

River Recreation

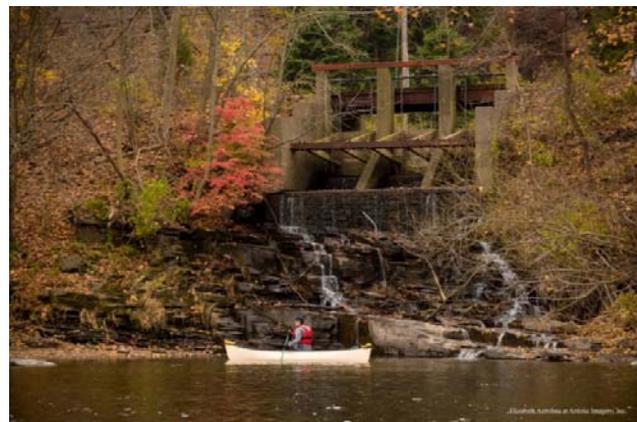
River Recreation

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❖ The Broad Array of Recreation on the Delaware River

Recreation is fundamental to individual, family and community quality of life. Recreation provides jobs, stimulates and supports the economy, brings tourists and outside revenue into the region, and it enhances the quality of life of those enjoying it.

On the Delaware River recreational possibilities abound and include all types of boating, fishing, bird watching, hiking, biking, tubing, jogging, swimming, camping, and wildlife viewing. Keeping the river healthy, and restoring health where it has been lost, will allow these recreational activities to prosper.



PADDLER CROSSING A DELAWARE RIVER CANAL OVERFLOW IN SMITHFIELD, PA ON THE DELAWARE RIVERKEEPER NETWORK'S NOVEMBER 2008 BUSINESSMAN'S CANOE TRIP. PHOTO CREDIT: ELIZABETH AZZOLINA 2007

Outdoor recreation keeps people physically and mentally healthy and productive, enhancing the body and the mind. In a survey of Delaware River Valley visitors,⁶² almost all recreationists stated that the River provided a source of mental and physical refreshment.

RECREATION

Recreation along the Delaware River includes boating, fishing, bird watching, hiking, biking, tubing, jogging, swimming, camping, and wildlife viewing.

Many rural river towns are supported by seasonal tourist revenue.⁶³ Recreation is a \$730 billion annual contribution to the United States economy.⁶⁴ In New York, New Jersey, and Pennsylvania alone, the total economic contribution of outdoor recreation exceeds \$38 million annually, generating over 350 thousand jobs and adding additional economic sales and tax revenues of more than \$32 million.⁶⁵



CANOING THE DELAWARE RIVER AT FRENCHTOWN, NJ DRN HOLDS AN ANNUAL BUSINESSMAN'S CANOE TRIP IN THE FALL FOR MEMBERS AND STAFF TO ENJOY THE RIVER BEFORE WINTER AND WHILE THE LEAVES ARE BRIGHT AND COLORFUL. PHOTO CREDIT: ELIZABETH AZZOLINA 2007

According to the Outdoor Industry Foundation, “more Americans paddle (canoe, kayak, raft) than play soccer”, and “more Americans camp than play basketball”.⁶⁶ The U.S. Fish & Wildlife Service reports that in 2006 fishing was the “favorite recreational activity in the United States” with 13% of the population 16 and older (29.9 million anglers) spending an average of 17 days fishing in that year alone.⁶⁷ As a result, in 2006, “anglers spent more than \$40 billion on trips, equipment, licenses and other items to support their fishing activities.”⁶⁸ Of this, 44% (\$17.8 billion) was spent on items related to their trips, including food, lodging and transportation.⁶⁹

These national trends and figures are consistent in the Delaware Valley. According to the New Jersey Department of Fish and Wildlife, New Jersey state parks received 12 million visits in one year (1994) statewide, with wildlife recreation, fishing and hunting responsible for 75,000 jobs and generating \$5 billion in retail sales.⁷⁰ Valley Forge Historical Park, through which the Schuylkill River and tributary streams flow, created 1.23 million recreation visits in 2001 with park visitors spending “\$33.3 million dollars within an hour’s driving distance of the park, generating \$10.4 million in direct personal income (wages and salaries) for local residents and supporting 713 jobs in the area.”⁷¹



Figure 2 Water Recreation Revenue in PA, NY, & NJ

For many, the Delaware River evokes a “strong feeling of affection, loyalty, and attachment”.⁷² Visitors are attracted to the Delaware River for recreation because of its vicinity to major eastern metropolitan areas as well as its “clean river water, exceptional trout, shad, and eel fisheries, and wildlife to observe.”⁷³

The most popular River activities include boating, fishing, and bird watching. The total economic contribution of fishing in Pennsylvania, New York, and New Jersey exceeds \$3 million.⁷⁴ Another \$2.5 million is supplied from paddle based boating.⁷⁵ Nearly \$2 million is spent on the gear to support these industries with another \$3 million generated from related travel.⁷⁶ In addition, nearly \$750,000 is generated in state and federal taxes on all of these water recreation income streams.⁷⁷ **Figure 2** shows how the amount of money spent on recreation purposes breaks down specifically in the tri-state area.

❖ Diverse Boating for Recreation and Sport

- ***The Delaware is the longest un-dammed river east of the Mississippi, extending 330 miles from the confluence of its East and West branches at Hancock, New York to the mouth of the Delaware Bay where it meets the Atlantic Ocean. Because the Delaware is undammed, it is ideal for popular recreational activities such as canoeing and kayaking. The River is fed by 216 tributaries, the largest being the Schuylkill and Lehigh Rivers in Pennsylvania and the Musconetcong in New Jersey. Boating options throughout the watershed include canoeing, kayaking, rafting, jet skiing, motorboats, paddleboats, different types of historic riverboats and sailing. Even in urban areas, such as the Philadelphia and Camden waterfronts, the popularity of paddle sports is increasing as evidenced by the recent creation of the Tidal Water Trail maps series, public access points, and points of interest.***

Rowing on the Schuylkill

Boating recreation has a recognized history in the watershed. For example, the Schuylkill River traces its rowing culture as far back as the 1830's.⁷⁸ Each year the Schuylkill Navy hosts numerous regattas along the Schuylkill including the Dad Vail, the largest collegiate rowing event in the nation.⁷⁹ In response to the atmosphere of professional rowing of the 19th century, and the gambling and corruption that plagued the sport, the Schuylkill Navy was formed in 1858 to promote amateur rowing and establish rules of behavior.

Today, the Schuylkill Navy is the oldest amateur athletic governing body in the United States and is made up of ten clubs on Boathouse Row as well as high school and college rowing programs.⁸⁰ In 1938, Philadelphia Girls' Rowing Club, the first boat club on the Schuylkill for women, was organized.⁸¹ The first Schuylkill men's club to organize a women's rowing team was Vesper in 1970.⁸²



DINGMANS FERRY, PA AMERICAN CANOE ASSOCIATION HELPING DRN ORGANIZE THE ANNUAL UNITED NATIONS INTERNATIONAL SCHOOL FRESHMAN CLASS CANOE AND CAMPING TRIP ON THE DELAWARE.



