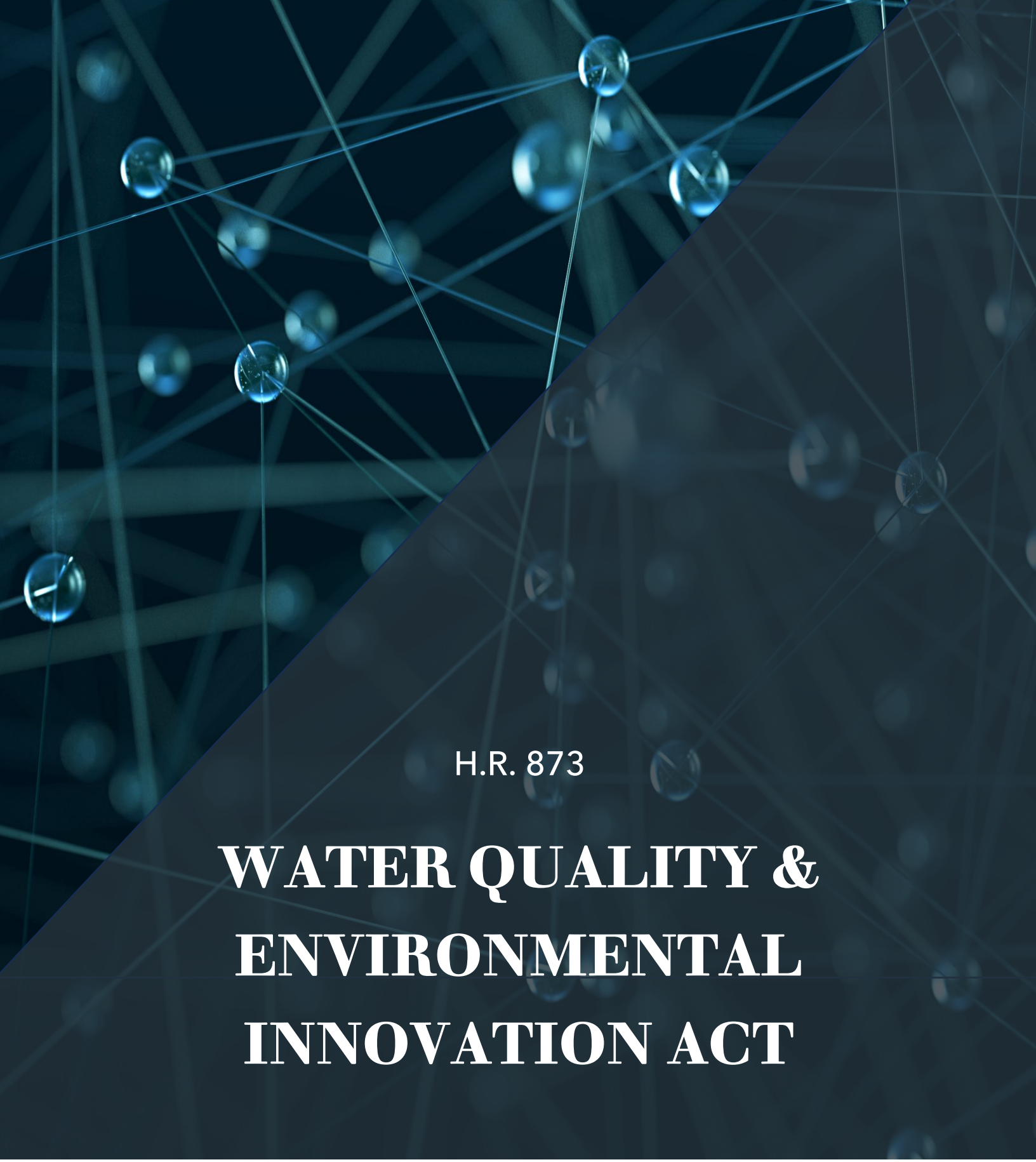

H.R. 873

WATER QUALITY & ENVIRONMENTAL INNOVATION ACT

COLUMBIA CLIMATE SCHOOL
THE EARTH INSTITUTE

COLUMBIA | SIPA
School of International and Public Affairs

AKNOWLEDGEMENTS

Faculty Advisor: Lloyd Kass
Manager: Anna Veldman
Deputy Manager: Shubhi Arora

Team Members:
Wanqing Dong
Charlotte Giff
Joseph Kemeny
Yilin Kong
Menita Ranghar
Aurélie Rodzynek
Sophie Lingtong Zhou
Liana Zogbi

Report Compiled and Edited by:
Liana Zogbi
Wanqing Dong
Charlotte Giff
Anna Veldman

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Executive Summary

According to the US EPA, nearly half of our rivers and streams, and more than a third of our lakes are polluted. The Water Quality and Innovation Act, H.R. 873, aims to address key U.S. water quality threats in nine different categories by supporting eleven different types of innovative market-based solutions. The goal of H.R. 873 is to authorize the EPA to award grants for projects that use emerging technologies to address threats to water quality, and ultimately have a positive impact on the many communities affected by water quality issues in the United States. While this bill will by no means rectify all water quality related issues in the United States, it seeks to amplify support to those market-based solutions that are part of the fight against water-related environmental crises.

To ensure the success and implementation of the tenets of this bill, we designed a program to effectively launch a market-based mechanism. This program prioritizes one key area of discretion in the bill design: the method of project selection. The method chosen for evaluating and scoring projects prioritizes three key areas: scalable, impact driven, and market-ready solutions.

The details behind the specific program design we selected, and the first year of the bill roll-out, are the subjects of this report.

