grant, and US Fish and Wildlife Service State and Tribal Wildlife grants, have been sought out, but are very limited and not significant enough to make a noticeable change in GHG mitigation.

Transformative Impact:

Conservation easements in Idaho are a unique and powerful land action to prevent degradation of lands and increased GHG emissions by preventing development and land conversions in perpetuity. These actions protect and improve upon existing carbon sinks, all while keeping private lands working for the greater good of the state. By increasing these efforts, the state will shine a light on this conservation strategy and encourage more and more landowners to consider this as an option. This, in turn, will help to scale these efforts and ultimately lead to more GHG emission reductions.

1.5 Measure 5: Waste Diversion Program.

This measure is included in Idaho's Priority Plan under the *Support Diversion of Waste from Landfills* on page 20.

Idaho is including the Waste Diversion Program due to below average diversion rates, financial barriers to diversion, and the transformative impact that waste diversion programs can have on communities. This Program supports the goals of the CPRG program by significantly reducing GHG emissions through waste diversion while providing community benefits such as increased longevity for landfills and lower costs for solid waste management.

Description of GHG reduction measure

DEQ, as the lead agency implementing the Waste Diversion Program, will support the creation and expansion of organics and recyclables diversion from county and municipal waste streams and will coordinate and collaborate with Tribes for services impacting their operations. DEQ will implement a competitive application process and will award funds through sub awards. This program will be accessible to counties, cities, solid waste districts, and partnerships of solid waste management organizations and will be used to support operational and capital expenditures for waste diversion programs. Such expenditures include labor, site acquisition, preparation, and construction costs, and equipment purchases such as dumpsters, grinders, balers, screeners, loaders, and their associated maintenance costs. DEQ will collaborate and coordinate with Tribes for any work conducted on Tribal Reservations.

Major features, tasks, and milestones

Planning and Outreach: DEQ will develop application and scoring criteria with an identified review committee. **(Milestone: Spring 2025)**

Grant Application Period: DEQ will announce application periods and provide outreach for the funding opportunity **(Milestone: July – November 2025)**

Applicant Selection and Awards: DEQ selects and awards funding to applicants selected in consultation with the advisory committee. **(Milestone: January 2026)**

Program Monitoring and Evaluation: DEQ will monitor the progress of recipient projects through quarterly project invoicing and reports that grant recipients submit to DEQ. DEQ will prepare semi-annual reports for EPA detailing project expenditures, waste volumes diverted, project descriptions, future grant activities, and benefits to LIDAC. DEQ will evaluate the environmental impact of funded projects and refines criteria for additional grant opportunities, if appropriate. **(Semi-Annually)**

Underlying assumptions, risks, and mitigation for major features, tasks, and milestones:

DEQ expects to receive applications that support the diversion volume and GHG emission reductions detailed in section 2 below. Staff capacity among local governments is an ongoing risk that could cause interested parties to decline to apply for funding. Price increases and supply chain constraints are a risk to project completion, increases in transportation costs and reductions in commodity prices threaten the ongoing financial sustainability of diversion projects. The likely impact of these risks would be to reduce the overall GHG emission reductions and cost effectiveness of the diversion measures. To mitigate these risks, DEQ has looked at past applications for funding and has developed a program that is conservative based on this data.

Demonstration of Funding Need

Idaho state code places responsibility for managing solid waste operations upon counties, while allowing municipalities to offer additional solid waste services such as curbside pickup and diversion programs. These entities are limited by state law in how much they can raise tipping fees and increase budgets to pay for additional solid waste services. For small communities, large outlays for equipment, land acquisition, and site preparation would quickly overwhelm their budgeting capacity. These up-front expenses are often infeasible for extremely risk averse small local governments, or even disallowable under state code. DEQ has previously sought and received funding to assist with the development and expansion of recycling and composting activities through EPA’s Sustainable Materials Management (SMM) program. However, the SMM funding is not regularly appropriated to DEQ, and has historically been granted in small amounts under \$30,000 per year. Such funding has not been enough to meet the needs of local communities as reflected in the volume of grant applications received.

Transformative Impact:

Idaho has selected to adopt solid waste diversion within this workplan in part due to the low adoption rate for diversion among small, rural, and otherwise disadvantaged communities. Cost is the primary barrier to waste diversion within these communities, many have no diversion or limited programs that only allow for certain materials, such composting programs that only allow yard trimmings. Existing programs often have limited access through reduced hours and place additional burdens upon residents to provide transport. By supporting capital and operational expenditures for diversion projects, DEQ hopes to substantially increase the long-term diversion of municipal solid waste by reducing barriers to diversion through new programs, improved access, and expanded materials selection.

2 IMPACT OF GHG REDUCTION MEASURES OPTION

Idaho is proposing to implement 5 measures with the CPRG funding that will result in an estimated 1,330,454 MT CO₂e from 2025-2030 with an overall cost effectiveness of \$74.95/MT CO₂e reduced through 2030. This represents about 4% of Idaho’s total GHG emissions in 2021. Detailed calculations for emission reductions, costs, and assumptions for measures can be found in the Technical Appendix, GHG emission reduction calculations spreadsheet, and budget narrative.

2.1 Magnitude of potential GHG reductions 2025-2030:

Table 1. GHG emission reductions for 2025-2030 for each measure and total.

Measure	2025-2030 Reductions MT CO₂e	Comments
Sustainable Agriculture Program	1,150,207	AOFE Program: 1,087,158 MTCO ₂ e <ul style="list-style-type: none">• Applicants that install anaerobic digesters are eligible for a 30% tax credit.• Assume funding from grant \$22,410,939 (60%), from applicant \$14,940,626 (40%), and \$5,365,526 from tax credits for a total program cost of \$42,717,091.

