

# North Branch Ecorse Creek

---

**Contents**

- Introduction ..... 3
  - Ecorse Creek Overview ..... 3
  - History ..... 4
  - Drainage District ..... 5
  - Links ..... 5
  - Press Releases ..... 5
- Flooding..... 6
  - Ecorse Creek Flooding - 2004 Event..... 6
  - History ..... 7
  - Flooding Solutions - What is being done to resolve flooding? ..... 7
  - Benefits of Flood Control ..... 8
  - Flood Map ..... 9
  - Flooding Pictures..... 9
  - Board of Determination ..... 9
- Current Study ..... 10
  - Frequently Asked Questions ..... 10
  - Request for Proposals ..... 12
  - Publications ..... 13
- 2008 Study ..... 14
  - Task 1 - Condition Survey..... 14
    - North Branch of the Ecorse Creek ..... 14
    - Reeck Drain ..... 15
  - Task 2 - Hydrologic & Hydraulic Model Development ..... 15
  - Task 3 - Baseline Model Development..... 15
  - Task 4 - Development & Screening of Flood Mitigation Alternatives..... 15
  - Task 5 - Modeling & Evaluation of Flood Mitigation Alternatives ..... 15
  - Task 6 - Detailed Evaluation of Flood Mitigation Alternatives ..... 15
  - Task 7 - Development of Recommended Flood Control Project ..... 15
- Contact ..... 17

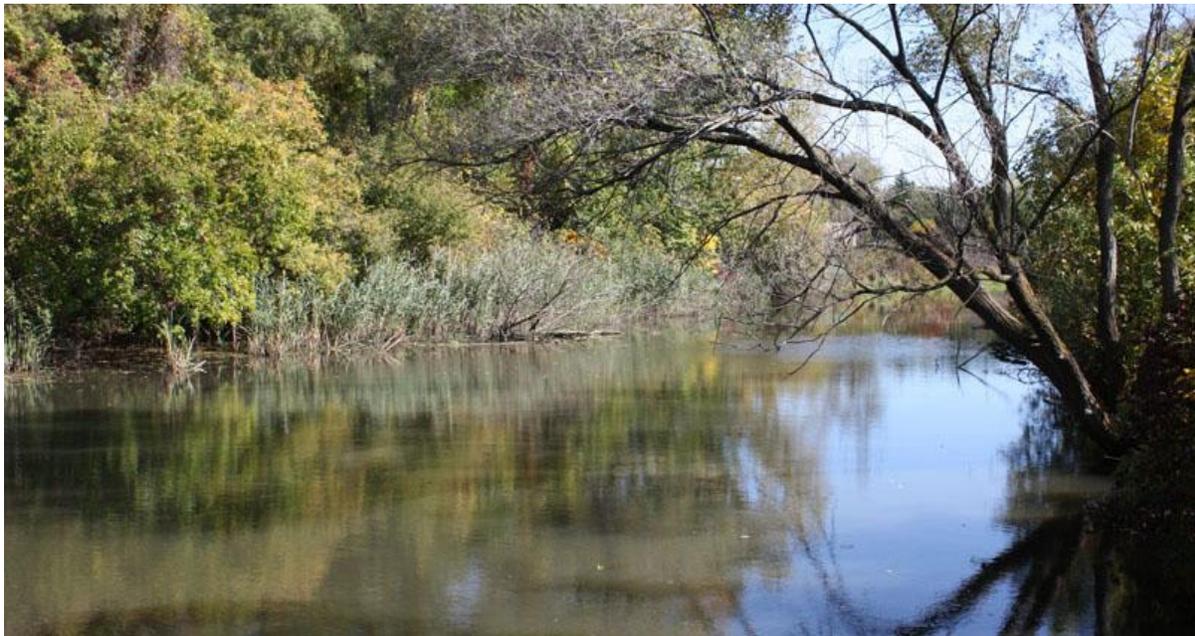
## Introduction

### Ecorse Creek Overview

The Ecorse River is part of a small river system in southern Metro Detroit. It was originally named the Riviere aux Ecorces by French settlers, which means the "bark river". The "bark" came from the local Native American tribe's tradition of wrapping their dead in birch or elm bark and burying them at the mouth of the river. The Ecorse River is formed by the North Branch of the Ecorse Creek and the Sexton-Kilfoil Drain and empties into the Detroit River. The actual length of the river is only about a half mile.

The North Branch of the Ecorse Creek is formed by the Trouton and Freeman Drains and Black Creek in Romulus and the Douglas and Kelly Drains in Taylor. It flows for approximately 16.6 miles before joining flows with the Sexton-Kilfoil Drain in the City of Lincoln Park to create the Ecorse River.

The North Branch of the Ecorse Creek drains over 19,000 acres (30-square miles) of primarily residential, commercial, and industrial land uses. The entire Ecorse River watershed is over 43 square-miles. It flows through Romulus, Dearborn Heights, Allen Park, Melvindale, Lincoln Park and Ecorse. Almost the entire stretch of the North Branch of the Ecorse Creek is open and has a primarily low gradient. There are over 46,000 properties within the North Branch of the Ecorse Creek's watershed.



## History

Like most of Michigan, the land surrounding the North Branch of the Ecorse Creek was at one time mostly forest. The land's soils were and still are mostly made up of clay. The topography is flat and promotes very little gradient for the North Branch of the Ecorse Creek. Of course, after most of the trees were harvested to fulfill Michigan's booming logging market, the area experienced a direct transition into agricultural land. Drainage for the North Branch of the Ecorse Creek was created to accommodate primarily agricultural use—not knowing that the area would eventually be part of one of the nation's largest metropolises. The North Branch of the Ecorse Creek was first established as a County Drain by petition in 1861.

