

The Land and Water Conservation Fund

BENEFITS TO OUR NATION'S COASTLINES & COMMUNITIES



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INTRODUCTION

This report, produced by the Surfrider Foundation, aims to illustrate how vitally important the Land and Water Conservation Fund (LWCF) is to America's conservation legacy – and why this critical program must be fully supported, and funded, by Congress. Over the past few years, Surfrider has been working with a national [coalition](#) to ensure the reauthorization of the LWCF and to advocate for full, and permanent, funding for the program. As coastal advocates and outdoor enthusiasts, Surfrider recognizes that many of our favorite playgrounds and important coastal resources have been protected by the LWCF.

The LWCF, often dubbed “America’s best conservation program” is based on a simple concept: take revenues from offshore oil and gas production, and use the funds to protect parks, wildlife refuges, open spaces, sensitive habitat and to improve recreational opportunities across the U.S.

For more than 50 years, the LWCF has helped to protect some of America's most iconic beaches and important coastal resources – from Point Reyes National Seashore to Myrtle Beach and from Biscayne National Park to Rockaway Beach. Beachgoers and surfers in particular benefited from the LWCF's conservation legacy of protecting special places and creating recreational opportunities. Each year, millions of people visit LWCF protected places to engage in everything from sandcastle building to surfing. Many special places protected by the LWCF have become the “heart and soul” of numerous coastal communities – protecting unique ecosystems and cultural resources, providing solace and recreation, and contributing extensively to our nation's economy.

Our coastlines are not only part of our American heritage, where we spend time recreating and relaxing, but these treasured beaches also play a critical role in protecting our coastal communities from extreme weather events and sea

level rise associated with climate change. In fact, healthy, undeveloped coastlines contain some of the most sensible and economical solutions to climate change adaptation. For example, intact, resilient coastlines act as ‘buffers’ against sea level rise and extreme weather by supporting the interface between ‘land and water,’ by reducing wave energy and erosion, and by providing open space and productive habitats.

Continued investment in coastal conservation and restoration of wetlands, estuaries, dunes, reefs and mangroves not only makes sense in terms of climate change adaptation planning, but it also saves taxpayers money in the long run. According to the [National Institute of Building Sciences](#), every dollar invested in preparedness and resiliency saves four dollars in costs down the road.

The LWCF has funded a variety of acquisition and development projects over the decades that have protected our coastlines, and must continue to meet the needs of coastal communities across the country. In 2019, [Congress adopted](#) a set of criteria that agencies should consider when making land acquisition decisions. The criteria include: analyzing the significance and urgency of the acquisition, improving management efficiencies, assessing recreational value, and potentially the most important criteria, examining threats to land.

Using these criteria, Surfrider encourages LWCF projects that will strengthen the resiliency of our coasts in the future. As the climate continues to change, it is more important than ever to proactively plan ahead and adapt to threats from extreme weather events and sea level rise, while continuing efforts to protect coastal areas.

Surfrider and our coalition partners are advocating that Congress passes legislation to ensure the LWCF gets permanent, full, and dedicated funding.

History of the Fund

CASE STUDY

In 1964, Congress passed the Land and Water Conservation Fund, with considerable bipartisan support. The LWCF was established by Congress to fulfill a commitment to protect natural areas, water resources and cultural heritage, and to provide recreation opportunities. Using no taxpayer dollars, the fund invests earnings from offshore oil and gas leasing royalties to the Bureau of Ocean Energy Management (BOEM), which in turn provides funds and grants to federal, state and local governments.

Nearly **\$18.4 billion has been appropriated to the LWCF** since its inception, which is nominal considering that between 2006 and 2018, offshore oil and gas production generated about **\$90 billion in revenue** for the U.S. government. Over the past 50 years, LWCF funds have been used to conserve more than **7 million acres as federal public land** across the U.S. **Almost one-fourth of the total funding — \$4.2 billion — has been apportioned to states** and local governments, resulting in over 40,000 projects that have protected an additional 2.6 million acres locally.

Not only has the LWCF helped to establish iconic parks like the Grand Canyon, Glacier National Park, Everglades National Park, as well as other national forests and wildlife refuges, but the LWCF has also protected numerous coastlines, rivers and lakes, and established countless community parks, trails, and ball fields in all 50 states for all Americans to enjoy.

The LWCF also plays an important economic role for local communities. According to the Federal Interagency Council on Outdoor Recreation, recreation activities in national parks, wildlife refuges, marine sanctuaries and other federal managed lands and waters contributed approximately **\$51 billion and supported 880,000 jobs** in the United States economy in 2012. Nationally, outdoor recreation activities contribute \$887 billion to the economy annually and support 7.6 million jobs.

In terms of return on investment, for every \$1 invested in land acquisition through the LWCF, there is a return of **\$4 in economic value locally**.

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Current Status

The Land and Water Conservation Fund has been widely successful and has garnered bipartisan support for over 50 years. However, Congress determines the level of discretionary funding for the LWCF through the annual appropriations process. Since the program began, these discretionary appropriations have fluctuated widely. Unpredictable funding allocations prevent smart multi-year engagement and planning with local communities. Budget constraints can drive decision-makers to favor one-off projects, which may not be the most strategic allocation of funding. In the past few years, the LWCF has been especially neglected.

Despite being reauthorized, the Department of Interior's proposed 2020 budget aimed to eliminate funding for the LWCF by 95%, effectively eliminating the program.

In September 2018, Congress let the LWCF lapse over a dispute about whether its renewal should be part of a public lands' legislation package or not. Fortunately, in March 2019, Congress permanently reauthorized the LWCF with wide bipartisan support. Despite being reauthorized, the Department of Interior's proposed 2020 budget aimed to eliminate funding for the LWCF by 95%, effectively eliminating the program. These proposed draconian cuts underscore the need to pass legislation that fully funds the LWCF.



LWCF and Long-Term Coastal Preservation

Full and permanent funding of the LWCF is needed in order to maintain America's long legacy of protecting special places and improving recreation. Moreover, Surfrider supports LWCF funds being utilized for future climate change adaptation projects in order to protect coastal resources and local communities. The United Nations released climate change reports in both 2018 and 2019 that indicated society has very little time to curb greenhouse gases in order to avoid a catastrophic future. In fact, the most recent United Nations report specifically focused on how [climate change is impacting our oceans and coasts](#).

Findings from the report reveal that extreme events, such as hurricanes and storm surges, will continue to be more common and more severe. Melting sea ice and glaciers are causing sea levels to rise at an accelerated rate — putting coastal communities and low-lying islands at greater risk. In fact, extreme sea level events that were usually rare (typically once per century in the recent past) are predicted to occur at least once per year in many locations by 2050.

Surfrider publishes an annual [report](#) analyzing how coastal states are managing their coastlines and preparing for future sea level rise. Our findings indicate that 74% of coastal states are doing a poor to mediocre job of properly managing coastlines and being proactive in the face of climate change impacts. Yet, as mentioned, coastal and marine ecosystems often serve as the first line of defense in protecting low-lying communities from extreme weather events.

