



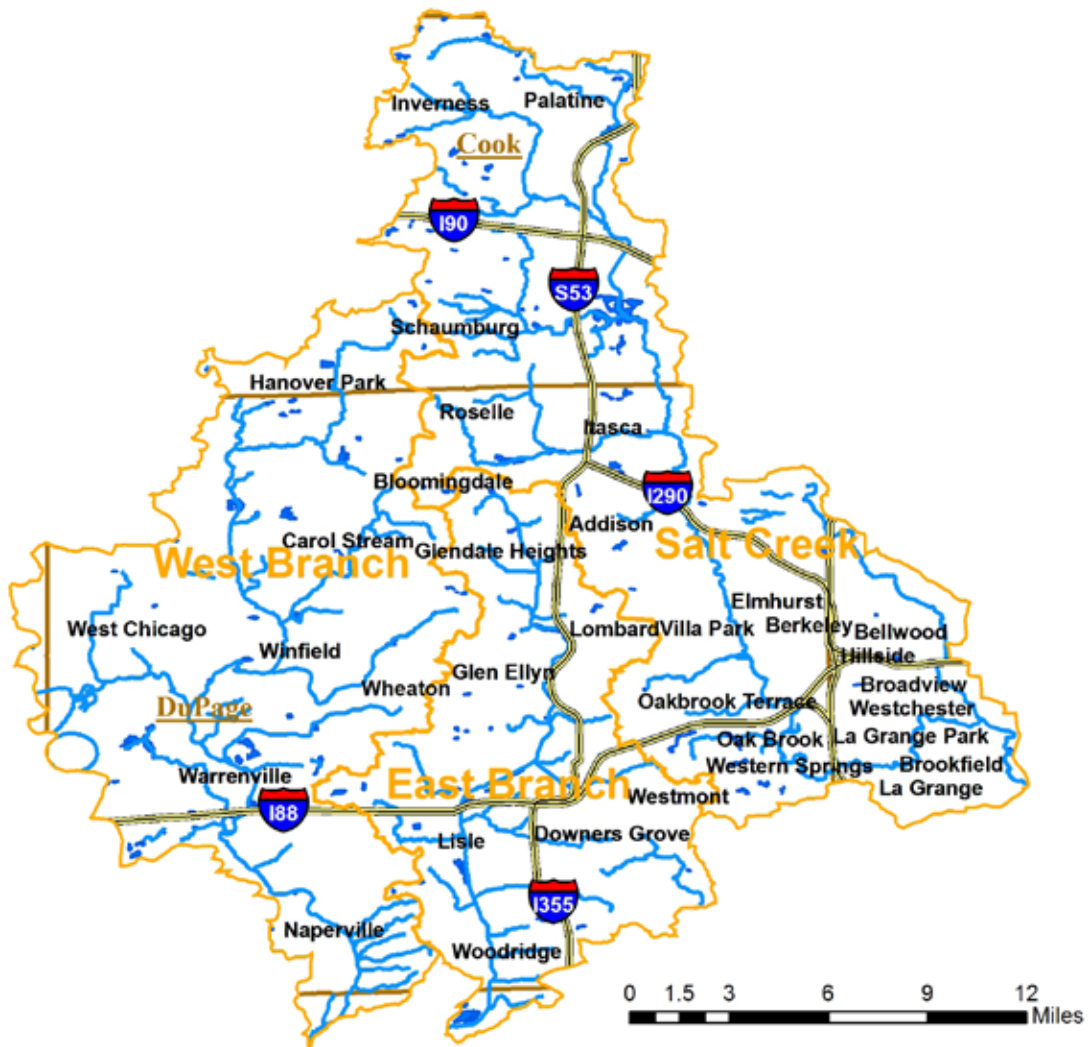
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Restoring DuPage County Rivers

A Status Report on the Health of Salt Creek and
the East and West Branches of the DuPage River



Ongoing Work in the Watershed

Attention paid to the restoration of DuPage County waterways has increased dramatically since the River Prairie Group first highlighted the rivers' troubles in its 2001 report.

First, in 2003, USEPA's Municipal Stormwater Management Program went into effect. DuPage County and its municipalities work together to address this program's requirements to reduce pollution from nonpoint sources through the DuPage County Water Quality Stakeholders Group. (For more information on the Municipal Stormwater Management Program, see Sierra Club's report *When It Rains, It Drains* at Illinois.sierraclub.org.)

Second, the Illinois EPA completed cleanup plans (see TMDL section below) in 2004 that led to the formation of the DuPage River Salt Creek Workgroup which has taken the lead in implementing a cleanup plan for the county's three waterways.

Last, cleanup efforts are underway to remove radioactive thorium in the West Branch DuPage River watershed, and restoration efforts above and beyond the cleanup are being executed.

Introduction

The south-flowing streams of DuPage County are a result of the last glaciation of the area 13,000 years ago. Later, Native Americans and then European immigrants moved into the area. By the early part of the 20th century, towns had sprouted along the three rail lines that traverse the county, while the rest of the county was farmed. After WWII, people began flocking to the newly suburbanizing area, which grew to have the second largest population in the state. Consequently, the landscape of DuPage County was converted first from native prairie and wetland to farmland, then to homes, roads, and businesses. In the process, over 90% of the county's original wetlands were lost, and 51% of its streams were channelized. Today the water quality of Salt Creek and the East and West Branches of the DuPage River reflect the urbanization of the county. All three fail to meet state water quality standards, and clean-up plans are underway. This document is an update of Sierra Club- River Prairie Group's 2001 Troubled Waters in DuPage County report and presents the group's latest river testing results as well as the progress being made in restoring the county's rivers to good health.

