Town of Ridgway Lake Otonowanda

Project Closeout Report

Rundle Construction began mobilization on the Lake O project in June of 2014. They fenced the project limits, then cleared, grubbed and stockpiled topsoil and wetlands materials for reuse at the end of the project. They constructed a coffer dam around the outlet of the original portion of the lake and drained most of the original basin. In early July they began excavation of the new portion of the lake and began excavation for the new outlet pipe.

Over the course of the summer and fall, they excavated, processed, placed and compacted over 200,000 cubic yards of material taking the material from what would

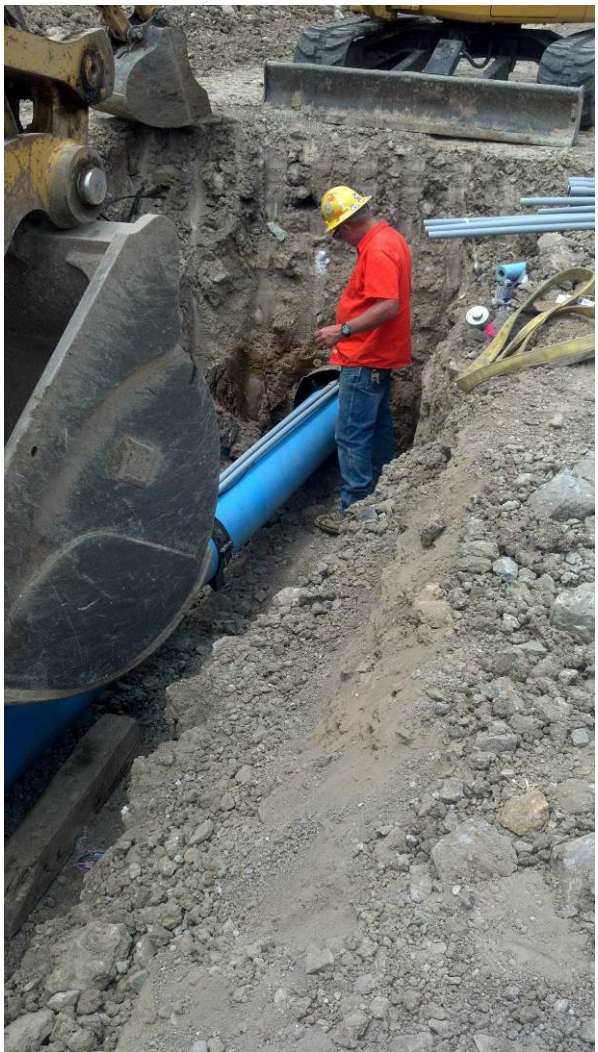
become part of the new lake and placing that material on the fields that will surround the new facility. They also completed the excavation of the part of the new outlet pipe that was to be installed by cut and cover and made several attempts to bore through the saddle for the section of the outlet pipe that was to be installed by trenchless technology. In the fall the Town installed a new inlet pipe to the new portion of the lake and Rundle installed the new division box that will

allow the Town to route the water either to the fields, the new side of the lake or to the original portion of the Ridgway Ditch that allows water to be directed either directly to Town or to the original lake inlet. Town staff also rerouted the electrical line that would