Acronyms

USA	United States of America
EPA	Environmental Protection Agency
AI	Artificial Intelligence
MVECP	Motor Vehicle and Engine Compliance Program
KPI	Key Performance Index
EJ	Environmental Justice

Definitions

Artificial Intelligence	Computer systems able to perform tasks normally requiring human intelligence. It can help maximize efficiency of data collection and resource monitoring within water management
Impaired Water Body	As impaired by pollution, meaning they are too polluted to meet standards for swimming and recreation, aquatic life, fish consumption, or as drinking water sources.
Superfund Site	Formally known as CERCLA, is an established act that gives EPA the resources and authority to remediate a severely contaminated water body and can force liable parties to pay for or perform the cleanup themselves.

Water Quality Crisis

"When the well is dry,
we know the worth of water"

(Benjamin Franklin, 1746)

Defining the Crisis: Water Management

Water is the singular most important tangible resource for human survival. Despite not having a set economic value, it is a vital component which drives our global development. Yet, this resource is constantly under threat due to factors such as natural environmental occurrences, climate change, and human activities. Furthermore, water issues are transboundary, making this field ever more complex.

Where the Problems Lie

A 2022 report by the Environmental Integrity Project assessed around 1.5 million miles of rivers and streams. 50 years after the passage of the Clean Water Act, 51% of the assessed water bodies were classified as impaired by pollution. Land-based development can be held responsible for a great deal of this. In the US, agriculture represents the biggest source of water pollution. Nutrients sourcing from chemicals used in agricultural practices seep into our waterways, altering their healthy chemical composition and killing off fish and stunting aquatic plant growth. Industrial and hazardous waste, oil spills, plastic pollution, and deteriorating water infrastructure, are a few additional examples of sources of pollution. Climate change and natural hazards it exacerbates, such as high temperatures, sea-level rise, and increasingly powerful storm surges, are other phenomena that can lead to increased pollution in our water bodies.

Due to the interconnected nature of the natural resources we rely on, including energy, water, and food, the urgency and benefits of addressing polluted water sources extends to numerous other industries and spheres of development.

Social Implications of Poor Water Quality

Polluters of water bodies often cause detrimental challenges for local communities, in particular Environmental Justice communities, who are disproportionately exposed to harm compared to more affluent communities. In addition, regulation is less likely to succeed at the protection of such communities from the threats of polluters. In consequence, health conditions of EJ communities tend to be negatively impacted due to poor water quality.

This unique variety of challenges requires a unique set of solutions.

Filling in Existing Gaps

As water pollution persists at being one of the main environmental concerns across the US, one can question if our current legal, regulatory systems, and environmental technology, suffice in effectively protecting and remediating our water sources. As our societies rapidly grow, methods to address issues arising from human development should be evolving just as well. Policy can play a role in incentivizing the research and development of innovative water technology.

Paving a New Path to Clean Water

New methodologies of tackling water quality issues are arising in the form of developing technologies. Many entities in the private market and academic institution are honing innovative solutions to our most pressing environmental problems. Integrating developing technologies alongside existing environmental regulation and remediation strategies can be more effective modality to clean and protect our water sources.

Phenomena threatening our water bodies

The bill explicitly references nine water quality threats. In many impaired water bodies throughout the United States, the intersection of multiple issues causes compounded risk. Furthermore, the impacts of these complex water quality issues disproportionally impact marginalized communities.

The complex interplay of water quality threats can be seen in Chesapeake Bay, the largest estuary in the United States, which borders multiple EPA regions and has hundreds of tributaries each with different characteristics.

Among others, the following water quality threats are prevalent:

Microplastics –
Tiny pieces of plastic from material goods are constantly being washed into water bodies. Microplastics have a long residence time and act as transport vectors for toxins and absorb VOCs. These microplastics will travel up the food chain causing issues such as inflamed lung tissue and lead to cancer in humans.

Acidification –
Algae blooms and increased carbon dioxide in the atmosphere lead to the increased levels of acidification of water bodies through chemical processes. This renders aquatic environments inhabitable for many shellfish, oysters, and coral reefs, as it damages their skeletons due to their depleted ability to produce calcium carbonate, an essential element for their structure.

Sea Level Rise and Flooding –
Many Superfund sites are vulnerable to hurricanes, flooding, and sea level rise. This can lead to toxins, such as cobalt (asthma inducing), and chromium (carcinogen), to be washed over into communities, infiltrating their surface and ground water sources.

Algal Blooms –
Fertilizers, which contain high concentrations of nitrates, wash off into water bodies and lead to formation of algae blooms. Such large volumes of algae then depleted the oxygen content in the water body, making the water inhabitable for fish and many other forms of aquatic life. If water is ingested by humans, it can result in headaches, diarrhea, and kidney and liver damage.

Ensuring a Clean Water Future

The role of H.R. 873

The Water Quality and Innovation Act (H.R 873) aims to address key threats to water quality in the United States by supporting innovative technologies that can solve those issues. Specifically, the bill outlines 9 threats to water quality and 11 potential solutions. H.R 873 seeks to establish a grant program to accelerate market-based innovations that address challenges to water quality. The bill was introduced to the House of Representatives by Rep. Byron Donalds of Florida and on behalf of Representative Josh Gottheimer of New Jersey.

In order to accomplish these goals, the EPA allocates funding from fees and charges collected from the Motor Vehicle and Engine Compliance Program (MVECP) to the bill. H.R. 873 outlines that the distribution of grants and contracts is completed on the basis of following criteria: 1) Projects that utilize emerging technologies to address water quality threats; or 2) Research and development of emerging technologies to address water quality issues.

