

Upper Delaware Scenic and Recreational River 2008 State of the Park Report

Upper Delaware Scenic and Recreational River Turns 30

We have been *partnering to protect the river* for 30 years. This is a time for introspection and retrospection. Some of us have dedicated our entire careers to this river. Many are retiring, and most of those who remain are far closer to retirement than to beginning our careers. As with all milestone anniversaries, it's a time to assess the product of our labors.

Upper Delaware Scenic and Recreational River was designated a unit of the Wild and Scenic Rivers System on November 10, 1978. Our first Superintendent arrived on site the following August to an already active Citizens Advisory Council and a vocal constituency. Our full complement of staff began arriving the following March, and by May we had a summer program in full swing.

Ahh, those were the days. We had a "unique" mission, our first Superintendent, John Hutzky, told us. We were to work with our partners to protect a 74.3-mile-long river. The National Park Service didn't typically do things this way. Parks were purchased and managed, not privately-owned and cooperatively managed. We were forging a trail into the future. As a unit of the National Park Service, nothing "fit" exactly...still does not. We are perpetually challenged with how to describe the complexity of managing this unit of the National Park Service...we are responsible for 56,000 acres, and we own 30.6. Our visitors use, and we manage, 16 accesses to the river...we don't own any of them. Since we don't own the valley, constantly changing challenges crop up almost daily...from natural gas drilling and power lines to balancing reservoir releases and endangered fish... and our partners look to us for support and leadership as they strive to maneuver the regulatory quagmires.

Our anniversary theme is "Partnering to Protect the River". Nothing better defines the success of our mission these 30 years, and the sheer volume of this report is a tribute to our success. Nearly everything that we report is attributable to our relationship with our partners. Who are they? Though the Upper Delaware Council is our key management partner, we recently compiled a list of some 400 agencies, commercial operators and not-for-profit organizations with whom we work. Though we cannot list all of them or their contributions, we appreciate them all and look forward to another 30 years of protecting the river...together.

Two events this autumn showcase our pride for our accomplishments:

On October 25, the Upper Delaware EXPO showcases exhibits and programs by the agencies and organizations we call our partners. Live eagles and snakes; rescue and canoeing demonstrations, exhibits on water quality, land use and fisheries...and much more will be presented.

During the November 8, 2008 "Upper Delaware Retrospective", we will revisit our mission, our law, and our history during a forum when we will host the people who crafted the model that many National Park Service areas have since used...cooperative management—the wave of the future. Our guests extend from the legislative aide to 1978 Congressman and Upper Delaware Act co-sponsor, Matt McHugh, to members of the planning team that developed the Upper Delaware River Management Plan in 1986...forging the Upper Delaware Council and formulating a Plan for the future. Join us!

Welcome, Superintendent Vidal Martinez

"I arrived at the Upper Delaware at the beginning of February and was immediately faced with weather and closure issues. Little did I realize that this was the honeymoon period and that I would be rudely awakened by the sheer number and complexity of issues facing the Upper Delaware.

Before I arrived, I knew about the non-federal lands concept of the Upper Delaware and its extensive work with partners. I also knew about the proposed power line and how this project could affect the river. I also knew of the challenges the NPS staff faces regarding how to communicate the need to wear life jackets while in, on, or near the river. However, when I walked in the door, it seemed that the flood gates opened with development proposals that could have a profound impact on the river itself, as well as on the overall concept of protecting the resource through local land use controls. A proposal to expand a local quarry to an industrial size operation tested the resolve of one of the river townships; natural gas well drilling has emerged as an activity which could change the character of the river valley and surrounding region. These are detailed below, but they are not the whole story, as this is our 30th anniversary, replete with special events and publications; and I have been occupied with a full array of issues ranging from providing visitor services at the Mongaup—to utilizing expiring Highway Funds to a construction project at the Roebling Bridge—to a major interpretive project at the Zane Grey House—to



the Centennial Challenge and staffing for seasonal operations. These and many other projects are also detailed below. Significantly, we also hosted, and are now responding, to a Transitional Management Assessment Program review.

It has been a busy and engaging eight months and the resource, partners and people are well worth the investment and involvement of the National Park Service at the Upper Delaware. The volume of work and the number of issues that the Upper Delaware staff deals with is amazing. The fact that they also manage to reach out and support other parks and parts of the National Park Service underlines their credibility and hard work."

-Vidal Martinez

Goodbye and Farewell

We bid farewell to three of our staff who retired this year: Superintendent Dave Forney in January, Chief of Resources Management Mike Reuber in June, and Supervisory Protection Ranger Cliff Daniels in September. Each leaves his own legacy of dedication to the Upper Delaware, and all will be missed.