The River Monitoring Project: Sierra Club's Investment in DuPage County

DuPage County's local Sierra Club group, the River Prairie Group, conducts water tests on rivers throughout the county. Their River Monitoring Project, launched in January 2000, performs quarterly and monthly testing on a number of sites in Salt Creek and the East and West Branches of the DuPage River¹. Most aspects of the tests are performed by local Sierra Club volunteers². The group summarizes the test results on their website, to educate DuPage residents about the waterways in their backyards³. The test data are also valuable to researchers, educators, and policymakers, and have ongoing value, providing a baseline against which the rivers' water quality can be analyzed in the future.

River samples are routinely tested for four chemicals (phosphate, nitrate, ammonia, chloride), temperature, pH, and in some areas, dissolved oxygen, radioactive isotopes, and mercury. The first four chemicals pose the greatest threat to DuPage County's watersheds, but it is worth noting that the first two are not poisons – in fact, they are just the opposite. Categorized as “nutrients”, phosphate and nitrate act as fertilizers that feed algae and aquatic plants, and in sufficient concentrations, fuel their overgrowth, suffocating fish and other river life. Ammonia, too, acts as a fertilizer, but in addition, it is highly toxic to aquatic organisms. Besides their use as landscaping and agricultural fertilizers, ammonia, phosphorus and nitrate are also present in sewage treatment plant discharges. So, too, to a lesser degree, is chloride, but its primary source in DuPage County rivers is road salt runoff in wintertime.

Point source pollution comes from specific sources such as sewage treatment plants or industrial facilities that literally have a point (a pipe) from which they discharge wastewater into a body of water.

Non-point source pollution is pollution that enters streams in rain and snowmelt runoff from lawns, streets, and farmland. Examples include urban runoff of motor oil, road salt, lawn fertilizers, and pesticides into storm drains during storm events.

¹ Hereafter, the East Branch and West Branch are collectively referred to as DuPage River branches.

² River samples are analyzed using Hach Chemical Co. tests with a Hach 2010 spectrophotometer and a digital titrator as well as a pH probe and thermometer. Measurements of radioactive isotopes and mercury are performed by a commercial lab.

³All river monitoring data collected by River Prairie Group volunteers are posted at the group's website at illinois.sierraclub.org/rpgwatermonitorproj.htm. The group also provides their data to the Illinois EPA and the DuPage River Salt Creek Workgroup for use in their river assessment programs.



The Watersheds of DuPage County

The DuPage River Watershed covers major portions of DuPage and Will counties, and minor portions of Cook, Grundy, Kane, and Kendall counties. The river’s headwaters consist of east and west branches. The East Branch originates in Bloomingdale’s West Lake, and the West Branch in Schaumburg. The two branches meander south until Bolingbrook, where they converge as the DuPage River just south of the Will-DuPage county line. The DuPage River flows south to its confluence with the Des Plaines River in Channahon.

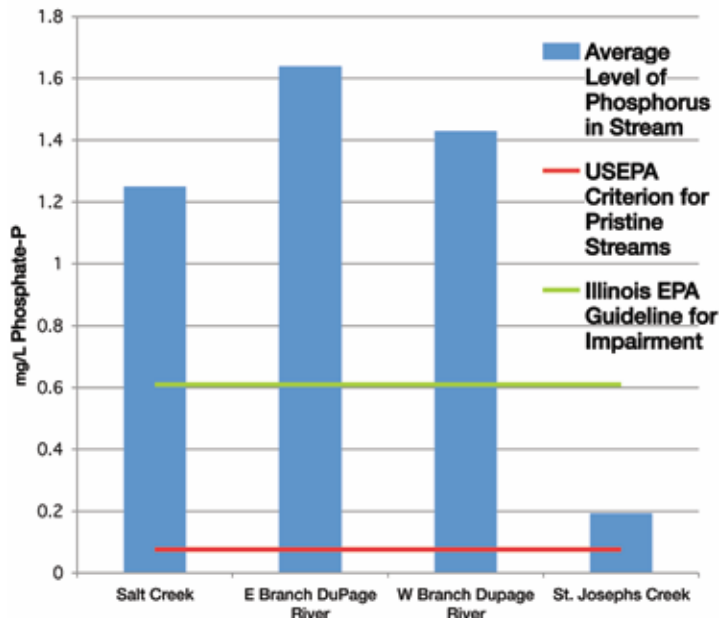
	<i>Stream Length</i> <i>miles</i>	<i>Watershed Area</i> <i>square miles</i>
East Branch of DuPage River	24	79
West Branch of DuPage River	35	127
Salt Creek	40	150

The Salt Creek Watershed lies just east of the DuPage River Watershed. Salt Creek runs from Palatine south to Lyons, traveling approximately 40 miles before emptying into the Des Plaines River.

The Des Plaines River, in turn, empties into the Illinois River, which empties into the Mississippi River, which empties into the Gulf of Mexico. In this way, the River Monitoring Project embodies the adage, “think globally, act locally”.

eutrophication (noun): the process by which a body of water becomes enriched in nutrients that stimulate the growth of algae and other aquatic plant life often resulting in the depletion of dissolved oxygen.

