
July through September, 2010

Utilities Department

*Quarterly
Report*



July—Clean Water Plant, Primary Clarifier Tank Project: truss assembly.

Capital Projects**Drinking Water
Treatment Plant**

Phase IB :

\$74 Million Dollar Project

Raw Water Line /Carbon Feed
and Transformer

Facility:

\$6 Million Dollar Project

Clean Water Plant

GVRBA –Pump Station

(Segment 2 of overall

\$33.4 Million Dollar Project)

Primary Tank Covers

Est. \$2.5 Million Dollars

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Water Treatment Plant Expansion Phase IB

**Entry into lobby, above.****High Service Pump room– North Treatment Facility.**

In late July, the City of Wyoming Fire Marshall approved a temporary occupancy permit allowing operations staff and lab personnel to move into those areas of the North Treatment Facility (NTF) still under construction. Pending delivery of new office furniture, the administrative staff offices were to be moved in mid-to late October.

Workers removed the glass door and wall from the old operator room. The room was blocked off with new brick (**installation shown above, right**) and access was relocated for SCADA communication equipment in this room.

Drinking Water Plant North Treatment Facility (NTF) - Laboratory move-in



July: NTF– Operators Station for plant process sample collection (left) and test bench with light-board on right. Plant operators are responsible for taking daily plant process samples and running tests for pH, chlorine residuals, titrations and some bacti sample prep.



July: Lab-boxes unpacked in microbiological station.



July: Lab-Volatile organics -GCMC



August : The temporary trailer, home to lab staff since April, 2009 was removed this month.



September: IT staff and CWP supervisors toured the plant after a quarterly IT meeting.



September: Lab—Gas Chromatograph

Raw Water Main & Carbon Feed and Transformer Facility

Pioneer Construction nears final completion.

Minor electrical and painting work to be completed inside the facility.

Carbon media to be delivered and feed system to be tested next quarter.



September: Hydro-seeded area of the raw water pipeline, with newly planted white pine trees.

With final completion of this project nearing, Water Plant Maintenance staff coordinated several electrical shut-down events with Consumers Energy to transition the main power supply from overhead lines to the switchgear in the new transformer facility.

August: Raw water pipeline easement area along Lakeshore Drive, looking east. A visual "screen" of white pine trees, and evergreen shrubbery will block the view into the easement area.

The planned electrical outages were needed to test the two standby generators and the new switchgear. Additionally, the contractor connected existing overhead line power to the new transformer. Upon completion, electrical power supply for the three buildings on the Low Service site will come from the sub-station located at the main water plant, through the generator building, to the new transformer facility. The overhead power lines were retained as back-up power source. Previously, the only back-up power supply to the Low Service buildings was available from a portable generator stored in a trailer on site.



On Monday, September 20th, 2010, United Growth for Kent County presented the Grand Valley Regional Biosolids Authority its 2010 Land Use Stewardship Award in recognition of the Authority's contribution to sustainable re-use of biosolids, support of farmland preservation and for exemplary municipal collaboration. Wyoming's City Manager Curtis Holt and Grand Rapids' Deputy City Manager, Eric DeLong accepted the award on behalf of the Authority at the 11th Annual Land Use Networking Luncheon and addressed the group of community land use activists, educators and local officials. The event was held at the Wyoming branch of the Kent District Library.

GRAND VALLEY REGIONAL BIOSOLIDS AUTHORITY



- Segment 1—Storage Facility at GRWWTP**
Final completion: 5-15-2009; \$8,169,567.27
- Segment 2— Pumping Facilities at the Wyoming CWP**
Final completion: 5-17-2010; \$5,240,710.74
- Segment 3—Biosolids Transfer Pipelines**
Final completion: 8-11-2009; \$1,588,835.00
- Segment 4—final completion pending**



Land Application Program

In August, Kim Hackbardt, Biosolids Coordinator, hosted Otisco Township Officials at the Clean Water Plant to introduce them to Wyoming's Bio-



Segment 2, Pumping station at CWP



Segments 4 and 1, Dewatering facility and storage tank at Grand Rapids Wastewater Treatment Plant.

solids Program and to provide a tour of the facility.