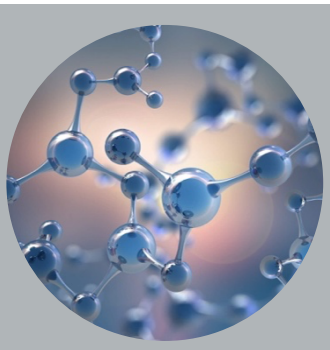
The bill recognizes that existing and emerging technologies can be used to treat and monitor water resources in communities in the United States. This support is expected to spur market-based solutions to solve problems related to water quality. The bill lists a number of emerging solutions that can be utilized to enhance water quality. These technologies include concepts still in the research and development stage.

H.R 873 will create an open-source pool of data and statistics collected from the implementation of projects under the Water Quality and Environmental Innovation Fund. This data can be utilized by public and government authorities for further innovation in funded projects.

Innovative water quality solutions H.R. 873 proposes

Computational

Computational methods to enhance water quality involve leveraging advanced technologies for monitoring, analysis, and management. Key approaches include deploying sensor networks and AI for real-time data collection, applying machine learning for early detection and prediction of water quality issues, employing environmental DNA for simulating pollutant dispersion,



Engineering

The concept of engineering methods to improve water quality involves employing various technologies and methods to address and mitigate contaminants in water sources. This includes the use of autonomous robots, nanotechnology filtration, and quantum information science modeling.

Nature - Based

Nature-based ways to improve water quality involve harnessing natural processes and ecosystems to enhance water treatment and purification. This approach emphasizes sustainable and environmentally friendly methods. Key components include living seashores and shorelines, cultivation of aquatic species, mechanical harvesting, and aquatic mud dredging.

WHAT MAKES THIS BILL **INNOVATIVE**

The largest opponents of clean water legislation tend to be industry groups that benefit from free disposal of pollution or waste. However, the bill is written so that even groups that would traditionally fight clean water standards might support it. Representative Donalds has repeatedly stated that he wishes to preserve the environment without wrecking the economy, and this bill seeks to do just that.

Instead of regulating or increasing costs for polluters, the bill calls for innovation which might allow existing industries to continue operating without adverse effects on water quality. For instance, industries such as the agriculture business will benefit from innovative technologies clearing up nutrient runoff from fertilizer, thus likely garnering their support.

Furthermore, a unique feature of our bill is the type of grantees funded, which are a departure from the norm.

Grantees this bill seeks

01 For-profit startups
02 Research Institutions and Think Tanks
03 Nonprofits
04 Individuals

The focus is selecting groups leading projects based on the utilization or research and design of **emerging technologies to address water quality threats.**

The impetus behind choosing such projects is due to the bill's construction on the premise that market-based solutions can create incentives for innovators and will lead to an overall reduction in the cost of enhancing water quality.

A long-term benefit of funding these institutions is that data will be collected from their research and projects which will become an available database for future organizations to build their own technologies off. In the grand scheme, this minimizes cost and time for new companies spent on initial research and development.

This catalytic capital to both the public and private sectors will allow for operations to grow, scaling up the economies of water remediation technology, and in turn reducing the cost for achieving better water quality.

Bill **GOALS**

The local economies of the bill's two main sponsors both heavily depend on the useability of their nearby water resources. The bill is written to find new ways to protect their valued natural assets. Byron Donalds, representative from Coastal Southwest Florida, stated that water quality was his number one priority when he was first elected. As such, the bill should be supported by other communities and groups that rely upon clean water such as tourism groups and other coastal communities. Many areas with poor water quality have been struggling with it for decades. For example, Chesapeake Bay's water quality has improved minimally over the past 30 years, and similar areas are also likely to support new approaches to addressing water quality.

01 Quality protection of local water resources

02 Merging environmental health with economic development

03 Support market-based solutions

Solutions Come to Life

Technologies deployed to improve water quality

A. I.

This technology can be used for smart management of water systems such as detection of pollutants and discharge of sewage water into rivers. AI is divided into subcategories including machine learning, deep learning, and data analytics, each possessing unique applications in water management.

Robotics

Employ sophisticated sensing technologies, data analysis algorithms, and autonomous navigation systems, enabling proactive interventions and optimized water treatment processes, improved water quality.

For example, robotic fish-mimicry utilizes bio-inspired design principles to navigate complex environments and measure water parameters without disrupting the aquatic ecosystem.

Environmental DNA

Analyzes species of contaminants in different marine ecosystems through their unique DNA patterns, based on four strand compositions: (1) adenine, (2) guanine, (3) cytosine and (4) thymine. Studies indicate that eDNA can be used to mitigate and control eutrophication as the process can be used to monitor the changing concentration of species such as plankton and algae in water systems.

Living Shorelines

Green infrastructure technique using native vegetation, sometimes in combination with low sills, to stabilize the shoreline. This benefits the coastal ecosystem as they absorb wave energy, reduce storm surges, and mitigate coastal erosion, increase biodiversity, and filter sediments and pollutants. Compared with barren shorelines, those with intact natural coastal habitats (like wetlands, dunes, mangroves, and coral reefs) experience less damage from severe storms and are more resilient.

Searching for potential grantees

As the categories of scientific innovations working to improve water quality are identified by H.R. 873, our program can be on the lookout for entities that fit the eligibility to receive our funding.

...

From Bill to Program

The previous section provided an overview of the pressing water quality issues the US is facing and an overview of bill H.R. 873, which proposes a policy solution to the issue at hand.

With the text of the bill present, the next step is designing a program that will act as the foundation for how the mechanisms of the bill shall be executed.

The next section will delve into our program design and the various functions that will make way for the practical implementation of H.R. 873.

So, what will supporting market-based solutions look like in practice?

Introducing:

Company X

The Problem

Eutrophication due to uncontrolled nutrient runoff of excess nutrients like nitrogen and phosphorus flowing into lakes and ponds.