PHILADELPHIA, PA ST. JOSEPH UNIVERSITY WOMEN'S ROW TEAM SCHUYLKILL RIVER. ROWING HAS A LONG HISTORY ON THE MAIN STEM SCHUYLKILL RIVER. PHOTO CREDIT: PATRICK CONOLLY 2007

The presence of the Schuylkill Navy and the clubs along Boathouse Row nurtured excellence in amateur rowing for decades. Vesper Boat club, organized in 1865, won gold medals in the eight-oared shell event at the 1900, 1904 and 1964 Olympics.⁸³

Elite level rowers and world class coaches continue to be attracted to the Schuylkill to train. Rowers training in Philadelphia are earning spots on national and Olympic teams including the 5 Philadelphia-area rowers who represented the United States at the 2008 Olympics in Beijing.⁸⁴

In addition to dual competitions among local college crews, more than 20 regattas are held on the Schuylkill each year from April through November.⁸⁵ These regattas include the

Independence Day Regatta, the largest summer club regatta in the United States (over 1,400 competitors in 2008)⁸⁶; the Dad Vail, the largest collegiate rowing event in the nation (over 3,000 competitors in 2008)⁸⁷; and the Stotesbury Cup, the largest high school regatta in the world (over 5,000 competitors from 177 high school teams in the United States and Canada in 2008).⁸⁸ With thousands of competitors coming to the region for multiple day visits, these regattas result in a significant economic impact for the Philadelphia area. Rowing has become such a strong force in the region that clubs and competitions have expanded to other Delaware River tributaries with regattas now being held on the Cooper River in New Jersey and the Christina River in Delaware.



PHILADELPHIA, PA BOATHOUSE ROW THE SCHUYLKILL REMAINS HEAVILY USED FOR COMPETITIONS INCLUDING NATIONAL REGATTAS AND OTHER ROWING EVENTS. PHOTO CREDIT: GREGORY MELLE

The boat clubs that comprise Boathouse Row have been registered as a National Historic Landmark since 1987.⁸⁹ Boathouse Row has become an iconic image for the City of Philadelphia and tours offering a glimpse into the competitive world of Philadelphia rowing have become an important component of Philadelphia tourism.⁹⁰

Whitewater Kayaking

Those who enjoy whitewater particularly enjoy the Delaware River's upper reaches. In 1986 the Upper Delaware attracted 232,000 whitewater paddlers who spent \$13.3 million, adding \$6.2 million to the local economy and supporting 291 jobs.⁹¹ The Water Gap is a tremendous resource for whitewater paddlers. In 1986 this reach of the River was responsible for attracting 135,400 whitewater paddlers who spent \$6,929,000, contributing \$3,695,200 of local economic value and supporting 156 jobs.⁹²



BUCKS COUNTY, PA TWICE A YEAR RELEASES FROM NOCKAMIXON LAKE TO TOHICKON CREEK CREATES A GREAT WHITEWATER EXPERIENCE THAT IS A FAVORITE AMONG WHITEWATER PADDLERS AND CANOEISTS.

Canoeing on the Delaware

There are more than 20 canoe liveries along the Delaware River, some of which employ over 200 people and have annual attendances of around 60,000-70,000 people.⁹³ The liveries offer a variety of options including canoeing, kayaking, tubing, and rafting. Tubing at Bucks County River Country costs \$18 a trip and whole families can go rafting for \$40-\$50 a day (2006).⁹⁴ With an annual attendance of 60,000 people,⁹⁵ this creates estimated gross revenue of between \$648,000 and \$3 million.

Canoe liveries throughout the watershed cater to family fun. There are few other full day activities that families may experience together for as little as \$50. These activities allow for education and appreciation of the River while relaxing, fishing, reading, and sunbathing.

Clean and healthy water is essential for the survival of canoeing businesses. The threat of pollution or contaminated water turns many families away for health and safety reasons. When it was learned that the Village of Deposit was discharging 450,000 gallons per day of chlorinated raw sewage into the Delaware River during the summer months (July-August), 2006, it was recognized immediately as a threat to recreation along the River. An alert about the discharge from the Delaware Riverkeeper Network inspired numerous calls for immediate action. Calls to regulatory agencies, letters from the community, and news

articles about the discharge and its threat to the community and recreation prompted swift action from the agencies to stop the discharge. This type of pollution incident can damage the river's reputation even after the event is abated.

Flooding along the Delaware River in recent years has closed down canoe and boating liveries for weeks at a time. Peak livery operations last only 3 months out of the year, so summer flooding threatens these small businesses with relatively small profit margins.⁹⁶ High waters can be dangerous for boaters and swimmers by causing rapid water flow and adding obstacles and debris to the current.

Keeping the riversides and a campgrounds clean are important in attracting tourists to the region. Recognizing this Kittatinny Canoes near the Delaware Water Gap National Recreation Area hosts an annual river litter clean up that brings in people from all over the watershed to pull tires, paper, plastic bottles, and roadway trash from the River.



DELAWARE WATERGAP FOR THE PAST 18 YEARS, DELAWARE RIVERKEEPER NETWORK HAS ORGANIZED A 3 DAY CANOE AND CAMPING TRIP FOR THE FRESHMAN CLASS OF THE UNITED NATIONS INTERNATIONAL SCHOOL FROM NYC. FOR MANY IN THE GROUP OF 100+, IT IS THEIR FIRST TIME IN A CANOE OR CAMPING IN THE WOODS.

Location	Canoe Liveries
Pennsylvania	Adventure Sports Canoe & Raft Trips Bucks County River Country Chamberlain Canoes Kittatinny Canoes Pack Shack Adventures Portland Outfitters River Country Shawnee Canoe Trips Shohola Campground Soaring Eagle Campgrounds Sylvania Tree Farm Camping Two River Junction
New Jersey	Delaware River Rafting & Canoeing Delaware River Tubing GreenWave Paddling Lazy River Outpost Paint Island Canoe & Kayak Phillipsburg River Outpost
New York	Ascalona Campground Catskill Mountain Canoe and Jon Boat Rentals Cedar Rapids Kayak & Canoe Outfitters Inc Deer Run Rustic Campground Delaware River Trips Indian Head Canoes & Rafts Jerry's Three River Campground and Canoes Landers River Trips Red Barn Family Campground Silver Canoe Rentals Upper Delaware Campgrounds, Inc. Whitewater Willies Raft & Canoe Rentals, Inc. Wild & Scenic River Tours & Rentals

Figure 3: Canoe Liveries Along the Delaware River Main Stem⁹⁷

Whitewater clubs and paddling clubs throughout New York take advantage of the nearby river attractions. The Canoe and Kayak Club of New York plans trips almost every weekend of the fall, spring and summer through Upper Delaware tributaries and headwater streams.⁹⁷ The Mongaup and Lehigh Rivers are favorites for clubs that frequent both the Delaware and Hudson River watersheds.⁹⁸

To the delight of Whitewater enthusiasts, Lake Nockamixon makes 2 whitewater releases each year into the Tohickon Creek at Ralph Stover State Park in Bucks County, Pennsylvania.⁹⁹ The course can be challenging for even the most avid kayakers. The creek contains several drop-offs, high rock cliffs, class III and IV rapids, and some of the most beautiful landscapes in southeastern Pennsylvania.¹⁰⁰ Boundless Philadelphia, a Philadelphia based tourism website warns, “don’t be surprised to find the water somewhat crowded.” “This is a favorite among paddlers all over the Northeastern US.”¹⁰¹

Kayakers and paddlers take advantage of the still water reservoirs in New York and the upper Delaware. The Swinging Bridge reservoir and Mongaup Falls reservoir together span almost 1000 acres.¹⁰² These recreational hot spots are free to paddlers and hikers; anglers can catch Largemouth Bass, Chain Pickerel, and Panfish.¹⁰³ The Mongaup Falls reservoir is trout stocked.¹⁰⁴ The Mongaup Falls Reservoir Park is known as a prime location for Bald Eagle watching and contains designated bird observation areas.¹⁰⁵

Boating of all types is important for residents of the watershed and tourists. Tourists are attracted to the region; historic attractions are maintained; jobs are created; and valued recreation, vacation, environmental education and family interactions are nurtured along the River.