First time visitors from this Ionia County township included the Supervisor, Clerk, Zoning and Planning commissioners and a Board Trustee, who enjoyed Wyoming's hospitality. The evening included transportation to and from the meeting along with a light pizza dinner. Township Trustee, Ben Oatley expressed his appreciation on behalf of the group stating that, "it was very informative and helpful in understanding the implications of Biosolids."

Clean Water Plant Tank Covers



New motor control communication cabinet for pumps, timers, sensors, etc.



As the tank project winds down, Project inspector, Jerry Roche supplied these facts about the tank cover project:

Longest support truss on each cover is 120 feet long and weighs 4,500 lbs. All others average 3,500 lbs.

Each tank has 36,000 square feet of decking, held in place with over 6,500 fasteners. Each tank uses 5,250 individual nuts and bolts to secure the trusses, decking and support structures.

Ultra-sonic sludge level sensors (left) were installed on each of the four tanks. Operators continue to use the tried and true, "sludge judge" as well. These are also visible in the photo at right, located between the orange pump motor and the pickup truck, center, background.

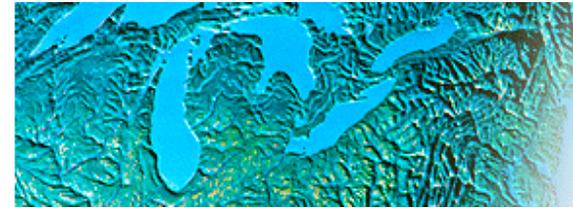


Trusses were assembled in the staging area and then placed by crane, starting with the center of the tank (above).

The photo below is from a similar perspective, showing all trusses installed and tank cover decking completed.



Training & Certification



Tim Zindler, Water Plant Operator I.

A City of Holland resident, Tim has a BS, Business Management, from Ferris State University. He worked at Pfizer Incorporated for 17 years.

Hiring teams continued to interview and recruit applicants this quarter, for a Plant Operator opening at the Clean Water Plant as well.

The State announced results of the spring round of certification exams. Utility staff who successfully completing another level of professional certification included:

Lynn Kukin, Clean Water Plant Lab Tech II, obtained the "A" license.

Jon Burke, Clean Water Plant Operator II, obtained the "B" license.

Myron Erickson, Lab Services Manager, obtained the "A" license.

Jaime Halm, WTP, Lab Tech II, obtained the "F-4" Operator license.

Mark Kneibel, Meter Shop Foreman attended the Michigan Public Service Institute in July. This three year program is widely recognized in the Michigan Public Service sector for exemplary management and supervisory training to enhance personal growth and professional development. Mark completed the 2nd year of this program. Joe Walfield from Wyoming's Public Works Dept. also graduated from the program this year.

Laboratory Services

A nearly 6 month project to collect residential lead and copper water samples from Wyoming and all of the wholesale customer communities began wrapping up this quarter.

In May, lab staff met with wholesale customers to facilitate federal requirements to renew testing for lead and copper levels in residential water supply systems. Testing is required every three years. Wyoming supplied wholesale customers with sample bottles, reviewed sampling requirements and conducted water analysis on behalf of wholesale customers.

In the past, these samples were shipped to a third-party laboratory for testing. This quarter, the Wyoming Clean Water Plant laboratory achieved state approval to run the lead and copper analysis for Wyoming and its wholesale customers. Residential customers who participated in the water sample collection process will be notified of the results. Wyoming residents were provided a small discount on their next water bill as thank you for their participation in the program.

Clean Water Plant

Operations and Maintenance

Service area includes Wyoming and Byron and Gaines Townships, and parts of the cities of Kentwood and Grandville.

Capacity—24 million gallons per day advanced secondary treatment using extended aeration, biological phosphorus removal, and chlorine disinfection.

