



# CHARTER TOWNSHIP OF OAKLAND PARKS AND RECREATION COMMISSION NOTICE OF PUBLIC HEARING

**WEDNESDAY March 13, 2019, 7:00 pm**

The Charter Township of Oakland Parks and Recreation Commission will hold a public hearing to receive public comments on Michigan Natural Resources Trust Fund grant application TF19-0074 to replace portable toilets with permanent restroom facilities at Marsh View Park, located at 3100 East Clarkston Road, Oakland, MI 48363, immediately west of Adams Road.

The Public Hearing will be held Wednesday March 13, 2019 at 7:00 pm at the Oakland Township Hall, 4393 Collins Road, Rochester, Michigan, 48306.

Copies of the draft grant application will be available for public inspection beginning Tuesday March 5, 2019 on the Oakland Township website at [www.oaklandtownship.org](http://www.oaklandtownship.org), at the reference desk of the Rochester Hills Public Library, at the Parks and Recreation Offices at the Paint Creek Cider Mill, 4480 Orion Road, Rochester, MI 48306 and at the Oakland Township Hall.

Written comments can be emailed to [parcsplanning@oaklandtownship.org](mailto:parcsplanning@oaklandtownship.org) or mailed to "OT Parks 2019 Marsh View Park Restrooms Grant Application", 4393 Collins Road, Rochester, MI 48306, until March 19, 2019.

If you are planning to attend the hearing and require any special assistance, please notify the Parks and Recreation Director by calling 248-651-7810 as soon as possible.

Colin Choi, Chairperson, Oakland Township Parks and Recreation Commission



# Legal Ad Proof

*If you wish to email changes please reply or use the email below*

[legals@candgnews.com](mailto:legals@candgnews.com)

*(NOTE: After 3:00pm on press day you must call for corrections)*

Date Proof Sent: 2/25/2019 11:21 AM

## AD INFORMATION

Ad Number: 0397-1909

Ad Title: Oakland Township - TF19-0074 Marsh View Park Restroom Improvements Notice of Public Hearing

Week Of Publication: 2/27/2019

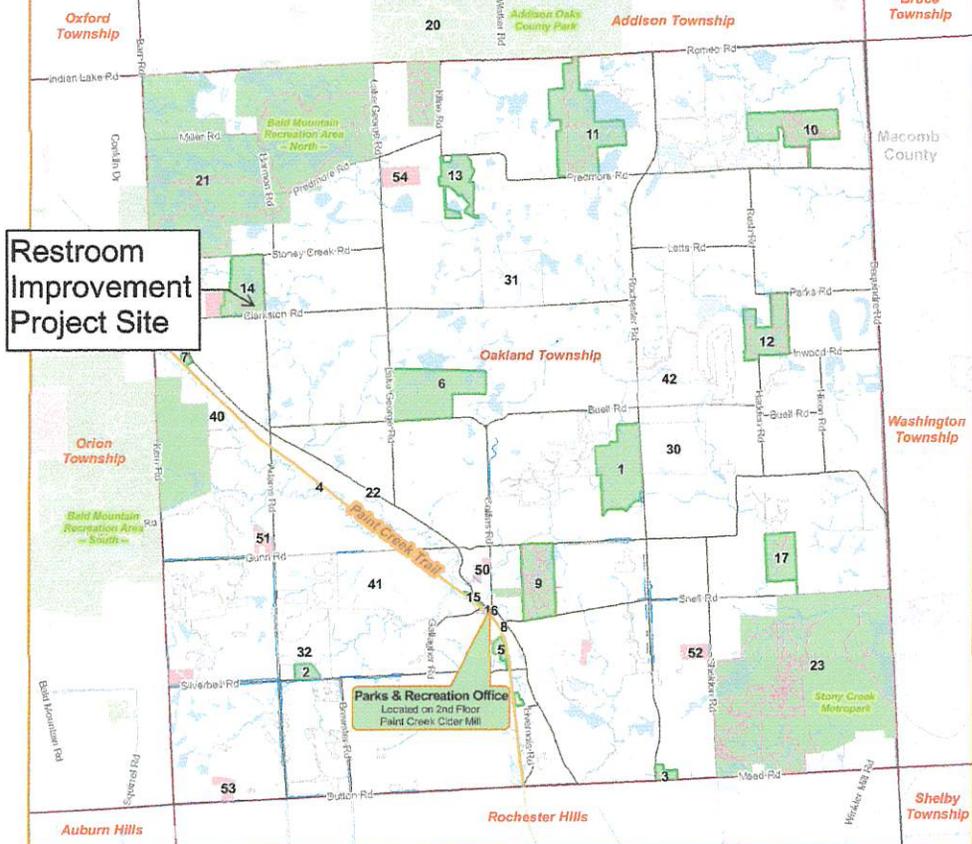
Publication(s) ad will appear: Rochester Post

For corrections call 586-498-1097

email corrections: [legals@candgnews.com](mailto:legals@candgnews.com) (NOTE: After 3:00pm on press day you must call for corrections)

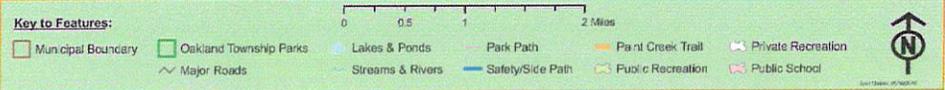
Please scroll to the next page to view the ad.

## Parks and Recreation Opportunities in Oakland Township



**Restroom  
Improvement  
Project Site**

- |   |   |  |   |
|---|---|--|---|
| <b>Oakland Township Parks and Recreation Facilities</b>   |   | <b>Other Parks and Recreation Facilities</b>   |   |
| <b>Conservation Parks</b><br>1. Blue Heron Environmental Area<br>2. Gallagher Creek Park<br>3. O'Connor Nature Park<br>4. Paint Creek Heritage Area - Fen<br>5. Paint Creek Heritage Area - Wet Prairie<br>6. Watershed Ridge Park<br><br><b>Future Trail Connections</b><br>7. Paint Creek Junction Park<br>8. Mill Creek Crossing | <b>Community Parks &amp; Recreation Facilities</b><br>9. Bear Creek Nature Park<br>10. Charles Heley Park<br>11. Cranberry Lake Park<br>12. Draper Twin Lake Park<br>13. Lost Lake Nature Park<br>14. Marsh View Park<br>15. Mill Race Trail<br>16. Paint Creek Cider Mill (Parks & Rec Office)<br>17. Stony Creek Ravine Nature Park | <b>Other Public Parks</b><br>20. Addison Oaks County Park<br>21. Bald Mountain State Recreation Area<br>22. Paint Creek Trail<br>23. Stony Creek Metropark<br><br><b>Other Public Recreation Facilities</b><br>30. Blackheath Golf Club<br>31. The Myth Golf and Banquet<br>32. Westwind Golf Course | <b>Private Recreation Facilities</b><br>40. Royal Oak Archers<br>41. The Wyngate Golf Course<br>42. Twin Lakes Golf and Swim Club<br><br><b>Public Schools</b><br>50. Baldwin Elementary School<br>51. Delta Kelly Elementary School<br>52. Hagger Elementary School<br>53. Museon Elementary School<br>54. Oakview Middle School |



**PROJECT LOCATION MAP**  
SCALE: NTS

### APPLICANT:

CHARTER TOWNSHIP OF OAKLAND 4393  
 COLLINS ROAD ROCHESTER, MI 48306  
 CONTACT: MELINDA MILOS-DALE  
 PHONE: (248) 651-7810  
 EMAIL: mmdale@oaklandtownship.org

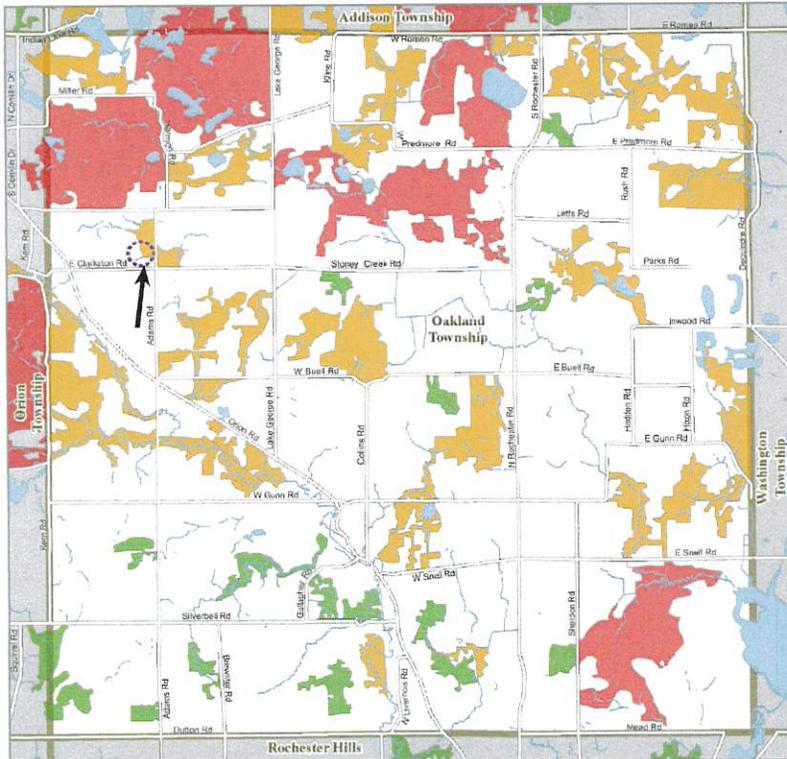
CHARTER TOWNSHIP OF OAKLAND  
 4393 COLLINS ROAD  
 ROCHESTER, MICHIGAN 48306

PROJECT LOCATION MAP  
 TF19-0074  
 MARSH VIEW PARK RESTROOM  
 IMPROVEMENTS

CHARTER TOWNSHIP OF OAKLAND, OAKLAND COUNTY, MICHIGAN

DES. JTS	SUR. PEA	SCALE	N/A	JOB NO. OA1810
DN. JTS	P.M. JTS	DATE	03-01-19	DWG. NO. 1

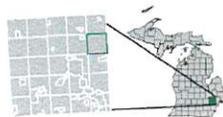
**PEA, Inc.**  
 2430 Rochester Ct., Ste. 100  
 Troy, MI 48063-1872  
 t: 248.689.9090  
 f: 248.689.1044  
 www.peainc.com



The information provided herewith has been compiled from recorded deeds, plats, tax maps, surveys and other public records. It is not a legally recorded map or survey and is not intended to be used as one. Users should consult the information sources mentioned above when questions arise.

### 2017 MNFI Potential Natural Areas

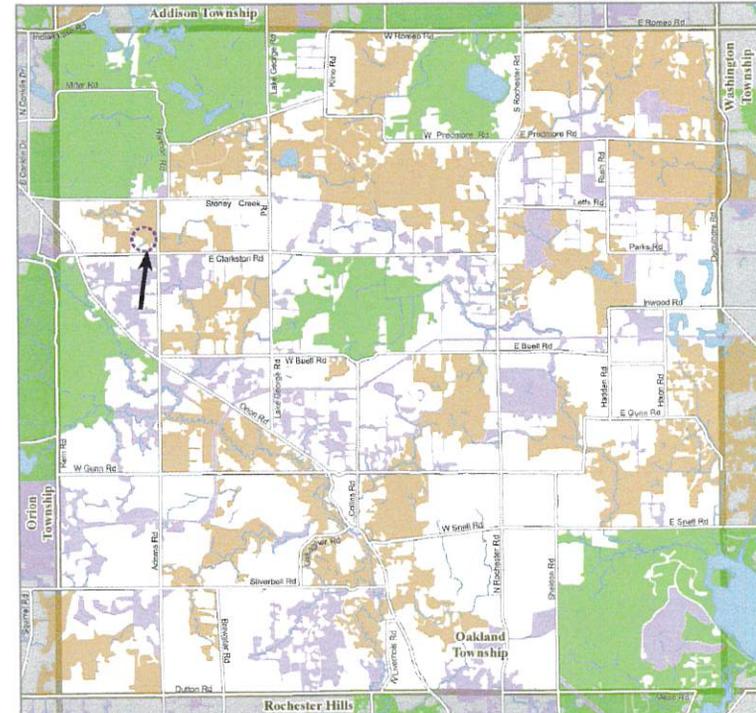
#### Oakland Township



Map Created on March 19, 2018  
0 0.25 0.5 0.75 1 Miles

- Municipal Boundary
- Railroad
- Major Roads
- Lake or Pond
- River or Stream
- MNFI Potential Natural Areas**
- Priority One
- Priority Two
- Priority Three

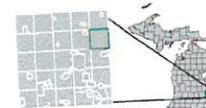
**OAKLAND COUNTY MICHIGAN**  
ECONOMIC DEVELOPMENT & COMMUNITY AFFAIRS  
Executive Office Building  
L. Brooks Patterson County Executive  
2100 Pontiac Lake Road, Bldg. 41W  
Waterford, MI 48328-0412  
248.858.0721  
[www.AdvantageOakland.com](http://www.AdvantageOakland.com)



The information provided herewith has been compiled from recorded deeds, plats, tax maps, surveys and other public records. It is not a legally recorded map or survey and is not intended to be used as one. Users should consult the information sources mentioned above when questions arise.

