

**MINUTES FROM THE PUBLIC HEARING OF THE ST. CHARLES CITY COUNCIL  
HELD ON MONDAY, MARCH 19, 2011 – 6:55 P.M.  
CITY COUNCIL CHAMBERS, IN THE CITY COUNCIL CHAMBERS  
2 E. MAIN STREET ST. CHARLES, IL 60174**

1. **Call To Order By Mayor Donald DeWitte At 6:56 P.M.**

2. **Roll Call.**

**Present:** Stellato, Monken, Carrignan, Payleitner,  
Turner, Rogina, Martin, Krieger, Bessner,

**Absent:** Lewis

3. This hearing is a requirement of the Illinois Environmental Protection Agency (IEPA) to ensure the public has the opportunity to comment on the IEPA's Project Summary and Preliminary Environmental Impacts Determination (PEID) of the City of St. Charles Wastewater Operations and Biosolids Building, to be located at 1405 South Seventh Avenue in St. Charles Illinois and whether or not the anticipated impacts of the project have been accurately assessed. The IEPA has reviewed the project and concurs with the city of St. Charles' findings that the project is technically appropriate and cost effective.

- a. Presentation of Project, Preliminary Environmental Impacts Determination by Mark Koenen.
- b. No Public Comment
- c. No comments submitted to the Clerk's Office
- d. No Council Comment

4. **Adjournment**

Motion By Carrignan, Seconded By Monken, To Adjourn Meeting

VOICE VOTE                      UNANIMOUS                      MOTION CARRIED

Meeting adjourned at 7:17 P.M.

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Nancy Garrison, City Clerk

CERTIFIED TO BE A TRUE COPY OF ORIGINAL

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Nancy Garrison, City Clerk

**Revised**  
**Project Summary and Environmental Assessment**

**Project Identification**

Main Wastewater Treatment Plant Improvements

City of St. Charles  
#2 East Main Street  
St. Charles, IL 60175

Kane County

**Existing Situation**

The City of St. Charles is located in Kane County along the Fox River. The City owns and operates two wastewater treatment plants known as the West Side Water Reclamation Facility and the Main Wastewater Treatment Plant (MWWTP). The two facilities provide wastewater treatment to nearly 30,000 residents and a variety of commercial and industrial developments. To transport wastewater from homes and businesses, the City has approximately 150 miles of sanitary sewers and thirteen lift stations.

The MWWTP serves residents and businesses east of Randall Road. This plant was originally constructed in the 1930's, but has been upgraded and expanded many times with the most recent expansion occurring in 1989. The facility includes assorted buildings and structures which vary in condition and age. The "Main Building" was the first building constructed at the site and was originally the "core" of the treatment facility. Today, the Main Building houses the sludge thickening equipment, sludge dewatering equipment, blowers for the aeration basins, motor control center (MCC), and the power distribution system that supplies electricity throughout the treatment plant. The Main Building also contains a maintenance shop, parts storage area, and break room.

Sludge is the settled solids which are separated from liquids during treatment. After sludge is treated, excess water is removed by thickening and then dewatering. Thickening brings particles together to form larger particles which are easier to settle out of a solution. Dewatering reduces the water content so the sludge can be handled like a solid and trucked to a landfill for disposal or used for agricultural purposes.

The sludge thickening equipment includes various pumps, a gravity belt thickener, and a filtrate wet well. The sludge dewatering equipment includes two pumps, two centrifuges, a conveyor belt, and two shaftless-conveyors. Both large centrifuges operate thirty hours per week and are critical to the sludge handling system. The sludge dewatering equipment was installed in 1997.

## **Project Justification**

The power distribution system and MCC located within the Main Building were installed in 1973 and are in poor condition. During the last expansion, replacement was recommended, but not completed due to budget constraints. The sludge thickening equipment within the building was installed twenty-three years ago and has been well maintained, but has reached the end of its useful life. Both the power distribution system and sludge handling operation are vital to the entire treatment process and must be fully operational at all times.

The Main Building was not designed for its current use. Administrative offices, storage, and maintenance space is mixed-in with plant operations. The location and size of the loading dock limits the type of trucks that can access the building. Due to cracks in the Main Building's concrete basement, the break room's concrete slab floor, and masonry walls, the City recently hired an engineer to evaluate the building's structural integrity. The evaluation concluded that the eighty (80) year old building was structurally unsound and should be replaced. City Officials would like to demolish the Main Building and construct an operations building and a separate sludge handling building with new, modern equipment.