**Average Phosphorus Levels
January 2000 - October 2007**



River Monitoring Project Results

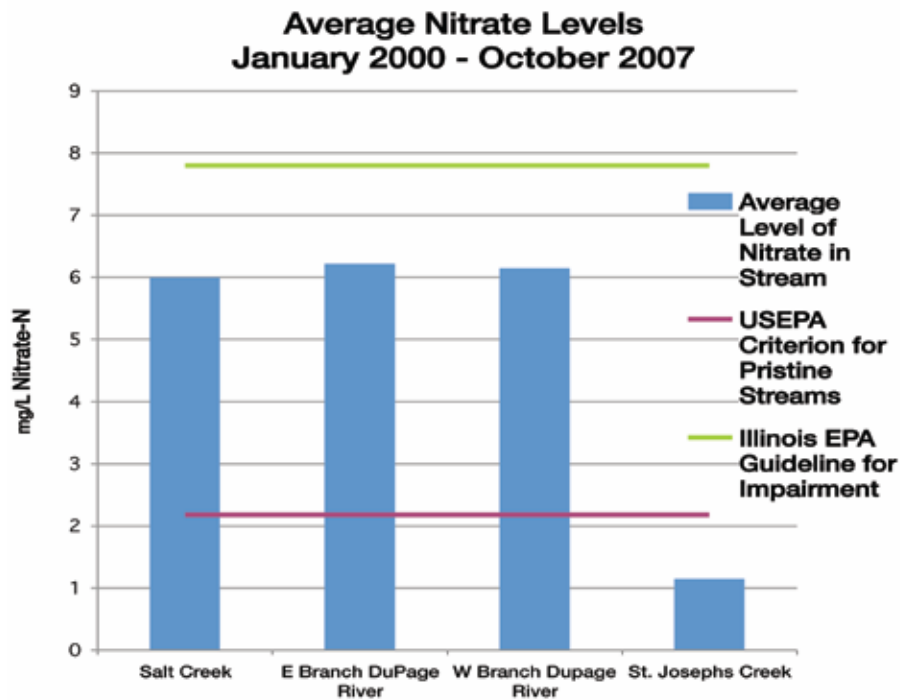
River Prairie Group volunteers routinely test DuPage County waterways for phosphate, nitrate, ammonia, and chloride¹. Temperature and pH measurements are also taken. Dissolved oxygen, radioactive thorium and radium as well as mercury levels are being measured as part of special projects on the West Branch of the DuPage River.

Phosphorus: Phosphorus is a key element for animal and plant growth.

¹ Testing does not include all potentially harmful pollutants in these streams. There are many pollutants, such as heavy metals, organic chemicals, pesticides, endocrine-disrupting chemicals, and others, which may cause serious problems in these waterways, but their sophisticated and expensive test methods exceed River Prairie Group’s resources.

At normal levels, it is necessary for the growth of algae and aquatic plants that provide food for fish and other aquatic consumers. However, when excessive levels of phosphorus and other nutrients are found in bodies of water, a state of over-fertilization called eutrophication occurs. These excessive fertilizers may cause an over-growth of algae and aquatic plants, which choke waterways and consume large amounts of oxygen. Such low oxygen levels can cause the suffocating death of aquatic life.

Phosphorus pollution enters Salt Creek and the DuPage River branches in sewage treatment plant effluent and in runoff from fertilized lawns and farm fields. Sewage treatment plants discharge into DuPage County's streams on a daily basis, and while they are required to control for many different pollutants, Illinois did not require plants discharging into rivers and streams to control, or even monitor, the levels of phosphorus until recently.



The average levels of phosphorus (as phosphates) that the River Prairie Group has detected in Salt Creek and the DuPage River branches over a six-year period consistently exceed the Illinois EPA Guideline for Impairment of 0.61 mg/L total phosphorus, often reaching levels of three or four times that value. Only St. Joseph's Creek, a tributary to the East Branch, had low levels of phosphorus (0.2 mg/L phosphate-P on average). All monitored sites on Salt Creek and the DuPage River branches had levels of phosphorus exceeding the statewide average of 0.38 mg/L with the highest levels found in the East Branch of the DuPage River. U.S. EPA considers phosphorus levels of 0.0765 mg/L to be indicative of pristine streams in the Midwest ecosystem.

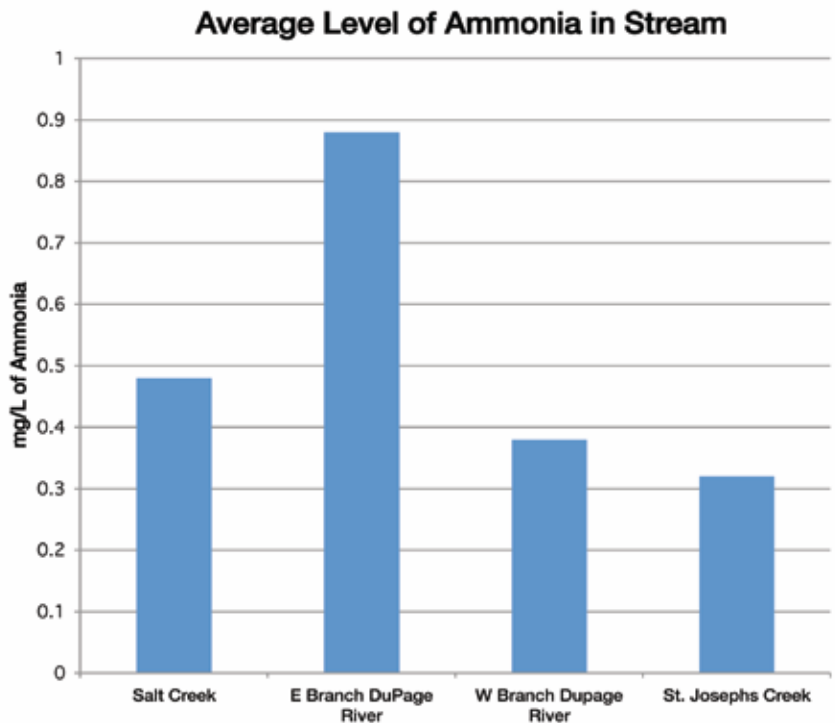
TMDL Completion

Short for Total Maximum Daily Load, TMDLs are a calculation of the maximum amount of a pollutant that a body of water can receive and still meet water quality standards. The calculation must include a margin of safety to ensure that the waterbody can be utilized for its designated uses set by the state. A tenet of the Clean Water Act of 1972, TMDLs set pollution reduction goals that are necessary to improve the quality of impaired waters, and its watershed approach considers all potential sources of pollutants, both point and non-point. For example, Salt Creek's TMDL for chloride is 74 million pounds per year; an estimated 8% reduction in chloride runoff is needed to achieve this goal.

