



The River Connects Us.

Connecticut River Watershed Council

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ANONYMOUS

After CRWC action led to a Notice of Violation for this large sediment plume into the Connecticut River in 2008, Kleen Energy ceased normal operation for four days to improve stormwater controls.

Maromas Explosion Leads to Call for Environmental Oversight

BY JACQUELINE TALBOT, LOWER RIVER STEWARD

Following the tragic explosion at the Kleen Energy Plant on the morning of Sunday, February 7th, 2010 which claimed the lives of six people and injured more than 30 others, the Connecticut state government reacted quickly by forming a special governor's commission, the Nevas Commission, to investigate. The Commission reported that the explosion was caused by a pipeline cleaning procedure, known as a "gas blow," that injected large quantities of natural gas, which came into contact with an ignition source. The Nevas Commission's findings were then taken up by the Thomas Commission (the Commission to Study the Management of State Government), which was asked to suggest regulatory changes to prevent future devastation and ensure a culture of safety at the plant.

The disaster in Middletown raised both safety issues and questions about the siting of new power plants in order to minimize the negative impacts of construction and operations. This considerable undertaking is the charge of the Connecticut Siting Council, which is responsible for balancing the need for reliable public utility services with both cost concerns and the protection of ecological, cultural, and recreational resources. The Council is also required to provide environmental standards at least as stringent as those of the federal government for all phases of a public utility project.

CRWC has been active as an intervener in the Kleen Energy Docket. In particular, we have recently asked the Siting Council to expand its definition of "safety" to include environmental safety.

See "Explosion in Middletown" Pg. 7

From the Director's Chair

BY CHELSEA REIFF GWYTHYR

RIP: TERRY BLUNT, 1941-2010

Mission

CRWC works to protect the Connecticut River basin's diversity of habitats, communities and resources. We celebrate our four-state treasure and collaborate, educate, organize, restore, and intervene to preserve the health of the whole for generations to come.

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Former CRWC Executive Director Terry Blunt died from complications of a stroke in Springfield, Massachusetts on October 2, 2010. Terry was Executive Director of CRWC from 1975-1984, during which time he successfully opposed plans for a nuclear plant at Montague, Massachusetts, helped thwart a demand from eastern Massachusetts towns to divert Quabbin water to the Boston region, and helped prevent the construction of a hydroelectric project on the main stem near Windsor, Vermont and on the lower Deerfield River. He also established CRWC's Conservation, Education, and Research Program (CERP), which continues even now to provide small grants for research projects in the watershed.

These were extraordinary accomplishments, but his most lasting legacy remains the many thousands of acres of conservation land he left for all of us. He was the preeminent protector of land throughout the Pioneer Valley during the last quarter century in his work with the Commonwealth of Massachusetts and his contribution to all the local land trusts.

We will sorely miss Terry, one of our generation's most generous, tenacious, passionate, and intelligent protectors of our special places.

Thank you,
Franklin Regional Council of Governments

In our last edition of *Currents & Eddies*, we failed to list one of our most important partners in helping develop our new water quality lab – The Franklin Regional Council of Governments, or FRCOG.

Several years ago, FRCOG purchased a Quanti-tray sealer and an ultra-violet light viewing chamber under a MassDEP water quality management planning grant. That equipment was housed in a small laboratory space at Ted Merrill's house in Shelburne Falls, MA for the Deerfield River Watershed Association.

When we built our lab, FRCOG allowed us to move the equipment to Greenfield, and we used both pieces constantly last summer to analyze our samples for E. coli. The two pieces of equipment we are borrowing from FRCOG are a critical part of our lab operations, and we are very thankful to them for being able to use them.

FRCOG is a regional municipal services and planning organization that consists of representatives from the 26 towns in Franklin County, Massachusetts. They have been important CRWC partners since their founding in 1996, most notably in working with the Connecticut River Streambank Erosion Committee, which acts under FRCOG's authority.

We need you! Sign up to volunteer with CRWC at
www.ctriver.org/support/volunteer

CRWC Helps Evaluate New Hydro Licensing Procedures

BY DAVID DEEN, UPPER VALLEY STEWARD

On November 3rd, I was invited to Washington, D.C. by the Federal Energy Regulatory Commission (FERC) as one of ten panelists nationwide to help evaluate FERC's new integrated hydroelectric licensing process. CRWC has always been involved in the relicensing of dams, and, since almost all the Connecticut River's mainstem dams are north of Massachusetts, it's been one of my principle tasks as river steward for the Upper Valley and North Country for the past decade.