Measure	2025-2030 Reductions MT CO ₂ e	Comments
		<ul style="list-style-type: none"> Credit for 87% of emissions to account for tax credit. Healthy Soils Program: 63,048 MT CO ₂ e
Idaho K-12 Energy Efficiency Program	50,792	Upgrades in efficiency and replacing coal furnaces will make immediate GHG emission reductions.
Sustainable Land Management Program	16,457	Reducing the risk of wildfire reduces the amount of GHG emissions released into the atmosphere from wildfire smoke.
Conservation and Restoration Program	3,449	<ul style="list-style-type: none"> Takes credit for 10% of emissions to account for funds being used for due diligence where other fundings is used to purchase easement as described in Table 4 below. If 100% of the emissions were counted, the resulting emissions reduced would be 10,601 MTCO₂e for 2025-2030. Due diligence funding is a huge bottleneck for conservation easement projects and many projects that have other funding, or are donated, are held up because there aren't sufficient funds to do the due diligence work. Lack of funding for due diligence at the beginning of a project often time means the project never gets started. In some cases, land may be completely donated, and due diligence funding would account for 100% of the acres conserved.
Waste Diversion Program	109,550	Enhanced recycling and composting programs will reduce GHG
Total	1,330,454	

2.2 Magnitude of potential GHG reduced 2025-2050:

Table 2. GHG emission reductions for 2025-2050 for each measure and total.

Measure	2025-2050 Reductions MT CO ₂ e	Durability of Measure
Sustainable Agriculture Program	6,297,264	<ul style="list-style-type: none"> AOFE Program: 6,697,333 MTCO₂e Healthy Soils Program: 378,290 MT CO₂e The cost savings, soil health and yield improvements should encourage producers to continue these activities in the future when the incentives end.
Idaho K-12 Energy Efficiency Program	223,739	Upgrading schools will have a lasting impact on GHG emission reductions for the life of the unit, until it is replaced.
Sustainable Land Management Program	98,742	<ul style="list-style-type: none"> Reducing the risk of wildfire reduces the amount of GHG emissions released into the atmosphere from wildfire smoke. Improving ecosystem health improves the ability for the land to sequester carbon as it should have lasting impacts on long-term reductions.
Conservation and Restoration Program	20,692	<ul style="list-style-type: none"> Takes credit for 10% of emissions to account for funds being used for due diligence where other fundings is used to purchase easement as described in Table 4 below. If 100% of the emissions were counted, the resulting emissions reduced would be 63,660 MTCO₂e for 2025-2050.
Waste Diversion Program	109,550	Though DEQ expects that projects will continue beyond the five-year grant period, we are not including GHG emission reductions beyond the end of 2029 due to uncertainty about how reductions in funding would impact operations and diversion volumes.
Total	6,749,988	

2.3 Cost effectiveness of GHG reductions:

The cost effectiveness shown below is calculated as the aggregate cost effectiveness for the entire measure. Factors that could affect this number include the types and quantity of practices awarded,

implementation timing, new technologies, market fluctuations that affect the price of materials and commodities.

Table 3. Cost effectiveness for 2025-2030 emissions reductions for each measure and total.

Measure	2025-2030 Cost Effectiveness \$/MT CO ₂ e	Comments
Sustainable Agriculture Program	24.28	AOFE Program: \$24.28/MTCO ₂ e Healthy Soils Program: \$259.37/MTCO ₂ e Factors that could affect this number could include the types and quantity of practices awarded, implementation timing, new technologies, market fluctuations that affect the price of materials and commodities
Idaho K-12 Energy Efficiency Program	296.11	The cost effectiveness can vary depending on the complexity of the upgrade and the age of the school. There may be unforeseen costs associated with older buildings.
Sustainable Land Management Program	1,368.95	The proportion of which treatments are applied to the acreage could impact the cost effectiveness of this measure. There may be circumstances where the predicted treatment would not be possible and that could alter the emission reductions and cost effectiveness.
Conservation and Restoration Program	3,507.68	This assumes 10% of emissions to account for funds being used for due diligence where other fundings is used to purchase easement as described in Table 4 below. The cost effectiveness could be vastly improved if 100% of the GHG emission reductions for the entire acreage that was conserved as a result of due diligence funding were counted in the total. If 100% of the emissions were counted, the resulting cost effectiveness would be \$446.93/ton.
Waste Diversion Program	66.64	The cost effectiveness could change with changing labor, equipment, or land prices.
Total	74.95	

2.4 Documentation of GHG assumptions:

Table 4. Key assumptions for GHG emission reductions calculations for each measure.

Measure	Key Assumptions
Sustainable Agriculture Program	<p><i>AOFE Program:</i></p> <ul style="list-style-type: none"> Activity data was developed from assumed funding from grant \$22,410,939 (60%), from applicant \$14,940,626 (40%), and \$5,365,526 from tax credits for anaerobic digestors for a total program cost of \$42,717,091. Cost per activity is included in the technical appendix and GHG emission reduction calculations spreadsheet. <ul style="list-style-type: none"> 115,000 cows for manure management with 6 strategies equally distributed and implemented in 2026 and 2027; 38,000 cows for enteric fermentation; and 555 irrigation pumps. <p><i>Healthy Soils Program:</i></p> <ul style="list-style-type: none"> 35,000 total acres of cropland will adopt climate smart agricultural practices. Fertilizer Management (15,000 acres), No till or Till Reduction (5,000 acres), Grazing Management (5,000 acres), Adding Cover Crop (10,000 acres). 20% of the acreage will be implemented annually from 2025-2029
Idaho K-12 Energy Efficiency Program	<ul style="list-style-type: none"> Assumes an average of 77 school buildings will receive efficiency upgrades Assumes a prioritization of coal fire boiler replacements Assumes all projects implemented 2026-2027
Sustainable Land Management Program	<ul style="list-style-type: none"> Assumes each of the 11,629 acres is treated with natural forest management, fire management and improved plantations treatments implemented equally from 2025-2029.