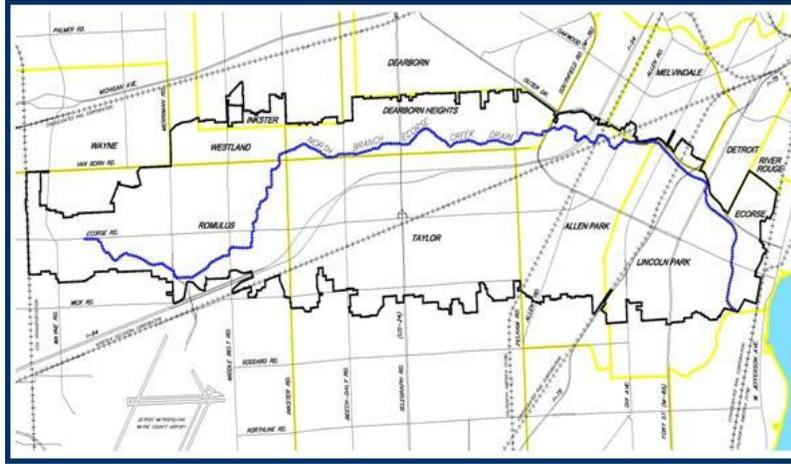
Along with Detroit, the land surrounding the North Branch of the Ecorse Creek grew fast and experienced heavy commercial and residential development throughout the 20th century. Combined together, the quick growth, agricultural-level drainage, clay soils, and low gradient, created the perfect recipe for future flooding. As each decade passed, and more and more people established residences near the North Branch of the Ecorse Creek, it became evident that flooding issues would have to be dealt with.

Beginning in the mid-1960's, officials at the local, state, and federal levels began to take notice of the flooding events that were taking place along the North Branch of the Ecorse Creek. Periodic heavy storm and runoff events were causing some major flooding along the North Branch of the Ecorse Creek, and those living within the flooded areas suffered heavily. Significant damage occurred as a result of flooded basements and overland flooding. In many instances, roads became impassable and houses were not safe to live in until the waters receded. Besides having to replace all of their damaged property, homeowners had to make sure their homes were properly disinfected to remove harmful bacteria. Some flooding reduction solutions were developed and provided some relief, but the flooding continued. Public officials and residents alike were becoming increasingly frustrated.

### **May 21, 2004 Storm Event**

Major storm and runoff events continued to periodically plague the North Branch of the Ecorse Creek, but the storm event that occurred at the end of May in 2004 ended up being a major turning point for the entire North Branch of the Ecorse Creek watershed, and everyone living and working within it. On May 21st, the area received over 4 inches of rain in one day. According to flood reports and the USGS gauge, the creek rose nearly six feet in a matter of three hours in the City of Dearborn Heights. Severe overland flooding occurred and over 1,500 residential dwellings were flooded. Shortly after, the City of Dearborn Heights petitioned the Wayne County Drain Commissioner for maintenance and improvements of the creek under Chapter 8 of the Michigan Drain Code. This was the beginning of a major effort to develop an ultimate solution to the area's flooding problems.

## Drainage District



The [Drainage District](#) (Appendix 1) delineates the watershed of the North Branch of the Ecorse Creek Drain. The drainage district is approximately 19,203 acres and includes lands in the following cities:

- City of Allen Park
- City of Dearborn Heights
- City of Ecorse
- City of Inkster & City of Westland
- City of Lincoln Park
- City of Melvindale
- City of Romulus
- City of Taylor
- City of Inkster & City of Westland

The North Branch of the Ecorse Creek Drain is approximately 16 miles long. The Drain outlets into the Ecorse River at the confluence of the Sexton Kilfoil Drain near the Detroit River. The Drain begins at Council Point Park in the City of Lincoln Park and runs upstream to a point of ending at the upstream end of the culvert under Ecorse Road between Sargent Street and Wayne Road in the City of Romulus.

## Links

- [Wayne County, Michigan](#)
- [Wayne County Department of Public Services - Environmental Services Group](#)
- [City of Allen Park](#)
- [City of Dearborn Heights](#)
- [City of Ecorse](#)
- [City of Inkster](#)
- [City of Lincoln Park](#)
- [City of Melvindale](#)
- [City of Taylor](#)
- [City of Romulus](#)
- [City of Westland](#)
- [Downriver Citizens For A Safe Environment](#)
- [Ecorse Creek Inter-Municipality Committee](#)
- [Federal Emergency Management Agency](#)
- [Michigan Department of Environmental Quality](#)
- [U.S. Environmental Protection Agency](#)
- [Alliance of Downriver Watersheds](#)
- [U.S. Army Corps of Engineers](#)

## Press Releases

- [North Branch of Ecorse Creek Flood Mitigation Planning Effort Underway - July 2005](#)
- [Wayne County Assists Ecorse Creek Clean-Up Event - May 2005](#)
- [Wayne County Drain Commissioner selects consultants for the North Branch of the Ecorse Creek Flood Control Study - March 2005](#)

- Request for Qualifications and Proposals for a Flood Control Study of the North Branch of the Ecorse Creek - January 5, 2005

## **Flooding**

### **Ecorse Creek Flooding - 2004 Event**

During the summer of 2004, the City of Dearborn Heights held a public meeting concerning flooding that occurred during the spring of 2004. In response to the public meeting, the City of Dearborn Heights filed a petition with the Wayne County Drain Commissioner's office for the maintenance and improvement of the Drain.

When a petition is filed, the statute requires a Board of Determination hearing be convened. The purpose of the Board of Determination hearing is to provide an opportunity for all interested parties to submit evidence and testimony so the Board can determine whether a project is needed.

On December 15, 2004, at the University of Michigan-Dearborn Campus Field House, 4901 Evergreen Road, Field House Building #233, Dearborn, Michigan, the Board of Determination for the North Branch of the Ecorse Creek Drain was held in accordance with the Michigan Drain Code, Public Act 40 of 1956.

At the hearing, the Board of Determination found that improvements along the North Branch of the Ecorse Creek Drain were necessary to the public health, and that lands should be added to the Drainage District to match the drain's watershed. The board's decision came after a nine hour-long meeting in which testimony of repetitive and severe flooding problems from landowners in the drainage district was heard.

As a result of the Board of Determination hearing the Wayne County Drain Commissioner issued a request for qualifications and request for proposals for the purpose of contracting professional services to undertake a flood control study of the North Branch of the Ecorse Creek Drain. Sealed qualifications and proposals were received at the office of the Wayne County Drain Commissioner on February 18, 2005.

In 2005, the Wayne County Drain Commissioner, serving at the direction of Wayne County CEO, selected the Spicer Group Team as the consultants for the North Branch of the Ecorse Creek Flood Control Study. The Spicer Group's consulting team consisted of Applied Science, Inc., ECT Inc., NTH Consultants, Ltd., and Hennessey Engineering.