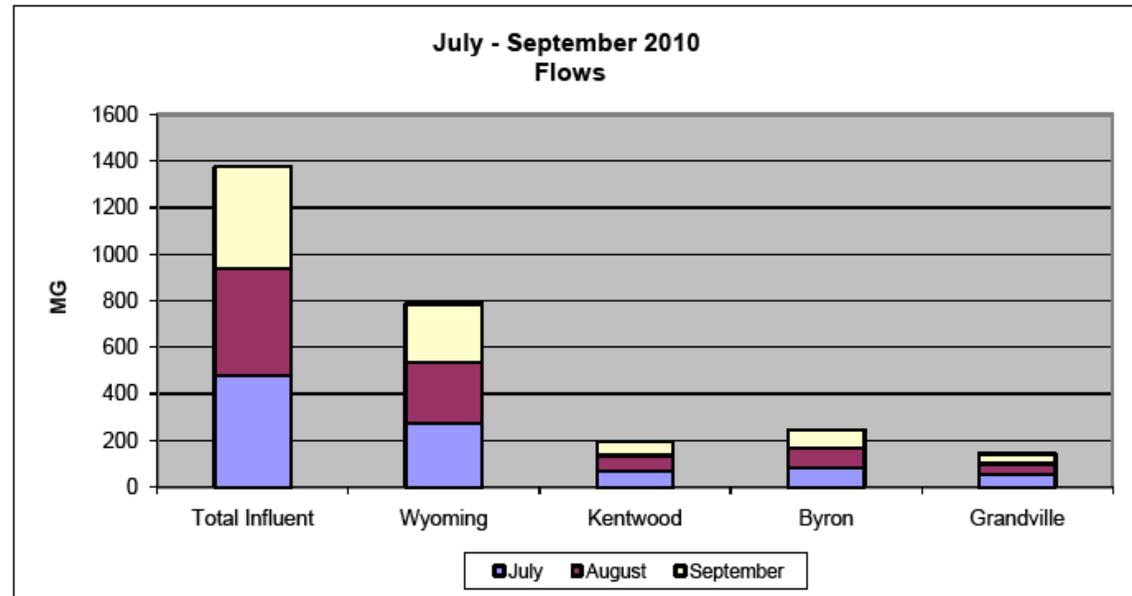
Collection system:

- 14 pump stations
- 1 mile of force main
- 271 miles of gravity main
- 5671 sanitary sewer manholes

Facilities Planning

Black & Veatch, Ltd., Wyoming’s engineering consultant, continues to work with administrative staff at the plant to develop a long range facilities plan. This quarter, progress on the plan included evaluation of and commentary on improvements or expansion of the plant disinfection, re-aeration, and biosolids processes.

Space constraints in the Maintenance and Environmental Services areas are also being evaluated.



Donald K. Shine Water Treatment Plant

Service area includes parts of Park Township, Olive, Blendon, Jamestown Township, Holland, Georgetown, Hudsonville, Gaines and Byron Townships, the City of Grandville and parts of Kentwood, in addition to the City of Wyoming.

Total population served: 220,000 est.

Source of Water: Lake Michigan

Capacity—90million gallons per day (MGD) with new construction, expanded capacity to 120 MGD