Measure	Key Assumptions
Conservation and Restoration Program	<ul style="list-style-type: none"> Assumes 1,366 acres will be restored and 18,634 total acres is conserved 2026-2029 Only 4,563 acres are used in the quantifications because only 10% (1,564 acres out of 15,364 acres) of the acreage conserved from due diligence funding alone can be counted if there is other funding that funds the easement itself. Assumes 1,369 total acres are restored (500 rangeland, 500 forest, 366 riparian) Assumes acreage is implemented evenly from 2025-2029.
Waste Diversion Program	<ul style="list-style-type: none"> EPA's WARM model, as well as capital and operational expenditures from local recycling and diversion programs and other national and international expense estimates for composting and recycling programs were used in these calculations. estimated 14,000 short tons of waste diverted per year totaling 70,000 tons of total waste diverted 2025-2029

3 ENVIRONMENTAL RESULTS – OUTPUTS, OUTCOMES, AND PERFORMANCE MEASURES

3.1 Expected Outputs and Outcomes

The outputs and outcomes for each of the 5 measures are listed in **Table 5** below. Outputs will be integrated into the existing performance measure tracking process and semi-annual and final reports will be completed and internally reviewed.

Table 5. Outputs and outcomes by measure.

Outputs	Outcomes
Measure 1.1 Sustainable Animal Operations and Farm Efficiency Grant	
<ul style="list-style-type: none"> Implementing manure management strategies to 115,000 head of cows Implementing nutrient management strategies to 25,000 cows to address emissions from enteric fermentation Replace 555 irrigation pumps to improve energy efficiency 	<ul style="list-style-type: none"> Emission reductions <ul style="list-style-type: none"> 1,087,158 MT CO₂e by 2030 5,918,973 MT CO₂e by 2050 42,554 MT NH₃ 43 MT NO_x 5 MT PM_{2.5} 23 MT SO₂ Improved odors, air, water, and soil quality
Measure 1.2 Soil Health Producer Incentives	
<ul style="list-style-type: none"> Implement climate smart agriculture practices on 35,000 acres (15,000 fertilizer management, 5,000 no-till or till reduction, 5,000 grazing management, 10,000 adding crop cover) 	<ul style="list-style-type: none"> Emission reductions <ul style="list-style-type: none"> 63,048 MT CO₂e by 2030 378,290 MT CO₂e by 2050 613 MT NH₃ 87 MT NO_x 47 MT PM_{2.5}
Measure 2 Idaho K-12 Energy Efficiency Program	
<ul style="list-style-type: none"> Electricity Energy Efficiency on 82 schools HVAC fuel energy efficiency on 82 buildings Replace 12 coal boilers with electric heat pumps Replace 61 propane furnaces with electric heat pumps. Add weatherization at 72 buildings 	<ul style="list-style-type: none"> Emission reductions <ul style="list-style-type: none"> 50,792 MT CO₂e by 2030 223,739 MT CO₂e by 2050 863 MT SO₂ 7,094 MT NO_x 24 MT PM_{2.5} 3,837 MT CO
Measure 3: Sustainable Land Management to mitigate fire risk	
<ul style="list-style-type: none"> Implement natural forest management, fire management, and improved plantations on 11,629 acres statewide 	<ul style="list-style-type: none"> Emission reductions <ul style="list-style-type: none"> 16,457 MT CO₂e by 2030 98,742 MT CO₂e by 2030
Measure 4: Conservation and Restoration	
<ul style="list-style-type: none"> Restore 1,366 acres of rangeland, forestland, and riparian land by 2030 Conserve 18,634 acres of range, forest, riparian, wetland, and agriculture land through easements 	<ul style="list-style-type: none"> Emission reductions <ul style="list-style-type: none"> 3,449 MT CO₂e by 2030 20,692 MT CO₂e by 2030 7 MT SO₂

Outputs	Outcomes
	<ul style="list-style-type: none"> ○ 25 MT NO_x ○ 13 MT PM_{2.5} ○ Conserved lands exist in perpetuity. ○ Establishing a conservation easement removes the risk for the land being developed in the future. In addition, Idaho will see continued enhancement of carbon with increasing land health and conservation.
Measure 5: Waste Diversion	
<ul style="list-style-type: none"> ● Divert 35,000 short tons of organic waste from landfills to composting. ● Divert 35,000 short tons of recyclable materials from landfills. 	<ul style="list-style-type: none"> ● Emission reductions <ul style="list-style-type: none"> ○ 109,550 MT CO₂e by 2030 ○ 109,550 MT CO₂e by 2050 ● Reductions of environmental degradation by minimizing the need for additional landfill space, preventing soil contamination, and decreasing water pollution. ● It also reduces the need for incineration, further protecting the atmosphere and public health by other criteria and hazardous air pollutants being released.

3.2 Performance Measures and Plan

As the lead for the Gem State Air Quality Initiative, DEQ will conduct oversight of all measures. DEQ will do the following:

- Meet quarterly with all sub awardees to review progress and identify any improvements needed. This will ensure that all funds are being spent in accordance with the grant and are on track to completing all the work as agreed.
- Conduct semi-annual site visits to project locations to ensure projects are being completed in compliance with all grant requirements.
- Track and report project progress on all fiscal activities, including expenditures and purchases, through the semi-annual report process.
- Conduct oversight of all Participant Support Cost Agreements and sub awardees in accordance with DEQ contract policies.
- Review and report on actual project accomplishments and compare them to the proposed outputs/outcomes during the semi-annual reporting process.

Performance measures and plans specific to each measure are listed in **Table 6** below.

Table 6. Performance measures and plan for each measure.