## History

Flooding along the North Branch of Ecorse Creek (NBEC), which is located entirely within Wayne County, Michigan, has occurred repeatedly over the last 40 years. In large flood events, it is estimated that the NBEC flooding impacts up to 9,100 properties, including damage to property and sewage backups into homes and businesses. The U.S. Army Corps of Engineers (USACE) performed a Feasibility Study and Environmental Impact Statement in 1988; however, the recommended project was never built because of financial/economic conditions at that time.



The NBEC is a County Drain, established in 1926 with improvements dating back to 1863. Because it is a drain, the City of Dearborn Heights petitioned the Wayne County Drain Commissioner for flood relief after the flooding that occurred in May 2004. In response to the petition and in accordance with the Michigan Drain Code, a Board of Determination was convened in December 2004 and heard overwhelming testimony from property owners regarding flooding problems. The Board ordered the Wayne County Drain Commissioner to move forward with a flood control project. The Drain Commissioner commissioned a flood control study that was completed in 2008. The final recommendation was a \$240 million greenway and improvements project. The Drain Commissioner continued to pursue opportunities to offset the cost of the project. In 2009, Wayne County requested that the USACE re-evaluate the 1988 Feasibility Study and Environmental Impact Statement to determine if there is federal interest in implementing a flood control project for NBEC.

## Flooding Solutions - What is being done to resolve flooding?

The Wayne County Drain Commissioner, who is part of the Department of Environment, is currently working with a consulting engineering team on a Flood Control Study that is aimed at narrowing down the best option to mitigate the North Branch of the Ecorse Creek's flooding problems. The study involves many tasks—some as simple as walking the banks of the North Branch of the Ecorse Creek and others that involve highly technical computer modeling programs. The ultimate goal of the study is to eventually pinpoint a solution that will be beneficial to the entire area affected by the North Branch of the Ecorse Creek.

Many members of the local communities were involved in the Flood Control Study, from mayors to DPW

directors and city engineers. Many different plans evolved from meetings with this group and all were evaluated by the group and the consulting team.

It's important to note that the Wayne County Drain Commissioner is focused on identifying a solution that is both cost-effective and accepted by the local public. The North Branch of the Ecorse Creek watershed is large and encompasses many residences. However, based on where they are located, residents within the watershed all experience different levels of flooding—some didn't flood at all while others had basement backups. This being said, the residents who experienced little or no flooding during the major runoff events may have a different opinion on flood solutions and the cost to implement them than those who were subjected to heavy flood damage. It must be understood that *all land* in the watershed generates storm water runoff that contributes to the flooding problems downstream.

Because of heavy development, the North Branch of the Ecorse Creek watershed does not have many areas left that can be used to construct storm water and runoff retentions area. Because of this lack of retention sites, the Flood Control Study focused on increasing the flow capacity of the creek itself.

[Day of Review - July 31, 2006](#)

[Study Approaches](#)

## Benefits of Flood Control

**Flooding Affects Everyone** - Everyone living in the North Branch of the Ecorse Creek watershed is affected differently by flooding events—some directly others indirectly. Some residents may wake up to find several inches of water in their basement, others might walk out their front door and find the flood water lapping at their front step, while others might stall their car out while trying to drive through a flooded intersection on their way to work or the grocery store. Some residents, who never experience any flooding issues, may find themselves helping a relative or friend carry flood-damaged furniture to the curb. Either way, all residents within the watershed are affected in different ways—some more than others.

**Flooding Solutions Provide Major Benefits** - Nobody likes to live in an area where the possibility of flooding always looms overhead. Who likes to run downstairs and check their basements during heavy storms in fear of seeing water bubbling up through the floor drains? Nobody. Who likes to wonder if they'll have to find an alternate route home from work after the next heavy thunderstorm to avoid the normal flooded route? Nobody. Who likes to worry that someday they will not be able to sell their home because of its flooding history? Nobody. Who likes to worry that even though their property never floods, will nearby recurring flooding affect their property value and ability to sell it in the future? Nobody.

Implementing a solution to the flooding problem will benefit everyone within the watershed. Property damage during heavy rain events will see a significant decrease when compared to past events. Residents will be able to live more comfortably with a peace of mind that flooding is a thing of the past. And, finally, the next time it rains hard or a rare thaw occurs in February, residents can be focused on

the more important things in life.

## **Flood Map**

[May 2004 Floodplain Map - Existing Conditions](#)

## **Flooding Pictures**

Flooding pictures have been gathered from many sources that include the affected municipalities, public officials, private residents, consultants and other interested parties. The following have been submitted to the County, and are shown here as a matter of public record, but are not to be distributed, printed, copied or reproduced since the right to do so is subject to owner / licensee rights or copyrights.

[Pictures of flooding submitted to Wayne County by the local media](#)

[Pictures of 5/11/2006 flooding submitted to Wayne County by Applied Science, Inc.](#)

[Pictures of 5/21/2004 flooding submitted to Wayne County by Wade-Trim](#)

[Pictures of 5/22/2004 flooding submitted to Wayne County by Wade-Trim](#)

## **Board of Determination**

[Executive Summary](#)

[Notice of Meeting of Board of Determination](#)

The Drain Code requires that after a petition is filed, that a Board of Determination be held to determine whether a project is necessary. Notices for the Board of Determination were sent to all property owners who own land within the current Drainage District or whose lands are proposed to be added to the Drainage District.

The Board of Determination is a three-member board appointed by the Drain Commissioner. The role of the Board of Determination is to receive testimony and evidence at a public hearing to determine: a) whether a project is necessary and conducive to the public health, convenience or welfare; b) whether a portion of the project benefits the municipalities in the district for the protection of public health; and c) lands to be added to a drainage district.

The Board of Determination does not determine the scope of the project, the cost of the project, and does not determine how much property owners and municipalities will be assessed for the project. The Drain Commissioner makes these decisions after the engineering is performed, but before construction occurs.

The Board of Determination for the North Branch of the Ecorse Creek Drain was held on Wednesday, December 15, 2004 at 9:00 am at the University of Michigan-Dearborn Campus Field House, 4901 Evergreen Road, Field Building #233, Dearborn, Michigan.