Well-Deserved Recognition

As we celebrate retirements and accolades this year, it is clear that the Upper Delaware always brings us back "home".

All four superintendents honored Assistant Superintendent Sandra Schultz when she received the Distinguished Service Award from our partner, the Upper Delaware Council, for *over* 30 years of service to the Upper Delaware. Sandy worked on the Upper Delaware project at the Regional Office prior to our authorization and before she transferred here.

The Upper Delaware Council

The Upper Delaware Council, Inc. (UDC) recognized its 20th year of service during Fiscal Year 2008, having been incorporated as a 501(c)(3) organization on February 18, 1988. The anniversary theme was highlighted through the sponsorship of: a public workshop on March 26 titled, "A Review of the River Management Plan's Land and Water Use Guidelines for the Upper Delaware Scenic and Recreational River"; the 20th Annual Awards Ceremony on April 27 in Hancock, NY at which UPDE Assistant Superintendent Sandra S. Schultz received the Distinguished Service Award; and the 20th Annual Family Raft Trip on August 3 which attracted 101 participants for an eight-mile float from Minisink Ford to Pond Eddy, NY. UDC staff also serves on the 40-30-20 Anniversaries Planning Committee to organize initiatives promoting the 40th anniversary of the National Wild and Scenic Rivers Act and the 30th anniversary of the Upper Delaware Scenic and Recreational River designation, in addition to its own milestone.

On July 21, 2008, the Damascus Township, PA Board of Supervisors voted unanimously to become the UDC's 12th municipal member and the first from the total of four eligible Wayne County, PA townships to join. Efforts continue to encourage Berlin, Buckingham and Manchester Townships to join the organization and complete the full membership roster of 15 bordering towns and townships called for in the River Management Plan.

The UDC awarded \$30,000 in Technical Assistance Grants for FY 2008, including a \$12,000 allocation for a joint study by four New York State town members entitled, "Managing Natural Gas Development Impacts: Strategies to Protect Town Infrastructure and Land Use", that will address exploration activities for natural gas pockets in the Marcellus Shale deposits that underlie much of the Upper Delaware Scenic and Recreational River Valley region.

Representing the core of its conservation mission, the UDC continued to review water and land use development proposals, new ordinances, zoning variance requests, and permit applications to determine any potential impacts on the Upper Delaware Scenic and Recreational River corridor from proposed projects such as the 190-mile, 400 kV New York Regional Interconnection electrical transmission line, a bluestone quarry mining expansion, and natural gas pipeline upgrades.



Upper Delaware Superintendents

L-R Cal Hite (1995-2001), John Hutzky (1979-95), Assistant Superintendent Sandra Schultz, Dave Forney (2002-08), Vidal Martinez (present)

photo by Dave Soete

Natural Resource Management

Natural Gas Development

UPDE Natural Resource Management and the Superintendent's Office spent considerable time dealing with natural gas development activities in the UPDE region this past year, and attending numerous meetings to learn more about the issue. The NPS Geologic Resources Division (NPS-GRD) has been very helpful in their response to our Technical Assistance Request (TAR). Together we have participated in conference calls with the state agencies regulating this activity here, and made sure both Pennsylvania and New York officials are aware of the resources and values we're trying to protect, as well as the partnership role the states play in the Wild and Scenic River designation. NPS-GRD sent a staff person to



The Millennium Pipeline Traverses the Upper Delaware. It is being upgraded from 12" to 30" Photo by Dave Soete

prices, have recently made this a viable resource to develop. Coupled with the fact that the Marcellus Shale is thought to be a thicker deposit (thus containing more natural gas) in this immediate area, the proximity of several existing major natural gas pipelines (infrastructure that can transport product to the New York City metropolitan area) have driven a flurry of local leasing activity. The natural gas here is said to be 40% more valuable to energy companies because of these combined factors. In addition, the Millennium natural gas pipeline on the NY side of the river is currently being upgraded from a 12" to a 30" diameter line. When completed, this 181.7-mile pipeline will have the capacity to deliver up to 525,400 dekatherms of natural gas per day to the Southern Tier and Lower Hudson River Valley of NY, as well as to several major utility companies in the New York City area. We anticipate being approached for a river crossing to connect with it from the PA side of the Delaware River at some time in the near future.

On May 21, 2008, UPDE and the Upper Delaware Council co-sponsored a Public Information Forum on natural gas development in the area. Patrick O'Dell, a petroleum engineer with the NPS Geologic Resources Division, was here for a site visit that week, and presented information from the NPS perspective at this forum. Other presenters were from the Pennsylvania Department of Environmental Protection Bureau of Oil and Gas, the Catskill Mountainkeeper (an environmental watchdog organization), the Damascus Citizens for Sustainability, the Northern Wayne Property Owners Alliance, and Lester Greevy (an attorney with expertise in natural gas leases).