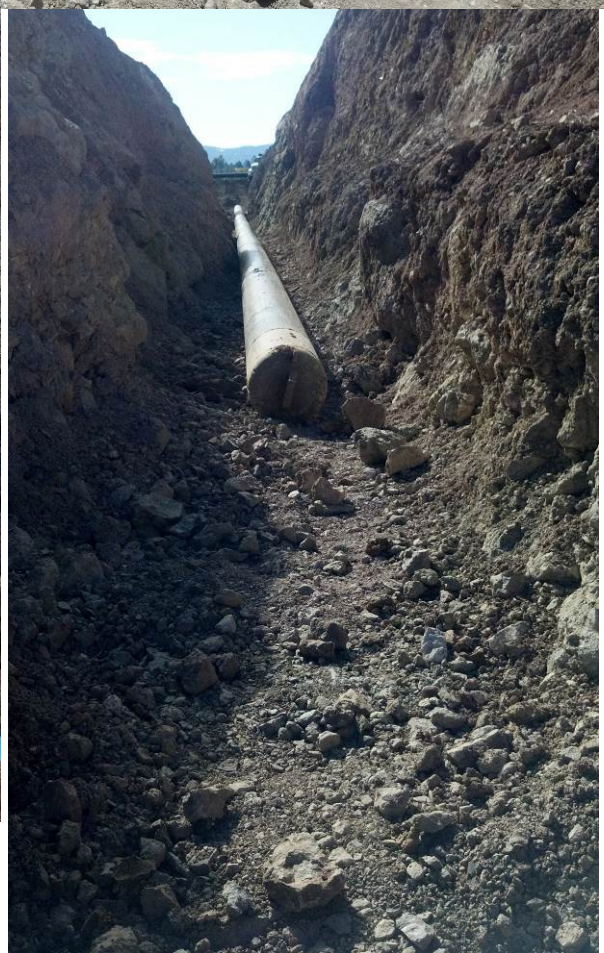
have been submerged by the new lake area. By November the new section of the lake was totally constructed including installation of fish pools and aeration piping and the Town began putting water into the new side of the lake just as winter set in. Rundle was able to get the stockpiled wetlands vegetation onto the new wetlands benches and the field areas were reseeded via broadcasting just before the area became snow covered for the winter.

There were a number of challenges in trying to complete the trenchless installation of the outlet pipe. The low pH of the lake water caused the drilling mud to be less effective and the proximity to the under tunnel likely caused some issues, but the most significant problem with the diversity of the materials through which they were trying to bore. They were able to

drill the pilot hole all the way through the saddle, but when reaming the hole to make it sufficiently large for the outlet pipe casing, the reamers would get stuck as some of the areas with softer and or less dense materials would fall in on the reamer. Rundle requested and the Town granted a winter shut down and contract extension to allow Rundle time to examine other methods to complete the installation of the new outlet pipe. Rundle returned in April of 2015 and tried a new boring technique that too was unsuccessful. With Town and adjoining land owners' permission, Rundle began to open cut the saddle. It took a large rock hammer to break some of the larger rocks, but the open cut was successful and the almost 350' of casing was installed followed by inserting the carrier pipe and some spare conduits. Toward the lake side of casing, 5 cutoff collars were installed to help prevent water from the lake from travelling along the outside of the pipe and damaging the backfill and saddle stability. The saddle area was carefully backfilled to insure that it would be watertight



and as it was being backfilled piping for the overflow spillway was installed and second higher elevation inlet was installed. Once the site was backfilled the valve of the lower inlet to the pipe was installed and the valve stem and handwheel anchor set. The area immediately around the new inlet pipe was lined with PVC liner. Flow and level measuring equipment was installed at the lake by the head wheel anchor, at the division box in the trees and at the pipe to town on the downstream side of the saddle.



The following table is a summary of the project cost and grant and loan participation:

Ridgway Lake Otonowanda Reimbursement Request				
	Request # 10			
Funding Summary	12/05/15			
	Totals	CWCB Loan	CWCB Grant	DOLA Grant
		C150340	C150508	
Current Total Project Charges	$ 239,760.06	$ 7,308.16	$ 30,469.54	$ 96,349.12
Previous Total Project Charges	$1,627,113.02	$ 592,691.84	$ 569,530.46	$ 464,890.72
Total	$1,866,873.08	$ 600,000.00	$ 600,000.00	$ 561,239.84
In Kind Funds	$ -			
Less Previously Processed Amt	$1,627,113.02	$ 592,691.84	$ 569,530.46	$ 464,890.72
Amount this request	$ 239,760.06	$ 7,308.16	$ 30,469.54	$ 96,349.12

In addition the Town contributed in excess of 700 hours of in kind services installing the new inlet line, relocating the power line, and in construction management.