## Current Study

[Executive Summary](#)

[Virtual Tour](#)

## Frequently Asked Questions

### **Who is the Wayne County Drain Commissioner?**

In Wayne County, the Deputy Director of the Department of Public Services, Environmental Services Group, Kenneth M. Kucel, serves as the Drain Commissioner. The Deputy Director of the Environmental Services Group was appointed by the Wayne County CEO.

### **What is the role and duty of a Drain Commissioner?**

The Drain Commissioner has jurisdiction over the established county drains in Wayne County, and performs the duties set forth in the Drain Code. Basically, the Drain Commissioner administers the construction, maintenance and improvement of drains, and is responsible for the assessment of the costs incurred.

### **What is the Drain Code?**

The Drain Code of 1956, MCL 280.1 et seq, is the statute that lays out the procedure for establishing, constructing, maintaining and improving drains, and for the assessment of the costs incurred for these activities.

### **What is a Petitioned Project under the Drain Code?**

For an established drain, a petition can be filed for the maintenance and improvement of the drain. The Drain Code requires that after a petition is filed, that a Board of Determination be held to determine whether a project is necessary. Without a petition, the drain cannot be improved, and the Drain Commissioner can only perform limited maintenance activities on the drain.

### **Who can file a petition?**

A petition can be filed by property owners who are liable for assessment in the Drainage District, by a municipality in the Drainage District, by the County Road Commission, or by the Michigan Department of Transportation.

### **What is a Board of Determination?**

The Board of Determination is a three-member board appointed by the Drain Commissioner. The Drain Code requires that the board members are all disinterested and own property in Wayne County. However, the board members cannot own property in the Drainage District or any municipality with lands in the Drainage District.

**What is the purpose of a Board of Determination?**

The role of the Board of Determination is to receive testimony and evidence at a public hearing to determine: a) whether a project is necessary and conducive to the public health, convenience or welfare; b) whether a portion of the project benefits the municipalities in the district for the protection of public health; and c) lands to be added to a drainage district.

**What is a watershed?**

A watershed is the area of land that contributes storm water runoff directly or indirectly to a particular water body (in this case a county drain). Tributary drainage systems, topography, and storm water systems are the factors used to determine a watershed. As development occurs, historical drainage patterns may change, and the boundaries of the watershed can change.

**What is a Drainage District?**

A Drainage District is made up of basically the same properties that make up a watershed. "Drainage District" is the legal term used in the Drain Code and makes up the properties that are assessed for activities performed for purposes of establishing, constructing, operating, maintaining and improving a drain.

**What is a County Drain?**

A county drain is a watercourse established by law as a public drain under the Drain Code. Once a watercourse is established as a drain, the Drain Commissioner has jurisdiction to perform the construction, maintenance, and improvement activities allowed under the Drain Code.

**How long is the North Branch of the Ecorse Creek Drain?**

The Drain as established is 16.6 miles in length, with a point of beginning at Council Point Park in the City of Lincoln Park and running upstream to a point of ending at the upstream end of the culvert under Ecorse Road between Sargent Street and Wayne Road in the City of Romulus.

**What area of land does the North Branch of the Ecorse Creek Drain serve?**

The Drainage District is made up of approximately 48,000 parcels in the Cities of Ecorse, Lincoln Park, Allen Park, Melvindale, Dearborn Heights, Inkster, Westland, Romulus, and Taylor. The Drainage District encompasses approximately 19,203 acres, or 30 square miles.

**Why did I receive a notice?**

Notices for the Board of Determination were sent to all property owners who own land within the current Drainage District or whose lands are proposed to be added to the Drainage District. All interested persons may testify at the Board of Determination, or may send written testimony to the Drain Commissioner prior to the Board of Determination hearing.

**Will I be assessed for the project?**

All properties and municipalities within the Drainage District, as well as Wayne County and MDOT are liable for an assessment. The Drain Code requires that the assessments are based on the benefits

derived. The method for assessing and the amounts of the assessment cannot be determined until after final engineering has occurred.

### **I received a letter but do not own the property. What if I rent the property?**

The Drain Commissioner sends a notice to the mailing address of each person or entity whose name appears on the latest tax roll for property within the Drainage District boundary. If you received a notice, the address at which you received the notice is currently listed in the records as the tax mailing address for the property. Ownership or mailing address corrections should be resolved with your local Municipal Assessment and Equalization Department and/or the Wayne County Assessment and Equalization Department.

### **What can I do to reduce flooding of the Ecorse Creek Drain?**

To help reduce flooding you can reduce the amount of storm water runoff from your property by:

- Tree Planting: "One tree can reduce runoff by over 3,000 or more gallons per year"  
[Trees for Tomorrow](#)  
[The Value of Trees](#)
- Rain Gardens  
[Guidelines for Home Rain Gardens](#)  
[Planning, Planting & Maintaining Residential Rain Gardens](#)
- Grow Zones  
[Grow Zones Primer](#)
- Schoolyard Habitats (i.e. Grow Zones)  
[O.W. Best Middle School Native Plant Garden](#)
- Green Roofs  
[Brownstone Middle School Green Roof](#)  
[Erving Elementary School Green Roof](#)
- Rain Barrels  
[Reduce your Rainwater Footprint](#)  
[Rain Barrel Specs](#)

Additional information can be found at the following websites:

[WCDPS Water Quality Management Division](#)

[SOCWA Healthy Lawn & Gardens](#)

[Fresh Coast 740 - Learn How to Capture Stormwater](#)

[Alliance of Downriver Watersheds Educational Resources](#)

[Alliance of Rouge Communities](#)

[Southeast Michigan Council of Governments - Protect Our Waterways](#)

[Southeast Michigan Council of Governments - Green Infrastructure and Low Impact Development](#)

[Washtenaw County Sample Rain Garden Designs](#)

## **Request for Proposals**

[Professional Engineering Services for General Reevaluation Report-Environmental Studies/Reports - Main RFP](#)

Supplemental Documents:

[RFP Cost Proposal Template](#)  
[USACE Supporting Documents - Attachment G](#)  
[Data to be Supplied by Wayne County to Successful Respondent - Attachment H](#)  
[Pre-Proposal Presentation - April 27, 2010](#)  
[General Reevaluation Report Schedule - Nov 2009](#)  
[Sign in Sheet from Mandatory Pre-Proposal Conference, April 27, 2010](#)  
[Questions and Answers received prior to Pre-Proposal Meeting on April 27, 2010](#)

