

# A REVIEW OF FEDERAL WATER INVESTMENTS

Tracking a new wave of water investments made by  
IIJA and IRA

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# Executive Summary

Since the passage of the Infrastructure Investment and Jobs Act (IIJA) in 2021 and the Inflation Reduction Act (IRA) in 2022, federal investments in water infrastructure have ramped up significantly. About \$60 billion was invested over the course of twenty years by the federal government through 1992 in the wake of the Clean Water Act, piling in comparison to the \$158 billion put forth by IIJA and IRA. As the dissemination of federal funding increases, the water community is watching closely to see where dollars are going. This report provides insights by summarizing investments awarded to-date, roughly through the end of the federal fiscal year, September 30, 2024. This includes an update on implementation status overall, a summary of progress made by the Drinking Water and Clean Water State Revolving Funds (DWSRF and CWSRF), a closer analysis of seven key discretionary programs, and a review of implementation milestones to look out for in the coming year. To better answer funding questions moving forward, four key recommendations are proposed to public agencies relating to data quality: standardizing data formatting, granularity, and detail; clarifying on how Justice40 programs are benefiting communities; providing clearer funding sources for awards; and centralizing awards data.

## Funding Overview

The Water Program Portal (Portal) is a data tool aggregating crucial water policy program data from IIJA and IRA, news, requests, and updates to aid users in preparing for and responding to funding opportunities [1]. In total, Portal tracks about \$158 billion in federal funding opportunities deriving from IIJA and IRA. Thus far, \$80 billion in federal awards for water projects has been announced, leaving about \$78 billion yet to be awarded. Most of the implemented funds have come from IIJA, whereas nearly three-quarters of IRA's funding has yet to be spent. Of the funding remaining, roughly 12 percent is expected to be further disseminated via state DWSRFs and CWSRFs, leaving approximately 38 percent to support other work like drought mitigation, ecosystem restoration, wildfire mitigation, and coastal flood resilience. California, Texas, Illinois, Pennsylvania, and Florida lead all states in total water investments, with projects tackling drought mitigation and water conservation, flood management infrastructure, and drinking water system upgrades like replacing lead service lines.

## State Revolving Funds

IJA directed an additional \$43.4 billion in funding for the DWSRFs and CWSRFs through 2026. Of that, \$15 billion, about 35 percent of the total boost, has been designated for lead service lines replacement, which all water utilities must remove by 2034 according to EPA's newly finalized Lead and Copper Rule Improvements (LCRI) regulation [2]. So far, \$9 billion has been distributed to states for local implementation in 2022, 2023, and 2024. This has supported projects that will replace 33,000 lead service lines and counting in Indiana, Ohio, Colorado, Pennsylvania, Michigan, and New Jersey.

A further \$5 billion, or about 12 percent, focused on projects aiming to limit emerging contaminants, such as per- and polyfluoroalkyl substances (PFAS). So far, implemented funds have totaled \$25 billion, or 57 percent of what was appropriated by IJA including the lead funding mentioned above as well as:

- \$6.5 billion in supplemental funding for the DWSRFs and CWSRFs, respectively (totaling \$13 billion); and
- \$2.95 billion and \$550 million in DWSRF and CWSRF Emerging Contaminant funding, respectively.

## Program Analysis

Awarded funding of seven key water-related programs is analyzed here in greater detail.

**WaterSMART:** The existing U.S. Bureau of Reclamation (USBR) program supports water efficiency and conservation funding via six subprograms that have made \$1.15 billion of their \$1.6 billion in IJA appropriations available to programs through 2024, including:

- \$495 million in grants to California, of which \$99 million will support the Metropolitan Water District of Southern California's new water recycling facility.
- Nearly \$69 million in funding for conservation work in Utah.

**Community Wildfire Defense Grant Program:** IJA provided \$1 billion in funding for this new program, administered by the U.S. Forest Service (USFS), to help at-risk communities develop and implement Community Wildfire Protection Plans (CWPP). So far, the program has provided:

- About \$27 million in funds for 146 new plans and plan updates, and
- \$420 million to implement plans.

**Flood Mitigation Assistance Grants:** IIJA provided an additional \$3.5 billion for this existing Federal Emergency Management Agency (FEMA) program, which:

- Quintupled funding for the program from 2022 through 2026, and
- Funded a new initiative called Swift Current, which has awarded \$360 million to states recovering from hurricane damage.

**Geographic Programs:** The Environmental Protection Agency's (EPA) existing program supports restoration and conservation efforts in key ecological regions. It received an additional \$1.72 billion in funding from IIJA, of which \$720 million has been awarded, including:

- Over 90 percent of Columbia River Basin and Chesapeake Bay funding.
- A third of the Great Lakes Restoration Initiative, which accounts for 58 percent of all Geographic Program funding.

**Tribal Resilience:** IIJA and IRA provided historic investments in Tribal Climate Resilience. The laws more than tripled annual program funding, including:

- \$164 million from the core Tribal Climate Resilience program, and
- \$13.9 million for resilience planning efforts and \$73.6 million for project implementation.

**Investing in Coastal Communities:** This IRA initiative provided NOAA \$2.6 billion to invest in coastal communities and climate resilience. NOAA administers this funding through five distinct Climate-Ready Coasts and Communities Initiatives. So far, the agency has awarded:

- About \$940 million across over 100 projects, including \$575 million in grant funding to 19 projects via the Climate Resilience Regional Challenge.

**Fish Passages:** Fish & Wildlife Service (FWS) operates one of many fish passage-targeted programs, which was provided an additional \$200 million by IIJA to be distributed through 2026. So far, the program has awarded:

- \$73 million to projects in fiscal years 2022 and 2023, and
- Made an additional \$70 million available via two funding rounds closing in December 2024 and September 2025.

## What's Ahead for 2025

In the final months of 2024 and into 2025, implementation will continue, as states and federal agencies prioritize funding awards. Major funding highlights to look for include:

- States will continue to implement their 2024 state revolving fund for drinking water and wastewater projects, focusing on lead service line replacements and addressing emerging contaminants, while preparing for fiscal year 2025 state revolving fund allocations.
- Western states will continue to apply IIJA and IRA funding to support water conservation efforts as they work to meet their commitments to protect the Colorado River through 2026 while negotiating post-2026 management plans.
- Funding for IRA's four climate-smart agriculture programs will expand, though these funds and their implementation hinge somewhat on the status of the Farm Bill renewal.
- Green bank financing for clean water infrastructure projects is anticipated to grow, supported by recent funding initiatives aimed at addressing financing gaps in underserved communities.

## Introduction

The water investments made by the Infrastructure Investment and Jobs Act (IIJA) and the Inflation Reduction Act (IRA) are the greatest since the about \$68 billion authorized in the New Deal Era and are beginning to tackle overdue upgrades to our water system [3]. Funding first authorized in 2021 and 2022 has been disseminated by federal agencies across the United States over the past three fiscal years, supporting lead service line replacement projects, water conservation practices, dam removals, and more. Many of the investments and their benefits are aimed at disadvantaged communities, in line with the Justice40 Initiative<sup>1</sup> (J40) [4]. As implementation continues, it becomes crucial to ensure these programs are executed effectively.

This report summarizes the state of play of IIJA and IRA water funding implementation. It covers the scope of water funding awards that have been announced through the end of fiscal year (September) 2024, though forecasts for what to expect in coming years are shared where known. This report focuses on the key developments over the past three fiscal years but does not cover every funding initiative or include federal funding not tracked by the Water Program Portal [5].

The report is organized into three sections:

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<sup>1</sup> The [Justice40 Initiative](#) was initiated by President Joe Biden's Executive Order 14008. Federal agencies are mandated to pursue a goal of directing 40 percent of the overall benefits of federal climate funds toward historically disadvantaged communities.

1. **The Funding Overview** provides a summary of significant federal water investments, including an update on implementation status, an analysis of awarded funding by state, and a summary of key funding areas.
2. **The Revolving Loan Funds** portion summarizes the influx of funding Drinking Water and Clean Water State Revolving Loan Funds (DWSRF and CWSRF) received from IIJA, including set-aside funds for lead service line replacement and emerging contaminants.
3. **The Program Analysis** section focuses on seven key water programs and summarizes key implementation updates through fiscal year 2024. The seven highlighted programs represent IIJA and IRA funded discretionary grant programs that are priorities of the water policy community, shared sufficiently detailed award data, and made significant funding awards, either based on the total amount of funding or the total number of supported projects. They include the U.S. Bureau of Reclamation (USBR)'s WaterSMART program, the Forest Service's Community Wildfire Defense Grant Program, the Federal Emergency Management Agency (FEMA's) Flood Mitigation Assistant Grants, the Environmental Protection Agency (EPA)'s Geographic Programs, the Bureau of Indian Affairs (BIA)'s Tribal Resilience Program, U.S. Fish and Wildlife Service (FWS)'s Fish Passages Program, and the National Oceanic and Atmosphere Administration (NOAA)'s Investing in Coastal Communities and Climate Resilience Program.

## About the Data

The analyses in this report are largely based on publicly available data that has been compiled on the Water Program Portal as of September 30, 2024. Consequently, the data analysis relies heavily on the quality and detail of the award data provided by the federal agencies responsible for implementing IIJA and IRA water provisions, which can vary significantly across agencies. The funding outlined here includes IRA and IIJA appropriations, but in some cases, the administering agency has also included general appropriations in a project's award total. The total funding awarded reflects announcements, not necessarily obligated or dispersed funds.

## Recommendations for Collecting and Sharing Data

As funds continue to be dispersed through IIJA- and IRA-authorized programs, it becomes increasingly important for investments to be publicly reported in a timely, comprehensive, and transparent manner. This helps increase accountability and public understanding of what has been funded thus far, better enabling stakeholders to support the most effective

allocation of remaining funding. The following recommendations are based on the data collection effort informing this report:

1. **Data format, granularity, and detail:** We encourage public agencies to release all data in a tabular format (such as a spreadsheet or a comma-separated values file) for ease of reuse by all stakeholders. We encourage agencies to share address or coordinate data for awarded projects that are specific to a site location where possible; this will allow for a greater understanding of where funding flows at a more granular level. We also encourage agencies to publish a data dictionary on their awards and program data (including data field changes over time) so that the data can be easily interpreted.
2. **Justice40 data:** The Environmental Justice Scorecards developed by the White House are a helpful starting point when assessing efforts to advance environmental justice by federal agencies [6]. Beyond these, we encourage the White House to share their planned methodology for assessing the extent to which funding awarded by Justice40 covered programs has benefited disadvantaged communities (DACs). We also encourage agencies reporting awards data to share the geographic jurisdiction of awarded projects, whether that be a ZIP code, city, county, electric utility territory, or other geographic unit, which would enable further assessment of whether funding has flowed to DACs.
3. **Source of award funding:** We encourage agencies reporting awards data to make explicit where other funding sources are contributing to a federal grant, if possible, delineating what has been funded by IIJA or IRA, from other appropriations.
4. **Centralization:** The White House's Invest.gov data is a valuable resource [7]. We applaud agencies who are already sharing data with Invest.gov<sup>2</sup> and encourage agencies that are not regularly sharing their data to ensure the record is as complete, accurate, and timely as possible. We also encourage the White House to add more data to their dashboard, including: the date funding awards were announced, when data has been added or updated, relevant data on any available impact metrics (e.g., miles of streams restored, acre-feet of water conserved, and acres of forest treated for wildfire), and more granular geographic data about the jurisdiction or footprint of funded projects as well as where the funding recipient is located (i.e., city, county, and ZIP code) where possible.

