



Fox River Water Reclamation District Pollution Prevention Plan

For the Albin D. Pagorski WRF NPDES Permit No. IL0028657.
In accordance with the "EPA Combined Sewer Overflows,
Guidance for Nine Minimum Controls"

Reviewed and Updated February 2016

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Appendix A City of Elgin Pollution Prevention Plan

Appendix B Fox River Water Study Group Water Quality Study, Quality Assurance Project Plan

Overview

Fox River Water Reclamation District (FRWRD) owns and operates three water reclamation facilities, currently providing treatment to over 21 million gallons of domestic and industrial wastewater per day.

In an effort to encourage dischargers to the POTW to implement environmentally safe methods of reducing waste at the source rather than employing costly end-of-pipe treatment, FRWRD has developed and implemented a Pollution Prevention Program. Most of the strategies used in this program have been effectively used by FRWRD for many years. The Pollution Prevention Plan uses the following strategies of source control.

- A. Industrial Pretreatment program
- B. Grease Separator program
- C. Public awareness program
- D. River monitoring program

The four strategies are discussed in detail in the following pages. Additionally, FRWRD works cooperatively with the City of Elgin that owns the combined sewers tributary to FRWRD. The City of Elgin Pollution Prevention Plan includes additional control measures, such as street sweeping and solid waste collection, which are briefly summarized in this plan. The current City of Elgin Pollution Prevention Plan is attached in Appendix A.

Through the use of the FRWRD and City of Elgin Pollution Prevention Plans, CSO Operation and Maintenance Plans, and other inspection, permitting, and enforcement procedures; FRWRD has successfully reduced wastes at the source, assuring proper treatment at all of the treatment plants within the District to support meeting water quality standards.

Source Control Strategies

Source control strategies focus on keeping pollution out of the collection system and potentially the receiving waters during a CSO event. These strategies are consistent with the Pollution Prevention Act of 1990 and the USEPA CSO Guidance for Nine Minimum Controls.

1.1 Industrial Pretreatment Program

FRWRD has pretreatment program authority for all areas within the FRWRD facility planning area. FRWRD administers an Industrial Pretreatment Program in order to minimize the discharge of pollutants into the sewer system. The program is set forth through FRWRD Ordinance 574 and its amendments. The pretreatment discharge limits included in the pretreatment ordinance incorporate federal, state and local discharge standards. Also included in the ordinance are strict enforcement strategies, as detailed in the Enforcement Response Plan.

Currently there are 9 Significant Industrial Users permitted by FRWRD, of which 8 are Categorical Industrial Users as defined by the Federal Pretreatment regulations. FRWRD Pretreatment staff typically sample each of the SIUs 12 times per year. Samples collected by the Pretreatment staff are analyzed in the FRWRD laboratory. Pretreatment staff perform formal inspections of all SIUs on an annual basis. Additional inspections of SIUs and other industrial users are performed both randomly and when a specific discharge issue is found.

In 2015, FRWRD revised its Pretreatment Ordinance to incorporate streamlining requirements. The revised ordinance was submitted to USEPA and is under review. Under the revised ordinance, every industry in the District fills out an Industrial Waste Survey every three years. Additionally, all non-residential users submitting for a sewer permit to FRWRD are required to complete an Industrial Waste Survey. That information is reviewed by pretreatment staff to determine if a full Wastewater Discharge Permit Application is required. The Wastewater Discharge Permit Application is used to determine the need for source control and monitoring.

Also in 2015, FRWRD performed a technical re-evaluation of its local limits. That process included collecting and analyzing composite samples from the service area of each of the three FRWRD water reclamation facilities in both residential and non-residential areas. That process allowed FRWRD pretreatment staff to review discharge concentrations of priority pollutants in the system as well as establish the treatment capacity for each pollutant.

There are a number of other Pretreatment Program requirements that directly address pollution prevention. They are:

1.1.1 Discharge Inventory and Batch Discharge Logs

All industries located in the combined sewer service area are required to submit a Discharge Inventory and Batch Discharge Log with any permit application. They are instructed to hold any discharge, to the extent feasible, during and through to two hours after a storm event, or during a

major snow melt. These measures serve to minimize the impact of non-domestic combined sewage that could be discharges in a Combined Sewer Overflow.

1.1.2 Slug Load & Spill Prevention, Control & Countermeasures Plans

All industries having the ability to cause interference with the POTW are to have developed a detail plan that identifies protection facilities and operating procedures to prevent an accidental discharge of prohibited materials or other substances regulated by the Pretreatment Ordinance. All industries are also required to self report any sludge loads or spills within 24 hours to FRWRD. Detailed requirements for slug load and spill prevention plans include:

- (1.) Description of discharge practices, including non-routine batch discharges;
- (2.) Description of stored chemicals;
- (3.) Procedures for immediately notifying the District of spills, including any discharge that would be a violation under 40 CFR 403.5(b), with procedures for follow-up written notification within five days;
- (4.) Procedures necessary to prevent spills, including plans for:
 - (i) Inspection and maintenance of storage areas,
 - (ii) handling and transfer of materials,
 - (iii) loading and unloading operations,
 - (iv) control of plant site run-off,
 - (v) worker training,
 - (vi) building of containment structures or equipment,
 - (vii) measures for containing toxic organic pollutants, or solvents,
 - (viii) and/or measures and equipment necessary for emergency response.
- (5.) Locations of all floor drains and reasons for each floor drain's existence. If any exist, the plan should describe how spills which hit the floor will be prevented from leaving the plant through the floor drain. Since floor drains are the most common reason for a spill's escape to the sewers, seriously consider sealing floor drains that are not required by regulations.

1.1.3 Hazardous Waste Notification Requirements

FRWRD requires any industrial user that discharges listed or characteristic hazardous wastes under the Resource Conservation and Recovery Act (RCRA) to submit a one-time notification of hazardous wastes discharged to sewers.

The one-time notification must contain the following items of information:

- Name of the hazardous waste as set forth in 40 CFR Part 261.
- E.P.A. hazardous waste number.
- A certification that the industrial user has a program in place to reduce the volume and toxicity of hazardous wastes generated to the degree it has determined to be economically practical.

If the industrial user discharges more than 100 kilograms of hazardous waste per calendar month, the one-time notification must also contain the following items of information:

- An identification of the hazardous constituents contained in the hazardous wastes.
- An estimate of the mass and concentration of such constituents in the wastestreams discharged during the calendar month in which the one-time report is made.
- An estimation of the mass and concentration of such constituents in the wastestream expected to be discharged during the twelve months following the notification.

1.1.4 SIU Closure Plans

FRWRD requires that in the event that a Significant Industrial User (SIU) closes, or if the processes that classifies the user as significant are closed, the user shall file a written closure plan with the District. The closure plan shall contain, at a minimum, the following:

- A description of each wastewater generating process that will be closed.
- A description of how the facility will be closed and the extent of operations during the closure period.
- An inventory and estimate of the volume of all process wastewater, chemicals, and hazardous waste on site. A description of the methods for disposal, including procedures for removing, transporting, treating, storing, or disposing of all waste and identifying all off-site waste management facilities to be used.
- A schedule of the closure activities indicating the time required to complete each closure step.

The FRWRD Pretreatment Program includes a number of strategies to effectively and systematically control and reduce source pollution discharged to the sewer system.

1.2 Grease Separator Program

FRWRD manages a Grease Separator Program for food service facilities discharging to the sewers within the FRWRD service area. All new food service facilities must adhere to the following minimum requirements: 1) submit a Food Service Establishment Permit Application to FRWRD, 2) install an outside grease separator with a minimum liquid holding capacity of 1,000 gallons, and 3) maintain records of cleaning and maintenance on the separator.

As the downtown Elgin area is served by combined sewers, businesses located in the center part of the city are not exempted from these requirements even though available space for adding grease separators is often limited. In situations where the buildings are older with limited outside space available, FRWRD works with the business owners to identify alternate locations and options for grease separation beyond traditional buried outside separators. Some grease separators have been installed in basements as multi-compartment systems to provide the needed grease separation without the high construction costs of an outside separator. All variances from the standard outside, 1,000 gallon separator requirements are individually granted at the Board of Trustees level based on staff review, evaluation, and subsequent inspection. Any business granted a variance to install a smaller separator is subject to monthly grease separator cleaning requirements.

All existing food service facilities that do not have grease separators are required to install a separator upon: change in ownership, business renovation, or if a determination is made by either the City of Elgin or FRWRD that the sewers, pump stations, or POTW are being impacted by grease from the facility.

There are currently over 250 food service establishments in the FRWRD Grease Separator Program with 1,000 gallon or larger grease separators and approximately 200 inside separators where space is limited or the food menus and cooking equipment are limited. Owners are required to maintain records of grease separator cleaning and maintenance. Improper maintenance of grease separators is subject to enforcement action as provided for in the FRWRD Enforcement Plan of the Pretreatment Ordinance.

The grease separator program is an effective way to provide source pollution control of grease. Keeping grease out of the sewers not only reduces floatable materials discharged during CSO events but also helps maintain sewer capacity to reduce potential CSO events.

1.3 Public Awareness Program

FRWRD recognizes the need to educate the general public regarding the impact they can have on the receiving stream's water quality. FRWRD staff routinely conducts tours of our water reclamation facilities for elementary, secondary, and college level school groups as well as other interested parties. FRWRD stresses proper disposal methods for household hazardous wastes. We also advise the public on the difference between sanitary sewers and storm sewers, stressing the fact that storm sewers discharge directly to the receiving waters without treatment at our facilities.

Information sheets from the City of Elgin and Kane County are made available to tour groups and the general public seeking assistance. Those sheets include the "City of Elgin Household Hazardous Waste Disposal Program" and "Kane County Hazardous Waste Services" flyer.

Through our website and our Pretreatment Program personnel, FRWRD provides industries with information from the Waste Management and Research Center (WMRC). The WMRC provides technical assistance to industries regarding waste management issues such as pollution prevention techniques.