Case Study: Canoe Designer and Photographer Harold Deal

Harold Deal's ancestors have been residents of the Delaware River for centuries. One of those ancestors, Daniel Bray, collected Durham boats for General Washington's army allowing them to cross the Delaware River aiding in our country's independence. Harold has grown up on the Delaware and knows its ebbs and flows in all seasons. He once continuously paddled the 200 miles from Hancock to Trenton without any sleep or rest. This intimate knowledge gained from the flow of the Delaware River and its tributaries enabled him to become a semi-professional paddler, designing and building prototype models for performance canoes and paddles used for recreational paddling and racing. Harold's whitewater skills led to 24 first-place finishes at Whitewater Open Canoe National Championship events held around the United States.

“After so many years of paddling, I know how a canoe's shape will respond in the dynamics of a flowing river. My relationship with boating manufacturers from recreational paddling and whitewater racing over the years allowed me to develop and market my own concepts for canoes and paddles that are being produced today”, said Deal.

Deal lives along the Delaware River in Upper Mount Bethel Township with his wife Bets. He is able to keep an eye on the river and regularly frequents his favorite sections of the Delaware and its tributaries year round. “Living in close proximity to the river has allowed me to immerse myself in a way of life that is connected with the water. Bets and I have a deep appreciation for wildlife and the natural outdoors, and the importance of preserving a clean and healthy watershed system”.

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BRISTOL, PA THE BRISTOL RIVERBOAT QUEEN DOCKED ALONGSIDE THE DELAWARE RIVERFRONT IS A REPLICA STEAMBOAT THAT TOURS THE MANSIONS OF BRISTOL AND BURLINGTON, NJ

Historic Riverboats

Riverboats are a part of the Delaware River's history and offer another kind of boating attraction. Canal boat tours in New Hope and Easton, Pennsylvania keep that history alive. Wells Ferry in New Hope, Pennsylvania offers scenic, narrated tours of the Delaware River's history.¹⁰⁶ Coryell's Ferry, also in New Hope offers narrated tours on a boat with a paddlewheel that departs every 45 minutes in May through October.¹⁰⁷

In Burlington, New Jersey, county officials have attempted to spark tourism through offering a historical riverboat tour on the Bristol Riverboat Queen, a replica steamboat.

What began as a one day event has transformed into a regular summertime weekend adventure. More than 1,500 people showed interest in the tour of the Burlington and Bristol mansions and factories that can only be viewed from the River itself.¹⁰⁸ The boat holds 100 people, and every trip is filled to capacity.¹⁰⁹

The Bucks County Riverboat Company offers a 52-foot long pontoon boat for scenic and historic rides along the Delaware while serving dinner for more than 70 guests at a time. The pontoon boat can be chartered for special events at a cost of \$1,375 for four hours.¹¹⁰ It is rented out regularly on weekends throughout the summertime months. This riverboat and the Delaware River Steamboat floating classroom offer environmental education seminars for local public and private schools, families, college students, and youth groups.¹¹¹

❖ Swimming and Biking along the Delaware

The Delaware is a safe and fun haven for swimmers and the canal towpaths create perfect biking trails. Swimmers enjoy Delaware River and tributary waters at a number of locations that may not be official access points, but community-made put-ins where kids and adults can appreciate the cool water during the hot summer.



CAPE HENLOPEN, DE KIDS SWIMMING DURING DELAWARE RIVERKEEPER NETWORK'S ANNUAL MEMBERS DAY AT THE BAY DAY AT THE BEACH. THE BAY OFFERS MORE SECLUSION THAN THE JERSEY SHORE, WITH JUST AS MUCH FUN.

Some popular Delaware River swimming holes are located at Bulls Island just north of New Hope and Lambertville, Farview in Stroudsburg, Flatbrook and Milford swimming holes in Milford, and at the Trestle Bridge in Columbia, New Jersey.¹¹² Popular swimming lakes include Crater Lake and Highlands Natural Pool.¹¹³ Creeks and brooks with reportedly good swimming spots are at the Devils Pool on Cresheim Creek in Mt. Airy Pennsylvania, the Brandywine in Chadd's Ford, and Otter Hole in the Posts Brook in New Jersey.¹¹⁴ The Musconetcong Wild and Scenic River enters the Delaware at Riegelsville, New Jersey and plays host to popular swimming holes throughout its length. Some of these lakes and swimming holes are in the most beautiful secluded spots of the watershed. Many have warnings about jumping from high up into shallow water and watching out for dams or big rocks.¹¹⁵ After

heavy rain, due to polluted runoff, many areas are better left off limits for swimming and other water contact recreation for approximately two days to allow water quality to clear up.

Besides swimming holes, there are also a few remaining Delaware River beaches where swimming continues. Historically, swimming in the River was a popular summertime activity. Smithfield Beach and Milford Beach in Milford, Pennsylvania maintains a lifeguard on duty during the summer months. In the Delaware Bay, Cape Henlopen, Dewey Beach, Cape May, and several other spots are popular for tidal salt water beaches without the crowds of the Jersey Shore or Delaware beach hotspots. To many towns, beaches are a vital part of the local economy.

Bicyclists have a number of scenic options that take them close to water. The Delaware and Raritan Canal trail is a perfect bicycling adventure. It travels along the historic Delaware River canal towpath for 27 miles from Frenchtown to Trenton, New Jersey.¹¹⁶ The canal on the Pennsylvania side of the River offers a similar experience close to the water for over 60 miles from Easton to Bristol.¹¹⁷ Bikers, runners, and families with strollers, appreciate the trails. The River to River scenic Bicycle tour from Montgomery County to Bucks County, Pennsylvania offers both recreational and professional cyclists with 25-, 50-, or 100-mile cycling routes along roads through scenic old towns, rivers, and parks.¹¹⁸

The Delaware River Scenic Byway is a scenic driving experience traveling along Route 29 between Trenton and Frenchtown, New Jersey, and along Route 32 that parallels the River through Bucks County in Pennsylvania. Motorcyclists and bicyclists also enjoy the scenic rides and views¹¹⁹ and cycling opportunities continue to expand from the Poconos (the MacDade Trail) to the Camden City Waterfront (Camden Greenway Trails).