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<sup>2</sup> [Invest.gov](#) provides an interactive, downloadable dataset that is periodically updated by the White House. Private and public investments stemming from or related to the American Rescue Plan, the CHIPS and Science Act, and IIJA and IRA are reported by federal agencies and then published by the White House.

# Funding Overview

Since launching in 2023, the Water Program Portal has been tracking the implementation of this funding, aggregating data on funding appropriations and public requests alongside announced awarded funding on the site's Opportunities and Outcomes Dashboards [1]. The Portal tracks roughly \$158 billion in federal funding for water-related projects being disseminated via over 150 programs and funding initiatives. Just over a quarter of this funding (\$43.4 billion) is distributed via the DWSRFs and CWSRFs, known collectively as SRFs.

## Update on Implementation Status

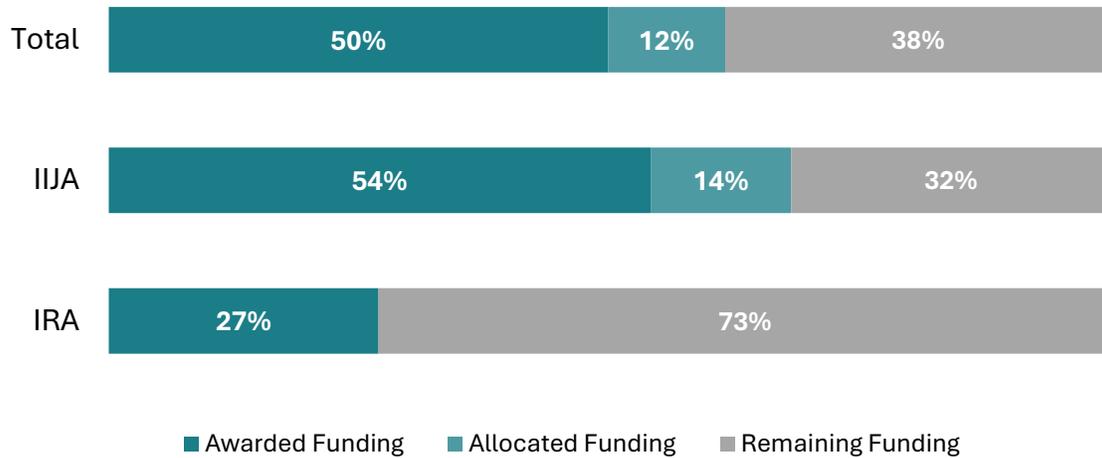
Water infrastructure investments have expanded since the passage of IIJA in November 2021, ramping up over the past few years as implementation progressed. The sector also received new funding from the IRA, which began distributing funds in 2023. So far, the Water Program Portal estimates that roughly half of the water funding in the two laws has been awarded (though not necessarily obligated) (Figure 1). Of the remaining funding, we expect roughly 12 percent to be further disseminated via state DWSRFs and CWSRFs, leaving approximately 38 percent to support other work like drought mitigation, ecosystem restoration, wildfire mitigation, and coastal flood resilience.

Most award announcements to date have come from IIJA, though about a third of those funds are still available to support water projects. Conversely, a significant portion of the IRA funding tracked by the Water Program Portal is still available to support projects. Roughly 74 percent of that pot is appropriated funding for four U.S. Department of Agriculture (USDA) agriculture conservation programs [8]. This funding is intended to support climate-smart agriculture practices<sup>3</sup> and is projected to ramp up in fiscal year 2025. Those plans are somewhat dependent on the status of the Farm Bill renewal, which could strip the funding of its climate-smart requirements [9].

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<sup>3</sup> Climate-smart agriculture refers to a set of agricultural technologies and practices that maximize both agricultural productivity and build climate resilience, while reducing emissions stemming from agriculture. Examples include drip irrigation, soil management, and pursuing energy efficiency.

Figure 1: Funding Implementation Status



Total awarded refers to announced awards and DWSRF and CWSRF allocations that have begun distribution to state agencies. Allocated refers to the remaining DWSRF and CWSRF funding anticipated in fiscal years 2025 and 2026. Remaining funding refers to funding appropriated by IIJA and IRA that is relevant to water but has not been announced as awarded.

Source: Water Program Portal [1]

## Funding Awarded by State and Region

California has received the most funding for water projects to date with about \$6.7 billion supporting over 500 projects [10]. Following California, Texas, Illinois, Pennsylvania, and Florida have received the most funding thus far (Figure 2).

In California, IIJA and IRA funds primarily support drinking and wastewater infrastructure, drought mitigation, and forest management. The state’s awarded funding includes roughly \$1.65 billion for its SRFs and \$777 million in awards from the Department of Interior’s (DOI) Drought Mitigation program. The state’s funding also includes support for many large projects. For example, a \$274 million Collaborative Forest Landscape Restoration award will reduce wildfire exposure for 41 communities by treating 185,000 acres of high-risk forestland in Plumas National Forest. In addition to restoration efforts, a \$99 million WaterSMART grant will help the Metropolitan Water District of Southern California develop a large-scale water recycling project, which is expected to produce about 118,590 acre-feet annually and reduce the district’s reliance on water imports from Colorado [11] [12].



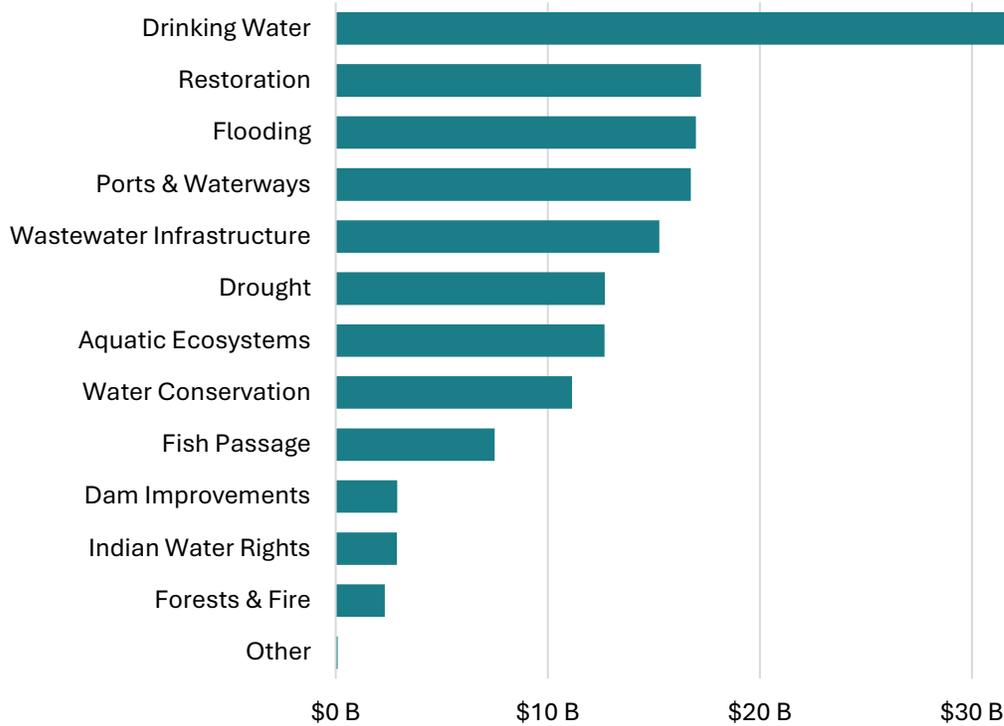
The majority of Pennsylvania and Florida's funding also comes through the SRFs and the Army Corps. Pennsylvania's SRF received an additional \$935 million from IIJA, with \$395 million dedicated to replacing lead pipes, and the Army Corps was awarded \$858 million for projects in Upper Ohio, Allegheny, and Beaver counties. Florida has received \$1.14 billion in allocations for their FY2022-2024 SRFs (including \$595 for lead pipes) and \$1 billion to the Army Corps for South Florida Ecosystem Restoration. The state has also gotten significant funding for flood management, including a \$40 million Swift Current grant from FEMA's Flood Mitigation Assistance Grant program [15].

When it comes to per-capita funding, Alaska, Montana, and North Dakota have received the most investments [10]. All three states also received significant SRF funding allocations, in addition to other significant investments. In Alaska, \$646 million has been awarded for Indian Health Service Sanitation Facilities Construction projects. Montana was awarded \$289 million for rural water projects and \$1.4 billion in Indian Water Rights Settlements for Tribes in the state. Finally, North Dakota has received \$437 million in funding for Fargo's Inland Flood Risk management.

## Distribution of Funded Projects by Water Policy Area

The water funding appropriated by IIJA and IRA supports work in a variety of areas. On the Portal, we track funding across eight key water policy areas. Of these areas, drinking water and wastewater infrastructure have received the most funding from the two laws. Thus far, almost half of that funding has been awarded (Figure 3). Most of this funding is being administered by the EPA through state DWSRF and CWSRFs, which have been given an additional \$43.4 billion by IIJA, on top of their annual appropriations. These funds are intended to support drinking water treatment and distribution system upgrades, removing lead service lines, and addressing emerging contaminants like per- and polyfluoroalkyl substances (PFAS). Other significant programs directed towards improving drinking water quality include the Abandoned Mine Reclamation Fund, which remediates the impacts of legacy coal mines on our water, and the Water Infrastructure Improvements for the Nation (WIIN) program, which is directing \$5 billion towards addressing emerging contaminants in small and underserved communities.

Figure 3: Awarded Funding by Water Policy Area



Water policy areas are not mutually exclusive, meaning that some funding is attached to more than one policy area. Consequently, the bars in this figure will not add up to the total funding for water as tracked on the Portal.

Source: Water Program Portal [1]

The second largest “pot” of water funding across these two laws is for environmental restoration, aquatic ecosystems, and forestry work. EPA, USDA, and DOI are primarily responsible for administering the \$54 billion in funding of which roughly a third has been awarded [8]. Notable programs supported by this funding include the EPA’s Geographic Programs and USDA’s Environmental Quality Incentives Program (EQIP), Conservation Stewardship Program (CSP), and the Community Wildfire Defense Grant Program.

There has also been substantial funding for drought management and water conservation, the bulk of which comes from the IRA. The Portal estimates roughly 42 percent of this funding has been awarded to date, including many awards from USBR’s WaterSMART and Drought Mitigation programs [10]. Much of this funding has been concentrated in the West

and has coincided with significant changes in the Colorado River’s regulatory framework [16].<sup>4</sup>

In addition to drought resilience, the laws provide significant funding to increase resilience to flooding. Roughly \$27 billion of the funding tracked by the Portal can support flood projects, just under half of which has been awarded to projects so far [8]. Over a third of this funding is administered by the Army Corps to support various flood infrastructure projects.

The laws also set aside significant funding for restoring fish passages nationwide. Much of these efforts are being coordinated by the Interagency Fish Passage Task Force, led by FWS which organizes work across thirteen federal agencies [17]. FWS received \$200 million for their Fish Passage Program, but there are billions available elsewhere that can contribute to removing barriers, such as the Department of Transportation’s (DOT) \$1 billion National Culver Removal Program. In total, the Portal tracks roughly \$11 billion in funding that could be used for fish passages. Alongside fish passage funding, IJA provided over \$8 billion for dam projects, much of which supports the removal of dam infrastructure and restoration of natural waterways.