This public forum, held at the Honesdale (PA) High School gymnasium, was attended by over 700 people from the region. This natural gas development, projected to be a 30-50 year activity in the area, will no doubt be an ongoing issue for UPDE and other Northeast Region NPS areas, as we all deal with potential impacts to our resources and values.



UPDE for a site visit, and to help with a Natural Gas Public Information Forum we were involved in. An additional TAR was later submitted to expand the focus of this technical assistance to include input from the NPS Water, Air, and Biological Resources Divisions of the Natural Resource Program Center, and to address all potential impacts from activities associated with development of the Marcellus Shale on all NPS areas in the Northeast Region.

The Marcellus Shale is a massive natural gas field, currently the largest in the U.S., and stretches from New York State into West Virginia, including much of Pennsylvania.

New drilling technologies, combined with rising energy



Over 700 people attended one of several forums on Natural Gas Drilling in the region

Humphries Brook Stream Restoration/Flood Mitigation Project

We obtained \$14,000 in NPS Water Resources Division emergency funding toward a local tributary Stream Restoration/Flood Mitigation Project following the devastating June 2006 200-year flood. The project includes topographic survey of the 3500' project stream reach, project design, and initial implementation work that is progressing toward completion. The Town of Hancock, in Delaware County, NY is grateful for our assistance, as this flood damage closed an important roadway that runs along the stream.

Fish Inventory and Bridle Shiner studies

The Philadelphia Academy of Natural Sciences (ANSP) in 2008 completed their fish inventory project for UPDE and DEWA, and submitted a draft report documenting 51 fish species within UPDE, including several rare species.

2008 PMIS funding allowed the ANSP to conduct additional work on bridle shiner (*Notropis bifrenatus*), a Pennsylvania-endangered fish found in several habitats here. *Their sampling during summer 2008 also documented gravid females here (!!!), for a species that was previously thought to have only one reproducing population in Pennsylvania!* The Cooperative Agreement that the NPS has with the Academy was modified in 2008 to include an additional term of contracted study, and further survey work will continue in UPDE and DEWA. A local newspaper article covered the study, helping the public gain an appreciation for this small fish (<http://www.riverreporter.com/issues/07-09-13/head2-fish.html>).

Targeted Mammal Inventory

A Targeted Mammal Inventory continued in 2008, with graduate students from East Stroudsburg University, working under Dr. Howard Whidden, conducting field work. Of interest this year were mist-netting efforts to capture and identify bat species within the UPDE corridor. A number of species, including targeted rare species, were documented. Aspects of this study will likely be continued next season, enabling a graduate student to develop a Masters thesis and contribute to the scientific literature and knowledge about one of these bat species.

Bald Eagle Essential Habitat Study

We're involved in a multi-year study to determine the most important habitats for bald eagles along the Upper Delaware River, partnering with the New York State Department of Environmental Conservation and The Eagle Institute, a local organization dedicated to bald eagle conservation and



Fitting birds with satellite and radio transmitters gives us and the New York State Department of Environmental Conservation a great deal of information about bald eagles' habitat use

education efforts. We've been successful at capturing a number of birds that have been fitted with satellite and radio transmitters, which give us a great deal of information about their habitat use.

A total of 15 active nests (that we knew of; a 16th was found this summer) within the UPDE corridor produced 29 fledglings in 2008. One fledgling with a fractured leg was captured and taken to Albany, NY for surgery, and returned to the wild 3 weeks later.

Thousands of school children follow the migrations and movements of UPDE-tagged bald and golden eagles every year, and learn about their habits and habitat needs at

<http://www.learner.org/jnorth/eagle/>

The Eagle Institute's volunteers also logged over 7,100 visitor contacts with eagle watchers last winter at the six locations they staff in the Upper Delaware area,

helping to educate and enable visitors to observe bald eagles in a non-disturbing manner during the (stressful and critical-to-survival for bald eagles) wintering season.