❖ Leisure Fishing

*The Delaware River is known for its world class fisheries. Both commercial and recreational fishing abound on the River and help support local economies. Fish commonly found in the Delaware River include Striped Bass, Trout, and Large and Smallmouth Bass. Other fish present in the River include Weakfish, American Shad, Sturgeon, Catfish, Pike, Bullhead, Perch, Walleye, and Sunfish. A 1996 survey found that 31,390 anglers spent 265,970 days fishing just the New York reaches of the Delaware River.*¹²⁰

Shad Fishing

The American Shad is deeply rooted in the foundation of the cities and towns throughout the Delaware River watershed. The Shad is a “major part of the river’s ecology and has played an important role in the river’s early commercialization, development, and tourism.”¹²¹ American Shad are born in freshwater. After hatching in spring, they feed on plankton and aquatic insects before migrating towards the ocean.¹²² After four to seven years in the ocean the Shad return to their place of birth to spawn in the fresh waters of the Delaware River and upriver tributaries.¹²³



JUVENILE SHAD SEINING. PHOTO CREDIT: NJ DIV. OF FISH & WILDLIFE

The American Shad are celebrated in several cities throughout the watershed during their spring spawn including Fishtown in Philadelphia, Easton, Pennsylvania and Lambertville, New Jersey bringing in people from all over the basin. The annual Shad fishing tournament held each year following the Easton Shadfest charges a \$20 entry fee, and with over 1000 competitors in 2006, the tournament raised \$20,000 in proceeds.¹²⁴ Lambertville’s Shadfest has been an annual part of the community for 26 years, attracting 30,000 to 35,000 visitors during the two day event.¹²⁵ The Shad population has rebounded from decades ago because of renewed efforts to maintain water quality allowing the Shad to make the spawning journey up the Delaware.¹²⁶



LAMBERTVILLE, NJ DELAWARE RIVERKEEPER NETWORK BOOTH FEATURING A REAL AMERICAN SHAD, MERCHANDISE, AND EDUCATIONAL MATERIAL . PHOTO CREDIT: A. WALSH

Shad enthusiasts express their passion for shad fishing through many avenues. The Delaware River Shad Fisherman’s Association actively supports “all things shad”, from tournaments to school education, advocacy and lots of fun events. Find them at <http://mgfx.com/fishing/assocs/drsfa/> or DRSFA, 3907 Boswell Court, Bethlehem, PA.

Trout Fishing

Trout are a world class Delaware River recreational fishery. While there are no dams on the main stem of the Delaware River, there are significant dams on tributaries. Most notable are a series of three dams on headwater streams to the River. Cannonsville Reservoir Dam is on the West Branch of the Delaware, Pepacton Reservoir Dam is on the East Branch of the Delaware, and the Neversink Reservoir Dam is located on the Neversink River; an Upper Delaware tributary.

These reservoirs were constructed to provide drinking water to New York City (located in the Hudson River Watershed). The tailwaters (the water just below the dam) receiving cold water from Cannonsville and Pepacton are widely known for their Brown and Rainbow Trout populations. While brook trout have been present on these headwater streams well before construction of the dams and historically were abundant on the East and West branches, tributaries and upper main stem Delaware River¹²⁷, the trout fishery in the region regained attention in the 1980s “when improved water releases from the water supply reservoirs enhanced the fishery value of these waters.”¹²⁸ Today there is great debate over how to best manage the releases from the reservoirs in order to best support the trout, and while more can be done to benefit the trout, the fishery maintains its national reputation.

It has been determined that in the Upper Delaware, wild trout fishing resulted in \$17.69 million for local business revenue in 1996, that there was \$7.25 million of spending by anglers in Delaware County, New York alone, and that about 41% of this spending remained in the local communities surrounding the tail water fisheries area (Hancock, Deposit, Walton, and Village of Downsville).¹²⁹ The cycling of this 41% of angler expenditures in the region ultimately results in \$29.98 million in local economic activity.¹³⁰ Research has also shown that revenues generated by anglers in this region supported 348 jobs with total wages of \$3.65 million; and provided \$719,350 in local taxes.¹³¹ Other research has shown that multiple towns in the New York reaches of the Delaware River Watershed are benefiting from the clean water and resulting healthy fish populations found in tributary streams.

The Beaverkill and Willowemoc Rivers are credited with providing towns such as Roscoe and Livingston Manor with \$10 million in annual expenditures from their sport fishery.¹³² Friends of the Upper Delaware have reported that the world famous upper Delaware River is a dynamic tourism and economic engine that has not yet reached its potential.¹³³ They estimate that fly-fishing in the region could generate \$58 million per year in economic activity, creating new jobs with virtually no infrastructure or environmental threat, for which there is already a trained work force and where control would remain local.¹³⁴



VALLEY CREEK, PA DRN RESTORATION STAFF COME ACROSS BROOK TROUT AND OTHER WILDLIFE WHILE ASSESSING STREAMS AND CONDUCTING RESTORATION PROJECTS. PHOTO CREDIT: DAVE WILLIAMS

IMPORTANT SPECIES HIGHLIGHT

Dwarf Wedge Mussel (federal endangered)

The mussel is an interesting species. Mussels are *mini filters* cleaning our rivers as the water travels ovetop of the rocks and riffles where they hide. The Dwarf Wedge Mussel is special in particular, because it is now *endangered* due to *poor water quality* and *dams* throughout the eastern US. It can only live in *very clean* streams with little *sediment*, *chemicals*, and a good supply of *coldwater flows* to keep the temperature low even in summer months. The *largest remaining population* of Dwarf Wedge Mussels exists in the Upper Delaware watershed which is good news for *trout anglers*. Not only does mussel presence indicate clean healthy water, but their status as endangered helped remove a dam along the Neversink that threatened their population and continues to protect the waterways from future threats where both species coexist.



Delaware Estuary and Bay Fishing

Fishing in the lower reaches of the Delaware River and Bay is an important aspect of the River and its connection with the community. Children along the docks go crabbing and fish for Herring during the Herring run. Recreational fishermen catch Mackerel, Drumfish, Weakfish, Flounder, Sea Bass, and Striped Bass seasonally in the Delaware Bay.

Urban fishing throughout Philadelphia, Camden, Wilmington and Trenton is a common sight along the River because of available public access and desire from community residents. In 2006, Ron Swegman authored *Philadelphia on the Fly: Tales of an Urban Angler*, a book about the popularity of fly fishing in the Philadelphia area.¹³⁵ In it, Swegman tells stories of different rivers and tributaries where he has successfully been fly fishing. Swegman continues to write about urban fishing spots throughout Pennsylvania in his personal blog and Pennsylvania angler forums.¹³⁶

Urban anglers use spots like naturalized piers and docks throughout Philadelphia, as well as urban parks and bridges to go fishing on both the Delaware and its major tributary there, the Schulykill. Greenways along major roadways and new parks in urban areas like Trenton attract anglers providing them with a relatively inexpensive meal each trip. (see "FISH ADVISORIES" box)



DELAWARE BAY, DE THESE ROCKY OUTCROPS JUTTING INTO THE BAY MAKE A PERFECT FISHING PLATFORM FOR KIDS AND ADULTS WANTING TO CATCH SOME FISH FOR DINNER OR JUST HAVE SOME FUN.

Figure 4 shows the revenue generated from the sale of state fishing licenses within each of the four basin states. In Delaware, the state with the lowest price for a fishing license, revenue of nearly \$200,000 was generated in 2003. In Pennsylvania, the state earned nearly \$19 million in fishing license revenue from resident and non-resident purchases of fishing licenses. This is not counting all of the 1, 3, and 7 day-passes, or any of the passes simply given away to children at local parks and events. (In Pennsylvania, fishing activities are credited with generating \$4.7 billion per year in revenue and supporting 43,000 jobs.¹³⁷) New Jersey brought in almost \$4 million in revenue statewide from fishing license sales, and New York, with the highest number of out of state fishing licenses sold, brought in almost \$32 million in state revenue.