Company X's Solution

Real-time tracking of nutrient levels (nitrogen, phosphorous) and AI-based mapping of potential local sources of nutrient runoff. Their tool is small, scalable, cost effective and can be easily deployed in at-risk lakes across the country.

Grantee Timeline

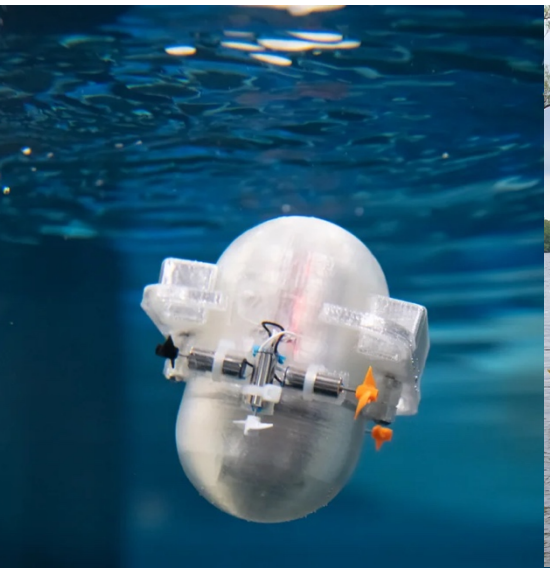
Prototyping → Initial Funding → Pilot Project → Secondary Funding

A Mutually Beneficial Solution

Company X needs funding. They are looking to scale up their operations and funding raised from the private sector has inadequate in meeting the necessary secondary funding goals. This is where the Water Quality and Environmental Innovation Act comes in. Funding from this bill can give *Company X* the necessary push to scale their water quality solutions to achieve impact.

The government is looking to test out new ways to address water quality issues as our current methods are not sufficient. This is a gap that *Company X* can help fill. Furthermore, the EPA benefits from knowledge sharing and data exchange as all data on solutions funded through the bill are made publicly available.

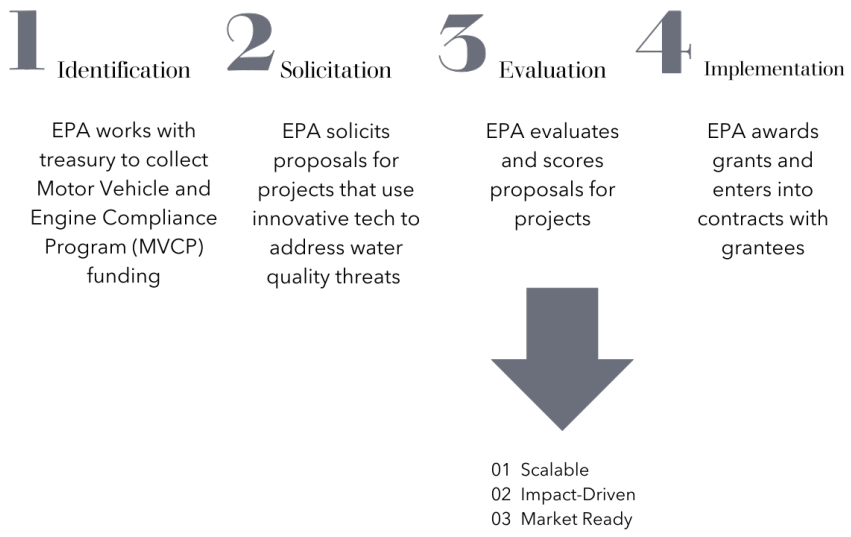
Throughout this report, we will walk through *how* HR 873 would support *Company X*. We will examine the various components of our program's implementation and subsequently, through the lens of *Company X*, we will see how each of these components would work in practice.



Outcome – Focused
Evaluation

Overview

Our program design addresses one area of discretion for programmatic design of the bill: the method of selecting projects. Thus, various options were considered to address the EPA's evaluation and scoring of project proposals. Effective programmatic design will be critical for successful implementation of the bill. The complete program design consists of 4 steps as pictured below. The area of discretion refers to step 3 of the program design, the evaluation phase. After considering multiple methods of evaluating submitted proposals that are requesting funding from the project, we decided that a performance-based program design best addresses the goals of this bill. Here a performance-based program design is an evaluation of projects that favors projects that are **scalable, impact driven and market ready**. This selection builds on a thought-out strategy behind our program design and features a host of benefits.



Strategy

Consideration for funding should be given to projects regardless of geographic area to maintain widespread political support. Prioritization should be given to projects that are revenue neutral or even revenue positive due to the market-based approach of the bill. Funding should be mainly used for testing the viability of projects that can then be scaled to make sure the bill is impactful despite funding not being guaranteed beyond the 5-year mark.

Benefits

01 Funds results
02 Realistic timeline
03 Less red tape
04 Market-based
05 Designed towards scalability
06 Efficient prioritization
07 Immediate implementation

How will the program design benefit *Company X*?

X Inc.

Assuming company X approaches the EPA for funding through this bill, it would then be evaluated along a set of criteria anchored towards performance. Priority is given, in the evaluation process, to solutions that address relevant threats, have demonstrated impact, and show a potential for scalability. Company X's tool solves a crucial water quality issue in an innovative way, they have demonstrated success in their pilot project, and their tool is small, cost effective and can be easily deployed at scale. With the positive results of its trial and its potential for scalability, Company X is a good fit for this program.

What successful project executions look like

The program's methodology for decision-making around selection and funding of grantees

Key Performance Indicators (*KPIs*)

Considering the complex nature of our program, we split the measures into program-level and individual project-level.