The strength of this innovative process is the requirement that all interested parties become involved with license application review *before* the application is formally submitted to FERC. Now, unless FERC

grants a licensee permission to use the traditional process, all new applications for licensing or relicensing are required to use the new integrated licensing process. All organizations, especially citizen groups like CRWC, are to be invited to express their concerns about any hydro project. All parties are required to agree on the environmental and recreational studies that will be submitted with the formal license application. This gives groups like CRWC guaranteed access to the FERC process.

The national meeting was the culmination of a year-long process that included regional meetings with similar groups of interested parties. The New England forum was held in Albany, NY in August where I represented CRWC. In fact, I was the lone representative of a citizens' organization to participate in hydro licensing. The rest of the participants at this meeting were hydro owners, hydro consultants, and government permitting agencies. The effectiveness of our presentation in Albany led to my invitation to participate in the national forum.



CRWC



AL BRADEN

Above: Ann Miles, Director of the FERC Hydro Program and David Deen.
Below: Wilder Dam

The national panel participants were: California Sportfishing Protection Alliance, U.S. Fish & Wildlife Service, Cowlitz Indian Tribe (Washington State), Seattle City Light, American Rivers, Tri-County Relicensing Committee (Roanoke River), American Electrical Power (provides power in twelve states), Free Flow Corporation (developer of hydro kinetic generation projects), and the National Marine Fisheries Service of the National Oceanographic and Atmospheric Administration. Ann Miles, the Director of the FERC Hydro Program (see picture), and two other FERC employees also participated.

The drawback to the integrated process is the short time frame, tightly prescribed by FERC rules, from applica-

tion to issuance of the license. Citizens' groups must have the capacity to participate in a fast-paced process and develop reasoned requests for impact studies. Groups also have to have sufficient staff capacity to participate in meetings spanning five years where issues are negotiated for river protection. Groups invited to participate must, therefore, have sufficient resources to remain involved until the process is complete.

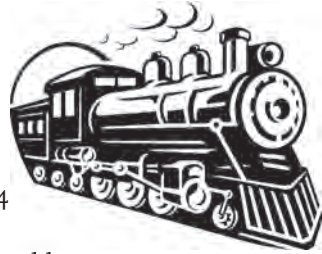
CRWC's long experience in these licensing proceedings has given us an effective voice whenever FERC considers improvements in the process of protecting the health of rivers. River stewards in Vermont, New Hampshire, and Massachusetts currently have ten active FERC proceedings we're working on. In 2013, four major dams on the main river from Wilder, Vermont to Turners Falls, Massachusetts come up for relicensing under the integrated licensing process. To ensure the best environmental protections for the crown jewel of New England's river systems, this will require an even larger CRWC commitment to actively represent the interests of the Connecticut River and river users.

Out & About

CONNECTICUT

Proposed Railroad Line — Right for the Lower Connecticut River Valley?

A proposal for a freight rail line from Old Saybrook to Middletown has become a bone of contention in the new Connecticut Draft State Rail Plan for 2010-2014 for the Lower Connecticut



River Valley. Since the line would run through a DEP state park, it conflicts with the very purpose of the park, which is recreation and conservation. CRWC joined a local citizens group and other environmental groups, including the Connecticut River Estuary Regional Planning Agency, in voicing concerns about the project. Our main concerns are: its proximity to the River; the potential for a hazardous materials spill; and the clearing of vegetation, especially through the use of herbicides and defoliant. In fact, we question whether freight or passenger service is needed in this stretch, which may be better served by highway transport. Just before the close of the comment period, CRWC learned that the Valley Railroad had deleted the term "freight" from their proposal, though there is concern that this will be reinstated. JT

Glastonbury Closer to Riverfront Access

Design and permitting processes are currently underway for Phase 2 of a riverfront park in Glastonbury where a boat and crew launch, boathouse, basketball court, and pavilion are amongst the plans for 1,000 feet of Connecticut River front. This park will offer badly needed access to the River in Glastonbury and will significantly improve the local landscape, once used as an oil tank farm. However, several local residents are concerned that the project may not be environmentally responsible. For our part, CRWC is disturbed about the amount of impervious surface cover planned for this park right next to the River, and Rivers Alliance is worried that no Connecticut Environmental Policy Act (CEPA) is planned for this project. We will continue to monitor the permitting process, and there is opportunity for the public to weigh in. JT

MASSACHUSETTS

More good news on the CSO front

The last remaining combined sewer overflow (CSO) in Palmer, MA was plugged and abandoned at the end of 2010. Ten years ago, Palmer had 21 active CSOs discharging to the Chicopee River and tributaries. Congratulations, Palmer and MassDEP, for staying on top of this work. In our last "Out & About," we reported that Ludlow had eliminated its last CSO along the Chicopee River. With Springfield having completed its Chicopee River CSO abatement project in 2009, and Chicopee starting its Chicopee Falls sewer separation project in 2010, slowly and surely, the Chicopee River is getting cleaner and cleaner. AD