Illinois EPA issued multiple TMDLs for Salt Creek and the DuPage River branches in 2004. The TMDLs addressed violations of Illinois's water quality standards for conductivity, chloride, copper, and dissolved oxygen. The goal of Illinois TMDLs is to achieve better water quality and balanced, healthy ecosystems overall, and to have a positive impact on the quality and quantity of fish and animals that depend on these waters for habitat, food, breeding and survival.

In 2006, additional pollution problems were identified in DuPage County waterways. Beginning in Fall 2007, TMDLs are scheduled to be developed for a number of other parameters where water quality violations have been measured, including pH, fecal coliform, sulfates, silver, nickel, and zinc.

Nitrates: Like phosphorus, nitrogen-containing compounds are nutrients. They become harmful if they induce fertilization to the point of eutrophication, causing the overproduction of algae and aquatic plants, and the subsequent depletion of oxygen and suffocation of other organisms. In addition, consistently elevated levels of nutrients can contribute to aesthetic problems that make the streams unpleasant for neighbors and recreation in the summer months. Excess nutrients can result in a pea-green color of the water, unpleasant odors and a buildup of muck on the bottom of the river, blocking canoes and fishermen.



Major sources of nitrogen in water are sewage treatment plant and industrial wastewater effluent, septic fields, animal wastes (livestock, birds, mammals and fish), fertilizers and vehicular exhausts. Nitrate levels in water fluctuate by season with spring concentrations usually higher after snowmelt. Higher nitrate levels may also occur following heavy rainfall.

While the nitrate levels in the Salt Creek and the DuPage River branches are safely below the Illinois Water Quality Standard for drinking water (10 mg/L Nitrate-N) and the Illinois EPA Guideline for Impairment for aquatic life (7.8 mg/L Total Nitrogen), they are well above the average level found in Illinois streams (3.89 mg/L Nitrate-N). However, a tributary to the East Branch DuPage River, St. Joseph's Creek, has consistently displayed nitrate levels below the U.S. EPA Total Nitrogen Criterion for Pristine Streams (2.18 mg/L). This data may indicate that lower, healthier levels could be achieved by the remainder of the river.

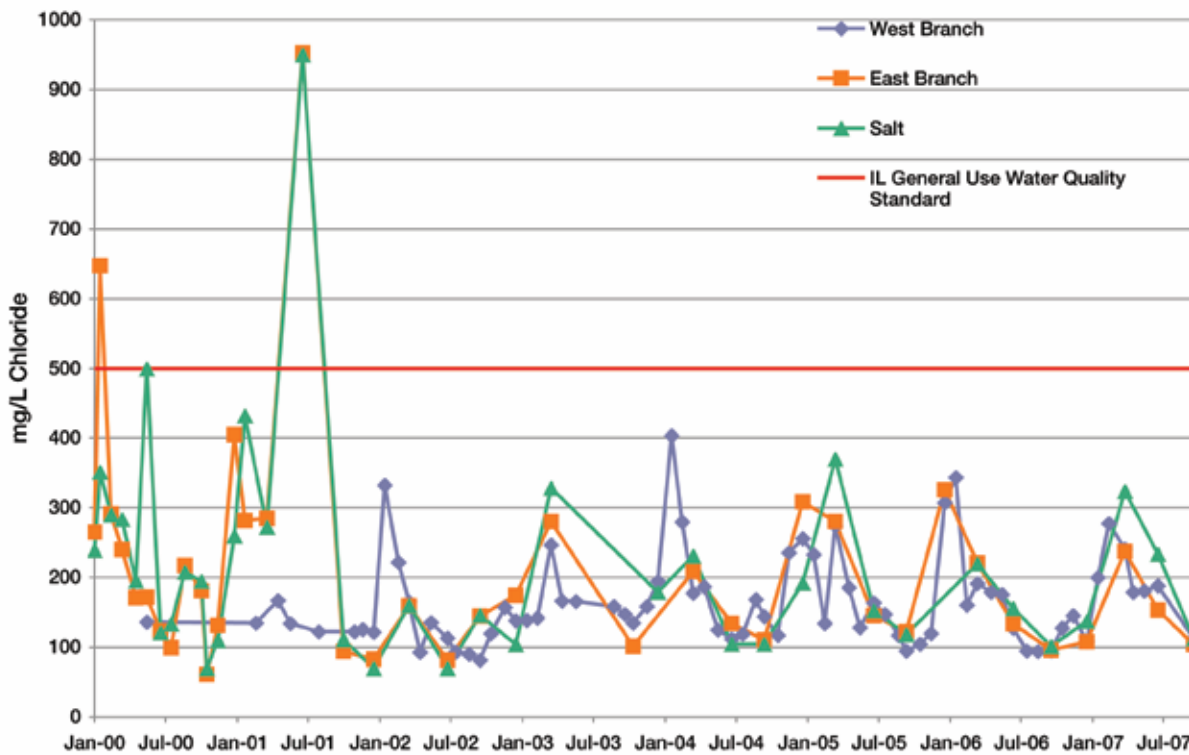
Ammonia: Ammonia is a gas which is fairly soluble in water and reacts with it to form a weak base. Ammonia becomes more toxic as the pH of the water increases and may then negatively affect the hatching and growth rates of fish. Structural development problems in the gills, livers and kidneys may also occur with increasing ammonia concentrations at high pH levels. It has been determined to be toxic to freshwater organisms in concentrations in the range of 0.53 to 22.8 mg/L (toxicity is both pH and temperature dependent). Like phosphorus and nitrate, ammonia is also a nutrient which feeds the growth of algae and plants, and thus can contribute to eutrophication.