Performance Measure	Performance Plan
Measure 1.1: Sustainable Animal Operations and Farm Efficiency Program	
<p>For each awarded project DEQ will:</p> <ul style="list-style-type: none"> ● Estimate GHG and co-pollutant emission reductions using a DEQ developed quantification tool that is tailored to Idaho. ● Track location, project type, # of head impacted, GHG and co-pollutant emission reductions, and other project specific data. ● Track the adoption rate of new manure management technologies implemented, energy production from biogas projects, improvements in soil, air, and water quality ● Track stakeholder engagement and satisfaction ● Conduct semi-annual visits to project locations. 	<p>DEQ will determine total funding spent, GHG and co-pollutant emission reductions, and other co-benefits within LIDAC.</p> <p>DEQ will track progress toward total GHG and co-pollutant emission reductions statewide.</p> <p>DEQ will evaluate stakeholder engagement and satisfaction to determine long term durability of the practice implemented.</p> <p>DEQ will ensure each awarded project is complying with grant and participant support cost agreement requirements, on schedule, and will result in the estimated GHG emission reductions.</p>
Measure 1.2: Healthy Soils Program	
<p>DEQ will:</p> <ul style="list-style-type: none"> ● meet quarterly with the University of Idaho 	<p>DEQ will use quarterly meetings and semi-annual project site visits to evaluate progress and ensure the program is</p>

Performance Measure	Performance Plan
<ul style="list-style-type: none"> conduct site visits to project locations semi-annually. University of Idaho will: track location, # of acres, funding provided, and practices implemented. ensure awardees take soil and plant samples annually to assess fertility and nutrient-use efficiency and incorporate it into COMET-Farm model. conduct direct measurement of GHG for key practices and commodities not directly addressed in the IAMP project at one research and extension station as well as up to four demonstration farms using a mobile LiCOR chamber system. use the existing financial team to oversee the subawards to implementing partners in accordance with UI policies. 	<p>complying with all grant requirements, on schedule, and will result in the estimated GHG emission reductions.</p> <p>University of Idaho will incorporate this data into the COMET-Farm model and other advanced cropping carbon models (e.g. CropSyst) to provide confident prediction of impacts of practices on GHG and soil carbon change</p> <p>University of Idaho will incorporate this data to validate and improve the performance of COMET-Farm</p> <p>This will be used to track total funding spent, GHG and co-pollutant emission reductions, and other co-benefits within LIDAC.</p>
Measure 2 Idaho K-12 Energy Efficiency Program	
<p>DEQ will</p> <ul style="list-style-type: none"> Meet quarterly with ISDE Conduct site visits to project locations semi-annually <p>ISDE will: For each awarded project Idaho State Department of Education, with assistance from DEQ, will:</p> <ul style="list-style-type: none"> Estimate GHG and co-pollutant emission reductions using the Use the ENERGY START Portfolio Manager building Emissions Calculator to estimate GHG emission reductions or another Idaho specific tool. Track location, project type, GHG and co-pollutant emission reductions, and other project specific data that impacts emission reductions. 	<p>DEQ will use quarterly meetings and semi-annual project site visits to evaluate progress and ensure the program is complying with all grant requirements, on schedule, and will result in the estimated GHG emission reductions.</p> <p>DEQ will determine total funding spent, GHG and co-pollutant emission reductions, and other co-benefits within LIDAC.</p> <p>DEQ will track progress toward total GHG and co-pollutant emission reductions statewide.</p>
Measure 3: Sustainable Land Management to mitigate fire risk	
<p>DEQ will</p> <ul style="list-style-type: none"> Meet quarterly with the IDL and IDFG. conduct site visits to project locations semi-annually. <p>IDL and IDFG will</p> <ul style="list-style-type: none"> Track location, total number acres, funding provided, and practices implemented. Estimate GHG and co-pollutant emission reductions using the quantification tool developed through a contract. 	<p>DEQ will use quarterly meetings and semi-annual project site visits to evaluate progress and ensure the program is complying with all grant requirements, on schedule, and will result in the estimated GHG emission reductions.</p> <p>Measures will be used to track total funding spent, GHG and co-pollutant emission reductions, and other co-benefits within LIDAC.</p>
Measure 4: Conservation and Restoration	
<p>DEQ will</p> <ul style="list-style-type: none"> Meet quarterly with the IDL, IDFG, and ICOLT. conduct site visits to project locations semi-annually. <p>IDL, IDFG, and ICOLT will:</p> <ul style="list-style-type: none"> track type of project, location, total number of acres restored, number and type of plantings, type of land, funding, and other project specifics that impact GHG and co-pollutant emission reductions. estimate GHG and co-pollutant emission reductions using the quantification tool developed through a contract. 	<p>DEQ will use quarterly meetings and semi-annual project site visits to evaluate progress and ensure the program is complying with all grant requirements, on schedule, and will result in the estimated GHG emission reductions.</p> <p>DEQ, IDL, and IDFG will use this data to track total funding spent, GHG and co-pollutant emission reductions, and other co-benefits within LIDAC.</p> <p>DEQ, IDL, and IDFG will monitor annual milestones based on the total acreage goals to ensure that the agency stays on track to meet the overall goals of this measure.</p>
Measure 5: Waste Diversion Program	
<p>For each awarded project DEQ will:</p> <ul style="list-style-type: none"> Estimate GHG and co-pollutant emission reductions using EPA's WARM model 	<p>DEQ will track total funding spent, GHG and co-pollutant emission reductions, and other co-benefits within LIDAC.</p>

Performance Measure	Performance Plan
<ul style="list-style-type: none"> Track location, project type, # of head impacted, GHG and co-pollutant emission reductions, and other project specific data. Track tons of recyclable and compostable material diverted annually Cost per metric ton of CO2 reduced for the period 2025-2030 for each funded project Conduct semi-annual visits to project locations. Number of jobs created with grant funding 	<p>DEQ will track progress toward total GHG and co-pollutant emission reductions statewide.</p> <p>DEQ will monitor the progress of these expected performance measures through quarterly invoicing and reports submitted by grant recipients to DEQ</p> <p>DEQ will ensure each awarded project is complying with grant and participant support cost agreement requirements, on schedule, and will result in the estimated GHG emission reductions.</p>

3.3 Authorities, Implementation Timeline, and Milestones

Table 7. Authorities and roles and responsibilities for overall grant and each measure.

Entity	Authorities	Roles and Responsibilities
Overall, Grant Management		
DEQ	Idaho Code 39-105 provides DEQ with the authority to: <ul style="list-style-type: none"> apply for and utilize federal grants for the purposes of health and environmental protection; and enter into contracts and agreements with any public agency and private party. 	Act as the lead agency and is responsible for the following: <ul style="list-style-type: none"> Develop, issue, and track sub awards to UI, ISDE, IDL, IDFG, and ICOLT Develop and manage contract for Amplifund software support. Track overall schedule and budget. Develop and submit semi-annual report and final report as required by grant.
Measure 1.1: Animal Production and Farm Efficiency Program		
DEQ	See above under Overall Grant Management	Act as the lead for this program and is responsible for the following: <ul style="list-style-type: none"> Develop applications, participant support cost agreements, tracking and reporting tools Develop and manage contract for the development of the GHG and co-pollutant emission reductions quantification tool. Track information listed as an output in Table 5 above. Estimate GHG and co-pollutant emission reductions
Contractor	Not Applicable	Develop spreadsheet quantification tool to estimate GHG and co-pollutant emission reductions by project.
Measure 1.2: Healthy Soils Program		
DEQ	See above under Overall Grant Management	Develop, issue, and manage sub award to University of Idaho and is responsible for ensuring all work and expenses comply with all requirements of the sub award.
University of Idaho	ISBOE policy, Section III (J) gives the University the authority to establish policies for the review and administration of grants and contracts.	Act as the lead for the Healthy Soils Program and is responsible for the following: <ul style="list-style-type: none"> Administer the program and issue subawards for implementation. Track project progress and information listed as an output in Table 5 above. Quantify GHG reductions and implementation efficacy and co-pollutant reductions.
Measure 2 Idaho K-12 Energy Efficiency Program		
DEQ	See above under Overall Grant Management	Develop, issue, and manage sub award to ISDE and is responsible for ensuring all work and expenses comply with all requirements of the sub award.
ISDE	As an executive agency under the State Board of Education, Idaho Code 33-110 provides ISDE with	Act as the lead for this program and is responsible for the following:

Entity	Authorities	Roles and Responsibilities
	the authority to apply for and utilize federal grants.	<ul style="list-style-type: none"> • Develop applications, participant support cost agreements, tracking and reporting tools • Develop and manage contract for the development of the GHG and co-pollutant emission reductions quantification tool. • Track information listed as an output in Table 5 above. • Estimate GHG and co-pollutant emission reductions
Measure 3: Sustainable Land Management to mitigate fire risk		
DEQ	See above under Overall Grant Management	Develop, issue, and manage sub awards to IDL and IDFG and is responsible for ensuring all work and expenses comply with all requirements of the sub award.
IDL	Idaho Code 58-104.5 provides IDL with the authority to implement this measure, specifically to determine the policy, direct the work to be undertaken, solicit bids, contract for work to be performed, and appropriate from its funds the money necessary to carry out such work.	Sub award for the Sustainable Land Management Program <ul style="list-style-type: none"> • Manage agreements with cooperators and implementing partners • Oversee implementation of IDL sustainable land management treatments • Track information listed as an output in Table 5 above
IDFG	The Idaho Fish and Game Commission administers state wildlife policy through IDFG, including land acquisition and management for the purposes of game, bird, fish, or fur-bearing animal restoration, propagation, or protection; and for public hunting, fishing, or trapping areas to provide places where the public may fish, hunt, or trap (Idaho Code 36-104 (b)9).	Subaward for the Sustainable Land Management Program <ul style="list-style-type: none"> • Manage agreements with cooperators and implementing partners • Oversee implementation of IDFG sustainable land management treatments • Track information listed as an output in Table 5 above
Contractor	Not applicable	
Measure 4: Conservation and Restoration		
DEQ	See above under Overall Grant Management	Develop, issue, and manage sub awards to IDL, IDFG, and ICOLT and is responsible for ensuring all work and expenses comply with all requirements of the sub award.
IDL	See Above under Measure 3	Sub award for the Conservation and Restoration Program <ul style="list-style-type: none"> • Manage agreements with cooperators and implementing partners • Oversee implementation of IDL conservation and restoration projects • Track information listed as an output in Table 5 above
IDFG	See Above under Measure 3	<ul style="list-style-type: none"> • Subaward for the Conservation and Restoration Program • Oversee implementation of IDFG conservation and restoration projects • Track information listed as an output in Table 5 above • Work with DEQ to quantify GHG emission reductions
ICOLT	Article VIII of the Bylaws provides ICOLT with the authority to enter into contracts to carry out the purpose of ICOLT.	Sub award for the Sustainable Land Management Program <ul style="list-style-type: none"> • Work with member land trusts and landowners and organize due diligence for conservation projects • Oversee implementation of ICOLT conservation easements • Track information listed as an output in Table 5 above
Contractor	Not applicable	Develop quantification tool for estimating GHG reductions
Measure 5: Waste Diversion Program		
DEQ	See above under Overall Grant Management	Act as the lead for this program and is responsible for the following:

Entity	Authorities	Roles and Responsibilities
		<ul style="list-style-type: none"> Develop applications, participant support cost agreements, tracking and reporting tools Develop and manage contract for the development of the GHG and co-pollutant emission reductions quantification tool. Track information listed as an output in Table 5 above. Estimate GHG and co-pollutant emission reductions

Table 8. Timeline for overall grant and each measure.