Unusual year for Northfield Mountain pumped storage hydro



DAVID DEEN

What was to be a three-week shut down for maintenance turned into a 6 1/2 month outage and sediment debacle for FirstLight's Northfield Mountain pumped storage project, which pumps water from the Connecticut River up Northfield Mountain to a reservoir and generates power by sending the water back down to the river. Regular maintenance requires that every five years accumulated sediment in the reservoir and in mechanical parts be cleaned out. On approximately May 1, FirstLight started draining their upper reservoir, during which time a massive amount of silt and sediment became entrained

into the project's works. Unfortunately, it had been 20 years since the reservoir was last drained.

Maintenance work quickly turned into damage control, which meant digging out the tailrace and tunnel area 24/7. Sadly, one fatality occurred in the process. Then FirstLight secretly began dumping huge quantities of excavated sediment into the river. In response to an anonymous phone message left for CRWC in mid July, Andrea Donlon contacted MassDEP about the sediment dumping. Anonymous boaters also made calls to the Environmental Protection Agency (EPA). EPA then issued FirstLight a cease and desist order on August 4, 2010, and sediment dumping stopped on August 5. FirstLight estimated that it dumped 36,000-45,000 cubic yards of sediment into the river, the equivalent of about 40-50 dump trucks, spilling sediment into our river every day from early May to early August.

Although FirstLight believed it was simply returning sediment back to the river, both the EPA and MassDEP found the discharge illegal, and, in a consent order in September, FirstLight agreed to dredge the sediment that had accumulated within its sediment curtains. They also agreed to fund a study of endangered dragonflies known to inhabit the area to find out the extent of damage that may have been done to their populations.

During the fall, FirstLight also began digging out their tunnel. Sediment from both the tunnel and the river were de-watered and funneled through various treatment processes before being trucked up to the top of the reservoir where it now remains in a massive pile. FirstLight gave CRWC a tour of the sediment treatment operations after we sent them a letter requesting more information. The plant went back on line on November 21, 2010, and the Northfield Mountain recreation trail system was re-opened to the public in December.

The Northfield Mountain shutdown has given us a very small window to witness river conditions prior to the plant's first operations in 1972. While many of FirstLight's reports to regulators remain confidential, the public has provided eyes and ears for us. To date we can report that:

- The shad run was the highest in the past 15 years by a factor of four;
- Paddlers enjoyed more dependable river flows with out the daily fluctuations;
- Motor boaters complained of shallow areas upstream of the dam due to increased siltation;
- The public remains keenly interested in this matter and wants more information.

For updates please check our website www.criver.org, where you can also read our December "River Currents" column on the impact of sediment on our rivers, or contact Andrea at adonlon@ctriver.org. AD

VERMONT/NEW HAMPSHIRE



Paddlers' Trail Extended in 2010

It is heartening to see that more and more people are enjoying the river, and it is great news that we'll soon have a Paddlers' Trail to support our kayaking and canoeing community.

The Paddlers' Trail, a long held dream of CRWC former board member Peter Richardson, was initially led by the Upper Valley Land Trust. UVLT now maintains seven camping sites on the upper river. The Vermont River Conservancy, along with a group of state, federal and nonprofit partners, including CRWC, are now working to enhance the Paddlers' Trail, complete with primitive camping areas for overnight stays along the entire upper river reach.

The Vermont River Conservancy has now developed four additional sites but neither VRC nor UVLT has the ability to extend the trail into the southern reaches of the river, so our AmeriCorps member, Angela Mroziniski, will be helping to lay the groundwork to extend the paddlers trail into Massachusetts in future years. CRWC has already published our *Tidewaters of the Connecticut River* offering paddlers eleven different excursions into the secret areas of the estuary of our river in Connecticut, paddling day trips that likely will become part of any overall trail. And, of course, our *Connecticut River Boating Guide* has plenty of information for boaters and campers. The Paddlers' Trail can be found at www.connecticutriverpaddlerstrail.org. DD



MA and CT Grapple With Stream Flow Management

BY ANDREA DONLON AND JACQUELINE TALBOT

The New England states are considered water rich with 33-45 inches of rain per year, but over-use of water and increased urbanization in the region has led to dry rivers and impaired fisheries habitat. Right now, both Connecticut and Massachusetts are grappling with the issue of how to manage water resources to keep both human uses and ecological health in balance. In this issue, we give a brief synopsis of the ongoing efforts in both states. In future issues, we will dissect the efforts in greater detail.