Involvement with the Delaware River Basin Commission Subcommittee on Ecological Flows (SEF), the Flexible Flow Management Program (FFMP), and Advocacy of a new USGS Callicoon Gage upriver minimum flow target

Both UPDE and DEWA continue to be directly involved in the development of a Flexible Flow Management Program (FFMP) for the New York City Delaware River Reservoirs. We, along with other interested agencies and organizations, have participated actively on the Subcommittee on Ecological Flows (SEF) throughout this process over the past several years, developing and providing recommendations on flow regimes to the Regulated Flows Advisory Committee (RFAC). During the course of this time a great deal of careful study, analysis, evaluation, and deliberation has gone into the development of new proposed flow regimes. This has been an especially challenging endeavor, working with the *limited* amount of water available, while creating no additional "Drought Days", and seeking to meet the diverse needs of numerous resources and stakeholders in, and sometimes out of (e.g. New York City), the basin. But with the best information and data we could acquire at the time, and general consensus on methodologies for arriving at recommendations, a set of flow recommendations emerged from the process. Most parties involved considered the revised Flexible Flow Management Program an improvement over previous flow regimes in many respects, albeit with some shortcomings and tradeoffs. The ability to implement an Adaptive Management approach is widely viewed as a desirable attribute for any Delaware River flow regime, and most of the components required for Adaptive Management are currently embedded in the FFMP. A period of further evaluation, during which some needed modifications can be made, and a certain degree of Adaptive Management can be put into practice, and evaluated, is desired.

With the completion of an NPS-funded study to determine the flow needs of the state and federally endangered dwarf wedge-mussel (*Alasmodonta heterodon*) in the Delaware River, a peer-reviewed final report (http://www.nps.gov/nero/science/FINAL/UPDE_Flow&Temp/UPDE_Flow&Temp.htm), and the release of a public version of the NPS report on this study, we are now in a position to advocate for setting target minimum flows for the USGS Callicoon gage. We are being supported in this position by the U.S. Fish and Wildlife Service, and several other groups, based upon dwarf wedgemussel flow needs and Endangered Species Act requirements. The DRBC will likely need to consult closely with the USFWS on this issue, and the USGS Rivermaster will likely need to factor an additional upstream minimum flow target for the Callicoon gage (river mile 304), along with their USGS Montague gage (river mile 246.6) flow target, into their daily release design.

Continuing Partnership with the USGS Northern Appalachian Research Lab

A continuing partnership, outlined in a Memorandum of Understanding with the USGS Northern Appalachian Research Lab in Wellsboro, PA, has proved to be very beneficial for both parties. UPDE has continued to get important research done on key species in the river, particularly the endangered dwarf wedgemussel, by Dr. Bill Lellis and his associates. Barbara White, a member of his mussel survey crew, completed a Penn State University Masters thesis in 2008 on host fish requirements of dwarf wedgemussels in the Delaware River and other systems where they're found. This study shed important light on the species of fish required as hosts for the microscopic larvae of dwarf wedgemussels, enabling their reproduction in this and other systems. Dr. Lellis' crew also did a follow-up survey in summer 2008 of dwarf wedgemussels at their known UPDE sites, confirming their presence after some major flood events 2004-2006, and precisely (with GPS) documenting their locations.

Dr. Lellis' Wellsboro lab also convened a 2-day Ecological Flows meeting in May 2008, which UPDE and DEWA staff attended. His lab will hire one or two people in the near future, and will likely bring on a Post-Doctorate employee who can do ecological flow research on the Delaware, and run the Decision Support System model that's integrated with the Delaware River Basin Commission's OASIS flow model. This should be a big step toward developing better expertise to understand ecological flow needs of diverse species in the Delaware River, and make credible, convincing recommendations on flow needs of these resources that can counter the water-supply-focused arguments that have driven the process in the past.

Watershed Condition Assessment Pilot Project

Both UPDE and DEWA are currently involved in a Watershed Condition Assessment Pilot Project with the NPS Water Resources Division. The purpose of these NPS pilot studies nationwide is to develop methods of assessing and reporting on watershed and landscape health using available data. We've been working with modelers at Penn State University using NetWeaver, a knowledge-based management tool (Expert System) to input data, and to evaluate and report on watershed health. Jeff Albright, the NPS Water Resources Division person coordinating 17 of these ongoing pilot studies nationwide, asked us to be one of four pilot projects to present our methodologies at an NPS-WRD Aquatic Professionals meeting in Fort Collins in February 2008.

Monitoring for Didymo

During late 2007 we learned of the presence of *Didymo* (*Didymosphenia geminata*), an invasive algae, in the East and West Branches of the Delaware River. A small bloom of it was also observed briefly in the mainstem Delaware River near Callicoon. *Didymo*, or "Rock Snot" as it is known to some, is a diatom algae that was thought to exist primarily in colder, nutrient-poor waters, but has more recently shown up in a wider range of habitat types. These algae can periodically, and for unknown reasons, exhibit extra cellular growth of vegetative stalks that appear as a shag-carpet-like covering of river substrate. This form of the algae compromises habitat for bottom dwelling aquatic insects (a prime component of the river's food chain), fish, and freshwater mussels (which make up the greatest animal biomass in the river and play an integral role in its ecology). The state fisheries agencies are taking this threat very seriously, as are we, and the New York State Department of Environmental Conservation has printed thousands of flyers and posted signs at all their river accesses, advising fishermen on how to clean waders and equipment between outings to help prevent the spread of this algae. UPDE submitted a Technical Assistance Request to the NPS Water Resources Division for assistance in dealing with this threat, which is



Didymo is an invasive algae recently discovered in the mainstem Delaware

also found in several National Parks in the western U.S. A local newspaper article also provided public education about this algae, and information about the roles that the NPS and other agencies are taking to address it (<http://www.riverreporter.com/issues/07-10-25/head2-didymo.html>).