In fact, the United Nations report recommends setting aside coastal areas and at least 30% of the ocean where marine ecosystems can help buffer climate change impacts to the ocean and coastlines. In addition, restoring marine and coastal habitats can also help act as a buffer against sea level rise and sequester carbon. Marine and coastal ecosystems can sequester carbon four times better than terrestrial forests. Given the dire impacts of climate change, the LWCF provides a timely opportunity to help states, and the country as a whole, better prepare for climate change impacts.

The Land and Water Conservation Fund is an irreplaceable resource that can provide local communities with the support needed to manage coastal lands in light of rising seas and extreme weather events, acquire land that will act as a buffer to future climate change impacts, and ensure recreational opportunities are established and protected.

Considering an uptick in extreme weather events and future sea level rise projections, we recommend LWCF funding to be directed toward strengthening coastal resiliency by:

- Identifying vulnerable coastal land for acquisition, considering targeted buyouts from willing sellers of areas that are prone to repeated flooding.
- Providing resources to help relocate infrastructure that is in harm's way.
- Investing in 'green infrastructure' and restoration to help coastlines better adapt to rising seas.
- Providing local communities with funds to improve coastal management practices and building standards.

Adaptation measures undoubtedly help local communities to better plan for future sea level rise and extreme weather events. In fact, LWCF funds are already being used to help restore wetlands that will contribute to climate change adaptation. For example, in New Jersey, \$23 million from the LWCF went toward wetland and dune restoration in the Cape May National Wildlife Refuge. The goal of the project was to restore wetland and dune functions and install 'green infrastructure' to help absorb and slow down flooding from storms.

LWCF funds were used to: recreate a functioning dune system, install water control measures to reestablish the flow of fresh water to the wetland, and restore native vegetation. The combination of these adaptation measures helped build a resilient coastline in the Cape May National Wildlife Refuge that will better withstand storms and future sea level rise.

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ALASKA

Alaska's vast miles of coastline have been protected and maintained by funds from the Land and Water Conservation Fund (LWCF). Alaska has received approximately **\$156.2 million in LWCF funding** over the past five decades, which has been used to protect iconic places like Denali National Park, Alaska Maritime and Kodiak National Wildlife Refuges, and Sea Lion Cove Trail on Kruzof Island, known locally for its great surf break.

The Outdoor Industry Association has found that outdoor recreation generates **\$7.3 billion in consumer spending** in Alaska, supports 72,000 jobs which generate \$2.3 billion in wages and salaries, and produces nearly \$337 million annually in state and local tax revenue. Additionally, the U.S. Census reports that each year, 961,000 people contribute over \$1.3 billion in recreation spending to the state economy.

Glacier Bay National Park

CASE STUDY



Visitors have contributed \$193 million to the local economy and supported over 3,000 local jobs.

Glacier Bay National Park is named for its abundant tidewater and terrestrial glaciers. More than \$1 million in federal funding from the LWCF has helped to collaboratively manage this incredible landscape of wet tundra, Alpine tundra, coastal forest, glaciers and ice fields. What started as a national monument has expanded into the national preserve it is today, covering over 3 million acres, which provides important habitat for grizzly bears, caribou, Dall sheep, and other species. For the Huna Tlingit, Glacier Bay is also a place that continues to sustain them through ongoing traditional practices.

Despite having no roads into the park, Glacier Bay receives approximately 2 million annual visitors. Glacier Bay is considered a major highlight of Alaska's Inside Passage and part of a 25-million acre World Heritage Site. These visitors, who arrive mainly by cruise ship, have **contributed \$193 million to the local economy** and supported over 3,000 local jobs. Visitors are able to enjoy recreational activities, such as hiking, camping, mountaineering, kayaking, rafting, fishing and bird-watching.

Today, the Grand Pacific Glacier has lost more than 50% of its mass.

As recently as 200 years ago, almost all of Glacier Bay was covered by the Grand Pacific Glacier. Today, the Grand Pacific Glacier has lost more than **50% of its mass**. Glacier Bay is expected to become warmer and drier over the next century. Rapidly melting snow has caused entire mountain sides to crash down in avalanches and landslides. Since 2012, these avalanches were 1.5 to 5.9 times greater than the next largest avalanche in the **33-year sample**. More than half of the ice that makes up Alaska's glaciers is expected to be gone by the end of the century.

CALIFORNIA

California's beautiful Pacific coastline, which spans 1,100 miles from the Oregon border down to Mexico, has been protected and maintained by funds from the Land and Water Conservation Fund (LWCF). California has received approximately **\$2.48 billion in LWCF funding** over the past five decades, which has helped to protect iconic places, such as the Point Reyes National Seashore, San Onofre State Park, Pismo Beach, the San Diego and Don Edwards National Wildlife Refuges, and Humboldt Redwoods State Park.

Active outdoor recreation is an important part of the California economy and culture. The Outdoor Industry Association has found that active outdoor recreation supports **\$92 billion in consumer spending** in California, in addition to 691,000 jobs, which generate \$30.4 billion in wages and salaries, and produces \$6.2 billion annually in state and local tax revenue. Additionally, the U.S. Census reports that each year, 7.4 million people contribute over \$8 billion in recreation spending to the state economy.

Huntington Beach

CASE STUDY



Since 1910, Huntington Beach has embraced its surfing legacy. Known to many as Surf City USA, **11 million people visit annually**. Huntington Beach is also a sunbather's paradise, thanks to its 9.5 miles of wide sandy beaches. The LWCF has provided more than \$1 million in federal and state funding to parks and recreation trails around Huntington Beach. This includes the Huntington Beach Recreation Trail, which has more than 36 miles of bike, foot, rollerblading and horse trails. Funding has also helped to build Huntington State Beach roads, trails, showers, swimming facilities and concession buildings.

Bolsa Chica State Park and the Ecological Reserve have received over \$2 million in combined funds from the LWCF for acquisition and development, adding another gem to the public lands system that makes up Southern California. Huntington Beach, the nearby Chica State Beach, and the wetlands of Bolsa Chica Marsh Ecological Reserve are all part of the ancestral home of the Tongva. These locations are more than beautiful beaches, they are important pieces of California history.

Sea level rise is going to change the Southern California coast in significant ways. In Huntington Beach, 1-foot or less of sea level rise would make the Huntington Harbour area prone to flooding. Scientists are already changing their flood risk predictions, suggesting that chronic flooding of streets and beaches from **rising sea levels could be seen in just 13 years**.

Known to many as Surf City USA, 11 million people visit annually.

Chronic flooding of streets and beaches from rising sea levels could be seen in just 13 years.

San Onofre State Beach

CASE STUDY



San Onofre State Beach in San Diego County, California, is a 3,000-acre state park and arguably one of the most iconic beaches in Southern California because of its world-class surfing, camping and hiking. In 1972, San Onofre State Beach received over \$71,000 in LWCF funds for park improvements. This kind of funding has helped to make San Onofre a world-class destination, and California's fifth most visited state park, drawing over [2.5 million visitors annually](#).

Abundant with coastal bluffs, kelp forests, and sandy beaches, the ecosystem at San Onofre provides refuge for threatened and endangered species. The park also contains a sacred site of the Acjachemen people, known as Panhe village, that is over 8,000 years old.