Fertilizer production accounts for nearly three-fourths of the ammonia produced in the U.S. Ammonia is used to remove carbonate from hard water and is found in domestic wastewater.

The State of Illinois has established a total ammonia limit of 15 mg/L with lower site-specific limits based on the pH and temperature of the water. All samples tested by our group had levels below the state's Water Quality Standard for ammonia, indicating that sewage treatment plants in the watersheds are doing a good job of removing this toxin from their discharges (although most samples exceeded the average level found in Illinois streams of 0.32 mg/L). While no water quality violations were found, the East Branch DuPage River is clearly carrying higher levels of ammonia than the other streams in DuPage County

Chloride Levels in DuPage County Streams



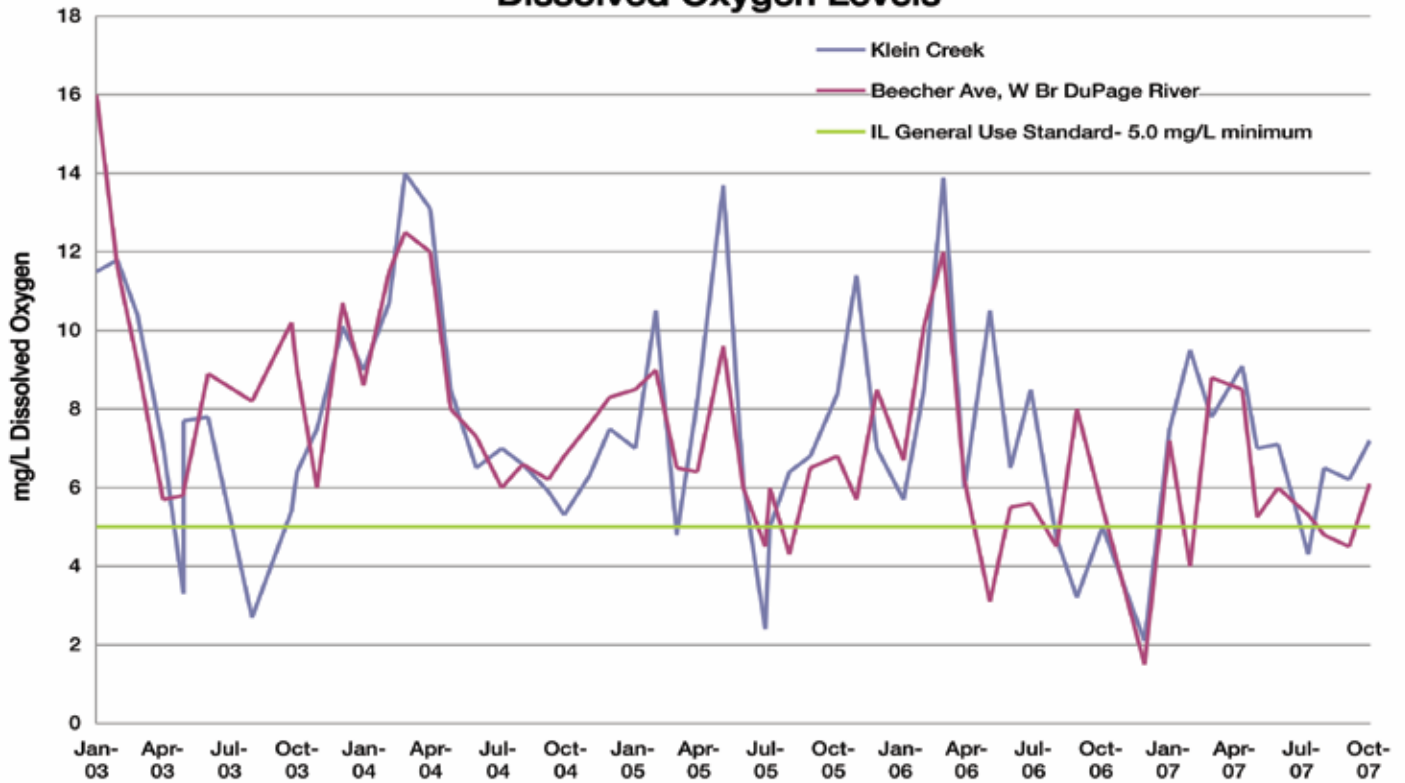
Chloride: Chloride salts are essential for life and normal cell function. However, when high levels of chloride contaminate fresh water streams and lakes, it becomes toxic to fish and other aquatic life forms.

Chlorides may enter surface water from rocks, agricultural runoff, industrial wastewater, wastewater treatment plant effluents and, most significantly, wintertime road salts.

The levels of chlorides detected in Salt Creek and the DuPage River branches fluctuate from season



Dissolved Oxygen Levels



to season. Many winter test samples exhibit elevated levels of chlorides, sometimes violating the state’s Water Quality Standard of 500 mg/L, the result of road salt runoff after a snowfall. Conversely, samples taken in the summer months reveal relatively low levels. The Illinois EPA has listed all three streams as impaired due to high chloride levels.