Measure/ Task		2024	2025				2026				2027				2028				2029				
		O-D	J-M	A-J	J-S	O-D	J-M	A-J	J-S	O-D	J-M	A-J	J-S	O-D	J-M	A-J	J-S	O-D	J-M	A-J	J-S	O-D	
General	Funding Awarded 10/2024																						
	Spending Authority Approval																						
	EPA Progress Reporting																						
	Final Report																						
Animal Operations & Farm efficiency	Planning and Outreach																						
	Grant Application Period																						
	Award Selection																						
	Award projects																						
	Implementation & Support																						
	Monitoring and Evaluation																						
Healthy Soils	Finalize sub award to U of I																						
	Planning and Outreach																						
	Grant Application Period																						
	Funding Allocation																						
	Implementation																						
	Training and Support																						
K-12 Energy Efficiency	Monitoring and Evaluation																						
	Finalize sub award to ISDE																						
	Planning and Outreach																						
	Grant Application Period																						
	Funding Allocation																						
	Implementation																						
Sustainable Land Management	Training and Support																						
	Monitoring and Evaluation																						
	Sub award to IDL and IDFG																						
	Planning and Outreach																						
Conservation and Restoration	Implementation																						
	Monitoring and Evaluation																						
	Subaward (IDL, IDFG, ICOLT)																						
	Planning (restoration)																						
	Implementation (restoration)																						
	Planning (conservation)																						
Waste Diversion	Implementation (conserv.)																						
	Monitoring and Evaluation																						
	Planning and Outreach																						
	Grant Application Period																						
	Funding Allocation																						
	Implementation																						
Waste Diversion	Training and Support																						
	Monitoring and Evaluation																						

4 LOW-INCOME AND DISADVANTAGED COMMUNITIES

4.1 Community Benefits

DEQ expects that at least 40% of the benefits from the implementation of all measures will benefit LIDAC as defined in the notice of funding opportunity. DEQ is strategically prioritizing funding for those communities using competitive application process scoring criteria to allocate a percentage of total available points for positive impact to these communities, directly implementing projects within these areas or indirectly receiving benefits from the funded measures. DEQ has identified numerous census tracts that meet the definition of disadvantaged in EPA IRA disadvantaged communities map layer which are located within communities that would be classified as low-income or disadvantaged (See LIDAC Census Block Group Spreadsheet for details).

Sustainable Agriculture Program: Half of all land in Idaho is rural and 78% of that is considered LIDAC. Of all of Idaho's agricultural land, 67% of the acreage is considered LIDAC. Both components of the Sustainable Agriculture Program benefit rural Idaho. DEQ will prioritize at least 40% of benefits seen from the funding of this Program directly or indirectly benefiting these communities. Many Idaho farmers and agricultural activities and land reside in rural LIDAC areas. Over 50% of all dairies and 74% of all feedlots fall within LIDAC. Some LIDAC areas would include, but not limited to Custer, Idaho, Washington, Camas, Elmore, Lincoln, Butte, and Clark Counties. See attachment of LIDAC Census block IDs for agricultural lands that overlap with LIDACs in GIS.

Idaho K-12 Energy Efficiency Program: Upgrading Idaho's K-12 School HVAC and building efficiency will have a huge impact on communities, 56% of which are LIDAC. This program will work to provide funding to schools in LIDAC while emphasizing energy efficiency improvements and GHG emission reductions. The health impacts of these upgrades will impact communities because school buildings are also used as community spaces for events. See the attached spreadsheet for schools within EPA defined LIDAC areas using GIS, such as Lemhi, Bannock, Clark, and Jerome Counties.

Sustainable Land Management Program: 74% of the forested land in Idaho Falls is in LIDACs. The avoidance of catastrophic wildfire by land treatments and land health improvements will have huge impacts on surrounding communities reducing smoke pollution, damage to property, economy disruptions, and negative health impacts. See the attached spreadsheet for GIS overlap of forest and rangeland that intersect with EPA defined LIDAC areas.

Conservation and Restoration Program: Many acres that are going to be targeted for conservation and restoration in this measure fall within LIDAC. Improving habitat quality would have benefits to water, soil, and air quality to surrounding areas. These measures also avoid co-pollutants emitted from land use change. See the attached spreadsheet for GIS overlap of different land types that intersect with EPA defined LIDAC areas.

Waste Diversion Program: DEQ expects that approximately 40% of the funding from the competitive grant program will benefit LIDAC as defined in the notice of funding availability. DEQ is strategically prioritizing funding for those communities which have limited or no diversion programs. DEQ will structure the grant scoring criteria to allocate 20% of total available points for positive impact to LIDAC low income and disadvantaged communities. DEQ has identified numerous LIDAC which have previously received or applied for assistance with SMM diversion projects, including census tracts in Bannock, Bingham, Canyon, and Nez Perce Counties. See attached spreadsheet for landfills that overlap with LIDAC areas in GIS.

Direct and indirect benefits of these measures include:

- Reduced fertilizer use and nutrient runoff resulting in improved water quality from sustainable agricultural practices
- Reduced odors from enhanced nutrient management in agricultural systems
- Improved soil and plant health that increase crop resilience
- Improved public health resulting from reductions in co-pollutants
- Improved indoor air quality from enhanced filtration
- Reduced energy costs for schools
- Reducing smoke pollution, damage to property, economy disruptions, and negative health impacts from avoided catastrophic fires
- Direct and indirect benefits from mitigating climate impacts (e.g., reduced risk of wildfires, drought, extreme weather events)
- Increase in available jobs (157 estimated)
- Reductions in co-pollutants (Table 9))
- Prolonging lifetime of landfills and reduced odors to surrounding communities
- Reductions in emissions from building development and land conversion
- Increased resilience to changing climate

Idaho expects to see several reductions in co-pollutants as result of our proposed measures, in addition to GHG reduced as shown in **Table 9** below. During the monitoring and evaluation feature of each measure DEQ will record and compile a report on the following:

- Specific LIDAC location of the measure and project
- Estimated co-pollutant, GHG, other environmental benefits as a result of the awarded measures
- The proportion of benefits expected to accrue in the identified communities as compared to the total benefits resulting from the GHG emission reduction measures
- Meaningful engagement activities

Table 9. Co-benefits for low-income and disadvantaged communities.

