As many of you know, in early August mobilization started on the construction project that would eventually bring down the Elm Street dam. I was lucky enough to spend every work day on the site, watching it all unfold. Most of you have probably seen the pictures I took – if not, the gallery is linked on jonesriver.org, but the pictures can only tell you so much. With that in mind, I decided it would be appropriate to write down some of my thoughts and experiences related to the project while they were still fresh in my memory.

The project started slow; a flag pole removed here, orange construction fence placed there, the staging area set up in the Jones River Trading Company parking lot, but as more subcontractors and laborers began to arrive something really important started to take shape. The crews were broken up in such a way that a multitude of tasks could be accomplished at the job site simultaneously. One subcontractor would be cutting away concrete from the Kingston Water Department foundation, while another was preparing concrete footings, all the while two separate teams from our contractor, SumCo, worked on grading and excavating in the river. I saw this system as integral to the quick pace of the project because an unexpected work stoppage would only slow progress slightly, rather than grind everyone to a halt.
The SumCo crew dividing up their work force to take on several tasks simultaneously. (Shot on film.)

Of course it takes an extremely capable leader to coordinate so many people working independently of each other, and in that we were lucky to have Steve Fuller from SumCo piecing everything together. I first met Steve at the preconstruction meeting a week or so before mobilization started, and while I was impressed by how he seemed to always have an answer to everything I eventually came to realize that it was his propensity to scrutinize the original plan that lead to his effectiveness. He was always thinking about ways to improve the efficiency of the project, and often times did so by working out personal deals with the Water Department or the neighboring property owner Lew Blackman. His decision to use the Kingston Water Department property as his primary access cut months off the project timetable. Deciding to exit the river from the Blackman property further sped things along by nearly a week.
The SumCo crewmen themselves brought an abundance of relevant skills to the project as well. The operator foreman, Joe, was quiet and focused and could literally tie a knot with an excavator bucket. His fellow operator, Bob, was always looking for something to do and often took control of the larger machines for excavation. The laborer foreman, Jim, came from a decades long career in masonry but grew to love working outdoors in the river. His subordinate, Jorge was always in high spirits and did a lot of the heavy lifting during the deconstruction.
Foreman Jim (right), and laborer Jorge work on staking out the final grade for the riverbed.

The subcontractors on site were also wonderful to work with. The first team to arrive was NB Milliken, who were responsible for preparing the Water Department building for future work, and pouring some of the concrete footings that would help armor the building against the river. Their work was followed up by Matrix Concrete, who finished pouring the footings and then finished things off the Water Department side of the river with a beautiful decorative concrete wall that was designed to look more like natural stone. Axiom Concrete Sawing cut the old dam away from the Water Department, although their diamond wire saw had some difficulties – one of the few work delays I witnessed was due to the line for the saw becoming stuck repeatedly while attempting to do a horizontal cut on the Jones River Trading side of the river.
Another benefit to the project that the assembled crew brought to the project was an honest commitment to protecting as many living creatures on the job site as they possibly could. I communicated to everyone working on site that I was there to help shepherd wayward critters, usually doing a walkthrough of the site prior to any construction equipment entering, and countless times I was called over by a crewman to help remove a turtle, frog, or eel that had wandered too close to an active dig. Before starting work on the Water Department building it was reported to me that NB Milliken scooped out over fifty fish trapped underneath it. Perhaps the most notable demonstration of all was one day when hundreds of yellow perch schooled in to a small body of water by the bridge that was created while an excavator dug out sediment from the river bed. Work immediately stopped for nearly an hour while all available personnel began transferring the fish downstream by hand or bucket.
Foreman Jim scooping some stranded yellow perch out of a puddle before placing them downstream.

With introductions to the cast of characters out of the way, it is probably time to move on to how the project unfolded. After a week or two of moving equipment in place, preparing the job site, and constructing a rock ramp for river access (another Steve Fuller innovation – the rock ramp was constructed of material that would be later used in the river for smelt habitat) things started to progress quickly and the pace barely slowed until the project was finished. The breaching of the dam itself was one of the first things to occur.

Early one morning I was underneath the Water Department building talking to the NB Milliken crew with Pine and one of our engineers, Rick Schultz, when I decided to step outside and see if I could get a picture of everyone from a higher vantage point. After stepping up on to one of the, now demolished, planter boxes I noticed Steve Fuller going in to the river in an excavator with a hoe ram (sort of like a large jackhammer) attached. As I snapped a few photos I noticed that Steve had broken open the stilling basin below the dam. As I changed some settings on my camera and took a few more shots I glanced over and saw that Steve had already completely demolished the wingwall that ran in to the river below the fish ladder. “Good riddance to that safety hazard”, I thought to myself before realizing that the next target he had set his sights on was the dam itself.
I shouted, “Hey, I think the dam’s about to go down!” to Pine and Rick before scrambling up a ladder out of the river and running to get closer. After so many years of planning I did not want to miss getting a picture of the first strike on the dam. I made it to a safe place to watch just in time for Steve to start hammering. He began by striking at the face of the dam to weaken it, and then started hitting it from the top to break off large chunks. The dam broke away quickly, and by the time everyone had returned from lunch water was flowing cleanly through a large opening. At that point in time I started referring to it as an ex-dam.
The Elm Street dam partially breached.

Shortly after the dam was breached, the SumCo crew was able to salvage the Elm Street fish ladder. During the planning phases, thanks to Ken Reback’s insistence, salvaging the fish ladder was something we wanted to attempt, as the raw material cost of it was about $40,000 and we knew of other potentially uses for it. However, we were not certain it would be possible due to uncertainty of the construction process during its installation in 2001. Thankfully after some precision excavator hammering that cut away one side of the concrete from the ladder it lifted right out with a chain attached to another excavator. I was spared the tension of watching this process, because I was rescuing an eel underneath the bridge at the time by the process. The fish ladder, once disassembled, was picked up by the Division of Marine Fisheries later and will be returned to use at the headwater dam downstream of Silver Lake.
The next major milestone for the project was the construction of the water diversion pipe which helped keep the work area relatively dry during excavation. Enormous (one ton) sandbags were placed across the river upstream of the bridge with a large pipe through them that could be extended or retracted based off need. While the pipe was only rated to pass a certain amount of water, flows in the Jones stayed very low for the duration for the project so no alternative water diversion needed to be utilized. This large pipe quickly became my favorite means of traversing the construction site for photos, as it gave me an elevated position and kept me out of the way of most of the work.
While all of that was going on the NB Milliken crew was hard at work underneath the Water Department building, pouring concrete utilizing a pump truck and many extension tubes to get in to the hard to reach spaces. Unfortunately, to work safely, parts of the turbine underneath the water department building needed to be cut away — most of it remains intact however. Axiom Concrete Sawing joined the worksite around this time as well; beginning by sawing away excess concrete off the dam on the Jones River Trading side before eventually cutting the dam away from the Water Department building. Around this time, we also had another visitor to the site, so I suppose it is time to talk about the snakes.

One morning while a police detail had closed down a lane on Elm Street to help SumCo move some equipment on to the job site I noticed Pine pulling in to the old Bern building parking lot and went over to catch her up on what had been going on this morning. That is when I saw an enormous Northern Water Snake in the closed off lane between me and Pine. I had previously seen a smaller version of this intimidating creature on the JRTC bank before the construction had taken off, but this one was well over three feet in length and quite thick. Of course I did the smart thing and got right near it to take a picture while Pine ran off to get a net. Net in hand, Pine and I attempted to trap the behemoth to remove it to a safer location. I stood in front of the snake to, having previously read the Wikipedia article on them and secure in my knowledge that it would likely be intimidated and try to find a way around me. I was very wrong, the angry reptile went straight for me as the net fell on it, and I stomped down on the end of the net to close it off when I felt a series of strikes at the thick wading boot I was wearing. Figuring that it had taught me a lesson, the snake simply slithered out of the net in to the brush nearby. While water snakes were something of a common occurrence at the site, we never saw one quite so gargantuan again. At the very least it seems we convinced it to relocate on its own terms.
That Northern water snake.