FISH ADVISORIES

State and National agencies put fish advisories in place in response to contamination found in the fish tissue, generally accumulated from the waters where they live. Because the various responsible agencies do not coordinate or join forces in crafting and releasing fish advisories, in several reaches of the Delaware one side of the River is under advisory for a species while the other is not. Fish advisories impact the perceptions of our River and region and as a result can affect tourism, recreation, and associated commercial activities like dining, overnight stays, and the purchase of associated goods and services. Advisories should be consistent from state to state to both better protect public health and the economies the fish advisories impact. For further rating on fish consumption and the best and worst choices of fish considering environmental factors go to

<http://www.edf.org/home.cfm>



PHILADELPHIA, PA URBAN FISHERMAN OUTSIDE OF VACANT PHILADELPHIA ELECTRIC COMPANY ON DELAWARE AVE AT PENN TREATY PARK. FISHERMAN CAN ALMOST ALWAYS BE FOUND AT THIS SPOT.

STATE	# Fishing Licenses Sold in 2003	Resident Cost	Non-Resident Cost	Total Revenue (Million)
Delaware 138	R: 17,233 NR: 3,331	\$8.50	\$15.00	\$196,445
Pennsylvania 139	R: 777,089 NR: 49,957 O: 67,992	\$21.00	\$51.00	\$18,866,676 (w/o O sales)
New Jersey 140	R: 155,764 NR: 6,763 O: 4,181	\$22.50	\$34.50	\$ 3,738,013 (w/o O sales)
New York 141	R: 842,966 NR: 156,726	\$19.00	\$40.00	\$ 31,882,588

R: Resident NR: Non-Resident O: Other, including lifetime, 3-day, 7-day, and free fishing licenses.

Figure 4: Number of Fishing Licenses Sold in 2003 in Delaware River Basin States

Clean Water for our Food Supply

Fishing the Delaware River is valuable commercially, recreationally and for those families that simply need it to eat. Clean water is critical for supporting the life cycle of fish. But also, it is critical for ensuring that the fish caught from our Rivers are safely edible. Pollutants accumulate in the fat and/or tissue of fish, in some cases building up and increasing in concentration over time. Persistent pollution problems can and do contaminate fish, in some cases making them unsafe to eat.

On the main stem Delaware River there are advisories on more than 9 species of fish.¹⁴² In some sections of the River all fish are subject to advisories.¹⁴³ Fish advisories set limits on the amount of contaminated fish species that should be eaten in order to protect individual and community health. Often elderly persons, children and pregnant women are subject to more stringent limits because of their increased vulnerability to contamination. Exposure to the toxins contained in fish tissue, including methyl mercury, PCB's, chlorinated pesticides and dioxins are colorless, odorless, and can not be revealed through appearance of the fish – therefore knowledge and compliance with fish advisories is critical.¹⁴⁴ Before consuming fish from the Delaware River and Bay, it is important to be aware of the current fish consumption advisories for each state. Many fish in the River are unsafe for pregnant women and the elderly because of contaminants that are still making their way into our streams and rivers. Contact your state's environmental protection agency for the most current advisories and warnings.

“United for The River”



The Delaware River Fisherman's Association is an active, fish-loving membership organization for both NJ and PA fisherman. For their many activities and great reports go to:
www.drfishermen.com/

Or

To learn about some popular fishing spots in the Delaware River Watershed go to
www.delawariver.net/fishing.

If we were able to eliminate pollution to the level that there were no advisories on the Delaware, not only would we be protecting the health of our communities, but we would be enhancing the fisheries of the Delaware and all who rely on them. It is important to note, the issue isn't just reality, it is also perception. Multiple fish advisories create the perception that the Delaware is not clean or safe – the result could be to impact the desirability of the Delaware as a tourism, recreation or home buying destination, and can affect associated commercial activities like dining, overnight stays, and the purchase of associated goods and services.

❖ Parks and Wildlife Refuges

The Delaware River spans four states. In order to maintain animal habitat, recreational access, and special or significant pieces of land, federal, state and local governments operate and maintain a spectacular array of parks, forests, and wildlife refuges. The national, state, county and local park systems are key elements in the ecotourism businesses and attractions that grace the Delaware River Watershed. The parks provide a public place to view wildlife, canoe, fish, hike, and much more -- they enhance the quality of life for the community, providing job opportunities, and recreational and family activities.

National Parks

Dozens of parks line the banks of the Delaware, with the region's largest federal parks known all over the world. **Figure 6** lists the parks within the Delaware River watershed designated as nationally significant. This includes the nationally recognized Appalachian Trail which stretches from Georgia to Maine, and crosses the Delaware River at the Delaware Water Gap National Recreational Area (DWGNRA.) This crossing of the Delaware River is a "favorite" among the hundreds of people each year who hike the trail from start to finish.¹⁸⁵ The watershed is also home to four national historic sites and two national historic parks and memorials.¹⁸⁶ The United States Department of Agriculture's (USDA) Forest Service has determined that water enhances the value of National Forest Lands nationwide by more than \$3.7 billion a year, not including a number of key economic benefits including maintaining the value of fish species or the savings to municipalities with reduced filtration costs as a result of the protected lands.¹⁸⁷

The Delaware Water Gap National Recreation Area is 67,000 acres and was first acquired by the U.S. Army Corps of Engineers in the 1950's to support construction of the Tocks Island Dam.¹⁸⁸ The dam proposal was defeated after decades of protest and analysis.¹⁸⁹ The land was then transformed into a national recreation area which contains waterfalls, ponds, mountains, river bends, and animals such as Bald Eagles, Black Bears, Timber Rattlesnakes, and Peregrine Falcons.¹⁹⁰ There are a variety of plant species present including Hemlock, Rhododendron, Andropogon gerardii (big bluestem grass) and Prickly Pear Cactus. Water quality in the Delaware River as it flows through the DWGNRA is exceptional, encouraging swimming, fishing, boating, hunting, and hiking.¹⁹¹



THE WILD AND SCENIC DELAWARE RIVER. THE DELAWARE RIVER HAS BEEN AWARDED SPECIAL PROTECTION WATERS STATUS BY THE DELAWARE RIVER BASIN COMMISSION. THE HIGHEST LEVEL OF PROTECTION FOR BEING A CLEAN AND VALUABLE RIVER FROM ITS HEADWATERS THROUGH THE WATER GAP AND BELOW FOR 176 MILES. NO OTHER RIVER IN THE U.S. HAS THIS DESIGNATION FOR A LONGER STRETCH. PHOTO CREDIT: PAUL CARLUCCIO

National Park	Park Type	Location
Delaware Water Gap National Recreation Area	National Recreation Area	Bushkill, PA and New Jersey
Independence National Historic Park	National Historic Park	Philadelphia, PA
Valley Forge National Historic Park	National Historic Park	Valley Forge, PA
Upper Delaware Scenic and Recreational River	Scenic and Recreational River	Pike and Wayne, PA Delaware, Orange, and Sullivan, NY
Thaddeus Kosciuszko National Memorial	National Memorial	Philadelphia, PA
Appalachian National Scenic Trail	National Scenic Trail	GA, CT, MA, MD, ME, NC, NH, NJ, NY, PA, TN, VA, VT, WV
Hopewell Furnace National Historic Site	National Historic Site	Elverson, PA
Gloria Dei Church National Historic Site	National Historic Site	Philadelphia, PA
Deshler-Morris House	National Historic Site	Philadelphia, PA
Edgar Allen Poe National Historic Site	National Historic Site	Philadelphia, PA

Figure 6: Nationally Significant Parks in the Delaware River Watershed¹⁹²

The Delaware Water Gap National Recreation Area is one of the most heavily used parks on the East Coast visited by more than 3 million annually.¹⁹³ Shared by Pennsylvania and New Jersey, DWGNRA has been home to native people for centuries prior to European settlement. Since about 1988 more than 113,000 historical and aboriginal artifacts have been uncovered.¹⁹⁴ Archaeological sites currently located within DWGNRA help today's archaeologists learn more about the culture and history of the Minisink and other native people as well as the natural history of the region.