NH3	NOx	PM2.5	SO2	CO	VOC	Workforce Impacts for LIDAC
(MT)	(MT)	(MT)	(MT)	(MT)	(MT)	(direct job/years created)
15,951	2,572	35	354	1,346	-1	157

4.2 Community Engagement

The University of Idaho McClure Center on Public Policy and Research, in coordination with DEQ, led public and community engagement for Idaho’s priority plan development. Idaho held a kickoff meeting to solicit project ideas. Idaho received over 250 ideas across all sectors. DEQ identified stakeholders and worked with agencies and nonprofit organizations to select the measures being proposed in this application. In addition, ISDE engaged with school districts specifically to assess the current building needs for this program.

DEQ will publicly announce the receipt of this grant award along with an engagement strategy which will promote the use of a wide variety of techniques to create early, frequent, and continuing opportunities for community engagement. Additionally, each of the measures has an outreach component to solicit community and stakeholder feedback for the eligible practices, upgrades, or technologies that would address the needs and fit of the identified community.

Furthermore, DEQ will utilize its stakeholders to provide outreach for upcoming funding opportunities from the CPRG grant. DEQ will also provide feedback to the funded applicants throughout the funding period. Most of the described measures will work directly with grant recipients such as small dairies, farmers, landowners, and school districts to ensure the success of the measure.

5 JOB QUALITY

Idaho Workforce Development Council was established in 2017 with the goals of increasing public awareness of and access to career education and training opportunities; improving the effectiveness, quality, and coordination of programs and services designed to maintain a highly skilled workforce; and providing for the most efficient use of federal, state, and local workforce development resources. DEQ, IDL, IDFG, and ISDE will work with this council for any workforce development needs associated with these measures.

Using the attached GHG emission reduction calculations spreadsheet and assumptions documented in the attached Technical Appendix, DEQ estimates 392 jobs will be created through the investment in the measures included in this workplan.

- Sustainable Agriculture Program-293 jobs
- Idaho K-12 Energy Efficiency Program- 47 jobs
- Sustainable Land Management Program- 32
- Conservation and Restoration Program- 5
- Waste Diversion Program- 14

6 PROGRAMMATIC CAPABILITY AND PAST PERFORMANCE

6.1 Past Performance

The following is a list of five EPA-funded assistance agreements DEQ has completed (or is in the process of completing) during the last 3 years. All projects have been successfully managed with work products and activities completed to date. All reporting requirements have been met and reports discussing outcomes and outputs have been submitted and accepted.

Table 10. Summary of five EPA funded assistance agreements.

Project Title	Assistance Agreement Number	Federal funding agency and assistance listing #	Brief description of the agreement	Contact from funding organization
PM2.5 Air Monitoring Project	PM-01J71901	66.034	This recurring grant funds the continued operation and maintenance of the PM _{2.5} monitoring network in Idaho through March 31, 2025.	Christina Miller
Clean Diesel Funding Assistance Program FY20	DE-01J85201	66.040	This grant funds the replacement of 26 vehicles including school buses, logging trucks, and delivery trucks with new, cleaner vehicles.	Rebecca Derr
State Clean Diesel Program FY20	DS-01J84001	66.040	This grant funds the replacement of 6 school buses with new, cleaner school buses.	Rebecca Derr
West Silver Valley Targeted Air-Shed Project	EM-01J11801	66.202	This grant funded several projects including woodstove changeouts, home weatherization, environmental curriculum for K-12 schools, and public outreach and education in the West Silver Valley to improve air quality and reduce PM2.5 to ensure the area attained the NAAQS.	John Chi

Logan UT/ID Cache Valley Targeted Air-Shed Project	EM-01J30201	66.202	This grant funded several projects including wood stove changeouts, home weatherization, infrastructure and vehicles for county, installation of Stage I Vapor Recovery in gas stations, and the purchase of buses in the Idaho side of the Cache Valley to improve air quality and reduce PM2.5 to ensure the area attained the NAAQS.	John Chi
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6.2 Reporting Requirements

All financial and programmatic reporting requirements have been met for the assistance agreements listed in Section 7.1. Quarterly reports are submitted 30 days after the end of the report quarter, annual reports are submitted within 30 days after the end of the first and subsequent 12-month periods, and final reports are submitted within 120 days of the end of the grant period, or as required per the specific agreements. All reports noted above were submitted on time and accepted by EPA. All reports include a planned versus actual component reflecting the progress in achieving outputs, outcomes, performance measures, deliverables, and any other requirements that are included in the agreed upon work plan. Grant/cooperative agreements often contain technical reports as deliverables. These reports are prepared in accordance with scientific standards, DEQ’s quality guidance document, and EPA’s requirements.

6.3 Staff Expertise

DEQ and the Air Quality Division; as well as IDL, IDFG, ISDE, ICOLT, and UI; have extensive experience managing grants and implementing projects similar to the ones included in this workplan. Key DEQ staff include the following:

Mary Anderson, Air Quality Planning Bureau Chief: Mary will act as the Project Officer for this grant. She has been with DEQ for 24 years, in the Bureau Chief position for the last 8 years and is a Certified Public Manager. She has acted as the Air Quality Division for the successful implementation of both Targeted Airshed Projects listed in **Table 10** above as well as other air quality planning related grants. Mary regularly manages projects that require close coordination with other Idaho agencies and Universities.

Aislinn Johns, Rules and Planning Supervisor: has 6 years’ experience managing state plans and meeting federal requirements and will be responsible for assisting with managing the overall grants as well as providing technical training and support to new staff as well as the partners implementing the measures. Aislinn’s strong scientific and technical skills that will be critical to ensure outcomes will be achieved.