Dissolved Oxygen: Oxygen dissolved in water is essential to all aquatic life. The amount of oxygen found in DuPage County streams is dependent both on physical and biological factors. First, oxygen solubility in water is temperature dependent; cold water holds more dissolved oxygen than warm water. Second, aquatic organisms can influence the level of oxygen in water. During the daytime, aquatic plants and algae performing photosynthesis consume carbon dioxide and release oxygen directly into the water. At nighttime, plants and algae change gears and join aquatic animals in the process of respiration, consuming oxygen and releasing carbon dioxide. If algae colonies are sufficiently numerous, they can overtax the system and send nighttime dissolved oxygen levels plunging; the following day, dissolved oxygen levels rebound as the aquatic plants and algae resume photosynthesis. Thus, aquatic animals are at all times dependent on sufficient oxygen in the water for their survival. To ensure this, Illinois currently has established a water quality standard that the dissolved oxygen level never fall below 5 mg/L.

Problems with low dissolved oxygen levels can occur under conditions of eutrophication. When algae and aquatic plants grow abundantly due to over-fertilization by nutrients (such as phosphorus, nitrate, and ammonia) to the streams, levels of oxygen in the water can become depleted during night hours when animals and plants and algae all respire. The result is suffocation death of fish and other aquatic organisms.

Low dissolved oxygen levels can also result when organic pollution enters a river. As bacteria decompose organic material, they, too, consume large quantities of oxygen and can reduce the amount of dissolved oxygen to levels dangerous for aquatic life. In fact, one aspect of the EPA’s

2003 municipal stormwater management program addresses this issue by stressing the need to reduce the quantity of leaves entering watersheds during the fall.

A special study of dissolved oxygen levels in the West Branch DuPage River watershed was begun in 2003. At that time, the Illinois EPA had identified problems with low dissolved oxygen levels in both Salt Creek and the East Branch of the DuPage River but not for the West Branch. River Prairie Group testing documented dissolved oxygen levels below the state's minimum of 5.0 mg/L. In its 2006 Illinois Integrated Water Quality Report, Illinois EPA now lists the West Branch as failing to meet the state's water quality standard for dissolved oxygen.

	Measured pH range
East Branch DuPage River	6.8-8.7
West Branch DuPage River	6.5-8.3
Salt Creek	6.5-8.3

pH and Temperature: pH and temperature measurements are also routinely taken. pH is a measure of the acidity/alkalinity of the water, with a pH of 7 indicating neutrality. Aquatic organisms are generally adapted to pH levels near neutral; thus, the state's water quality standard requires pH levels in the range of 6.5-9.0. pH measurements on all streams fell within the state's standard. In addition, both parameters are needed to determine if measured ammonia levels are meeting site-specific standards that are based on the pH and temperature of the water.

Radioactive Thorium: Another special study was started in 2005 when cleanup of the radioactive thorium superfund site in the West Branch DuPage River watershed began. (See Superfund Thorium Cleanup in the Ongoing Work in the Watershed sidebar.) After storm events, a river water sample is taken and sent to a laboratory for analysis. Samples are tested for radioactive radium (Ra-228) and thorium (3 isotopes: Th-228, Th-230 and Th-232) as well as mercury levels. All samples tested during 2005 and 2006 were within background levels.

Healthy DuPage County Streams—Still A Way to Go

The River Prairie Group's river testing highlight areas where pollution control efforts are succeeding and other areas that still require attention. Among the successes are:

- Ammonia levels in DuPage county streams are within water quality standards, indicating that sewage treatment plants discharging into the streams are doing a good job of removing this aquatic life toxin.
- Radioactive thorium and radium have not been detected downstream of the superfund cleanup efforts on the West Branch, indicating that this project is being well-managed.



However, eutrophication remains a major concern of the county's streams:

- Nutrient levels are high.
Phosphate levels average over four times the typical level found in the state.
Nitrate levels are also higher than the average found in the state.
- Dissolved oxygen levels that fail to meet the state's current minimum standard have been recorded.

In addition, road salt runoff is evident year after year as chloride levels in streams rise during winter months.

While in-stream measurements of pollutants do not yet indicate progress, the climate for achieving improvements in the quality of DuPage County streams has definitely improved since the River Prairie Group last reported on their status in 2001.

Most significantly, a number of local efforts are underway studying the problems of the rivers and developing solutions. These include-

- DuPage River Salt Creek Workgroup
- DuPage County Water Quality Stakeholders Committee

The activities of these two groups are described in the Ongoing Work in the Watershed sidebar and the importance of broad participation in these efforts is made clear in the Call to Action section below.

Healthy DuPage County Streams—A Call to Action

Clearly action is needed at all levels of government and by the citizens of DuPage County if the county's streams are to be restored to good health.

State Actions Have Helped/More Help Needed

Since 2001, a number of actions by the Illinois EPA and state legislators have addressed the pollutant problems that continue to plague DuPage streams. These include:

- Completion of TMDLs for Salt Creek and the DuPage River branches by the Illinois EPA in 2004. (See Ongoing Work in the Watershed sidebar)- These studies led to the formation of the DuPage River Salt Creek Workgroup and the active participation of local stakeholders in determining the best ways to resolve the dissolved oxygen and chloride impairments of the rivers.
- In 2006 Illinois EPA adopted an interim phosphorus effluent standard which requires new and expanding sewage treatment plants to reduce phosphorus in their discharges to 1 mg/L.



Earlier this year the state legislature passed a law that requires phosphorus levels in dishwasher detergent be reduced to no more than 0.5% by weight, starting in 2010.

Additional actions by the Illinois would also aid in addressing the problems of DuPage streams:

- Illinois EPA needs to proceed with its plans to recommend nutrient water quality standards to the Illinois Pollution Control Board in 2008.
- Illinois EPA should continue to fund the work of the DuPage River Salt Creek Workgroup by matching locally-raised funds with federal funds which the Agency receives through the 319 grant program.