Finally, FRWRD staff regularly assists local Fire Departments in assessing industrial spills by providing pretreatment staff for field investigation and laboratory analysis of collected samples. FRWRD staff also accompanies IEPA personnel during spill or illegal discharge investigations providing information and local sewers, likely sources of spills of unknown origin, and information on industries within sewer-sheds.

1.4 River Monitoring Program

FRWRD considers the River Monitoring Program to be a significant part of our pollution prevention plan. FRWRD began sampling of over six locations on the Fox River as well and on

major tributary creeks in the service area in the 1970s. Samples were analyzed for dozens of parameters resulting in an extensive database of information on the river.

In 2002, FRWRD helped to initiate the Fox River Study Group (FRSG). The FRSG is a collaborative group of municipal dischargers, environmental groups, IEPA, Kane County, City of Elgin, City of Aurora, and many others working together to evaluate and improve the condition of the Fox River. The FRSG developed a sampling plan for the Fox River which includes 14 sampling locations. FRWRD samples two of those locations for the group every month. Additionally, FRWRD performs laboratory analysis of many of the monthly samples for the group, splitting this effort with the Fox Metro Water Reclamation District in Aurora and City of Elgin Water Department.

The FRSG has been working over the last several years to use collected data to predict future water quality under various pollution reduction scenarios. Those scenarios look at both point and non-point discharges.

A copy of the latest revision of the FRSG Fox River Water Quality Study, Quality Assurance Project Plan is included as Attachment B.

APPENDIX A



CITY OF ELGIN

**COMBINED SEWER OVERFLOW
POLLUTION PREVENTION PLAN
February 2008**

Prepared by:

**Carroll Engineering & Associates, P.C.
111 West Hurlbut Avenue
Belvidere, IL 61008 (815) 547-3406**

City of Elgin

CSO Pollution Prevention Plan

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7. Bulk Refuse Collection
8. Hazardous Waste Collection
9. Water Conservation Efforts
10. Commercial/Industrial Pollution Prevention
11. Erosion and Sediment Control

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CSO POLLUTION PREVENTION PLAN CERTIFICATION

(To be Completed by Permittee)

Facility Name City of Elgin **NPDES No.** IL 0070505

Additional information on each of the following items can be found in Chapter 8 of Combined Sewer Overflows, Guidance for Nine Minimum Controls, USEPA, May, 1995 (EPA 832-B-95-003). Copies are available from USEPA or can be downloaded from the internet at <http://www.epa.gov/npdes/pubs/owm0030.pdf>.

	Included Yes	No	Administrative N/A	Acceptance
Describe any street cleaning efforts performed on a regular basis	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Describe any efforts aimed at educating the public including anti-litter campaigns, proper disposal of sanitary and personal hygiene items, and proper application of fertilizers, pesticides and herbicides.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Describe solid waste collection procedures	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Describe any recycling efforts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Describe any efforts undertaken to ban or substitute products that do not degrade in the environment such as polystyrene (see Section 8.1.4).....	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Describe any efforts to control product use such as fertilizers, pesticides, de-icing salts that are under the control of the Permittee (see Section 8.1.5).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Describe efforts taken to control illegal dumping	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Describe any efforts to collect bulk refuse (see Section 8.1.7)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Describe any hazardous waste collection programs offered from time to time in the Permittee's service area.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Describe any water conservation efforts in the Permittee's service area	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Describe any pollution prevention activities required of commercial or industrial dischargers	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Explain all 'No' and 'N/A' on a separate sheet and attach.

*See Attached

I attest that this form has been completed by me or by others under my direct supervision and that the information contained herein is, to the best of my knowledge, true and complete.

_____ (Signature)	_____ (Title)	_____ (Date)
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NOTE: Signature should be authorized according to 35 Ill. Adm. Code 309.103(e).

Contact Person: <u>Joe Evers</u>	Title: <u>City Engineer</u>
Address: <u>150 Dexter Court</u>	Phone: <u>(847) 931-5955</u>
<u>Elgin, IL 60120</u>	

-----SPACE BELOW RESERVED FOR IEPA USE ONLY-----

ADMINISTRATIVE REVIEW

FIELD VERIFICATION

_____ (Signature)	_____ (Date)	_____ (Signature)	_____ (Date)
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532-2784
WPC 728 1/2004

1. Street Cleaning Efforts

The City of Elgin has a street maintenance program that performs regularly scheduled street sweeping. This program is described in detail in the City's Operation and Maintenance Plan.

2. Public Education and Involvement

The City uses its website, www.cityofelgin.org to educate residents. This website has a Citizen Request Tracker where residents can file any concerns or notifications they have to the City.

The City also publishes a quarterly newsletter, "The Spirit", that is hand delivered to residents and hung on their door. This newsletter routinely includes pollution prevention information.

See EXHIBIT A

3. Solid Waste Collection Procedures

The City of Elgin provides a comprehensive weekly solid waste pickup program designed to encourage recycling and waste reduction, reduce litter and ensure that waste is disposed of in an environmentally responsible manner. The City has information on its website that is available to residents as well as contact information for questions.

The City of Elgin offers an annual fall and spring leaf collection program to help residents manage their leaves during the fall. In many older neighborhoods, the City crews will collect loose leaves in the street. The remaining areas bag their leaves and are picked up by Waste Management Department. A brochure is mailed every October with information for residents about the leaf collection. There is also information on their website for residents to refer to.

See EXHIBIT B

4. Recycling Efforts

The City has an active recycling program that encourages residents to participate. Targeted materials with recycling guidelines are available to residents as well as information located on the City's website. The City also has informational material on recycling electronics and cell phones as well as holiday waste recycling.

See EXHIBIT C

5. Control of Use of Fertilizers/Pesticides/De-icing Salts

Anyone that administers fertilizers or pesticides must have State certification or an applicator license.

City employees are trained for proper technique of using de-icing salts. They minimize use by focusing on intersections.

6. Control of Illegal Dumping/Illicit Connections

The City investigates this issue based on observed problems. City staff reports to the Department of Public Works as part of a daily routine. The City also has the ability to dye water test any suspicious locations. The public can file any concerns or notifications to the City on the Citizen Request Tracker on its website. Routine reports can be verified on site.

Staff training information is on file at the City.

See EXHIBIT D.

7. Bulk Refuse Collection

The City of Elgin holds an annual Spring Clean Up Day where residents can dispose of their bulk refuse on their regular trash day at no additional cost. During the rest of the year, the City manages a bulk refuse program where residents can purchase stickers to dispose of bulk items on their regular trash pickup day.

See EXHIBIT E

8. Hazardous Waste Collection

Residents can dispose of hazardous wastes by calling the City's Hazardous Waste Hotline for pickup. They can also drop off their wastes at a Household Hazardous Waste Drop off Center associated with Kane County and Naperville, IL.

See EXHIBIT F

9. Water Conservation Efforts

The City's Water Department has issued guidelines for residents to abide by for water conservation. Public education information is located on their website.

See EXHIBIT G

10. Commercial/Industrial Pollution Prevention

The City provides targeted brochure material for user education.

Industrial discharger information is logged as part of the Fox River Water Reclamation District permit connection process and shared with the City. See the Operation and Maintenance Plan for more information.

See EXHIBIT H

11. Erosion and Sediment Control

The City has a comprehensive erosion and sediment control ordinance that covers development and redevelopment within the combined sewer area. These requirements include long term maintenance obligations of the property owner to ensure that storm water facilities contribute to pollution prevention and control.

See EXHIBIT I



City Working to Create Environmental Master Plan



"PRESERVING OUR RESOURCES FOR FUTURE GENERATIONS IS THE RIGHT THING TO DO. BUT WE NEED TO DEFINE "GREEN" AND ENSURE WE CREATE PARAMETERS IN WHICH EVERYONE CAN FUNCTION"

In an effort to become a more environmentally sustainable community, the City of Elgin is looking to create an environmental master plan to establish parameters by which it will operate.

"Elgin's environment is a priority," said Mayor Ed Schock. "Preserving our resources for future generations is the right thing to do. But we need to define "green" and ensure we create parameters in which everyone can function comfortably – economically as well as ecologically."

The City is seeking an environmental expert to help develop a comprehensive long-range plan to evaluate and guide various City projects and facilities to determine what must be done – and at what cost—to provide for a more sustainable community.

"A "green community" is defined differently by different people," said Mayor Schock. "For some, "green" community means the city won't develop its land within its borders. That's not what Elgin means by green.

"By "green" we mean that we will develop our land in such a way that we make more efficient use of the City's resources," continued Schock. "It means that the City will establish environmental parameters for developers, residents and businesses to ensure no one is compromising our resources for future generations."

The City has already started to create a sustainable community with some of its projects including:

- **Riverside Drive Storm Water Project** which filters water from storm runoff to protect the Fox River and the surrounding environment from fertilizers, oils, grease and other non-natural materials which runoff during a storm into the river.
- **Connecting bike pathways** to provide for a seamless transition along the Fox River.

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From the mayor

The City Council is currently considering budget priorities for 2008 and one consideration that will take center stage is what is required for the City of Elgin to become a more sustainable community.

Efforts to green Elgin will have a great impact on how residents live and companies do business as well as the City's image and budget. If the environment is, in fact, a City-wide priority, then a plan must be developed to establish environmental priorities as well.

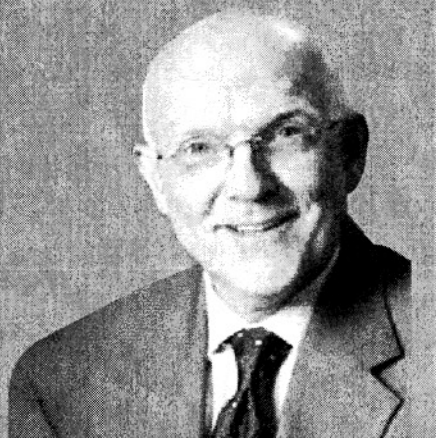
But we have a lot to learn. While Elgin already has a number of environmentally-friendly projects moving forward throughout the City, we still need to understand exactly what is required for Elgin to create a community that promotes energy efficiency and reliability, protects and restores our natural resources and reduces waste.