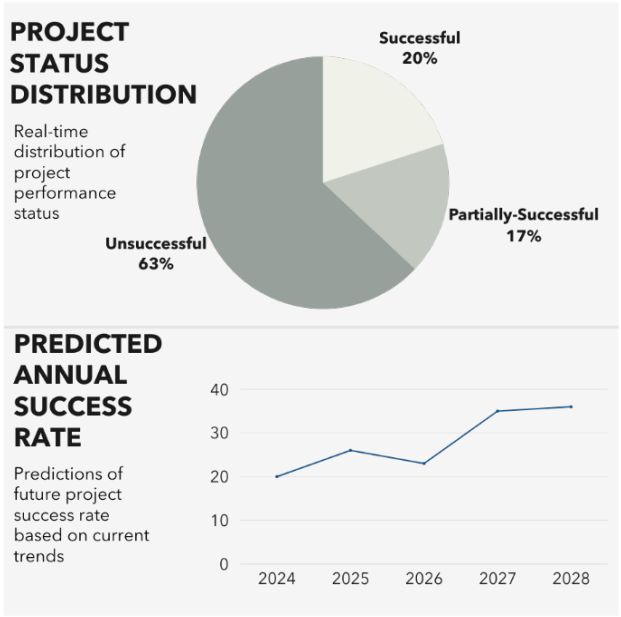
Program level: measures related to administrative and operational performance.
Project level: environmental measures and social measures.

These metrics will be used in the first year. At the end of the first year, the program director shall review the overall outcome of the program and determine whether year-1 metrics are effective to continue utilizing further in the program. Ineffective metrics are subject to adjustment and modification to be deployed in the following year.

Objectives	Administrative & Operational Metrics	Methodology
Effective Administrative Process	• Number of employees hired • Number of projects started • Percent of projects completed on-time • Accuracy of data	• Administrative process logs • Budget tracking logs • Program Dashboard
Efficient Grants Allocation	• Amount of grant money allocated based on project type • Portion of funds issued (contracted)	
Wide Use of Emerging Tech	• Adoption rates of innovative tech • Diversity of innovative tech	
Objectives	**Social Metrics**	**Methodology**
Community Health & Well-being	• Number of waternborne disease cases • Percent of Households with access to clean drinking water	• Community mapping • Surveys, questionnaires, interviews • Online feedback platform
Community Engagement & Inclusion	• Number of community meetings held • Percent of underserved communities served	
Objectives	**Environmental Metrics**	**Methodology**
Pollution Reduction	• Heavy metals, chemicals, nutrient, and solvent levels • Dissolved oxygen level • Microplastics level	• Automated Sensors • Manual Sampline & Fieldwork
Healthy Ecosystems	• Biodiversity • Pop of keystone species • Biological Oxygen Demand level • Biomass level	

Keeping Track of Impact & Progress

Each individual project will possess a quarterly dashboard wherein metric data can be collected and stored. At the closing of each quarter, the grantee team should calculate the percent change in each metric compared to the last quarter's data and assign a scale of improvement for each metric. For example, in measuring heavy metal contamination, if more than 75% of all project metrics improve, the project should be assigned an "ideal" level for improvement. If 50%-75% of all project metrics improve, the project should be assigned a "moderate" level of improvement. If fewer than 50% of all project metrics improve, the project should be assigned a "low" level of improvement.



Helping execute the program

Staffing Plan

To assist the execution of the bill, an organizational structure and staff plan is proposed. This staffing plan is based upon key roles in EPA with a focus on program management, resource management, financial oversight, and enforcement and compliance assurance.

At the helm is the "Director of the program," reporting directly to the EPA Admin, overseeing the entire initiative.

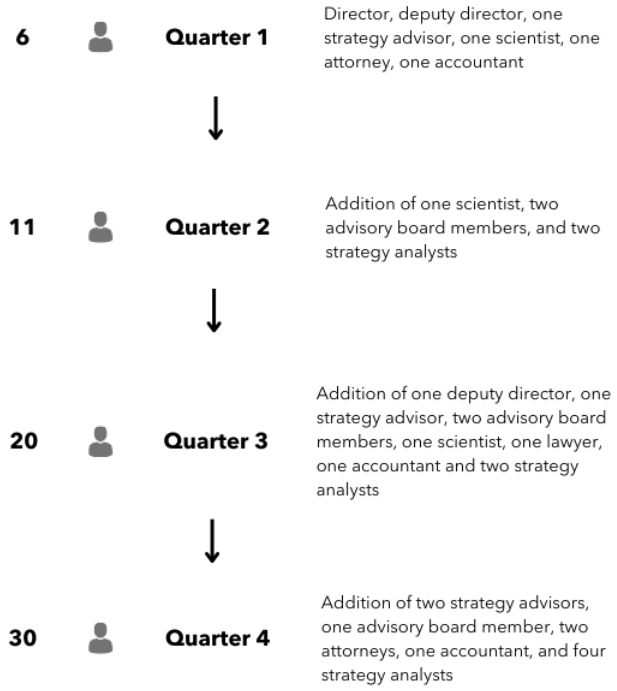
A "Deputy Director" provides a vital support role, ensuring effective leadership and coordination within the program.

Financial aspects are handled by "Accountants," "Strategy Advisors," and "Strategy Analysts," all reporting to the Director or the Deputy Director.

Legal expertise is brought in through "Lawyers," both under outsourcing contracts and within the organization, playing a crucial role in enforcement and compliance assurance.

This structured approach aims to streamline operations, foster collaboration, and ensure comprehensive environmental management under the EPA for the implementation of the program.

A fiscal breakdown of the program budget designated to staffing will be included in the following section.



How our staff facilitate the program's implementation?

Having staff to communicate with our grantees and explain to them our program is essential for the success of this bill.
Since this bill is merging EPA administration with differing types of institutions, effective communication and coordination is vital for fostering full comprehension between both sides.