### Green Infrastructure

#### Oakland Township



Map Created on March 19, 2018  
0 0.25 0.5 0.75 1 Miles

- Municipal Boundary
- Railroad
- Major Road
- Lake or Pond
- River or Stream
- Green Infrastructure Network**
- Hub
- Site
- Link

**OAKLAND COUNTY MICHIGAN**  
ECONOMIC DEVELOPMENT & COMMUNITY AFFAIRS  
Executive Office Building  
L. Brooks Patterson County Executive  
2100 Pontiac Lake Road, Bldg. 41W  
Waterford, MI 48328-0412  
248.858.0721  
[www.AdvantageOakland.com](http://www.AdvantageOakland.com)

CHARTER TOWNSHIP OF OAKLAND  
4393 COLLINS ROAD  
ROCHESTER, MICHIGAN 48306

PROJECT LOCATION MAPS  
TF19-0074

MARSH VIEW PARK RESTROOM  
IMPROVEMENTS

CHARTER TOWNSHIP OF OAKLAND, OAKLAND COUNTY, MICHIGAN

DES. JTS	SUR. PEA	SCALE	N/A	JOB NO.	OA1810
DN. JTS	P.M. JTS	DATE	03-01-19	DWG. NO.	1A



PEA, Inc.

2430 Rochester Ct., Ste. 100  
Troy, MI 48063-1872  
t: 248.689.9090  
f: 248.689.1044  
[www.peainc.com](http://www.peainc.com)



**SITE DEVELOPMENT PLAN**

SCALE: NTS

CHARTER TOWNSHIP OF OAKLAND  
 4393 COLLINS ROAD  
 ROCHESTER, MICHIGAN 48306

SITE DEVELOPMENT PLAN  
 TF19-0074  
 MARSH VIEW PARK RESTROOM  
 IMPROVEMENTS

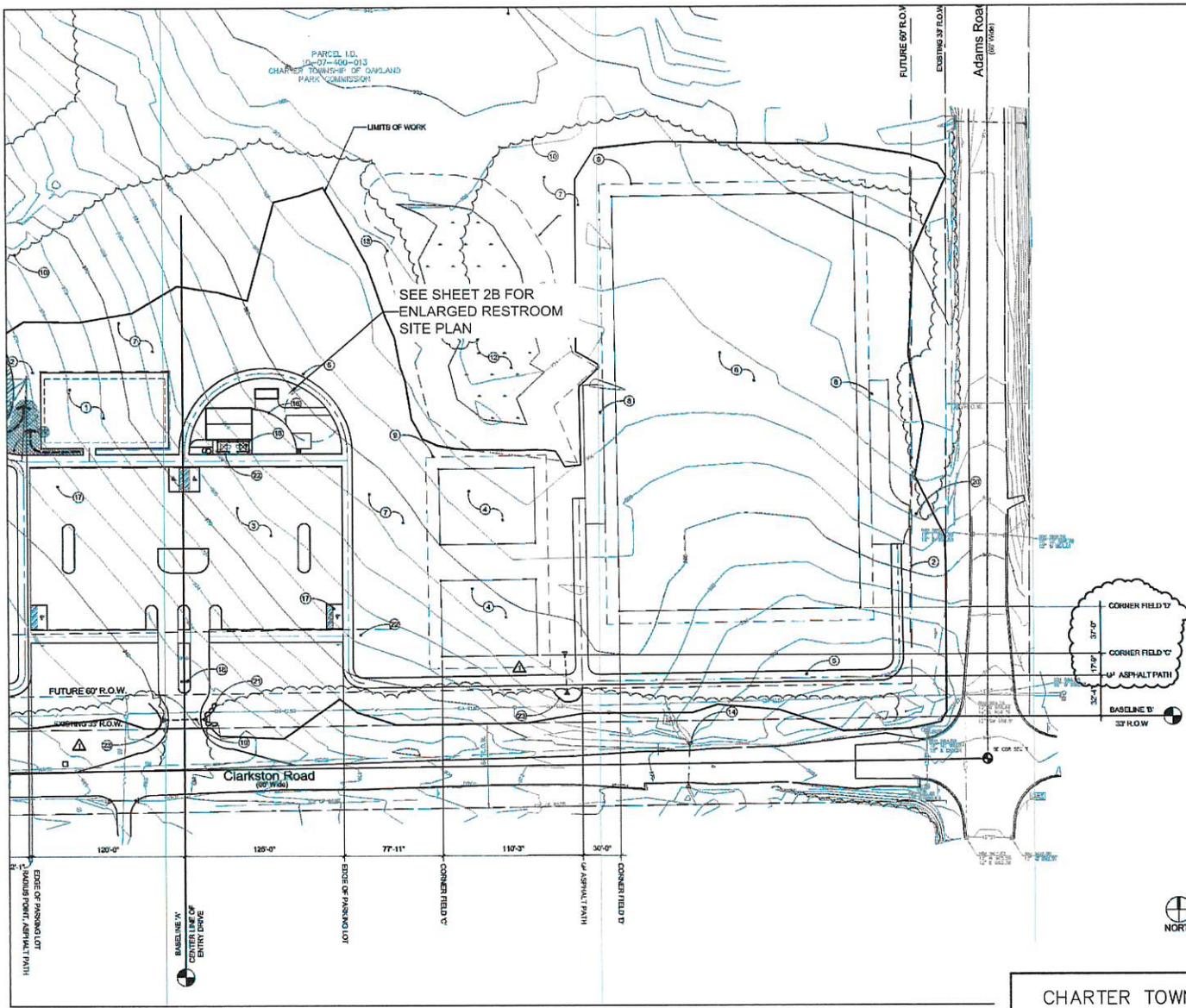
CHARTER TOWNSHIP OF OAKLAND, OAKLAND COUNTY, MICHIGAN

DES. JTS	SUR. PEA	SCALE	N/A	JOB NO.	0A1810
DN. JTS	P.M. JTS	DATE	03-01-19	DWG. NO.	2



**PEA, Inc.**

2430 Rochester Ct., Ste. 100  
 Troy, MI 48063-1872  
 t: 248.689.9090  
 f: 248.689.1044  
 www.peainc.com



**Note Key**

- ① ASPHALT BASKETBALL COURT, SEE ENLARGEMENT SHEET L-14 FOR LAYOUT.
- ② 4" BLACK VINYL CLAD CHAIN LINK FENCE, SEE TYP DETAIL SHEET L-32
- ③ GRAVEL PARKING LOT AND ENTRY, SEE ENLARGEMENT SHEET L-14 FOR LAYOUT PLAN.
- ④ FIELD C - 10 SOCCER FIELDS, SEE ENLARGEMENT SHEET L-14 FOR LAYOUT.
- ⑤ 18' WIDE ASPHALT PATH, SEE TYP. DETAIL SHEET L-30.
- ⑥ FIELD D - MULTIPURPOSE ATHLETIC FIELD, SEE ENLARGEMENT SHEET L-15 FOR LAYOUT.
- ⑦ AREA TO BE SEEDED WITH NATIVE SEED MIX, SEE SEEDING PLAN SHEET L-24.
- ⑧ COMPACTED STONE TEAM / SPECTATOR AREA, SEE TYP. DETAIL SHEET L-30
- ⑨ 10' SAFETY ZONE, TYP.
- ⑩ EXISTING TREE LINE
- ⑪ EXISTING MARSH / WETLAND COMPLEX
- ⑫ EXISTING WETLAND
- ⑬ 25' NATURAL FEATURES SETBACK
- ⑭ EXISTING CULVERT UNDER CLARKSTON ROAD, PROTECT AS NECESSARY DURING CONSTRUCTION, SEE DETAIL SHEET L-6
- ⑮ ENCLOSED BARRIER FREE PORTABLE TOILET WITH FUTURE STORAGE BUILDING, SEE ENLARGEMENT SHEET L-14 FOR LAYOUT.
- ⑯ CONCRETE PAD, SEE DETAIL SHEET L-30.
- ⑰ ASPHALT PAVED ACCESSIBLE PARKING, SEE SHEET L-14 FOR LAYOUT PLAN.
- ⑱ RELOCATED PARK SIGN, SEE DEMOLITION PLAN SHEET L-6
- ⑲ PROPOSED 12" CSP CULVERT WITH FLARED END SECTIONS, SEE SHEET L-20 FOR INVERT INFORMATION
- ⑳ COMPACTED STONE EMERGENCY VEHICLE TURN-AROUND
- ㉑ BOULDER RETAINING WALL, SEE TYP. DETAIL SHEET L-31.
- ㉒ INTERPRETIVE OR WAYFINDING SIGN LOCATION, TYP. SEE SPECIFICATIONS, INSTALL PER MANUFACTURERS SPECIFICATIONS.
- ⚠️ ㉓ INSTALL SILT FENCE GRAVEL FILTER ONCE CULVERT IS INSTALLED, MAINTAIN THROUGH OUT CONSTRUCTION OPERATIONS, SEE DETAIL SHEET L-6

**GENERAL NOTES**

1. TOPOGRAPHIC INFORMATION EXISTING INFORMATION IS BASED ON A TOPOGRAPHIC SURVEY BY PEA, INC. SHEET L-1.
2. VERTICAL CONTROL, SEE SHEET L-2.
3. EXISTING CULVERT INFORMATION HAS BEEN OBTAINED FROM EXISTING AVAILABLE DRAWINGS AND SURFACE MEASUREMENTS ON THE TOPOGRAPHIC SURVEY. VERIFY THE INFORMATION AS NECESSARY PRIOR TO CONSTRUCTION, NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR INTERFERENCES.
4. CONSTRUCTION DRAINAGE USE PUMPS, TEMPORARY DITCHES, SLOPES TO DRAINAGE WILL BE MAINTAINED FREE OF OBSTRUCTION THROUGHOUT THE PROJECT.
5. SURFACE DRAINAGE: RESTORE PAVED SURFACES AND OTHER SURFACES UNDISTURBED BY CONTACT OPERATIONS TO THEIR ORIGINAL CONDITION OR BETTER. RESTORE ALL UNPAVED AREAS WITH ORIGINAL FINISH. SEE SHEETS L-22 AND L-24 FOR DETAILS.
6. ALL PROPOSED CULVERTS SHALL HAVE END SECTIONS. WOOD DRAINAGE BARVEY PORTS SHALL BE PROVIDED AT ALL CROSS CULVERT ENDS PER R.C.D.C. STANDARDS.
7. GRADING PERMITS AND WOOD DISPOSAL AGREEMENTS WILL BE SECURED BY THE OWNER.
8. ALL U.S.P. SHALL BE 10 GAUGE.



CHARTER TOWNSHIP OF OAKLAND  
4393 COLLINS ROAD  
ROCHESTER, MICHIGAN 48306

SITE DEVELOPMENT PLAN  
TF19-0074  
MARSH VIEW PARK RESTROOM  
IMPROVEMENTS

CHARTER TOWNSHIP OF OAKLAND, OAKLAND COUNTY, MICHIGAN

DES. JTS	SUR. PEA	SCALE 1" = 125'	JOB NO. OA1810
DN. JTS	P.M. JTS	DATE 03-01-19	DWG. NO. 2A

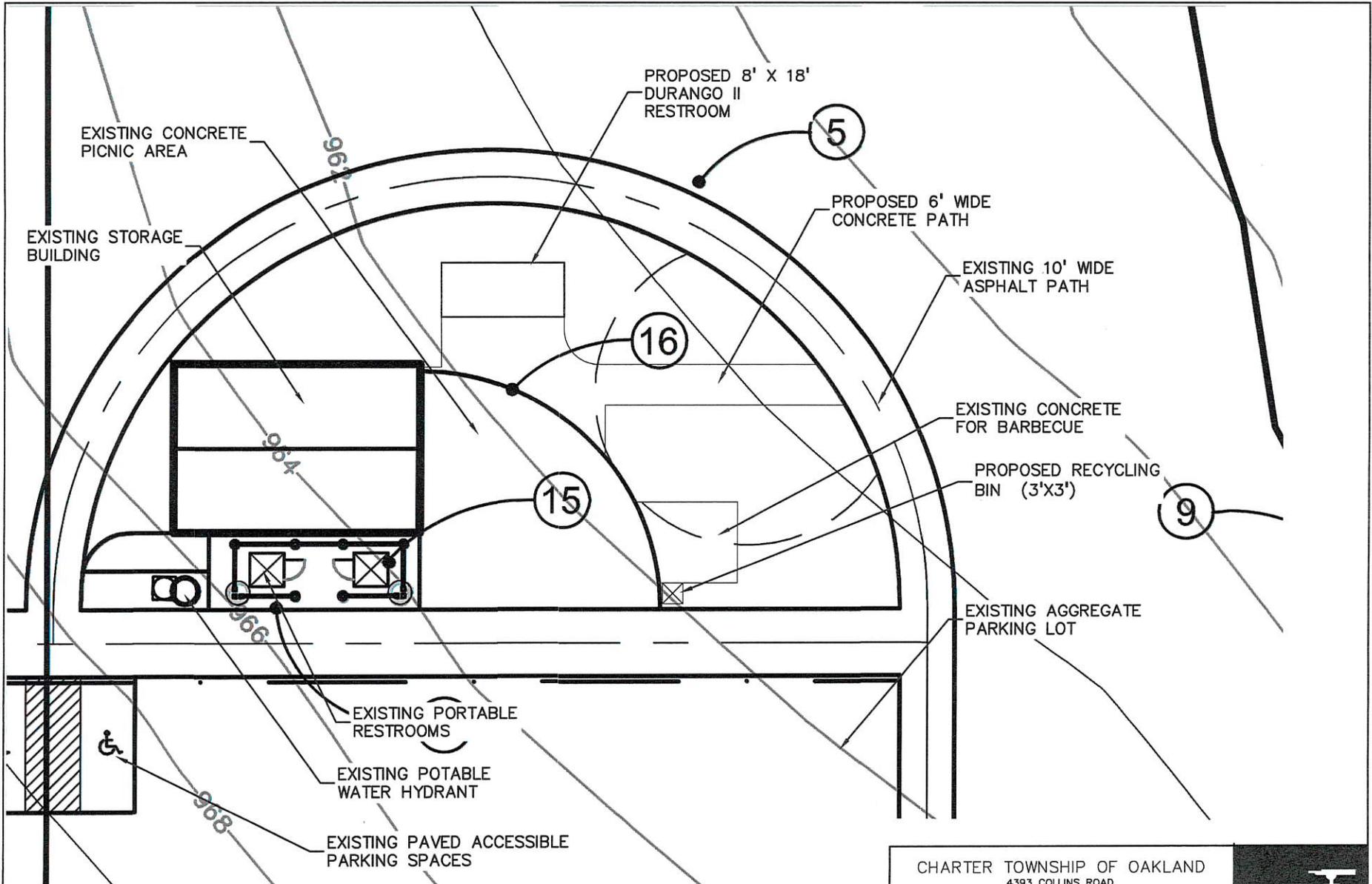
PEA

PEA, Inc.

2430 Rochester Ct., Ste. 100  
Troy, MI 48063-1872  
t: 248.689.9090  
f: 248.689.1044  
www.peainc.com

SITE DEVELOPMENT PLAN

SCALE: 1" = 125'



ENLARGED SITE DEVELOPMENT PLAN

SCALE: 1" = 20'

CHARTER TOWNSHIP OF OAKLAND  
 4393 COLLINS ROAD  
 ROCHESTER, MICHIGAN 48306

SITE DEVELOPMENT PLAN  
 TF19-0074

MARSH VIEW PARK RESTROOM  
 IMPROVEMENTS

CHARTER TOWNSHIP OF OAKLAND, OAKLAND COUNTY, MICHIGAN

DES. JTS	SUR. PEA	SCALE 1" = 20'	JOB NO. OA1810
DN. JTS	P.M. JTS	DATE 03-01-19	DWG. NO. 2B

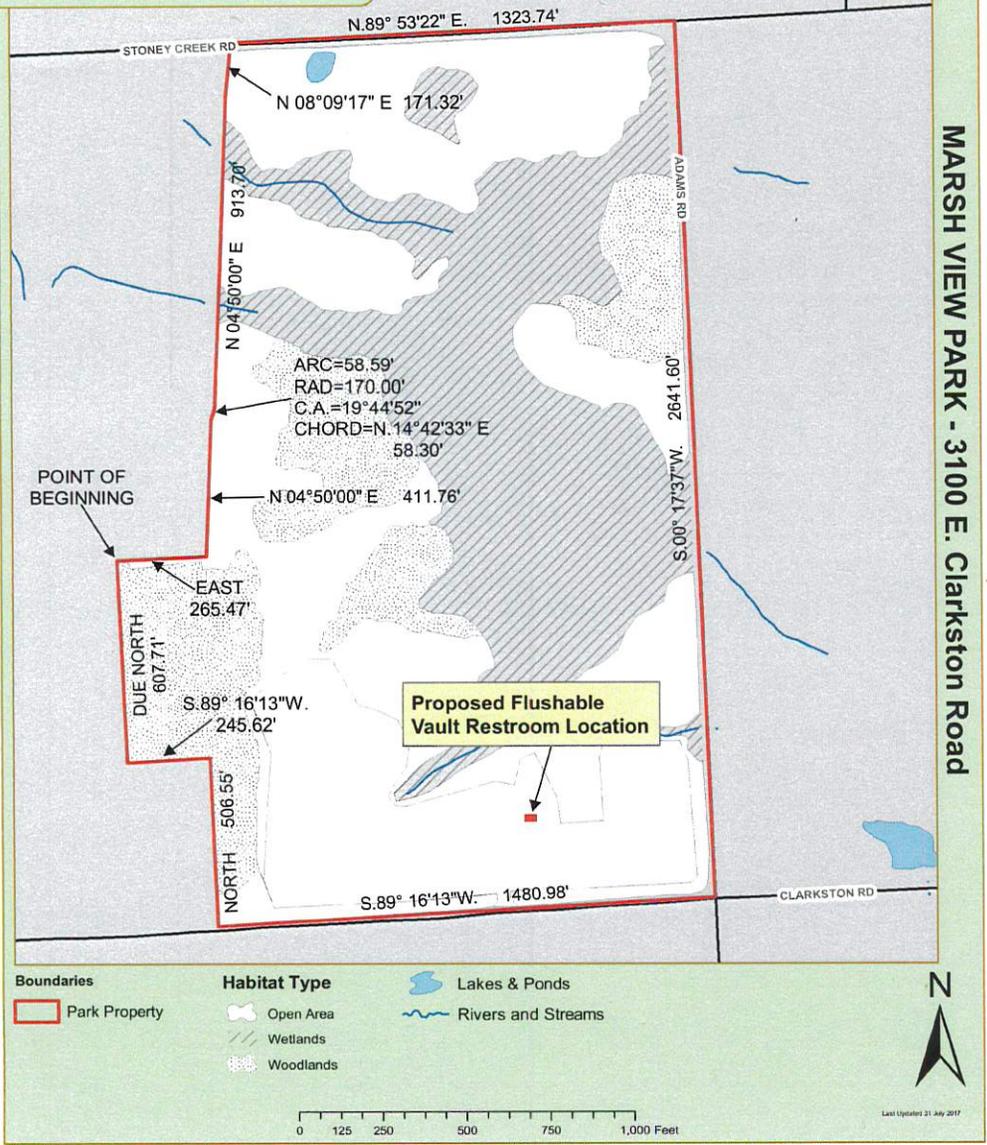


PEA, Inc.

2430 Rochester Ct., Ste. 100  
 Troy, MI 48063-1872  
 t: 248.689.9090  
 f: 248.689.1044  
 www.peainc.com

**Charter Township of Oakland  
Parks and Recreation**

4393 Collins Road  
Rochester, MI 48306  
Phone: 248.651.7810  
www.OaklandTownship.org  
Office located on 2nd floor of the Prairie Creek Cedar Mill



**BOUNDARY MAP PLAN**

SCALE: NTS

CHARTER TOWNSHIP OF OAKLAND  
4393 COLLINS ROAD  
ROCHESTER, MICHIGAN 48306

BOUNDARY MAP PLAN  
TF19-0074

MARSH VIEW PARK RESTROOM  
IMPROVEMENTS

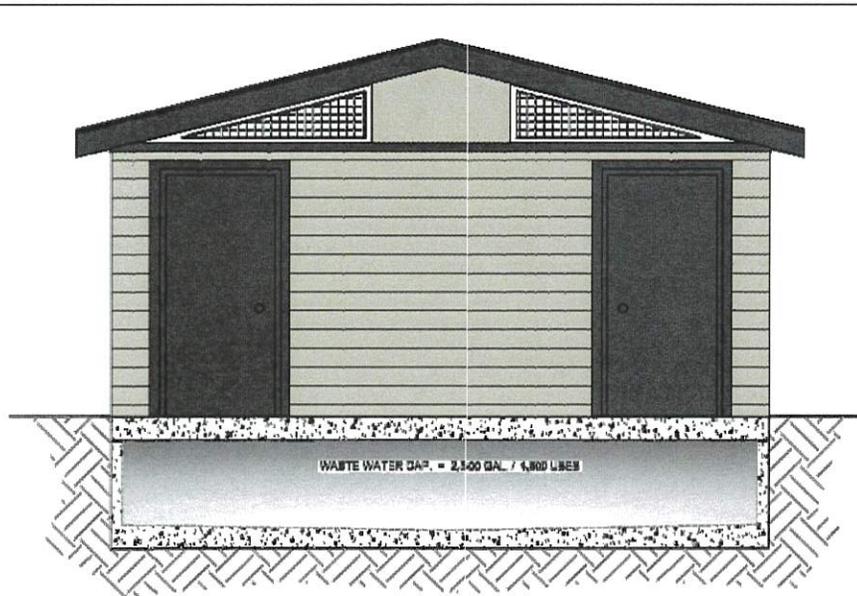
CHARTER TOWNSHIP OF OAKLAND, OAKLAND COUNTY, MICHIGAN

DES. JTS	SUR. PEA	SCALE N/A	JOB NO. OA1810
DN. JTS	P.M. JTS	DATE 03-01-19	DWG. NO. 3

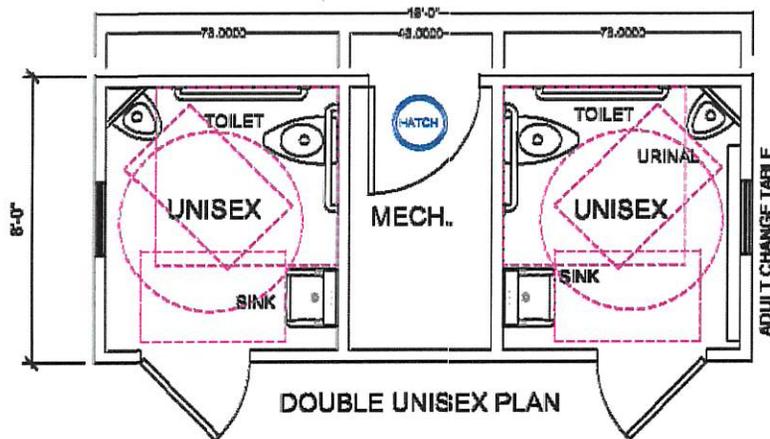


**PEA, Inc.**

2430 Rochester Ct., Ste. 100  
Troy, MI 48063-1872  
t: 248.689.9090  
f: 248.689.1044  
www.peainc.com



## DURANGO II



### RESTROOM FLOOR PLAN & ELEVATIONS

SCALE: NTS

CHARTER TOWNSHIP OF OAKLAND  
4393 COLLINS ROAD  
ROCHESTER, MICHIGAN 48306

RESTROOM PLANS  
TF19-0074

MARSH VIEW PARK RESTROOM  
IMPROVEMENTS

CHARTER TOWNSHIP OF OAKLAND, OAKLAND COUNTY, MICHIGAN

DES. JTS	SUR. PEA	SCALE N/A	JOB NO. OA1810
DN. JTS	P.M. JTS	DATE 03-01-19	DWG. NO. 4



PEA, Inc.

2430 Rochester Ct., Ste. 100  
Troy, MI 48063-1872  
t: 248.689.9090  
f: 248.689.1044  
www.peainc.com



## RECYCLE BIN PHOTOGRAPH AND SPECIFICATIONS

SCALE: NTS

### Eagle Scout Service Project Final Plan

#### Materials

List each item, and its description, quantity, unit cost, total cost, and source. For example:

Item	Description	Quantity	Unit Cost	Total Cost	Source
Plywood	3/4", 4x8', B-C interior grade	3 sheets	\$20.00	\$60.00	ABC Hardware donation*
Composite Wood	1.25x5.5x20ft	20 boards	\$47.96	\$959.20	Dillman & Upton -25%
Pressure Treated Wood	2x4x8ft	20 boards	\$4.92	\$98.40	Dillman & Upton -25%
Decking Screws	brown 2.5in	3 boxes	\$41.40	\$124.21	Dillman & Upton -25%
Hinges	Heavy metal	10	\$3.97	\$39.70	Home Depot
Bolts, Nuts, + Washers		120 total	\$ .91	\$95.30	Home Depot
Paint	Brown	1 can	\$3.98	\$3.98	Home Depot
Trim Ring	Brown, 4in hole	5	\$4.97	\$24.85	Home Depot
More Deck Screws	Brown 2.5in	1	\$7.98	\$7.98	Home Depot
More Composite Wood	1.25x5.5x8ft	2 boards	\$29.00	\$58.00	Home Depot
Security Cable	Steel	50ft	\$ .44	\$22.00	Home Depot
Steel Bar	6ft	1	\$4.98	\$4.98	Home Depot
Stake spiral anchor		5	\$7.63	\$38.15	Amazon.com
Trash can	metal	5	\$31.95	\$159.75	Amazon.com
Recycle Sign		5	\$7.45	\$37.25	recyclereminders.com
Boy Scout Plaque		5	\$3.05	\$15.25	trophykits.com
Paint Creek Plaque		5	\$11.89	\$59.45	speedysigns.com
<b>Total Cost of Materials:</b>			<b>\$1,748.45</b>		

\*If you plan for donations such as the one shown in the sample, you will most likely need to complete the Eagle Scout Service Project Fundraising Application found on Page 17.

#### Supplies

List each item, and its description, quantity, unit cost, total cost, and source. For example:

Item	Description	Quantity	Unit Cost	Total Cost	Source
Plastic tarp	9x12' 2 mil thick	2 tarps	\$4.00	\$8.00	ABC Hardware purchase
Garbage Bags	30gal, black	8 bags	\$0	\$0	me
Pencil		2	\$0	\$0	me
<b>Total Cost of Supplies:</b>			<b>\$0</b>		

#### Tools

List each tool, with its quantity, unit cost, total cost, and who will operate or use it. For example:

Tool	Quantity	Unit Cost	Total Cost	Source	Who will operate/use?
Circular Power Saw*	1	\$0	\$0	Mr. Smith	Mr. Smith
Circular Saw	1	\$0	\$0	Father	Father/Adults
Chop Saw	1	\$0	\$0	Father	Father/Adults
Measuring Stick	2	\$0	\$0	Father	anyone
Tape Measure	2	\$0	\$0	Father	anyone
Power Screwdriver	2	\$0	\$0	Father	anyone
Square	1	\$0	\$0	Father	anyone
Trailer	1	\$0	\$0	Father	Father
Dolly	1	\$0	\$0	Father	anyone
Dremel	1	\$0	\$0	Father	anyone
<b>Total Cost of Tools</b>			<b>\$0</b>		

\*Power tools that are considered hazardous, like circular saws, must be operated by adults who are experienced in their use. See Guide to Safe Scouting.

14

CHARTER TOWNSHIP OF OAKLAND  
4393 COLLINS ROAD  
ROCHESTER, MICHIGAN 48306

RECYCLE BIN DETAILS  
TF19-0074

MARSH VIEW PARK RESTROOM  
IMPROVEMENTS

CHARTER TOWNSHIP OF OAKLAND, OAKLAND COUNTY, MICHIGAN

DES. JTS	SUR. PEA	SCALE N/A	JOB NO. OA1810
DN. JTS	P.M. JTS	DATE 03-01-19	DWG. NO. 6

PEA

PEA, Inc.

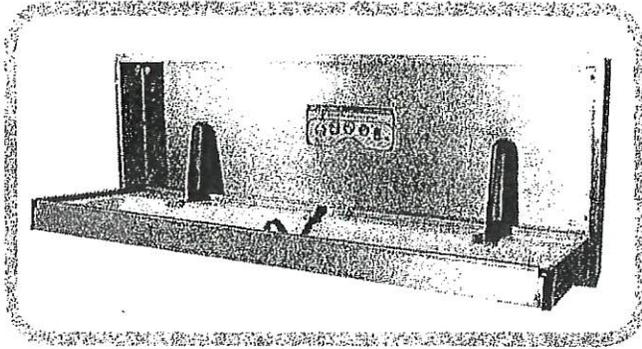
2430 Rochester Ct., Ste. 100  
Troy, MI 48063-1872  
t: 248.689.9090  
f: 248.689.1044  
www.peainc.com



## Special Needs Extended Length Changing Station Installation Instructions

## Station à langer allongée et adaptée instructions d'installation

## Estación para cambiar pañales de longitud adicional para necesidades especiales instrucciones para la instalación



Thank you for purchasing a quality Foundations® product. Our goal is 100% consumer satisfaction! If for any reason you are not satisfied or if you have questions regarding your product or installation, please contact our customer service team at 330-722-5033 or [www.foundations.com](http://www.foundations.com). Please DO NOT contact your distributor or reseller as we are better prepared to assist you.

Nous vous remercions d'avoir acheté un produit de qualité Foundations®. Nous avons pour objectif d'offrir entière satisfaction à nos clients! Si, pour quelque raison que ce soit, vous n'êtes pas satisfait ou si vous avez des questions concernant le produit ou son installation, veuillez contacter notre équipe de service à la clientèle au 330-722-5033 ou [www.foundations.com](http://www.foundations.com). Veuillez NE PAS contacter le distributeur ou le vendeur, car nous sommes plus à même de vous aider.

Gracias por comprar un producto de calidad de Foundations®. ¡Nuestro objetivo son consumidores 100% satisfechos! Si por alguna razón no está satisfecho o si tiene preguntas sobre el producto o la instalación, comuníquese con el equipo de servicio al cliente llamando al 330-722-5033 o [www.foundations.com](http://www.foundations.com). NO se comunique con el distribuidor ni con el vendedor ya que nosotros estamos mejor preparados para ayudarlo.

### ⚠ WARNING

- Failure to follow these warnings and the installation instructions could result in serious injury or death.
- Read all instructions before installing the extended length changing station. Keep these instructions. DO NOT discard.

### ⚠ AVERTISSEMENT

- Le non respect de ces avertissements et instructions d'installation peut entraîner des blessures graves ou la mort.
- Lisez attentivement toutes les instructions avant d'installer la station à langer allongée. Conservez ces instructions. NE les jetez PAS.

### ⚠ ADVERTENCIA

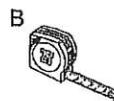
- El no seguir estas advertencias y las instrucciones para la instalación podría causar lesiones graves o la muerte.
- Lea todas las instrucciones antes de instalar la estación para cambiar pañales de longitud adicional. Guarde estas instrucciones. NO las deseche.

## ASSEMBLY INSTRUCTIONS

**ADULT INSTALLATION REQUIRED.**

**TOOLS REQUIRED:**

- (A) Level
- (B) Measuring tape
- (C) Power drill



- READ ALL INSTRUCTIONS BEFORE ASSEMBLY OF EXTENDED LENGTH CHANGING STATION.
- Unpack carton and identify all parts.

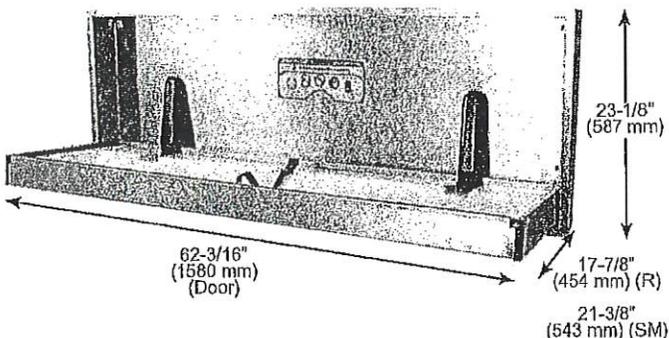
### ⚠ WARNING

- This changer has six (6) recess mounting holes.
- The diaper changing station is no stronger than the anchors or walls to which they are attached and, therefore, MUST be firmly secured in order to support the weight they are intended to support. It is recommended that this unit be installed in a recessed fashion. If surface mounting, contact an architect, building contractor, or Professional Engineer for proper installation and hardware. Contact an architect or building contractor if any questions.
- Child should never be left unattended.
- Avoid serious injury from falling or sliding out. Always use restraint system.
- Adding excessive weight such as parcels, packages, or accessories to the unit or to the bag hooks that exceed the total weight limit of 400 pounds (181.8 kg) may cause the unit to be unstable or may cause a hazardous unstable condition to exist.

### PARTS LIST

Parts Description	Quantity
Door / Wall Plate	1

**IMPORTANT:** Due to widely varied wall material, anchoring to be determined by architect or engineer.



Door / wall plate to be mounted on outside of restroom door.

**A.D.A. Compliance:**



- 306.3 Knee Clearance
- 307.2 Maximum Protruding Objects
- 308.2 Forward Reach
- 308.3 Side Reach
- 309.4 Operation
- 902.3 Work Surface

Compliant when properly installed.

**OPERATION:**

Rotate base downward. Place person to be changed on top of the changing surface. Use restraint system as described below. After occupant has been changed, remove restraint system and rotate base back up against the wall.

**USE OF RESTRAINT SYSTEM:**

Place occupant so restraint strap is located at abdomen. Rotate top of buckle upward and insert strap in buckle. Pull strap through buckle until snug against occupant. Rotate top of buckle downward to lock the strap into place. Slide red locking tab over top of buckle (Fig. a). Reverse steps to loosen strap.

**MAINTENANCE AND CLEANING:**

Check all hardware and components monthly or as required to ensure hardware is tight and there are no missing or damaged components. Take unit out of service if any component is missing or damaged and contact customer service to order replacement parts. Do not substitute parts. For replacement parts, contact customer service at 330-722-5033.

Clean by using a damp cloth with mild soap or mild multi-purpose cleaner. Do not use and strong chemical cleaners or cleaning agents that may be hazardous to children.

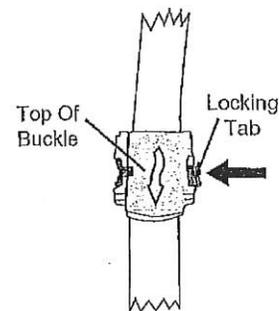


Fig. a

## INSTALLATION - RECESSED

**NOTE:** If installing a surface-mount changing station, see "Installation - Surface-Mount" section.

### Recommended Blocking:

Wood double stud blocking is necessary. Contact an architect and building official to make sure the blocking is adequate and complies with building codes (Fig. b).

For A. D. A. compliance, top of lower double stud **MUST** be 28" (71 cm) from the floor.

1. Slide changer into blocking area and mark mounting hole location on blocking studs.

**HINT:** This may require 2 additional people to help hold changer in position while you are marking the locations.

2. Shim changer for a snug fit.

3. Align holes in changer with marked holes and secure using the appropriate fasteners (Fig. c).

**NOTE:** It is installers responsibility to provide correct fasteners for other substrates.

4. Ensure all seven (7) fasteners are tight.

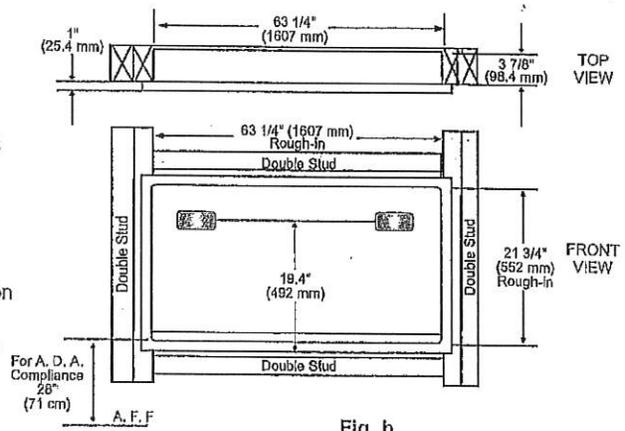


Fig. b

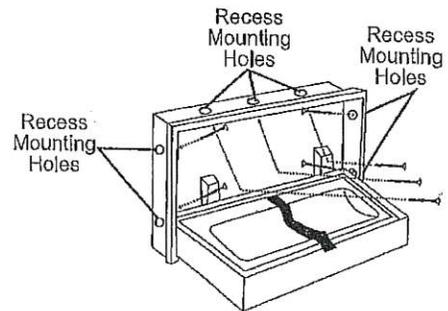


Fig. c

## INSTALLATION - SURFACE-MOUNT

### Recommended Blocking:

If the walls do not have studs on center, then additional blocking is necessary (Fig. d).

Contact an architect or building contractor to make sure the blocking is adequate and complies with building codes.

For A. D. A. compliance, measure up 48 1/2" (123 cm) from the floor and mark the wall. This locates the position for the top left attachment hole.

**NOTE:**

- Changer **MUST** be mounted to studs (Fig. e).
- This unit incorporates a finishing collar that seats behind the changer's outside flange. Center the collar as the unit is being tightened against the wall (Fig. f).

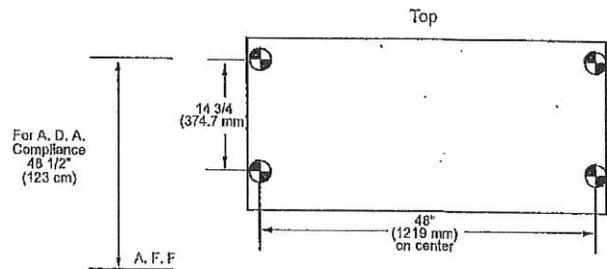


Fig. d

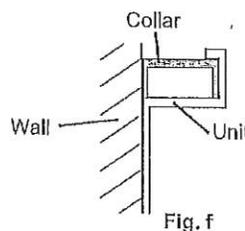


Fig. f

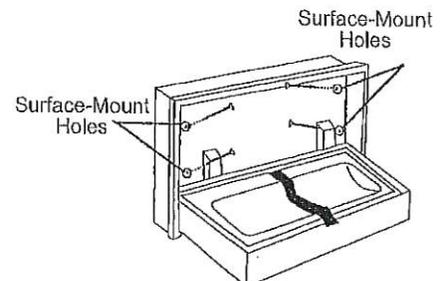


Fig. e

# GREEN TECHNOLOGY

## YOU'VE NEVER EXPERIENCED AN ENVIRONMENTALLY-FRIENDLY TOILET LIKE OURS BEFORE.

Green Flush Technologies has worked hard to build the most Earth-friendly modular flush restroom available. We've maximized water and energy conservation to bring you sustainable restrooms that support the environment and provide a pleasing experience for visitors.

### ENVIRONMENTALLY-SUPPORTIVE FEATURES

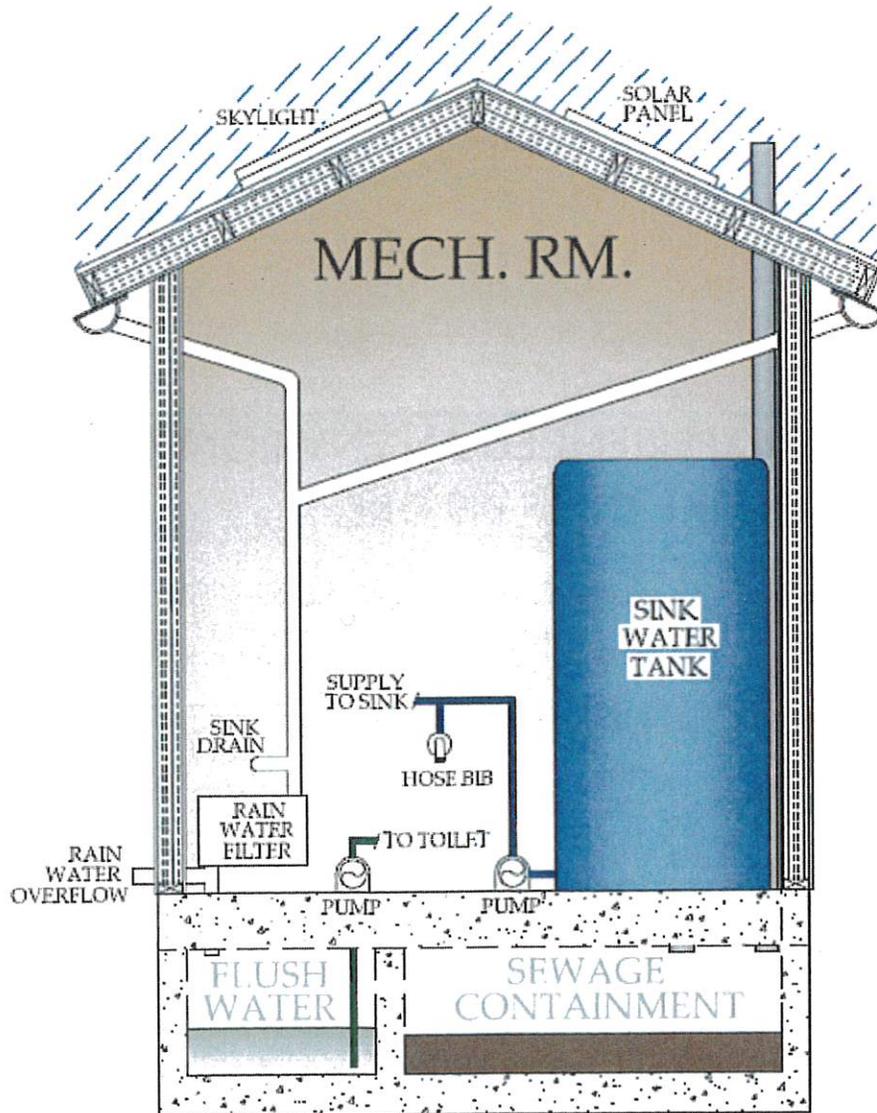
Our restrooms offer the following Earth-friendly features:

- 🌲 **Optional solar power** – This option provides all the sun-generated power needed to run your facilities day in and day out.
- 🌲 **Extreme water conservation** – We have engineered our restrooms to reduce water consumption up to 90% compared to conventional flush restrooms. Our toilets

use as little as 1 quart of water per flush. We've added limited flow sink faucets, and water-less urinals. We even offer the option of reusing sink water for flushing. By optimal use of every drop we save at least a gallon of water with every use. In some environments our restrooms can run off of rainwater collected from the roof.

- 🌲 **Minimal ground disturbance** – for a reduced environmental impact. Our installations produce minimal ground disturbance due to a small excavation footprint and eliminating all trenching.

As is the case with all flush toilets, our models keep sewage odors out of the inside and outside environments, keeping the natural setting smelling the way it is supposed to.



## RAINWATER COLLECTION OPTION

---

**Mindy Milos-Dale**

---

**From:** Kyle Earlywine <kyle@greenflushrestrooms.com>  
**Sent:** Thursday, March 01, 2018 4:49 PM  
**To:** Mindy Milos-Dale; 'Ken Earlywine'  
**Subject:** RE: Questions Concerning Flushable Vault Toilet for Oakland Township Park

Yes, the lights are LED on a sensor.

**Kyle Earlywine**  
Co-Owner, [Green Flush Technologies](#)  
(360) 718-7595

---

**From:** Mindy Milos-Dale [mailto:mmdale@oaklandtownship.org]  
**Sent:** Thursday, March 1, 2018 1:36 PM  
**To:** Ken Earlywine; 'Kyle Earlywine'  
**Subject:** RE: Questions Concerning Flushable Vault Toilet for Oakland Township Park

Thank you Ken and Kyle for all of your help – I will continue to work with our county health department to obtain their approval.

Question – what type of lighting would we be getting with the interior/exterior lighting option? Are the lights on a sensor? Are they LED?

Mindy

# ABOUT US

## THE GREEN FLUSH STORY

Our reinvention of flush restrooms began nearly 20 years ago when the National Park Service needed to address a public health issue at one of America's most popular national parks.

Lake Powell is one of the most beautiful reservoirs in the world. During the summer, thousands of campers and visitors enjoy the lakeshore at Lone Rock Beach. Due to the summer draw down of the reservoir, the water's edge can be over a mile from permanent restroom buildings. The lack of convenient restrooms led to high fecal coliform levels in the reservoir resulting in multiple beach closures.

The National Park Service provided chemical construction toilets, "porta-johns", near the shoreline but hot conditions resulted in bad odors. Many campers wouldn't use the portable toilets and the fouling of the lake continued. It was clear that what the public wanted was flush restrooms. But how do you provide flush restrooms at a lakeshore that is continually changing?



*A double portable flush restroom at Lone Rock*

As the Park Engineer for Glen Canyon National Recreation Area, I was given the task of solving this problem. I believed the best solution would be flush restrooms located near the water's edge and they needed to be moveable.



To solve this problem I developed the world's first moveable, ultra-low flush restroom. These flush restroom buildings operate without power, sewer, or water utilities, and without direct road access.

The toilets proved to be completely odor free and very popular with the public, as well as the maintenance staff who found these restrooms to be very durable and low maintenance. Fifteen years later, over sixty of these moveable double cabin restroom buildings have stood up to heavy public use and are still operating without any significant problems. Since the introduction of the beach restrooms, there have been no beach closures at Lake Powell.

The portable beach restrooms became the precursor to our Green Flush Restrooms which use the same proven concepts, but with significant improvements and new features. Our restrooms make flush toilets an option in locations that were thought to be economically or environmentally unfeasible.



## FLUSHABLE VAULT TOILETS

Green Flush Technologies has combined the advantages of flush restrooms with the self-containment feature of vault toilets. We make vault toilets that flush! Park visitors always prefer flush restrooms with sinks instead of vault toilets. They often find the portable vault toilets and the permanent concrete vault toilets offensive. Our innovation is that our flush restrooms use an astonishing 90% less water than conventional flush restrooms. Because they are flush restrooms they do not have the offensiveness of vault toilets making them the obvious choice over vault toilets. The extreme water conservation of our public bathrooms not only makes them "green" but means that on-board storage of sewage is now practical. Water, sewer, and power connections are not needed for our restrooms allowing them to easily be installed and operate virtually anywhere.

## BUILDING YOU AN AFFORDABLE FLUSH RESTROOM

Making an affordable flush restroom starts with eliminating the need for running utility services to the site. These utilities can often cost more than the restroom itself. Our flush restrooms have starting prices that are close to dry vault toilets and are less than compost restrooms. Additionally, there are no tap fees or monthly service charges from utility providers. Our restroom design has a proven track record of dependability and low maintenance.



## ODOR FREE GUARANTEE

Like all flush restrooms, ours are designed to never smell – not inside and not outside. Modern vault and compost toilet designs may reduce odors, but examples of these systems being highly offensive are commonplace. In contrast, we literally guarantee our buildings to be odor free.



## OUR STANDARD FEATURES

- ☑ Superior quality, factory built & tested
- ☑ ADA compliant cabins
- ☑ Mechanical/storage rooms
- ☑ Customer selected finishes and materials
- ☑ 1 quart per flush toilets
- ☑ Vitreous china waterless urinals
- ☑ Vitreous china hand wash sinks with limiting flow faucet
- ☑ Commercial grade flooring, doors, windows, hardware, and accessories
- ☑ Precast concrete vault

### Options, including:

- Heating
  - Hot water
  - Rainwater catchment
  - Solar power system
  - Interior and exterior lights
  - Stainless steel fixtures
-

March 16, 2018

MINDY MILOS-DALE  
PARKS AND RECREATION  
CHARTER TOWNSHIP OF OAKLAND  
4393 COLLINS ROAD  
ROCHESTER MI 48306

**RE: PROPOSED OUTDOOR RESTROOM FACILITY, OAKLAND TOWNSHIP PARKS**

Dear Ms. Milos-Dale:

The Oakland County Health Division (OCHD) has had the opportunity to review your proposal and documentation sent via email to Mike Pylar of this office on February 28, 2018. Under Sections 8 & 9 of the Oakland County Sanitary Code, Article III, OCHD can consider your proposal as a developing technology or alternative waterless toilet design. We reviewed the Breckenridge flush restroom model from Green Flush Technologies.

In order to consider your proposal further, OCHD will need clarification or documentation of the following:

1. A description of Marsh View Park including visitation rates, types of amenities (golf, swimming, etc.), expected use-rate for the proposed restroom building, and months of operation
2. Expected average daily flow and peak flows in gallons per day
3. An updated site plan showing the restroom location, wetlands, surface water, well locations, and the surrounding area
4. Documentation showing both the greywater and toilet waste holding tanks with detailed description of greywater pump operation
5. A description of alarm and redundant alarm function including a cross-section of the proposed vault(s) showing alarm floats with elevations and location of the control panel
6. A description of water shut-off mechanisms and plan for maintaining service in a sanitary manor if water is shut off.
7. A description of the vault construction and size with specification of service/pump-out access and procedures
8. A schedule for vault pumping and contract with a licensed Michigan Septage Hauler

9. Any connection to the existing Type II Noncommunity well must be reviewed and approved by this office.
10. Submittal of a variance request specifying a variance to Article III, Section 8.1, Prohibition of Privies
11. Submittal of an application for permit to OCHD to install the vault tank.

Please submit the above information at your earliest convenience. If you have any questions regarding the above, please do not hesitate to contact me directly.

Sincerely,

**OAKLAND COUNTY HEALTH DIVISION**  
**Department of Health and Human Services**



Mark Hansell, MS, RS  
Chief, Environmental Health Special Programs  
Environmental Health Services

cc: Kevin Paladino, Public Health Sanitarian Supervisor, OCHD  
Michael Pylar, Senior Public Health Sanitarian, OCHD

OAKLAND COUNTY TREASURERS CERTIFICATE  
I HEREBY CERTIFY that there are no TAX LIENS or TITLES held by the state or any individual against the within description and all TAXES on same are paid for five years previous to the date of this instrument as appears by the records in the office except as stated.

APR 10 2001

*MS #100* C. HUGH DOHANY, County Treasurer  
Sec. 135, Act 208, 1893 as amended

007627

WARRANTY DEED

101825

LIBER 22643 PAGE 809  
\$11.00 DEED - COMBINED  
\$2.00 REMONUMENTATION  
\$20,210.00 TRANSFER TX COMBINED  
04/10/2001 02:23:08 P.M. RECEIPT# 23034  
PAID RECORDED - OAKLAND COUNTY  
G. WILLIAM CADDELL, CLERK/REGISTER OF DEEDS

STATE OF MICHIGAN REAL ESTATE TRANSFER TAX  
OAKLAND 4/10/2001 23034  
\$2,585.00 CO  
\$17,625.00 ST  
140659

KNOW ALL MEN BY THESE PRESENTS: That The Laura Katzman Trust created in furtherance of the Sidney Katzman Trust dated April 30, 1979, as amended, whose address is c/o Robert M. Katzman, 30100 Telegraph Road, Suite 366, Bingham Farms, Michigan 48025, REL Associates Limited Partnership, a Michigan Limited Partnership, whose address is c/o Robert M. Katzman, 30100 Telegraph Road, Suite 366, Bingham Farms, Michigan 48025, and Foltenyl Investments, LLC, a Michigan Limited Liability Company, whose address is 3265 Stoney Creek Road, Oakland Township, Michigan 48363, Grantors,

convey and warrant to the CHARTER TOWNSHIP OF Oakland, Grantee, whose address is 4393 Collins Road, Rochester, Michigan 48306,

the property located in the Township of Oakland, County of Oakland, State of Michigan, that is more specifically and legally described as Parcel A in Exhibit A attached hereto. The Laura Katzman Trust, is conveying and warranting an undivided 1/6 interest. REL Associates Limited Partnership, is conveying and warranting and undivided 1/3 interest. Foltenyl Investments, LLC, is conveying and warranting and undivided 1/2 interest.

This conveyance is given in consideration of the sum of Two Million Three Hundred Fifty Thousand Dollars (\$2,350,000.00), and is subject to the encumbrances, easements and restrictions of record as set forth in Exhibit B which is attached hereto and any other restrictions and easements to be recorded in a separate document signed by Grantors and Grantee pursuant to the agreed upon terms of sale .

# The Grantors retain the right to make all legally feasible division(s) under Section 108 of the Land Division Act, Act No. 288 of the Public Acts of 1967, as amended. This property may be located within the vicinity of farm land or a farm operation. Generally accepted agricultural and management practices which may generate noise, dust, odors, and other associated conditions may be used and are protected by the Michigan right to farm act.

WITNESSES: APRIL 10, 2001

*Anita Carr*  
ANITA CARR  
*Tamika Rice*  
TAMIKA RICE

The Laura Katzman Trust created in furtherance of the Sidney Katzman Trust dated April 30, 1979, as amended  
By: *Robert M. Katzman* Robert M. Katzman, Trustee  
By: *Martin Stoneman* Martin Stoneman, Trustee

31  
R  
CS

STATE OF MICHIGAN )  
COUNTY OF OAKLAND )SS.

The foregoing instrument was acknowledged before me this 9 day of April, 2001, by Robert M. Katzman and Martin Stoneman, Co-Trustees of the Laura Katzman Trust created in furtherance of the Sidney Katzman Trust dated April 30, 1979, as amended..

*Gertrude L. Voelkle*  
Notary Public, County, Michigan O.K. - KB  
My commission expires:

COPY

GERTRUDE L. VOELKLE  
NOTARY PUBLIC STATE OF MICHIGAN  
OAKLAND COUNTY  
MY COMMISSION EXP. JUNE 10, 2004

WITNESSES:

Anita Carr

ANITA CARR

Tamika Rice

TAMIKA RICE

STATE OF MICHIGAN }  
COUNTY OF OAKLAND }SS.

REL Associates Limited Partnership, a Michigan Limited Partnership

Robert M. Katzman  
By: Robert M. Katzman  
Its: General Partner

The foregoing instrument was acknowledged before me this 9 day of April, 2001, by Robert M. Katzman, general partner on behalf of REL Associates Limited Partnership, a Michigan Limited Partnership.

Gertrude L. Voelkle  
Notary Public, County, Michigan

My commission expires:

GERTRUDE L VOELKLE  
NOTARY PUBLIC STATE OF MICHIGAN  
OAKLAND COUNTY  
MY COMMISSION EXP. JUNE 10, 2004

WITNESSES:

Sandra L. Wick

Sandra L. Wick

Louise Bouchet

LOUISE BOUCHET

STATE OF MICHIGAN }  
COUNTY OF OAKLAND }SS.

Foltenyi Investments, LLC, a Michigan Limited Liability Company

Elizabeth M. Foltenyi

By: Elizabeth M. Foltenyi, Member  
Its:

The foregoing instrument was acknowledged before me this 10th day of April, 2001, by Elizabeth M. Foltenyi, an authorized member of Foltenyi Investments, LLC, a Michigan Limited Liability Company..

Louise Bouchet  
Notary Public, County, Michigan

My commission expires:

LOUISE BOUCHET  
Notary Public, Oakland County, MI  
My Commission Expires Oct 29, 2004

Tax Parcel #: 10-7-400-013  
Recording fee: \$13.00 + \$1.00 Tax Cert.  
Transfer tax: County: \$2,585.00 State: \$17,625.00

Drafted by and when recorded return to:  
Gary L. Dovre  
30903 Northwestern Hwy., P.O. Box 3040  
Farmington Hills, MI 48333-3040

EXHIBIT ADESCRIPTION  
PARCEL "A"

A PART OF THE SOUTHEAST 1/4 OF SECTION 7, T-4-N., R-11-E., OAKLAND TOWNSHIP, OAKLAND COUNTY, MICHIGAN, MORE PARTICULARLY DESCRIBED AS: COMMENCING AT THE SOUTH 1/4 CORNER OF SAID SECTION 7, SAID POINT ALSO BEING THE SOUTHEAST CORNER OF "LAKE ORION HIGHLANDS NO. 1" AS RECORDED IN LIBER 89, PAGES 2 AND 3 OF PLATS, OAKLAND COUNTY RECORDS; THENCE DUE NORTH 1125.23 FEET ALONG THE EAST LINE OF SAID LAKE ORION HIGHLANDS NO. 1 AND FOLLOWING THE NORTH-SOUTH 1/4 LINE OF SAID SECTION 7; THENCE DUE EAST, 861.45 FEET TO THE POINT OF BEGINNING; THENCE CONTINUING DUE EAST, 265.47 FEET; THENCE N 04°50'00" E, 411.76 FEET THENCE ALONG A CURVE TO THE LEFT 58.59 FEET, SAID CURVE HAVING A RADIUS OF 170.00 FEET, A CENTRAL ANGLE OF 19°44'52" AND A LONG CHORD BEARING OF N 14°42'33" E, 58.30 FEET; THENCE N 04°50'00" E, 913.70 FEET; THENCE N 08°09'17" E, 171.32 FEET TO A POINT ON THE EAST-WEST 1/4 LINE OF SAID SECTION 7 (STONEY CREEK ROAD); THENCE N 89°53'22" E, 1323.74 FEET ALONG SAID LINE TO THE EAST 1/4 CORNER OF SAID SECTION 7; THENCE S 00°17'37" W, 2641.60 FEET ALONG THE EAST LINE OF SAID SECTION 7 (ADAMS ROAD) TO THE SOUTHEAST CORNER OF SAID SECTION 7; THENCE S 89°16'13" W, 1480.98 FEET ALONG THE SOUTH LINE OF SAID SECTION 7 (CLARKSTON ROAD); THENCE DUE NORTH 506.55 FEET; THENCE S 89°16'13" W, 245.62 FEET; THENCE DUE NORTH, 607.71 FEET TO THE POINT OF BEGINNING CONTAINING 90.597 ACRES.

SUBJECT TO THE RIGHTS OF THE PUBLIC IN STONEY CREEK ROAD, ADAMS ROAD AND CLARKSTON ROAD.

PARCEL #10-07-400-013

EXHIBIT BEncumbrances, Easements and Restrictions of Record

1. Liens for taxes and assessments which are not yet due and payable.
2. Right of Way in favor of Michigan Bell Telephone Company, recorded at Liber 5161, Page 19, Oakland County Records.
3. Easements in favor of Michigan Bell Telephone Company recorded in Liber 6863, Page 557, Liber 6863, Page 558, and in Liber 6863, Page 560, Oakland County Records.
4. The rights of the public and of any governmental unit in any part of the land taken, used or deeded for street, road or highway purposes.

RIGHT OF WAY

68 11457

Received of the Michigan Bell Telephone Company, a Michigan Corporation, whose principal offices are 1385 Cass Avenue, Detroit 24, Michigan, the sum of one dollar (\$1.00) and other valuable consideration, the receipt of which is

hereby acknowledged, in consideration of which I, Bartha Hunt, 5300 Cass Clarkston Road, Lake Orion, Michigan

hereby grant and convey to the said Company, its successors, assigns, lessees, licensees and agents an easement right of way to construct, reconstruct, maintain, operate and/or remove lines of communications facilities consisting of conduits, cables, and other fixtures and appurtenances as they from time to time may require, with the right of ingress and egress upon the herein described lands for the purpose of the right of way granted, under, across, upon and/or over the lands I, we own, or in which I, we have an interest, in Section 7, Township of Caledonia

T 4N, R 11E, County of Caledonia, State of Michigan, and more fully described as follows: The South 60 Feet of the following described property:

Town 4 North, Range 11 East, Section 7, Township 4, except beginning at a point distant East 677.05 feet and North 1076.5 feet from the South corner thence South 87° 30' East 700 feet; thence North 2° 30' East 160.50 feet; thence North 87° 30' West 700 feet; thence South 2° 30' East 945.50 feet to her lot line, ALSO BEGINNING at a point distant South 89° 22' East 680.21 feet from corner of Section, Range 89° 22' East 699.37 feet; thence South 66° 35' East, North 87° 30' East 700 feet; thence North 621.55 feet to beginning. 134.95 Acres.

Said system to be located within the easement described as follows:

As shown on Drawings attached hereto and made part thereof.

The darkest I could get?

THIS GRANT is hereby declared to be binding upon the heirs, successors, lessees, assigns and assigns of the parties hereto.

IN WITNESS WHEREOF, I, Bartha Hunt, have hereunto set my hand and seal this 9 day of Feb, 1968.

WITNESS:

Bartha Hunt  
Bartha Hunt  
Bartha Hunt

Bartha Hunt  
Bartha Hunt

COPY PREPARED BY:  
Charles V. Clapham  
23501 Fort Western Hwy.,  
Southfield, Michigan 48075

STATE OF MICHIGAN )  
COUNTY OF Wayne ) ss

On this 9 day of Feb, 1968 before me, the subscriber, a Notary Public in and for said County, personally appeared Bartha Hunt

to me known to be the person named in and who executed the within instrument as vendor and acknowledged that she executed the same as her free act and deed for the intents and purposes therein mentioned.

My Commission expires: Oct 23, 1971

Charles V. Clapham  
CHARLES V. CLAPHAM  
Notary Public, Wayne County, Mich.  
My Commission Expires Oct. 23, 1971

LIBER 5161 PAGE 20

ORION RD.

LOCHINVAR

CLARKSTON RD.

WEST PROPERTY LINE

N+5 1/4 SECTION LINE

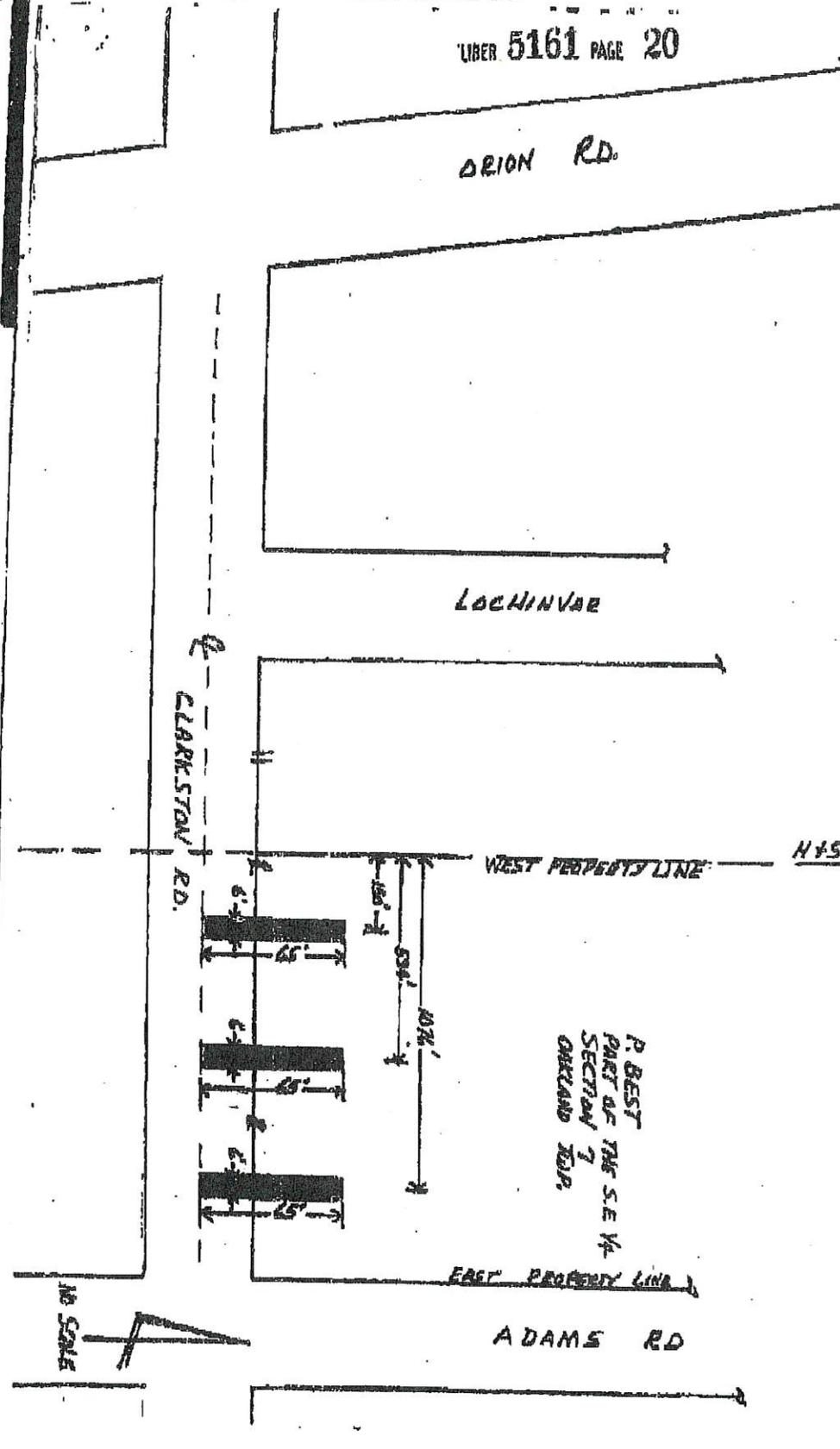
P. BEST  
PART OF THE SE 1/4  
SECTION 7  
ORLAND TOW.

EAST PROPERTY LINE

ADAMS RD

MICHIGAN BELL TELEPHONE CO  
EASEMENT DRAWING  
ATTACHMENT 'A'

NO SCALE



6568 557

13042

For valuable consideration, the receipt of which is hereby acknowledged, the undersigned hereby grant and convey to the Michigan Bell Telephone Company, a Michigan Corporation, 444 Michigan Avenue, Detroit, Michigan, 48226, its successors, assigns, licensees and agents, an easement right of way to construct, reconstruct, maintain, operate and/or remove lines of communication consisting of wires, cables, underground conduits, and other fixtures and apparatuses which may from time to time be required, with the right of ingress and egress upon the said land for the purpose of this grant in, under, upon, over and across land located in Section 7, Township of Oakland, County of Oakland, State of Michigan and more fully described as follows:

Beginning at the East 1/4 corner of Section 7, Town 4 North, Range 11 East, Oakland Township, Oakland County, Michigan; thence along section line South 01°02'00" West, 920.90 feet thence West 500.00 feet; thence North 1°02'00" East 926.43 feet; thence South 85°22'00" East; 500.12 feet to the point of beginning.

Said easement right of way to be located and described as follows: 27 feet in width extending in a Northerly and Northerly direction across said property, the South line of said easement to be 60 feet South of and parallel to the centerline of Stoney Creek Road as now exists.

The Michigan Bell Telephone Company hereby agrees to restore all property disturbed by its construction or future activities in a good and workmanlike manner.

THIS GRANT IS hereby declared to be binding upon the heirs, successors, licensees, licensees and assigns of the parties hereto.

IN WITNESS WHEREOF, the undersigned have hereunto set their hand and seal this 19th day of April, 1978.

WITNESSES:

GRANTORS:

[Signature]  
Wald E. Jones

[Signature]  
John Jones

[Signature]  
Hilda Jones

[Signature]  
John Jones

[Signature]  
Elizabeth Jones

NOTARY PUBLIC  
STATE OF MICHIGAN  
My Comm. Expires \_\_\_\_\_  
My Comm. No. \_\_\_\_\_

Address: 1100 Brunelle  
City: Michigan 48064

STATE OF MICHIGAN  
Commissioner of Oakland

The foregoing instrument was acknowledged before me on this 19th day of April, 1978  
at the County of Oakland, State of Michigan.

NOTARY PUBLIC  
STATE OF MICHIGAN  
My Comm. Expires \_\_\_\_\_  
My Comm. No. \_\_\_\_\_

77 1960

For valuable consideration, the receipt of which is hereby acknowledged, the undersigned hereby grant and convey to the Michigan Bell Telephone Company, a Michigan Corporation, 444 Michigan Avenue, Detroit, Michigan, 48226, its successors, assigns, licensees and agents, an easement right of way to construct, reconstruct, maintain, operate and/or remove lines of communication consisting of wires, cables, underground conduits, and other fixtures and appurtenances which may from time to time be required, with the right of ingress and egress upon the said land for the purpose of this grant, in, under, over and across land located in Section 7, Township of Cadland, Range 11E, County of Cadland, State of Michigan and more fully described as follows:

Described as commencing at the center of Section 7, Town 4 North, Range 11 East, Cadland Township, Cadland County, Michigan, thence along East and West 1/4 line South 89°22'00" East, 624.21 feet to the point of beginning; thence South 89°22'00" East 699.97 feet; thence South 64°38' feet; thence North 87°30'00" West 700.00 feet; thence North 621.55 feet to the point of beginning.

Said easement right of way to be located and described as follows: 27 feet in width extending in a Westerly and Easterly direction across said property. The South line of said easement to be 60 feet South of and parallel to the centerline of Stoney Creek Road as now exists.

The Michigan Bell Telephone Company hereby agrees to restore all property disturbed by its construction or future activities in a good and workmanlike manner.

THIS GRANT IS hereby declared to be binding upon the heirs, successors, licensees and assigns of the parties hereto.

IN WITNESS WHEREOF, the undersigned have hereunto set their hand and seal this 19 day of April, 1976.

WITNESSES:

GRANTORS:

[Signature]  
Vicki E. Rogers

[Signature]  
Henry [Name]

[Signature]  
Hilda York

[Signature]  
Mary [Name]

[Signature]

[Signature]  
Elizabeth [Name]

[Signature]

[Signature]

STATE OF MICHIGAN  
COUNTY OF CADLAND

[Address]  
Cadland, Michigan 48091

The foregoing instrument was acknowledged before me this 19 day of April, 1976, by [Signatories]

[Notary Signature]  
Notary Public  
300

RECORDED  
INDEXED  
MAY 14 1976  
MICHIGAN DEPARTMENT OF STATE

190000 190000

190000

For valuable consideration, the receipt of which is hereby acknowledged, the undersigned hereby grant and convey to, the Michigan Bell Telephone Company, a Michigan Corporation, 444 Michigan Avenue, Detroit, Michigan, 48202, and successors, assigns, lessees, licensees and agents, an easement right of way to construct, reconstruct, maintain, operate and/or remove lines of communications consisting of wires, cables, underground conduits, and other fixtures and appurtenances which may from time to time be required, with the right of ingress and egress upon the said land for the purpose of this grant, in, under, upon, over and across land located in Section 7, Township of Oakland, County of Oakland, State of Michigan and were fully described as follows:

Commencing at the East 1/4 corner of Section 7, Town 4 North, Range 11 East, Oakland Township, Oakland County, Michigan, thence along East and West 1/4 line North 89°22'00" West, 500.12 feet to the point of beginning; thence South 1°02'00" West 676.51 feet; thence West 707.88 feet; thence North 644.39 feet; thence South 89°22'00" East 712.63 feet to the point of beginning.

Said easement right of way to be located and described as follows: 27 feet in width extending in a Westwardly and Westwardly direction across said property. The center line of said easement to be 60 feet South of and parallel to the centerline of Stoney Creek Road as now exists.

The Michigan Bell Telephone Company hereby agrees to restore all property disturbed by its construction or future activities in a good and workmanlike manner.

THIS GRANT is hereby declared to be binding upon the heirs, successors, lessees, licensees and assigns of the parties hereto.

IN WITNESS WHEREOF, the undersigned have hereunto set their hand and seal this 19th day of April, 1976.

WITNESSES:

GRANTORS:

Victor E. Rogers  
Hilda Yorke

Edna K. Kahan  
Robert K. Kahan  
Gary H. Kahan  
Robert K. Kahan  
Elizabeth Kahan

NOT PUBLIC RECORD  
 FILED IN 1976  
 APR 21 1976  
 REGISTERED  
 480

Address: 1100 Dowdale  
Town, Michigan 48064

STATE OF MICHIGAN  
 COUNTY OF Oakland

The foregoing instrument was acknowledged before me this date April 19, 1976 by Victor E. Rogers and Hilda Yorke, and Edna Kahan, Robert Kahan, Gary H. Kahan, Elizabeth Kahan.

Hilda Yorke  
 HILDA YORKE

300

TF18-099 Marsh View Park Restroom Improvements



Facing Northeast across Marsh View Park parking lot, viewing project site grass area to east of picnic area.



Facing due north across Marsh View Park parking lot's ADA paved parking spaces, storage building, basketball court and picnic area.



Facing due West looking at Rochester Soccer Camp on soccer field C.



Facing due West looking at Rochester Soccer Camp on soccer field C.



Re-opening of Olympic-style archery range at Marsh View Park.



Re-opening of Olympic-style archery range at Marsh View Park.



Marsh View Park wetland complex observation deck and interpretive audio sign – facing eastward.



Ice skating rink over basketball court at Marsh View Park –looking east.