There are many different organizations in Elgin that have taken the lead to create energy efficient buildings and to better protect natural resources and they should be recognized.

Sherman Hospital, Judson University, Elgin Academy and Waste Management all have projects that meet stringent requirements set forth by the U.S. Green Building Council. These organizations have become examples of what other organizations—including the City—should consider.

It may take more money to get started, but more money can be saved over time. And it will take time to develop an environmentally sound plan. But it's the right thing to do and the impact will be far-reaching. The decisions we make today will help create a sustainable City for future generations.

John Schuck



continued from page 1

- **Purchasing hybrid vehicles** to reduce reliance on gasoline.
- **Working with the Gail Borden Library and the Fox River Renaissance Group** to improve overall water quality in the Elgin area while also improving water quality for the entire river system.
- **Providing residents with a city-wide recycling program.** The program which began in 2002 has increased recycling from nearly 7,500 tons annually to nearly 15,000 tons every year.
- **Developing Fire Station #7 within green standards.** Recycled flooring materials and light sensors will be installed. Light sensors are energy efficient since they automatically adjust lighting levels depending upon how much natural sunlight is in a room.
- **Converting all of the City's traffic signals to LED** and reducing its electric consumption by nearly 90%.
- **Retrofitting several diesel-powered equipment pieces** to reduce emissions.

Other green projects within the City:

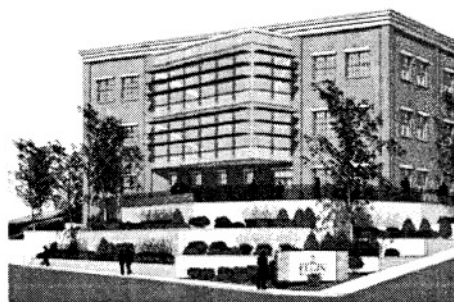
- **Sherman Hospital's expansion along Randall Road** which will include the development of a geothermal lake – one of the largest lake loop heat-pump systems in



the world and the first built by an Illinois hospital. The geothermal lake is projected to reduce Sherman's gas and electric costs by nearly \$1 million annually.

- **Judson University's construction of its new Harm A. Weber Academic Center** integrates such green features as

natural ventilation, natural light and sustainable energy circulation. It expects to reduce operational fossil fuel costs by 50 percent. The building has been designed to meet the standards of the U.S. Department of Energy high-performance buildings and expects to earn a LEED silver rating by the U.S. Green Building Council. The Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ is the nationally accepted benchmark for the design, construction, and operation of high performance green buildings and promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality.



- **Elgin Academy's new 42,300 square-foot Media, Science and Fine Arts Center** construction has been designed to attain a "Gold Level" LEED Certification awarded by the U.S. Green Building Council.
- **Waste Management's Transfer Station**, near the intersection of Gifford Road and Bluff City Blvd., was built to attain the "Silver Level" LEED certification. "We're confident it will be awarded, but it will take a while to obtain the actual certificate from the U.S. Green Building Council," said Al Bilthouse, Vice President of Business Development for Waste Management. "We're particularly proud of the building's green roof and the wetlands mitigation. The project was also designed to reuse "gray" water – which is runoff from sinks, roofs and our parking lot. Gray water is then collected and reused."

What Residents Can Do to Protect the Environment Now

While the City works to develop an environmental master plan, there are many things Elgin residents can do now to protect the environment.

"Everyone remembers the three 'Rs' in environmental responsibility – Reduce, Reuse and Recycle," said Mayor Ed Schock. "If everyone began to employ these ideas in small ways, they will yield big environmental dividends."

For more information on what they can do now to protect the environment, residents can go to www.epa.gov.

Reduce

1. Purchase products that don't come with a lot of unnecessary packaging.
2. Adopt practices that reduce waste toxicity.

Reuse

1. Reuse bags, containers and other items.
2. Maintain and repair durable products.
3. Borrow, rent or share items used infrequently.
4. Sell or donate goods instead of throwing them out.

Recycle

1. Recycle products and containers.
2. Select recycled products.
3. Compost yard trimmings and some food scraps.



Elgin To Host Green Symposium Dec. 6

The City of Elgin, along with the Illinois Green Government Coordinating Council, will be hosting a symposium to address environmental sustainability Thursday, Dec. 6 at the Centre of Elgin.

"Local government officials and decision makers will convene here in Elgin to address energy conservation and efficiency, indoor environmental and air quality control and site, water, material resource efficiency and effectiveness," said David Lawry, General Services Group Director. "It's a great opportunity to learn about what we can be doing to develop environmentally sustainable communities."

Elgin was chosen because of the many projects it currently has that are environmentally sound.

"We want to set the bar for the entire Fox Valley area," said Mayor Ed Schock. "The entire City Council is enormously interested in making Elgin's environment a priority."

City Council Approves Channing Square Development Project

The Elgin City Council has approved moving forward with an infill project at the former Channing YMCA site, 111 N. Channing Street, which will include the construction of 14 high-quality, single-family homes.

"This is a unique opportunity for the City to continue its revitalization efforts," said Sean Stegall, Assistant City Manager. "This construction will help enhance prop-

erty values while improving the local neighborhood."

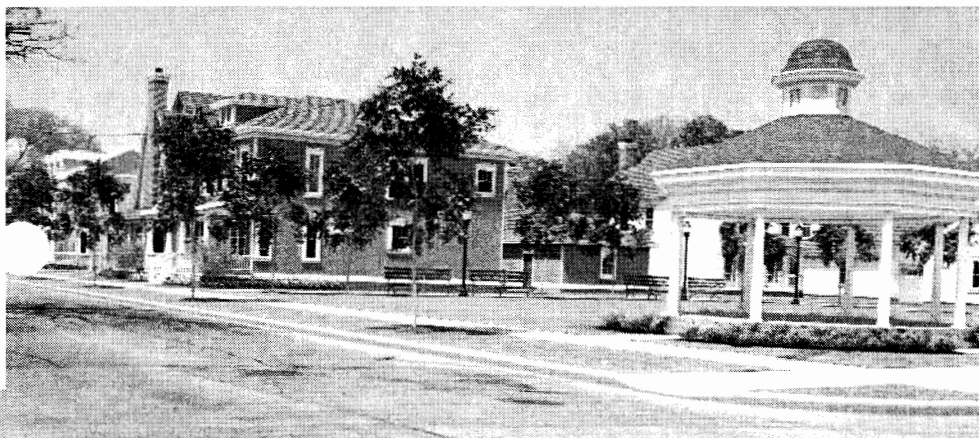
Aspen Homebuilders has been selected to build on the 2.72-acre site with homes having a base price of \$280,000. The homes will meet the neighborhood's current historic district standards and models have been designed to incorporate various period details indicative of the Victorian era (1880-1905) and early Craftsman Style (1905-1920).



Detailing includes decorative brackets, front porches with round columns, corner or fascia boards, symmetry and trim around windows, and detached garages in the rear of homes.

Also as part of the development agreement, two other single-family homes will be built at 272 and 279 N. Spring St. The City initially purchased the stressed properties to help regenerate the area, but realized they could not be renovated. These homes will have a base price of \$265,000. Current area property values range depending upon square footage from about \$130,000 to \$180,000.

"The developer and the City are partners in this revitalization effort," said Stegall. "We're confident this project will benefit the entire community."



Keeping Homes Safe

The Elgin Police Department offers the following tips on keeping resident homes and families safe from crime.

Exterior Doors

Exterior doors should be made of metal or solid wood and attached with strong door hinges with non-removable hidden pins. Every door entry should be well lit and have a way to view who is outside without opening the door.

Locks

Strong, reliable locks are essential and should always be used even when leaving your home for a quick trip to the

grocery store. Deadbolt locks with a reinforced strike plate are best. Bolts should extend at least one-inch in a locked position.

Sliding Glass Doors

Improve security on existing sliding glass doors by installing a keyed locking device at the frame. Residents can also adjust the track clearances on doors so they can't be pushed out of their tracks.

Windows

Add a level of security to your windows by installing keyed locking devices to prevent a window from being raised



from the outside. Ensure everyone in the house knows where the keys are, however, in case of an emergency. Residents can also secure windows with a "pin trick." Drill an angled hole through the top frame of the upper window and then insert a nail or eyebolt. The window can only be opened if the nail is removed.

Lighting

Lighting is one of the most cost-effective deterrents to burglary. Consider automatic timers to switch interior lights on or off at preset times. Outdoor lighting can eliminate hiding places. Ensure there is lighting near porches, rear and side driveways, garage doors and other points of entry.

Shrubs and Landscaping

Landscaping should provide maximum visibility to and from a house and shrubbery should be trimmed to ensure criminals can't hide. Yard fencing should also be low.

Fall Session for Citizens Police Academy to Begin

Residents interested in becoming part of Elgin's Citizens Police Academy can attend its fall session on Mondays Sept. 17- Nov. 5 from 6-9 p.m. in the Elgin Police Department's Community Service Room, 151 Douglas Ave.

The Citizens Police Academy program provides an eight-week course for residents interested in serving as civilian liaisons between the community and the Elgin Police Department.

After successful completion of the course work, residents can become active in the Citizens Police Academy Alumni Association, which provides for continued education and volunteer opportunities.

"Completing the CPA program and becoming involved with the CPAAA is a very educational and rewarding experience," said Tom Jacobsen, CPAAA president.

City Extends Rules of the Road Ordinance

City Council recently approved an ordinance authorizing the immediate towing of vehicles when the driver is determined to be driving without a valid license or under the influence of alcohol or drugs.