30 miles of transmission pipe

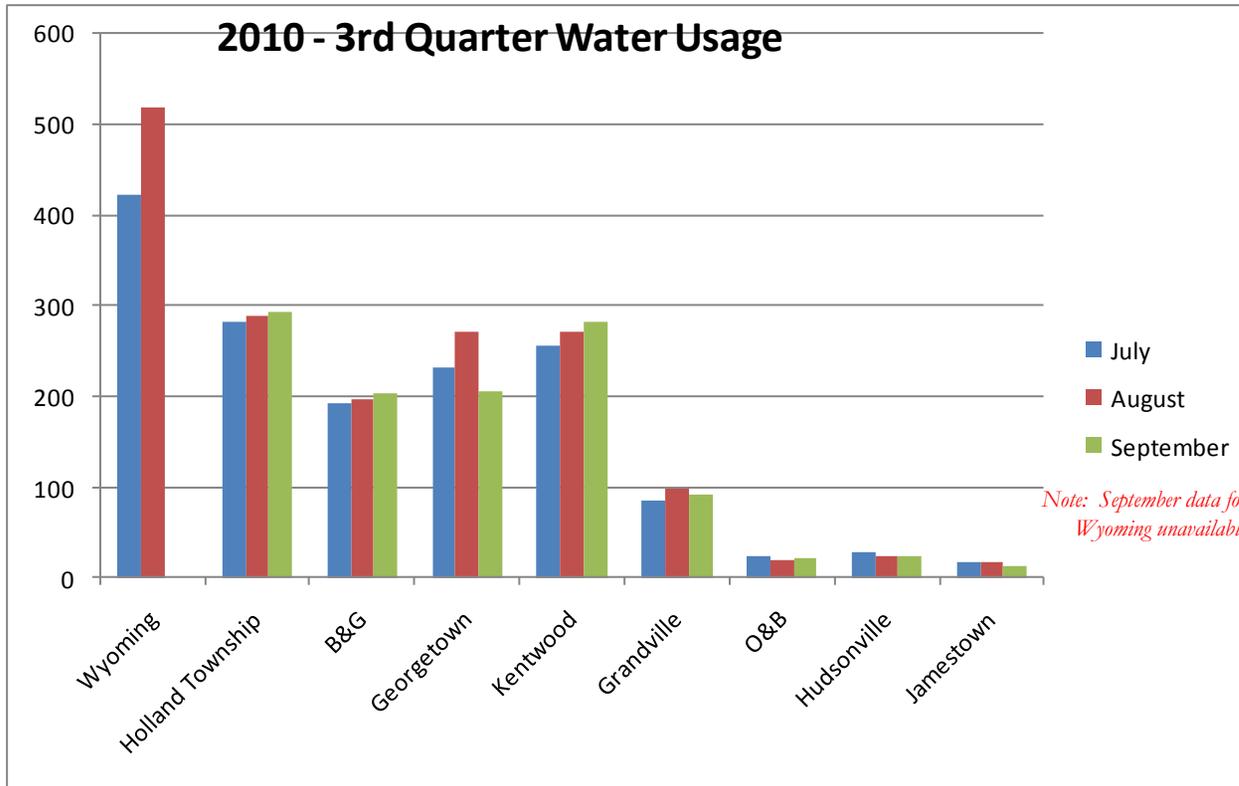


Calvin College Research Project

The Utility's community partnership with Calvin College, (nurtured over the years first by Dan Wolz and for the last few years by Lab Services Manager, Myron Erickson) has yielded strong ties to the college's engineering department.

The Utility has employed summer interns from the college and annually hosts tours for the engineering students at both the Clean Water Plant and the Drinking Water Treatment Plant.

Most recently, Calvin's Associate Professor of Civil & Environmental Engineering, David Wunder, asked Wyoming to assist in a research project by supplying Lake Michigan water (easily obtained from hydrants at the Low Service Pump Station). The goal of the college research project is to "elucidate the fate of antibiotics in slow-rate biofiltration systems...and to evaluate the impact of antibiotics on biofilm bacteria and on process performance." In August, Myron assisted Calvin student, Mark Stehower, obtain a 55 gallon drum of raw lake water and gave him a tour of the new facilities.



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Updated sampling site plan

In August, the Michigan Department of Natural Resources and Environment sent notice to the Water Plant, that they had approved revisions to the bacteriological sampling site plan (SSP). This document is a guidance plan for routine and repeat drinking water sampling and is required to be updated periodically.

This year's updates include removal of the Clean Water Plant as a sampling site and the inclusion of the Gezon Fire station as a new sample site. Updates also included REGIS generated mapping which provides more detailed information about each site and its relation to both upstream and downstream alternatives as well as water flows. Intern Dan Kneibel was responsible for the mapping, while Lab Tech II, Jaime Halm added state rule reference information to the plan for ease of use.

Finally, in August, Public Works staff were trained and assumed weekly responsibility for collecting the in-town water system samples for the Utility. This work was previously done by a full-time Utility Plant Operator from the Water Plant. The availability of Public Works staff in town and their familiarity with the distribution system provides some added benefit, especially in the event of a water emergency. When additional or specialized sampling events were called for in the past, equipment and staff had to drive in from the Water Plant.

With new water plant processes in South Treatment Facility, bringing a senior Water Utility Operator off the road and back into the plant enhances the operations team coverage and oversight of water production at the plant.



Water Plant—Utility Operator above, taking a distribution system water sample.



As the Phase IB expansion neared completion and staff began to move into the NTF, the plant staff began evaluating appropriate tour routes and procedures through the plant.. The August tour group from Hudsonville, pictured above, was a good "first run" through the plant.

After receiving the annual water quality report and learning about the Water Treatment Plant expansion, a Hudsonville resident contacted the plant to be one of the first school groups to tour the new South Treatment Facility (STF). Students, ranging in grade from 3rd to 8th, were accompanied by their parents on a 90-minute tour of the new plant process in the STF.

The visitors were very impressed with the facility. At least one other student group had already toured the plant (Calvin College Engineering) along with vendors and other municipal or water industry groups.