REPRINT

Maumee River

Remedial Action Plan

Profiling Ottawa River
A Public Discussion

September 8, 1994
Friendship Park—Toledo, Ohio

This document was prepared by the Toledo Metropolitan Area Council of Governments with funding from member local governments, and was financed in part by grants from the U.S. Environmental Protection Agency, through the Ohio Environmental Protection Agency under §§ 604(b) and 104(b)3 of the Clean Water Act as amended in 1987.

TOLEDO METROPOLITAN AREA
COUNCIL OF GOVERNMENTS
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REPRINT

A PUBLIC DISCUSSION

PROFILING THE OTTAWA RIVER

FRIENDSHIP PARK SENIOR CENTER
2930 - 131st Street
Toledo, Ohio

THURSDAY, SEPTEMBER 8, 1994 - 7 to 9 p.m.

WHAT DO WE DO AND WHO IS GOING TO PAY?
Moderator: Maggie Moore, WSPD - Radio Personality

PANEL:

PERMITTED POINT SOURCES
Elizabeth Wick, Engineer, Ohio Environmental Protection Agency

OVERVIEW OF UNCONTROLLED SOURCES
Jeff Wander, Engineer, Ohio Environmental Protection Agency

WHAT NEEDS TO BE DONE WITH COMBINED SEWER OVERFLOWS
Kurt Erichsen, Sanitary Engineer, TMACOG

AQUATIC HEALTH OF THE RIVER
Tom Balduf, Biologist, Ohio Environmental Protection Agency

HEALTH AND SAFETY ISSUES
Dr. Kim Mortensen, Ohio Dept. of Health

PROBLEMS WITH EAGLE PRODUCTION
Mark Shieldcastle, Biologist, Ohio Dept. of Natural Resources

DURA's LEACHATE TREATMENT SYSTEM and WALL
Rob Peterson, Cousins Waste Control Corp.

STATUS OF TYLER and STICKNEY DUMPSITES
Tom Barounis, Environmental Scientist, US EPA

OVERVIEW OF THE REMEDIAL ACTION PLAN (RAP)
Lee Pfouts, Chairman, Maumee River Implementation Committee

Sponsored by DUMPS and LANDFILLS Group of

MAUMEE RIVER REMEDIAL ACTION PLAN IMPLEMENTATION COMMITTEE

Toledo Metropolitan Area Council of Governments (TMACOG)
123 Michigan Street
Toledo, Ohio 43624
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Permitted Point Sources Flowing into the Ottawa River

Elizabeth Wick
Ohio Environmental Protection Agency
Division of Surface Water

PERMITTED POINT SOURCES

Elizabeth Wick
Division of Surface Water
Ohio EPA, Northwest District Office

There are at least seven entities that discharge to the Ottawa River under National Pollutant Discharge Elimination System (NPDES) Permits issued by Ohio EPA. These entities are:

1. Hoffman Road Landfill
2. Perstorp Polyols, Inc.
3. Textileather Corporation
4. Chrysler Corporation
5. France Stone Company, Sylvania Quarry
6. Centennial Manor Mobile Home Park
7. B.P. Oil Company, Toledo Terminal

There are also five combined sewer overflows (CSO) and two separate sewer overflows (SSO) that discharge to the Ottawa River during rain events. Occasionally, the city will use portable pumps to relieve the sewer system in the Point Place area and prevent basement flooding. The overflows are listed in the NPDES permit for the city of Toledo as follows:

1. 290th St. at Ottawa River Road Pump Station (SSO)
2. 145th at Edgewater Drive Pump Station (SSO)
3. Lagrange Street and Manhattan Blvd. (CSO)
4. Windemere and Manhattan Blvd. (CSO)
5. Detroit Ave. and Philips Ave. (CSO)
6. Lockwood Ave. and I-75 (CSO)
7. Ayers Ave. and South Cove Blvd. (CSO)

A brief discussion of each permitted entity follows.

Hoffman Road Landfill - This facility has four permitted outfalls for the discharge of stormwater that is free from leachate. They are required to monitor for Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Suspended Solids (TSS), and pH once per month. The flow rate is monitored once per week. Organic parameters are monitored once per year. They have effluent limits for TSS. The most recent violations are documented during the month of January 1994.(TSS)

Perstorp Polyols, Inc. - This facility has one permitted outfall for the discharge of noncontact cooling water. They are required to monitor temperature and flowrate twice per week, pH once per week, and Phosphorus once per month. They also monitor their intake water and are not allowed to have a temperature difference between the intake and the outfall of more than 20 C on any given day. Since the Ottawa River incident, the facility has been monitoring COD daily. The most recent violations are documented during the incident in June and July 1994.