"An immediate arrest is made when a driver is found to be under the influence of alcohol or drugs or the driver doesn't have a valid license," said Elgin Police Chief Lisa Womack. "But this ordinance goes a step further by having the vehicle towed and imposing an additional \$250 administrative penalty."

All applicable towing and storage fees must also be paid before the vehicle is released.

The ordinance extends the municipal code where police may immediately tow vehicles in which an excessively loud sound amplification system is being operated.

"Drivers playing very loud car stereos can also have their cars towed and must pay the \$250 administrative fee along with all related towing and storage costs," said Womack.

Protect Your Waterways

Storm water runoff flows through the City's street inlets flowing into storm sewers which ultimately drain into the Fox River. But runoff can carry with it debris such as oils, grease, paper, pet wastes, pesticides, fertilizers and lawn waste that can impact the drinking water.

"The City of Elgin obviously filters and treats the Fox River water to ensure high-quality drinking water," said Kyla Jacobsen, the City's Water Department Superintendent. "But there's always more that residents can do to better protect our waterways."

Don't dump oils and grease down



sewers and don't use hazardous pesticides or fertilizers can help improve Elgin's water system.

"The citizens of Elgin have done a tremendous job over the past few years to improve the quality of the Fox River as well as the several creeks that empty into the river," said Jacobsen.

"Recycling, volunteer clean ups and landscaping improvements all have contributed greatly to reducing the pollution in the City's waterways. Of course, there is always more that can be done."

To become more involved, contact the Engineering Division at 847-931-5955.

"THE CITIZENS OF ELGIN HAVE DONE A TREMENDOUS JOB OVER THE PAST FEW YEARS TO IMPROVE THE QUALITY OF THE FOX RIVER AS WELL AS THE SEVERAL CREEKS THAT EMPTY INTO THE RIVER."

The Great American Fire Drill

As part of National Fire Prevention Week, the Elgin Fire Department will be hosting a community-wide open house from 10 a.m. to 1 p.m. Saturday, Oct. 13 at Fire Station 2, 650 Big Timber Road, Elgin.

With the theme, "the Great American Fire Drill," the Elgin Fire Department will join fire departments from across the country in reminding citizens to create and practice an escape plan from their homes.

"Ensuring that everyone in a home knows the game plan in case of an emergency can help save lives," said Elgin's Fire Marshal Richard Dunne. "And the fire department is here to help residents create those plans if needed."

Dunne said that according to a recent National Fire Protection Agency survey, only eight percent of people said their first thought on hearing a smoke alarm would be to get out of the building.

"One-third of American households estimate that they need six minutes before a fire in their home would become life-threatening," said Dunne. "Oftentimes there is far less time than that. When residents hear a smoke alarm, they should get out of the building immediately."

For more information about fire protection in your neighborhood, visit www.cityofelgin.org. Click on fire department, then fire prevention.





City Scrapbook

Young and old splashed through Festival Park's fountain over Memorial Day weekend to celebrate the grand opening of the \$11.5 million park. The fountain is open from sunrise to dusk seven days a week and is free.

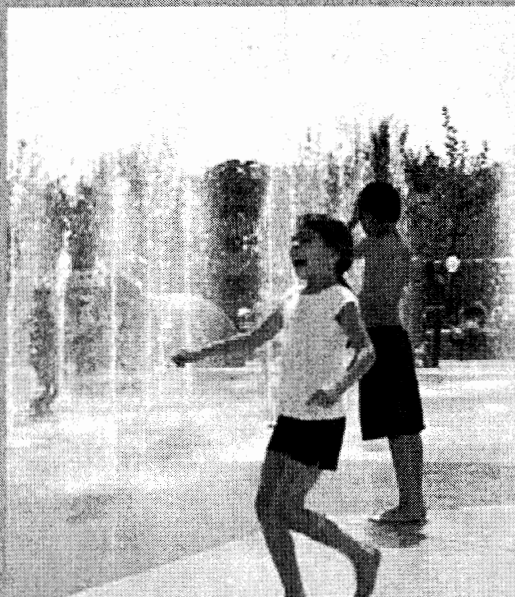


Hundreds of balloons were launched to celebrate Festival Park's opening.



Equipment to keep kids active from sunrise to sunset is also at the park.

Festival Park's fountain caught kids by surprise when it was turned on as part of the grand-opening festivities.



Elgin's Outdoor Exhibition Group hosted its annual Rib Fest as part of the City's Memorial Day Celebration with hundreds of people taste testing ribs from a variety of vendors.



Council Members Juan Figueroa, Michael Powers, Robert Gilliam, Mayor Ed Schock and Councilman John Walters all join in to cut the ribbon officially opening Festival Park.

THINGS TO DO Around Town

August

Sat., August 11

Puerto Rican Heritage Organization's Boriqua Fest

Parade, Music, Festival begins at 12 noon.
See www.cityofelgin.org for more information.
Festival Park, 132 South Grove Ave. FREE.

Sat., August 11

Summer Concert Series United States Air Force Band

(Jazz and variety)
Wing Park Bandshell
1000 Wing St.
7:00 p.m. - 8:30 p.m. FREE.

August 17-September 9
(Fridays and Saturdays 8 P.M.
and Sundays 3 P.M.)

Janus Theatre Company "Measure For Measure"

Tickets \$15/\$12 for students or seniors.
Call 847-931-0637. Elgin Art Showcase,
164 Division Street.

August 17-September 9
"Urban Color Works"

Color Photographs by Brad Pogatz
This artwork is on display in conjunction with
Janus Theatre Company's production.
Artwork may be purchased from the artist.

Sat., August 18

Elgin Cultural Arts Commission's Summer Film Series Singing in the Rain

Sat., Aug. 18, Festival Park, 132 South Grove
Ave. Dusk.

September

Sat., September 22

"An Autumn Love Cycle" A presentation of romantic musing in song and poetry

Dr. Rise Dawn Jones, Soprano
Dr. Margaret Brady, Piano
Afternoon Tea - 3:30 P.M.
Evening Hors d'oeuvres - 7:30 P.M.
Tickets are \$20. For information or
reservations call 847-697-0876, ext. 3.

September 28,29,30

(Friday and Saturday at 8:00 P.M.,
Sunday at 3:00 P.M.)

Independent Players "Belle of Amherst" by William Luce

Based on the life of Emily Dickinson.
A one woman show featuring Camille Webb.
Tickets are \$15; \$12 for seniors/students
Call 847-697-7374.

October

Sat., October 6

Heartland Voices "A Grand Night For Singing-A Musical Review"

**Selections from works of Rodgers and
Hammerstein.** This is a gala performance to
honor Heartland supporter, Phyllis Ziegler.
6:00 P.M. - Wine, hors d'oeuvres and silent
auction. 7:30 P.M. - Performance
Tickets are \$40 and includes performance,
wine and food. A percentage of the price is
tax deductible. For reservations and
information call 847-429-9486.

Fri., October 12

The Larkin Center "Art & Soul Experience"

This is a fundraiser for The Larkin Center, fea-
turing spectacular local artistry. Larkin client
art wine tasting, appetizers and music.
Tickets are \$40. Call Sharon Prizy at
847-695-5656 x263 or www.larkincenter.org.

Sat., October 13 Fire Station # 2 Open House

650 Big Timber Road. 10 a.m. - 1 p.m.
Part of National Fire Prevention Week

Sun., October 14

Artist's Reception "Bright And Bold" Oil Pastels

Virginia Stapleton, Artist
1:00 P.M. to 4:00 P.M.
This reception is open to the public at no
charge. Come view the artwork and meet the
artist. Ms. Stapleton's work will be on display
October 14 through November 18.
Artwork may be purchased from the artist.

2007 FALL EVENTS

FoxFireFest August 3rd - 5th / Festival Park
Friday 5 - 10 PM / Saturday 12 - 11 PM / Sunday 12 - 7 PM
• Elgin Symphony Orchestra • FoxFireFest Idol Finals
• Evening Main Stage Show • Waterfront Fire Show
• The Buckingham's • The Outlaws • Juried Art Show
• Adler Planetarium Telescopes • Children's Activities
• Two Stages with Performances All Day • Entertainment
• Elgin Cycling Classic • Music • Beer Garden & Foods
www.cityofelgin.org / 847-531-7005

Fiesta Salsa
September 15th / Festival Park / Free Event
Parade 12 PM / Festival 12 PM - 11 PM
Salsa Challenge 8 AM / Salsa Tasting 12:30 PM
Food, Live Music, Beer Garden, Children's Activities.
Salsa Competition - how does your salsa size up?
Sponsored by Hispanic Heritage Coalition & Comcast.
www.fiestasalsa.org / 847-528-5969

Historic Elgin House Tour
August 26th / 9AM - 5:30PM
Tour 8 private interiors representing
a variety of architectural styles spanning
the mid 19th thru the 20th Centuries.
Registration at Fire Station #6
707 W. Chicago St.
Tickets \$15 in advance / \$20 day of the tour.
Sponsored by the Gifford Park Association.
www.gifford-park-assoc.org / 847-697-3370

Worldwide Day of Play
September 29th / 11 AM - 2 PM / Free event
Bring the family for a City-wide day of
play at various parks throughout the City!
Sponsored by the City of Elgin
Parks & Recreation Dept.
www.cityofelgin.org / 847-531-7005

For More Information
www.cityofelgin.org
or 847.531.7005



Daily Herald
Big Picture - Local Focus

Comcast



IMPORTANT CITY PHONE NUMBERS

www.cityofelgin.org

City of Elgin (general number): 931-6100

City Clerk: 931-5660
Voter registration
Absentee ballots
Liquor licenses
Boards & Commission information

City Manager's Office: 931-5590
Mayor
City Council

Code Administration
& Development Services: 931-5920
Rental licenses
Permits
Building & related ordinances
Property maintenance

Comcast Customer Service: 866-594-1234

Finance Department: 931-5625
General finance inquiries
Parking ticket questions
Senior citizen tax rebate info hotline: 931-6105