CANOING AT THE DELAWARE WATER GAP. THE WATER IS CLEAN, THE AIR IS FRESH, AND CLIFFS APPEAR THROUGHOUT THE LANDSCAPE. WILDLIFE IS ABUNDANT THROUGHOUT THIS STRETCH MAKING IT THE PERFECT OUTDOOR EXPERIENCE FOR PEOPLE FROM NEW YORK, PHILADELPHIA, AND BEYOND.

In 2007, in recognition of the beauty of the DWGNRA and its 40.6 mile water trail, the Delaware Water Gap National Recreation Area was designated a National Recreation Trail by the Secretary of the Interior.¹⁹⁵ The trail is valued for connecting people with the beauty and values of nature, introducing them to geological formations and a diverse set of wildlife habitats. It is the largest recreation area in the eastern U.S. bringing in revenue to local communities and economies in both Pennsylvania and New Jersey.¹⁹⁶

National Wildlife Refuges are a special class of parkland set aside specifically to protect animal and plant habitats. Several wildlife refuges exist throughout the watershed. Just south of Philadelphia, the John Heinz National Wildlife Refuge at Tinicum has been set aside to protect the least 200 acres of freshwater tidal marsh in Pennsylvania. It is currently home to over 280

species of birds and is the only place where the “state endangered Red-Bellied Turtle and Southern Leopard Frog can be found”.¹⁹⁷ A great amount of effort has been invested in preserving and restoring this natural area which is located in a densely populated region of the watershed.¹⁹⁸ The wildlife preserve allows urban communities to access native plants, wetlands, and aquatic habitats. It also connects urban residents with their natural community. The marshes of the John Heinz Wildlife Refuge capture rainfall and stormwater while filtering out pollution, absorbing flood waters, helping to defend against drought, and providing water quality benefits to the River.¹⁹⁹

The Cape May National Wildlife Refuge, Delaware Bay Division, protects a large variety of habitat including “salt marsh, forested uplands, forested wetland and vernal pools, shrub/scrub, and grassland”²⁰⁰ Supawna Meadows National Wildlife Refuge in Pennsville, NJ is part of the Cape May Refuge. It includes 3,000 acres of protected wetlands, mainly for shorebirds, warblers and other migrating birds which use the upland area as valuable resting and feeding habitat.²⁰¹

Bombay Hook is a National Wildlife Refuge in Delaware encompassing 15,000 acres in the Delaware estuary.²⁰² This refuge connects parts of the Atlantic Flyway, an avian migratory route of global ecological importance. It provides an important resting point and breeding ground for a variety of species including migrating waterfowl, Bald Eagles, Canada Geese, and several species of duck.²⁰³ Bombay Hook is an important home to White-Tailed deer, Woodchucks, Horseshoe Crabs, Bullfrogs, and Tulip Trees.²⁰⁴ Prime Hook National Wildlife Refuge, located near the western shore of the Delaware Bay, is a 10,000 acre sanctuary for migrating birds. Outstanding wetlands provide rare habitat for many species of birds and other wildlife, including threatened and endangered species.²⁰⁵

The Delaware Estuary’s Pea Patch Island is a refuge ideal for wading bird populations and waterfowl, including 2,300 nesting pairs of Heron.²⁰⁶ The Delaware Bay as a whole is the second largest stopover for migratory birds in the western hemisphere, visited each year by over one million birds.²⁰⁷



WORTHINGTON STATE FOREST, NJ WATERFALL ON A TRIBUTARY TO THE MIDDLE DELAWARE WILD AND SCENIC RIVER. PHOTO CREDIT: PAUL CARLUCCIO

State and County Parks

State and county managed parks are also prominent in the watershed. State parks and campgrounds are used regularly by tourists and local residents and are home to a variety of wildlife, trees and plants. “A walk along the 60-mile towpath of the Delaware Canal is a stroll into American History. The Delaware Canal is the only remaining continuously intact canal of the great towpath canal building era of the early and mid-19th century.”²⁰⁸ Before railroads, the canal was a means of transporting people and goods from Pennsylvania to New York and back.²⁰⁹ Today, 60 miles of the canal has been restored and converted into a nature trail for joggers, bikers, birders and historians.²¹⁰ The Delaware Canal State Park, stretching from Easton to Bristol, PA, has protected the riverfront for everyone to enjoy. The Pennsylvania Canal State Park attracts on average nearly 835,000 visitors annually.²¹¹

On the New Jersey side, the Delaware and Raritan Canal State Park begins at Bulls Island Recreation Area and travels through Washington Crossing State Park linking Frenchtown with New Brunswick.²¹² “The 70-mile Delaware and Raritan Canal State Park is one of central New Jersey’s most popular recreational corridors for canoeing, camping, jogging, hiking, bicycling, fishing and horseback riding. The canal and the park are part of the National Recreation Trail System. This linear park is also a valuable wildlife corridor connecting fields and forests. A recent bird survey conducted in the park revealed 160 species of birds, almost 90 of which nested in the park.”²¹³

INTRINSIC VALUE

Intrinsic value is the value of something for more than its measurable qualities. Instead of valuing fish for their ability to be caught or eaten, intrinsic value is the value of the fish simply for existing and not for its services to humans. Intrinsic values and existence values are important to keep in mind when thinking about the importance of biodiversity throughout the watershed. Biodiversity not only has a dollar sign attached to the term, but is important to maintain intrinsically, simply because nature has a right to exist.



FISHTOWN, PA PENN TREATY PARK IS A HAVEN IN CENTRAL PHILADELPHIA. A NATURAL RIVER'S EDGE, VIEWS OF THE BEN FRANKLIN BRIDGE AND PETTY'S ISLAND, EASY ACCESSIBILITY FOR PEDESTRIANS AND MASS TRANSIT, MEANS THAT THE PARK IS ALWAYS BUSY.

New Jersey State Parks and Forests attract 15 million visitors each year. It is estimated that New Jersey's Parks and Forests generate \$807 million a year with park fees accounting for \$6 million. Stokes State Forest is located within the New Jersey Sky lands and includes over 15,000 acres of mountains, streams, trails and wildflowers; and is home to a variety of fish, birds, and wildlife.²¹⁴ New Jersey Worthington State Park is situated along the Delaware River at the Delaware Water Gap National Recreational Area and has widespread appeal with camping, canoe and boat launches, waterfalls, and forested river refuges.²¹⁵

In Philadelphia, it is estimated that annually, parks provide the city with revenue of \$23.3 million for the residents and government of Philadelphia.²¹⁶ This methodology for valuing the city parks includes the value of property value, tourism, direct use, health, community cohesion, clean water, and clean air²¹⁷

Some of the most visited parks in Philadelphia include Fairmount Park, home of Philadelphia's first water treatment reserve.²¹⁸ Philadelphia's yellow fever epidemic of the 1790's left City Hall with a need to protect its water supply by purchasing land and setting aside public areas that would protect the Schuylkill River and surrounding land from development.²¹⁹ The park is now 92,000 acres providing drinking water protection, as well as an enhanced opportunity for events, public recreation, and environmental education.²²⁰ Historical records indicate that Penn Treaty Park along the Delaware River in Philadelphia is the site where William Penn may have signed a peace treaty with the Lenape Indians, but where we know they met in a peaceful and respectful way in the 17th century.²²¹ The Park remains today reminding us of the peaceful relationship between the two peoples at that time.