Overview of Uncontrolled Sources

Jeff Wander
Ohio Environmental Protection Agency
Division of Surface Water

OTTAWA RIVER UNCONTROLLED WASTE SITES OVERVIEW

Ottawa River Profile

DURA AVENUE LANDFILL

Dura Avenue Landfill (DAL) is an inactive 70 acre landfill which operated for 28 years, from December 1952 (purchased by City) through June 1980 (termination). Municipal wastes were received for all 28 years. Commercial and industrial wastes were received for 16 years (1952 - 1968). Commercial disposal stopped in July 1968 due to Ordinance No. 554-68. The site is bordered to the north and east by industrial/commercial property and to the south and east by Sibley Creek and the Ottawa River, respectively. The DAL has a total estimated fill volume of 4.65 million yd^3, which may include 750,000 gallons of potentially hazardous liquid waste and 13,000 cubic yards of potentially hazardous solid waste. Groundwater, leachate and soil monitoring show PCBs, volatile and semi-volatile organic compounds and heavy metals. A barrier wall, leachate collection system, and wastewater treatment facility have been constructed to stop the leachate flow into the Ottawa River. A federal court mediation program is currently underway to address the final closure of this landfill.

STICKNEY AVENUE LANDFILL

The Facility is approximately 55 acres in size and is located across the road from the Stickney Avenue Jeep facility. The site is covered with 0 to 3 feet of clay and is overgrown with vegetation. The Ottawa River borders the site to the east and north with over 2500 feet of frontage. The City of Toledo operated the facility as a municipal waste landfill from 1958 to 1986, waste was burned for an unknown period of time. Leachate and soil sampling indicate the presence of several volatile and semi-volatile compounds and heavy metals. Excessive soil erosion and leachate outbreaks exist along the entire landfill perimeter. An Engineering Evaluation/Cost Analysis (EE/CA) emphasizing presumptive remedies (i.e. cap, leachate collection, methane monitoring, and bank stabilization) has been initiated by an industrial group of potentially responsible parties (PRP's). This action has been initiated by the U.S. EPA Superfund program.

TYLER STREET LANDFILL

The Facility is an inactive municipal and industrial landfill that occupies about 77.6 acres in a primarily industrial area. The west end of the Tyler site is currently used by Creekside Auto Parts as an automobile junkyard which has been covered by soil and demolition debris. The east side of the landfill is

SHELLER GLOBE

The facility known as City Auto Stamping, located north of the Ottawa River along Dura Avenue has two property owners, United Technologies Automotive Systems (UT) and City Auto Stamping (CAS). The UT portions of the site occupies 3 acres and is currently inactive. The CAS portion occupies 7 acres which is mostly buildings and parking lot and is an active metal stamping and electroplating facility. Various VOC's, PAH,s and metals have been detected in the analyses of on-site soil samples how ever off site migrations of the contaminants is unlikely due to the lack of migration pathways.

XXKEM/INCORPORATED CRAFTS

The XXKem site is located on 13 acres, formerly occupied by several companies which performed a series of waste solvent recycling operations utilizing distillation as a reclamation process. XXKem is bordered on the west by the Ottawa River, on the north by Stickney Landfill, and on the south by Conrail. It is possible that portions of XXKem may have been used for dumping activities during the early days of Stickney Avenue Landfill operations. Waste disposal activities began as early as 1959 with sludges and waste oil. An emergency removal action took place at this site in 1992/1993 by U.S. EPA. Removal contractors packaged and disposed of 1000+ drums of mixed solvent waste.

NORTHERN OHIO ASPHALT COMPANY

The facility is located on 24 ares adjacent to Ten Mile Creek (i.e. Ottawa River). Approximately 13 of the 24 acres have been disturbed by facility operations. An unlined settling pond 0.16 to 0.25 in size is present onsite which was used prior to 1977 for process water. Water was pumped from Ten Mile Creek, used in the asphalt process, drained to the settling pond and then returned to the creek. This practice was discontinued in June of 1977 when a closed loop system was installed eliminating discharge to Ten Mile Creek. The chemical constituents of the process water discharge to Ten Mile Creek is unknown.

HERBERT E. ORR

The facility is located north of the Ottawa River and occupies approximately 10 acres. The plant consists of one manufacturing building which operated as an electophoric painting, metal stamping, and forging facility. Plant activity began in 1985 but have since ceased, with the site currently inactive and unoccupied. Prior to Herbert E. Orr the site was owned and operated by the Devilbiss Company which manufactured paint and material application equipment.

NORTH COVE, SOUTH COVE AND WILLY'S PARK LANDFILLS

The North Cove Landfill contains two parcels of land, the eastern portion located beneath Interstate 75, contained the former dump area and alleged drum disposal area and the western part of the site, known as Willys Test Track, located at the eastern end of Hillcrest Avenue. The North Cove Landfill was operated by AMC, Willy's Overland and Kaiser Jeep as a landfill from 1941 to 1970. South Cove Landfill is located northeast of Beatty Park and Jermain Park. The property is bounded on the North by the Ottawa River, on the south by South Cove Boulevard, on the West by Beatty Park, and on the east by the railroad tracks. This parcel is presently owned by the City of Toledo. Willy's Park Landfill is located on North Cove Boulevard. This site, as well as the two previously mentioned, are believed to have received paint related waste. All three sites are inactive. The Ohio EPA has initiated enforcement actions to require the PRP's to conduct a remedial investigation/feasibility study (RI/FS) for the site.

JOE E. BROWN PARK LANDFILL

The J.E. Brown Park Landfill is located 1/4 mile south of I-75 and the Ottawa River in a residential area of north Toledo. Historical information on waste materials placed into this fill is currently unavailable. Soil samples have indicated low level volatile and semi-volatile compounds in soil, however, PCBs were detected in soils and in the sediments of an adjacent ditch which connects the Ottawa River with a city storm sewer.

Textileather (a.k.a. Gencorp)

The Facility is located along the Ottawa River and is adjacent to the Stickney Avenue Landfill. This facility entered into an Administrative Order on Consent (AOC) on March 18, 1992, for initiation of an RI/FS and remedial action to remediate onsite PCB soil contamination. Soil remediation/cleanup is scheduled to be initiated in September, 1994.

ROYSTER CORPORATION

The facility was a fertilizer manufacturing facility that dated back to the early 1900's with operations ceasing in the early 1980's. The site is situated between the Dura Avenue and Tyler Street Landfills. Organic compounds, primarily polyaromatic hydrocarbons and pesticides, and several heavy metals have been attributed to the site.

Combined Sewer Overflows
A Major Source of Pollution to the Ottawa River

Kurt Erichsen
Toledo Metropolitan Area Council of Governments

Combined Sewer Overflows
A Major Source of Pollution to the Ottawa River

➢ *How are Combined Sewer Overflows polluting the Ottawa River?*

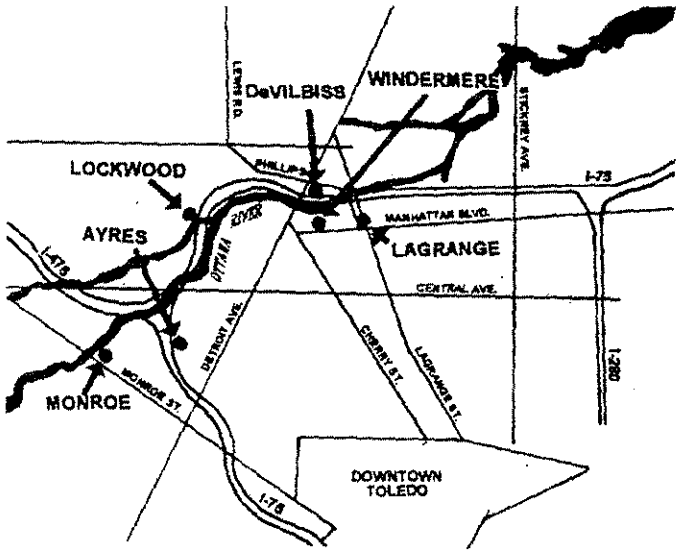
Combined sewers are one of the most severe water pollution problems on the Ottawa River. They dump untreated sewage into the river, making the stream unsafe for fishing or swimming. Over many years, sludge has built up on the bottom of the stream.

Beside posing a public health threat, sewage in the river is a nuisance. In the summer when there is little flow in the river, and the temperature is up, sewage bacteria use up the oxygen in the water. When that happens, we say that the river has gone *septic*. Ordinary sewage does not have a pleasant smell, but septic sewage is much worse.

➢ *Where are the Ottawa River Combined Sewer Overflows?*

There are six sewer overflows on the lower Ottawa River, shown in Map #1. These "overflows" are places where the sewers discharge into the river. The Ottawa River sewer overflow points are:

- Lagrange —Lagrange at Manhattan Blvd.
- Windermere—Manhattan at Windermere
- DeVilbiss—Detroit at Phillips
- Lockwood—Lockwood at I-75
- Ayres—Ayres at South Cove
- Monroe—Monroe Street at South Cove, east of bridge



Map #1—Combined Sewer Overflows on the Lower Ottawa River

➢ *What makes "combined" sewers different from any other sewers?*

When an area is developed today, two independent sewer systems are installed. One carries only rain water—called the *storm sewer*. The other carries sewage, called the *sanitary sewer*. Rain water goes directly into the nearest stream, and sewage goes to the treatment plant. That hasn't always been the practice. Before the 1930s, neighborhoods were built with just a single, or *combined,* sewer system. During dry weather, the sewage goes to the treatment plant. The problem comes during a rainstorm, and the treatment plant cannot handle all that water. The excess sewage and rain water go into the river—untreated.

Separate the sewers. We could build a new storm sewer system in the area, so that the rainwater and sewage will no longer be combined. This is the approach that both Maumee and Perrysburg are using to clean up their combined sewer overflows. Usually, sewer separation is more expensive, and more disruptive, because it requires digging up the streets to install new pipelines.

A combination of storage/treatment and sewer separation. Very likely, the *most* cost effective way of cleaning up the combined sewers will be a combination of storage/treatment and sewer separation. Along Swan Creek, there were some areas where, because of distances and existing sewer layout, separation was less expensive.

➢ *How much will this cost, and who's going to pay for it?*

The combined sewer projects for Downtown and Swan Creek cost about $41 million. That was a 9-phase project that cleaned up 15 sewer overflows. On the Ottawa River, there are only six overflows, but they're further apart. The City of Toledo has a consultant working on preliminary designs and cost estimates for the Ottawa River. There aren't any firm cost estimates yet, but if we figure it'll cost about as much as Swan Creek, we'll probably be in the ballpark.

The City of Toledo was very aggressive and successful in getting money to clean up the Downtown and Swan Creek combined sewers. EPA grants paid for $24 million of the project through the EPA Construction Grant Program. We don't expect that to happen again. With Federal budget cuts, Construction Grants are a thing of the past. This time ratepayers are likely to have to pay the entire cost.

The good news for Ottawa River area residents is that the cost will be borne by the entire city, not just the neighborhood. That is how the local share of the Downtown and Swan Creek projects were financed.

Aquatic Health of the River

Tom Balduf
Ohio Environmental Protection Agency
Division of Surface Water

The Health of the Ottawa River Aquatic Ecosystem

by Tom Balduf, Ohio EPA, Northwest District Office

The purpose of my presentation is to discuss the general systemic organization of the Ottawa River, and how it is affected by inputs from various point and non-point sources in the drainage area. There is a considerable body of data on water quality, sediment quality, and biological quality of the Ottawa River, most of which is available at the Northwest District of the Ohio Environmental Protection Agency, and some of which will be available for examination this evening. Although recent events, such as the not-soon-to-be-forgotten contamination of the river which occurred only a short time ago, bring our attention to specific pieces of the ecosystem, such as color or odor of the water or the sight of dead aquatic organisms, there is much more to this river than meets the eye. The basic stream structure is built from the confluence of a number of tributary streams, which join at various sites, from the headwaters on downstream. The tributaries and the mainstem of the Ottawa cut through the geological materials between their origin and the Maumee Bay, including glacial and lacustrine (lake) deposits; these materials (as well as gradients) affect the appearance and the functioning of the river, with major impacts on the types and quality of living areas available for aquatic organisms. Beyond the actual channel areas of the stream network are the surrounding types of land use, including agricultural areas, municipal areas, industrial areas, and, perhaps most significantly for the Ottawa River, areas where dumps and landfills are located in close proximity to the river. A vast assemblage of materials can and do enter the stream ecosystem from the adjacent land, through discrete modes, such as discharge pipes, which we refer to as point sources, or through more diffuse entryways, such as runoff from fields and streets, which we call non-point sources. The air above the stream is, of course, also a source of input to the waters, either negatively in the case of contamination or positively in the case of oxygen, a vital ingredient in the aquatic ecosystem.

The main components of the stream proper are the water or water column, the most visible and obvious portion of the stream, and the sediments or bottom materials, which compose the bed material under the water column. The water is affected, in some way or other, by everything that enters or is put into it, but except in extreme cases, the effects of these inputs tend to be short-lived, depending on the flow rates, dilution and other factors. In the case of flowing waters, you really never can step over the same stream twice. Nevertheless, the condition of the water is vital to the organisms living on and in it, as well as to the people making use of it for drinking, irrigation, recreation, or other purposes. The sediments, on the other hand, while they may move slowly over time (or a bit more rapidly during periods of peak flow) tend to remain for long periods of time more or less in the same place and, depending on their type and depth, also tend to accumulate materials, such as contaminants, to a much greater extent than do the waters above them. The sediments can not only take up materials, but they can also release them to the waters above and within them. Many or most of the aquatic organisms that make the river their home come in contact regularly with the sediments, either directly by living in or consuming portions of the sediments, or indirectly by being exposed to the materials moving out of the sediment into the water column or by consuming organisms from the sediments.

The water column and the sediments, particularly the various objects, such as rocks and wood, in and on the sediments, comprise the habitat, or living places, of the aquatic organisms of the Ottawa River. These can range from tiny, one-celled plants called planktonic algae through a range of larger and larger insects, snails, and worms up to the fish, turtles, frogs and other creatures which call the aquatic ecosystem home. Books have been written about the complex relationships between and among the plants and animals of the aquatic ecosystem and the same can be said about the Ottawa River. The organisms are absolutely dependent upon one another for such vital resources as dissolved gases and food resources, as well as being dependent upon the quality of the water, sediment, and habitat available in the stream. As you can see, the stream is much more than just water and mud; it is a system of interdependent relationships, not simple at all, where any one condition or problem can have wide-ranging affects on many parts of the overall ecosystem.

Health and Safety Issues

Dr. Kim Mortensen
Ohio Department of Health

HEALTH AND SAFETY ISSUES
DR. KIM MORTENSON - OHIO DEPARTMENT OF HEALTH
(Transcribed from tape of Public Discussion)

The Ohio Department of Health became involved in 1986 when Ohio EPA revealed PCB contamination from sampling of fish and sediment in the Ottawa River.

In the last couple of years we finally had a decent amount of money available to us. Something like $2 million dollars over a two year period, which has involved a community assessment program.

We issue advisories, but we don't collect the data for this. Others do, like Ohio EPA. We get caught up in slow case problems which we didn't resolve until this last year. We have now come up with a new proposal on how to issue advisories. You may have seen a bit of this in the newspaper already. There have been a number of good articles.

This is what we have come up with. It is a very complicated issue because we try to work on an interstate basis. All the states in the Great Lakes region have a common format. The fish in Lake Erie, whether in Ohio, Pennsylvania, New York, Michigan or Ontario, don't necessarily become dangerous because they move across state lines, or become unsafe in the next state.

There are about a hundred scientists working to assess the risks. We have taken a few steps forward. The advisories come in several flavors. We used to have one flavor in the past--don't eat. And that was based upon a lot of things, but not tied into the best science, and didn't include our best understanding.

The circumstances are that FDA deals with interstate commerce. That is, with the fish moving from one state to another. They have some very basic assumptions about whether or not you eat a certain amount of fish, how contaminated that fish is likely to be, and how much fish one is likely to eat overall.

We feel that we have demonstrated to our satisfaction that that is not the case with the people in Lake Erie. We eat a lot more fish. We know a lot more about the levels of contamination. We feel that we can give better advice. The advisories on Lake Erie are coming out now. We are talking about a "not eat advisory" for fish over 2 parts per million of PCBs. This is pretty similar to what we have had in the past.

We are collecting samples around the entire state at other bodies of water, so our money doesn't go very far. But we hope that we can assure people that we do know about the fish, and where they are safe and not safe. What fish you can eat and what fish you should be getting some place else.

The western basin of Lake Erie is not the place to get fish to eat, as it is one of the most contaminated chemical hot spots on the Great Lakes, unfortunately.

We are sorry to have this message. We are available in Columbus and we have a lot of information. We are happy to share things in terms of why we have our advisories, how we come up with them, and the basis for future things and concerns about the chemicals. We would be happy to talk with you at any time and to give you any further information.

QUESTIONS:

HOW MANY PARTS PER MILLION OF PCBs ARE THERE IN RECENTLY SAMPLED FISH?

We don't have any recent data right now. We have samples that are sitting in the lab and we are waiting for the information.

WHAT IS THE PCB COUNT FOR FISH FROM THE OTTAWA RIVER?

The fillet sample is over 2 ppm throughout the lower Ottawa River. This is with the skin off and fat trimmed off.

WHERE IS IT REASONABLY SAFE TO EAT THE FISH?

Draw a line in Lake Erie and consider anything east of Kelley's Island to be of less risk than west of it as in the Maumee Bay, the Detroit River, and the Ottawa River.

WHAT ARE PCBs?

PCBs are an oil. It is not water soluble, and you can take it up in your skin from body contact. You can get a larger dosage this way than from eating the fish.

WHAT ABOUT DREDGING THE SEDIMENTS?

What are you going to do with the sheer volume of contaminated sediments with levels high enough that they are hazardous? It is staggering! Is it fair to pop this stuff out of the river and put it in someone else's backyard? Perhaps it could be incinerated. When the Black River was dredged, it affected the fish like crazy. Damage to the fish skyrocketed. It flushed all the stuff. I don't know what to do with it, but the solution is not to dredge. Bio-remediation may be an answer for the future.

Problems With Eagle Production

Mark Shieldcastle
Ohio Department of Natural Resources

REPRODUCTIVE PROBLEMS OF OHIO'S BALD EAGLE POPULATION
Brief of formal remarks by Mark Shieldcastle
September 8, 1994 Ottawa River Meeting

- Man's effect on the environment is undeniably immense and often quite dramatic.

- The effects on biological organisms and biotic communities often can give a hint of what may be in store for mankind.

- Indicator species can be used as barometers of an area's health.

- The bald eagle has been recognized as an indicator to the health of the great lakes. It is high on the food chain much like man. Being highly tied to the aquatic environment it can tell us much about the quality of our rivers and great lake.

- The bald eagle has made a great comeback, not only in Ohio, but across the continental U.S.. This has occurred in large part do to intensive management and protection. This coupled with environmental laws such as 1972's Pesticide Act set the stage for recovery.

- Ohio's bald eagle population, once reduced to 4 breeding pairs, and all in the Lake Erie marsh region has expanded to 26 pairs and into north-central and northeast Ohio. This new "inland population" adds additional hope to the future of Ohio's eagles.

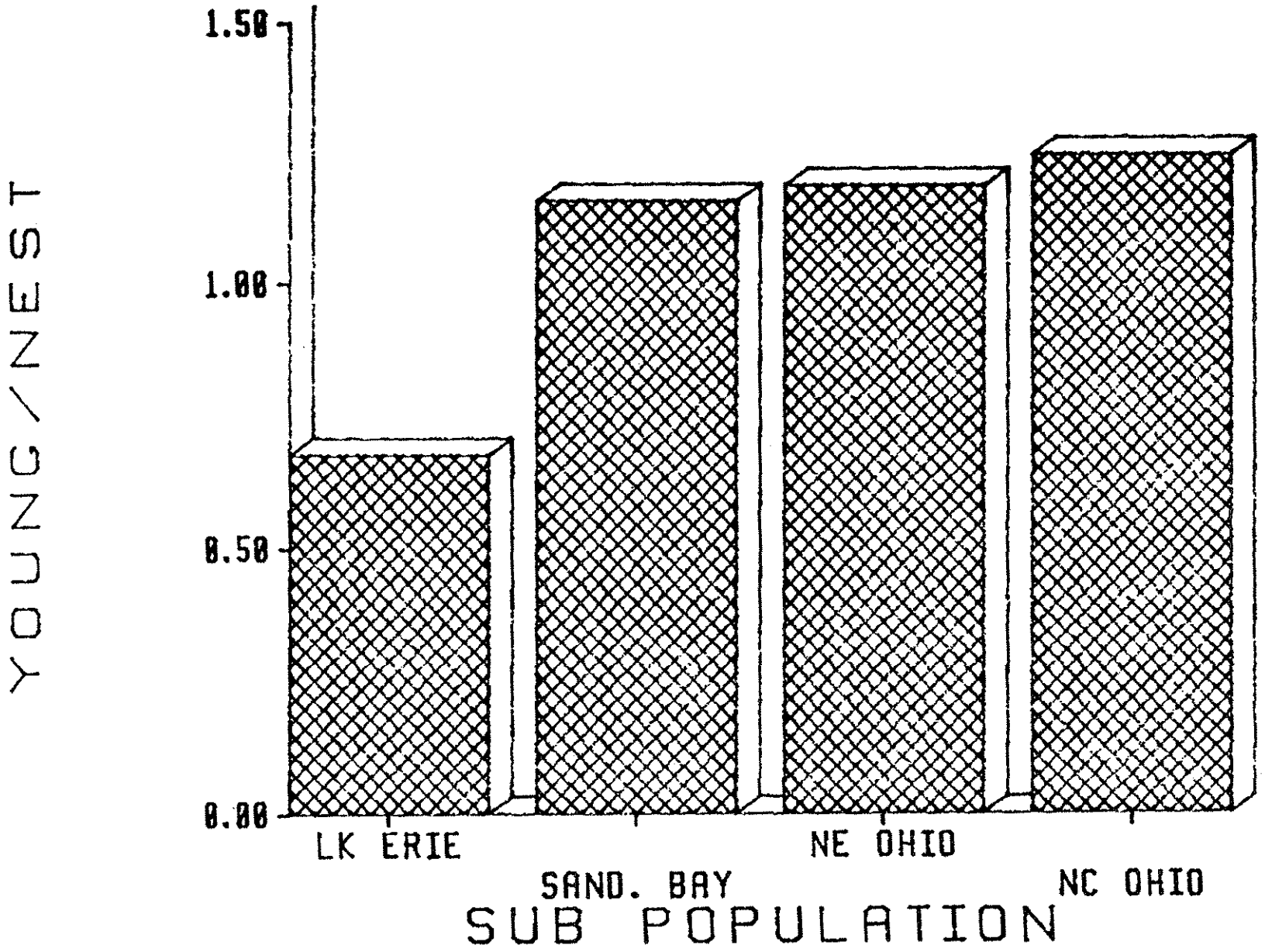
- Normal reproduction for bald eagles is recognized at 1 young/nest and .7 young/nest to keep from declining. Major contaminant loading that has been associated with normal reproduction is DDT= 1 ppm and PCB= 4 to 6 ppm.

- Contaminant loading in addled eggs collected from eagle nest in Ohio show levels of DDT at 2 to 3 ppm and PCB's at 15 to 35 ppm. Lake Erie nest have been at the high end of this spectrum.

- Reproduction in Ohio's Lake Erie group has been well below the other Ohio sub groups and over the last 5 years has fallen short of a stable population level.

- Reproduction rates have been: Lake Erie shoreline = 0.68; Sandusky Bay = 1.16; Northeast Ohio = 1.19; Northcentral Ohio=1.25.

5 YR AVE OF NEST SUCCESS



Dura's Leachate Treatment System and Wall

Rob Peterson
Cousins Waste Control Corp.

DURA AVENUE LANDFILL
IMMEDIATE REMEDIAL MEASURE
LEACHATE TREATMENT SYSTEM DESCRIPTION

Cousins Waste Control of Toledo has successfully completed installation and startup of a Leachate Treatment System at the Dura Avenue Landfill as part of the Immediate Remedial Measure. The IRM was designed by URS Consultants of Cleveland and constructed by Quality Environmental Contractors of Oregon for the City of Toledo.

The Leachate Treatment System was built by CSK of Tonawanda NY., and is a "State of the Art" computerized wastewater pretreatment plant which is capable of operating at 30 gallons per minute, 24 hours a day and requires minimal operator attention. The system is housed in two semi-trailers and consists of unit operations which remove the contaminates from the complex "organic soup" known as leachate. The leachate, which for years could be seen draining from the banks of the landfill directly into the Ottawa River, is now being intercepted by a collection system and pumped across the landfill to the Leachate Treatment System.

Each unit operation within the Leachate Treatment System was designed to remove a specific component of the contamination from the leachate. These unit operations are assembled in a series of sequential steps which include:

- De-emulsification to remove emulsified oil.
- Settling and Oil Skimming to remove de-emulsified oil and settleable solids.
- Oil/Water Separation by Coalescing to remove any residual oil remaining after de-emulsification.
- Precipitation of heavy metals and Filter Pressing of residual sludge.
- Filtration to remove fine metal hydroxide particles that did not precipitate.
- Neutralization of high pH to proper range for next step.
- Air Stripping to remove volatile organics.
- Carbon adsorption to remove non-volatile organics.
- Flow Proportional Sampling for discharge parameters.

Over 700,000 gallons of leachate have been treated to the City of Toledo discharge standards with this system. As a reflection of this success, Cousins has just been awarded a contract to operate the system for the next year.

Stickney Avenue and Tyler Street Landfills Superfund Investigation

Tom Barounis
US Environmental Protection Agency

U.S. ENVIRONMENTAL PROTECTION AGENCY SUPERFUND INVESTIGATION AT THE STICKNEY AVENUE AND TYLER STREET LANDFILLS, TOLEDO, OHIO

The U.S. Environmental Protection Agency (EPA) Superfund program was created as a result of the passage of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), which was amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA). The purpose of the program is to clean up uncontrolled hazardous waste sites so that public health and the environment are protected.

The Superfund cleanup process involves many steps, beginning with the discovery of a potential contaminated site followed by a series of investigations designed to determine the type and extent of contamination and ending with the selection of a cleanup remedy for the site. A major focus of the program involves negotiating with those parties which EPA believes are responsible for a site, the potentially responsible parties (PRPs), to perform the necessary investigation and cleanup work.

In late 1992, the Ohio Environmental Protection Agency (OEPA) identified the Stickney Avenue and Tyler Street Landfills as potential Superfund sites. In early 1993 U.S. EPA performed preliminary investigations at the sites to determine whether they posed a significant enough threat to warrant further investigation. U.S. EPA made that determination in July 1993 and proceeded to contact the PRPs and negotiate an Administrative Order on Consent (Order). By this Order the PRPs agree to perform a study called an engineering evaluation/cost analysis (EE/CA). The purpose of the study is to determine the type and extent of contamination posed by the sites and to evaluate cleanup remedy alternatives. Negotiations began in January 1994 and were successfully completed on May 2, 1994, when the Order was signed by U.S. EPA.

The PRPs for Stickney and Tyler have retained Woodward-Clyde Consultants (WCC) to perform the EE/CA. WCC submitted a Draft Work Plan, which specifies the work that will be done and the procedures to be followed during the investigation of the sites. U.S. EPA reviewed the Draft Work Plan, which WCC subsequently revised to include the changes required by U.S. EPA. U.S. EPA approved the Final Work Plan on August 12, 1994. Field work began at the sites on August 22, 1994.

There are three stages to the work that is being conducted at the sites: 1) sampling and analysis, 2) risk evaluation and 3) preparation of the EE/CA report. The field work that is currently underway at the Stickney and Tyler sites is part of the sampling activities. Each stage is described in more detail below.

1) <u>Sampling and Analysis</u>

Under the guidance of the U.S. EPA and the OEPA, WCC field

Once the EE/CA is completed, it will be presented to the public. A public meeting will be held in Toledo to describe U.S. EPA's recommended measure for containing and/or controlling contamination at Stickney and Tyler. Area residents will have a minimum of 30 days to comment on the report and the information used to prepare it. U.S. EPA will evaluate the public comments and respond to them before making its final decision. The completed EE/CA report is expected to be available to the public in May 1995.

Once the appropriate control measure has been selected, U.S. EPA will negotiate and work with the PRPs to have the selected control measure constructed.

Overview of the Remedial Action Plan

Lee Pfouts
Maumee River Remedial Action Plan Implementation Committee

Maumee River

REMEDIAL ACTION PLAN

What Is A RAP?

The Great Lakes makes up the largest surface system of fresh water on Earth. They contain 95% of the fresh water in the United States and 23 million people use them as a source of drinking water. Countless others swim and fish in them. Pollution of many kinds is jeopardizing this major world water resource. Not only does pollution enter the Great Lakes directly, but rivers and streams which flow into them bring pollution. The cleanup or remediation of these rivers and streams has become an urgent necessity.

The International Joint Commission, has overseen the Great Lakes Water Quality Agreement since 1985. Since then it has designated 43 areas around the Great Lakes as "Areas of Concern". The lower Maumee River and Maumee Bay constitute one of these areas because the water is not clean enough to allow swimming in streams or to permit the eating of certain kinds of fish. The pollution which makes swimming in the streams unsafe, and some fish unsafe to eat, flows into Lake Erie and pollutes the entire Great Lake system.

The Maumee River Remedial Action Plan, or RAP, is an agreement between federal, state, and local governments with the support of citizens to restore area waters to "fishable and swimmable" conditions. The Maumee River RAP "Areas of Concern" include: the lower Maumee River from the Bowling Green water intake near Waterville and Haskins, other Maumee Bay tributaries, and smaller streams flowing into Lake Erie. The Maumee River RAP covers most of Lucas County, the northern third of Wood County, and the northwest half of Ottawa County.

What Contributes To The Pollution?

The Maumee River RAP has identified the five major factors which contribute most to the pollution of the Maumee River Area of Concern and has outlined plans of action to reduce those pollutants.

- **Agricultural Runoff**
  The RAP seeks the increase of conservation tillage and use of filter strips to keep soil runoff out of streams, avoidance of fall plowing, and the use of minimum amounts of fertilizer and pesticides.

- **Landfills and Dumps**
  The RAP seeks to identify and shut down leaks from old landfills.

- **Sewage Overflow**
  The RAP promotes an increase in sewer tunnels and separation projects which protect waters from sanitary sewer overflows during heavy rain storms.

- **Destruction of Wetlands and Open Space**
  The RAP calls for protecting and increasing wetlands areas, which help rivers and streams clean themselves. Protecting flood plain areas is essential because they store flood water and control its destructive power.