X Inc.

Program Funding

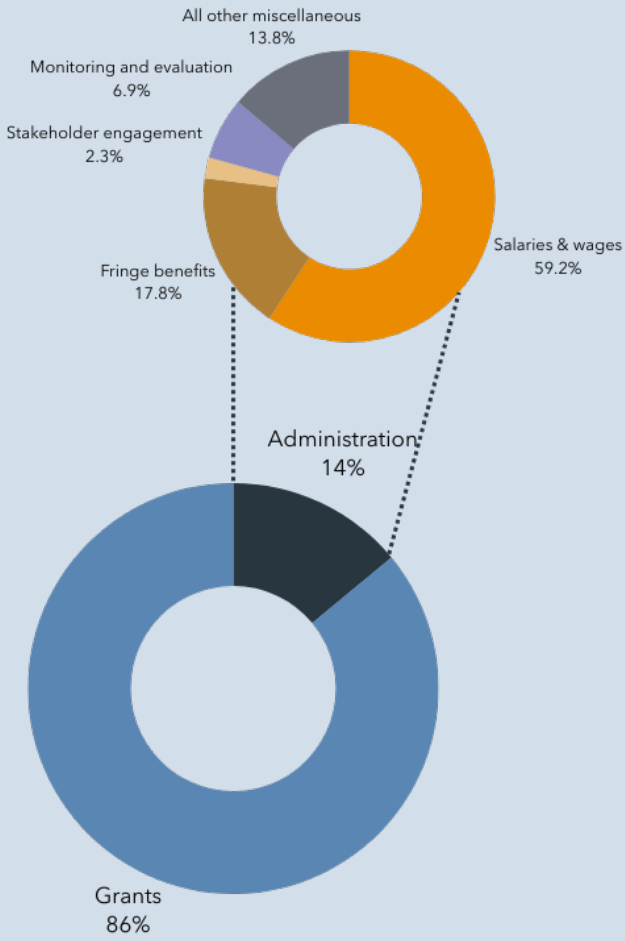
Budget Overview

For the fiscal year 2024, the "Water Quality and Environmental Innovation Act'' has secured a budget of $23.7 million stems from the Environmental Protection Agency's (EPA) Motor Vehicle & Engine Compliance Program (MVECP) and is intended to be reallocated for the following four fiscal years until 2028. The funds are earmarked to facilitate the program's mission of addressing water quality challenges by providing grants for projects that leverage innovative technologies and solutions and serve as a catalyst for transformative change, driving research, development, and implementation.

Detailed Administrative Budget

Within the Fiscal Year 2024 budget, 14% of the budget is allocated to the Administration, which is further categorized into two components:
Personal Services (PS) and Other Than Personal Services (OTPS).
In the figure to the right, the percentage breakdowns for both PS and OTPS administrative allocations are visualized. Majority of funding, as illustrated, is allocated to salaries and wages. For the OTPS category: Stakeholder engagement will take 2.3% of the administrative budget, monitoring and evaluation will account for 6.9%, and miscellaneous charges will account for 13.8% of the budget. For the PS category: fringe benefits will take 17.8%, and salaries & wages will take 59.2% of the budget.

As stated in the *Staffing* section, allocating this fraction of the program's funding to administrative uses will allow the offices of the grantors to execute the program successfully and effectively through grantor projects.



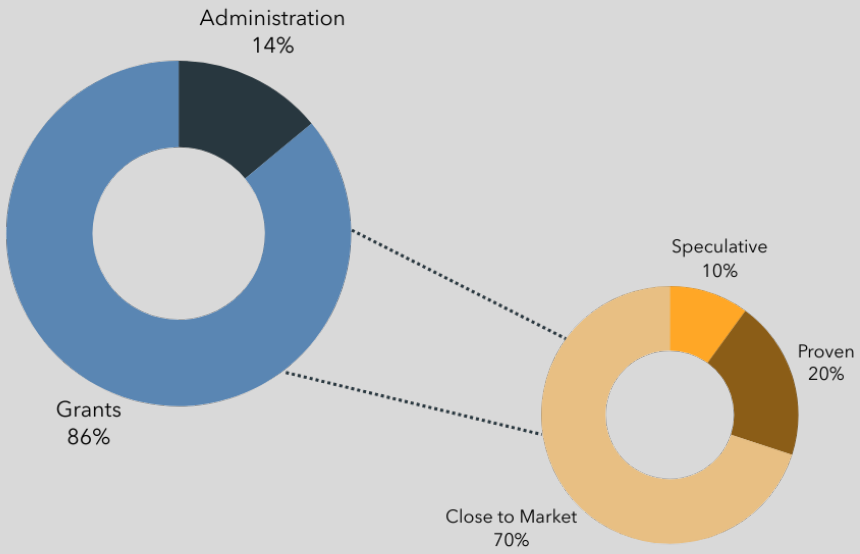
How is Grantee Funding Allocated?

In FY2024, 14% of the total budget is allocated to administration expenditure, and the remaining 86% of the total budget is designated for grants allocation. Specifically, the components constituting grants are categorized into three distinct segments, namely:

Speculative, Proven, and Close to Market.

These categorizations are underpinned by performance-based metrics, denoting the systematic measurement of a project's viability for successful implementation, scalability, and the integration of components fostering environmental justice.

To expound further, each category will receive a certain percentage of the grant budget (represented in the figure below):
Speculative (10%): Projects in their nascent stages, denoting an early developmental phase.
Proven (20%): Signifying technologies that have been demonstrated but are yet to achieve scale in practical application.
Close to Market (70%): Reflecting projects poised for imminent fruition, requiring a strategic push to surmount the final barriers to successful realization.