Biological Monitoring of Benthic Macroinvertebrates

UPDE is involved in cooperative efforts with two partnering entities to monitor benthic macroinvertebrates (BMI) as a means of assessing the health of stream ecosystems. Benthic macroinvertebrates are aquatic invertebrate animals that can be seen without a microscope despite their small size. Freshwater BMI are a very important part of stream food webs because they form the primary source of nutrition for many aquatic and terrestrial animals. Biologists from the Delaware River Basin Commission have had a structured study and sampling program for BMI at UPDE and DEWA for the past 6 years. A local newspaper article covered this program last year, helping the public to develop an understanding and appreciation of this component of the Delaware River's ecosystem (<http://www.riverreporter.com/issues/07-08-30/news-delaware.html>). It will be interesting to review the sampling results for a site of theirs on the West Branch of the Delaware River that this year had an estimated 80% of the substrate covered by Didymo, the first time they've encountered it there. We are also initiating this fall a long-term BMI sampling effort on 12 UPDE tributaries as part of the NPS Eastern Rivers and Mountains Network Vital Signs program.

Scenic Rivers Monitoring Program

As part of the Scenic Rivers Monitoring Program, 14 locations— including tributaries and main stem Delaware River sites, were sampled throughout the 2008 season from May through September on a bi-weekly basis. This chemical water quality sampling program includes testing for fecal coliform bacteria at our NPS Milanville Office laboratory, testing for E.coli and enterococcus bacteria through a laboratory contract with QC Labs, and testing for a host of other chemical parameters including nutrient levels, total chloride, total alkalinity, and total hardness through a laboratory contract with the Academy of Natural Sciences in Philadelphia, PA.

Invasive Species

The National Park Service Northeast Region Exotic Plant Management Team (NER EPMT) came to Upper Delaware S&RR (UPDE) two times to treat and assist with the removal of non-native invasive plant species from park owned land. Targeted species included Japanese knotweed, Japanese barberry, multiflora rose and Japanese hops.

Purple loosestrife transect monitoring and biocontrol release continued for the fifth consecutive year in Pond Eddy, NY. 3,000 *Galerucella pusilla* beetles were released in 2008. These beetles feed exclusively on the leaves, stems and shoot tips of purple loosestrife, which prevents seed production and distribution. A local newspaper article covered this effort last year with an article explaining the goals of the program (<http://www.riverreporter.com/issues/07-07-26/>).



public and hands-on demonstration in Japanese knotweed control techniques. A demonstration plot was set up and the project will be ongoing. A local newspaper article covered this well-received public presentation. Learn more at <http://www.riverreporter.com/issues/08-07-31/head3-knotweed.html>).

With the assistance of local Boy Scout Troop 122, and NPS volunteer Rich Egan, the non-native invasive aquatic plant Water Chestnut was successfully removed from a private landowner's pond and the Delaware River watershed for the third consecutive year. This privately owned pond has an outlet to the main stem Delaware and by removing this plant on an annual basis we are ensuring that this plant does not contaminate the main stem Delaware River.

As part of the Japanese Knotweed Initiative, work continued on the Japanese knotweed demonstration plot in Livingston Manor, NY, by the Livingston Manor High School Environmental Science class students and by SUNY Delhi interns. UPDE provided guidance and direction for these projects.

A new Invasive Species Partnership focusing primarily on Japanese knotweed control efforts was initiated between Pike County Conservation District, Wayne County Conservation District, and NPS UPDE along the Lackawaxen River, which is a main tributary to the Delaware. This project included an informational presentation for the



Above: Boy Scout Troop 122 removes invasive Water Chestnut
Left: Lead by UPDE's Jamie Myers, partners eradicate Japanese Knotweed

The Water Snapshot program was presented to over 160 local elementary school students, as well as a group of Wayne Highlands School District teachers, in 2008. This Delaware River basin-wide event helps students to take a "snapshot" and look at the water quality of the streams and rivers in their own backyards. The completed "Upper Delaware Snapshot 2008" Water Snapshot booklet was distributed to all the students who participated.

