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To: Dan Quick, Village Administrator

From: David Geary, Director of Public Works and Building and Zoning
Jackie Soccorso, Director of Environmental Quality and Public Works Supt. of Admin.
Alex Pryde, Public Works Superintendent of Operations
Joe Schwarz, Fire Prevention Division Chief and Building Commissioner

Date: March 31, 2010

Public Works, Building and Zoning and Environmental Quality Department
Administrative Report for March 11th through March 31st, 2010

Public Works

Safety Program

During the reporting period, staff reviewed the following weekly safety topics:

- Severe Weather Preparedness
- Ladder Safety
- Eye Protection

Superintendent Soccorso has begun work to standardize the Department's safety inspection forms with assistance from Blaine Kurth of the Illinois Municipal League Risk Management Association.

Street Division

Arborist Activity

Village crews spot pruned approximately thirty trees throughout town for street sweeper clearance. Trees were elevated on Brett Circle, Wethington Drive, Crestview Drive, Highland Avenue and (the Village portion of) Callahan Road.

Six very large (50' plus) maple trees were removed from the parkway on Marine Drive in the Larkdale Subdivision. The dead trees were reported by a resident and their removal resulted in three and half loads of chips and six loads of logs being removed.





Lift Station Pump Repair

Upon monthly visual inspection of the pumps at lift station #5 (on Oakdale Avenue), it was noted that one of the pump seals was leaking. This lift station routinely handles its significant flow using both pumps. With wet weather in the immediate forecast, Street Department crews pulled the pump and worked with a vendor to replace the seals and the coupler between the motor and the pump, and return the pump back to service the same day.

Spring Plow Truck Detailing

Each of the Department's big orange plow trucks was given the once over by Street Department crews to thoroughly clean and

detail them before they were taken off the front line for the spring/summer season. Trucks were cleaned, waxed, greased, and spot repainted to keep them performing and looking their best. During the process the brine systems were flushed and cleaned, and the salt spreading components were checked and calibrated as needed.



Spring Street Sweeping

The first four days of the street sweeping program this spring yielded an extraordinary amount of debris – made up of rocks, dirt, leaves, trash and asphalt pieces. Extra attention was given to the area along Route 176 under the Route 12 overpass as requested by Village residents. An entire dumpster was filled to the top with the sweepings from the first few days alone. Sweeping continues throughout town to keep our

town looking beautiful and to keep all of this debris out of the storm sewer system.

Vector Truck Activity

During this reporting period, the vector was used to clean 17, 719 feet of sanitary sewer line in areas throughout town. The vector was also used to assist the Water Division with some water line repairs and valve cleaning.

Water Division

Main Valve Locations

The recent leak detection survey required access to many valves as listening points for the detection equipment. During this period, personnel located and cleaned an additional 57 water main valve boxes, bringing the total number of valves located and cleaned to 150. The vector truck was used to clean out several valve boxes that were packed with debris.

Water Service Repair

On March 17th, a service line leak was excavated and repaired at the connection to the water main at 300 N. Main Street. This leak was located by our leak detection contractor. The vac truck was critical in allowing us to safely excavate the water-filled trench and stop the leak without a water main shutdown (and the accompanying boil order) to our residents and businesses along North Main Street.



Saw-cutting Pavement for Excavation

Completed Repairs

Main Valve Exercising & Mapping

In preparation for spring road resurfacing, Water Division personnel have begun exercising water main valves in the areas of town that will be near the road resurfacing projects. This will allow us to identify and repair any problems prior to the road resurfacing work.

Regeneration & Backwash Reviews

Our Village water facilities include three iron removal filters and five water softeners that process our well water prior to delivery to the distribution system. These units operate upon demand and depend on the proper operation of several pieces of hardware and software, including a total of over sixty automatic control valves. During the first quarter of 2010, as part of our monitoring schedule, each filter and softener was reviewed for proper operation. A detailed checklist is used for reviewing process.