Our grants will give Company X the leverage to enter the market

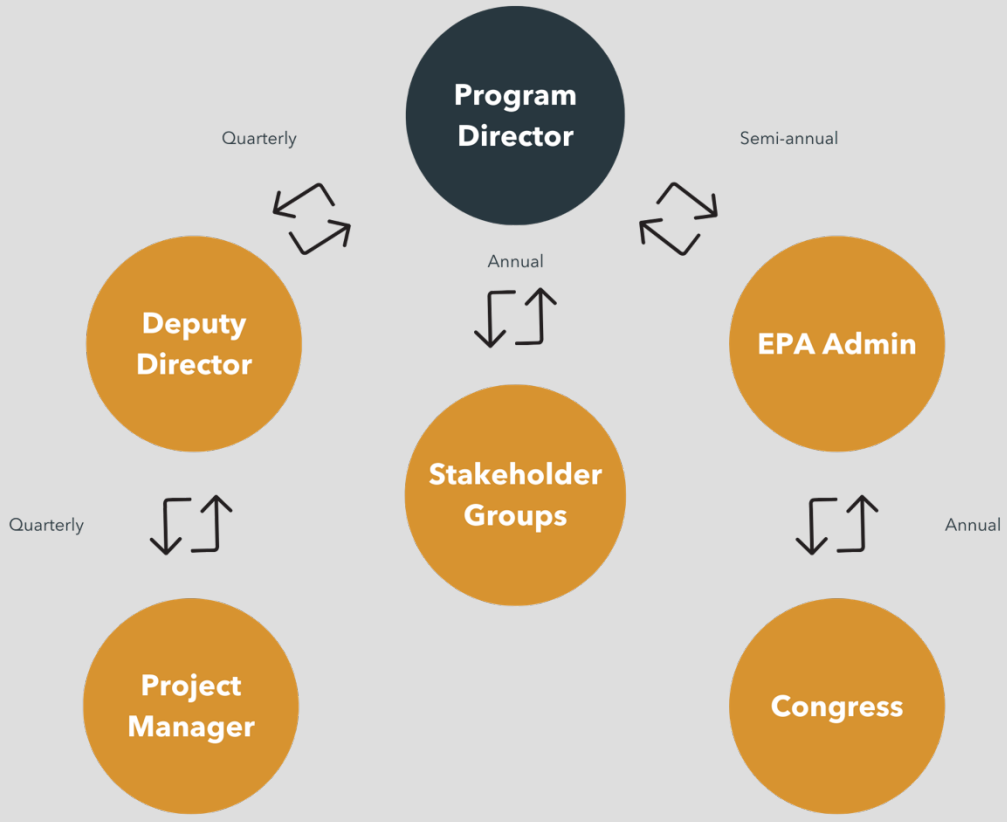
Particularly the grantee is in a close to market state, receiving 70% of the allotted grant will give them the opportunity to realize their product and introduce their solution to the market and begin contributing to the improvement of water quality.

X Inc.

Vital Communication

The individual project manager should report on individual project progress quarterly to the program deputy director using the project dashboard information. The deputy director should report on aggregate data from all projects quarterly to the program director using the program dashboard information. The program director should report on program advancement and water quality improvement annually to stakeholder groups such as the public sphere and environmental advocacy groups. Meanwhile, the program director should also report on the program and grant allocation semi-annually to the EPA administrator. The EPA administrator then reports on the program annually to Congress.

The feedback processes are the reverse of the reporting procedures. Reviews are provided in order through a top-down approach by Congress, the EPA administrator, the program director, the program deputy director, to the individual project manager. At the same time, stakeholder groups will also provide feedback to the program director through online feedback platforms and surveys. The program director and the deputy director should analyze the feedback and modify the program's administrative performance. Each individual project manager should also decide whether to incorporate the feedback into the execution of the project.

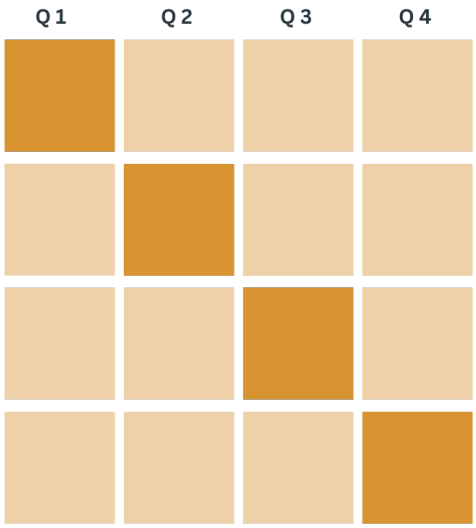


First Year Overview

Master Calendar

The program calendar is segmented into four quarters, with each dedicated to distinct phases to ensure smooth progress and alignment with the Act's objectives:

(Refer to appendix for a complete Program Master Calendar)



1 Initiation

Dedicated to recruiting and training the team, aligning them with the act's goals, and beginning stakeholder outreach and engagement

2 Research & Analysis

Builds on Q1 by conducting thorough research to pinpoint key water quality issues and drafting relevant grant criteria. Advisory board consultations also begin in this quarter

3 Application Evaluation

Marks the opening of the grant application process and receiving of proposal, with ongoing evaluation and support for applicants

4 Dispersal & Review

Focuses on distribution of grants, initiation of projects, and implementation of a robust monitoring process to ensure alignment with objectives and enabling continuous refinement