Fire Department (non-emergency): 931-6175
CPR classes
Educational programs
Fire safety

The Hemmens Cultural Center
697-3616 general offices
931-5900 box office

Parks & Recreation: 931-6120
Administration
Shelter & pavilion rentals

The Centre of Elgin: 531-7000
All leisure programs, sports & memberships

Planning & Neighborhood
Services Department: 931-5910
Historic preservation
Annexations
Long-range planning
Community Development Block grants

Police Department
(non-emergency): 289-2700

Community Relations
Neighborhood Watch
Social Services
Animal Control

Public Works: 697-3160
Fall leaf collection
Trash & recycling programs
Street, sewer & water main maintenance
Traffic signals & signs
Street light outages

Watch City Council meetings on Channel 17

Water Department: 931-5630
<https://www.cityofelgin.com/utilitybilling>
Meter readings
Water billing

Wide Open West Customer Service:
800-848-2278

City Hall & Cashier Hours:
Monday through Friday 8:00 a.m. to 5:00 p.m.
Cashier is open Monday, Tuesday & Friday until
6:00 p.m. for water bill & parking ticket payment

Spirit
Fall 2007

Mayor Edward Schock City Manager Olufemi Folarin
City Council Members Juan Figueroa, Robert Gilliam,
David Kaptain, Michael Powers, John Steffen, John Walters

Elgin A community
to call home

PUBLIC WORKS DEPARTMENT

40 Ann Street Phone: 847-697-3160

Elgin's New Solid Waste Program Has Arrived!

The City's new solid waste program, including the Dynamic Duo Carts, fee changes and new recycling procedures, began November 1st for all Elgin residents. Information detailing the new program was provided inside your new carts, and will also be mailed to every resident shortly. Please take a moment to review the information and if you have any questions call the Information Line at 931-6095, or visit the City's website at www.cityofelgin.org.

Please be aware, fines for not conforming to the new program have increased.

Prepaid Stickers & Bags Available at These Convenient Locations

A=Trash/Yard Waste Stickers
\$2.00/each (the same sticker is used for extra trash and yard waste).

B=Appliance Stickers
\$25.00/each

C=Prepaid 16 Gallon Trash Bags
\$1.10/each (sold by the dozen)

Elgin City Hall A, B, C
150 Dexter Ct. 931-5615

Dominicks Food Center A
250 S. Randall Rd. 741-3666

Eagle Food Store A, B, C
20 Tyler Creek Plaza 742-8477

Jewel Food Stores
1040 Summit St. 622-8112 A,B,C
1660 Larkin Ave. 695-7573 A
375 Randall Rd. 608-1460 A, C

Meijer A, B, C
815 S. Randall Rd. 717-6500

Ziegler's Ace Hardware A
215 N. Spring St. 741-5610
1158 Lillian St. 695-1722

Based on customer requests, stores may change what they carry. Residents are encouraged to call the store ahead of time if they need appliance stickers or prepaid trash bags.

Stickers & Bags are also available by mail. Call Waste Management at 1-800-414-5325.

Christmas Tree Recycling Program – December 26th – January 15th



The City offers FREE Christmas tree recycling with the new solid waste program. Place your tree outside with your regular trash and it will be picked up for free – no sticker required! Be sure to remove all decorations and do not place the tree in a plastic bag.

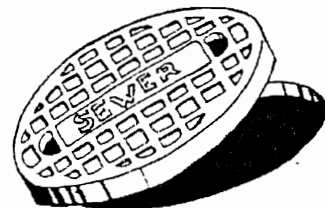
Safe Snow Tips!

With the cold weather coming and snow destined to follow – keep these helpful tips handy and have a safe winter.

- Overnight Parking Restrictions are in effect through April 1st, on designated streets. Be sure to note the signs posted.
- Avoid on-street parking after 2 inches or more of snow. (This is mandatory on designated snow routes.)
- Streets are plowed two passes each direction as soon as possible and plowed to the curb the following day. If you live on a snow route or main street, your street will be plowed multiple times.
- In order to clear the streets safely and efficiently it is impossible to lift or turn plows for every driveway. Unfortunately, some snow will be pushed into your driveway over the course of the plowing.
- Please do not deposit snow into the street, or near the end of your driveway. This reduces the amount of snow the plows push in your driveway, and keeps the street clean after work has been completed.
- Avoid on-street parking on your scheduled weekly trash collection day.
- When heavy overnight snowfall is predicted, place items for trash and recycling out on the day of your scheduled collection by 7:00 a.m., instead of the night before.
- Clear snow from around fire hydrants in your area.

If Sewer Problems Are Giving You a Headache, The City Might Have the Answer!

Have a problem with old sewer pipes serving your house? During a storm, do you worry about the sewer backing up into your basement? The City of Elgin may just have a solution for you.



Elgin homeowners may be eligible for financial assistance from the City for the replacement of service lines going to your home, or for the installation of an overhead sewer within your home. Through the **Overhead Sewer Program** and the **Lateral Replacement Program**, the City of Elgin will reimburse qualified homeowners **50% of the cost (not to exceed \$5,000)** for eligible work. Residents **MUST** contact the Public Works Department any weekday for all the details concerning eligibility requirements and reimbursement prior to the start of any work.

These City Programs Can Help....

The Overhead Sewer Program: An overhead sewer system can help reduce the risk of sewer back up and serious basement flooding. Find out more about this program by calling Public Works.

The Lateral Replacement Program is available for homeowners who have to replace their deteriorated or damaged service line. Old or blocked lines can lead to serious damage to your home, oftentimes when you least expect it. If you find you need to replace an exterior service line, this program can help!

Please note: only work on the portion of the service line that is located in the right-of-way is eligible for the reimbursement benefit.

PUBLIC WORKS

DEPARTMENT

As solid waste collection and disposal costs continue to rise rapidly, the City has investigated a variety of alternative options in order to provide service in the most efficient and cost effective manner possible.



The *proposed* Solid Waste Pick-Up Program will include the following services at no additional charge to residents:

- One 64 Gallon Garbage Cart (replaces two standard size garbage cans or bags)
- One 64 Gallon Recycling Cart (the equivalent of 3.5 recycling bins)
- Unlimited Recycling Collection
- Unlimited Bundled Brush Pick-Up (April – November)
- Leaf Collection During the Fall Season
- Christmas Tree Collection (Dec 26th – Jan 15th)

Other options available to residents depending on their individual needs:

- \$2 Disposal sticker for each of the following:
 - each 30 gallon bag or can in excess of the 64 gallon garbage cart
 - each bulk item (i.e., TV, couch, chair)
 - each bag of grass clippings and other yard waste
- \$25 Disposal sticker for major appliances (i.e., hot water heater, refrigerator, washer)
- Downsize to 1-35 gallon garbage cart for no charge. Households who opt for a 35 gallon garbage cart will be allowed to place ONE of the following items out each week for pick-up without a pre-paid sticker:
 - ONE extra bag or can of refuse (up to 40 gallons) over what fits inside of the 35 gallon cart
 - ONE bag of yard waste
 - OR
 - ONE bulk item (couch, chair, TV)
- Upsize to a 96 gallon garbage cart for as little as \$8.66 a month.
- Downsize to a 35 gallon recycling cart for no charge.

Residents will be required to purchase disposal stickers similar to the current grass sticker program.

For more information

about the proposed solid waste pick-up program, attend the informational meeting at City Hall on **Tuesday, October 8th**, look for the Answers to the Most Commonly Asked Questions on the City's Website at www.cityofelgin.org, or stop by City Hall to check out the display featuring each of the different size carts.

Don't forget the **Electronics Recycling Collection** on Saturday, September 28, 9:00 am – 1:00 pm, at Elgin Community College, 1700 Spartan Drive.

POLICE

DEPARTMENT



Chief Bill Miller

Monthly Opportunity to Talk with Chief Miller

Elgin residents have an open invitation to discuss policing issues and crime concerns with Chief Miller. Meetings are held the fourth Monday of every month at 6:30 pm in the Community Room of the Elgin Police Department at 151 Douglas.

Traffic Division Works to Keep You Safe

The Elgin Police Department Traffic Division was recognized by the Illinois State Police for their efforts in Click It or Ticket, a campaign to raise public awareness and enforcement of seat belt laws. Take the extra step to save a life by using your seat belts.

Domestic Violence Case Worker Offers Alternatives

Lynette Pearl, Domestic Violence Case Worker, offers anger management classes, substance abuse counseling and support in court and is working with various community agencies through E.F.V.E.R.T., Elgin Family Violence Enhanced Response Team, to help more families and individuals in need. For more information about E.F.V.E.R.T. call 847-289-2644.



Lynette Pearl
Domestic Violence Worker

State Curfew Reminder

Everyone is reminded that Curfew for youths in Illinois is 11:00 pm Sunday through Thursday and Midnight on Friday and Saturday nights. It is unlawful for people under the age of 17 years to be in public unless supervised by a responsible adult or parent.



FIRE DEPARTMENT

Fire Prevention Week October 6-12

Safety Tip: Remember to test the batteries in your smoke detectors!

To arrange for a tour of any Fire Station call 847-931-6175.

2002 CPR Training Schedule

September 10, October 1, November 5, December 3
Classes are held on Tuesdays at Station #2, 650 Big Timber Road and begin at 6:00 PM. To sign up for a class or for more information, please call 847-931-6175.

Industrial Fire Safety Classes

The Elgin Fire Department offers training on first aid and fire safety for your employees. Classes are scheduled for twice a week for 3 weeks at Fire Station #2, 650 Big Timber Road. For more information and registration forms, please contact the Fire Prevention Bureau at 847-931-6190.



Solid Waste & Recycling

General Information

The City of Elgin provides a comprehensive solid waste program designed to encourage recycling and waste reduction, reduce litter in our neighborhoods and ensure that waste is disposed of in an environmentally responsible manner.