Finally, a subset of IJA and IRA funding has gone towards supporting climate resilience efforts in tribal communities and Indian Water Rights payments. This includes \$2.5 billion for Indian Water Rights settlements and \$451 million for BIA’s Tribal Climate Resilience program.

## State Revolving Funds

The Clean Water State Revolving Fund (CWSRF) and the Drinking Water State Revolving Fund (DWSRF) serve as cornerstone funding levers for the nation’s drinking water and wastewater water infrastructure. These programs receive federal funds on an annual basis and were given additional resources from IJA to expand the reach of the projects they support and address pressing crises like lead service lines and emerging contaminants. The DWSRF is more focused, as its name suggests, on projects improving drinking water treatment, water distribution, and water supply [18]. In contrast, the CWSRF funds eleven types of projects, including those of water conservation, efficiency and reuse, technical

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<sup>4</sup> The Colorado River Basin has been in and out of crisis in recent years due to drought, climate change, and an overallocation of its resources. To address this, short-term water conservation agreements have been made to conserve up to 700,000 acre-feet of water through 2026. Meanwhile, the current regulatory framework governing the river is set to expire at the end of 2026. Consequently, how the Colorado will be managed post-2026 will be negotiated over the next two years [97].

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assistance, and ecological projects like those protecting estuaries, watersheds, and treatment of stormwater [19].

In total, over \$43 billion has been directed toward CWSRF and DWSRF through federal fiscal year 2026 (Table 1) by IIJA. \$15 billion in funding, about 35 percent of the total boost, has been designated for lead service lines replacement, with another \$5 billion, or about 12 percent, focused on projects aiming to limit emerging contaminants, such as PFAS.

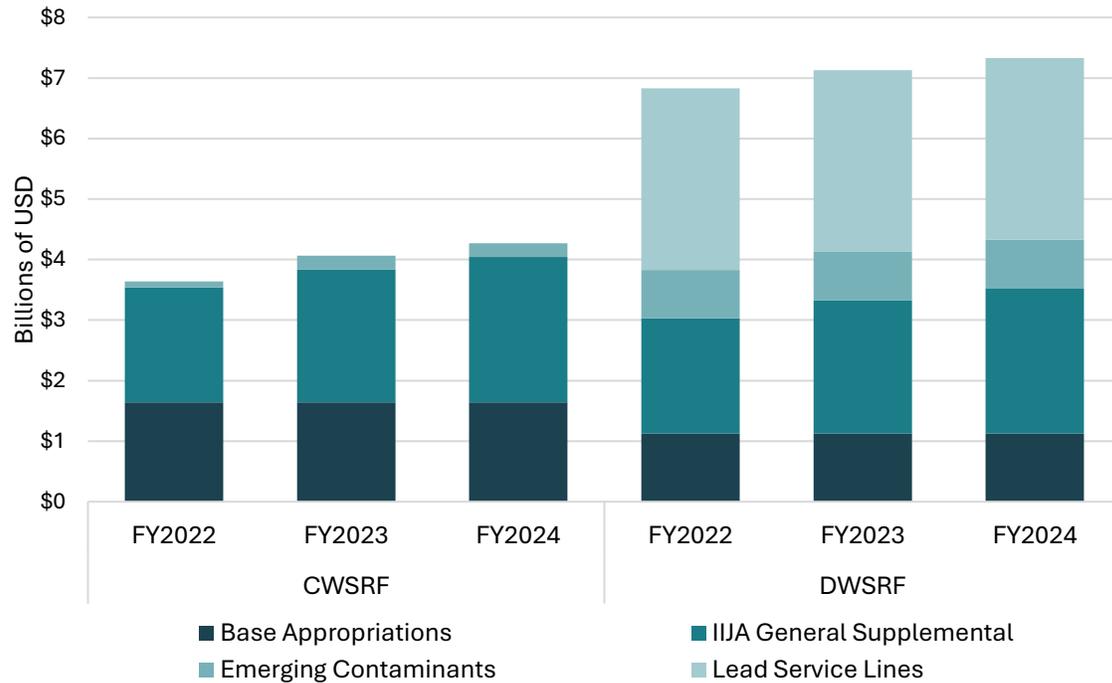
Table 1: Revolving Loan Fund IIJA Funding

<b>Revolving Loan Fund</b>	<b>Funding FY22-26</b>
Clean Water State Revolving Fund (CWSRF)	\$11.7 billion
CWSRF Emerging Contaminants	\$1 billion
Drinking Water State Revolving Fund (DWSRF)	\$11.7 billion
DWSRF Emerging Contaminants	\$4 billion
DWSRF Lead Service Lines Replacement	\$15 billion
<b>Total</b>	<b>\$43.4 billion</b>

Source: Atlas Public Policy [10]

This influx of IIJA funding has boosted the SRF “pots” significantly since it went into effect in 2022 (Figure 4). So far, it has nearly doubled annual CWSRF funding and quintupled DWSRF funding. Much of the increased funding is explicitly dedicated to lead service line projects, while general funding can be applied broadly to support projects in each state’s “queue,” clearing space for new applications.

Figure 4: Funding for Water State Revolving Loan Funds



Base Appropriations refers to the funding provided to the SRFs by general appropriations. IIJA General Supplemental, Emerging, Contaminants, and Lead Service Lines all refer to the various SRF funding streams appropriated by IIJA. Total funding by federal fiscal year includes DWSRF and CWSRF funding.

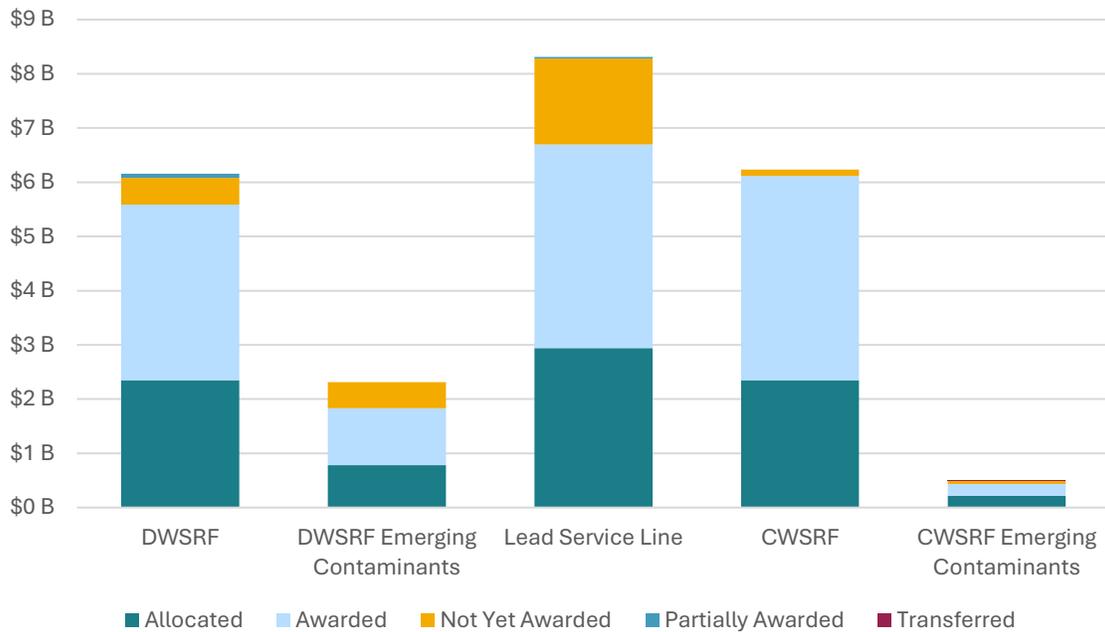
Source: Atlas Public Policy [10], Environmental Protection Agency [20] [21]

The EPA has announced allocations for each state’s SRF through fiscal year 2024 and most states have published their intended use plans detailing how the funds will support projects. Allocations are informed by the EPA’s Drinking Water Infrastructure Needs Survey and Assessment, which estimates public water system infrastructure needs over the next 20 years. In September 2023, the EPA published its 7<sup>th</sup> Assessment, which included a survey on lead service lines for the first time [22]. This enabled the EPA to provide a national lead service line count and estimate how many of the nation’s 9 million lead lines are in each state, a critical step in effectively distributing resources to address the crisis. EPA’s most recent update to its Safe Drinking Water regulations requires all of these lead lines be replaced by water utilities in the next 10 years (Box 1). The majority of FY2022 allocations have been awarded, as have over three-quarters of FY2023’s state allocations [23]. A few states opted to take a portion of what they were allocated or to transfer funds to another part of their SRF (Figure 5).

Once each state receives their SRF funding from EPA, then those state agencies fund loans for qualifying projects in their state. Until earlier this year, SRF project data was primarily

organized and shared at the state level, but recently the EPA published an SRF project map to aggregate this data nationally. So far, they have tracked 296 DWSRF projects and 98 CWSRF projects that have been supported by IIJA supplemental SRF funding [24]. However, many states are currently missing from this dataset, including ones with significant funding like California and Texas, so we expect this number to increase as reporting expands.

Figure 5: Implementation Status of SRF Funding

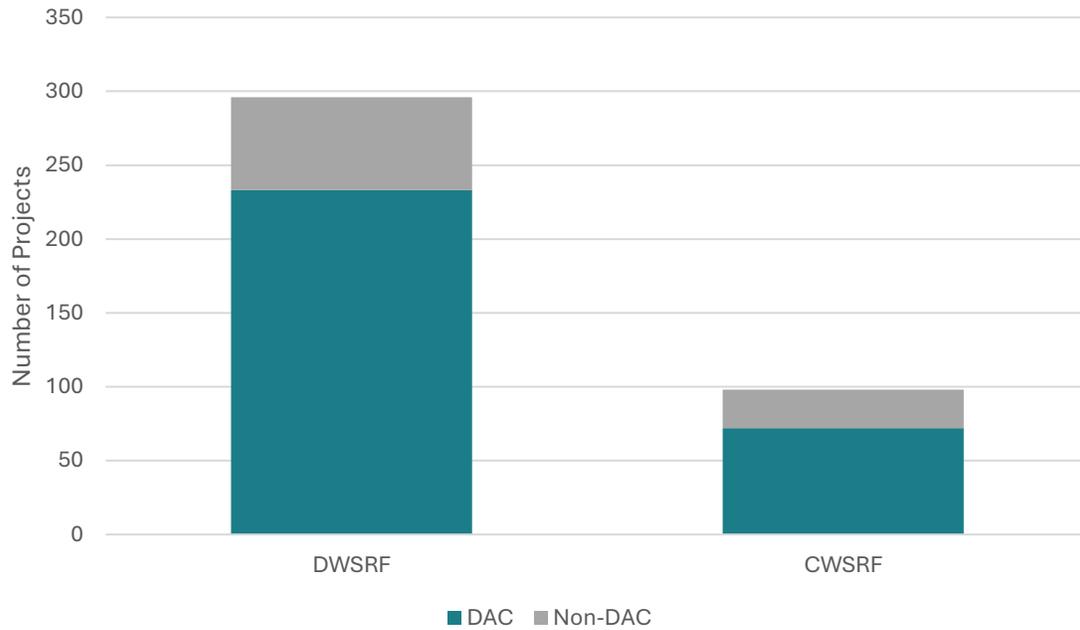


SRF funds are allocated to states annually based on EPA’s Needs Survey and Assessment data and distributed to state agencies once they submit their intended use plans. Allocated refers to FY2024 SRF funds that have been allocated to states but have not yet been awarded. Not Yet Awarded refers to FY2022 and FY2023 allocations that have yet to be awarded to states. Partially awarded refers to cases where a state only received part of its allocated SRF funds. Transferred refers to cases where a state decides to transfer funds for one sub-SRF program to another (particularly, transfers CWSRF Emerging Contaminant funding to their DWSRF, combining all Emerging Contaminant funding).