Air Powered Actuators on the Well 3 Iron Removal Filter

Water Service Repair

On March 9th, the water division excavated and repaired a small leak on the street side of the water service valve at 423 Foster Road. This leak, not yet surfacing, was pinpointed by our leak detection surveyor.

Water Reclamation Division

High Flows

On March 13 and 14th, close to an inch of rain fell in the Wauconda area. This rainfall, in combination with warm weather and melting snow, caused a high flow event at the treatment plant. Flow was diverted in the excess flow stream, and there was no discharge of an excess flow event.

Also completed during this reporting period:

- Universal Technologies picked up Primary Effluent Pump S2 for inspection and quote for repair.
- On 3-23, scrap metal was loaded and hauled to local scrap yard for recycling.
- On 3-23, pull operating stem on non-potable yard hydrant by chlorine contact tanks. Bottom seat gaskets were missing,

which was causing leakage from the hydrant.



Crews clean the Chlorine Contact Tanks as part of maintenance



Staff performs annual maintenance on primary clarifier.

- On 3-23, clean, remove debris, and wash down old sludge storage tank.
- Change out indicating lights on all plant equipment.
- Complete annual preventative maintenance (pm) on facility equipment. Items included:

Pump down and clean out Primary Clarifiers #1-4. Grease eight wall roller bearings that drive the chain scraper system. Oil was drained on submerged cross collector and replaced. Cross collector was greased. Wear shoes were flipped on flight scraper units. Shoes were replaced three years ago and new shoes will need to be purchased and replaced in three years. Flipping the shoes extends the life of the shoe. Pump down and clean out Chlorine Contact Tanks. Work was completed with the help of the Vactor Truck and crew.

- Pump down, clean, and inspect Excess flow clarifier. Bottom scraper arm was inspected for any loose or faulty parts.
- Complete semi-annual pm on facility equipment. Items included:

 - Change oil on Hoffman & Continental blowers. Blower intake filters were pulled and cleaned and put back in service.
 - Check belt tension and alignment on vortex grit pump.
 - Change oil on Lakeside Screener gear box and conveyer gear box. Flush out cleaning spray nozzles.
 - Check oil level, grease pump and motor on RAS/WAS pumps. Motor coupling device was inspected on each pump. There was some wear on Pump #1 and a replacement part was needed and ordered.
 - Maintenance was completed on Gravity Belt Thickener. This includes changing hydraulic oil and cleaning hydraulic filter. Roller bearings were greased and seam wire for the belt was replaced. Injection ring was cleaned on polymer system.
 - Drive chain on Parkson Screener was lubricated.
 - Grease motor on old Odor Control Unit.
 - Solids contact tanks were pumped down and cleaned out with the assistance of the Vector Truck and crew.

Indicators for Water Reclamation (21 day reporting period)

Final Flow

Total pumpage for period: 38,083,000 gallons
 Design flow of treatment: 1,900,000 gallons per day
 Design maximum flow of Treatment works: 6,000,000 gallons per day
 Average flow for reporting period: 1,813,000 gallons per day
 High flow reporting period: 3,409,000 gallons
 Low flow reporting period: 1,218,000 gallons

Performance Indicators for Water Produced

Total pumpage for period: 19,994,000 gallons
 Dependable capacity of waterworks @ 24 hrs/day: 3,470,070 gallons per day
 Dependable capacity of waterworks @ 18 hrs/day: 2,548,470 gallons per day
 Average daily pumpage for reporting period: 952,000 gallons per day
 High day for reporting period: 1,184,000 gallons per day
 Low flow for reporting period: 677,000 gallons per day

- JULIE locates: 81
- Daily check of water facility: 21
- Daily water supply operational tests conducted: 360
- Daily water distribution operation test conducted: 97
- Non-daily bacteriological samples collected: 7
- Non-daily chemical samples collected: 5
- Repaired water meters: 14
- Installed water meters: 6
- Lawn irrigation meter install: 1
- High water bill investigations: 4
- Water quality inquiry: 1
- Penalty posted: 269
- Red Tags delivered: 135
- Red Tag Notice shut-offs: 19
- Final readings: 36
- Backflow 1st notice: 49