The City of Elgin contracts with Waste Management to provide solid waste services to single family dwellings, multiple-family dwellings up to and including five (5) units, and to owner-occupied condominium and townhome properties.

Most residential solid waste and recycling services are paid for through property taxes. Residents pay for additional services by purchasing prepaid stickers on an as needed basis. Residents do not receive a separate bill for trash collection and there is no need to call to activate or to stop service.



For more information regarding trash and recycling services at condominium and townhome properties.

Curbside Collection Services

General Guidelines

Each household unit has been assigned one 64-gallon gray cart for refuse and one 64-gallon blue cart for recycling. Each household unit receives the following weekly services at no additional charge (no prepaid stickers required):

- One 64 gallon cart of trash
- Unlimited Recycling
- Spring & Fall Leaf Collection (April and Oct – Nov)
- Bundled Brush Collection (April – Nov)
- Christmas Tree Collection (Dec 26th – Jan 15th)
- Spring Clean-up Week (on your normal pick up day the last full week of March)

Trash and recycle carts are the property of the City of Elgin and are not to be removed from the property. Contact Waste Management at 1-800-796-9696 to obtain a replacement if your cart is missing or damaged. If you are moving into a newly constructed home, there is no need to call. Carts will automatically be delivered to your address within a week after the City has issued a Certificate of Occupancy for your property.

Solid waste materials must be placed out for collection by 6:00 a.m. the day of your scheduled collection, but not before 5:00 p.m. the day before your pickup. All containers and any materials that were not collected must be removed from the curb by midnight after your scheduled collection. [Click here to view the collection schedule.](#)

Carts should be placed at least five (5) feet apart, with the handles facing away from the curb. For safety reasons, carts and other materials should be placed on the treebank (the area between the sidewalk and the curb) for pickup and not in the street.

Please keep in mind that separate trucks pick up trash, recycling, yard waste and bulky items. Therefore, each of these materials may be picked up at different times of the day.

Holiday Collections

Collection will not take place on New Year's Day, Memorial Day, Independence Day (July 4th), Labor Day, Thanksgiving Day or Christmas Day. When scheduled collections fall on or after one of these holidays, collections are delayed by one day for the remainder of the week, with Friday's collection taking place on Saturday. Please note that collections will not be delayed when these holidays fall on a Saturday.

Cart Storage

City Ordinance requires that trash and recycling carts be stored inside of a garage/carport or in the rear yard of your property. Condo/townhome residents should check with their homeowners association for specific guidelines, as outdoor storage may be prohibited.

Violations

Trash related violations should be reported to the Department of Public Works at (847)931-5921.

Customer Service

Residents with questions or service related issues should contact Waste Management directly at 1-800-796-9696. If you are unable to obtain resolution through Waste Management, or if you need to leave a message after hours, please contact the Elgin Public Works Department at (847)697-3160.

APPENDIX B

FOX RIVER WATER QUALITY STUDY
REVISION 4

FOX RIVER WATER QUALITY STUDY
QUALITY ASSURANCE PROJECT PLAN

Prepared by:

David J. Kaptain
Fox River water Reclamation District
P.O. Box 328
Elgin, IL 60121
dkaptain@foxvalley.net
847-742-2068

Revised by:

Jack Russell
Fox River Water Reclamation District
1957 N. LaFox
South Elgin, IL 60177
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847-742-2068

FOX RIVER WATER QUALITY STUDY
REVISION 4

SECTION A PROJECT MANAGEMENT

A1 Approval Sheet

Cynthia Skrukrud, Project Manager Sierra Club	Date
--	------

Tom Muth, Project Manager Fox Metro Water Reclamation District	Date
---	------

Robert Trueblood, Project Manager Fox River Water Reclamation District	Date
---	------

Randy Hummer, Project QAO Fox Metro Water Reclamation District	Date
---	------

Jack Russell, Project QAO Fox River Water Reclamation District	Date
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FOX RIVER WATER QUALITY STUDY
REVISION 4

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FOX RIVER WATER QUALITY STUDY
REVISION 4

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A3 DISTRIBUTION LIST

Each person listed on the Approval Sheet and each facility listed under Project Organization will receive a copy of the original QAPP and any updates or revisions.

A4 PROJECT ORGANIZATION

BOARD OF DIRECTORS

The Board of Directors will determine the scope and objectives of the study, arrange for funding, review data, approve the QAPP and ensure objectives are met in a timely fashion.

Cities of Batavia/Geneva/St. Charles	Byron Ritchason (Asst. Secretary)
City of Aurora	Eric Schoeny
Fox Metro Water Reclamation District	Tom Muth (Treasurer)
Fox River Water Reclamation District	Robert Trueblood (Vice Chair)
Kane County	Rob Linke
City of Elgin	Kyla Jacobsen (Secretary)
Fox River Ecosystem Partnership	Candice Jacobs
Friends of the Fox River	Gary Swick
Sierra Club	Cindy Skrukrud (Chair)

DATA TEAM

The members of the data team will provide personnel to collect and transport samples.

FOX RIVER WATER QUALITY STUDY REVISION 4

The Fox Metro and Fox River Water Reclamation Districts laboratories will be the lead organizations responsible for ensuring sample integrity and sample analysis. The data team will deliver data to ISWS and the Board of Directors and maintain the data until such time as it is no longer required. The data team members are:

Fox Metro Water Reclamation District	Randy Hummer
Fox River Water Reclamation District	Jack Russell
City of St. Charles	Steve O'Neal
Village of Algonquin	Andy Warmus
Village of Crystal Lake	Ken Kruger
Northern Moraine Water Reclamation District	Todd Sheridan
City of Elgin	Kyla Jacobsen
Sierra Club	Cindy Skrukud

ADVISORY ASSISTANCE

Illinois State Water Survey	Jim Slowikowski
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A5 PROBLEM DEFINITION AND BACKGROUND

The Fox River is a unique waterway in many aspects. It is the source of drinking water for the cities of Aurora and Elgin but is primarily designated by the Illinois Pollution Control Board as a general use waterway. The river has numerous dams and associated impoundments along its length and is used for recreation by the residents of the Fox River Valley. The IEPA has declared portions of the Fox River as impaired on their 2014 303(d) list for low dissolved oxygen levels, fecal coliform, and phosphorus at several locations.

The IEPA review of water quality data from their sampling program along the Fox River for use in establishing water quality standards for municipal discharges initiated comment from both the public and the effected municipalities concerning the type and quantity of the available analytical data. The interested parties, which included representatives of the IEPA, environmental groups and municipal dischargers to the Fox River, have met to discuss the water quality issues of the Fox River and how the future water quality standards will impact the river and their respective organizations. The conclusion of the group after the first meeting was that all parties desire to develop appropriate standards that will protect the water quality of the stream in the most cost effective manner. The IEPA and municipal dischargers have historical analytical data from various sampling points on a number of parameters, however, much of the data is not comparable and a number of gaps have been identified. The need for additional sampling and analytical data has become apparent to all the stakeholders.

A6 PROJECT DESCRIPTION

All the stakeholders involved in the project seek to protect the quality of the waters of the Fox River for future generations. The group has identified the stretch of river from the Chain of Lakes to Yorkville as the area of highest growth rate and therefore the most sensitive to environmental change. The focus of this project will be to generate reliable data on transect samples collected at

FOX RIVER WATER QUALITY STUDY REVISION 4

the existing USGS/IEPA monitoring stations and other points along the river from Johnsburg to Yorkville. The samples collected will be used to fill data gaps as well as verify existing historical data. The group feels that the additional data can be effectively used to achieve both our short and long term goals which include:

- Improve the understanding of the physical, biological and chemical processes governing the overall environmental conditions of the Fox River.
- Develop appropriate analytical tools and computer models to support scientific, engineering, economic, and policy decisions.
- Provide sufficient, quality data to allow for the establishment of realistic water quality based effluent requirements for point sources.
- Build public responsibility and involvement into the planning and management process.
- Conduct discussions between stakeholders that will allow responsible long term planning for regulatory decision making and water resource management.

The Fox River Water Quality Study is proposed to consist of four phases.

Phase I consisted of assembling and evaluating the available data on the Fox River. The Fox River Study Group contracted with the Illinois State Water Survey for this work. This phase was completed in 2004 with the publication of Fox River Watershed Investigation – Stratton Dam to the Illinois River: Water Quality Issues and data Report to the Fox River Study Group, McConkey, et. al.

Phase II is the sampling and analysis portion of the study. The data collection program started in April of 2002 and continues currently. The Illinois State Water Survey was contracted to do more intensive sampling and monitoring during high flow conditions from 2009 through 2011. Low flow intensive sampling and monitoring was completed in June of 2012.

Phase III involves using the data being collected for the creation of computer models of conditions present and projected along this portion of the Fox River. The Fox River Study Group has contracted with the Illinois State Water Survey to create a QUAL2K model of the Fox River Mainstem and HSPF models of the Mainstem and tributaries. These models were completed in 2013 culminating with the publication of “Fox River Watershed Investigation: Stratton Dam to the Illinois River, PHASE III, Evaluation of Watershed Management Scenarios”.

Phase IV of the project concerns the use of the computer models to assist in the decision making processes involved in the establishment of regulatory limits and long term watershed management plans. This process began in early 2014 when the Fox River Study Group contracted with Limnotech to develop the Fox River Implementation Plan (FRIP). This plan is still in development.

A7 MEASUREMENT OBJECTIVES AND CRITERIA

Many analytes measured for this project are present at low concentrations throughout the Fox River. Analyte concentrations will vary as the stream is influenced by runoff, storm water discharges, treatment plant effluents, etc. The analytes are also subject to biological, chemical,

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and physical processes that can alter their presence in the river. The measurement criteria will be based upon existing regulations when available or using statewide data in cases where no regulations exist. The measurement objective shall be set at 20% of the measurement criteria to ensure the lowest, reasonably achievable analytical result using approved methodology as described in “Standard Methods” or CFR, Volume 40, Part 136, Appendix B. The minimum measurement objective for any analyte will be achieved when the analytical procedure selected for analysis can be shown to have a MDL at or below the minimum measurement objective. Field analytical parameters will be measured to the limits of the sensitivity obtainable using the manufacturer’s recommendations. See Table 1 below.