## **Publications**

[Project Brochure](#)  
[NBEC Stakeholder Meeting Summary, August 18, 2010](#)  
[NBEC Stakeholder Meeting Presentation, August 18, 2010](#)  
[NBEC Stakeholder Meeting Summary, May 11, 2011](#)  
[NBEC Stakeholder Meeting Presentation, May 11, 2011](#)  
[NBEC Public Meeting Summary, August 16, 2011](#)  
[NBEC Stakeholder Meeting Summary, August 16, 2011](#)  
[NBEC Stakeholder Meeting Presentation, August 16, 2011](#)  
[NBEC Public Meeting Summary, August 17, 2011](#)  
[NBEC Public Meeting Presentation, August 17, 2011](#)  
[NBEC Draft General Reevaluation Report Executive Summary, December 2011](#)

## 2008 Study

[Executive Summary](#)

### Flood Control Study

The following presentation was provided to all city councils near the conclusion of the study. It outlines the recommended alternative as being the Green way approach, as well as the next steps towards implementing a design to control flooding within the Ecorse Creek watershed.

[2008 Flood Control Study Presentation](#)

### Task 1 - Condition Survey

#### North Branch of the Ecorse Creek

- [2005 Condition Survey Report](#)
- [Appendix A - Crossing Report](#)
- Appendix B - Photographs
  - [Photographs 001 - 202](#)
  - [Photographs 203 - 400](#)
  - [Photographs 401 - 651](#)
- Appendix C - Inspection Maps (32 sheets)
  - [1 - Ecorse / Lincoln Park](#)
  - [2 - Ecorse / Lincoln Park](#)
  - [3 - Ecorse / Lincoln Park](#)
  - [4 - Ecorse / Lincoln Park](#)
  - [5 - Ecorse / Lincoln Park](#)
  - [6 - Lincoln Park](#)
  - [7 - Lincoln Park](#)
  - [8 - Lincoln Park](#)
  - [9 - Melvindale / Allen Park](#)
  - [10 - Allen Park](#)
  - [11 - Allen Park](#)
  - [12 - Allen Park](#)
  - [13 - Dearborn Heights](#)
  - [14 - Dearborn Heights](#)
  - [15 - Dearborn Heights](#)
  - [16 - Dearborn Heights](#)
  - [17 - Dearborn Heights](#)
  - [18 - Dearborn Heights](#)
  - [19 - Dearborn Heights](#)
  - [20 - Dearborn Heights](#)
  - [21 - Dearborn Heights](#)
  - [22 - Westland / Dearborn Heights](#)
  - [23 - Romulus](#)
  - [24 - Romulus](#)
  - [25 - Romulus](#)
  - [26 - Romulus](#)
  - [27 - Romulus](#)
  - [28 - Romulus](#)
  - [29 - Romulus](#)
  - [30 - Romulus](#)
  - [31 - Romulus](#)
  - [32 - Romulus](#)

## Reeck Drain

- [2006 Condition Survey Report](#)
- [Appendix D - Crossing Report](#)
- [Appendix E - Photographs](#)
- [Appendix F - Inspection Maps](#)
- [Appendix G - Pelham Rd Junction Chamber / Monroe-Reeck Interconnection Schematics](#)

## Task 2 - Hydrologic & Hydraulic Model Development

- [Task 2 Report](#)
- [Appendix A - May 2004 Hourly Rainfall Data](#)
- [Appendix B - Tabulated Existing and Future Land Use Conditions Hydrographs](#)
- [Appendix C - Hydraulic Profiles and Flood Maps](#)

## Task 3 - Baseline Model Development

- [Task 3 Report](#)
- [Appendix A - Modified Cross Sections for Sediment Removal at Bridges](#)
- [Appendix B - Baseline Conditions Flood Maps](#)

## Task 4 - Development & Screening of Flood Mitigation Alternatives

- [Task 4 Report](#)
- [Appendix A - Preliminary Tunnel Alternative Geotechnical Evaluation Report, NTH Consultants, Ltd.](#)
- [Appendix B - Environmental Report, Environmental Consulting & Technology, Inc.](#)

## Task 5 - Modeling & Evaluation of Flood Mitigation Alternatives

- [Task 5 Report](#)
- [Appendix A - Component Maps](#)
- [Appendix B - Detention Basin Preliminary Site Plans](#)
- [Appendix C - Tunnel Capacity Calculations](#)
- [Appendix D - Flood Maps](#)
- [Appendix E - Hydraulic Profiles](#)

## Task 6 - Detailed Evaluation of Flood Mitigation Alternatives

- [Task 6 Report](#)
- [Appendix A - Component Maps Alt 14, 15, 16 and 17](#)
- [Appendix B - Flood Maps Alt 14, 15, 16 and 17](#)
- [Appendix C - Hydraulic Profiles Alt 14, 15, 16 and 17](#)
- [Appendix D - MDOT's Bridge Repair Cost Estimate](#)

## Task 7 - Development of Recommended Flood Control Project

- [Task 7 Report](#)
- [Appendix A - Plan and Profiles](#)
- [Appendix B - Flood Maps & Hydraulic Profiles](#)
- [Appendix C - Cost Estimate](#)