Municipalities Can Help Reduce Pollution

In an urbanized area like DuPage County, the role of municipalities and other local governmental bodies is critical to the restoration of the county's waterways.

- The active participation of DuPage County government, the Forest Preserve District of DuPage County and all municipalities and sanitary districts in the county in both the DuPage River Salt Creek Workgroup (DRSCW) and the DuPage County Water Quality Stakeholders Committee is a major avenue towards the restoration of the quality of DuPage County's waterways. By working together with watershed, conservation, and environmental groups these efforts offer the best chance

DuPage River Salt Creek Workgroup

www.drcw.org

The DuPage River Salt Creek Workgroup is a local group comprised of communities, publicly-owned wastewater treatment works and environmental organizations organized to implement the TMDLs developed for Salt Creek and the DuPage River branches. They have come together to better determine the stressors to the aquatic systems through a long-term water quality monitoring program. The group will then develop and implement projects to address those stressors. The group plans to preserve and enhance water quality in the rivers by collecting water quality data, investigating the options available to meet water quality standards and implementing a coordinated effort to install best management practices in the watershed, including such as dam removal etc.

The group is currently working on a Non-point Source Pollution Control Program with a \$597,000 grant from the Illinois EPA to continue to study the DuPage River and Salt Creek watersheds through Aug. 31, 2008. Specifically, it will expand the local dissolved oxygen monitoring system, complete a biological habitat assessment and dissolved oxygen improvement feasibility study.

The River Prairie Group is an active member of the Workgroup, heading up the Salt Creek subcommittee and serving on the group's Executive Committee.

DuPage County Water Quality Stakeholders Committee meets to address the compliance of the county and municipalities with the USEPA's urban stormwater management program. This group has recently completed a manual of best management practices designed to reduce pollution from developed areas. They are currently meeting semi-monthly on the detection and elimination of illicit discharges to storm sewers.

West Branch DuPage River Superfund Thorium Cleanup and Restoration Plans

History

From 1931 to 1973, the Rare Earths Facility in the City of West Chicago processed thorium ore for a variety of uses, and radioactive waste found its way into the local environment in two ways. First, the facility made its contaminated waste tailings available as landfill to local homeowners, builders, and the city's sewage treatment plant; most of these affected areas were cleaned up in the 1990s. Second, the tailings stored onsite regularly washed into a storm drain feeding Kress Creek (a tributary to the West Branch of the DuPage River) contaminating the sediment, banks, and floodplains of both waterways.; this cleanup project is currently underway. Radioactivity surveys performed by the Nuclear Regulatory Commission and the EPA resulted in placing the facility and offsite affected areas on the Agency's National Priorities List ("Superfund") in 1990 and 1991. Now, almost eight miles of creek and river sediment, banks and floodplain soils that were contaminated by radioactive thorium waste material are being cleaned up and restored. The River Prairie Group is monitoring the cleanup.

Cleanup Details www.epa.gov/region5/sites/kerrmcgee/index.htm

In its agreement with the US EPA, the facility's current owner Tronox (formerly Kerr-McGee) is obligated to excavate all contaminated material within the streambed, banks and floodplains of Kress Creek and the West Branch of the DuPage River. Using strict safety protocols and monitoring stations, sites are cleared of vegetation and excavated. Contaminated material, which is expected to total 77,000 cubic yards of low-level nuclear waste, will be shipped by rail to a facility in Utah that is licensed to handle such waste. The cleaned site is then ready for restoration. Tronox will also be required to repair any damage caused to vegetation, banks and waterways as a result of its cleanup activities, as outlined in its Conceptual Restoration and Mitigation Plan:

- Restore stream banks utilizing bio-engineering techniques
- Remove in-stream sediment deposits
- Improve in-stream structure for aquatic habitat
- Reestablish diverse and healthy floodplain forests through management
- Replant disturbed or mitigated areas
- Diversify landforms and ecological communities

When it is completed later in this decade, the Superfund project will have cost \$74 million and will have cleaned up an eight mile stretch of river from the City of West Chicago to the McDowell Dam in northern Naperville. The West Branch of the DuPage River and Kress Creek are the last areas of radioactive contamination in the vicinity of the Rare Earth's Facility remaining to be cleaned.

for multiple stakeholders to come together, make critical decisions, and implement projects to address the waterways' current problems with low dissolved oxygen levels, a complex issue. The Workgroup is doing a good job of exploring opportunities such as dam removal for its benefits for both raising dissolved oxygen levels and improving instream habitat. Sierra Club- River Prairie Group is proud to be an active participant in the Workgroup and to participate in the Stakeholders Committee.

- Reducing road salt usage is a key to addressing the current problems of chloride pollution in DuPage County's streams. Sierra Club- River Prairie Group applauds the efforts of municipalities such as Carol Stream, Downers Grove and Hanover Park which employ anti-icing practices which reduce salt use. The Village of Glen Ellyn has invested in calibrated salt spreaders to reduce oversalting. In addition, the DRSCW has funded a Chloride Usage Education and Reduction Program Study which is developing recommendations and an implementation plan for alternative products and practices designed to reduce chloride use in the county.