Source: Atlas Public Policy [10], Environmental Protection Agency [23]

Of the SRF supported projects, over 77 percent are serving DACs (Figure 6). This includes 223 drinking water infrastructure projects and 73 wastewater infrastructure projects.

Figure 6: Most Reported SRF IJA Projects were in Disadvantaged Communities



Data includes projects funded by IJA supplemental SRF funding through 2023, not projects funded by general appropriations. It also only includes projects that have been reported to the EPA to date. Many states are currently missing from this dataset, including California and Texas.

Source: Environmental Protection Agency [24]

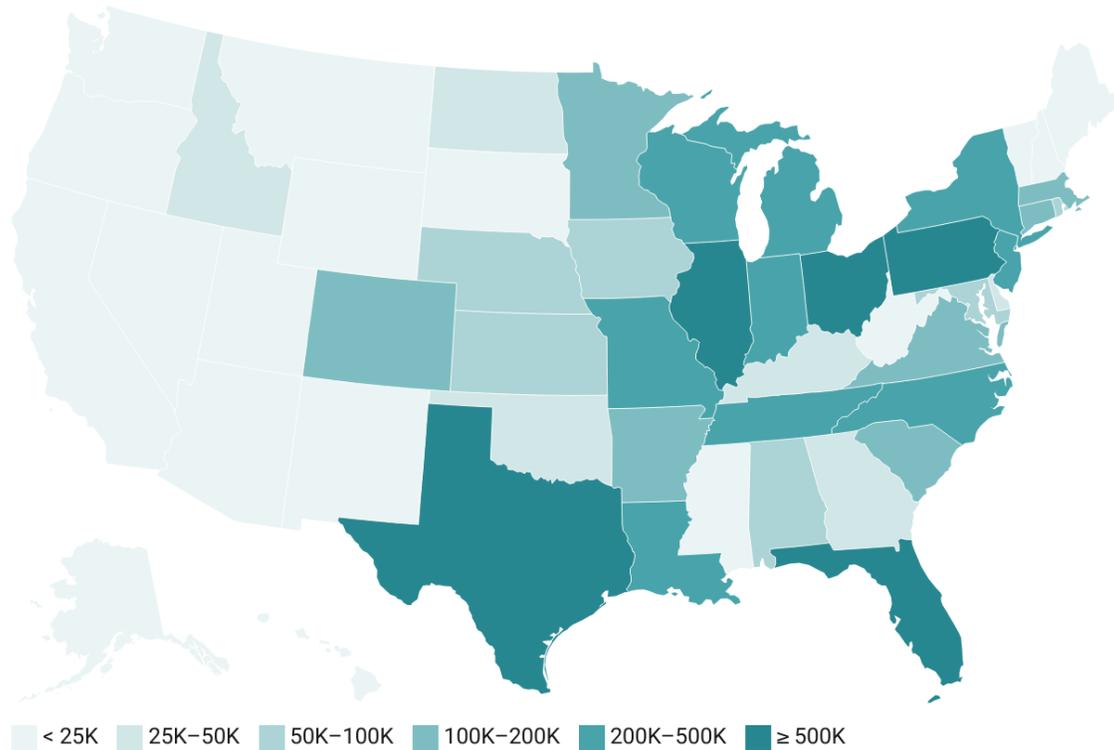
So far, the reported projects have replaced over 33,000 lead service lines in key states like Indiana, Ohio, Pennsylvania, Michigan, and New Jersey [24]. Other states with high estimates of lead service lines like Texas, Illinois, and Florida are still in the process of implementing their lead service line funding (Figure 7), meaning that this figure will grow.

### **Box 1. Historic EPA Ruling on Lead Service Lines**

October 8, 2024, the Biden Administration announced a new EPA rule requiring all water utilities to identify and replace all lead pipes in their systems by 2034 [25]. The regulatory update also lowers the allowable amount of lead in a water system from 15 parts per billion to 10 parts per billion. This marks one of the most aggressive regulatory actions by the EPA to tackle lead pipes since their use was banned in 1986. The rule applies to 99 percent of the nation's water systems, with some notable exceptions where a ten-year timeline is not feasible, including Chicago, which will be given 20 years to replace its 400,000 lead service lines. The rule comes after the first national accounting of lead service lines published in the EPA's 7<sup>th</sup> Drinking Water Infrastructure Needs Assessment in 2023 and marks the 10-year anniversary of the Flint Water Crisis [26, 27]. The effort required to meet this rule will be immense, but essential: there is no safe level of exposure to lead, especially for children.

EPA estimates there are approximately 9 million lead service lines nationwide, with the greatest concentrations in states like Illinois, Florida, Pennsylvania, Texas, and Ohio. The new rule will operate in parallel with similar state policies requiring utilities inventory and replace lead pipes already in Illinois, Michigan, New Jersey, and Rhode Island. How much it will cost to meet this rule, and the extent to which those costs will be passed down to water customers, is yet to be determined. According to the EPA, locating and replacing all lead pipes could cost \$20 to \$30 billion [26]. By this metric, the \$15 billion set-aside for replacing lead service line by IJIA cannot complete the job but offers a strong foundation of federal funding to start. The first three years of the IJIA funding for lead pipes have begun implementation, making its way to state SRFs and to projects. The last of this funding boost is expected to be allocated in fiscal years 2025 and 2026, though funding renewal at this level is being advocated for by many in the water community.

Figure 7: Lead Service Line Count Estimates



Source: Environmental Protection Agency [22]

## Program Analysis

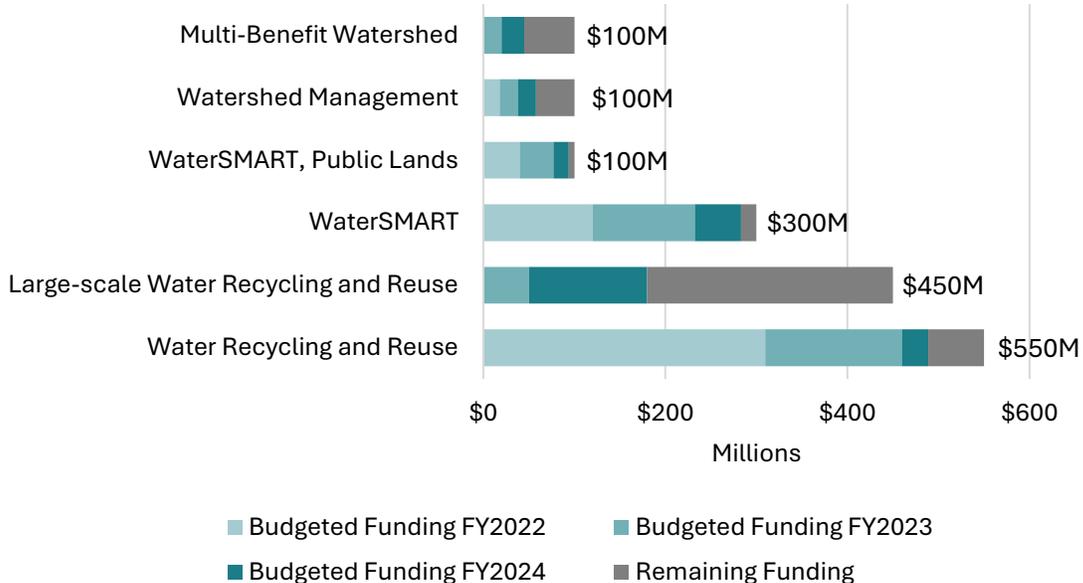
Together, IIJA and IRA appropriated funding for over a hundred new and existing water-related programs. Rather than provide a detailed analysis of every program, this section concentrates on the impacts to date of seven key programs or initiatives. These include the USBR’s WaterSMART program, the Forest Service’s Community Wildfire Defense Grant Program, FEMA’s Flood Mitigation Assistant Grants, EPA’s Geographic Programs, BIA’s Tribal Resilience Program, FWS’ Fish Passages Program, and NOAA’s Investing in Coastal Communities and Climate Resilience Initiative. We selected these programs based on three criteria: the programs are discretionary, the administering agency has released funding awarded data with sufficient granularity, and the programs are priorities for the water policy community.

## WaterSMART Funding

IIJA and IRA invested roughly \$27 billion in water conservation. In doing so, the laws helped expand the efforts of popular preexisting programs like WaterSMART [28]. First authorized in the wake of the 2007-2009 California drought, the WaterSMART Grant Program continues to be managed by USBR [29]. The program provides competitive grants and technical assistance to state, local, and Tribal governments, in addition to non-profits and utilities, with a particular focus on drought management and mitigation projects in the West. The program has grown steadily overtime, with total annual program funding cresting \$600 million in FY2023 [30].

Originally, the program delivered grant funding for water efficiency and conservation. In its current form, the program has branched out to include small-scale water efficiency, environmental water resources, large-scale water storage, and water conservation communication via sub-programs [28]. IIJA injected \$1.6 billion into six specific WaterSMART sub-programs (Figure 8) [31].

Figure 8: IIJA Funding for WaterSMART Sub-Programs, FY2022-2024



Source: Bureau of Reclamation [32]

USBR has implemented most of this funding in the last three fiscal years. Three of the sub-programs are forecasted to expend nearly all their authorized totals by the end of FY2024. The others—Multi-Benefit Watershed, Watershed Management, and Large-scale Water

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Recycling and Reuse—have over half of their funds remaining to award in FY2025 and beyond [31]. Congressional appropriations for the program overall have remained steady since FY2020, except for an about 33 percent jump in spending in FY2023 [31].

IIJA appropriated funding for these six programs were merged into four buckets: WaterSMART: Water Recycling (\$1 billion), WaterSMART Grants (\$400 million), WaterSMART: Multi-Benefit Projects to Improve Watershed Health (\$100 million), and WaterSMART: Watershed Management Projects (\$100 million) [8].

IIJA and non-IIJA funds are often used in combination with each other, and with non-federal funding via a range of federal cost-sharing agreements; federal cost-shares vary from 25 to 65 percent. More than \$660 million in awarded projects have been made to date [10]. California has received a sizeable 74.6 percent (\$495.3 million), followed by Utah (\$59.7 million, 9 percent), Texas (\$29.6 million, 4.5 percent), and Idaho (\$17.5 million, 2.6 percent); all other Western states that have received awards constitute less than two percent and less than \$20 million in funding [10].

California's high funding amount largely stems from the Water Recycling subprogram, which awarded funding a total of \$490 million in fiscal years 2022 and 2024. \$426 million or 87 percent of funding from the subprogram was awarded to California, supporting projects with an average size of about \$17 million [10]. The largest project stands at over \$99 million awarded to the Metropolitan Water District of Southern California, which sought funds for large-scale planning and design for a new water recycling facility. Most importantly, the project is meant to reduce the region's reliance on Colorado River water [33]. Other common projects include small-scale water recycling efforts or expansions of existing recycling facilities, in addition to water replenishment projects to ecologically restore watersheds and groundwater supplies [10].