- Backflow 2nd notice: 18
- Backflow 3rd notice: 1



Building and Zoning

Building Department Permits, Inspections and Inquiries

During this period, thirty six new building permits (including 5 new single family home permits) were issued for total revenue of \$62,474.21. Fifteen new Real Estate Dwelling Inspection Applications were received for total revenue of \$750.00. Thirteen electric and thirteen plumbing inspections were required for total revenue of \$1,300.00

Building Department Activity

During this reporting period, staff members were involved in the following:

- Met with owner and potential renters on possible 'change of use' issues at 461 and 421 W. Liberty Street.
- Met with an individual inquiring about the potential of opening a gun range facility on Jamie Lane.
- On site meeting with owners to discuss future new restaurant/pizza parlor.
- Working with Wauconda Centre on cleaning up the debris on their grounds.
- Working with owner on Sky Hill Road on cleaning up abandoned property and securing their buildings.
- Meeting with Town & Country officials to help streamline inspection processes and increase communication for the Liberty Lakes developments.

Lead Paint Certification

Jeff Pathmann, the architect who performs some of our residential construction reviews, is now certified to perform paint/lead certification inspections. Jeff will now be available to perform these inspections on behalf of the Village, if it would become necessary.

Pre-review site inspections:

1500 N Old Rand Road, above ground storage tank
 326 W. Maple, driveway/road cutout
 1005 Larkdale Row, deck review
 321 Kimball Avenue, garage installation
 127 N Main Street, Demolition/Development meeting with Architect
 1210 Karl Court, preliminary inspection for new tenant

Office Completed:

59 building permit inspections
 30 Residential Dwelling Inspections
 4 investigations as a result of complaint
 4 FOIA requests

Zoning Services

Rolf C. Campbell and Associates (RCCA) staff continues to work with Village staff on various planning and zoning issues. Current inquiries include properties at 421 W. Liberty St. and 461 W. Liberty St. and their potential business uses. Staff is also involved in investigating potential PIN Number changes versus zoning lots and nonconforming uses and conditions.

RCCA staff has been coordinating the final plat submissions for the Lake Napa Suwe Subdivision with Village staff in preparation for proceeding to the Village Planning Commission.

Lake Michigan Water

RCCA attended and addressed questions at the March 12th Public Hearing before the Illinois Department of Natural Resources (IDNR) with the Mayor, Village Staff, Village Attorney and Village Engineer.

Environmental Quality

Wauconda Sand and Gravel Landfill-NPL Site

Director Soccorso continues to monitor the landfill in regards to elevated flow and pollutant limitations. During the reporting period, the leachate collection system became blocked. As a result, a tanker truck was used to collect the leachate, which was then disposed of directly into the sanitary sewer system via a manhole in the industrial park. An outside company was called onsite to clear the blockage and the system is now working properly. Work continues on the draft NPL ordinance. Director Soccorso is currently working with Bob Devery to identify specific pollutant limitations. Work also continues on the landfill SCADA system evaluation in order to ensure that proper daily flows are being recorded.

Industrial Pretreatment Program

All pretreatment program tasks have now been delegated to the Public Works Department Water Reclamation Division. Because this is a comprehensive program, this process will take quite some time. Water Reclamation staff will attend training in the coming year on different aspects of the pretreatment program. Local limits sampling continues.

Fats, Oils and Grease (FOG) Inspections

During the reporting period, ten grease interceptors/grease traps were inspected. These inspections help to ensure that food service facilities are not discharging excess amounts of grease to the sanitary sewer collection system.

Rain Barrel Sale

The rain barrel/composter sale continues. Information has been placed on the Village website and in the Spring Village newsletter. To date, two orders have been received.

Lake Level

During the reporting period, the water level of the lake increased from +2.50 inches to a high of +9.25 inches and dropped to its current level of +8.00 inches. The amount of rain that fell during the reporting period was 1.71 inches. Due to warming temperatures, snow melt also caused the lake level to rise.