With the snake crisis averted, dam finally cut away, and the water pipe in place the long process of setting the grade for the new river bed began. After breaking up and removing all the loose concrete rubble and stone that was in the way a three excavator system was put in place between the two equipment operators on site with Steve Fuller occasionally filling a third seat. The smallest excavator would sit in a dried out area in the river channel and dig out sediment, before passing it up to the Jones River Trading bank where another excavator sat to sort through it for rubble before eventually transferring it to a large mound that would be unofficially dubbed “Mount JRTC” when it began to grow above the height of the bridge. The third excavator sat on the bridge itself, and was used to transfer sediment in to large trucks for offsite removal. Once a clear channel began to form, another crew started staking out elevations to help guide the mini excavator in getting a perfect sloping channel depth. Excavating the sediment was one of the longer phases of the project, but the end results really speak for themselves. The river channel is now a long easy slope that will help migratory fish make it upstream easier.

Around the time the river channel was starting to take shape we said farewell to NB Milliken and Matrix Concrete arrived on site to pour the final footings and decorative walls. The weather took a slight turn for the worse, with rainy days becoming far more common and I began to worry that it would cause delays in the concrete construction. Matrix could not have proved me more wrong, they are an outfit entirely dedicated to pouring concrete and came equipped with experience and equipment that helped them spend far less time on site than I had originally predicted. Noon would roll around with the concrete forms barely in place, and then I would return to an already poured wall a couple of hours later. When I did manage to catch them pouring concrete it was always less exciting than you would think, their secret was excellent planning that made the actually work look like it was a breeze.
Steve Fuller and the Matrix crew examining the results of one of their decorative concrete pours.

Less of a breeze was the next step for the SumCo laborer crew, landscaping the JRTC bank after all the rubble and sediment was finally removed from it. The sod they laid down was heavy and hot after baking in the summer sun. This also caused some of the sod to die, so it needed to be repositioned several times to make sure that the most useable pieces had the best chance of survival. The granite blocks were swung in to place by an excavator, but final positioning of them took a couple of attempts and a lot of muscle to make corrections and level them. The landscaping also saw one more Steve Fuller time saving innovation. When I asked how they planned on getting top soil in to the river to spread along the rocky bank, the foreman Jim gladly demonstrated by bringing a large sandbag filled with topsoil to the bank with an excavator before slashing it and letting the soil spill out. Finally, various native plants were placed along the bank which should result in a pretty spectacular view once things grow in.
Jim and Jorge depositing loam along the riverbank before planting native species.

Once the landscaping was completed, and the final decorative pours done on the other bank, the project began to enter its final stages. The sandbag coffer dam that held the water bypass pipe in place upstream was removed to great applause by many people who had helped put the project together. Finally the river ran free under the bridge and the upstream channel quickly began taking shape. After all that the remaining work was primarily clean up and equipment extrication. The water department building door that used to exit out on to the dam was rebuilt as a window and the impacted area was reshingled. As part of an agreement with the owner of the Jones River Trading property a potential access was freshly paved even though it was not used by the crew. Before long the crews were saying goodbye and life returned to normal at Elm Street. A few weeks later another couple of days of work were needed to put some “natural rock-like” paint on the decorative concrete pours.
Painting the decorative rock wall.

After growing in to a routine it was almost sad to see the project end, but looking back at everything now I mostly feel a sense of relief for just how quickly it progressed. The weather turned sour almost immediately after the project finished and the flows in the river spiked to a degree that would have likely pushed work back even further if construction had drug on in to November or later. I cannot thank enough all those who had a hand in finally removing Elm Street’s obstructive eyesore from the river, and was happy to be there to document as much of it as I could. I hope the success of the Elm Street dam project can serve as a demonstration to other towns and cities dealing with aging, useless dams that with the right people, the right plan, and some ingenuity the problem can be solved in a safe and responsible way for both people and other creatures in the area.
For more pictures related to the Elm Street Dam removal project, please visit:

jonesriver.smugmug.com