LWCF funding has helped to make San Onofre a world-class destination, and California's fifth most visited state park, drawing over [2.5 million visitors annually](#).

Leo Carrillo State Park

CASE STUDY

Leo Carrillo State Park, situated along the Malibu coast with the Santa Monica Mountains as its backdrop, receives an average of 400,000 people each year. Using \$2 million in LWCF funding, Leo Carrillo State Park was able to acquire an additional 24 acres of beach and coastal bluffs for recreation. This beach attracts swimmers, surfers, windsurfers, fishers and campers. Visitors can also explore beautiful and vibrant tide pools, sea caves and reefs.

Leo Carrillo State Park receives an average of 400,000 people each year.

Leo Carrillo was recently devastated by the Woolsey Fire. The wildfire, which started inland, raced through canyons and mountains in Los Angeles and Ventura counties to the coastline, **burning 96,949 acres of land, 1,643 structures, and killing three people**. It was one of several fires in California that ignited on the same day. As hotter summers and drier winters become the new normal, California has seen increasingly stronger and more frequent wildfires.



Asilomar State Beach

CASE STUDY

Asilomar State Beach, located in Central California on the Monterey Peninsula, is a narrow one-mile strip of sandy dunes and rocky coves. In collaboration with the CA Department of Parks and Recreation, Asilomar State Beach received over \$588,000 in funding from the LWCF for the acquisition of 1.47 acres as part of an addition to Asilomar State Beach. **Over 400,000 people visit Asilomar each year.**

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Another draw of this park is the Asilomar Conference Grounds, a conference center built by the YWCA in 1913 that is now a National Historic Landmark. The 107-acre site offers visitors overnight lodging and views of the nearby pine forest, surf and sand. Offshore, the Asilomar State Marine Reserve protects thousands of species, some of which are endemic to the area. In spite of the cold water, this beach is popular with surfers and visitors from around the world. The consistent waves and wind bring surfers here on a daily basis and the scenic, ocean-front Asilomar Coast Trail is a highly popular destination with hundreds of visitors enjoying this coastal refuge each day.

Asilomar State Beach and Conference Grounds has been proactive in ensuring the long-term viability of this park. The existing Asilomar Coast Trail and planned rehabilitation project are part of a long-term dune restoration effort initiated by California State Parks. The project is being undertaken to ensure public access, while minimizing impact on the rich natural and cultural resources.

Asilomar Coast Trail is a highly popular destination with hundreds of visitors enjoying this coastal refuge each day.



Andrew Molera State Park

CASE STUDY



Andrew Molera State Park is one of the most reliable surfing areas on the Big Sur coast. While the hike in to the surf spots may deter some, surfing is popular; the two beaches are the park's most popular destinations. Andrew Molera State Park has received over \$2 million from the LWCF for the acquisition of 2,632 acres for wilderness recreation. This wild setting offers its 2 million annual visitors miles of beach to explore, and a diversity of animal life to observe, including California condors and migrating whales. Hikers can enjoy oak woodlands, redwood groves, and sycamores as they make their way along the windy trails.

This wild setting offers its 2 million annual visitors miles of beach to explore, and a diversity of animal life to observe.

Similar to Leo Carillo, Molera was devastated by wildfires in 2016. The [Soberanes Fire near Big Sur burned 19,311 acres](#), which included portions of Pfeiffer Big Sur State Park, Andrew Molera State Park and Julia Pfeiffer Burns State Park.

OREGON

Oregon's iconic coastline, which is lined with dramatic rock formations and serene local beaches, has been protected and maintained with funds from the Land and Water Conservation Fund (LWCF). Oregon has received approximately **\$322.8 million in LWCF funding** over the past five decades, protecting iconic places, such as the Columbia River Gorge National Scenic Area, Oregon Coast Wildlife Refuges, West Eugene Wetlands, Willamette National Forest and the Cascade Siskiyou National Monument.

The Outdoor Industry Association has found that active outdoor recreation generates **\$16.4 billion annually in consumer spending** in Oregon, supports 172,000 jobs across the state which generate \$5.1 billion in wages and salaries, and produces \$749 million annually in state and local tax revenue. Additionally, the U.S. Census Bureau reports that each year, over 1.8 million people contribute more than \$2 billion in recreation spending to the state economy.

Bandon Marsh National Wildlife Refuge

CASE STUDY



Bandon Marsh National Wildlife Refuge encompasses 889 acres of salt marsh, freshwater marsh, mudflats, red alder riverbank habitat, and a 4,500 year-old archaeological site. Bandon Marsh was acquired using funding from the LWCF in 1983 to conserve critical endangered species habitat. It is now a popular location with bird watchers as it is perfect for viewing rare shorebirds. Located near the mouth of the Coquille River, the refuge is made up of two units, Bandon Marsh and Ni-les'tun, which translates to "small fish dam in the river" in Tutuni, the language of the Coquille Tribe.

The refuge receives over 20,000 visitors a year and is a popular destination for hunting, fishing and clamming. The contribution of [recreational spending](#) in local communities is associated with \$146,000 in employment income, \$26,000 in total tax revenue and \$450,000 in economic output.

The Ni-les'tun unit is part of a habitat restoration project. As the land returns to a functioning intertidal marsh, migratory birds and young fish will benefit from the restored habitat. Coastal wetlands provide economic and recreational benefits to local communities by creating critical habitat for important local fisheries. They also support a wealth of ecosystem services, such as water purification and flood protection. Modeling efforts using the Sea Level Affecting Marshes Model (SLAMM) show that marshes, such as Bandon Marsh, stand to [lose up to 92% of current marsh areas](#) by the year 2100.

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Marshes such as Bandon Marsh stand to lose up to 92% of current marsh areas by the year 2100.

WASHINGTON

Washington's rich diversity of geological features and vast bodies of water that make up the shoreline have been protected and maintained with funds from the Land and Water Conservation Fund (LWCF). Washington has received approximately **\$714.4 million in LWCF funding** over the past five decades, protecting iconic places such as the Dungeness National Wildlife Refuge, Mt. Baker National Forest, San Juan Island National Historical Park, the Pacific Crest Trail and the Lewis and Clark National Historical Park.

The Outdoor Industry Association has found that active outdoor recreation contributes **\$26.2 billion annually in consumer spending** to Washington's economy, supports 201,000 jobs which generate \$7.6 billion in wages and salaries, and produces \$2.3 billion annually in state and local tax revenue. Additionally, the U.S. Census Bureau reports that each year, over 2.7 million people contribute more than \$3 billion in recreation spending to the state economy.

San Juan Islands, Jackson Beach

CASE STUDY



Jackson Beach is a long, sandy stretch of beach just two miles from downtown Port of Friday Harbor on San Juan Island. It was acquired in 1990 in collaboration with the Port of Friday Harbor, using \$46,817 in LWCF funds. Jackson Beach is an ideal place for a picnic or beach-combing and includes amenities such as beach volleyball courts, a free boat launch and three picnic sites complete with fire rings and BBQ grills. The San Juan Islands are spectacularly scenic, making this a popular tourist destination with over 200,000 people visiting each year to enjoy public beaches, island sunsets, whale watching, biking and kayaking.