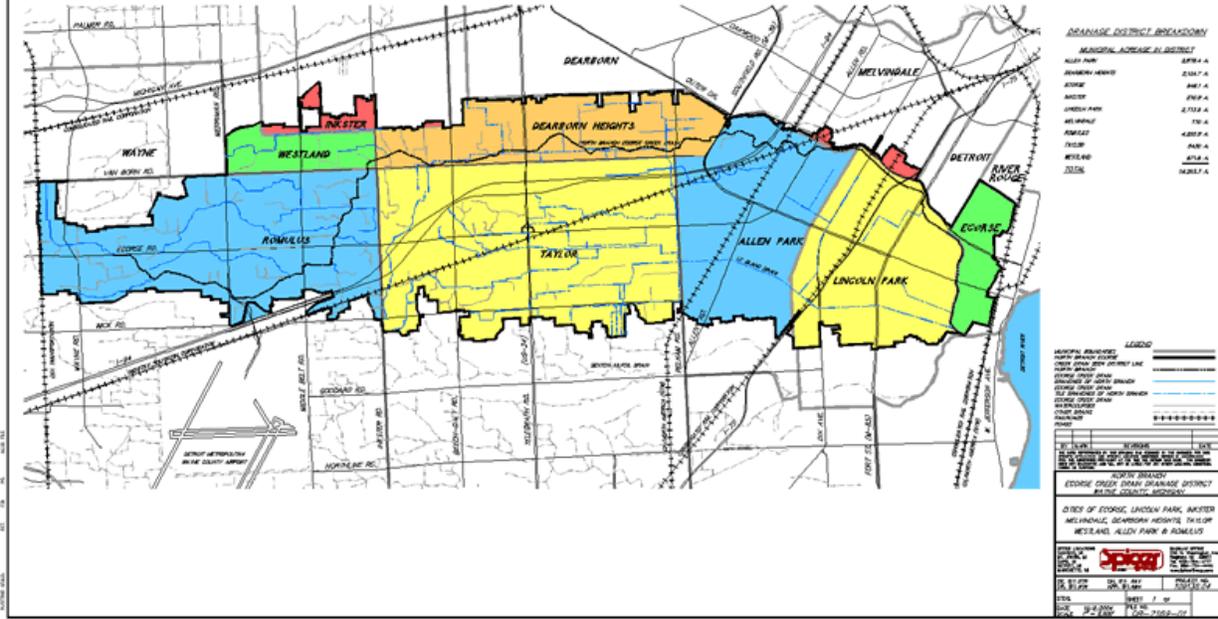
- [Appendix D - Spoil Deposition Site Report](#)
- Appendix E - Right-of-Way Maps
  - **Ecorse**
    - [0+00 to 27+00](#)
    - [27+00 to 49+00](#)
    - [49+00 to 79+00](#)
    - [79+00 to 105+00](#)
  - **Ecorse / Lincoln Park**
    - [105+00 to 131+00](#)
  - **Lincoln Park**
    - [131+00 to 158+50](#)
    - [158+50 to 186+00](#)
  - **Lincoln Park / Melvindale**
    - [186+00 to 213+00](#)
  - **Melvindale / Allen Park**
    - [213+00 to 241+50](#)
  - **Allen Park**
    - [241+50 to 275+00](#)
    - [275+00 to 311+00](#)
  - **Allen Park / Dearborn Heights**
    - [311+00 to 340+00](#)
    - [340+00 to 374+00](#)
  - **Dearborn Heights**
    - [374+00 to 404+50](#)
    - [404+50 to 434+00](#)
    - [434+00 to 466+00](#)
    - [466+00 to 494+00](#)
    - [494+00 to 521+00](#)
  - **Dearborn Heights / Taylor**
    - [521+00 to 549+00](#)
    - [549+00 to 576+00](#)
    - [576+00 to 596+00](#)
  - **Dearborn Heights / Westland / Romulus**
    - [596+00 to 619+00](#)
  - **Westland / Romulus**
    - [619+00 to 652+00](#)
  - **Romulus**
    - [652+00 to 682+00](#)
    - [682+00 to 708+00](#)
    - [708+00 to 730+00](#)
    - [730+00 to 761+00](#)
    - [761+00 to 789+00](#)
    - [789+00 to 821+00](#)
    - [821+00 to 850+00](#)
    - [850+00 to 880+00](#)
    - [880+00 to 892+98](#)

## Contact

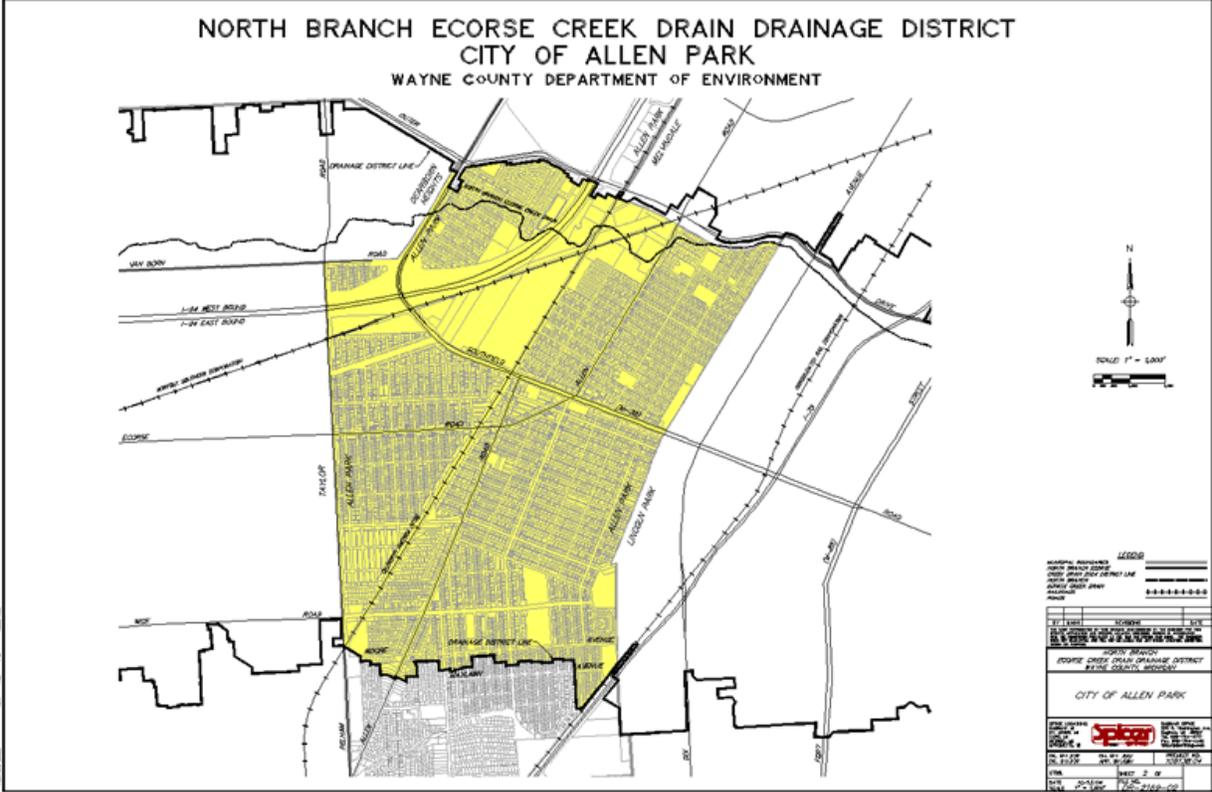
Elmeka N. Steele, Esq., Interim Deputy Director / Drain Commissioner  
Wayne County Department of Public Services  
400 Monroe Street, Suite 400  
Detroit, MI 48226  
(313) 224-3620