WaterSMART is a critical program for the West. Most of the other buckets of funding available for Western water projects are for either specific, large projects (e.g., the \$50 million Central Utah Project) or for providing funding for a particular region, such as the combined \$350 million for the Colorado River Basin or the \$162 million Klamath Basin Restoration program [8]. In contrast, WaterSMART's average award sits at about \$1.24 million per project. Over half of WaterSMART awards have gone to utilities and a third have gone to non-profits and local governments, all in smaller amounts [10]. As a result, WaterSMART's IIJA funding is mostly being leveraged for targeted, smaller projects benefiting a local community in the West, making it an agile lever for decisive, localized action.

For example, in January 2023 USBR announced it awarded \$7 million to 82 small-scale water efficiency projects [34]. Awards ranged from under \$25,000 to \$100,000, with the average award size being about \$86,000, exemplifying WaterSMART's Western-focused,

community-based project model. The majority of awards went to water conservation, drainage, and irrigation districts, a quarter went to local governments, and the rest to a smattering of private canal and irrigation companies [35]. The projects are sited in 14 Western states, with the most funding being awarded to California at over \$2.2 million [34].

This funding approach of directing incremental amounts to water-saving projects—such as lining canals, gate modernization, and installing informatics technologies—demonstrates a strategy that targets widespread investments with an aim to generate water efficiency outcomes.

## Community Wildfire Defense Grant Program

Forest management and wildfire mitigation are critical components of national hydrology. As climate change worsens wildfires nationwide, new resources are needed to protect communities. For communities located in high fire risk zones, collective planning and mitigation practices can help build resilience to the impacts of wildfire. For example, conducting controlled burns, clearing out vegetation, and creating “breaks” in fire fuel can help prevent the spread of wildfires through residential developments [36]. Education programs can teach residents about household level mitigation activities, like home hardening and defensible space, that further increase collective resiliency. Finally, creating emergency response and evacuation plans help residents prepare for active wildfires, should they occur. To organize and implement these kinds of activities, many communities in fire risk zones create Community Wildfire Protection Plans (CWPP). However, not all places, especially in low-income areas or regions recently impacted by natural disasters, have the resources to create and implement CWPPs.

To fill this need, IJIA provided \$1 billion for a new program to help communities develop, update, and execute CWPPs [37]. Designed to specifically assist at-risk communities and Tribes, the Community Wildfire Defense Grant Program (CWDG) provides funding to low-income areas with high wildfire hazard potential, as well as regions recently affected by severe wildfire risk-increasing disasters (like drought and flooding). These funds will be distributed over five years and will support efforts to meet the National Cohesive Wildland Fire Management Strategy in the wildland-urban interface [38].

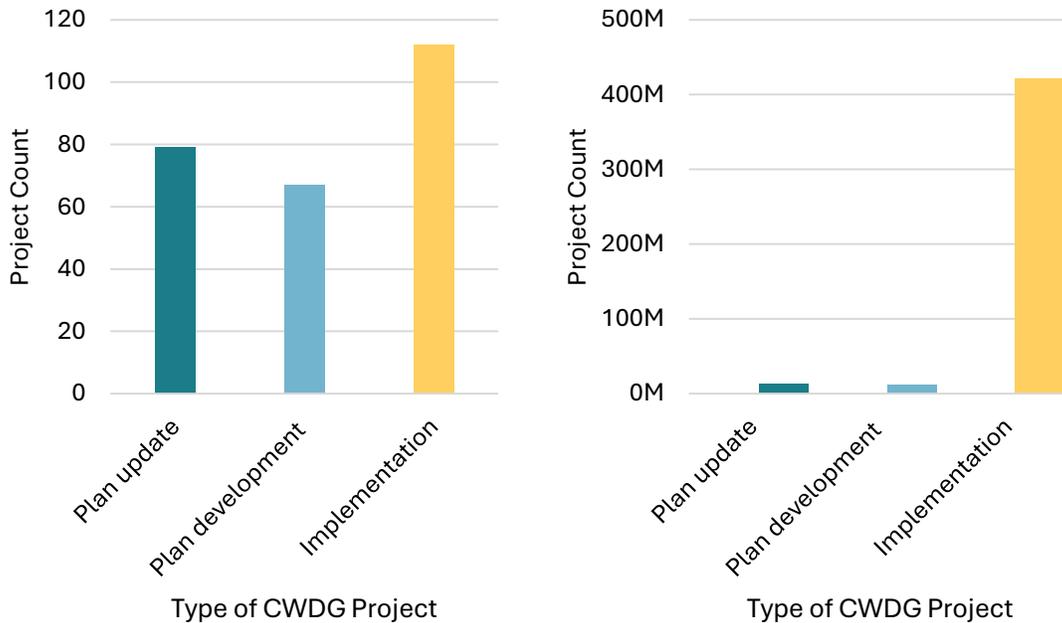
The program offers funding to:

1. Develop or update Community Wildfire Protection Plans (CWPP), and
2. Execute projects outlined in CWPPs that are under ten years old [39].

So far, the Water Program Portal tracks just under half of the appropriated funding as awarded. In 2023, the Forest Service awarded \$197 million to 100 projects in 22 states and

seven tribes in the first round of funding. In the second round of funding in 2024, the Forest Service awarded \$250 million to an additional 158 projects in 31 States, two Territories, and 11 Tribal Nations [40]. In total, the program has provided \$447 million to projects, including \$27 million for developing and updating CWPPs, and \$420 million for implementing those plans.

Figure 9: CWDG Project Types and Total Funding Levels



Grants for plan updates involve revising or updating existing Community Wildfire Protection Plans, and grants for plan development involve the creation of the community’s first plan. Implementation grants refer to funding that will support projects that deploy wildfire mitigation strategies, like treating landscapes, implementing fuel breaks, community outreach, and acquisition of equipment.

Source: U.S. Department of Agriculture (USDA) Forest Service [41]

The overwhelming majority (94 percent) of the awarded funding to date will support 112 implementation projects like adding fuel breaks, reducing fuel buildup, and outreach to promote mitigation practices like defensible space. These types of projects suit communities who have developed plans and need resources to actualize the strategies within them. The remaining six percent of the funds awarded support the development of at least 67 new CWPPs and the update of at least 79 existing CWPPs (Figure 9). This allows communities to undergo the CWPP planning process for the first time, or revisit outdated plans to account for changing wildfire risk and updated mitigation approaches. A little over

half of this program's IJA appropriations remain and will be expended by the end of fiscal year 2026. Consequently, we expect to see the third round of funding open in 2025.

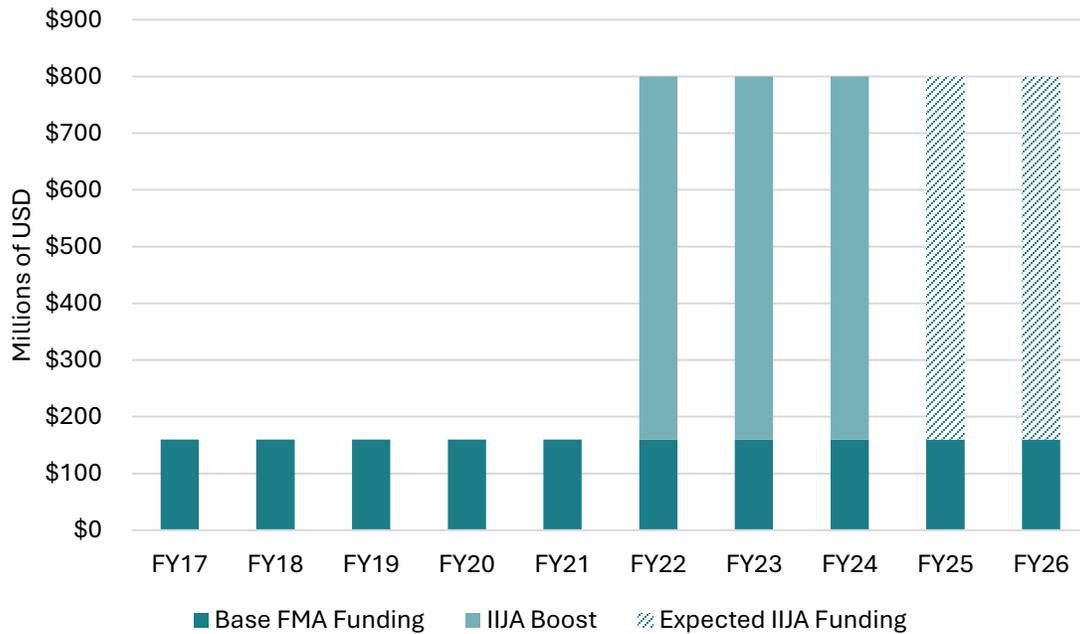
## Flood Mitigation Assistance Grants

IJA and IRA also provided about \$27.5 billion in funding for flood management and mitigation programs, including \$3.5 billion for the Flood Mitigation Assistance (FMA) Grant program [42]. The FMA is administered by FEMA, and began after Congress passed the National Flood Insurance Reform Act in 1994 [43]. The program offers communities invaluable pre-disaster funding to reduce the risk of flood damage via flood mitigation efforts. From at least FY2017 through FY2021, the FMA program had received a consistent \$160 million in annual appropriations. IJA quintupled FMA funding, increasing the program's total annual budget to \$800 million through FY 2026 (Figure 10).

The Biden Administration aligned the FMA program with the Justice40 Initiative, which aims to direct at least 40 percent of benefits to DACs. To minimize fiscal barriers to the funding and better enable projects in DACs, FEMA increased the maximum amount of costs federal government will cover for communities that are low-income or vulnerable, according to the Center for Disease Controls' Social Vulnerability Index, to 90 percent, up from 75 percent [44]. Communities not covered here are still eligible for up to 75 percent coverage. This increase in funding and cost share means FMA is able to provide better support to communities than they have historically. They can now cover a greater proportion of project costs in low-income and vulnerable area, likely expanding their support to communities that could not provide a 25 percent cost share, and support more projects overall thanks to the overall budget increase.

Through IJA, FEMA also established a new initiative under FMA in March 2022, Swift Current [45]. Unlike the rest of the FMA program, which requires applications to be submitted before a flood occurs, Swift Current allows applicants to apply for support after a flood causes damage. Oftentimes, properties prone to flood damage are stuck in a vicious damage-repair cycle [46]. Swift Current aims to disrupt this cycle by providing funds directed toward flood mitigation activities to prevent or reduce the risk of flood damage to a property, as quickly and equitably as possible. Specifically, Swift Current is intended to support the acquisition and demolition, or elevation and relocation of National Flood Insurance Program-insured properties that have a history of repetitive or substantial damage from flooding to reduce future damages from flooding [47]. To apply, the state, territory, or Tribal Nation must receive a major disaster declaration following a flood-related disaster event causing significant damages.