Climate change is impacting the Salish Sea's acidity, while storm events and droughts are becoming more common. According to the National Oceanic Atmospheric Administration, sea levels in Friday Harbor are **expected to rise a median of two feet** within the next century.

The San Juan Islands are spectacularly scenic, making this a popular tourist destination with over 200,000 people visiting each year.

Sea levels in Friday Harbor are expected to rise a median of two feet within the next century.

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CONNECTICUT

Connecticut's serene coastline has been protected and maintained with funds from the Land and Water Conservation Fund (LWCF). Connecticut has received approximately **\$126.3 million in LWCF funding** over the past five decades, protecting iconic places, such as Dinosaur State Park, Stewart McKinney National Wildlife Refuge, Weir Farm National Historic Site and Roaring Brook Park.

The Outdoor Industry Association has found that active outdoor recreation contributes **\$9 billion annually in consumer spending** to Connecticut's economy, supports 69,000 jobs, which generate \$2.9 billion in wages and salaries, and produces \$734 million annually in state and local tax revenue. Additionally, the U.S. Census Bureau reports that each year, over 1.5 million people contribute \$873 million in recreation spending to the state economy.

Stewart B. McKinney National Wildlife Refuge

CASE STUDY



The Stewart B. McKinney National Wildlife Refuge, located near where the Housatonic River meets with Long Island Sound, is the largest salt marsh complex in Connecticut spanning 70 miles of coastline. The refuge has received \$1.8 million in LWCF funds, which has been directed toward acquisition and development. The refuge encompasses several habitats, including barrier beach, intertidal wetland and fragile island habitats. It provides important resting, feeding and nesting areas for many species of wading birds, shorebirds, songbirds and terns. Estuaries and salt marshes not only provide vital habitats for fish and wildlife, but they also serve as sites to trap sediment, sequester and transform excess nutrients and other pollutants, and reduce storm impacts to protect local communities.

Over 25,000 visitors come to Stewart B. McKinney National Wildlife Refuge each year for wildlife viewing, environmental education, photography, kayaking and fishing. [Recreational spending](#) has contributed \$169,000 in employment income, \$35,000 in total tax revenue, and \$449,000 in economic output.

Habitat restoration in the Great Meadows Marsh Unit continues through the removal of invasive species and improvements of poorly-drained marsh areas. Restoration will increase the marsh's area and elevation in order to better respond to sea level rise. It will also provide ecosystem benefits and services to the local community, such as reducing mosquito populations and supporting fish that are important to the economy.

Over 25,000 visitors come to Stewart B. McKinney National Wildlife Refuge each year.

Restoration will increase the marsh's area and elevation in order to better respond to sea level rise.

MAINE

Maine's most incredible coastal areas, from conventional white sandy beaches to its magnificent rugged, rocky and secluded shoreline, have been protected and maintained by funds from the Land and Water Conservation Fund (LWCF). Maine has received approximately **\$190 million in LWCF funding** over the past five decades, protecting iconic places such as Great Bay National Wildlife Refuge, Acadia National Park, Crescent Beach State Park, Ferry Beach State Park and Popham Beach State Park.

Active outdoor recreation is an important part of the Maine economy. The Outdoor Industry Association has found that active outdoor recreation supports **\$8.2 billion in consumer spending** in Maine, in addition to 76,000 jobs across the state, which generate \$2.2 billion in wages and salaries, and produces nearly \$548 million annually in state and local tax revenue. The U.S. Census also reports that each year, more than 1 million people contribute over \$1.5 billion in recreation spending to the state economy.

Crescent Beach State Park

CASE STUDY

Located south of Portland in picturesque Cape Elizabeth, Crescent Beach State Park is named for its mile-long, crescent-shaped beach. The park has received over \$334,000 in LWCF funds, which have been directed toward acquisition and development. The park is currently **one of the largest revenue-generating parks in Maine** and it plays a key role in funding the \$7 million state park general fund. It is a classic saltwater beach park with grass-studded sand dunes, saltwater coves and wooded areas that provide seashore recreation for beachgoers. Over 140,000 visitors come to Crescent Beach State Park each year to enjoy swimming, fishing, kayaking and hiking.

Cape Elizabeth is uniquely situated to be more resilient than most communities, thanks to the town's rocky coastline, which limits the area that is vulnerable to sea level rise and coastal flooding. While this part of Maine will be less susceptible to rising seas, the Gulf of Maine has warmed faster than 99% of the world's oceans, according to [NASA](#). Warming waters can impact fisheries migration and thus entire ecosystems. In the future, states surrounding the Gulf of Maine will need to adapt to this byproduct of climate change.

Over 140,000 visitors come to Crescent Beach State Park each year to enjoy swimming, fishing, kayaking and hiking.

The Gulf of Maine has warmed faster than 99% of the world's oceans, according to NASA.



MASSACHUSETTS

Massachusetts' dynamic 2,819 miles of tidal coastline, which include ecosystems, such as salt marshes, tidal flats, barrier islands and estuaries, have been protected and maintained by funds from the Land and Water Conservation Fund (LWCF). Massachusetts has received approximately **\$233.4 million in LWCF funding** over the past five decades, which has helped to protect iconic places, such as Salem Maritime National Historic Site, Adams National Historical Park, South Cape Beach, Revere Beach and Lechmere Canal Park.

Active outdoor recreation is an important part of the Massachusetts economy. The Outdoor Industry Association has found that active outdoor recreation generates **\$16.2 billion in consumer spending** in Massachusetts, supports 120,000 jobs, which generate \$5.9 billion in wages and salaries, and produces \$911 million annually in state and local tax revenue. Additionally, the U.S. Census reports that each year, over 2.4 million people contribute more than \$1.6 billion in recreation spending to the state economy.

Belle Isle Marsh

CASE STUDY



The Belle Isle Marsh Reservation is an urban 241-acre protected area and Boston's last remaining salt marsh. Massachusetts has experienced a [41% loss of salt marsh since 1777, with the Boston area alone losing 81%](#). Belle Isle Marsh received \$300,000 from the LWCF in 1984 to help develop the park and build the observation tower, which allows visitors to get a bird's eye view of the reserve. Park visitors can enjoy landscaped pathways, overlooks and an abundance of birds and other wildlife.

These protected waters are nurseries to fish, shellfish and other wildlife that are rare to the metropolitan area. Belle Isle Marsh is also a critical stopover on the Atlantic Flyway, with many birds depending on its existence for successful migration. Green infrastructure helps to bolster the resilience of Boston's waterfront. Restored marshes at Belle Isle provide a buffer for the shoreline from waves and storm surges. Wetlands comprise a central strategy in both climate resilience and in helping the city reduce carbon emissions.

Massachusetts has experienced a 41% loss of salt marsh since 1777, with the Boston area alone losing 81%.

NEW HAMPSHIRE

New Hampshire's 18 miles of coastline, the shortest ocean coast compared to any other coastal state, have been protected and maintained by funds from the Land and Water Conservation Fund (LWCF). New Hampshire has received approximately **\$165.7 million in LWCF funding** over the past five decades, protecting iconic places such as Great Bay National Wildlife Refuge, North Hampton Beach and Silver Lake State Park.