UPDE Biologist Jamie Myers was also involved in the Trout in the Classroom program, another educational outreach effort with local schools. She visited classrooms, answered questions, and helped students make the connection between this project and related local water quality issues, such as the ongoing Delaware River water quality monitoring programs conducted by the NPS. A local newspaper covered this program in fall 2007 (<http://www.riverreporter.com/issues/07-11-22/news-trout.html>).

The Delaware River & Estuary Angler Log, a cooperative effort between NPS UPDE and Pennsylvania Fish & Boat Commission 2005 – 2006 Summary Report was completed and distributed. All 2007 angler log information has been entered into the database and is up to date.

The Pennsylvania Chapter of The Nature Conservancy project entitled *Assessment and Prioritization of "No-Regret" Riparian Plant Community Targets on the Delaware River* has been completed and work has begun to prioritize high-quality riparian plant communities within the 100-year floodplain of the Pennsylvania portion of the Upper Delaware River Basin. These priorities will help to target future conservation efforts along the main stem Delaware River for TNC, as well as NPS UPDE and other partner organizations.

Researched and advised Northern Wayne Property Owners Alliance (NWPOA) Water Committee on the invasive plant species introduction and spreading concerns associated with natural gas exploration activity in Wayne Co. Provisions were suggested in the recommended landowner lease addenda addressing this issue in the Upper Delaware River valley.

Worked in GIS to update current UPDE trail map for Yellow Dot Trail and developed new maps for a new "Hiking Trails of Upper Delaware Scenic & Recreational River" brochure.

Quarry Expansion Thwarted

The Department of the Interior Solicitor's Office represented the NPS at the public hearing regarding a variance request for non-conforming expansion of a quarry operation to a working area of 40 acres, and including a rock crushing operation within the Upper Delaware Scenic and Recreational River boundary. The application was withdrawn when it became clear that a previous 15-acre expansion had been granted in error, violating the Township's ordinance. This issue is important because it challenges the basic premise of the Upper Delaware legislation—resource protection through local actions. The Township supervisors were being asked to nullify a Township ordinance that had been developed to protect the river corridor from expanding nonconforming uses. The River Management Plan allows 2-acre working faces in rock quarries. The fact that the NPS and Solicitor sought and obtained party status and was active in the process was significant, signaling to others the agency's intent to protect the river corridor.

New York Regional Interconnect 400KV Power Line

The looming issue of the high-tension power line proposed for the Upper Delaware region has not diminished by any means. The Department of Energy essentially designated the entire Northeast United States a "constrained" region, inviting developers to expand electricity transportation systems. The current route proposed for our own NYRI power line skirts the northern Upper Delaware boundary. Together with our partner, the New York State Department of Environmental Conservation, we reviewed the Environmental Impact Statement required of the private developer, and after over a year, the application submitted to the New York State Public Service Commission is now complete; meanwhile, the Department of Energy has approved a 2 ½% rate of return *plus* a base rate of return yet to be determined for this specific project, despite the fact that is not approved by the PSC. The application is still under review. Several public hearings are scheduled through the region during October and November 2008.



Craddock Painting Conservation completed the conservation work on friezes

Cultural Resources Management

In 2008 we completed Phase II of the project to conserve the friezes in the Zane Grey Museum. Craddock Painting Conservation was on site from August 4th through August 29th and completed the conservation work on the Lillian Wilhelm friezes in the Zane Grey Museum as well as the ones that are kept in Museum Storage.

We continue to work with Harper's Ferry Center and Northeast Museum Services to complete the required planning and review work on the upgrade to the Zane Grey Museum. Contractor PRD was selected to plan, research and design the new exhibit. Our Curator provided the list of cataloged objects in the Zane Grey Collection and assisted them as they examined and photographed the entire collection to determine what objects will be used in the exhibit and design appropriate cases. She also provided titles and sources for reference material and assisted them in obtaining permission to use materials from the Zane Grey Inc. collection in the exhibit.

As a result, we obtained a formal authorization from Kevin Z. Grey, President and CEO of Zane Grey Inc., for the NPS to use any photographic, motion picture or literary property owned by Zane Grey, Incorporated for exhibits in the Zane Grey Museum, and for marketing and educational material for which the Zane Grey Museum will be a benefactor.

We also anticipate the final *Upper Delaware Archeology Overview and Assessment*, which we reviewed at the request of the Regional Archeologist.