Figure 10: IJJA Quintuples Funding for Flood Mitigation Assistance Program (FY2017-2026)



Source: Atlas Public Policy [10], Federal Emergency Management Agency [48]

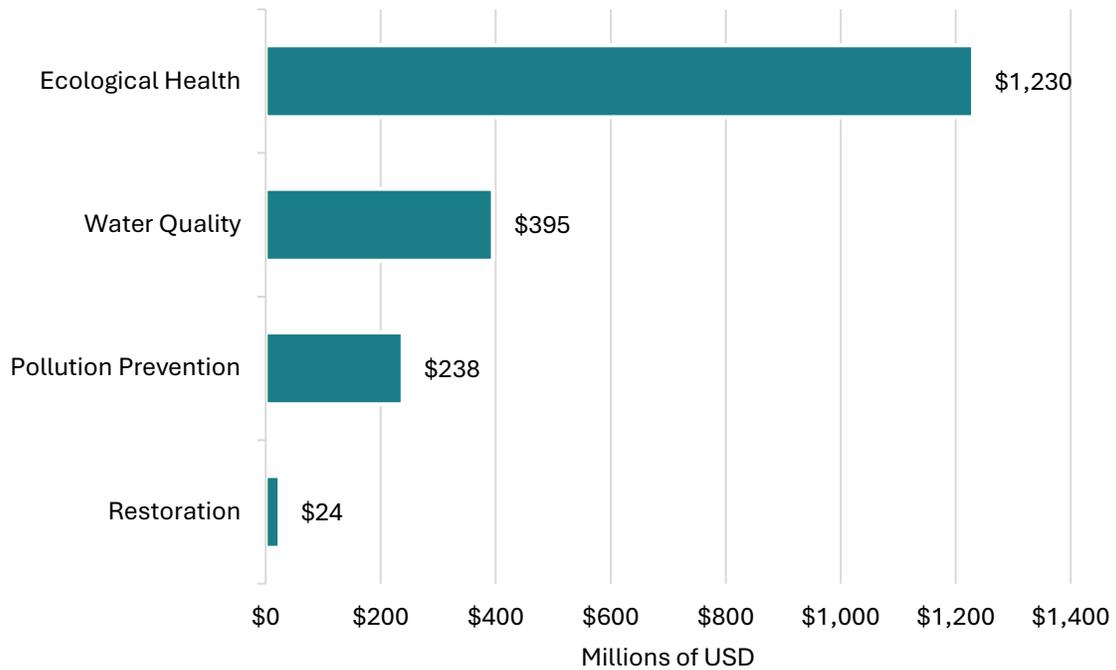
Swift Current funding is also available outside the normal FMA grant process, making it nimbler and more accessible. Once a major flood disaster is declared and a property meets the necessary criteria, states have 120 to 150 days to submit a grant application for eligible flood mitigation activities like structure elevations, retrofits, dry floodproofing, mitigation reconstruction, property acquisition, and structure demolition or relocation [49].

When Swift Current began in 2022, FEMA did not release an open funding opportunity. Rather, its initial \$60 million in funds were made available to four states affected by Hurricane Ida: Louisiana, Mississippi, Pennsylvania, and New Jersey [50].<sup>5</sup> In November 2023, FEMA released a \$300 million funding opportunity through the initiative, which has been awarded to 21 states and one Tribal Nation thus far (Figure 11) [51] [14].

<sup>5</sup> These states were chosen as they have the “highest severe repetitive loss (SRL)/repetitive loss (RL) of NFIP-insured unmitigated properties and total claims (by count) within their respective FEMA Regions.”



Figure 12: Geographic Program Funding by Program Focus Area



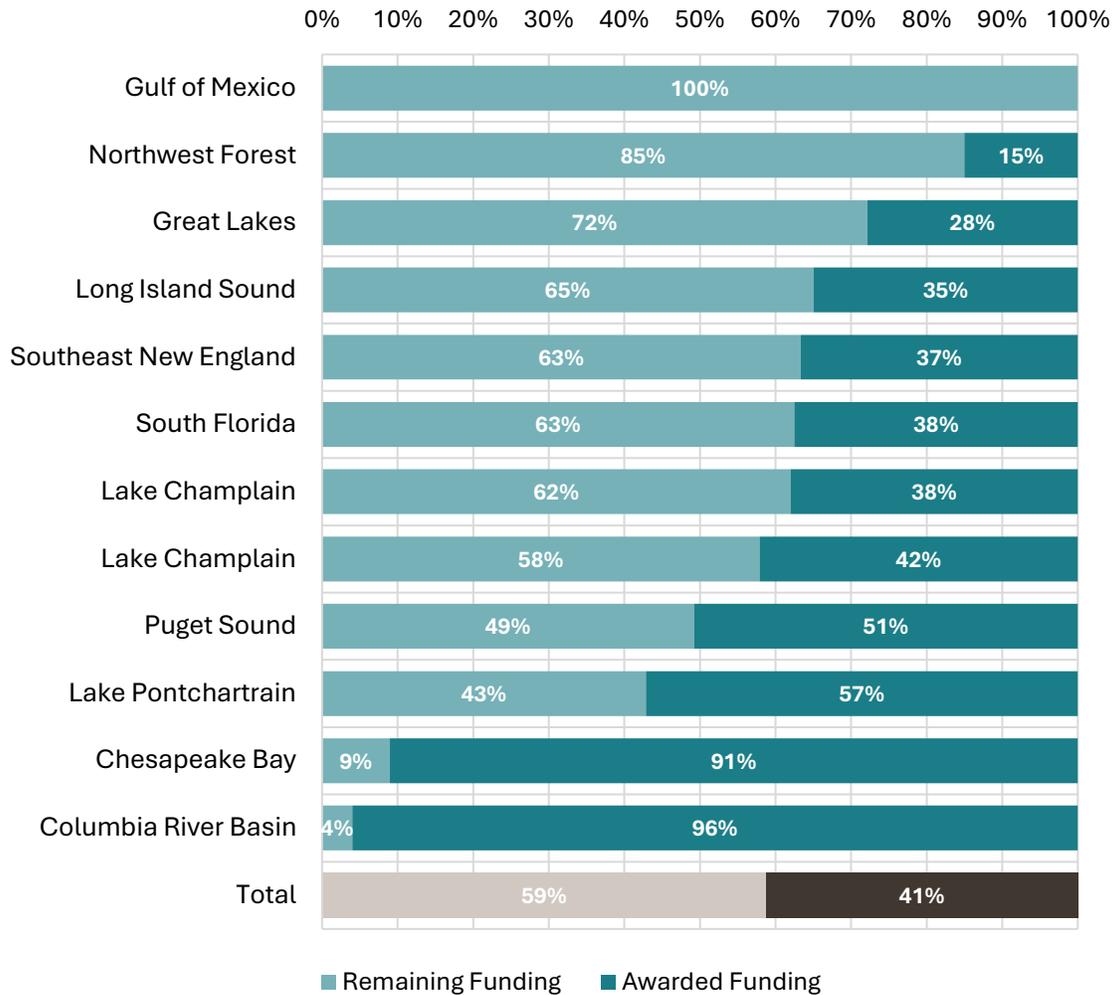
Total funding displayed is greater than total funding authorized due to programs with multiple funding focuses.

Source: Atlas Public Policy [10]

Generally, these programs are open to an array of different entities. The programs are competitive, resulting in either cooperative agreements, competitive grants, or a mix of both depending on the individual RFPs [8]. Only the Northwest Forest program is administered by the U.S. Forest Service [54]. This funding is progressing, as 11 of 12 programs have made awards so far, and the Gulf of Mexico program, the only one to not have yet award funding, has four RFPs totaling about \$45 million with due dates set for October 2024 [8].

Overall, the Geographic Programs represent a total of \$1.72 billion in IJA funding for these critical estuaries, watersheds, and wetlands [54]. About \$1 billion of this funding is directed toward the Great Lakes region [8]. Across all programs, almost \$720 million has been awarded, or about 39 percent of Geographic Program funding [10]. The percentage breakdown of funding awarded versus remaining is shown in Figure 13.

Figure 13: Geographic Programs' Remaining and Awarded Funding



Source: Atlas Public Policy [10]

The most unique facet of this suite of programs is their focus on the communities surrounding each ecosystem. Each of these programs is covered by Justice40 [4]. As a result, each program has specific “Equity Strategies” delineated by EPA to be accomplished within the parameters of IJJA’s FY2022-FY2026 targets, in addition to long-term strategies [53]. Applicants to all twelve programs that outline strong equity strategies are incentivized in the program structures via a potential reduction or complete waiving of non-federal cost shares through FY2023-FY2026.

The standout Geographic Program in terms of the amount of funding allocated is the Great Lakes Restoration Initiative (GLRI). GLRI is funded at \$1 billion and accounts for 58 percent of Geographic Program funding [8]. The Great Lakes Interagency Task Force, comprised of

16 federal agencies working in collaboration with local governments, institutions of higher education, and nonprofits, was authorized in 2004, and the GLRI has been active since 2010 [55, 56]. The initiative's action plan has undergone three iterations to date. In its third and latest plan, which sets goals for 2020 through 2024, the Interagency Task Force solidified five priority areas for action: toxic substances and areas of concern, invasive species, NPS pollution impacts on nearshore health, habitats and species, and foundations for future restoration actions [57]. This year, the Task Force is developing its fourth action plan with eight states and 35 Tribal Nations to set objectives for 2025 to 2029 that will continue to shore up the ecological health and resilience of the region [57].

GLRI reports having received \$3.8 billion in funding between fiscal years 2010 and 2021; IJJA injected an additional \$1 billion for FY2022-FY2026, increasing the initiative's funding by approximately 26 percent for four years [58].

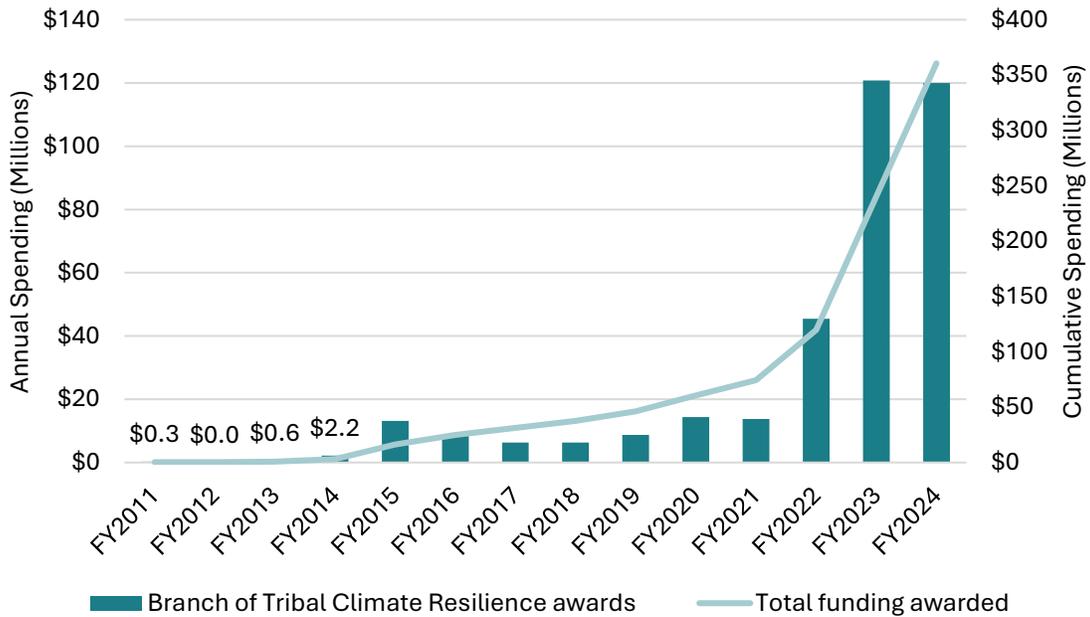
GLRI indicates in its draft action plan for fiscal years 2025-2029 that it intends to expend the remaining approximately \$722 million from IJJA in fiscal years 2025 and 2026 [59]. The draft plan specifies that the funding will be focused on speeding environmental remediation and cleanups within its 43 designated areas of concern—all but three should be restored by 2030 [59, 60]. The remaining IJJA funding will support Great Lakes Environmental Justice Grant Programs opportunities [59].