- Promoting infiltration of stormwater into the ground will help reduce pollution of our waterways by reducing urban runoff. Sierra Club encourages continued efforts such as the county's seminar on permeable pavers, the Conservation Foundation's sale of rain barrels and incentives for rain gardens. Municipalities could emulate the Rock Island, Illinois program which helps homeowners fund the installation of rain gardens on their properties.

www.rigov.org/citydepartments/publicworks/raingarden.htm

- Sierra Club recommends that DuPage County and its municipalities consider a ban on the use of lawn fertilizer containing phosphorus. Illinois soils typically contain sufficient phosphorus for turf grass growth, and phosphorus-free fertilizers are available. In recent years more and more areas have limited the use of phosphorus in lawn fertilizers to prevent its runoff to streams and lakes. These include the State of Minnesota, Dane County, Wisconsin and the villages of Antioch, Illinois and Twin Lakes, Wisconsin as well as a number of homeowner associations in Illinois (Countryside Lake, Loc Lomond, Lake Holiday).
- Vegetated buffers along DuPage County streams capture pollutants in runoff and prevent them from entering the water. Thus, Sierra Club encourages the county, forest preserve district, and municipalities to continue to established greenways along all area waterways.
- Construction sites have a high potential for soil erosion and runoff of sediment into storm sewers and ultimately into DuPage County streams. It is imperative that the county and municipalities do their utmost to control stormwater runoff from construction sites. Under the Illinois EPA's municipal stormwater management program, each town is required to develop, implement, and enforce a program to reduce pollutants in any storm water runoff from construction activities. Each town must see that construction site operators implement appropriate erosion and sediment control best management practices which they have described in the storm water pollution prevention plan developed for the site. Each town must also have procedures for accepting concerns about poor construction site practices from the public. Sierra Club encourages towns to vigorously enforce the DuPage County Stormwater Management Plan and to provide residents with an opportunity to help monitor construction sites. The Village of Itasca is publicizing a contact number in their village newsletter which residents can use to report stormwater issues including construction site erosion control violations and illicit discharges.

You Can Help Reduce Pollution

Residents of DuPage County can help restore the quality of their waterways by reducing the use of pollutants that end up in the streams. Homeowners play a critical role in reducing nonpoint source pollution runoff from lawns, houses, parking lots, and streets by remaining mindful that runoff into storm drains flows directly to rivers without treatment. Thus, the most effective means of reducing



River Prairie Group Monitoring of Cleanup

The River Prairie Group has taken on a watchdog role in this effort by taking river samples in the vicinity of ongoing excavations after storm events. These samples are analyzed by an independent lab. As reported in the River Monitoring Project Results section, no radioactivity above background levels has been found.

West Branch River Restoration

www.dupageco.org/dec
click 'West Branch River Restoration'

DuPage County received a \$10 million grant from the National Oceanic and Atmospheric Administration to help restore and improve natural areas in the West Branch River Valley in conjunction with the Superfund cleanup. The grant will include the restoration of wide landscapes and bring further environmental improvements to the area.

Specific projects include:

Creation of vernal pools where soil excavation is needed to rebuild riverbanks

Creation of a deep, overwintering pool for fish

Creation of a side channel to provide suitable habitat for reintroduction of native mussels

Removal and restoration at Warrenton Grove dam

Establishment of an urban stream research center

Development of educational kiosks

nonpoint source pollution is to minimize your use of pollutants such as fertilizers, cleaners, and road salt. Reduce salt use: Merely using less road salt on your property in the winter months reduces excess chloride in surrounding watersheds. Gravel, sand and kitty litter are alternatives which can be safely swept onto lawns in the spring.

Reduce fertilizer use: Many people over-fertilize simply because they are unaware of the existing health of their lawn. Get your soil tested at the Kane County Farm Bureau by calling 630-584-8660 and find an environmentally friendly fertilizer that is right for your lawn or use natural fertilizers such as compost, manure, bone meal or peat. Unless you have a soil test which says your lawn is deficient in phosphorus, purchase a fertilizer that contains no phosphorus.

Use phosphorus-free dishwasher detergents: Phosphorus is not essential for effective cleaning of your dishes and eating utensils, whether in your home or favorite restaurant. The March 2005 issue of Consumer Reports stated that enzymes, not phosphorus, are responsible for successful automatic dishwashing detergent performance. An estimated 1,200 tons per year of phosphorus will be eliminated from sewage entering municipal wastewater treatment plants in Illinois when the use of dishwashing detergents containing phosphorus is abolished in 2010. In the meantime, you can find phosphorus-free automatic dishwashing detergents at health food stores and organic sections of most grocery stores.



Capture rooftop runoff: Collecting the rainwater that falls on your home's roof is another way to reduce stormwater runoff to streams. Rainwater diverted from gutter downspouts can be collected in rain barrels for use in plant and garden watering or can be directed to a rain garden. The Wisconsin Dept. of Natural Resources has produced a how-to manual on rain gardens for homeowners: www.dnr.state.wi.us/org/water/wm/dsfm/shore/documents/rgmanual.pdf. Rain barrels can be ordered from The Conservation Foundation (www.theconservationfoundation.org).

Grasscycle: Grasscycling is the practice of leaving clippings on the lawn when mowing. The clippings quickly decompose, returning nutrients to the soil. This reduces water loss from the lawn and the need for phosphorus and nitrogen-containing fertilizer.

Use native landscaping: Native plants, which are adapted to Illinois' climate and soils, require no fertilizer and can withstand drought conditions without watering. Information on native species can be found at the websites of the Morton Arboretum's (www.mortonarb.org) or The Conservation Foundation. The River Prairie Group holds an annual native plant sale- see illinois.sierraclub.org/rpg

Proper disposal: Generally, anything that enters a storm drain flows directly, without treatment, into local creeks, streams, rivers, and eventually, the ocean. To dispose of oil, fertilizer, pesticides, paints and solvents, visit illinois.earth911.org, type in your city, state, and zip code; and the website will provide locations, dates and times for drop-off.

To learn more about the River Prairie Group and its many programs, visit illinois.sierraclub.org/rpg





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All photos courtesy of Forest Preserve District of DuPage County