The Outdoor Industry Association has found that active outdoor recreation generates **\$8.7 billion annually in consumer spending** in New Hampshire, supports 79,000 jobs across the state, which generate \$2.6 billion in wages and salaries, and produces \$528 million annually in state and local tax revenue. Additionally, the U.S. Census reports that 839,000 people contribute over \$560 million in recreation spending to the state economy.

North Hampton State Park

CASE STUDY



North Hampton State Park has a long legacy as a summer playground for thousands of visitors. This 2.5-acre seaside state park first received LWCF funding in 1977 for the development of multi-purpose courts. In 1985, an extension of the beach was acquired by the Department of Resources and Economic Development. The park has become a key tourism destination for the region. It offers visitors an ideal location for swimming, fishing, camping and hiking along its sand dunes. These dunes also provide key habitat for the charismatic piping plover and other species.

While the town of Hampton has documented numerous storms over its history, more intense and frequent storms have been occurring in the past twenty years. For New Hampshire, Hampton Beach is the town most affected by [sea level rise and tidal flooding](#).

For New Hampshire, Hampton Beach is the town most affected by [sea level rise and tidal flooding](#).

RHODE ISLAND

Rhode Island's 40 miles of scenic coastline have been protected and maintained by funds from the Land and Water Conservation Fund (LWCF). Rhode Island has received approximately **\$72.9 million in LWCF funding** over the past five decades, protecting iconic places such as the Block Island National Wildlife Refuge, Trustum Pond National Wildlife Refuge, South Shore Barrier Beaches and East Matunuck State Beach.

The Outdoor Industry Association has found that active outdoor recreation contributes **\$4 billion annually in consumer spending** to Rhode Island's economy, supports 37,000 jobs which generate \$1.2 billion in wages and salaries, and produces \$293 million annually in state and local tax revenue. The U.S. Census Bureau reports that each year, roughly 600,000 people contribute \$381 million in recreation spending to the state economy.

East Matunuck State Beach

CASE STUDY



Known for its strong surf, East Matunuck State Beach is a popular destination for surfers and bodyboarders. The 144-acre beach was acquired in 1972 by the Department of Natural Resources with just \$63,462 in LWCF funding. Over the years, this iconic state park has benefited from the LWCF and now has several improved amenities. Recently, East Matunuck State Beach received an additional \$475,000 in redevelopment funding from the Federal LWCF Program as part of a \$4.5 million project. The new **1,938 square-foot energy-efficient pavilion** and concession building features an updated bathhouse with hot showers, office space, a first aid room, expanded deck area and a new lifeguard tower. It is one of Rhode Island's seven state beaches, and receives **more than 178,000 visitors per year that contribute an estimated \$13 million in economic output.**

Rhode Island offers a unique case for examining the conditions that hinder or facilitate coastal resilience efforts. The topography of much of the state is relatively flat and low-lying with recent estimates predicting as much as **8 feet of sea level rise** by the end of the century. The Matunuck Headland area is one of the most vulnerable in the state due to storm surge, sea level rise and coastal erosion. **The south shore has lost nearly 400 feet of beach over the last 40 years.**

East Matunuck State Beach receives more than 178,000 visitors per year that contribute an estimated \$13 million in economic output.

The south shore has lost nearly 400 feet of beach over the last 40 years.

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DELAWARE

Delaware's coastline, a popular destination for tourists and locals alike, has been protected and maintained by funds from the Land and Water Conservation Fund (LWCF). Delaware has received approximately **\$63 million in LWCF funding** over the past five decades, protecting iconic places, such as Prime Hook National Wildlife Refuge, Bombay Hook National Wildlife Refuge, White Clay Creek State Park, Augustine Beach and Woodland Beach.

Active outdoor recreation is an important part of the Delaware economy. The Outdoor Industry Association has found that active outdoor recreation generates **\$3.1 billion in consumer spending** in Delaware, supports 29,000 jobs, which generate \$959 million in wages and salaries, and produces \$145 million annually in state and local tax revenue. Additionally, the U.S. Census reports that each year, 460,000 people contribute over \$304 million in recreation spending to the state economy.

Fox Point State Park

CASE STUDY



Little Creek Wildlife Area has over 4,700 acres of tidal marsh and forest along the Delaware Bay. A portion of this wildlife area was acquired with \$26,000 in LWCF state funding. The Delaware Bay is one of the most important cultural, economic, and recreational resources for the state. The floodwater control benefits of the Delaware watershed are estimated at [\\$42-105 billion](#). Overall, the Delaware watershed provides over 70,000 jobs with \$2 billion in annual wages in coastal related industries.

The floodwater control benefits of the Delaware watershed are estimated at [\\$42-105 billion](#).

Not only does Little Creek provide important economic and habitat benefits, but it also provides recreational opportunities for visitors, such as hunting, fishing, hiking, kayaking, and photography. Habitats like Little Creek are critical in protecting against flooding, helping to provide clean water, and combating climate change by trapping carbon.

WASHINGTON, D.C.

Some of Washington, D.C.'s most incredible natural areas have been protected and maintained by funds from the Land and Water Conservation Fund (LWCF). Washington, D.C. has received approximately [\\$18.4 million in LWCF funding](#)

over the past five decades, protecting iconic places, such as National Capital Parks-East, Franklin Delano Roosevelt Memorial and National Capital Parks.

Kenilworth Park & Aquatic Gardens

CASE STUDY



One of Washington, D.C.'s hidden gems, Kenilworth Park and Aquatic Gardens in Northeast D.C., preserves rare water lilies and lotuses, and contains the Kenilworth Marsh, the only remaining tidal marsh in the national capital. The park has received over \$700,000 for development and improvements to its parkside recreation center. It is one of a dozen D.C. parks that have been awarded LWCF funding. The park consists of about 700 acres of water gardens, in addition to Kenilworth Marsh, ballfields, recreational facilities, hiking trails, boardwalks and environmental education resources. The gardens have since been listed on the National Register of Historic Places and also designated a Category II Landmark by the Joint Committee on Landmarks of the National Capital.

As sea levels rise, occasional extreme high tides are able to reach farther inland. Most of the sidewalks along the Tidal Basin and part of the road to Hains Point in East Potomac Park, for example, are about one foot above the average daily high tide. This water level is now exceeded more than 30 times per year.

Most of the sidewalks along the Tidal Basin and part of the road to Hains Point in East Potomac Park are about one foot above the average daily high tide. This water level is now exceeded more than 30 times per year.

MARYLAND

Maryland's lively boardwalks along white sand beaches have been protected and maintained by funds from the Land and Water Conservation Fund (LWCF). Maryland has received approximately **\$228.1 million in LWCF funding** over the past five decades, protecting iconic places such as Blackwater National Wildlife Refuge, C&O Canal National Historic Park, Smallwood State Park and Zekiah Swamp State Park.

The Outdoor Industry Association has found that active outdoor recreation generates **\$14 billion in consumer spending** in Maryland, supports 109,000 jobs, which generate \$4.4 billion in wages and salaries, and produces nearly \$951 million annually in state and local tax revenue. Additionally, the U.S. Census reports that each year, over 2.7 million people contribute more than \$1.6 billion in recreation spending to the state economy.

Blackwater National Wildlife Refuge

CASE STUDY



The Blackwater National Wildlife Refuge, known as the “Everglades of the North,” is home to an incredible amount of plant and animal diversity. The refuge has received over \$2.5 million in LWCF funding, which has been directed toward acquisition and development. The refuge consists of over 28,000 acres of freshwater marshes, brackish tidal wetlands, open fields, and mixed evergreen and deciduous forests. In addition to a wealth of wetlands and forests, Blackwater Refuge also hosts over 250 bird species, 35 species of reptiles and amphibians, and 165 species of threatened and endangered plants.

Blackwater National Wildlife Refuge had an **economic impact of \$7.8 million**, including \$667,000 in total tax revenue, 63 jobs, and \$2.3 million in employment income to Dorchester and Wicomico counties. It is also an important historic site as the refuge is part of the landscape where Harriet Tubman was born and raised.

The refuge contains **one-third of Maryland’s tidal wetlands**, making it an ecologically important area to the state. However, the Blackwater National Wildlife Refuge occupies an area less than one meter above sea level. Scientists estimate that **water levels in the Chesapeake could rise by three to six feet** by the end of this century. Under that scenario, nearly all of Blackwater’s existing marshes could be underwater by 2100. Rising waters have claimed more than 5,000 acres of marshland in the refuge, which is close to half of Blackwater’s historic wetlands. Marshes help to improve water quality in the Chesapeake Bay by trapping nutrients and sediments flowing from rivers toward the estuary. They can also protect shorelines from the crashing waves generated by big storms and are important nurseries for various commercial fish species.

Blackwater National Wildlife Refuge had an economic impact of \$7.8 million.

The refuge contains one-third of Maryland’s tidal wetlands, making it an ecologically important area to the state.

Rising waters have claimed more than 5,000 acres of marshland in the refuge.

NEW JERSEY

New Jersey's 130 miles of coastline, with unique features such as barrier islands and lush bays, have been protected and maintained by funds from the Land and Water Conservation Fund (LWCF). New Jersey has received approximately **\$357.7 million in LWCF funding** over the past five decades, protecting iconic places such as Edwin Forsythe National Wildlife Refuge, Gateway National Recreation Area, Shenandoah Park and Island Beach State Park.

Active outdoor recreation is an important part of the New Jersey economy. The Outdoor Industry Association has found that active outdoor recreation generates **\$18.9 billion in consumer spending** in New Jersey, supports 143,000 jobs, which generate \$5.9 billion in wages and salaries, and produces \$1.2 billion annually in state and local tax revenue. In addition, the U.S. Census reports that each year, 2.4 million people contribute over \$1.7 billion in recreation spending to the state economy.

Island Beach State Park

CASE STUDY



Island Beach State Park contains some of New Jersey's last significant sections of a barrier island ecosystem that once existed along much of the north Atlantic coast. In collaboration with the New Jersey Department of Environmental Protection, Island Beach State Park received more than \$1.2 million from the LWCF in the 1970s for acquisition of the land, development of a bathhouse, and pavilion and beach access walk renovations.

The park is divided into two areas that make up over 3,000 acres of untouched habitat, including sand dunes, muddy estuary, maritime forest and tidal marshes. The park is home to various species, such as blue crabs, heron, peregrine falcons and the state's largest osprey colony. The park is an excellent site for bird watching, swimming, surfing, fishing and kayaking. The park receives hundreds of thousands of visitors a year and tourism in New Jersey's coastal communities is a [billion dollar industry](#).

As a barrier island, the park protects a number of natural shoreline and nearshore habitats. It also plays a vital role in mitigating greenhouse gas emissions and maintaining essential ecosystem services, such as soil erosion control, groundwater protection and biodiversity enhancement. The Mid-Atlantic coast is heavily utilized in the summer for tourism and recreation. Maintaining healthy coastlines will be vital in ensuring the strength of the local tourism economy as the New Jersey shore is among the most vulnerable to sea level rise.

The park receives hundreds of thousands of visitors a year and tourism in New Jersey's coastal communities is a billion dollar industry.

The New Jersey shore is among the most vulnerable to sea level rise.

NEW YORK

New York's unique shorelines that border Lake Ontario and the Atlantic Ocean have been protected and maintained by funds from the Land and Water Conservation Fund (LWCF). New York has received approximately **\$348.4 million in LWCF funding** over the past five decades, protecting iconic places such as Gateway National Recreation Area, Fire Island National Recreation Area, Long Beach Boardwalk, Orchard Beach and the Upper Delaware Scenic and Recreational River.

Active outdoor recreation is an important part of the New York economy. The Outdoor Industry Association has found that active outdoor recreation contributes **\$41.8 billion annually in consumer spending** to New York's economy, supports 313,000 jobs, which generate \$14 billion in wages and salaries, and produces \$3.6 billion annually in state and local tax revenue. Additionally, the U.S. Census Bureau reports that each year, over 4.6 million people contribute more than \$4.5 billion in recreation spending to the state economy.

Roberto Clemente State Park

CASE STUDY



Roberto Clemente State Park is a 25-acre park in the Bronx. Originally named Harlem River State Park, it was renamed in 1974 for Roberto Clemente, the first Latino-American to be inducted into the Baseball Hall of Fame. It has an Olympic-sized swimming pool, picnic tables, a playground, recreation programs, ball fields, basketball courts, biking and a waterfront esplanade. During the summer, the park features numerous concerts and special events. The park sees over 1.3 million visitors each year.

In 2012, Superstorm Sandy provided a glimpse into the new reality of extreme weather events. The park suffered serious damage during the hurricane, leaving the old playground dilapidated. Now, the state has redesigned the park for resiliency. The \$35 million projects, **\$3.8 million of which is coming from the LWCF**, will strengthen the park and surrounding neighborhood against flooding by rebuilding with a more resilient design. The park will be rehabilitated with a shared pedestrian/ bicycle pathway, river overlook, new boat launch, new performance area, new plantings and a scenic 9,000-square-foot intertidal area that will provide natural habitat and absorb heavy rainfall. This renovation project is a perfect example of how LWCF funding can help communities to be more resilient in the face of extreme weather and climate change impacts.

The park sees over 1.3 million visitors each year.

The state has redesigned the park for resiliency. The \$35 million projects, \$3.8 million of which is coming from the LWCF, will strengthen the park against flooding.

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GEORGIA

Georgia's deep coastal history and picturesque coastline have been protected and maintained by funds from the Land and Water Conservation Fund (LWCF). Georgia has received approximately [\\$345 million in LWCF funding](#) over the past five decades, protecting iconic places, such as Harris Neck National Wildlife Refuge, Cumberland Island National Seashore, Blythe Island Park and Skidaway Island State Park.

The [Outdoor Industry Association](#) has found that active outdoor recreation supports \$27.3 billion in consumer spending in Georgia, in addition to 238,000 jobs across the state, which generate \$8.1 billion in wages and salaries, and produces nearly \$1.8 billion annually in state and local tax revenue. Additionally, the U.S. Census reports that each year, 3.3 million people contribute over \$3.5 billion in recreation spending to the state economy.