Numerous small city parks throughout Philadelphia provide naturally green areas that benefit the urban community in a variety of ways. Some have become city gardens, teaching kids how to plant, nurture and cultivate the earth. Others are just a nice place to rest, play with your pets, or enjoy time with the family. These small urban parks are vital for communities to retain a connection with nature that enhances quality of life amidst the city land

Native plants, like wildlife, are themselves an attraction to our parks and region generating interest and visitors. The Prickly Pear cactus is a notable Delaware River species. It is most often found in desert ecosystems like the Mojave; however it can also be found on some of the south facing cliffs in the Delaware River region, while the northern face of the same cliff can be covered in flora and fauna typically found in arctic-alpine climates. The differences in landscape between the northern and southern sections of the same cliff are an attraction bringing visitors to local parks on foot and by boat.



PRICKLY PEAR CACTUS IN BLOOM IN NEW JERSEY. THE CACTUS CAN BE FOUND THROUGHOUT THE DELAWARE RIVER WATERSHED FROM THE PINES BARRENS TO THE JOHN HEINZ WILDLIFE NATIONAL REFUGE TO CLIFFS ALONG THE UPPER REACHES OF THE RIVER.



DEPUE ISLAND IN THE DELAWARE WATER GAP, RIVER MILE 215. OVER 100 ISLANDS EXIST IN THE DELAWARE, SOME DEVELOPED AS GOLF COURSES, ONE AS A BOY SCOUT CAMP, BUT MOST ARE UNDEVELOPED FORESTS AND HABITAT PERFECT FOR A LUNCH BREAK STOP DURING A PADDLE.

“GIMME SOME SPACE”

The value of open space from a wildlife, recreation and quality of life perspective has fueled local efforts to purchase and protect natural lands from development. From 1961 to 1995, the New Jersey Green Acres program set aside \$1.4 billion for land acquisition and park development for open space and wildlife. Since 1998, funding was guaranteed for the program, set aside by the Garden State Preservation Trust Act. The Trust was depleted in 2009, but a new Bond or other stable source of funding is being developed in the state. NJ officials have also recognized the importance of protecting riparian lands for ecosystem services including water quality and flood protection. The state has approved a Blue Acres program which would invest funds in protecting open space along the Delaware and other river systems.

In Bucks County Pennsylvania, voters overwhelmingly approved spending \$59 million towards preserving open space throughout the county in 1997. Since then, more than 15,000 acres have been protected establishing new parks, preserving agricultural land, providing natural habitat for wildlife, improving historical buildings and grounds, and rejuvenating the Delaware River waterfront.

Other public land preservation programs are active in all the River's Watershed States. In addition, private non-profit conservation organizations dedicate millions towards preserving land from development.

For more information on the benefit of open space go to:

The Benefit of State Investments in Preservation Programs, April 15, 2009.

<http://njkeepitgreen.org/resources.htm>

Community Benefits of Open Space, The Trust for Public Land <http://www.njkeepitgreen.org/>

Economic Benefits of Conserved Rivers: An Annotated Bibliography, National Park Service June, 2001



CAPE HENLOPEN STATE PARK DELAWARE BAY AT SUNSET. VISITORS CAN CAMP ON THE BEACH AND WATCH WATERFOWL WHILE THE SUN SETS.

The State of Delaware is home to 18 parks including historical parks, nature preserves, state forests, and scenic vistas.²²² Delaware is known for its unmatched wading bird populations. Marshes, wetlands, and the Delaware River estuary provide habitat to rare bird species specific to the Delaware region.²²³ Delaware visitors can experience beaches, rivers, nature trails, greenways, and farms. State parks in Delaware include activities such as whale and dolphin watching.²²⁴ Cape Henlopen State Park, which borders the Delaware Bay, allows visitors to camp on its beaches and visit the nature center which provides activities year round.²²⁵ Each year Delaware's Cape Henlopen attracts over 1 million visitors.²²⁶

Catskill State Park is a vast 300,000 acres spanning Sullivan, Ulster, Delaware, and Greene Counties in New York.²²⁷ Its size has grown considerably since its founding in 1894 at 30,000 acres.²²⁸ The park contains ponds, waterfalls, meadows, streams, cliffs, and 98 mountain peaks over 3,000 feet high forming an "impressive skyline."²²⁹ Catskill State Park is a great place to visit for hiking with hundreds of miles of trails and abandoned roads. "Today, it serves as watershed, recreation area, and ecological scenic reserve."²³⁰

The Catskill Mountains in New York are the headwaters of the Delaware River. Catskill

Campgrounds along the Delaware River provide access to river resources and recreation including rafting, canoeing, kayaking, fishing and wildlife viewing. Natural, low impact campgrounds retain the atmosphere and essence of nature that many campers seek. Campgrounds throughout the watershed range in size and amenities, and are an important part of the ecotourism experience. RV campsites generally have hook ups to electricity, increasing the amount of amenities campers have while enjoying the outdoors. For example, Lander's River Trips and Campground has four different campgrounds to choose from, allowing for all types of campers. Some enjoy the peaceful quiet sounds by the campfire, while others want restaurants and amenities after a long day on the River. Dingmans and Kittatinny campgrounds both offer whitewater rapids within their stretch of the River ideal for kayakers.



DELAWARE RIVER CAMPSITE ALONG THE DELAWARE. THE NATIONAL PARK SERVICE HAS CREATED FIRST COME FIRST SERVE CAMSITES THROUGHOUT MANY OF THEIR PARKS FOR HIKERS AND BOATERS TOO REST.

Sylvania Tree Farm is a secluded 1,200 acre estate in the Upper Delaware Wild and Scenic stretch of the River,²³¹ and within the Wild & Scenic River corridor. It offers a nature campsite right on the River where one can enjoy the peaceful flowing water all night and come across interesting wildlife including bears. There are also secluded cabins set back in the woods away from the River's edge.²³² Bull's Island Recreation Area, located on Route 29 (River Road) in Hunterdon County, NJ, and within the Delaware and Raritan State Park, offers 43 rustic campsites on the Island, each with a fire ring and picnic table open April 11–October 31. With a boat ramp on the Island, the site is perfect for overnight canoe-campers.²³³

Campground	Location	Price	Nearby Attraction	Amenities
Dingman's Campground	Dingman's Ferry, PA	\$28/ Night	Waterfalls, Appalachian Trail	Hiking, Nature and Biking Trails, Fishing, Canoeing ²³⁴
Worthington State Forest	Warren County, Old Mine Road Delaware Water Gap	\$15/ Night	6,000 acres within the DWGNRA, Sunfish Pond, Old Copper Mine Trail	Fishing and Boating, Hiking the Appalachian Trail, Picnicking ²³⁵
Lander's River Trips and Campground	Narrowsburg, NY	\$16/ Night	4 campgrounds with River Views, Fort Delaware, Skinner's Falls (waterfalls)	Boating, Fishing, Hiking, Kayaking, Rafting, Playgrounds ²³⁶
Kittatinny Campground	Barryville, NY	\$10/ Night	Mountains, Delaware River Whitewater	Whitewater Rafting, Kayaking, Trout Fishing, Hiking, Horseshoes, Volleyball ²³⁷
Cape Henlopen	Lewes, DE	\$31/ Night	Six miles of beach, WWII Observation Tower, Lewes Ferry	Beach Camping, Bike Trails, Bird Watching, Swimming, Disc Golf, Ferry Service ²³⁸
Sylvania Tree Farm	Lackawaxen, PA	\$25/ Night	Skiing, Horseback riding, Balloon rides, Delaware River Whitewater	Fishing, Hiking, Camping, Swimming ²³⁹
Bull's Island Recreation Area	Stockton, NJ	\$20/ Night	Borders river and canal, lush vegetation on the Island. Nearby towns Lambertville, NJ and New Hope, PA	Fishing, River and Canal access, Swimming, Historic foot bridge to PA

Figure 7: Campgrounds bordering the Delaware River

❖ Community Attractions and Ecotourism

Enhancing the natural assets of a community to increase ecotourism can be a low-cost, high-benefit solution for bringing in extra people and dollars to an area. Several communities in the watershed have already been successful in this endeavor, while others are just beginning.