Email your questions and concerns to [gtupancy@waynecounty.com](mailto:gtupancy@waynecounty.com)

**NORTH BRANCH ECORSE CREEK DRAIN DRAINAGE DISTRICT**  
**WAYNE COUNTY, MICHIGAN**  
**WAYNE COUNTY DEPARTMENT OF ENVIRONMENT**

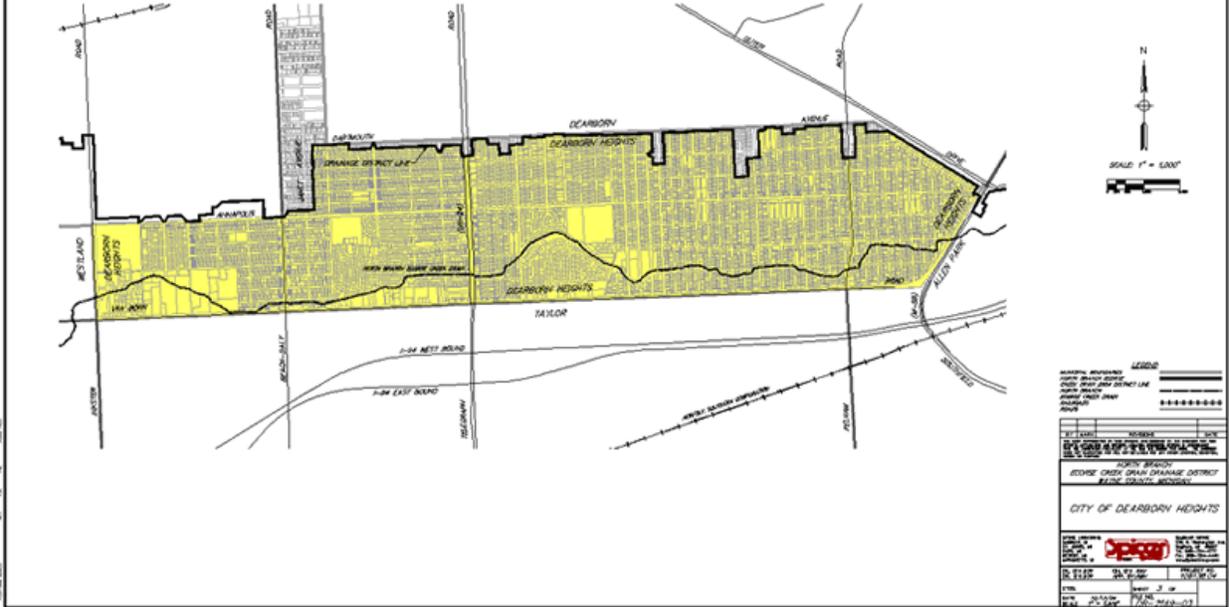


Appendix 1 – North Branch Ecorse Creek Drain Drainage District



Appendix 2 - City of Allen Park

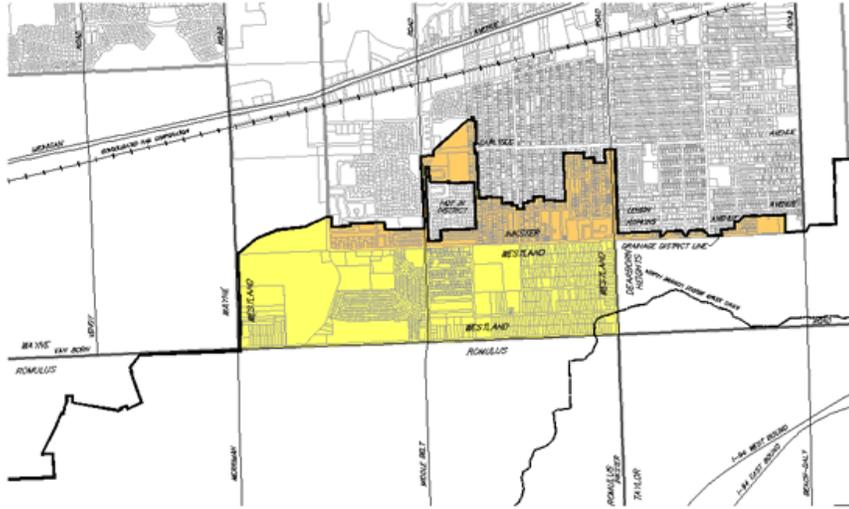
NORTH BRANCH ECORSE CREEK DRAIN DRAINAGE DISTRICT  
 CITY OF DEARBORN HEIGHTS  
 WAYNE COUNTY DEPARTMENT OF ENVIRONMENT



Appendix 3 - City of Dearborn Heights



**NORTH BRANCH ECORSE CREEK DRAIN DRAINAGE DISTRICT  
CITY OF INKSTER & CITY OF WESTLAND  
WAYNE COUNTY DEPARTMENT OF ENVIRONMENT**