Roebling Bridge (Delaware Aqueduct) Retaining Wall

Rebuilding the dry laid stone wing wall that protects the anchorage system for the historic Roebling Bridge was completed. Working with a local heavy equipment operator, Dry Stone Conservancy oversaw excavation of the wall ruin left by devastating flooding, located a cross cut of the remaining 19th century wall, and identified the technique used to "tie in" to the remaining wall. Through Exhibit Specialist Tom Ballos' creative approach to this project, the Dry Stone Conservancy taught NPS employees from as far away as Hawaii and California, including the Upper

Delaware Maintenance staff, the historic dry stone masonry technique, while using those employees to perform the labor needed to complete the project, saving thousands of dollars while training several NPS masons. The final cap stone was laid on Dec 6 and secures over 500 tons of stone to protect the bridge abutment and cable anchorage. Dry Stone Conservancy did an outstanding job and UPDE highly recommends them for any stone work.



The wall is 14 feet thick at its base, 24' high, and the rebuilt section ultimately some 45' long.

L-R: Floods destroyed the tremendous dry laid stone wall...interim stabilization...the final product

The D&H Towpath Trail

The floods of '04, '05 and '06 also devastated the ½-mile-long D&H Towpath trail, from the New York parking lot to the end of the trail. The upper portion of the trail was left rock-strewn, while trees and debris wreaked havoc with the canal wall and trail surface to the south. A contract was let to The Cutting Edge, a contracting firm from Lake George, NY to design and repair the trail and walls, with construction anticipated during 2009.

Meanwhile, Olmstead Preservation Training Center's tree crew removed trees that threatened the towpath trail when the next flood occurs. The week-long project included training for NPS staff and partners, including the UPDE Maintenance team, in safe tree removal and chainsaw operation.

Interpretation

Centennial Initiative funding provided two Seasonal Interpretive Rangers, enabling us to increase interpretive river safety patrols, assistance to the cultural and natural resource management staffs, and open the Zane Grey Museum on Wednesdays and Thursdays.

Our staff presented programs at youth groups, scout camps, libraries, river access sites, and the Zane Grey Museum; and provided safety programs at four river access sites and during roving canoe patrols Thursday through Sunday throughout the summer. Eighteen on-site community programs were presented to 274 visitors and forty five off-site community programs were given to 1,606 people. Backyard Biology and River Readings continue to be very successful.



Our staff presented youth programs at Zane Grey House



Above: Narrowsburg 4th of July Parade
 Right: Eldred High School students during National River Cleanup Week

We attended various festivals, including Zane Grey Festival, Eagle Fest, Festival of Wood, Green Earth Fair, PP&L's Open House, River Fest, Grover Herman Health Fair, Earth Day at PP&L, and Earth Day at the Harvest Festival with contacts totaling 3,512 people. Staff participated in the Narrowsburg 4th of July Parade.



High School students from the Eldred High School participated in National River Clean-up Week. 5 students, accompanied by park staff, picked up river trash between Ten Mile River and Lackawaxen.

Outreach Educational Programs included The Lenape, D&H Canal, Water Safety, Animal Tracks, Careers in the National Park Service, Birds of Prey, and Water Snapshot education programs; Damascus and Wallenpaupack Teacher In-service Training; D&H School Days; Invasive Plant programs for local citizens; and working with NASA on a core educational group. We presented 57 on-site curriculum-based education programs to 3,151 students and 58 off-site programs to 2,156 students. The D&H Canal Days off- and on-site programs involved 7 schools and 781 students in 1st, through 4th grades. Canal Days programs were presented by members of the Interpretive, Resource Management, Protection, and Maintenance staffs. Traveling trunks on the Lenape Indians, Birds of Prey, Animal Tracks, Puppets, Watershed, and Wildlife were loaned out 13 times and seen by 2,143 students.

The Zane Grey House was open Wednesday through Sunday, Memorial Day through Labor Day Weekend, and will be open Friday through Sunday through October 19, 2008. 307 museum tours were presented to 1,347 of 2,004 visitors to the house. The annual Zane Grey Festival was held on July 19th and 20th. 282 visitors attended the event presented in partnership with Zane Grey's West Society. Eastern National sales for this event were \$674.90. Total sales for the year for the Zane Grey Museum were \$5,203.94.

The Narrowsburg Information Center was open Friday through Sunday, Memorial Day through Labor Day, and weekends through fall foliage season for 2,791 visitors. Narrowsburg Eagle Festival and the River Festival attracted 964 visitors. These one day events generated \$1,228.31 at our Eastern National outlet. Total sales for the year for the Information Center were \$4,189.33.



163 volunteers contributed 10,189 hours—breaking all previous records

The Tusten Mountain Trail Site Bulletin was revised with the assistance of a member of the Protection staff. 100% of the park web pages are on the CMS system. 61,841 visitors utilized the self-guiding exhibits at the Roebling Bridge and Toll House. Two TIS radio stations provide seasonally updated orientation and safety information at the northern and southern termini. A short range TIS unit in Lackawaxen, PA provides a five-minute interpretive message about the Delaware and Hudson Canal and Roebling Bridge. In 2007, UPDE added a short range TIS unit to provide a five-minute interpretive message at the Zane Grey Museum. We are working with the Eagle Institute to add another short range TIS unit along NY-97 for eagle viewing information.