Bond Swamp National Wildlife Refuge

CASE STUDY



Bond Swamp National Wildlife Refuge is a historic, cultural and natural resource-filled gem in Middle Georgia. To protect and manage the river corridor, citizens, along with local, state and federal government agencies, initiated the Ocmulgee Heritage Greenway effort to create a system of scenic, historic and recreational resources along the Ocmulgee River for the public's enjoyment. The funding of \$2.36 million came from the federal LWCF in 2009 and the Migratory Bird Conservation Fund. The refuge and surrounding lands form one of the largest remaining blocks of forested wetlands in Georgia. The refuge consists of 7,764 acres, from mixed hardwood, pine ridges, and bottomland hardwoods, to swamp forests mixed with creeks, beaver swamps and oxbow lakes.

Bond Swamp was established to protect and maintain the ecosystem of the Ocmulgee River floodplain. However, studies show that Georgia is among the southern states that will experience the worst effects of climate change, including more severe floods and hurricanes. There are currently 650 square miles in Georgia that fall within the 100-year coastal floodplain. By 2050, this area is projected to increase to more than 900 square miles.

The refuge and surrounding lands form one of the largest remaining blocks of forested wetlands in Georgia.

There are currently 650 square miles in Georgia that fall within the 100-year coastal floodplain. By 2050, this area is projected to increase to more than 900 square miles.

FLORIDA

Florida's most incredible natural areas, which help to make it one of the top essential vacation spots for visitors across the country, have been protected and maintained by funds from the Land and Water Conservation Fund (LWCF). Florida has received approximately **\$1.05 billion in LWCF funding** over the past five decades, protecting iconic places such as Canaveral National Seashore, Great White Herons National Wildlife Refuge, Palmetto Estuary Park and Hollywood Boardwalk and Beach Park.

Active outdoor recreation is an important part of the Florida economy. The Outdoor Industry Association has found that active outdoor recreation supports **\$58.6 billion in consumer spending** in Florida, in addition to 485,000 jobs across Florida, which generate \$17.9 billion in wages and salaries, and produces nearly \$3.5 billion annually in state and local tax revenue. Additionally, the U.S. Census reports that each year, 7 million people contribute over \$8.1 billion in recreation spending to the state economy.

Sombrero Beach

CASE STUDY



Located in the middle of the Florida Keys, Sombrero Beach contains awe-inspiring white sandy beaches, coconut palms and picturesque dunes. While the Florida Keys are typically surrounded by mangroves, Sombrero Beach has soft coral sand beaches that were naturally deposited by wave action. The Keys are also the only areas in the continental U.S. to support tropical flora, making this a unique American landscape. Monroe County and the City of Marathon have received more than \$430,000 in LWCF funding, which has been directed toward acquisition and development of this beach. Monroe County receives over **\$17 million in revenue from tourism**. Ecotourism is a major draw and turtles use this beach as a nesting ground from April through October.

Monroe County receives over \$17 million in revenue from tourism.

Marathon experienced significant damage from the September 2017 landfall of Hurricane Irma. A small portion of the beach remains closed, pending repairs of damage. According to projections by the National Oceanic and Atmospheric Administration, **sea levels in the Florida Keys could rise 15 inches by 2045**. As a result, the City of Key West would see more than 300 tidal flooding events per year. Florida contains some of the most vulnerable coastal land in the U.S. A new **study** from Monroe County analyzed how to keep roads functional during high tides and future sea level rise. The study focused on a 3-mile stretch of road that is already chronically susceptible to flooding from high tides. To keep those 3 miles functional year-round in 2025, it would require elevating the road by 1.3 feet, costing \$75 million, or \$25 million per mile. Ensuring the road is functional in 2045 would mean elevating the road by 2.2 feet, at a cost of \$128 million.

According to projections, sea levels in the Florida Keys could rise 15 inches by 2045. As a result, the City of Key West would see more than 300 tidal flooding events per year.

NORTH CAROLINA

North Carolina's coast, which is famous for its quaint coastal towns and beautiful barrier islands in the Outer Banks, has been protected and maintained by funds from the Land and Water Conservation Fund (LWCF). North Carolina has received approximately **\$254.4 million in LWCF funding** over the past five decades, protecting iconic places such as Cape Lookout National Seashore, Cape Hatteras National Seashore, Field of Dreams Park and Carolina Beach State Park.

Active outdoor recreation is an important part of the North Carolina economy. The Outdoor Industry Association has found that active outdoor recreation generates **\$28 billion annually in consumer spending** in North Carolina, supports 260,000 jobs across the state, which generate \$8.3 billion in wages and salaries, and produces \$1.3 billion annually in state and local tax revenue. Additionally, the U.S. Census reports that over 3.4 million people contribute more than \$2.7 billion in recreation spending to the state economy.

Jockey's Ridge State Park

CASE STUDY



The 427-acre area of Jockey's Ridge State Park contains the tallest active sand dune system in the eastern United States and offers countless recreational opportunities. Jockey's Ridge State Park has received over \$1.8 million in LWCF funding, which has been directed toward acquisition and development. Over 1 million people visit the park annually, bringing nearly **\$1 billion a year** to the Dare County economy and making it the most visited park in the North Carolina park system. Jockey's Ridge is home to three unique ecosystems: the Roanoke Sound, the dune system, and a maritime forest. Shifting ocean winds blow billions of grains of sand in different directions and the sand dunes can get up to 60 feet in height. The height of the dunes provides protection from both wind and salt blown off the ocean.

Scientists come from around the world to study this dynamic, unique dune system. Because the dune system fluctuates throughout the year, surrounding beaches can erode between 2 to 3 feet annually, which is often exacerbated by major hurricanes. The North Carolina Coastal Resources Commission's coastal science panel suggested that sea level rise could grow to 39 inches by 2100, **enough to submerge nearly all of Dare County**, and other projections from NOAA suggest up to 6 feet.

Over 1 million people visit the park annually, bringing nearly \$1 billion a year.

Sea level rise could grow to 39 inches by 2100, enough to submerge nearly all of Dare County, and other projections from NOAA suggest up to 6 feet.

SOUTH CAROLINA

South Carolina's 197 miles of coastline, which serve as an important economic and environmental resource to the state, have been protected and maintained by funds from the Land and Water Conservation Fund (LWCF). South Carolina has received approximately [\\$300.3 million in LWCF funding](#) over the past five decades, protecting iconic places, such as Cape Romain National Wildlife Refuge, Ernest F. Hollings Ace Basin National Wildlife Refuge, Fort Sumter National Monument and Edisto Beach State Park.

Active outdoor recreation is an important part of the South Carolina economy. The Outdoor Industry Association has found that active outdoor recreation generates [\\$16.3 billion annually in consumer spending](#) in South Carolina, supports 151,000 jobs across the state, which generate \$4.6 billion in wages and salaries, and produces \$1.1 billion annually in state and local tax revenue. Additionally, the U.S. Census reports that over 893,000 people contribute over \$2.5 billion in recreation spending to the state economy.