TABLE 1

Parameter	Minimum Measurement Criteria²	Minimum Measurement Objectives	Method MDL³
Dissolved Oxygen ¹	NA	0.1 mg/L	0.1 mg/L
Temperature ¹	NA	0.1 °C	0.1 °C
Conductivity ¹	NA	10 µS/cm	10 µS/cm
pH ¹	NA	0.1 S.U.	0.1 S.U.
Ammonia	15.0 mg/L	3.0 mg/L	0.05 mg/L
Nitrate	No Standard		0.10 mg/L
TKN	No Standard		0.15 mg/L
Phosphorus (Total & Dissolved)	No Standard		0.02 mg/L
Chlorophyll A (SM 10200H)	No Standard		4.0 mg/m ³
Turbidity	No Standard		1.0 NTU
BOD	No Standard		2.0 mg/L
Chloride	500	100 mg/L	2.0 mg/L
Suspended Solids	No Standard		1.0 mg/L
Fecal Coliform	200/100 ml	40/100 ml	1/100 ml

1- Field Measurement

2- State of Illinois General Use Water Quality Standard

3- MDL from equipment manufacturer’s specifications, Standard Methods, and 40 CFR 136.

A8 SPECIAL TRAINING

The field sampling and sample transportation teams will be trained by the laboratory personnel from Fox Metro and Fox River Water Reclamation Districts familiar with the goals and sample techniques contained in the QAPP. There will be at least one member of each sample team who has had laboratory experience and has been trained in the calibration and use of the field monitoring equipment. All field teams will undergo training before the first sampling events. The training personnel will periodically verify that proper sampling and sample handling techniques are being used by conducting field audits. All laboratory analysis will be performed by trained lab professionals who have completed the QC requirements for the parameter they are testing.

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A9 DOCUMENTS AND RECORDS

All updated versions of the QAPP and distribution of the current version will be the responsibility of the Fox River Water Reclamation District. The laboratory managers from the Fox Metro and Fox River Water Reclamation Districts are designated as the Quality Assurance Officers and shall be responsible for retaining all field data records, calibration records, sample collection records, chain of custody information and laboratory analytical data. The Data Team Chairman/QAO shall be responsible for retaining copies of all the above and submitting final analytical data to the ISWS, Board of Directors, and the members of the Data Team on a monthly basis.

SECTION B MEASUREMENT DATA ACQUISITION

B1 SAMPLING PROCESS DESIGN

SAMPLE FREQUENCY

The samples will be collected on a monthly schedule at 14 sampling locations, many of which are IEPA Ambient Water Quality Monitoring Stations. The samples will all be collected on Tuesday and delivered to the laboratories the same day. The current weather conditions at the sample site, as well as, the weather conditions for the previous 72 hours as observed at O'Hare Airport will be recorded in the sample log. It is the intent to collect 12 samples over a one year period as a minimum. Scheduled sample collection days should allow random weather events to influence the samples however, it may be necessary at some time to sample during a major wet weather event to provide needed data. A major rain event will be considered to be 1" or more in 24 hours as recorded at O'Hare Airport.

SAMPLING STATIONS

The following sample locations were selected to provide representative samples collectable from safe locations, to make use of historical sample sites and to provide samples of all reaches of the river while remaining roughly equidistant from each other.

<u>Station</u>	<u>Description</u>	<u>Type</u>	<u>Drainage Area (sq.mi.)</u>
1-(DT 35)	Chapel Hill	Transect	1205
2-Tributary	Sleepy Hollow	Transect	N/A
3-Tributary	Silver Creek	Transect	N/A
4-(DT 22)	Rawson Bridge	Transect	1556
5-Tributary	Crystal Creek	Transect	N.A.
6-(DT 06)	Algonquin	Transect	1403

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7-Tributary	Tyler Creek	Transect	N.A.
8-(DT 09)	South Elgin	Transect	1556
9-Tributary	Ferson Creek	Transect	N/A
10-(DT 69)	Fabyan	Transect	N/A
11-Tributary	Indian Creek	Transect	N/A
12-(DT 38)	Mill St.	Transect	1732
13-(DT 11)	Route 47	Transect	N/A
14-Tributary	Blackberry Creek	Transect	N/A

SAMPLE METHOD

All samples will be transect composites collected at 25' lateral increments and 1' depth intervals. A sampling device was designed to collect all the samples at each lateral point with one vertical drop. The device consists of a 6' stainless steel rod with 500 ml plastic sample bottles attached at 1' intervals. A 16 pound weight on the bottom of the rod will quickly sink the device with little or no drift. The filled bottles will then be composited into a 5 gallon plastic container. This device will provide rapid sample collection and consistency between samples. The field samples and coliform sample requiring grab samples will be collected at center stream at the approximate mid-depth (See Appendix 1).

PARAMETERS TO BE MONITORED

The following parameters were chosen to be analyzed by the Illinois State Water Survey for the specific purpose of attempting to address issues brought before the group such as causes for impairments, effect of nutrient loads, verification of existing data and to parallel work done in other studies being performed concurrently in the area.

BOD	Total Phosphorous	Dissolved Phosphorous
pH	Fecal Coliform	Total Nitrogen (NH ₃ ,TKN,NO ₃)
Chloride	Dissolved Oxygen	Conductivity
Turbidity	Chlorophyll a	Temperature
Suspended Solids		

B2 SAMPLING METHODS

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Five teams will be trained in sample collection, preservation techniques, use of monitoring equipment and safety. The teams will be located at Chapel Hill, Rawson Bridge/Algonquin, South Elgin, Geneva, and Aurora/Yorkville. Each team will consist of volunteers from environmental groups and employees of participating wastewater treatment facility with at least three persons per team. The samples will be collected by a minimum of two persons. There will be two transport teams, one for the area from McHenry to Elgin and one for the area from Yorkville to Elgin. The volunteers and treatment plant personnel will be asked to commit one year to the study to provide consistency for sample handling and ease of scheduling. The proper number of volunteers required will be determined by the need for redundancy for each sampling and transport team. See appendix 1.

B3 SAMPLE HANDLING

The obligations of the field sampling teams will include monitoring of pH, dissolved oxygen, temperature, flow, weather conditions and specific conductance as well as sample collection and preservation. See table 2 below.

TABLE 2

Parameter	Container	Preservative	Holding Time
Ammonia	1.5 liter plastic	10 ml 20% H ₂ SO ₄	28 days
Nitrate	1.5 liter plastic	10 ml 20% H ₂ SO ₄	28 days
Kjeldahl N	1.5 liter plastic	10 ml 20% H ₂ SO ₄	28 days
Phosphorus	1.5 liter plastic	10 ml 20% H ₂ SO ₄	28 days
Turbidity	1.0 liter plastic	refrigerate at 4°C	48 hours
BOD	1.0 liter plastic	refrigerate at 4°C	48 hours
Suspended Solids	1.0 liter plastic	refrigerate at 4°C	24 hours
Chloride	1.0 liter plastic	refrigerate at 4°C	28 days
Chlorophyll A	0.25 liter plastic	filter and freeze	28 days
Fecal Coliform	110 ml sterile plastic	cooled	6 hours

The sampling teams are also required to complete the field data sheet (see Appendix 3) and initiate the chain of custody sheet. The transport teams are required to provide ice for the coolers and deliver the samples to the laboratory for log in within the specified holding time, however, if the samples cannot be picked up for delivery within 30 minutes of collection the sampling team will ice the samples to guarantee the proper temperature of 4 C.

B4 ANALYTICAL METHODS

All methods used by the laboratories for data analysis shall be approved methods listed in the most current editions of "Standard Methods" or 40 CFR 136. All laboratory analysis will be performed by the Fox Metro and Fox River Water Reclamation Districts and the City of Elgin.

B5 QUALITY CONTROL

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The laboratories at Fox Metro and Fox River Water Reclamation Districts and the City of Elgin are responsible for QA/QC for the project using their internal quality assurance plans. A failure of an internal QC limit will result in an investigation and a corrective action report by the laboratory supervisor. Samples which have failed any QC limit will be retested if possible. The QC records for the analytical runs for the samples of interest will be maintained by the respective laboratories. The trained field personnel are responsible for ensuring that proper sampling methods, sample preservation and sample custody of the delivered samples to the designated laboratory are followed. In the event of a QC or noncompliance issue an investigation and corrective action report will be prepared for the project QAO's and IEPA QAO.

B6 EQUIPMENT TESTING, INSPECTION AND MAINTENANCE

All field equipment used for data measurements shall be tested, calibrated and inspected prior to sampling events. All field and laboratory test equipment shall be routinely maintained according to the manufacturer's recommendation.

B7 INSTRUMENT CALIBRATION

The laboratory and field personnel will calibrate all test equipment daily or as required in the internal quality assurance plans and/or according to the manufacturer's manual whichever is the most stringent. Records shall be kept of the equipment calibrations, testing and maintenance.

B8 INSPECTION/ACCEPTANCE OF CONSUMABLES

Consumables shall be inspected by the laboratory and field teams to guarantee their usability and degree of freshness prior to use. The use of all consumables shall conform to the internal QA plans of the laboratories.

B9 DATA MANAGEMENT

The field data/chain of custody sheet will accompany each sample to the respective laboratory. Copies of each will be maintained by the project QAO's. The laboratory analytical and QC data will be coupled with field data /chain of custody sheets to form a permanent, complete record of each sample collected. The final data reports shall be stored and made available to any users on diskettes in Microsoft access or similar electronic form. All sample data shall be verified by the IEPA Bureau of Water QAO for reliability and by the IEPA Project Manager for usability.