In Pennsylvania, Bucks County is distinguishing itself as an ecotourism destination. Wineries, breweries, local coffee houses, nature parks, historic hotels, museums, bed and breakfasts and Delaware River access points all bring visitors to the area.²⁴⁰ Places like the Bowman's Hill Wildflower Preserve, 1000 acres with over 134 native plant species near New Hope provide opportunities for day trips as well as complementing longer stays.²⁴¹ Visitors to the area supply revenue to local businesses and keep the importance of preservation and conservation of resources at the forefront of county planning.²⁴²

The State of Delaware has attracted tourists through creative activities such as the "Biking Inn to Inn" – an excursion that combines recreation, wildlife viewing, exercise, and Delaware's history on a 30-45 mile biking tour.²⁴³ The trip stops at three different historic Delaware Bed and Breakfasts along countryside back roads. Other Delaware ecotourist adventures include bird-watching along the Atlantic Flyway, sport-fishing, horseback riding, antique shopping, arts and culture, fine dining, shopping, and visits to historic locations.²⁴⁴



BLUE TORTILLA RESTAURANT IN NEW HOPE, PA THE HISTORIC BUILDINGS, PEDESTRIAN FRIENDLY WALKWAYS, AND RIVERFRONT ACCESS ALL BRING TOURISTS TO THE AREA FOR SHOPPING, DINING, AND RECREATION.

Small river towns throughout the watershed bring in visitors each year to celebrate the river. In Frenchtown New Jersey, "River Fest" first started to commemorate the role of the Delaware River in local history, and to support the preservation of the river and the surrounding environment.²⁴⁵ River Fest, sponsored by the Frenchtown Business and Professional Association is considered Frenchtown's largest annual event.²⁴⁶ In Knowlton, New Jersey, River Fest is "an annual Musical Event that celebrates music and nature next to the

Delaware River."²⁴⁷ In Narrowsburg, New York, River Fest is about promoting the Arts and Environment, featuring speakers that promote river conservation education. Lambertville's Shad Fest brings 30,000-35,000 visitors each year to the small historic river town. In Easton, Pennsylvania the Annual Forks of the Delaware Shad Fishing Tournament and Festival is held every year in Scott Park, attracting enthusiastic shad lovers from all around.

Peters Valley, a small village tucked away in Sussex County, is an art retreat for artisans and crafters.²⁴⁸ The Peters Valley Craft Center has 8 art studios which include blacksmithing, ceramics, structural fibers, metals, photography, and woodworking.²⁴⁹ Once a year they hold an annual craft fair in September featuring local crafters using inspiration from the Valley's surroundings.²⁵⁰

ECOTOURISM

Ecotourism is responsible travel to natural areas that helps conserve the environment and improve the welfare of local residents. Ecotourism is a major component of each of the basin states economy. Ecotourism supports local economies through retail sales, restaurants, lodging, and services provided. Ecotourism is the fastest growing sector of the travel industry, and therefore countries all over the world and states throughout the U.S. are quickly changing marketing systems to promote their remaining natural and historical areas.

The Delaware County Riverfront Ramble is a weekend long festival featuring music, canoe racing, environmental education, and pirate and fishing shows for families and people of all ages.²⁵¹ Riverfront Ramble promotes the Delaware River as a destination location. In 2007, after only 3 years, the event attracted approximately 22,000 people and was expanded to cover 2 days in order to attract overnight visitors and therefore increased proceeds for participating communities.²⁵² In 2008 the Riverfront Ramble had events in 6 locations lining the Delaware shore including Market Square Memorial Park in Marcus Hook, Delaware, John Heinz National Wildlife Refuge, and the Governor Printz Park in Tincum, Pennsylvania and several other Delaware River shore stops. Ferry and free boat rides connect the 6 locations with shuttle services to get you back to your start.

Big cities benefit from the draw and beauty of a clean and healthy Delaware River. Philadelphia is home to a variety of events that boast its river areas as an attraction. Boating events include the Philadelphia Canoe Club's 'Philadelphia Fall Classic', a 10,000 meter canoe, kayak, outrigger and surf ski race²⁵³ and the Philadelphia International Dragon Boat Festival featuring more than 100 teams racing fiberglass dragon boats on the Schuylkill River.²⁵⁴

Maintaining the nature and history of towns along the Delaware River makes them tourist locations that bring in additional revenue for the entire community. This idea is what led to Cumberland County New Jersey publishing a "Vision & Implementation Strategy for Economic Development & Conservation" in 1996. The report "was born out of a need to find a common agenda; one that would provide both economic development opportunities and preserve the County's natural heritage. Eco-tourism is here. It is happening today in Cumberland County...It is one way to expand the economy, create jobs, and protect



WASHINGTON CROSSING STATE PARK. PA. ECOTOURISM, SUCH AS WILDLIFE OBSERVATION INCLUDING THIS EASTERN TIGER SWALLOWTAIL BUTTERFLY. BRING ECOTOURISTS INTO A REGION REQUIRING MASSIVE INFRASTRUCTURE, ROAD BUILDING, OR HIGH RISE HOTELS. THE KEY IS PROPERLY MARKETING THE UNIQUE AND VALUABLE NATURAL RESOURCES AN AREA ALREADY CONTAINS.

THREATS TO ECOTOURISM

Improper handling and treatment of sewage, inappropriate and uncontrolled development, industrial air pollution, and water pollution from all sources including industry, roads, farms, cities, and neighborhoods threaten regional ecotourism opportunities for small towns and counties. A recent university study found that illnesses associated with swimming in contaminated water costs the public more than \$3 million per year through the loss of tourism dollars as well as health care related costs, legal fees, and cleanup. Poor environments diminish the public's ability to fish, swim, bird watch, canoe, and experience our public parks and reserves.

the natural resource base that is so important to the area's quality of life."²⁵⁵ Other communities have published similar reports, created brochures, or are developing strategies to enhance the natural and cultural assets already existing within their borders.

Recognizing the value of recreation to our communities, and its dependence on clean water, beautiful and scenic vistas, and natural areas, it is important that we take action to protect the quality of our river water, our river corridors, and the natural areas in the watershed. Clean water increases park attendance and recreation revenue. Every type of river recreation is diminished if the health of the Delaware River diminishes. With the jobs and economy supported by recreation and ecotourism, it is vital that the community place a high value on the protection and restoration of the River and its surroundings.