Low flows this summer on the Westfield River — will additional withdrawals fall within a new safe yield methodology?

PAUL LAUENSTEIN

Connecticut: New Stream Flow Standards

The Minimum Stream Flow Act of 1971 required the Commissioner of the Connecticut Department of Environmental Protection (CT DEP) to set minimum flow standards for rivers and streams that were stocked with fish and were affected by dams. In 1982, the Connecticut legislature passed into law the Connecticut Water Diversion Policy Act, which regulates the withdrawals or alterations of the instantaneous flow of the waters of the state. This Act essentially grandfathered all withdrawals that existed in 1982, but required permits for any new diversion of 50,000 gallons per day or greater. Although these two acts were a step in the right directions, in 2004, 60 rivers surveyed by the State were impaired or threatened by artificially low flows.

Legislation enacted in 2005 directed CT DEP to develop stream flow standards to include all rivers and streams rather than only those stocked with fish. The proposed regulation requires that all rivers and streams be classified into one of four classes, with each class representing a different balance between human use and environmental health: Class 1 waters are considered “natural” and Class 4 waters have been significantly altered. Once a stream is classified, a series of seasonal flow requirements would be imposed on the operators of dams or diversion owners. The requirements will be phased over a long implemen-

tation period and there are several exemptions.

Over the past three and a half years, an advisory group to CT DEP, a Science and Technical Workgroup, and a Policy and Implementation Workgroup, have met numerous times to define the four class categories and draft the standards, using the best available science. River classification will come after the regulations are finalized, perhaps because it is best to define goals up front rather than have certain watersheds

become politicized from the very beginning. However, it seems likely that the Connecticut River main stem would be a Class 3 river, also referred to as “a working river.”

Recently CRWC has partnered with other groups, notably The Nature Conservancy and Rivers Alliance of Connecticut, as well as other local watershed organizations, to alert members of the importance of the proposed standards. Unfortunately, the standards were recently rejected but will hopefully be reevaluated in February. CRWC will continue to work to convince decision makers that the regulations as currently proposed are fair, balanced and necessary protections for all our rivers and streams.

For more information, go to www.ctriver.org (look under Newsroom, December 2010 Action Alerts).

Massachusetts: Sustainable Water Management Initiative

In 1986, Massachusetts enacted the Water Management Act (WMA) and established regulations to manage groundwater and surface water withdrawals. Similar to Connecticut, existing withdrawals were exempted and were given a registration. New withdrawals over 100,000 gallons per day require a permit. One key part of the WMA and regulations require MassDEP to consider the “safe yield” of a watershed when issuing a permit. However, as we observed when reviewing the permitting process for Russell Biomass, there is no standard way for calculating or applying safe yield, even though Massa-

See “Stream Flow Management” Pg. 8

"Explosion in Middletown" continued from page 1

In the past, the Siting Council has been sporadically successful in their environmental inspections of transmission projects. Furthermore, electrical generation projects require consistent oversight and a structure to prevent or mitigate unforeseen environmental problems. CRWC is, therefore, asking them to consider requiring an environmental inspector not only for the Kleen Energy project, but for future power generation projects, as well. Inherent in the inspector's role would be the ability to serve simultaneously as an ombudsman to solicit environmental concerns from the public and to send environmental reports to both the Siting Council and DEP.

In short, Connecticut needs to be pro-active, not simply re-active. To accomplish this, structures to protect the environment and to prepare for inevitable mishaps need to be created, along with better scientific information in the siting of facilities.

The Kleen Energy Plant, which is located in Middletown's Maromas area, occupies a nearly unfragmented forest adjacent to the Connecticut River, encompassing approximately 2,500 acres of borderline wilderness. CRWC has been following its construction since it was first proposed in 2001 as one of New England's largest new electricity projects, costing nearly a billion dollars. Expected to go on-line in April 2011, it will be permitted to withdraw 7.39 million gallons per day (mgd) from two collector wells (Kleen Energy can use 5.8 mgd while the City of Middletown can use the remainder). The majority of the water extracted will be lost to evaporative cooling.

In the past, Kleen Energy has been quick to remedy construction problems when brought to their attention, but sometimes that attention has had to come from the outside. For example, in 2008, a concerned Portland resident alerted CRWC to erosion at

the site that sent an estimated 40,000-60,000 cubic feet of sediment into the River (see photo). CRWC swiftly worked with Rivers Alliance to bring the complaint to the attention of the Council on Environmental Quality.