## Tribal Climate Resilience

Tribes are eligible for much of the water funding appropriated by IJJA and IRA. Additionally, the laws have set aside dedicated funds to support the climate adaptation of tribal communities. Collectively, IJJA and IRA have infused the BIA with an additional \$451 million in funding for the Tribal Climate Resilience program [8]. IJJA designated \$130 million for Community Relocation efforts and \$86 million for Adaptation Planning [54]. The following year, IRA gave the program an additional \$225 million and set aside another \$10 million for Fish Hatchery Operations and Maintenance [61]. The program supersedes Justice40 targets by definition, given that the competitive grant program is open only to Tribal communities, who are disadvantaged communities as defined by the Biden Administration [4].

The program was established in 2011 but received enormous influxes of funding from IJJA and IRA relative to historical program funding levels (Figure 14). Pre-IJJA and IRA, between fiscal years 2011 through 2021, a total of \$74.1 million was awarded by the program, in fluctuating amounts [62]. IRA funding more than tripled program funding in FY2022, and nearly tripled that again the following two fiscal years.

Figure 14: Federal spending in Tribal Climate Resilience by year awarded



The primary (left) axis represents Annual spending. The secondary (right) axis represents the total, cumulative program spending over time. FY2012 saw no funding awarded. FY2017-2018 funding from the Branch of Tribal Climate Resilience was awarded jointly; totals are evenly split across both fiscal years. FY2024 represents appropriated funding available, as awards have not been announced. FY2024 also represents the final year of IJJA and IRA funding boosts (FY2022-2024).

Source: Bureau of Indian Affairs [63]

The program’s mission is comprehensive: “[t]o support climate resilience planning to help sustain Tribal ecosystems and natural and cultural resources, economies, infrastructure, human health, and safety” [61]. The program represents a new focus on the longevity of Tribal Nations and supporting an Indigenous way of life.

The \$164 million in awarded funding, from the \$225 million in the core Tribal Climate Resilience program, has been awarded to an array of projects similarly upholding ecological and cultural Tribal infrastructure via an annual awards process [10]. The award announcements combine funding from the IRA programs, in addition to annual appropriations and funding from similar IJJA streams such as the Tribal Climate Resilience Community Relocation and Adaption Planning programs [64]. Stacking these dollars regardless of parent program boosts the effectiveness of the program by condensing application processes for prospective Tribal applicants.

Funding is disseminated based on whether a Tribe plans to pursue planning or implementation activities. In FY2023, \$13.9 million was awarded for planning while \$73.6

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million was awarded for implementation [64]. Planning activities range from preparing climate change or hazard mitigation strategic plans to natural resource management. Conversely, implementation projects have already completed and solidified official Tribal planning documents. They include access or protection for sacred sites, treaty rights protections, relocation, and capacity building.

Three set-asides also exist within the program. In FY2023, \$3.4 million was reserved for first time applicants, \$27.9 million benefitted habitat restoration and adaptation projects, and \$2.1 million subsidized the hiring of Tribal relocation, managed retreat, or protect-in-place coordinators, to build technical staffing capacity for climate change-impacted communities [65].

The most recent RFP, FY2024 Funding to Support Tribal Climate Resilience for \$120 million, was announced in July 2024 and is due October 18th [63]. The RFP nods to the fact that FY2024 is the final year of increased funding for the resilience program, and BIA will prioritize projects that address the climate-related health of Tribal communities—namely relocation, managed retreat, and protect-in-place attainment. This shift in focus to the preservation of Tribal communities via community migration, as opposed to other resiliency activities, signals a new phase in federal action that supports relocation, not just impact mitigation.

There is a further \$10 million set aside for Tribal fisheries that complements this initiative, as it supports critical cultural infrastructure in addition to the ecological role hatcheries play in aquatic ecosystems [66]. The funding supports 88 Tribal hatcheries nationwide, that BIA will maintain to continue operations at these crucial facilities for Tribes' local ecosystems. The funding was awarded in September 2023 and supported the maintenance activities of ten different tribes in California, Idaho, Minnesota, New Mexico, Virginia, Washington, and the Navajo Nation [67].

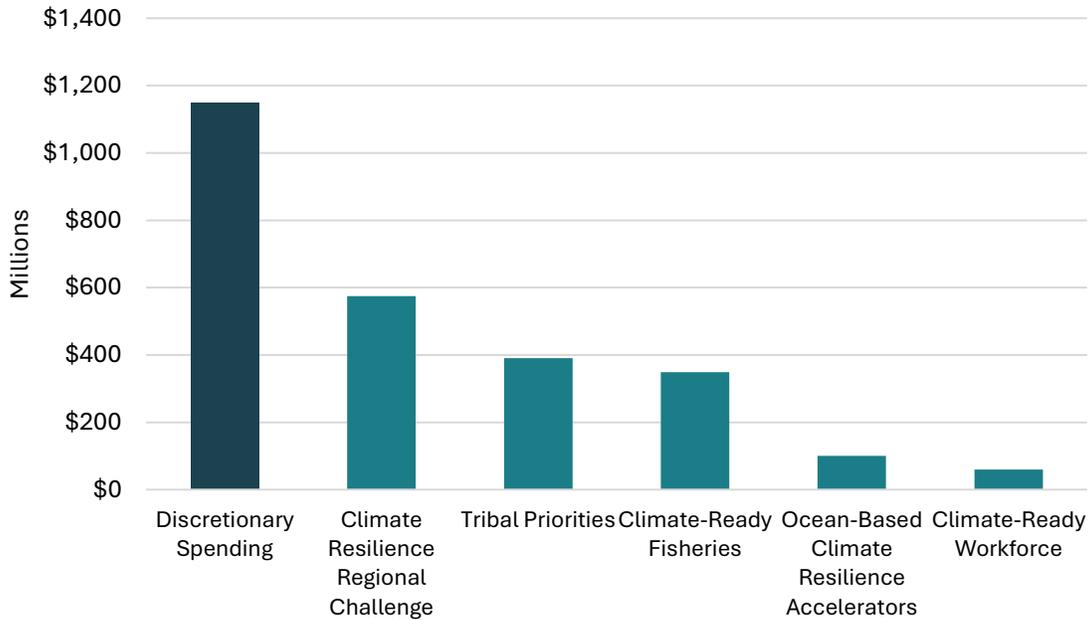
**Box 2. The National Coastal Resilience Fund Takes Off Post-IIJA and IRA**

Created by Congress in 1984, the National Fish and Wildlife Foundation (NFWF) has paired public funding with private donations to fund conservation works. One of the many public programs implemented in part by NFWF is NOAA's National Coastal Resilience Fund (NCRF), which supports conservation projects that restore or expand natural features like wetlands, coral reefs, forests, and coastal floodplains [68]. The NCRF is primarily funded by NOAA but has also received funds from EPA, DOD, and other private-sector partners coordinated by NFWF. From 2018 to 2021, the NCRF funded about 201 projects with \$135 million in public-private funds [69]. After IIJA passed, the NCRF received a historic \$492 million in funding from IIJA, to be distributed over five years [37]. Since receiving this influx, the NCRF has awarded over \$333 million to 232 projects; \$184 million from IIJA, and \$44.7 million from the IRA, alongside private donations, eclipsing the total historical funding of the NCRF pre-IIJA.

## Investing in Coastal Communities and Climate Resilience

The IRA provided \$2.6 billion for NOAA to invest in coastal communities and climate resilience. NOAA administers this funding through five distinct Climate-Ready Coasts and Communities Initiatives [70]. NOAA has also set aside over \$1 billion of this funding to support IIJA-funded programs (Figure 15), non-competitive partnerships, and technical assistance. Thus far, NOAA has awarded about \$940 million across over 100 projects under these initiatives. Some of this funding will be further distributed via the National Fish and Wildlife Foundation (NFWF) (Box ).

Figure 15: Announced IRA Funding Allocations for Investing in Coastal Communities and Climate Resilience Initiatives



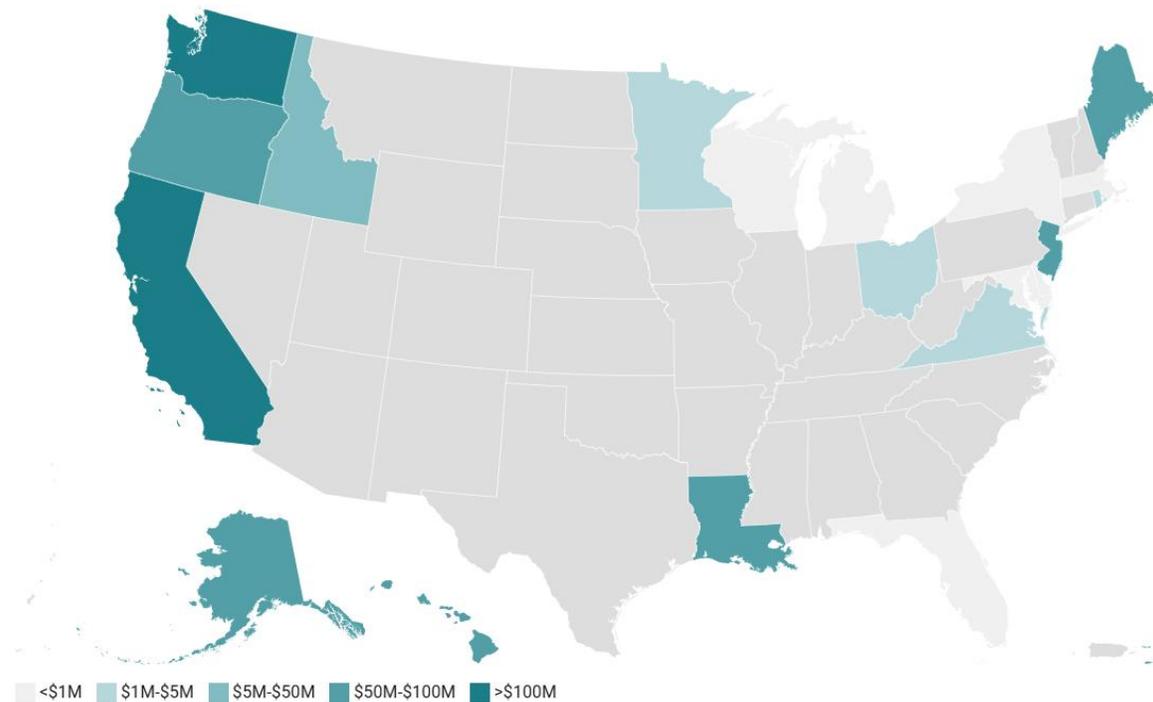
Discretionary spending refers to an additional \$1.15 billion in appropriated funds that will be used to provide additional funding for high-quality projects, non-competitive funding for Integrated Ocean Observing Systems, and Technical Assistance to states, localities, tribes, and other partners.

Source: National Oceanic and Atmospheric Administration [70]

### Climate Resilience Regional Challenge

To increase the resilience of coastal communities to extreme weather and other climate change impacts, the NOAA Office for Coastal Management (OCM) created the Climate Resilience Regional Challenge as a new, one-time competitive grant program [71]. In July 2024, NOAA OCM announced \$575 million in grant funding to 19 projects across the United States [72]. The awardees are a mix of state, local, and tribal governments, nonprofits, and universities. Projects include helping tribal communities guide scientific methodologies to protect wild salmon habitats with indigenous knowledge, as well as improving coastal resilience through nature-based solutions to reduce saltwater intrusion and improve bluff stability.

Figure 16: Geographic Distribution of Coastal Resilience Awards



The Federated States of Micronesia were awarded \$2 million but are not depicted.

Source: National Oceanic and Atmospheric Administration [73]

## Ocean-Based Climate Resilience Accelerators

To help foster public-private partnerships around ocean renewable energy, carbon sequestration, hazard mitigation, and ecosystems services, the NOAA Integrated Ocean Observing System (IOOS) Office launched the Ocean-Based Climate Resilience Accelerators (OCRA) Program with \$60 million in funding [74]. The OCRA Program is split into two phases. Phase One, which ended in February 2024 with \$3.9 million in funding awards, created a shortlist of 16 “accelerator entities” who received funding to develop full proposals for Phase Two by July 2024 [75]. In Phase Two, IOOS will award the remaining \$55 million to up to five accelerator entities for up to \$15 million per award [76]. Connected to the OCRA Program, another \$40 million in funding is available across multiple funding opportunities to support ocean-based climate resilience efforts [77]. In September 2023, IOOS granted \$3.9 million to help NOAA’s Ocean Enterprise advance public-private partnerships and workforce development [76]. In June 2024, IOOS awarded \$16.7 million to 12 projects to support development of innovative technologies and public-private partnerships through the IOOS Marine Life and Ocean Technology Transition programs [78].

## Climate-Ready Workforce

To invest in a workforce prepared for the current and coming challenges posed by climate change, the National Sea Grant College Program (Sea Grant), the NOAA Climate Program Office (CPO), and NOAA OCM provided \$50 million to launch the Climate Ready Workforce (CRW) initiative [79] [80]. The initiative is designed to fund workforce training and placement programs that arm workers with skills and knowledge in fields like coastal resilience and climate adaptation. CRW set aside a further \$10 million for Sea Grant and NOAA to provide technical support to eventual project awardees. In June 2024 and in alignment with Justice40 and the Department of Labor Good Jobs Initiative, NOAA announced awards for nine projects in frontline communities facing disproportionately high climate risks [81] [82] [83].

## Climate-Ready Fisheries

NOAA's National Marine Fisheries Service (NOAA Fisheries) received \$349 million in funding for the Climate-Ready Fisheries (CRF) program to help build a fisheries system built to withstand climate change impacts [84] [85]. CRF has dedicated \$185 million to expanding and modernizing stock assessments and \$164 million to building capacity for region-specific fisheries and protected resources and to support regional fisheries management councils [84]. Thus far, CRF has awarded \$69.2 million across 15 projects, programs, or partnerships. \$1 million has gone to modernization efforts; \$26.1 million has gone to partnerships for North Atlantic Right Whale recovery; \$42 million has gone toward Pacific Salmon recovery.

## Fish Passages

A significant portion of water infrastructure such as dams or culverts is sited on rivers, creeks, and streams, fragmenting the preexisting ecosystem. As a result, fish passages are vital connective additions to infrastructure projects that preserve the ability of fauna to traverse their environment.

The National Fish Passage Program is a pre-existing program overseen by FWS [86]. IIJA provides an additional \$200 million to FWS's Fish Passage Program, to be distributed over five years at \$38 million a year via collaborative agreements [87]. At its core, the program relies on both federal FWS employees like biologists and engineers forging partnerships with applicants for federal funding. The FWS clarifies that IIJA funding is distributed and awarded separately from its general annual appropriations [88].

## A Review of Federal Water Investments

\$73 million in IJA funding has been awarded in fiscal years 2022 and 2023, in conjunction with \$82 million in funding from partners secured via the aforementioned collaborative agreements [88]. An additional \$70.3 million was awarded in April 2024; partner funds are not yet publicly available [89]. Another \$70 million is currently available via two rounds of funding, due in December 2024 and September 2025, respectively [90]. About 28 percent of funding remains to be awarded over the next two fiscal years.

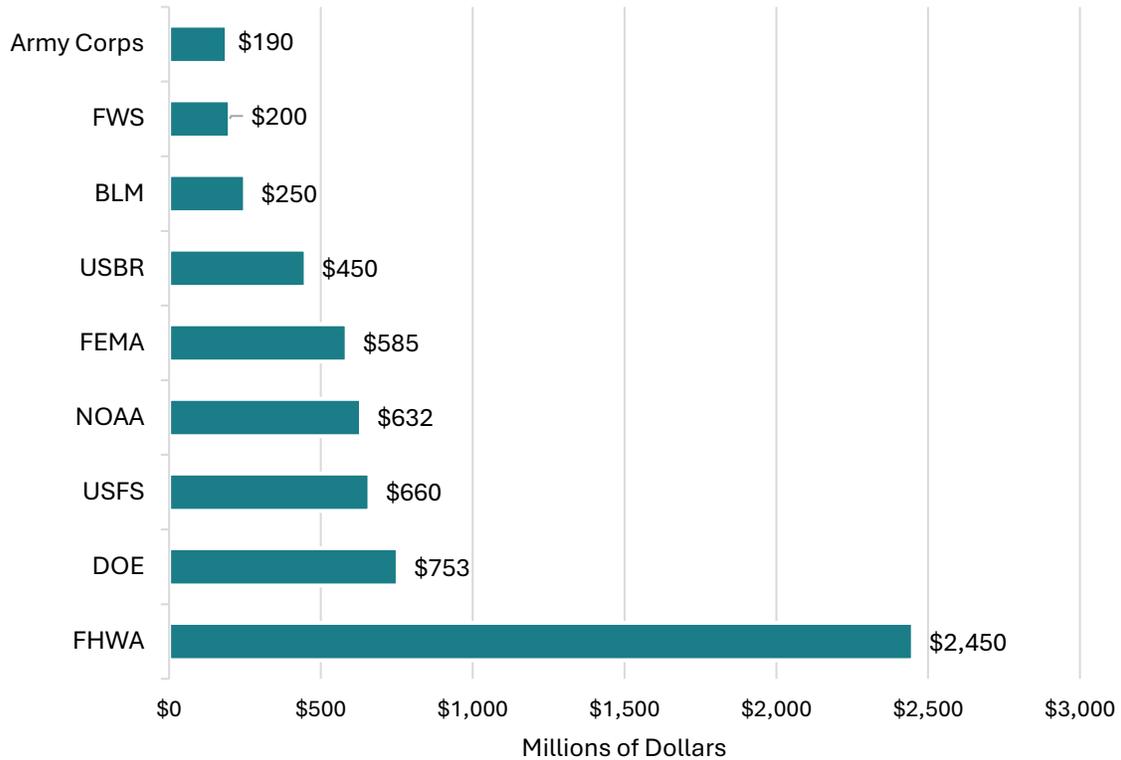
This FWS program is also covered by the Justice40 initiative [4]. Of the 122 awards made under the program, 21 amounting to \$34.7 million were to Tribal governments [10]. The program awards vary in size, between \$60,000 and \$8.3 million, with about 57 percent of awards being under \$1 million. Projects range from dam removals on creeks and watersheds to subsistence fish populations' habitat restoration to removing barriers to fish passages.

FWS's program operates alongside two additional programs centering the building and rehabilitation of fish passages: the Fish Passage program, funded at \$400 million and managed by NOAA, and the Landscape Scale Restoration Water Quality and Fish Passage program, funded at \$80 million and managed by the U.S. Forest Service [8]. Both are funded by IJA [54].

NOAA's program is wholly centered on fish passage restoration via removal of existing barriers and debris, as well as providing technical assistance to aid applicants in that restoration. The competitive grant program has released two kinds of RFPs, either generally pointed at barrier removal or specifically targeting Tribal priority fish passages [8]. Both applications open annually [10]. The USFS' program funding, on the other hand, is disseminated via direct federal spending to projects on National Forest System lands in annual rounds [8]. These programs are also under the Justice40 umbrella [4].

Given these many diversions of fish passage funding, higher-level organization amongst relevant federal agencies is necessary. Part of that need is filled by the Interagency Fish Passage Task Force, comprised of 13 federal agencies and tracking all IJA-funded fish passage programs [91]. To aid in coordinating, fish passage projects are trackable via the Interagency Fish Passage Portal, created by the Task Force to share funding and to ease informational access for potential applicants [92]. The Portal lists all IJA-funded programs that fish passage projects may qualify for funding under. Through those programs, 609 active fish passage projects dot the nation, managed by nine federal agencies and receiving a sum of \$967 million, out of a total of \$6.17 billion possible funding for fish passages denoted on the Portal [92].

Figure 17: Fish Passage Project-Qualified IJIA Funding by Federal Agency



Most Interagency Fish Passage Task Force programs are tracked by the Water Program Portal, apart from the FHWA’s Bridge Investment Program (\$125 million) and the Tribal Transportation Facility Bridge Program (\$550 million).

Source: Federal Interagency Fish Passage Task Force [92]

The Water Program Portal tracks most of the programs with two exceptions, the Bridge Investment Program and Tribal Transportation Facility Bridge Program [8]. A plurality of fish passage-qualified funding is housed in the Federal Highway Administration (FHWA), as shown in Figure 17, largely in the \$1 billion National Culvert Removal, Replacement and Restoration program—open to Tribal Nations, states, and local governments—and the \$825 million Tribal Transportation Facility Bridge Program—open to federally-recognized Tribal Nations [92, 93]. The other large fish passage-qualified program is the Maintaining and Enhancing Hydroelectricity Incentives program under the Department of Energy, funded at \$753 million [92]. All these largest programs seek to incentivize improvements to existing water infrastructure and open the door to additional funding for fish passages as an additional development.

# What's Ahead for 2025

In 2025, federal agencies are expected to continue dispersing pieces of the remaining half of water funding appropriated by IJJA and IRA. Federal programs administering funds on an annual basis will make their fourth rounds of IJJA-supported grants and their third rounds of IRA-supported grants.

The SRFs will continue to play a significant role in national water investments. States will continue to implement their FY2024 funding, supporting drinking water and wastewater projects throughout their communities. This will likely include boosting lead service line replacement efforts and improving water treatment to account for emerging contaminants. Meanwhile, state agencies will prepare their intended use plans for EPA's FY2025 SRF allocations, the fourth of five years of IJJA-elevated funding.

In the West, states will continue to act to meet the water conservation benchmarks required to protect the Colorado River water through 2026, while negotiating a post-2026 management plan [16]. A completed draft of USBR's environmental impact statement is expected by the end of this year, after which it will undergo a public comment period and be finalized by late 2025 [94]. IJJA's funding for water infrastructure like recycling, storage, conveyance, and desalination alongside IRA's water conservation funding will aid these efforts.

Funding for climate-smart agricultural practices, including irrigation efficiency, will likely pick up in 2025. So far, nearly \$4 billion has been allocated and expended through 2024 for USDA's climate-smart agriculture programs, leaving roughly \$14 billion remaining. The available funding for the programs is expected to almost double in FY2025 [95]. In the meantime, Congress continues to negotiate a renewal of the Farm Bill, with some debate focused on stripping the remaining IRA funding of its climate-smart agriculture requirements. The status of the renewal is currently pending Congressional action [9].

2025 will also likely see an expansion of green bank financing to support clean water infrastructure projects. Earlier this year, the Coalition for Green Capital, PRE Collective, and Quantified Ventures awarded \$1.3 million to six green banks focused on developing equitable clean water infrastructure initiatives [96]. While green banks are more commonly discussed as funding avenues for renewable energy projects, there has been increasing interest in their potential to address financing gaps for water infrastructure, especially in historically underserved communities.

Lastly, construction at the sites of more awarded projects should break ground. As these projects materialize, there will be more opportunities to track and measure impacts. The Water Program Portal will continue to report on these updates as they take shape.

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