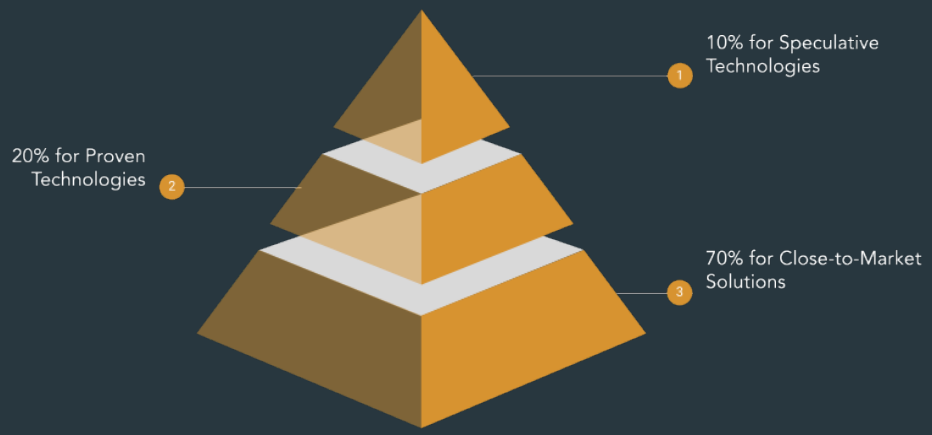
What grantees can expect to accomplish

This is how a grantee will progress in upscaling their technology over the first year

Q1	Q2	Q3	Q4
Begin Contract with EPA	Begin Implementation stage	Complete evaluation and re-view	Complete Year - 1 project and culminate the contract with the EPA

Year-1 Budget Overview for Company X

Company X is a close-to-market solution and will thus receive 70% of the total grant funds from the EPA. *Company X* can choose to partition these funds in whatever way is most effective to achieve their Year-1 goals.



Closing Statements

Persistent threats from human development to our rivers, streams, oceans, and aquifers the United States call for an innovative approach to address existing gaps in water management. If policies and regulations in the United States lack full capabilities to uphold and improve water quality, innovative approaches should be considered.

H.R. 873, the Water Quality and Environmental Innovation Act, enables the leverage and progression of market-based technologies and solutions that will act as novel modalities for addressing age-old issues of water contamination.

Company X is an example grantee, providing a lens through which H.R 873's programmatic design can be analyzed holistically. This breakdown provides some insight into the various elements that can ensure market-based solutions are successfully implemented. Leveraging grantee's technologies to enter the market allows them to begin contributing to US environmental and water initiatives by partaking in resolving water quality issues.

Achieving a successful management system that ensures lasting clean water for our communities requires an array of strategies. Like pieces of a puzzle, when integrated correctly, the bigger picture of the environmental-human health nexus will be revealed. Integrating market-based solutions into environmental protection and water management will be a vital piece of the puzzle.

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Appendix

Program Master Calendar

Program Master Calendar													
Phase	Task	Month											
		1	2	3	4	5	6	7	8	9	10	11	12
Recruitment, Initiation and Training	Identify and short-list individuals from the EPA to serve as the staff												
	Conduct preliminary research to identify the priorities for evaluation framework												
	Finalize contract of external legal firm hired												
	Initial communication with potential stakeholders including tech companies, start-ups, non-profits and academia												
	Organize outreach programs and webinars to explain the act and its objectives												
	Identify and shortlist members for the Advisory Board												
	Conduct quater 1 evaluation and produce report												
Research, needs analysis and establishment of priorities	Onboard the two members of the advisory board												
	Identify which water quality theats need most attention												
	Gather input from potential applicants on challenges and opportunities												
	Hire the staff that starts in the next quarter												
	Draft grant and contract criteria based on previous months' findings												
	Establish the evaluation process for grant applications												
	Set up the grant allocation and fund distribution system												
	Publish the notice of the funding availability on the federal register												
	Mid-year review and produce report												
Grant application and evaluation	Publicly announce the program details, criteria, and open the application process												
	Conduct workshops and information sessions for interested entities on the application process												
	Receive proposals and evaluate on a rolling-basis												
	Meeting of the evaluation group after first review												
	Final meeting of the evaluation group												
	Hire the staff that starts in the next quarter												
	Conduct quarter 3 evaluation and produce report												
Dispurse grants and review performance	Establish monitoring and reporting guidelines for the grant recipients												
	Conduct contracting process for the grant recipients												
	Approval of contract by all parties												
	Disburse the initial funds as per the contracts to the grant recipients												
	Organize a kick-off event for the awarded projects												
	Conduct quarter 4 evaluation and produce evaluation reports												
	Assess output metrics to establish baseline understanding of what projects are selected												
	Communicate and incorporate feedback to make adjustments to the program framework												
Stakeholder Engagement	Map and idenity key stakeholders												
	Organize outreach programs and webinars to explain the act and its objectives												
	Identify and shortlist members for the Advisory Board												
	Gather input from potential applicants on challenges and opportunities												
	Conduct workshops and information sessions for interested entities on the application process												
	Organize a kick-off event for the awarded projects												
Hiring	Director (1), Deputy Director (1), Strategy Advisor (1), Scientists (1), Lawyers(Contract within Organization) (1), Accountant (1)												
	Scientists (2), Strategy Analysts (2)												
	Deputy Director (1), Scientists(1), Strategy Analysts (2)												
	Strategy Advisor (2), Accountant (1), Strategy Analysts (4), Lawyer Externally Contracted (2)												
Meetings	Administrational and Operational Meetings												
	Program Progress and Review Meetings												
	Advisory Board Meetings												
	Program Evaluation and Feedback Meetings												
Reporting and feedback	Individual Project Manager reports to Program Deputy Director												
	Program Deputy Director reports to Program Director												
	Program Director reports to Stakeholder Groups												
	Program Director reports to EPA Administrator												
	EPA Administrator reports to Congress												