Thanks to this concerned resident's persistence, we were able to address a problem that might otherwise have gone unchecked. DEP ultimately issued the Kleen Energy plant a Notice of Violation, and the incident serves as an example of how important it is for all who use the River to act as stewards and communicate problems when they arise.

Structures to protect the environment and to prepare for inevitable mishaps need to be created, along with better scientific information in the siting of facilities.

Without the eyes and ears of our local members and friends, the erosion might have continued. We depend on people who use and love the river to let us know when something doesn't look right so we can launch a response. The proposal that CRWC submitted to the Siting Council is predicated on the fact that no single person or group can be everywhere at all times to monitor all the problems that the river faces. We'd like the Siting Council to provide a structure that ensures additional sets of trained eyes so that future electrical generation projects embrace safety in a fuller sense of the word. A healthy working river depends upon reliable protective measures and concerned stewards along its stretch.

We also need the help of sound qualitative and quantitative data – baseline data that lets us know where we are right now so we can measure the impacts of future events. Unfortunately, we often lack the resources to acquire such data. A telling example: Due to budget cuts, the US Geological Survey (USGS),

the authoritative source for hydrologic data and water-resource analysis, has just discontinued monitoring 4 of its stream gage and water-quality sites in our watershed – 3 on the mainstem, one on the Pequabuck, a tributary of the Farmington. Sadly, USGS has also reduced data collection at all ground-water-level sites.

Where is the closest gage downstream from the Kleen Energy plant where we have substantial real-time data? Twenty-five river miles south at the site of our partner, the Connecticut River Museum in Essex, near the mouth of the river. We need more stations like it along the river.

Since we were never able to secure quality baseline data ahead of Kleen Energy's planned withdrawals, we will not have a full answer to the question, "What is the impact of withdrawals on aquatic life and the health of the river?" Partial withdrawals from the collector wells are scheduled to begin in December 2010 with full withdrawals allowed once the plant becomes operational in April 2011. Moreover, we cannot properly assess the *cumulative*, long term impacts of large withdrawals or discharges when we need to take a holistic assessment of the state of the river.

CRWC has always had a balanced view of river use for all stakeholders from large industry to recreational boaters. We work through partnerships and consider Kleen Energy an important partner of ours. In fact, the day I presented CRWC's suggestions to the Siting Council during a hearing held in Hartford, William Corvo, President of Kleen Energy, invited me to tour the facility, an invitation that I took, along with CRWC Board Member and Connecticut Vice-Chair Raul deBrigard.

In the end, we need the eyes and ears of our local friends and the work of our partners to develop the kind of baseline data that will allow all of us to be truly informed stakeholders. After all, we can't hear the river unless we know what to listen for.



Connecticut River
WATERSHED COUNCIL
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"Stream Flow Management" continued from page 6

chusetts Superior Court required MassDEP to establish a method for calculating a safe yield in regard to a lawsuit related to the over-allocation of the Ipswich River basin in eastern Massachusetts.

Last year, after MassDEP put forth a flawed safe yield method and the environmental community erupted in protest, a new process called the Sustainable Water Management Initiative (SWMI or "swimmie") started. A Sustainable Water Management Advisory Committee and Sustainable Water Management Technical Subcommittee were formed to assist the state in implementing the WMA and establishing a safe yield method, while using best available science to create a balance between water needs and ecological health. Though the effort was supposed to be completed at the end of 2010, it will continue into 2011. Thus far, no safe yield method has been established, but there have been various proposals.

Massachusetts currently has no regulations establishing stream flow criteria. Studies in Massachusetts have identified flow alteration (withdrawals or wastewater discharges) and percent of impervious cover as the two key factors in habitat alteration. As

part of the SWMI process, Massachusetts classified each sub-basin in the state into five classes, and 53% of the basins in the state have been put in category 5, "severe changes to structure and function." Not surprisingly, the entire eastern portion of the Commonwealth falls into category 5, as do parts in the Springfield area. In the headwater areas of the smaller streams in the Connecticut River watershed, we are lucky enough to have some relatively pristine rivers and streams. Whether or not these categories will be used to establish stream flow criteria remains to be seen.

CRWC will continue to stay apprised of the SWMI process and provide input when possible. Given the number of meetings and technical nature of the discussions, we are happy to be represented by the Massachusetts Rivers Alliance and other watershed allies on committees. Though we aren't sure exactly how the SWMI process will come out, at least it has gotten staff from across state agencies and other stakeholders to talk and work on this effort together, and there is an unprecedented amount of good scientific data to use for moving forward.

For more information, <http://massriversalliance.org/issues/streamflow/>