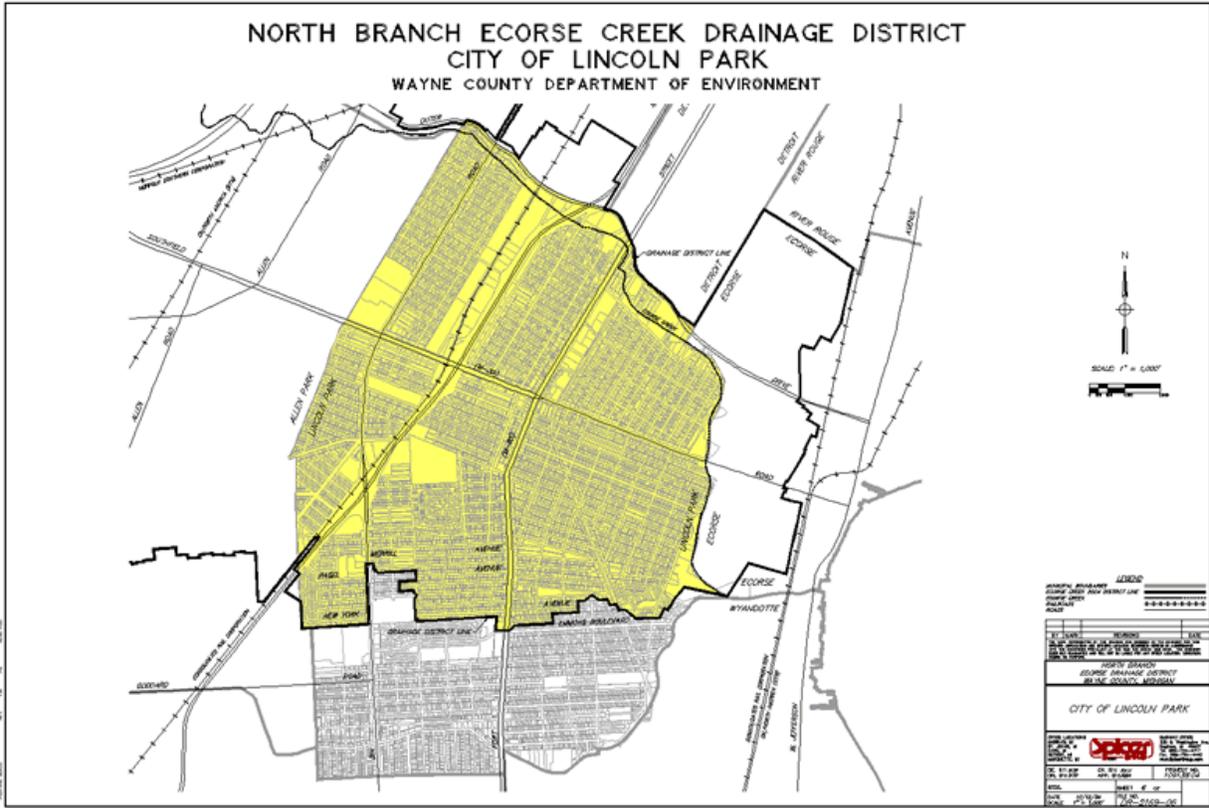
**LEGEND**

ADJACENT JURISDICTIONS	—————
ADJACENT DRAINAGE DISTRICTS	—————
ADJACENT COUNTY DRAINAGE DISTRICTS	—————
ADJACENT CITY DRAINAGE DISTRICTS	—————
ADJACENT TOWNSHIP DRAINAGE DISTRICTS	—————
ADJACENT STATE DRAINAGE DISTRICTS	—————
ADJACENT FEDERAL DRAINAGE DISTRICTS	—————
ADJACENT NATIONAL DRAINAGE DISTRICTS	—————
ADJACENT INTERNATIONAL DRAINAGE DISTRICTS	—————
ADJACENT LOCAL DRAINAGE DISTRICTS	—————
ADJACENT COUNTY DRAINAGE DISTRICTS	—————
ADJACENT CITY DRAINAGE DISTRICTS	—————
ADJACENT TOWNSHIP DRAINAGE DISTRICTS	—————
ADJACENT STATE DRAINAGE DISTRICTS	—————
ADJACENT FEDERAL DRAINAGE DISTRICTS	—————
ADJACENT NATIONAL DRAINAGE DISTRICTS	—————
ADJACENT INTERNATIONAL DRAINAGE DISTRICTS	—————
ADJACENT LOCAL DRAINAGE DISTRICTS	—————

**NORTH BRANCH ECORSE CREEK DRAIN DRAINAGE DISTRICT**  
CITY OF INKSTER & CITY OF WESTLAND

DATE	10/15/04	BY	J. W. WILSON
SCALE	1" = 600'	PROJECT	2004-04

Appendix 5- City of Inkster & City of Westland

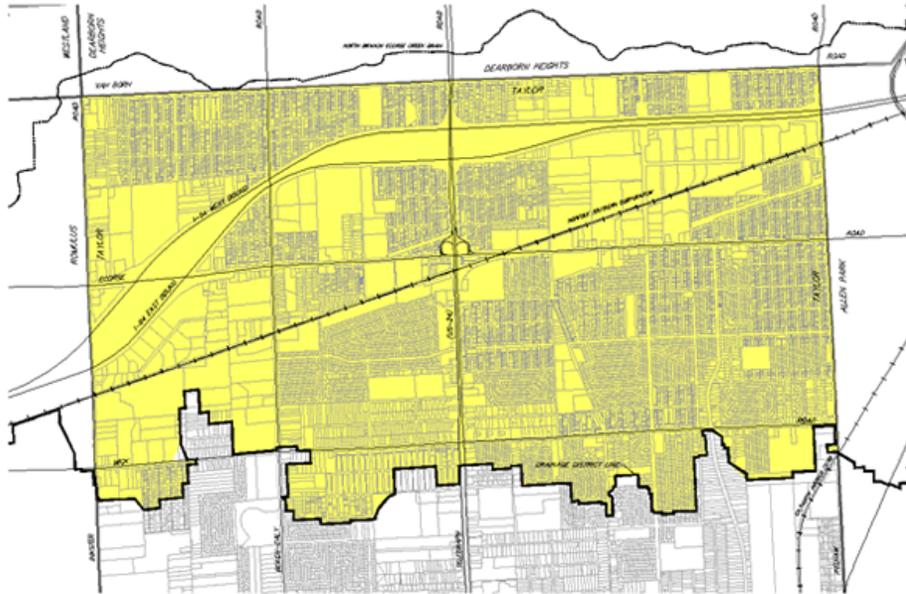


Appendix 6 - City of Lincoln Park





**NORTH BRANCH ECORSE CREEK DRAIN DRAINAGE DISTRICT  
CITY OF TAYLOR  
WAYNE COUNTY DEPARTMENT OF ENVIRONMENT**



**LEGEND**

- WATER MAINS
- SEWER MAINS
- STORM MAINS
- STREET LIGHTS
- STREET
- RAIL

---

**CITY OF TAYLOR**

**City of Taylor**

DATE: 10/15/10  
 DRAWN BY: J. W. WILSON  
 CHECKED BY: J. W. WILSON

Appendix 9 - City of Taylor