SECTION C ASSESSMENT/OVERSIGHT

C1 ASSESSMENT AND RESPONSE ACTIONS

Performance evaluations of the sampling/transport teams shall be performed periodically by the laboratory directors of the Fox Metro and Fox River Water Reclamation Districts. The teams will be evaluated to ensure that established protocols have been followed. Any noncompliance issues will require an investigation and corrective action report which will be submitted to the project QAO's and reported to the IEPA Bureau of Water QAO. The laboratories will maintain all

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internal QA documents and report any noncompliance issues to the project QAO's and to the IEPA Bureau of Water QAO.

No data will be released that has failed to meet all QC/QA requirements as established in this report or in the internal QA plans of the laboratories. Samples that have not met the QC/QA requirements will be retested if possible or rejected and a report filed with the project QAO's and the IEPA Bureau of Water QAO.

C2 REPORTS TO MANAGEMENT

The project managers will receive notification of any noncompliance issues and reports related to any quality control issues.

SECTION D DATA VALIDITY AND USABILITY

D1 DATA REVIEW, VALIDATION AND VERIFICATION

The laboratory directors of the Fox Metro and Fox River Water Reclamation Districts will review final analytical data reports, the field reports and address any issue related to data reliability. Qualified laboratory data will be submitted by the project QAO's to the IEPA Project Manager to determine the usability of the data.

D2 VERIFICATION AND VALIDATION METHODS

Sample collection and field measurement records should be verified by the sampling teams and the records kept by the laboratory directors of the respective laboratories. The laboratory data shall be verified by the director of the laboratory that produced the data. Field and laboratory data shall be archived by the Project QAO's.

In the case of the data verification process resulting in a change to data, the Project QAO's shall inform all data users and make corrections.

All data users shall be informed if data accuracy, reliability or usability has been reduced as the result of errors in stored data or corrupted data files. The Project Managers shall submit a report documenting the problem to the IEPA Project Manager.

D3 RECONCILIATION AND USER REQUIREMENTS

The IEPA Project Manager or their consultant shall review the project data and its usability and determine if it meets the project objectives. The project objectives are described in Sections A5-A7. Data will be analyzed to determine if any departures from assumptions exist. The Project Managers, Project QAO's and laboratory managers will determine what stage in the data collection and analysis process gave rise to the departure. Possible explanations will be investigated and the results documented.

The execution of the project shall follow the procedures outlined in this QAPP. The QAPP shall

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be reviewed after six months by the persons on the approval page. The review shall determine if the objectives are being met. If modification of the project is required, any changes shall require the approval of the persons listed on the approval page. All changes shall be documented in a memorandum that will be distributed to all participants in the project. The QAPP shall be updated to reflect any changes.

REFERENCES

APHA, AWWA, and WEF, 20th edition, "Standard Methods for the Examination of Water and Wastewater ", Washington, D.C., 1998

Metropolitan Water Reclamation District of Greater Chicago, Ambient Water Quality Monitoring Quality Assurance Project Plan", Revision 1.0 Chicago, Ill, 2001

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1989 Revision

USEPA," EPA Requirements for Quality Assurance Project Plans", EPA QA/R-5, 2001

"West Branch of the DuPage River TMDL Development Quality Assurance Project Plan-Revision 1", Prepared by Strand Associates, Inc. Madison, WI, Oct. 2001

Internal Quality Assurance Plans for the Fox Metro and the Fox River Water Reclamation Districts.

ISWS, "Fox River Watershed Investigation – Stratton Dam to the Illinois River: Water Quality Issues and Data Report to the Fox River Study Group, Inc.", 2004

ISWS, "Overview of Recommended Phase III Water Quality Monitoring Fox River Watershed Investigation", 2005.

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APPENDIX 1

FOX RIVER SAMPLING PROCEDURES

Before beginning the sampling day, a check should be made to ensure that all sampling bottles, sampling equipment, and the collection pail are clean and in good working condition. It is especially important that sufficient field data sheets and preserved sample bottles are available. The collection team should have sufficient ice to cool the samples until they are picked up by the transport team.

STEP I- Calibrate all meters used for monitoring D.O., pH, etc. before they are taken into the field. All calibration data should be noted in the log. It is advisable to leave all electronic equipment in the “on” or “standby” position until all measurements are completed. The sample pail and river sample bottles must be cleaned before samples are collected and between sampling sites if applicable. The pail and river sample bottles should be cleaned with phosphate free detergent and D.I. water. The bottles and pail should be rinsed twice with D.I. water before use.

STEP II-As soon as you arrive at the sample site:

- a) Park in a safe location and place safety cones/or signals as required.
- b) Note time and date. Record weather conditions and other physical observations.
- c) Rinse all sampling equipment with river water at the approximate area of the highest flow before collecting the first sample.
- d) Label all required sample bottles.

STEP III-Collect all required samples for laboratory analysis at the equal width increment points using the multiple grab sample device and composite the samples into the 5 gallon sample container.

STEP IV -Mix the sample in the container by sealing and inverting the container at least three times being careful not to shake so as to introduce air.

STEP V-Remix the sample if necessary and collect samples for the required parameters in the appropriate bottles. Use caution when handling the sample bottles, they contain sample preservatives. Do not rinse or invert the sample bottles. Place samples on ice if required.

STEP VI-At the approximate area of highest flow lower a sterile sample pail to collect a sample of at least one gallon size. Collect a fecal coliform sample from the pail in a sterile fecal coliform sample bottle. Measure the stream temperature, pH, conductivity and dissolved oxygen from the remaining sample.

STEP VII-Check to see that all field data values have been recorded on the lab sheets. Complete chain of custody information before relinquishing samples to the transport teams.

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STEP VIII-The transport team should ensure that all samples are iced. The team should deliver the samples to their respective laboratories as soon as possible but no longer than two hours from time of collection.

SAMPLING EQUIPMENT

1. Five gallon HDPE pail with sealable lid (Qorpak #7044 and #PLA 06910).
2. The sample collection device to be used will allow 2-5 grab samples to be collected with one vertical drop. This device consists of a 6' stainless steel rod with 500 ml river sample bottles attached at 1' increments. The rod has a fixed 15 l downrigger weight attached to the bottom to quickly pull the device to the bottom with a minimum of drift. The individual sample bottles will be composited into the 5 gallon pail.
3. Dissolved oxygen meter.
4. pH and conductivity meters.
5. Laboratory sample bottles and ice chest.

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APPENDIX 2

GENERAL LABORATORY QUALITY CONTROL PROCEDURES

The quality control of the Fox River Study Group sampling and analysis program will be based upon the in house QC programs from the Fox Metro and the Fox River Water Reclamation Districts. General guidelines are provided below with the QC for each individual parameter provided by the laboratory performing the analysis.

For each batch of samples the analyst will calculate the percent recovery for the standards, relative percent difference for each duplicate, and the relative percent recovery of the spike. The relative standard deviation for each will be calculated and compared to historical values. Typically a result that is > 2 S.D. will result in a warning to the analyst that a check of the test may be required. A result which is a second consecutive value > 2 S.D. or a result of > 3 S.D. will require corrective action and potential shut down of the test until such time as further testing shows that it is back in compliance. All Q.C data will be included in long term Q.C graphing to assist in identifying trends. The laboratories of the Fox Metro and Fox River water Reclamation Districts will determined in house Q.C. procedures based upon their respective laboratories Q.C. plans. The values for standard deviation, % recovery, % difference, actual MDL, etc. will be calculated and documented based upon the historical data generated from actual laboratory analysis at the Fox Metro and Fox River water Reclamation Districts.

FIELD QUALITY CONTROL PROCEDURES

Field duplicates are taken at one sampling site each month, the location of which is constantly rotated. Field duplicates are taken to show both reproducible field sampling as well as reproducible laboratory testing. Sampling results for the field duplicate should be within 20% relative percent difference of the actual site sample results depending on the parameter. A field blank consisting of D.I. water will be included on the same day as the duplicate sample. Sample bottles should be filled with blank D.I. water from unopened containers. Equipment blanks are quality control samples that check for field equipment cleaning and handling as well as proper laboratory techniques. If equipment blank sample results are above the method detection limit, all sampling results for that day may be questionable. Procedures are as follows:

Equipment Blanks

1. Clean sampling equipment as usual.
2. Upon arriving in the field, before taking the river sample, pour the de-ionized water provided into the sample composite bucket. There should be enough de-ionized water used to fill the usual set of sample bottles.
3. Swish the de-ionized water around in the bucket and then fill the bottles on the sample collection apparatus. Return the water from the sample collection bottles to the bucket.
4. Mix the contents of the bucket and divide among the sample containers as is the usual procedure. Make sure all bottles designated as blank are filled.

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5. Make sure the site identification, date, and time of collection are noted on the labels.
Place all samples on ice.
6. Dispose of any remaining de-ionized water and continue sampling as usual.

Field Duplicates

1. Collect the river samples as described in Appendix 1.
2. Fill all the regular sample bottles as usual.
3. Either use fresh sampling equipment or rinse the sampling equipment with D.I. water .
4. Repeat the process treating the second set of samples in an identical manner as the first set.
5. Make sure the site identification, date, and time of collection are noted on the labels of all bottles. Place all samples on ice.

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APPENDIX 3
FOX RIVER WATER MONITORING PROGRAM SAMPLE DATA SHEET

FIELD SAMPLE COLLECTION DATA:

Sample Collectors			
Sampling Location			
Date and Time			
Weather Observations			
Water Temperature °C		pH (S.U.)	
Conductivity (µS/cm)		D.O. (mg/L)	
Number of transect samples composited			
Samplers comments			

CHAIN OF CUSTODY:

Relinquished By	Date / Time	Received By	Date / Time
Relinquished By	Date / Time	Received By	Date / Time
Relinquished By	Date / Time	Received By	Date / Time
Relinquished By	Date / Time	Received By	Date / Time

TRANSPORT TEAM COMMENTS:
