



2025 Water Stewardship Project Portfolio

Replenish and Watershed Health
projects as of the end of 2024



*Sunrise at Brenton Slough, Iowa.
Photo by Great Outdoors Foundation & Polk County Conservation*



Google's water stewardship project map as of the end of 2024.

Introduction

The following report provides an overview of the 112 projects in Google's water stewardship portfolio as of the end of 2024. This report incorporates information from our trusted partners. While we work closely with them to ensure the information presented is as accurate and complete as possible, some of the details included are based on third-party research and analysis, which we haven't been able to independently verify. Many of these projects are in progress and project details and descriptions may change as activities are underway. We may update this information on an annual basis. More information on Google's water stewardship strategy can be found at sustainability.google.

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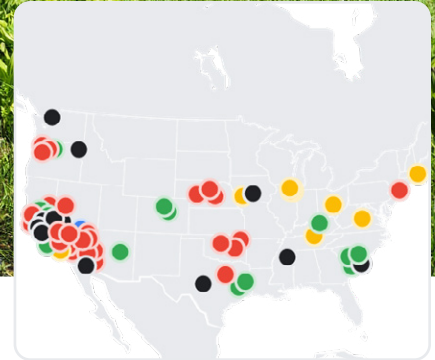
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North America

Alabama

Streambank stabilization along the Paint Rock River

We have supported The Nature Conservancy's efforts to restore the Paint Rock River Watershed, a biodiverse area degraded by excess sediment from eroding streambanks. This initiative targeted three priority sites that, if left unattended, would continue to erode, displacing soil and vegetation, degrading water quality, and impacting aquatic habitat conditions. The streambanks were stabilized through revegetation and recontouring slopes, which also allowed the river to reconnect with its historic floodplain. As part of this project, The Nature Conservancy will also acquire two conservation easements across approximately 198 acres of land in Jackson County, Alabama, that will protect aquatic and terrestrial biodiversity.

IN PROGRESS

Location

Paint Rock River Watershed, Alabama, USA

Watershed

Paint Rock River

Arizona

Smart irrigation for the Colorado River Indian Tribes

We are partnering with the Colorado River Indian Tribes (CRIT) to replace outdated irrigation infrastructure with new N-Drip systems that use real-time smart technology to save water in the dry Colorado River region. The drip irrigation will replace the existing flood irrigation system for alfalfa production, which will reduce water consumption. Conversion to a new irrigation system will also support a transition to a planting rotation of cotton and alfalfa, providing additional economic benefits to the Tribes.

IN PROGRESS

Location:
Colorado River Watershed,
Arizona, USA

Watershed:
Colorado River

Water conservation at Lake Mead

Lake Mead is a critical reservoir that supplies water to Nevada, Arizona, and Colorado. As a result of climate change, extreme drought, and increasing water demand, water levels in the lake have decreased, putting the entire system at risk of being unable to deliver water to communities that need it. We funded a water leasing agreement with the CRIT to reduce withdrawals from Lake Mead. CRIT Farms followed 10,000 acres of farmland that were previously irrigated by water supplied from the lake, leaving 50,000 acre-feet of water per year in Lake Mead from 2020-2022 to help stabilize water levels.

COMPLETE

Location:
Arizona and Nevada, USA

Watershed:
Colorado River

Resilience of Lower Colorado River water

This project is an expansion of our initial support of the Water Demand Reductions in the Lower Colorado River Basin. In partnership with BlueCommons, Restauramos El Colorado, Bonneville Environmental Foundation (BEF), Luken Center, and additional funders, Google is supporting a set of collective and integrated activities to deliver proactive measures to conserve water in the Lower Colorado River basin, store water in Lake Mead to reduce reservoir decline, and eventually deliver water to ecological restoration sites in the Colorado River Delta. Specific conservation activities, which include water leasing, land conversion, and alternative economic development, have been designed to meet the social, economic, and environmental needs of a water resilient future in the region.

IN PROGRESS

Location:
Arizona, USA and Mexicali,
Mexico

Watershed:
Lower Colorado River

Irrigation conservation with the Quechan tribe

In partnership with [Bonneville Environmental Foundation](#), [BlueCommons](#), and the [Bard Water District](#), we are funding the construction and relocation of a new solar-powered irrigation pump with the [Quechan Tribe](#). In addition to using a more reliable source of water, this pump will allow agricultural lessees of the land to enroll in a seasonal fallowing program that will conserve water during the hottest and driest months of the year. Water that would normally be used for irrigation during this time will instead be conserved and redirected for other tribal needs.

IN PROGRESS

Location:
Yuma, Arizona, USA

Watershed:
Lower Colorado River

Irrigation canal lining in Western Arizona

Building on our partnership with the [CRIT](#), we funded the lining of a leaky irrigation canal in western Arizona. The project lined over 3,800 feet of a canal that faced seepage issues, which will reduce water losses as water is conveyed from the Colorado River to agricultural land, improving the efficiency of the system.

COMPLETE

Location:
Poston, Arizona, USA

Watershed:
Lower Colorado River

Forest thinning in the Salt and Verde River Watersheds

Through the [Salt River Project](#) and other state, federal, local, and private partners, we supported mechanical treatment (forest thinning) across over 1,000 acres of land that was severely impacted by the 1990 [Dude Fire](#) and previously had an overabundance of shrubs and small trees. Restoration to a more historic and fire-resilient state is expected to reduce the risk of future catastrophic fire in the area, decrease the vegetative water demand, avoid water quality degradation, and increase surface water flows in portions of the Salt and Verde River watersheds.

COMPLETE

Location:
Phoenix, Arizona, USA

Watershed:
Salt and Verde River

Water conveyance for Colorado River Floodplain Restoration on the Cocopah Indian Reservation

The Colorado River has not regularly flowed downstream of Morelos Dam into the Colorado River delta since 1960. This floodplain was once a highly productive ecosystem with extensive riparian habitat for diverse species. In an effort to restore biodiversity to this area, we supported [The Cocopah Indian Tribe](#) and [National Audubon Society](#) to fund the construction of water infrastructure including ponds and flood cells that will deliver water to 390 acres of restored riparian habitat including cottonwood, willow, and mesquite. This project supports the Cocopah Tribe's traditional and contemporary way of life, wildlife and enhancement program, and community resilience to climate change.

IN PROGRESS

Location:
Arizona, USA

Watershed:
Lower Colorado River

California

Spreckels Wetland clean-up in Santa Clara County

Wetlands provide vital ecosystem services, including erosion control, flood mitigation, biodiversity protection, and improved water quality, while also serving as habitats for many native plants and animal species. We partnered with [Santa Clara Valley Open Space Authority \(OSA\)](#) to improve the health and function of eight acres of wetland habitat in proximity to our corporate headquarters in Mountain View, California. The project team has modified the existing culvert to expand and retain more water in the wetland. They have also removed invasive plant species and installed fencing around the wetland to protect it from cattle impacts.

COMPLETE

Location:
Santa Clara County,
California, USA

Watershed:
Coyote

Real-time toilet leak detection in Southern California

In the cities of Los Angeles and Irvine, we worked with the [Pacific Institute](#), [Bonneville Environmental foundation \(BEF\)](#), local utilities and water conservation experts to help households reduce their water usage and save money. In 1,200 units across affordable senior housing, affordable housing, and student housing, we funded the installation of sensors in toilets to detect leaks. Using Internet of Things (IoT) technology developed by [Sensor Industries](#), the sensors track water use and alert building management when toilets need to be replaced or repaired. These efforts cut consumer utility bills and contribute to water conservation in the water-scarce Southern California region.

COMPLETE

Location:
Southern California, USA

Watershed:
Santa Monica Bay and
Newport Bay



Toilet leak detection in California's bay area

Following up on the successful pilot project with remote leak detection implemented in Southern California, we scaled the partnership to San Francisco. Implementing partners [Sensor Industries](#) and [Mercy Housing](#) installed 225 water leak detection sensors on multi-family and senior affordable housing apartment buildings in San Francisco. Toilet leaks are difficult to detect and are the primary source of water waste in multi-family buildings. Installing this technology has reduced water use in the building; there is a strong water savings profile compared to pre-installation. By minimizing toilet leaks, this project reduces stress on local water resources. Project facilitators include [Sensor Industries](#), [Pacific Institute](#) and the [Bonneville Environmental Foundation](#).

COMPLETE

Location:
San Francisco, California, USA

Watershed:
Tuolumne River

Riparian restoration of Fisher Creek

In Santa Clara County, Fisher Creek’s riparian zone was degraded due to unrestricted cattle grazing, which suppressed natural vegetation growth and increased soil and nutrient runoff into the creek. We partnered with [OSA](#) and [Peninsula Open Space Trust](#) to restore the riparian zone along a half-mile section of Fisher Creek. Project partners installed a fence to exclude cattle from the sides of the creek and planted native vegetation to improve habitat and protect water quality. The native plants were installed by Point Blue Conservation Science's Students and Teachers Restoring a Watershed program which brings classes of students from local schools onto the land for restoration.

COMPLETE

Location:
Santa Clara County,
California, USA

Watershed:
Coyote

Stream restoration for improved fish passage in California

Stevens Creek originates in the Santa Cruz Mountains and flows through Sunnyvale and Mountain View before terminating in the San Francisco Bay. We partnered with [Friends of Stevens Creek Trail](#) and other local partners to protect and restore half an acre of Stevens Creek near our corporate headquarters. This project involved in-stream restoration activities, removing a concrete structure that served as a fish barrier during low-flow periods, and added wood and rock grade control structures to improve fish passage and habitat connectivity for threatened species including steelhead trout.

COMPLETE

Location:
Cupertino, California, USA

Watershed:
Coyote

Groundwater protection for San Francisco's Westside Basin Aquifer

In San Francisco, we are supporting the mission of [Westside Water Resources \(WWR\)](#) to decrease artificial diversions and restore the natural movement of water. The Westside Basin Aquifer is an important groundwater resource and serves as a drinking water source for several municipalities. Increased urban development has increased impervious surfaces in the aquifer's recharge area, which has contributed to both a decrease in natural recharge and an increase in combined sewer overflow events. Our contributions assisted WWR in successfully advocating to increase the accessibility of grants for green infrastructure that can reduce these impacts.

COMPLETE

Location:
San Francisco, California, USA

Watershed:
Westside Groundwater Basin

Wildfire restoration in the Tuolumne River Watershed

In partnership with the [National Forest Foundation](#), we funded the restoration of approximately 200 acres in the Stanislaus National Forest that burned during the 2013 Rim Fire. A large portion of the Stanislaus National Forest is in the Tuolumne River Watershed, which is the primary drinking water supply for San Francisco Bay Area residents. The [Rim Fire](#) burned over 257,000 acres of forest, making it the third largest wildfire in California history at the time. Restoring this land reduces the risk of future fire by removing the dead trees, brush, and plants that can act as fuel. It also reduces erosion, improves water quality, maintains habitat for local wildlife, and provides outdoor recreation opportunities.

IN PROGRESS

Location:
Stanislaus National Forest,
California, USA

Watershed:
Tuolumne River

Wetland restoration in Yosemite National Park

This project is a collaborative partnership of [American Rivers](#), National Park Service [Yosemite National Park](#), US Forest Service [Stanislaus National Forest](#), and [Yosemite Conservancy](#). Ackerson Meadow was drained and degraded by historic and recent human land uses, creating eroded gullies that lowered the water table and caused significant wetland loss. As part of this project, partners are filling the gullies to bring the land surface back to the surrounding meadow level. These efforts will improve hydrology in the region, increase water storage, restore vegetation communities, and create habitat for fish and wildlife, including the California endangered Great Grey Owl and Little Willow Flycatcher.

IN PROGRESS

Location:
Yosemite National Park,
California, USA



El Puente floodplain reconnection project in California

To restore important floodplain habitat in California's Central Valley, Google is supporting [River Partners](#) in protecting and restoring a 20-acre parcel of land along the Tuolumne River that will one day connect to Dos Rios State Park west of Modesto in Stanislaus County. River Partners will restore the site of a former almond orchard to a riverside forest and remove levees to enable the river to regularly inundate the floodplain and sustain a host of fish and wildlife species. Google's funding also supports an innovative land-acquisition revolving fund that will expedite efforts to expand floodplains along the Tuolumne River to increase resilience against drought and flood, both of which are expected to increase as the climate changes. El Puente and the subsequent projects funded by the revolving fund aim to conserve freshwater, help recharge local aquifers, and provide a variety of co-benefits including habitat for imperiled fish and wildlife, carbon sequestration, improved water quality, and more opportunities for public recreation for a park-starved region.

IN PROGRESS

Location:
California, USA

Watershed:
Tuolumne River



A watershed moment for groundwater recharge in California's Central Valley

This landmark project aims to bring together public and private partners to help solve a pressing issue in California's Central Valley: groundwater depletion. It will build off of findings from a California Department of Water Resources (DWR) Merced River study to plan on-the-ground recharge projects and conduct feasibility studies on four additional San Joaquin Valley watersheds. The [DWR](#), [Sustainable Conservation](#), and 11 local irrigation districts are critical on-the-ground partners carrying out this work.

IN PROGRESS

Location:
California, USA

Watershed:
Merced, Calaveras, Stanislaus, Tuolumne, and Upper San Joaquin River



Updating agricultural irrigation in Central California

We are partnering with [Netafim](#) and [Landmark Irrigation](#) to bring high efficiency irrigation to a 215-acre farm in Central California, where the current demand on groundwater is unsustainable. We funded a new surface drip irrigation system that will reduce water use. Additional benefits include an increased crop yield and less fertilizer applied.

IN PROGRESS

Location:
Madera County, California, USA

Watershed:
Middle San Joaquin River

High efficiency irrigation in La Vina, California

We are building on our suite of projects with [Netafim](#) and [Landmark Irrigation](#) to improve the irrigation efficiency of a 36-acre farm in Central California, a region where aquifers in the Central Valley face the risk of over-drafting due to groundwater extraction exceeding sustainable long-term supply levels. Google's funding allows the farm to be converted from flood irrigation to higher efficiency drip irrigation, reducing agricultural water demand. The drip irrigation system is also expected to reduce fertilizer application and emissions of nitrous oxide, a potent greenhouse gas. Utilizing Netafim's GrowSphere ONE technology, the farm will be able to remotely monitor and track water use throughout the crop's life cycle, further optimizing water management.

IN PROGRESS

Location:
La Vina, California, USA

Watershed:
Middle San Joaquin, Chowchilla, Fresno, and Panoche



Manure Subsurface Drip Irrigation study in California

Google is partnering with [Sustainable Conservation](#), UC Davis, and University of California Agriculture and Natural Resources to study the irrigation and greenhouse gas reduction benefits of Manure Subsurface Drip Irrigation (MSDI) systems at two California dairies. California's dairy industry, the largest in the country, contributes significantly to nitrous oxide emissions through manure production and irrigation. Implementing MSDI systems, which blend manure effluent with freshwater, provides an efficient irrigation option for dairy farmers while reducing water use, nitrogen loading, and nitrous oxide.

IN PROGRESS

Location:
San Joaquin Valley,
California, USA

Watershed:
Middle San Joaquin River



Innovative agriculture management in California's San Joaquin Valley

We supported DeJager Farms' pilot project to install a subsurface drip irrigation system and utilize dairy effluent as organic fertilizer on over 70 acres of land in Merced County, a California designated disadvantaged community in the San Joaquin Valley. [The region accounts for a significant portion of California's agricultural output](#), which relies heavily on groundwater withdrawals and synthetic fertilizers that exacerbate air and water quality pollution in the area. This project reduces demand for synthetic fertilizer and freshwater resources through innovative technology that links dairy and crops through nutrient recycling, drives demand for a circular economy, and delivers environmental, production, and economic benefits.

IN PROGRESS

Location:
Merced County,
California, USA

Watershed:
San Joaquin River

Groundwater resilience in Fairmead, California

Fairmead is a small, unincorporated community in California that is vulnerable to floods and droughts. Wells in Fairmead have been going dry at an alarming rate due to agricultural groundwater withdrawals in surrounding areas. We are supporting the second phase of a groundwater resilience project in the San Joaquin Valley led by [Sustainable Conservation](#). During the first phase of this work, Sustainable Conservation worked with community members to understand their priorities for securing a more sustainable water future. Our funding for the second phase of this work will help Sustainable Conservation implement groundwater recharge solutions to augment groundwater levels and repurpose irrigated land to reduce groundwater withdrawals.

COMPLETE

Location:
Fairmead, California, USA

Watershed:
San Joaquin River

Sierra National Forest Bass Lake Meadows restoration project

We partnered with the [North Fork Mono Tribe](#), the [Sierra National Forest](#), and [Trout Unlimited](#) to restore a series of eight degraded wet meadows. These wet meadows store groundwater at or near their surface during most of the growing season, following spring runoff. The project aimed to help restore the hydrologic and ecological characteristics of the previously degraded meadows in the Sierra National Forest through a variety of treatments including conifer removal, and process-based techniques, such as adding woody structures to degraded, downcut stream channels with the primary objective being to eliminate channelized flow. By restoring natural hydrologic regimes, a variety of benefits will be achieved including increased groundwater recharge, flood attenuation, and improved habitat value.

COMPLETE

Location:

Sierra National Forest,
California, USA

Watershed:

San Joaquin River



Wetland enhancement in the Blue Goose Unit of the San Luis National Wildlife Refuge

The Blue Goose Unit is located in California's San Joaquin Valley. The [U.S. Fish and Wildlife Service \(USFWS\)](#) purchased the Blue Goose Unit in 1970, and it is now part of the Grassland Ecological Area (GEA), the [largest remaining contiguous block](#) of managed freshwater wetlands in the Western United States. The GEA is a designated [Ramsar Wetland of International Importance](#), a Western Hemisphere Shorebird Reserve Network [Site of International Importance](#), and an Audubon California [Important Bird Area](#), as it annually supports hundreds of thousands of wetland-dependent birds. We are partnering with [Ducks Unlimited](#) and USFWS to improve water management of Blue Goose Slough, a semi-permanent wetland complex. The project replaced dilapidated water control structures, removed unnecessary levees, and constructed new swales to improve water management and hydrological connectivity with surrounding wetlands. The San Luis National Wildlife Refuge – Blue Goose Unit Wetland Enhancement Project provides improved habitat for wildlife, important brood habitat for local breeding waterbirds, enhanced water quality, and increased resilience to climate variability. It also supports local agriculture, boosts recreational opportunities, and synergizes with nearby restoration projects to create a more cohesive and thriving wetland ecosystem.

COMPLETE

Location:

San Luis National Wildlife
Refuge, California, USA

Watershed:

San Joaquin River

Aquifer recharge in Orland, California

We are building on our partnership with [Sustainable Conservation](#) to improve water supply resilience on a local farm in the Sacramento Valley. Google's funding will divert excess water to a retention basin and gravelly field with the potential to recharge two local aquifers. The restored basin will also provide habitat for local and migratory wildlife and will be designed to accommodate both shallow- and deeper-water species.

IN PROGRESS

Location:
Orland, California, USA

Watershed:
Sacramento River Basin

Groundwater recharge in Central California

Partnering with [Sustainable Conservation](#), we are expanding on the [Sierra Orchards'](#) commitment to sustainable farming practices in Central California. Google funded infrastructure that will pump nearby excess creek water during the farm's non-growing season to promote groundwater recharge, an important issue in the Central Valley, where the current groundwater levels are increasingly stressed by agricultural water demand. Applying water recharge on the land will also enrich habitats for local hawks, herons, egrets, and other fauna.

COMPLETE

Location:
Winters, California, USA

Watershed:
Lower Sacramento

Aquifer storage and recovery in Sacramento County, California

We are partnering with the [Carmichael Water District](#), a municipal water supplier for over 40,000 customers near Sacramento, to improve groundwater supply reliability. The District is in the process of rehabilitating existing production wells and installing new wells capable of capturing unused water that would otherwise flow downstream. Google's funding will equip one of these new wells, the La Sierra Well, with the capacity for aquifer storage and recovery (ASR), a process that stores excess drinking water in the ground during winter periods of low demand.

IN PROGRESS

Location:
Sacramento County,
California, USA

Watershed:
American River Basin

Native plant reestablishment in Southern California

In partnership with the [National Foundation \(NFF\)](#), our funding will support the removal of tamarisk, an invasive shrub that threatens native plant species and has reduced overall biodiversity and wildlife habitat, across 40 acres of the East Fork of the San Gabriel River. The San Gabriel Mountain Range supplies Los Angeles County with drinking water and provides habitat to rare, threatened, and endangered species. Removing the invasive tamarisk improves the resilience of the regional water supply, reduces wildfire risk, and decreases the likelihood of flooding, while providing long-term benefits to the river's ecosystem.

IN PROGRESS

Location:
Los Angeles County,
California, USA

Watershed:
San Gabriel

Permavoid stormwater system in Inell Woods Park

In South Los Angeles, we worked with [Heal the Bay](#) and the [Bonneville Environmental Foundation \(BEF\)](#) to fund the creation of Inell Woods Park, a new green space and water quality improvement project in a community that, per the CalEnviroScreen tool, is highly impacted by pollution sources. Google funded the installation of a [Permavoid](#) stormwater system that will capture and filter water that can then be used to irrigate the park's plants and trees, thereby lowering demand for potable water and reducing the amount of polluted runoff entering Compton Creek and the Los Angeles River.

COMPLETE

Location:
South Los Angeles,
California, USA

Watershed:
Compton Creek

Local water supply expansion in Southern California

In partnership with the [Water Replenishment District of Southern California \(WRD\)](#), we supported the acquisition of a brackish water well to bolster the regional water supply. The well is a component of the Torrance Groundwater Desalter Expansion Project, which will use reverse osmosis to remove the salts from brackish groundwater and will provide high-quality drinking water to local water customers. This initiative is part of WRD's Brackish Groundwater Reclamation Program, which seeks to optimize underutilized water resources and reduce dependence on imported water from the Colorado River and the Sacramento-San Joaquin Delta. This effort is facilitated by the [BEF](#) and supported with other corporate sponsors.

IN PROGRESS

Location:
Torrance, California, USA

Watershed:
Dominguez

Fuels reduction treatments in Tahoe National Forest

We are partnering with the [National Forest Foundation \(NFF\)](#) and others to support hazardous fuels reduction treatments in the Truckee Ranger District of the Tahoe National Forest. The NFF will conduct forest thinning, biomass removal, mastication, and additional thinning treatments on nearly 2,500 acres of land. In addition to reducing the amount of water lost to evapotranspiration, these forest management measures will reduce the risk of catastrophic wildfire in areas immediately surrounding the Stampede Reservoir, which serves as an important community water supply, provides recreational value, and contributes to flow regulation that supports endangered aquatic species. This project is an important part of the [Middle Truckee River Watershed Forest Partnership's 10-Year Plan](#) to create 60,000 acres of resilient forest across the Middle Truckee River Watershed by 2034.

IN PROGRESS

Location:
Tahoe National Forest,
California, USA

Watershed:
Truckee River

Colorado

Forest stewardship in the Colorado Rocky Mountains

We funded the Arapaho Ranch Forest Stewardship project, which will protect and manage 43 acres of Rocky Mountain forests. In partnership with the [Boulder Watershed Collective](#), the [Colorado State Forest Service](#), regional government agencies, and neighboring landowners, the project aims to thin tree density to reduce wildfire risk and create a healthier and more diverse ecosystem. This work protects critical drinking water sources and is in an area that's particularly vulnerable to drought, wildfires, and land development.

IN PROGRESS

Location:

Nederland, Colorado, USA

Watershed:

Boulder Creek

Water demand reductions in the Lower Colorado River Basin

We are partnering with [Blue Commons](#), [Restauramos El Colorado](#), and the [Bonneville Environmental Foundation \(BEF\)](#) on an initiative to reduce demand for water in the lower Colorado River basin, where reservoir levels have rapidly declined with aridification and drought. Google's contributions go directly to a suite of on-the-ground projects that conserve and retain water in Lake Mead: short-term and long-term water leasing, crop-switching agreements, and funding to improve irrigation infrastructure and habitat on tribal lands. This initiative is also intended to be catalytic: after the [Bureau of Reclamation](#) confirms water demand reductions, it's expected that they will add money to continue to support these initiatives in a revolving fund.

IN PROGRESS

Location:

Lower Colorado River Basin, USA

Watershed:

Lower Colorado River

Beaver restoration for resilient watersheds in Colorado

We are supporting the [Boulder Watershed Collective's](#) beaver restoration program. This project will relocate beavers within Boulder Creek and the St. Vrain watersheds to restore stream, riparian and meadow habitat and biodiversity. The program also uses beaver dam analogs (BDAs) to mimic the ecosystem function of natural beaver dams. The BDAs and increased beaver activity in the watershed will help recharge groundwater, mitigate floods, and improve water quality.

IN PROGRESS

Location:

Boulder, Colorado, USA

Watershed:

St. Vrain



Illinois

Reintroduction of mussels to the Chicago River's Wild Mile

We're supporting the work of [Urban Rivers](#) to reintroduce freshwater mussels back to the Chicago River starting in the North Branch Channel near the Wild Mile. Urban Rivers collects pregnant female mussels from the Chicago River Watershed, rears them at the [Urban Stream Research Center](#), and will ultimately introduce them back into the river. Freshwater mussels, once abundant in Chicago before urbanization, filter water contaminants like phosphorus, nitrogen, algae, heavy metals and microplastics. By improving water quality, they also help light penetrate deeper beneath the river's surface, enhancing benthic habitat for submerged plants and fish.

IN PROGRESS

Location:
Chicago, Illinois, USA

Watershed:
Chicago River



Green infrastructure data collection on the South Side of Chicago

We are partnering with [Delta Institute](#) and [Emerald South Economic Development Collaborative](#) to acquire parcels of land where green infrastructure solutions will be implemented. The project will facilitate the capture of stormwater runoff in Chicago's BIPOC-majority neighborhoods of Washington Park, Woodlawn, and South Shore. Using new and existing monitoring technologies, data on the effectiveness and applicability of each project will be collected. The data generated by this project will be used to streamline green infrastructure implementation to reduce costs and make it a more affordable and viable option for environmental justice communities.

IN PROGRESS

Location:
Chicago, Illinois, USA

Watershed:
Chicago

Green infrastructure in Chicago's Washington Heights neighborhood

We partnered with the [Center for Neighborhood Technology \(CNT\)](#) and [The Endeleo Institute](#) to support installation of two new bioretention areas and permeable pavers in Chicago's Washington Heights neighborhood. These site enhancements augment rainwater capture by adding green stormwater infrastructure to the property. Chicago is prone to chronic flooding, and older neighborhoods use a combined sewer system, which can back up into basements and even discharge untreated sewage into local streams during heavy rain events. This project will help reduce the amount of stormwater collected on the site, relieving some of the pressure on the combined sewer system. Additional partners involved in this activity are [Elevated Chicago](#) and [We Build Agency](#).

COMPLETE

Location:
Chicago, Illinois, USA

Watershed:
Chicago

Green infrastructure in Chicago's East Garfield Park and Bronzeville neighborhoods

We continued our partnership with the [CNT](#) to rehabilitate and expand existing green infrastructure at two community sites in the East Garfield Park and Bronzeville neighborhoods of Chicago. Both sites had green infrastructure that fell into disrepair due to lack of maintenance during the COVID-19 pandemic. Our funding helped refresh and expand the existing green infrastructure to increase the efficacy in capturing stormwater runoff and ensure their educational programs, beautification efforts, and operations are sustained. Additional partners involved in this activity are [Elevated Chicago](#) and [We Build Agency](#).

COMPLETE

Location:
Chicago, Illinois, USA

Watershed:
Chicago

Iowa

Grade stabilization structures in Southwestern Iowa

We are partnering with the [Great Outdoors Foundation](#), [Iowa Department of Agriculture and Land Stewardship](#), and [Drake University Soil and Water Assessment Team](#) to fund the construction of grade stabilization structures across nearly 50 sites in western Iowa. The structures will be designed to reduce soil erosion, reduce sediment load into water bodies, and improve downstream water quality by capturing runoff from adjacent land. Grade stabilization structures can also provide floodwater storage, reduce peak water flows after storms, and serve as water sources for livestock and wildlife.

IN PROGRESS

Location:
Iowa, USA

Watershed:
Missouri River Basin

Brenton Slough wetland protection

We are supporting the [Great Outdoors Foundation](#), [Iowa Natural Heritage Foundation](#), and [Polk County Conservation](#) in acquiring a 78-acre property which contains one of Central Iowa's largest natural wetlands, to provide protection from agriculture and future urban development activities. Once fully acquired, the wetland will be owned and preserved by Polk County Conservation, allowing the wetland to provide critical habitat, water quality, flood protection, and recharge benefits.

IN PROGRESS

Location:
Polk County, Iowa, USA

Watershed:
Mississippi River



Massachusetts

Infiltration trenches in the Mystic River Watershed

We are partnering with the [Mystic River Watershed Association](#) to implement 4 stormwater infiltration trenches adjacent to roadside storm drains in the Mystic River watershed. The trenches are designed to capture the first flush of stormwater runoff which carries the majority of pollutants during a storm event, supporting the reduction of Phosphorus pollution, a known concern in the watershed. These trenches are part of a large-scale effort to install infiltration trenches in the Mystic River Watershed, which recharges the groundwater in the highly urbanized watershed and provides benefits to downstream communities and water users.

IN PROGRESS

Location:
Massachusetts, USA

Watershed:
Mystic River

Nebraska

Irrigation efficiency in the Twin Platte Natural Resources District

We are partnering with Grower's Information Service Cooperative, [Twin Platte Natural Resources District](#), [Olsson](#), and [Arable](#) to promote the use of precision irrigation technology on farms in the Twin Platte Natural Resources District. Arable's smart field sensors will be implemented on nearly 190 fields to provide farmers precise and up to date information on rainfall, humidity, soil moisture, evapotranspiration, and other metrics. Through Arable's IoT system, farmers will be provided recommendations to help them understand the precise amount of water crops need to ultimately increase their water use efficiency and reduce the impacts of overuse in the water scarce basin.

COMPLETE

Location:
North Platte, Nebraska, USA

Watershed:
North Platte River Basin

Irrigation conversion in the Platte River Basin

We are partnering with [N-Drip](#) to install precision drip irrigation on 1,000 acres of corn-soybean agricultural land in the river basin. The N-Drip drip irrigation will be combined with updated irrigation efficiency technology and real-time smart irrigation management and replace conventional flood irrigation systems. Using drip irrigation will increase farmer's water use efficiency and ultimately decrease water demand throughout the river basin, ensuring other water users have availability as water resources in the region become more uncertain due to climate change.

IN PROGRESS

Location:
Platte River Basin,
Nebraska, USA

Watershed:
Platte River Basin



Groundwater recharge in the Platte River Basin

We are partnering with the [Nebraska Department of Natural Resources](#) and North Loup River Public Power and Irrigation District (NLRPPID) to leverage existing surface water irrigation system infrastructure operated by NLRPPID to increase groundwater recharge in the basin. NLRPPID's three primary irrigation canals divert water from the North Loup River where as water travels through the canals, a significant portion seeps through the canal into the underlying aquifer. The project aims to expand the operational timeframe of these canals by 10 days to allow for additional water to infiltrate into the aquifer. This captured recharge would then be available to the watershed during dry periods or naturally flow back into hydrologically connected streams, supporting instream users and threatened and endangered species in the basin.

IN PROGRESS

Location:
Ord, Nebraska, USA

Watershed:
Platte River Basin

Nevada

Rebates for converting turfgrass to water efficient landscapes in Nevada

We partnered with the [Southern Nevada Water Authority \(SNWA\)](#), [Bonneville Environmental Foundation \(BEF\)](#), and [City of Henderson](#) to lower water use for landscape irrigation in the drought-impacted Lake Mead region, where SNWA has reported that the largest consumptive use of their water supply is outdoor landscape watering. Our funding goes towards rebates to customers who convert water-intense turfgrass to more efficient landscapes and recreational spaces. In addition to saving water and lowering utility bills, the project is expected to increase native biodiversity and provide recreation and tourism opportunities.

IN PROGRESS

Location:
Henderson, Nevada, USA

Watershed:
Lower Colorado River

Turf to xeriscape conversion on Las Vegas Boulevard

We partnered with the [SNWA](#), [City of Las Vegas](#) and [Green Environmental Landscape Inc.](#) to convert over 22,500 square feet of turf at the Dula Community Center to xeriscape landscaping with desert-appropriate plants and a drip irrigation system. The conversion to more appropriate landscaping reduces consumptive water use and creates an educational demonstration area for water efficient landscaping.

COMPLETE

Location:
Las Vegas, Nevada, USA

Watershed:
Lower Colorado River

Cooling and conservation pilot in Nevada

In partnership with [Waterstart](#), Google is funding a pilot program to deploy an evaporative cooling technology in public use facilities, starting with the [Boys & Girls Club of Southern Nevada](#). This is the first project to qualify for the Southern Nevada Water Authority's wet-to-dry cooling incentive. If proven effective, there is potential to roll out this technology to other community facilities. It will also demonstrate the tangible benefits of innovative water conservation technologies and highlight the power of community partnerships in achieving conservation goals.

IN PROGRESS

Location:
Las Vegas, Nevada, USA

Watershed:
Lower Colorado River

Piloting technology to make Las Vegas well water safer

By working alongside [Waterstart](#) and the [SNWA](#), Google is funding a pilot program that makes drinking water from Las Vegas wells safer. The program leverages LED UV technology from the U.K. based company [Aquisense](#) that kills microbes at the wellhead, providing an additional treatment to protect the quality of groundwater. Our hope is that this technology will be implemented in the future at state- and nationwide levels, providing additional storage and security in water-scarce regions.

IN PROGRESS

Location:
Las Vegas, Nevada, USA

Watershed:
Las Vegas Valley

New York

Toilet leak detection in New York City

Following up on the successful pilot project with remote leak detection implemented in Southern California, we scaled the partnership to New York City. Implementing partners [Sensor Industries](#) and RJ Block installed leak detection sensors on 395 toilets in transitional housing in New York City. Toilet leaks are difficult to detect and are the primary source of water waste in multi-family buildings. Installing this technology will result in quicker toilet repair or replacement and a strong water savings profile.

COMPLETE

Location:
New York City, New York, USA

Watershed:
Saw Mill River - Hudson River

Ohio

Slim Creek flow-through wetland restoration

We are partnering with [The Nature Conservancy](#), [Licking County Soil and Water Conservation District](#), and other companies to restore the Slim Creek wetland in Central Ohio, allowing it to naturally filter and store runoff from the more than 700 acres that drain to it, the majority of which are from agricultural fields, before it flows into Buckeye Lake and the South Fork of the Licking River. This collaborative project is expected to reduce nutrient pollution and harmful algal blooms in the lake, protecting water quality and recreation opportunities.

IN PROGRESS

Location:
Columbus, Ohio, USA

Watershed:
Licking River

Oklahoma

Rural water system leak repairs in Cherokee Nation

In partnership with the [Cherokee Nation](#) and [Oklahoma Rural Water Association](#), we assisted in funding the replacement of a four-mile segment of leaking water main. Reducing this significant water loss will decrease reliance on groundwater, improve water access for a rural community within Cherokee Nation, and reduce system operating costs.

COMPLETE

Location:
Delaware County,
Oklahoma, USA

Watershed:
Neosho River

Regenerative agriculture in North-Central Oklahoma

In partnership with [Indigo Ag](#), we are aiming to support local farmers in implementing regenerative agriculture practices (e.g., planting cover crops; implementing conservation tillage) on approximately 4,000 acres of farmland in North-Central Oklahoma annually for the duration of the project. The regenerative agriculture practices that will be adopted attempt to restore and protect water resources, soil health, and biodiversity.

IN PROGRESS

Location:
North-Central Oklahoma, USA

Watershed:
Arkansas River

Irrigation efficiency in the Oklahoma Panhandle

In partnership with members of the [Oklahoma Panhandle Agriculture and Irrigation Association](#), we are supporting the use of [Arable's](#) precision irrigation technology on approximately 27,000 acres of farms in the eastern side of the Oklahoma Panhandle. Arable's smart field sensors provide farmers precise, real-time information on rainfall, crop water need (evapotranspiration), wind, humidity, temperature, crop growth, irrigation activity and other metrics. Through Arable's solution, farmers will be provided recommendations to help them better understand the precise amount of water crops need to ultimately increase their water use efficiency and conserve groundwater in this water stressed region.

IN PROGRESS

Location:
Northwest Oklahoma, USA

Watershed:
Arkansas River

Oregon

The Dalles Municipal Watershed restoration

We partnered with [The City of The Dalles](#) and [Bonneville Environmental Foundation](#) to reforest over 150 acres within The Dalles Municipal Watershed, land used for the protection of water quality and quantity, that previously burned after multiple wildfires in 2013. The project site runs along the South Fork of Mill Creek, one of the main water supplies for The Dalles, a community situated on the banks of the Columbia River. With support from Google, The Dalles restored the site with over 70,000 two-year-old ponderosa pine seedlings and installed bud caps on the trees to help prevent mortality from wildlife browsing. The reestablishment of a healthy forest will reduce runoff and associated erosion and help improve water quality, contributing to a clean and abundant water supply for the people of The Dalles.

COMPLETE

Location:
The Dalles, Oregon, USA

Watershed:
The Dalles Municipal

Smart irrigation in Oregon

We are partnering with the [Wasco County Soil and Water Conservation District](#) to install more efficient irrigation systems in The Dalles, Oregon. Over 15 acres of lawn, landscaping, and cemetery will be equipped with five smart controllers that use local weather to adjust irrigation. This will help conserve water in a region experiencing historic drought and failing reservoirs.

IN PROGRESS

Location:
The Dalles, Oregon, USA

Watershed:
Mill Creek

Eastside Lateral Canal improvements

With the support of Google and other funders, the [East Fork Irrigation District](#) in partnership with the [Confederate Tribes of Warm Springs, Hood River Watershed Group](#), Oregon Natural Resources Conservation Service, Oregon Watershed Enhancement Board, Oregon Water Resources Department and the Bureau of Reclamation are redeveloping 6 miles of open irrigation canal to become a closed, piped system with enhanced sublateral lines, irrigation turnouts, and pressure management features. These improvements are expected to significantly reduce water losses from the system, which will allow water to remain in the East Fork Hood River, providing water supply resilience, habitat, and water quality benefits.

IN PROGRESS

Location:
Hood River County,
Oregon, USA

Watershed:
East Fork Hood River

Aquifer storage and recovery in Oregon

We are supporting the [City of The Dalles](#) in Oregon with an aquifer storage and recovery (ASR) project that will take water treated from the Wicks Water Treatment Plant and store it in The Dalles Pool Aquifer. The aim is for surplus water to be used during periods of drought or high water demand, providing a more secure water supply for the city's future.

IN PROGRESS

Location:
The Dalles, Oregon, USA

Watershed:
Dalles Pool Aquifer

Dam restoration for native salmon and community resilience in Eastern Oregon

The Wallowa Lake Dam, constructed in 1918, blocked passage for native Sockeye salmon migrating upriver, resulting in local extinction. After over 100 years of use, the dam deteriorated to the point of being designated as a [high-hazard structure](#) by the state, reducing the amount of water that can be stored annually. This limits the ability of the reservoir to provide water for irrigation and protect downstream communities from flooding. We are supporting an effort by the [Wallowa Lake Irrigation District](#), [Confederated Tribes of the Umatilla Indian Reservation](#), [Nez Perce Tribe](#), Chief Joseph Band of Nez Perce, conservation groups and local communities to rehabilitate this dam, reintroduce Sockeye salmon, improve instream flows, and increase the amount of water that can be stored in the reservoir for irrigation and downstream flood protection.

IN PROGRESS

Location:
Oregon, USA

Watershed:
Columbia River

South Carolina

Wetland reconnections in Charleston, South Carolina

We partnered with [The Nature Conservancy](#), [Bonneville Environmental foundation \(BEF\)](#), and the City of Charleston on wetland restoration in Charleston, South Carolina, a city that experiences significant annual flooding. The project reconnected approximately 20 acres of floodplain wetlands in the Church Creek watershed, providing more natural flood solutions and storage capacity for excess water during rain events and restoring the ecosystem to a more natural state.

COMPLETE

Location:
Charleston, South Carolina, USA

Watershed:
Church Creek

Prescribed burns to restore longleaf forests in South Carolina

Restoration of the longleaf pine ecosystems is a major conservation priority in the southeastern United States, since these ecosystems are resilient to climate change and provide habitat for endangered and threatened species. We have funded an effort with [The Nature Conservancy](#) that restored and managed longleaf pine ecosystems with prescribed burns on over 40,000 acres in the [Forest Marion National Forest](#), an ecological hotspot in South Carolina. Prescribed burns maintain the health of longleaf pine forests by preventing the encroachment of hardwoods, which consume more water than native groundcover. They also reduce the forest's susceptibility to insect and disease outbreaks, wildfires, and water stress, improving overall forest health.

COMPLETE

Location:
Francis Marion National Forest, South Carolina, USA

Watershed:
Cooper River

Longleaf pine forest restoration in Francis Marion National Forest

Continuing our partnership with [Bonneville Environmental Foundation \(BEF\)](#), Google is providing funding for [The Nature Conservancy \(TNC\)](#) to support restoration of an additional 90,000 acres of longleaf pine forest in South Carolina's [Francis Marion National Forest](#). Through the consistent utilization of prescribed fire on a landscape scale, the project aims to expand a sustainable forest ecosystem in and around the National Forest. Through prescribed burns, the project will improve the health of this fire adapted ecosystem, increasing habitat value for a variety of species, and protecting against wildfires.

IN PROGRESS

Location:
Francis Marion National Forest, South Carolina, USA

Watershed:
Cooper River



Conservation easements for longleaf forests in South Carolina

Building on [TNC](#) efforts to restore and protect longleaf pine forests in the Francis Marion National Forest, we contributed to conservation easement funds to protect forestland and minimize incompatible development that could impede the fire management operations. As part of this project, TNC worked with land trust partners in the strategic acquisitions of forests prioritized for their connectivity and resilience. This initiative protects over 500 acres of undeveloped upland pine, mixed pine, and bottomland hardwood ecosystems that would otherwise be converted to golf courses or low-density housing.

COMPLETE

Location:

Francis Marion National Forest, South Carolina, US

Watershed:

Cooper River

Tennessee

Agricultural best management practices in the Red River Basin

We are partnering with the [Cumberland River Compact \(The Compact\)](#) to fund agricultural best management practices on farms in the Red River Watershed. Agricultural runoff degrades water quality in the Red River, and this project is designed to reduce nonpoint source pollution from agriculture. Practices will focus on reducing nutrient loads and improving soil health, and The Compact will partner with agencies and farmers in Tennessee and Kentucky to implement cover crops, no-till farming, reduced tillage farming, prescribed grazing/cattle stream exclusion, herbaceous weed treatment, and conservation crop rotation.

IN PROGRESS

Location:

Tennessee and Kentucky, USA

Watershed:

Red River

Reforestation of previously mined lands in Tennessee

Building on our partnership with the [The Compact](#), we are funding the reforestation of approximately 50 acres of previously mined land in Tennessee. The Compact will remove invasive groundcover, decompact the soil, and plant a mix of native upland tree species. The project will improve water infiltration while also creating improved conditions for the natural restoration of creeks and streams.

IN PROGRESS

Location:

Tennessee, USA

Watershed:

Cumberland River



Texas

Streamflow improvements in Texas' Upper San Saba River

In partnership with [The Nature Conservancy](#) in Texas, Google is funding a 5-year water lease agreement to reduce irrigation diversion and keep water in the Upper San Saba River, a priority conservation area under threat from water scarcity. Our goal is to increase the river's streamflow during a drought period to maintain abundance and diversity of native species when it's needed most.

COMPLETE

Location:
Texas Hill Country, USA

Watershed:
Upper Colorado River

Longleaf pine forest restoration in East Texas

Through the [Texas Water Action Collaborative](#) facilitated by [Texan by Nature](#), we were matched with a [Texas Longleaf Team](#) project to restore 2,000 acres of longleaf pine forest in East Texas. Once spanning [over 90 million acres](#) in the southeastern U.S., including East Texas, longleaf pine forests have been drastically reduced by urbanization and land use changes. The native longleaf ecosystem is characterized by a grassland savannah underneath the pine trees, and research has shown that this ecosystem is more effective at capturing and filtering water than traditional production forestry. Partners at Stephen F. Austin State University and Raven Environmental Services are conducting environmental monitoring to demonstrate how healthy ecosystems improve water quantity for Texans. The project will remove noxious invasive shrubs and woody vegetation, replant longleaf pine trees, and use prescribed burns to restore habitat for a variety of wildlife, including the endangered red-cockaded woodpecker. Ultimately, the benefits of this restoration will enhance the ecosystem's resilience to drought, pests and diseases, severe weather, and wildfires.

IN PROGRESS

Location:
Texas, USA

Watershed:
Trinity River



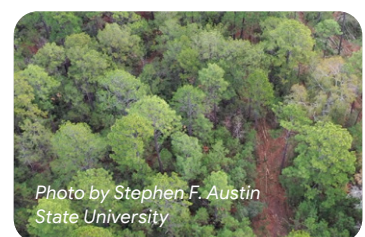
Rock Creek longleaf pine restoration

Building on our partnership with [Texan by Nature](#) and the [Texas Longleaf Team](#), we're supporting the restoration of an additional 1,000 acres of longleaf pine forest in Texas with [Stephen F. Austin State University](#) and Tall Timbers through the removal of invasive species, prescribed burns, and planting longleaf pine. With an open canopy and diverse understory, longleaf pine ecosystems improve groundwater infiltration and water quality, benefitting regional climate resilience, water availability, and the wildlife and people who call East Texas home.

IN PROGRESS

Location:
Eastern Texas, USA

Watershed:
Trinity River



Environmental water transactions across Texas

Building on our support of [The Nature Conservancy](#) in Texas' water stewardship efforts, we are funding two environmental water transactions in areas facing pressure from rapidly increasing populations in the Upper Trinity and Upper Colorado River basins. The first involves 5 years of water rights leasing and the second focuses on the development of 1,000 acres of regenerative farming practices, like conservation tillage and planting cover crops. These efforts will restore surface waters, increase streamflow along rivers, and improve aquatic habitat for native Texan plants and animals.

IN PROGRESS

Location:

Texas, USA

Watershed:

Upper Colorado River and Upper Trinity River

Groundwater recharge in Dallas-Fort Worth, Texas

We are supporting the [Tarrant Regional Water District \(TRWD\)](#) with Aquifer Storage and Recovery (ASR) to increase groundwater recharge and storage, support regional climate adaptation, and demonstrate there are opportunities to scale this technology. This project will recharge an aquifer with extra water that TRWD is allowed to use but doesn't have demand for each year. Repurposing this water by putting it back into a depleted aquifer is a win for local water users and the environment.

IN PROGRESS

Location:

Dallas-Fort Worth, Texas, USA

Watershed:

Lower Trinity, Cedar, Chambers, and Richland

Virginia

Riparian buffers with the Alliance for the Chesapeake Bay

To protect and restore water quality in the Chesapeake Bay and its tributaries, we supported the [Alliance for the Chesapeake Bay](#) by funding the installation of approximately 13 acres of forested riparian buffers on five farms in Virginia's Chesapeake Bay watershed. These edge-of-field buffers will intercept and filter runoff containing high concentrations of nutrients from agricultural operations in the region. In addition to helping improve water quality, the forested buffers are expected to provide habitat for wildlife, sequester carbon, and help control erosion associated with excessive runoff.

COMPLETE

Location:

Virginia, USA

Watershed:

Potomac River

Washington

Stillaguamish floodplain acquisitions to protect salmon

Just north of Seattle, we're supporting the Stillaguamish Tribe of Indians' efforts to purchase and protect floodplain parcels identified as priority areas for salmon recovery along the North Fork Stillaguamish River. Salmon spawning habitat, valued by Tribes in the Puget Sound for cultural, spiritual, and economic significance, is threatened by urban sprawl and land development. Google's funding meets a private-match requirement to unlock grant funds from the Washington State Recreation and Conservation Office, and the acquisition of these parcels will enable future restoration projects.

IN PROGRESS

Location:

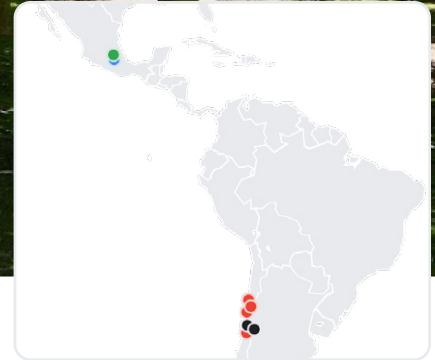
Stillaguamish River,
Washington, USA

Watershed:

Stillaguamish



Farms in the Maipo Basin in Chile.
Photo by Kilimo



Latin America

Wetland restoration and enhancement in the Andes Mountains

We are contributing to projects that will restore and enhance wetlands degraded from climate change, drought, and agriculture along the Maipo River of Chile's Andes Mountains. Working in partnership with [The Nature Conservancy \(TNC\) Chile](#) and thanks to the support of private and technical partners, the project is focusing on more than 70 hectares (over 170 acres) of wetlands, conducting active and passive restoration efforts, such as expanding wetlands, establishing protection, reestablishing irrigation systems, studying carbon fluxes, soil decompaction, implementing measures to protect the area from traffic and grazing, monitoring flora and fauna species, and installing sensors to track well levels and streamflow.

IN PROGRESS

Location:
Maipo River Basin, Chile

Watershed:
Yeso and Maipo Alto Basins

Wetland and forest conservation in the Andes Mountains

This project is a continuation of our support of the Wetland Restoration and Enhancement in the Andes Mountains. Along with [TNC Chile](#), community stakeholders, and partners of the [Santiago-Maipo Water Fund](#), we're supporting three conservation projects in Chile's Maipo River Basin. In the Andes Mountains, we are supporting passive and active restoration efforts of high altitude wetlands through vegetation restoration, erosion control, and protection from human activity. We're also helping restore and reconnect isolated forests by reintroducing native shrubs and trees. TNC is also monitoring the local hydrology and carbon fluxes to provide data that encourages new legislation and actions to protect wetlands. This project aims to improve the hydrology, local habitat, and future water security of the region.

IN PROGRESS

Location:
Maipo River Basin, Chile

Watershed:
Yeso and Maipo Alto Basins

Precision Irrigation in Chile's Maipo River Basin

We are partnering with [Kilimo](#) to promote the use of precision irrigation technology among farmers in Chile's Maipo River Basin. Kilimo's technology tools help farmers optimize water use, enabling real-time calculations of irrigation needs. This initiative aims to enhance farmer's water use efficiency, and reduce the impacts of overuse, including overexploitation of aquifers, and address water scarcity, while protecting aquatic ecosystems. The project also contributes to improved pest control, reduced carbon emissions, and increased agricultural productivity. As a result, the region benefits from more sustainable water management and enhanced agricultural output, while reducing pressure on both groundwater and surface water resources.

IN PROGRESS

Location:
Santiago Metropolitan Region, Chile

Watershed:
Maipo River

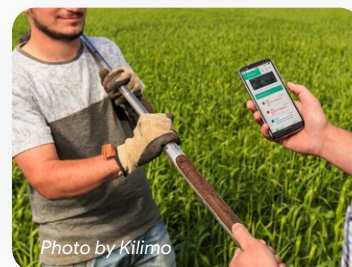
AI for water efficient agriculture in Chile's Maipo River Basin

This project is an expansion of the first phase of partnership with [Kilimo](#) to promote the use of precision irrigation technology among farmers in Chile's Maipo River Basin. The Kilimo project team uses a "Big Data" solution that incorporates AI into a web-based app, satellite data, crop soil moisture tests, and measurement of precipitation and irrigation inputs to provide real time irrigation demand information. In this phase, project partners will deploy the irrigation management system on farms over a seven-year project period.

IN PROGRESS

Location:
Maipo Basin, Chile

Watershed:
Maipo River



Reservoir repair to improve irrigation efficiencies

As part of an integrated project to improve water security in the water scarce Maipo Basin, we are partnering with [Agua Segura](#) to rehabilitate one of the main water reservoirs in Curacaví. The reservoir currently operated at a limited capacity due to sedimentation, and the project recovered lost storage capacity by using heavy machinery to remove sediment, repair the reservoir weir, and replace the reservoir valve. By increasing the water supply available for irrigation, the project will maintain agricultural productivity and increase water availability for agriculture during drought periods, improving climate adaptation for farmers and related users.

COMPLETE

Location:

Curacaví, Melipilla Province, Región Metropolitana, Chile

Watershed:

Maipo Basin



Canal lining to improve irrigation efficiencies

As part of an integrated project to improve water security in the water scarce Maipo Basin, we are partnering with [Agua Segura](#) to repair over 4 km of an irrigation canal in Curacaví, by lining the canal with concrete to reduce water infiltration and seepage losses, filling in sections of the canal to prevent further erosion and sedimentation, and cleaning the canal to remove accumulated debris and sediment. By implementing these measures, the project will conserve water that would otherwise be lost, enabling a greater volume of water to be available for irrigation purposes as well as reduce sedimentation and erosion, thus improving water quality in the canal and downstream.

IN PROGRESS

Location:

Curacaví, Melipilla Province, Región Metropolitana, Chile

Watershed:

Maipo Basin

Water recharge, reforestation, and soil conservation in the State of México

In partnership with [Pronatura](#), we're supporting nature based solutions in the town of San Bartolomé Actopan by funding a percolation pond, 5 check-dams, reforestation, and soil conservation. The percolation ponds and check dams capture rainwater and surface runoff, and working together with reforestation and soil conservation initiatives, these activities will provide flood protection, improve ecosystem health, and allow storm runoff to recharge to the depleted Basin of Mexico groundwater aquifer through infiltration.

COMPLETE

Location:

San Bartolome, Temascalapa, Mexico

Watershed:

Moctezuma River

Rainwater harvesting systems in Southern Mexico City

We worked with [Isla Urbana](#) to bring 85 rainwater harvesting systems to communities in water-stressed Mexico City. These devices capture, store, filter, and purify rainwater during the rainy season, providing clean water for drinking and household needs in an area historically impacted by water scarcity.

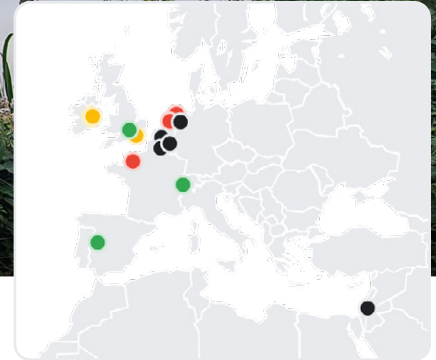
COMPLETE

Location:

Xochimilco, Southern Mexico City, Mexico

Watershed:

Anahuac



Europe, Middle East, and Africa

Wetland restoration within polder in Belgium

We are working with [Natuurpunt](#) and local stakeholders to restore wetlands in Sint-Onolfspolder Nature Reserve in Belgium. The project area is a historic polder with high potential for wetland restoration and benefits, including water retention, flood risk reduction, and drought resilience. Google's funding is facilitating the purchase of more land to scale up conservation, clearing ditches to increase water storage, and installing infrastructure such as bridges for both management and public use.

IN PROGRESS

Location:
Sint-Onolfspolder Nature Preserve, Dendermonde, Belgium

Watershed:
Schelde Basin

Nature reserve restoration in Belgium

Google provided funding for [Natagora](#) to complete the expansion of the Pres de Grand Rieu nature reserve, a portion of which was formed from the collapse of a coal mine. Once restored, the 100 hectare reserve is expected to provide ample bird habitat, walking paths, and environmental education opportunities for the community. This restoration project's wetland enhancement will help improve biodiversity, water quality (through management of the fishery), and public amenities.

COMPLETE

Location:
Hautrage, Belgium

Watershed:
Haine

LIFE Atlantic Valleys assessment

The [LIFE Atlantic Valleys](#) project aims to restore 230 hectares of transition and wetland habitats in the Hainaut and Brabant valleys of the Escaut River basin in Belgium. This project is led by the NGO [Natagora](#) and financially supported by the European Union and Wallonia to improve the conservation status of specific habitats (reed beds, ponds, moors and sandy lawns, etc.) and the protection of a large number of species (including the largest of Wallonia's newts, the great crested newt). Google is helping Natagora to develop an assessment at the ecosystem scale in order to determine the impact that the restoration actions can have on water bodies (water retention, recharge of aquifers, reduction of flooding phenomena, etc.).

IN PROGRESS

Location:
Wallonia, Belgium

Watershed:
Escaut River



AI for irrigation efficiency in the Seine River Basin

We supported the use of technology, specifically DSS (Decision Support System), to manage water resources and improve outputs for potato farmers in the Seine River Basin. By using the agronomic models developed by [xFarm](#), local farmers can improve efficiency in irrigation intervention by collecting and analyzing environmental data and soil water KPIs collected from the field sensors. These sensors identify the water status of the soil and compare it with crop demand to calculate the necessary irrigation requirements, which reduces plant stress, water consumption, and costs to farmers. This innovative efficiency project supports local economies, improves property values, and mitigates water-intensive agricultural practices in support of better water management.

IN PROGRESS

Location:
Seine River Basin, France

Watershed:
Seine River

Dublin green stormwater management

We partnered with [Bí Urban](#), the [Local Authorities Water Program](#), and the [Dublin City Council](#) to install planter boxes at both public and residential buildings around Dublin's Stoneybatter, O'Devaney Gardens, and Drumalee neighborhoods. The planter boxes intercepted rainwater from the building's rooftops during rain events, capturing water that would have otherwise flowed into the city's combined sewer system, which, when overloaded, overflows into the River Liffey and the Dublin Bay, which is a designated UNESCO Biosphere Reserve. This effort aimed to help improve the water quality of the River Liffey and reduce localized flooding risk in the watershed.

COMPLETE

Location:
Dublin, Ireland

Watershed:
Dodder

Protection program for the Vartry Catchment

In Ireland, we are supporting the mission of the [East Wicklow River Trust](#) to preserve, enhance and protect water bodies in County Wicklow that drain in the Irish Sea. Our contributions will fund the development of a protection program for the Vartry, a small coastal catchment that is Dublin's main source of potable water.

IN PROGRESS

Location:
County Wicklow, Ireland

Watershed:
Vartry Catchment

Green stormwater management in Ringsend, Ireland

In Dublin, we are partnering with [Understory](#), Ringsend & Irishtown TidyTowns and Environment, [The Rivers Trust](#), [PACE](#), and the [Local Authorities Water Program](#) to reduce untreated stormwater flowing into the River Liffey and Dublin Bay via the city's combined sewer system. The city's existing system discharges untreated sewage and stormwater that impacts beaches, biodiversity, and marine life. Our funding will support the installation of approximately 100 rainwater planter boxes connected to the rooftops of houses, bungalows, local businesses, and schools. Rainwater from the roofs will be diverted to the planter boxes, which will help reduce the risk of combined sewer overflows and localized flooding.

IN PROGRESS

Location:
Dublin, Ireland

Watershed:
Liffey Basin

Rewilding fish farms to wetlands in Israel

We are supporting the restoration of two former fish farms that are in the final stages of being converted back to wetland habitat. The restored wetland habitat will provide migrating birds, fish, and other native species with critical habitat. The project will improve biodiversity, restore natural water flow, and provide carbon storage. This rewilding project is led by the [Society for the Protection of Nature in Israel](#) in collaboration with numerous public and private partners.

IN PROGRESS

Location:
Israel

Watershed:
Dead Sea and Mediterranean Sea

Rainwater harvesting improvements in The Netherlands

We are partnering with [Acacia Water](#) on the island of Texel to create underground storage of excess rainwater during the fall for use during dry summers. On Texel, farms rely on rainwater as their sole source of freshwater and irrigation is banned, so this project is expanding the aquifer storage and recovery system to help the system collect more water. As climate change intensifies, this model has the potential to become vital for securing The Netherlands' agricultural future.

IN PROGRESS

Location:
Texel, Netherlands

Watershed:
West Frisian Islands

Polder management using smart water technology in The Netherlands

We are supporting work by [Acacia Water](#) in collaboration with [Fixeau](#) in Groningen to use smart technology to track salt levels in surface and groundwater points within the polder to make sure they don't rise to a level that would impact crop production. A handheld meter with a sensor is held in the water and real-time data informs how and when freshwater is needed to flush out salts. If successful, this model could revolutionize water management nationwide.

IN PROGRESS

Location:
Negenboerenpolder,
Groningen, Netherlands

Watershed:
Eems and Rhine River

Double dike construction in The Netherlands

In The Netherlands, we are supporting work led by the [Province of Groningen](#) and [Regional Water Board Noorderzijlvest](#) on the construction of a double dike in the Eems-Dollard Estuary. The double dike is an innovative pilot project to address the loss of coastal transition zones due to sea level rise, saltwater intrusion, low dissolved oxygen, high turbidity and sedimentation. Google's funding will go directly towards a water control structure that will improve flood safety and create a transitional marsh area used for aquaculture, saline agriculture, and habitat for migratory birds.

IN PROGRESS

Location:
Province of Groningen,
Netherlands

Watershed:
Princess Margriet Canal

Land conservation at Spain's Sierra de Gata Biological Reserve

We are partnering with [Fundación Naturaleza y Hombre](#) to acquire land and manage an area at the Sierra de Gata Biological Reserve for fire risk reduction and biodiversity conservation. Project work will include the creation of water ponds to capture and store runoff and implementing a rotational grazing system to reduce the accumulation of fire fuel in newly reforested areas. The project is expected to provide new habitat for aquatic and terrestrial wildlife as well as reduce the intensity and frequency of wildfires in the project area.

IN PROGRESS

Location:
Extremadura, Spain

Watershed:
Rio Tajo Basin

Pollinator habitat for healthy bee populations in Switzerland

Healthy bee populations in Switzerland rely on a diverse, continuous, and large supply of native flowers and nesting shelters, but land use change has led to their decline. Google is partnering with [BienenSchweiz](#), a beekeepers' association and advocacy group, to establish improved pollinator habitat across 6 hectares of urban and agricultural land near Zurich. This project will support interested landowners to create both annual and perennial pollinator habitats, including pollinator flower strips and flower-rich meadows. The new habitats will support both honeybees and wild bees, and planting native flowers on agricultural lands will also discourage crop pests and pesticide use.

IN PROGRESS

Location:
Limmat River Watershed,
Switzerland

Watershed:
Limmat River



Urban pollution treatment with constructed wetlands in London

We are building on the work of [Thames21](#), a nonprofit that has identified Chinbrook Meadows Park as a good candidate to improve the health of London's waterways. With the [Greater London Authority's Grow Back Greener Fund](#), we funded the construction of a wetland that treats urban runoff polluted by vehicles, roadways, chemical spills, construction, and trash. The project increases water storage capacity, creates footpaths for recreation, and provides protection from flooding in an area identified as a high-risk flood zone.

COMPLETE

Location:
London, United Kingdom

Watershed:
River Quaggy

Wetland restoration in London

We are partnering with [Thames21](#) to support the restoration and creation of a stream and wetland in Northbrook Park. The wetlands and stream will provide new habitat for local wildlife, reduce flood risk in the area by providing floodwater storage, improve water quality by capturing runoff from the adjacent neighborhood, and become an educational resource. The new wetlands are also expected to increase water storage capacity in the floodplain, slowing flows down and increasing the amount of infiltration to better resemble a natural flow regime.

IN PROGRESS

Location:
London, United Kingdom

Watershed:
Thames River



Primary school students washing their hands in India.
Photo by WaterAid/Dhiraj Singh

Asia Pacific

India

Rainwater collection in Gurugram, India

We partnered with CLEAN International and SayTrees to restore abandoned rainwater collection sites in Gurugram, India. Climate change is impacting the monsoon season and a quickly growing population in this financial and technology hub has increased local water scarcity. By cleaning out and restoring existing rainwater collection sites, water can be collected and used for seasonal agriculture, irrigation, gardening, and cleaning, which reduces stress on water sources.

IN PROGRESS

Location
Gurugram, India

Watershed
Sahibi River

Restoration of Mandhar Lake in Pune, India

We continued our partnership with [CLEAN International](#) and [SayTrees](#) to improve the storage capacity of Mandhar Lake in Pune, India. Sedimentation in many of the city's reservoirs has lowered their storage capacity, leading to growing water insecurity. This project dewatered and desilted over 5 acres of the lake to increase water volume and groundwater recharge as part of a larger regional effort. 500 plants and trees were planted around the lake, enhancing the local biodiversity and providing recreational opportunities for the community.

COMPLETE

Location:
Pune, India

Watershed:
Mula-Mutha

Water access, sanitation, and hygiene services in Hyderabad, India

With our partners at [WaterAid](#), we supported water access, sanitation and hygiene (WASH) services for an estimated 12,000 community members in Hyderabad, India. We helped fund initiatives aimed to address water scarcity and water quality issues at schools, healthcare facilities, early childcare centers, and households. Project partners constructed and retrofitted handwashing stations and toilets and improved drinking water access through pipeline extensions, storage tank construction, and sanitary protection to public water points. These efforts will also raise awareness on water conservation, water safety, and good hygiene practices, leading to better public health outcomes.

COMPLETE

Location:
Hyderabad, India

Watershed:
Musi River

Expansion of the WASH access project in Hyderabad, India

Continuing our partnership with [WaterAid](#), we expanded our support of WASH services for an estimated 12,000 additional community members in Hyderabad, India. This project continued efforts to address water scarcity and water quality issues at schools, healthcare facilities, early childcare centers, and households. Project partners constructed and retrofitted additional hand washing stations and toilets and further improved drinking water access through pipeline extension, storage tanks construction, and sanitary protection to public water points. These efforts will continue to raise awareness on water conservation, water safety, and good hygiene practices, leading to better public health outcomes.

COMPLETE

Location:
Hyderabad, India

Watershed:
Musi River



Restoration of Mullakathuva Lake in Hyderabad, India

Hyderabad was once known as the City of Lakes, but rapid development and human activity have led to impairment of many of these lakes.

We supported [United Way of Hyderabad's Wake the Lake](#) community-led campaign to restore Mullakathuva Lake in Hyderabad, India. This project cleared silt, debris, and weeds and implemented natural landscaping around the lake. A treatment wetland will also be constructed in Mullakathuva Lake to help improve water quality. These efforts will improve water quality, enrich local biodiversity, and create recreational spaces for the community.

IN PROGRESS

Location:
Hyderabad, India

Watershed:
Musi River

Improved water capture in Hyderabad, India

We partnered with [CLEAN International](#) and [SayTrees](#) to restore centuries-old stepwells sites in Hyderabad, India. Rapid groundwater depletion has increased water scarcity, particularly in years when monsoon rains are light. By cleaning out and restoring existing rainwater collection sites, communities have improved access to water for ceremonies, gardening, and cleaning, and more.

COMPLETE

Location:
Hyderabad, India

Watershed:
Musi River

Scoping study to prioritize restoration using nature-based solutions in peri-urban Hyderabad, India

We are funding a scoping study by [The Nature Conservancy](#) in India to identify priority water bodies for restoration in peri-urban Hyderabad. Peripheral areas outside of the municipal city limit are rapidly urbanizing, which presents a threat to lakes, ponds, wetlands, and other water bodies. This scoping study will conduct a detailed analysis of potential restoration sites within the Chinna Musi River Basin and identify the best candidates for on-the-ground restoration using nature-based solutions. This work is expected to lead to implementation of nature-based solutions as part of a separate project upon completion of the scoping study.

IN PROGRESS

Location:
Hyderabad, India

Watershed:
Chinna Musi

Water supply and sanitation loans in India

In partnership with [Water.org](#), Google is supporting WASH solutions for rural communities in Hyderabad, Bengaluru, Gurugam, and Pune. Specifically, Water.org will work with the Maharashtra State Rural Livelihood Mission to assist local governments and women-led self-help groups to enable access to small loans for safe water and improved sanitation solutions. With Google's support, Water.org will also work closely with local districts, blocks, and authorities to raise awareness of water and sanitation loans and facilitate the development or upgrade of water and sanitation infrastructure in rural areas. Funding provided by Google will enable education about water and sanitation financing options and will support the administration of small WASH loans that will generate sustainable access to essential services and products.

IN PROGRESS

Location:

Hyderabad, Bengaluru, Gurugram, and Pune, India

Watershed:

Multiple Watersheds in India



Lake restoration in Bengaluru, India

We are partnering with [CLEAN International](#) and [SayTrees](#) to restore Batalakere Lake in Bengaluru, India, where rapid urbanization has impaired and degraded the region's lakes. Restoration activities included dewatering and desilting the lake, strengthening the embankment, creating inlets and outlets, and planting trees nearby. Our aim is to increase the lake's water storage and groundwater recharge in order to meet growing water needs.

COMPLETE

Location:

Bengaluru, India

Watershed:

Ponnaiyar River Basin



Percolation wells to support groundwater recharge in Bengaluru, India

We are partnering with [United Way Bengaluru](#) to fund the construction of 480 percolation wells in parks around the city of Bengaluru. Urban development has increased the amount of impervious area in the city, leaving limited opportunities for rainwater to percolate into the subsurface and reduce runoff. This can lead to flooding, erosion, and water quality issues, particularly during the monsoon season. The percolation wells will capture runoff and promote infiltration to depleted groundwater resources.

IN PROGRESS

Location:

Bengaluru, India

Watershed:

Ponnaiyar River

Well restoration in Bengaluru, India

We partnered with [CLEAN International](#) and [SayTrees](#) to restore abandoned rainwater collection sites in Bengaluru, India. The restoration of these wells helps maintain groundwater levels, providing more communities with sustainable water access.

COMPLETE

Location:
Bengaluru, India

Watershed:
South Pennar

Wetland habitat restoration for endangered stork in Japan

In the wetlands of the Watarase Retarding basin north of Tokyo, we are working with [Ramsar Network Japan](#) and other local partners to conserve wetland habitat for local flora and fauna, including the endangered Oriental stork. We funded maintenance of the basin along with the construction of small biotope ponds and winter flooding management activities across rice paddies. Both management of the basin and rice paddies will enrich feeding grounds for storks. The project aims to maintain rich biodiversity in the area and foster public awareness on the importance of the region's valuable wetland habitat.

IN PROGRESS

Location
Oyama City, Tochigi City,
and Nogi Town, Japan

Watershed
Tone River



Rehabilitation of Taman Aman Lake in Malaysia

Google is partnering with the [Global Environment Centre](#) with the support of Petaling Jaya City Council to help improve the water quality of the urban and highly eutrophic Taman Aman Lake. Using a combination of constructed floating wetlands, pollution management, effective microorganisms and habitat enhancement, the project is expected to reduce nutrient concentrations (particularly phosphorus) thereby improving water quality and the habitat provided for aquatic organisms.

IN PROGRESS

Location
Kuala Lumpur, Malaysia

Watershed
Klang River

Creation of an Eco Pond in Singapore

We are working with Bukit Batok Zone 10 Residents Network to create an Eco Pond in a public housing estate. Singapore has limited land to collect and store rainwater. The pond is a bioretention basin that the development can use to water plants and clean areas of the estate, with excess stormwater stored in a tank underneath. Besides improved flood protection and water quality, the pond area will provide a community garden, wetland habitat for species that prey on mosquitoes, and an opportunity for students to learn about green infrastructure.

IN PROGRESS

Location
Bukit Batok, Singapore

Watershed
Bukit Batok Canal

Singapore Botanic Gardens water restoration

We are partnering with [Singapore Botanic Gardens](#) to improve water supply reliability in the irrigation lakes that sustain the gardens' living collections. This project, through a donation to the [Garden City Fund](#), will improve water quality and increase the availability of sustainable irrigation water in the Singapore Botanic Gardens by desilting and dredging two of its lakes and implementing a new water storage tank at a third lake. Along with improving the sustainability of the Garden's irrigation water supplies, restoration of the lakes will enhance the green spaces that support Singapore's rich biodiversity.

IN PROGRESS

Location

Singapore

Watershed

Malaysia Coast

Irrigation conversion pilot in Taiwan

Continuing our partnership with [N-Drip](#), we are funding a pilot project to install precision drip irrigation on rice fields during the first rice-growing season in Taiwan. The gravity-powered drip irrigation will replace existing flood irrigation systems, which will help reduce agricultural water demand. N-Drip will work with local stakeholders from academia, government, and the agricultural industry, including the Governmental Agricultural Research Institute, to recruit local growers to participate in the pilot project. N-Drip will install, support, and monitor the pilot farms to measure and calculate water savings, methane emissions, and demonstrate system performance. This pilot will help validate water savings potential of similar projects, improve methods, and build relationships with local stakeholders to help scale efforts in the future.

IN PROGRESS

Location

Changhua County, Taiwan

Watershed

Da'an River and Dajia River

Rainwater harvesting systems at schools in Taiwan

We are partnering with [CLEAN International](#), [Gravity Water](#), and the Environmental Ethics Foundation of Taiwan to install rainwater harvesting systems and storage tanks at 42 schools across Taiwan to provide a supplemental water supply. Water collected at these schools will be used for cleaning, irrigation, and sanitation. This effort will reduce the strain on local surface and groundwater sources.

IN PROGRESS

Location

Taipei, New Taipei City, and Changhua County, Taiwan

Watershed

Tamsui River and Old Choshui River



Photo by CLEAN International