## **Evaluation of Alternatives and Recommended Project**

Due to the nature of the project, alternatives were limited to plant design. The project is simply replacing the existing sludge handling operations with similar facilities. The new operations building will be approximately 5,000 square feet and will be used for administrative functions, locker rooms, parts inventory, and the maintenance shop. The new sludge handling building will be a 14,000 square foot, two-story structure that will house the dewatering and thickening operations, electrical room, and the computerized operations (SCADA) station. The new facility will allow the City to utilize a wide variety of trucks including semi-trailers and roll-off dumpsters to remove dewatered sludge.

Currently, the aeration basin blowers are located inside the main building. These blowers are twenty-four years old and will be replaced with energy efficient blowers. The new blowers will be located outside and adjacent to the aeration basins east of the new sludge handling building.

The existing building will not be dismantled until the new facility is complete. A large sludge storage tank located adjacent to the existing building will remain operational, but all piping will be routed to the new facility. Major items included in the project are listed below.

### I. Construct a new Sludge Handling Building with the following equipment:

Waste Activated Sludge (WAS) Storage Tank	Thickened WAS Storage Tank
Gravity Belt Thickener (GBT)	Thickened WAS Transfer Pumps
GBT Feed Pumps and Polymer Units	Conveyors
Centrifuges for Sludge Dewatering	Electrical Room
SCADA System	

### II. Construct a new Operations Building

### III. Install three (3) new Blowers for the Aeration Basins

### **Project Implementation and Costs**

Project design is complete. Once construction is initiated, it is expected to take eighteen (18) months to complete. The total estimated project cost is as follows:

Sludge Handling Building & Equipment	\$5,294,794
Operations Building	897,305
Site work	898,445
General Conditions	1,286,000
Construction Engineering	486,000
Contingencies	682,689
<b>Total Project Cost</b>	<b>\$9,545,233</b>

### **Environmental Impacts**

Temporary adverse environmental impacts will occur during construction of the project. These include construction-associated noise, blowing dust, and air emissions. All work will take place on previously disturbed land located at the existing MWWTP site. Construction will not require purchasing additional property or removing any mature trees. According to the City's consulting engineer, the layout of the new building was designed to minimize impacts to adjacent property owners.

State and federal Agencies including the Army Corps of Engineers and the Chicago Metropolitan Agency for Planning have provided comments regarding the proposed project. A sign-off has been received from the State Historic Preservation Officer. The Illinois Department of Natural Resources (IDNR) reviewed the project to determine compliance with the Illinois Endangered Species Act, Illinois Natural Areas Preservation Act, and the Illinois Wetlands Act. The review indicated that no impacts are expected on rare or endangered species, wetlands, natural areas, or nature preserves.

The positive benefits of the proposed project outweigh the minor adverse impacts. The updated equipment will make the plant safer and more reliable, and allow additional water to be removed from the sludge. Properly dewatered sludge results in less solid waste.

### **Financial Impacts**

The City plans to finance the proposed project with a loan from the Water Pollution Control Loan Program (WPCLP). Annual repayments on a WPCLP loan for \$9,545,233 at the current interest rate of 2.295% for a period of twenty years are \$597,828.

In St. Charles, the current average residential user charge for wastewater service is \$37.54 per month. This is based on a flat rate of \$9.43 per month and an additional user charge of \$3.47 per 1,000 gallons of water used. A typical household uses 8,100 gallons of water per month, but usage varies greatly by season. In the winter, the average customer uses 7,000 gallons per month, but during warm weather this increases to 11,000 gallons. A rate study completed in 2011 determined that it is necessary to increase wastewater user fees in order to repay a loan and

address other operational and capital improvement projects. The study recommended a series of annual rate increases beginning with fiscal year 2012. These recommendations were approved by the City council in April. Rates will increase gradually over the next five years. After the final rate increase, the City's average charge for wastewater collection and treatment service will be \$55.66 monthly or \$667.89 annually.

In order to determine the financial impact of the proposed project on the community, a percentage comparison of the median household income (\$77,324) versus the annual cost for wastewater collection and treatment was calculated. After the final rate increase in 2016, the estimated percentage of median household income required annually for payment of wastewater user fees is 0.86%. This percentage is within the Agency's affordability guidelines of less than 2.0%. The planned rate increase should not have a significant financial impact on the average customer.

### **Public Participation**

Public comments are invited on the proposed project. For further information contact:

Gary W. Bingenheimer  
Illinois Environmental Protection Agency  
Bureau of Water  
Infrastructure Financial Assistance Section  
P.O. Box 19276  
Springfield, Illinois 62794-9276  
Telephone Number: 217/782-2027  
Fax Number: 217/785-1225