Becky Alt, Grants and Contracts Officer: Becky will act as the Grants Officer for this grant. Becky has been a Grants Officer for 16 years, 14 years with Alaska Dept of Fish and Game, Commercial Fisheries Division, and 2 years with DEQ supporting the Air Quality Division. She has extensive experience in grants management and administers all phases of Federal awards. She works directly with the Federal Program Officers as the liaison between the State and Federal agencies.

Heather Hodges, Budget Analyst: Heather Hodges brings over 18 years of extensive accounting experience and holds an MBA qualification. In her current capacity as the budget analyst at DEQ for over two years, she demonstrates adeptness in financial management and analysis.

Rob Sepich, Chief Financial Officer: Rob Sepich, serving as the CFO, leverages his finance background and nearly a decade of experience, including a previous role as a Legislative Service Office analyst for DEQ. His expertise in financial analytics contributes significantly to strategic decision-making and fiscal responsibility within the organization.

Jeri Ann Fogg, Grants Accounting Manager: boasts over a decade of dedicated service to DEQ, specializing in grants management, financial reporting, and distribution oversight.

Ben Jarvis, Solid Waste Compliance Coordinator: Ben Jarvis has been with DEQ for 13 years. He will be responsible for managing the waste diversion portion of the proposal for DEQ. Ben has more than 12 years of experience managing and reporting on federal grants and state subawards, including EPA Pollution Prevention grants and DEQ’s SMM grant program.

IDFG was established in 1938 and has a strong history of conducting restoration work throughout the State. IDFG is an experienced and active landowner and land manager, and currently owns thousands of acres of conservation easements across the State. DFG has a robust Habitat Program staff to implement these activities and/or manage contracts this work.

IDL was established in 1919 and is an experienced land manager, managing approximately 2.5 million acres of land across the state. The agency is in its 23rd year of administering a vegetation management program.

The Idaho Coalition of Land Trusts (ICOLT) was established in 2014 and is made up of twenty nonprofit land trust organizations and affiliate members working on private land conservation and voluntary conservation agreements throughout Idaho. Some members serve regions while others serve statewide.

ISDE, as the state agency that supports K-12 public schools throughout Idaho, has extensive experience working with federal programs, managing grant requirements, and dispersing funds to local school districts. The department works closely with school districts across the state to implement programs and assess needs.

The University of Idaho is the state’s land-grant research university which manages over \$100M in research funding each year. The lead Principal Investigator, Erin Brooks, has 17 years of experience managing large research grants and is currently co-leading the \$55M USDA-funded IAMP project.

7 BUDGET

DEQ developed the budget for this workplan in close coordination with IDL, IDFG, ICOLT, ISDE, and UI. A detailed explanation of the budget is included in the attached Budget Narrative Appendix.

7.1 Budget Detail

Table 11. Budget by year.

Cost-Type	Category	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Direct Costs	Total Personnel	\$159,300	\$164,079	\$169,001	\$174,071	\$179,294	\$845,745
	Total Fringe Benefits	\$66,906	\$68,913	\$70,981	\$73,110	\$75,303	\$355,213
	Total Travel	\$8,200	\$8,200	\$8,200	\$8,200	\$8,200	\$41,000
	Total Equipment	\$0	\$0	\$0	\$0	\$0	\$0
	Total Supplies	\$11,460	\$200	\$200	\$200	\$200	\$12,260
	Total Contractual	\$275,057	\$200,000	\$0	\$0	\$0	\$475,057
	Total Other	\$29,267,693	\$33,377,384	\$19,887,585	\$7,501,162	\$7,510,855	\$97,544,679
Total Direct	\$29,788,616	\$33,818,776	\$20,135,967	\$7,756,743	\$7,773,852	\$99,273,954	
	Total Indirect	\$83,357	\$85,858	\$88,433	\$91,086	\$93,818	\$442,553
	Total Funding	\$29,871,973	\$33,904,634	\$20,224,400	\$7,847,830	\$7,867,670	\$99,716,507

Table 12. Budget by measure.

Measure Number	Measure Name	Total Cost	% of Total
1	Sustainable Agriculture Program	\$42,749,722	43%
2	Idaho K-12 Energy Efficiency Program	\$15,040,212	15%
3	Sustainable Land Management Program	\$22,528,750	23%
4	Conservation and Restoration Program	\$12,097,063	12%
5	Waste Diversion Program	\$7,300,711	7%
Total		\$99,716,507	100%

7.2 Expenditure of Awarded Funds

DEQ is committed to ensuring that awarded grant funds are utilized effectively and efficiently within the designated grant period. This assistance agreement will be assigned an agency project officer (PO), grant officer (GO), and budget analyst (BA) when it is awarded. These individuals will be involved with the agreement from application to closeout. The fiscal management of assistance agreements occurs in the fiscal office, which is led by the agency's chief financial officer who is a CPA. The GO and the BA ensure all financial reports are submitted accurately and on time. The PO is responsible for day-to-day management of the project, including activities and expenditures. The PO coordinates project activities in accordance with the written agreement (work plan and budget) and works closely with the EPA grant and project officers. The DEQ PO is responsible for programmatic/technical reports, which are usually prepared quarterly, annually, and at the end of the grant. The PO works closely with the DEQ GO to ensure reports include all the required elements.

DEQ's approach encompasses a comprehensive set of procedures and controls aimed at maximizing the impact of grant investments while maintaining compliance with regulatory requirements. A detailed description is included in the attached Budget Narrative Appendix.

7.3 Reasonableness of Costs

DEQ developed the budget in close coordination with IDL, IDFG, ISDE, ICOLT, and the UI. Budgets were developed by following federal and state requirements and guidance, relying on agency experience implementing similar projects, and costs per activity used in the GHG emission reductions and documented in the attached Technical Appendix. Details regarding the reasonableness of costs for the overall grant and each measure are included in the attached Budget Narrative Appendix.