Volunteers

Breaking all previous records, 163 volunteers contributed 10,189 hours at Upper Delaware, this season. Volunteer groups include four interns, the National Canoe Safety Patrol, the Zane Grey's West Society, and the Eagle Institute; while individual volunteers work in our laboratory and the Superintendent's office. The cost of volunteer housing, meals, recognition awards, supplies, training, transportation, and uniforms was \$8,550 plus \$4,204 from ONPS.

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Maintenance

In FY-08 UPDE received our first real OFS increase. With 75% of that increase released to UPDE, we hired two WG 4979-05 seasonal (NTE 1 year) Maintenance Workers, and with finding from the Centennial Challenge Program, we hired a WG 4749-05 Maintenance Worker (NTE 1039) seasonal. The July PMRB has approved a WG-4749-09 position for the Maintenance division.

We replaced our worn out "plow truck" with a new stake body power lift tailgate ¾ ton truck, equipped with a snowplow to augment snow removal.

The following tasks were completed for the year:

- Installed a new HVAC system in the Headquarters "Annex" building.
- Completed Semi-annual and 5-year Sprinkler inspections.
- Central Sprinkler Inc. voluntarily replaced the Zane Grey House and Archives/Museum Storage buildings' sprinkler heads at no cost. Dry-rotting O-rings caused the heads to fail and the systems to energize.
- ZGH ceiling problems prompted the need to have a structural engineer brought in to determine the causes; removal of additional ceiling or wall areas may be necessary.
- Eighteen apple trees propagated at the Historic New England Lyman Estate Greenhouses have been planted in the original location in the historic Corwin Farm orchard.
- Staff reacted to numerous high water events due to isolated heavy rains: park equipment was removed from low lying areas along the river.
- Assembled and installed the second R/O filter to remove arsenic from the drinking water supply at Zane Grey House. This increased the facility's filtered drinking water capacity to 20-gallons.
- Participated in the execution phase of the Park PAMP December 11-13, at Staten Island NY which will be completed with the support of the contractor, Regional and Washington office.
- Attended the FMSS/PMIS Bridge training in Atlantic City NJ.
- Supported numerous functions and partners this year, including the Eagle Institute's Eagle Fest at Narrowsburg NY, Zane Grey Days and D & H Canal days in Lackawaxen and the Narrowsburg Chamber's River Fest in Narrowsburg NY.

Administration

The Regional Comptroller requested UPDE's seasoned Administration Officer and staff to continue to provide training, oversight and support to other parks, including: Martin Van Buren, Roosevelt-Vanderbilt, Saratoga, Upstate New York sub-cluster, and the Delaware Valley Subcluster.

- UPDE's Administrative Program Support Assistant received an award for leading the Upstate cluster to complete their first on-time property management accountability reports.
- UPDE's Purchasing Agent's expanded responsibilities as "computer and other major equipment ordering agent" for both the Upstate and Delaware Valley subclusters resulted in processing over \$120,000 in those types of orders. This expanded responsibility spans purchasing, finance and property administrative lines.

As Lead Administrative Officer for the Delaware Valley sub-cluster, our AO is active on the Business Management Council, which is developing an action plan for the new major acquisition buying offices (MABOs) and a Human Resources (SHRO) restructuring plan.

As NPS Servicewide Lead Instructor/Coordinator for the Introduction to Park Program Management (IPPM) training team, our AO coordinated or instructed 10 classes across the Service. She continues to participate in training six new IPPM instructors.

Northeast Region Records Management

As the Northeast Region Records Coordinator, our Program Specialist has worked on establishing the Regional Records Workgroup, and coaching 6 Northeast parks in files operations and records management. She continues to represent the region on the Servicewide Records Management Program Council, and recently completed policy research in support of the new Records Management Schedule with National Archives.

Protection

There were three fatalities at UPDE, all swimming related. We continue to educate our visitors through programs, informal contacts, news releases, site bulletins, posters, and the National Canoe Safety Patrol to the need to wear life jackets while in, on or near the river.

UPDE Law Enforcement staff assisted Delaware Water Gap, Roosevelt-Vanderbilt, Steamtown and Weir Farm, and a SEC1 security detail. We conducted cold Water/ice Rescue training for UPDE Staff and public safety agencies, as well as a two-day NYS/PA-sanctioned Hunter Safety course to 50 hunters. The Chief of Protection also verbally upgraded our inter-park dispatch agreement with Delaware Water Gap and facilitated repair to equipment at both UPDE dispatch and DEWA. This project continues for FY09.