Myrtle Beach State Park

CASE STUDY



Myrtle Beach State Park is a 312-acre state park consisting of several miles of oceanfront maritime forest. Myrtle Beach State Park has received over \$742,000 in LWCF funding, which has been directed toward acquisition and development. Each year, over 1 million people visit Myrtle Beach State Park. The cities of North Myrtle Beach and Myrtle Beach rely heavily on tourism and the beach provides various activities for visitors, including walking trails, surf fishing and a nature center for people hoping to learn about local wildlife. Myrtle Beach is home to bottlenose dolphins, brown pelicans, great egrets and loggerhead sea turtles.

South Carolina is facing various challenges, ranging from increased flooding, storm surge and coastal erosion, to the effects of increased coastal population and developmental pressures. Healthy coastlines offer more than recreation, they also provide ecological health, revenue and protection from coastal hazards. The floods from the 2015 Hurricane Matthew, which is listed as [one of the top U.S. climate disasters](#), is a stark reminder of why it is important to promote coastal resilience.

Each year, over 1 million people visit Myrtle Beach State Park.

The floods from Hurricane Matthew in 2015, which is listed as one of the top U.S. climate disasters, is a stark reminder of why it is important to promote coastal resilience.

VIRGINIA

Surrounded by the Chesapeake Bay and the Atlantic Ocean, Virginia's coastlines have been protected and maintained by funds from the Land and Water Conservation Fund (LWCF). Virginia has received approximately **\$360.8 million in LWCF funding** over the past four decades, protecting iconic places, such as Back Bay National Wildlife Refuge, Belle Isle State Park and Paradise Creek Nature Park.

The Outdoor Industry Association has found that active outdoor recreation generates **\$21.9 billion in consumer spending** in Virginia, supports 197,000 jobs, which generate \$6.5 billion in wages and salaries, and produces \$1.2 billion annually in state and local tax revenue. Additionally, the U.S. Census reports that each year, 3.3 million people contribute over \$2.4 billion in recreation spending to the state economy.

False Cape State Park

CASE STUDY



False Cape State Park, one of the last remaining undeveloped areas along the Atlantic, is a biodiversity hotspot, encompassing wetlands, upland habitats, maritime forests, swamp forests and marshes. This 4,321 acre park was acquired in 1977 by using \$3.9 million in Land and Water Conservation Funds. More than two dozen rare and threatened species call False Cape home, including a variety of songbirds, shorebirds and the loggerhead sea turtle, which nests along the shoreline. Each year, over 17,000 people visit False Cape State Park. As the former home of Paleo-Indians and the Wash Woods community, False Cape is also an area of important historical significance.

Barrier islands, such as False Cape, provide a natural barrier against sea level rise and flooding from storms. Barrier islands are dynamic and rely on an exchange of onshore and offshore sand. When onshore sand flows are interrupted by coastal armoring (i.e. seawalls, jetties, etc.) and offshore sand is impacted by extreme weather events and sea level rise, barrier islands are greatly impacted. Scientists **predict** that as the climate continues to change, and storms continue to grow in intensity, these unique islands will be in peril.

Each year, over 17,000 people visit False Cape State Park.

Scientists predict that as the climate continues to change, and storms continue to grow in intensity, these unique islands will be in peril.

ISLANDS





HAWAI'I

Hawai'i's breathtaking beaches and islands have been protected and maintained by funds from the Land and Water Conservation Fund (LWCF). Hawai'i has received approximately **\$256 million in LWCF funding** over the past five decades, protecting iconic places, such as Hanalei National Wildlife Refuge, Ala Kahakai National Historic Trail, Ho'okena Beach Park, and Kailua Beach.

The Outdoor Industry Association has found that active outdoor recreation generates **\$7.8 billion in consumer spending** in Hawai'i, supports 68,000 jobs, which generate \$2.4 billion in wages and salaries, and produces \$604 million annually in state and local tax revenue. Each year, over 300,000 people contribute more than \$374 million in recreation spending to the state economy.

Hanalei Beach Park

CASE STUDY



Hanalei Bay is the largest bay on the north shore of the island of Kaua'i, stretching out along the coast for almost 3 miles. In 1979, \$210,600 in LWCF funding was used for the acquisition of 2.47 acres, which make up Hanalei Beach Park. Hanalei Bay draws locals and tourists alike with its lush mountains, cascading waterfalls and amazing winter surf breaks. A pavilion, restrooms, showers and BBQ areas make this a popular spot for those looking to enjoy a day at the beach.

Bordered by two rivers, the Hanalei River to the east and Waipa River to the west, the wetlands of Hanalei Bay were once used to grow taro by ancient Hawaiians. Although the number of visitors to Hanalei Bay has not been tracked, the total number of visitors to Kaua'i is **estimated to be over 20,000 a day, bringing in more than \$1 billion over the course of the year.**

One year ago, Hanalei Bay experienced historic flooding. Despite being one of the rainiest places in the world, this particular storm system was unprecedented. Kaua'i's north shore received almost 50 inches of rain, setting a new national record for the most rainfall within a 24-hour period. With many businesses and roads closed, there was a strong economic impact to the island, which relies heavily on tourism. **Damages to public property** were estimated at \$20 million and the repairs to Kuhio Highway, which was impacted by landslides, were estimated at around \$80 million.

The total number of visitors to Kaua'i is estimated to be over 20,000 a day, bringing in more than \$1 billion over the course of the year.

One year ago, Hanalei Bay experienced historic flooding. Damages to public property were estimated at \$20 million and the repairs to Kuhio Highway were estimated at around \$80 million.



CONCLUSION

America's majestic coastlines and bustling coastal communities have greatly benefited from the LWCF. The wisdom of setting aside funding to protect coastal resources and establish recreation opportunities has paid dividends over the past 50 years – affording Americans access to some of the most diverse and beautiful coastlines in the world.

Investing in coastal conservation is a smart investment that will help Americans to protect their shorelines, in addition to important ecosystems, and provide a natural barrier against increasing sea level rise and extreme weather. Permanent funding of the LWCF will increase the certainty needed to plan for an uncertain future, as our climate continues to change. Now is the time to take a proactive approach to funding and strengthening future coastal resiliency.

If Congress fully funds the LWCF, they will be fulfilling the intent of the program – to use a small portion of royalties from the oil and gas industry to protect our land and water for future generations. Unfortunately, the LWCF has fallen victim to budget squabbles in Congress. Therefore, Surfrider and our coalition partners urge Congress to pass legislation to fully, and permanently, fund the LWCF in order to maintain America's world-class conservation legacy and to protect future coastal resources.

In closing, the LWCF has been, and should continue to be, an instrument through which states receive financial support to protect coastal resources and communities. Surfrider and our coalition partners call upon Congress to stand with communities across all 50 states by permanently funding the LWCF. We hope this report illustrates the importance of fully funding the LWCF to create recreational opportunities, safeguard special places, protect coastal resources, and plan for coastal resiliency in the face of a changing climate.

The Surfrider Foundation is a nonprofit grassroots organization dedicated to the protection and enjoyment of our world's ocean, waves and beaches through a powerful network. Founded in 1984 by a handful of visionary surfers in Malibu, California, the Surfrider Foundation (Surfrider) now maintains over one million supporters, activists and members, with more than 170 volunteer-led chapters and student clubs in the U.S., and more than 600 victories protecting our coasts.



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