Location	A	B	C	D	Location	A	B	C	D
Scarlet Tanager	✓				Blue Grosbeak				
Western Tanager					Indigo Bunting	✓			
Eastern Towhee					Painted Bunting				
American Tree Sparrow					Dickcissel				
Chipping Sparrow					Bobolink				
Clay-colored Sparrow					Red-winged Blackbird	✓			
Field Sparrow					Eastern Meadowlark				
Vesper Sparrow					Western Meadowlark				
Lark Sparrow					Yellow-headed Blackbird				
Lark Bunting					Rusty Blackbird				
Savannah Sparrow	✓				Brewer's Blackbird				
Grasshopper Sparrow					Common Grackle	✓			
Henslow's Sparrow					Brown-headed Cowbird	✓			
Le Conte's Sparrow					Orchard Oriole	✓			
Fox Sparrow					Baltimore Oriole	✓			
Song Sparrow	✓				Pine Grosbeak				
Lincoln's Sparrow					Purple Finch				
Swamp Sparrow	✓				House Finch				
White-throated Sparrow					Red Crossbill				
Harris's Sparrow					White-winged Crossbill				
White-crowned Sparrow					Common Redpoll				
Dark-eyed Junco					Hoary Redpoll				
Lapland Longspur					Pine Siskin				
Smith's Longspur					American Goldfinch	✓			
Snow Bunting					Evening Grosbeak				
Northern Cardinal	✓				House Sparrow				
Rose-breasted Grosbeak									

Accidental Species: The species listed below have been recorded three or fewer times in the last ten years. Species in italics are known only from sight records. Any sighting of an accidental species should be documented with a detailed written description or, when possible, with photographs. Please send all documentation to the address at the end of the checklist, attention: MBRC.

Northern Gannet	Cinnamon Teal
Manx Shearwater	Garganey
Magnificent Frigatebird	Tufted Duck
Reddish Egret	Common Eider
White Ibis	Swallow-tailed Kite
Wood Stork	Ferruginous Hawk
Fulvous Whistling Duck	Prairie Falcon

Greater Prairie-Chicken
Black Rail
Purple Gallinule
Snowy Plover
Wilson's Plover
Black-necked Stilt
Spotted Redshank
Curlew Sandpiper
Eskimo Curlew
Black-headed Gull
Heermann's Gull
Mew Gull
Slaty-backed Gull
Glaucous-winged Gull
Ivory Gull
Sandwich Tern
Roseate Tern
Least Tern
Dovekie
Thick-billed Murre
Ancient Murrelet
Band-tailed Pigeon
Common Ground-Dove
Groove-billed Ani
Barn Owl
Burrowing Owl
Chuck-will's Widow
White-collared Swift
White-throated Swift
Green Violet-ear
Broad-billed Hummingbird
Lewis's Woodpecker
Golden-fronted Woodpecker
Hammond's Flycatcher
Vermilion Flycatcher
Ash-throated Flycatcher

Order from:

Michigan Audubon Society, P.O. Box 80527, Lansing Michigan 48908-0527  
Telephone: (517) 886-9144

Tropical/Couch's Kingbird
Gray Kingbird
Fork-tailed Flycatcher
Black-capped Vireo
Clark's Nutcracker
Black-billed Magpie
Curve Swallow
Carolina Chickadee
Rock Wren
Bewick's Wren
Mountain Bluebird
Sage Thrasher
White/Black-backed Wagtail
Sprague's Pipit
Virginia's Warbler
Black-throated Gray Warbler
Townsend's Warbler
Swainson's Warbler
Painted Redstart
Green-tailed Towhee
Cassin's Sparrow
Bachman's Sparrow
Brewer's Sparrow
Black-throated Sparrow
Nelson's Sharp-tailed Sparrow
Golden-crowned Sparrow
McCown's Longspur
Chestnut-collared Longspur
Black-headed Grosbeak
Boat/Great-tailed Grackle
Bullock's Oriole
Brambling
Gray-crowned Rosy Finch

The taxonomic order and nomenclature follows the AOU Checklist of North American Birds © 2002

Michigan Audubon Society  
Michigan Daily Field Checklist of Birds (revised 3/2003)

Date 6/05/05

Localities Marsh View Park

Weather Sunny Temperature \_\_\_\_\_ Time 10:40 - 12:15

Observers Alice Tombouliau Species 22 Individuals \_\_\_\_\_

Regular and Casual Species: The species below range from abundant to uncommon in Michigan. Casual species (in italics) were recorded more than three times, but fewer than thirty times, in the last ten years, and were recorded in fewer than nine of the last ten years. Any sighting of a casual species should be documented with a detailed written description or, when possible, with photographs.

Location	A	B	C	D	Location	A	B	C	D
Red-throated Loon					Snow Goose				
Pacific Loon					Ross's Goose				
Common Loon					Canada Goose				
Pied-billed Grebe					Brant				
Horned Grebe					Mute Swan				
Red-necked Grebe					Trumpeter Swan				
Eared Grebe					Tundra Swan				
Western Grebe					Wood Duck				
American White Pelican					Gadwall				
Brown Pelican					Eurasian Wigeon				
Double-crested Cormorant					American Wigeon				
American Bittern					American Black Duck				
Least Bittern					Mallard				
Great Blue Heron					Blue-winged Teal				
Great Egret					Northern Shoveler				
Snowy Egret					Northern Pintail				
Little Blue Heron					Green-winged Teal				
Tricolored Heron					Canvasback				
Cattle Egret					Redhead				
Green Heron					Ring-necked Duck				
Black-crown. Night-Heron					Greater Scaup				
Yellow-crown. Night-Heron					Lesser Scaup				
Glossy Ibis					King Eider				
White-faced Ibis					Harlequin Duck				
Black Vulture					Surf Scoter				
Turkey Vulture					White-winged Scoter				
Greater White-front. Goose					Black Scoter				

prepared by Jim Granlund

Location	A	B	C	D
Long-tailed Duck				
Bufflehead				
Common Goldeneye				
Barrow's Goldeneye				
Hooded Merganser				
Common Merganser				
Red-breasted Merganser				
Ruddy Duck				
Osprey				
Mississippi Kite				
Bald Eagle				
Northern Harrier				
Sharp-shinned Hawk				
Cooper's Hawk				
Northern Goshawk				
Red-shouldered Hawk				
Broad-winged Hawk				
Swainson's Hawk				
Red-tailed Hawk, <i>juv.</i>	✓			
Rough-legged Hawk				
Golden Eagle				
American Kestrel				
Merlin				
Gyr Falcon				
Peregrine Falcon				
Ring-necked Pheasant				
Ruffed Grouse				
Spruce Grouse				
Sharp-tailed Grouse				
Wild Turkey				
Northern Bobwhite				
Yellow Rail				
King Rail				
Virginia Rail				
Sora				
Common Moorhen				
American Coot				
Sandhill Crane				

Location	A	B	C	D
Black-bellied Plover				
American Golden-Plover				
Semipalmated Plover				
Piping Plover				
Killdeer				
American Avocet				
Greater Yellowlegs				
Lesser Yellowlegs				
Solitary Sandpiper				
Willet				
Spotted Sandpiper				
Upland Sandpiper				
Whimbrel				
Hudsonian Godwit				
Marbled Godwit				
Ruddy Turnstone				
Red Knot				
Sanderling				
Semipalmated Sandpiper				
Western Sandpiper				
Least Sandpiper				
White-rumped Sandpiper				
Baird's Sandpiper				
Pectoral Sandpiper				
Purple Sandpiper				
Dunlin				
Stilt Sandpiper				
Buff-breasted Sandpiper				
Ruff				
Short-billed Dowitcher				
Long-billed Dowitcher				
Wilson's Snipe				
American Woodcock				
Wilson's Phalarope				
Red-necked Phalarope				
Red Phalarope				
Pomarine Jaeger				
Parasitic Jaeger				

Location	A	B	C	D
Long-tailed Jaeger				
Laughing Gull				
Franklin's Gull				
Little Gull				
Bonaparte's Gull				
Ring-billed Gull				
California Gull				
Herring Gull				
Thayer's Gull				
Iceland Gull				
Lesser Black-backed Gull				
Glaucous Gull				
Great Black-backed Gull				
Sabine's Gull				
Black-legged Kittiwake				
Caspian Tern				
Common Tern				
Arctic Tern				
Forster's Tern				
Black Tern				
Rock Dove				
White-winged Dove				
Mourning Dove	✓			
Black-billed Cuckoo				
Yellow-billed Cuckoo				
Eastern Screech-Owl				
Great Horned Owl				
Snowy Owl				
Northern Hawk Owl				
Barred Owl				
Great Gray Owl				
Long-eared Owl				
Short-eared Owl				
American Woodcock				
Boreal Owl				
Northern Saw-whet Owl				
Common Nighthawk				
Whip-poor-will				
Chimney Swift				

Location	A	B	C	D
Ruby-thro. Hummingbird				
Rufous Hummingbird				
Belted Kingfisher				
Red-headed Woodpecker				
Red-bellied Woodpecker				
Yellow-bellied Sapsucker				
Downy Woodpecker				
Hairy Woodpecker	✓			
Three-toed Woodpecker				
Black-backed Woodpecker				
Northern Flicker				
Pileated Woodpecker				
Olive-sided Flycatcher				
Eastern Wood-Pewee				
Yellow-bellied Flycatcher				
Acadian Flycatcher				
Alder Flycatcher				
Willow Flycatcher				
Least Flycatcher				
Eastern Phoebe				
Say's Phoebe				
Great Crested Flycatcher				
Western Kingbird				
Eastern Kingbird				
Scissor-tailed Flycatcher				
Loggerhead Shrike				
Northern Shrike				
White-eyed Vireo				
Bell's Vireo				
Yellow-throated Vireo				
Blue-headed Vireo				
Warbling Vireo	✓			
Philadelphia Vireo				
Red-eyed Vireo				
Gray Jay				
Blue Jay				
American Crow				
Common Raven				

Location	A	B	C	D
Horned Lark				
Purple Martin				
Tree Swallow				
N. Rough-winged Swallow				
Bank Swallow				
Cliff Swallow				
Barn Swallow				
Black-capped Chickadee	✓			
Boreal Chickadee				
Tufted Titmouse				
Red-breasted Nuthatch				
White-breasted Nuthatch				
Brown Creeper				
Carolina Wren				
House Wren	✓			
Winter Wren				
Sedge Wren				
Marsh Wren				
Golden-crowned Kinglet				
Ruby-crowned Kinglet				
Blue-gray Gnatcatcher				
Northern Wheatear				
Eastern Bluebird				
Townsend's Solitaire				
Veery				
Gray-cheeked Thrush				
Swainson's Thrush				
Hermit Thrush				
Wood Thrush				
American Robin	✓			
Varied Thrush				
Gray Catbird	✓			
Northern Mockingbird				
Brown Thrasher				
European Starling				
American Pipit				
Bohemian Waxwing				
Cedar Waxwing				

Location	A	B	C	D
Blue-winged Warbler	✓			
Golden-winged Warbler				
Tennessee Warbler				
Orange-crowned Warbler				
Nashville Warbler				
Northern Parula				
Yellow Warbler	✓			
Chestnut-sided Warbler				
Magnolia Warbler				
Cape May Warbler				
Black-throat. Blue Warbler				
Yellow-rumped Warbler				
Black-throat. Green Warbler				
Blackburnian Warbler				
Yellow-throated Warbler				
Pine Warbler				
Kirtland's Warbler				
Prairie Warbler				
Palm Warbler				
Bay-breasted Warbler				
Blackpoll Warbler				
Cerulean Warbler				
Black-and-white Warbler				
American Redstart				
Prothonotary Warbler				
Worm-eating Warbler				
Ovenbird				
Northern Waterthrush				
Louisiana Waterthrush				
Kentucky Warbler				
Connecticut Warbler				
Mourning Warbler				
Common Yellowthroat	✓			
Hooded Warbler				
Wilson's Warbler				
Canada Warbler				
Yellow-breasted Chat				
Summer Tanager				

**Oakland Township  
Herpetological Survey Report**

**August 15, 2005**

Prepared by

**David Mifsud, M.S., PWS, Herpetologist  
Herpetological Resource and Management  
50865 Polk Dr  
Plymouth, MI 48170**

Prepared for

**Oakland Charter Township  
4393 Collins Road  
Rochester, MI 48306-1670**

## Abstract

A total of two parcels, Marsh View (parcel ID 10-07-400-013) and Stony Creek Corridor (parcel ID 10-25-100-001) were surveyed for reptile and amphibian species presence. Surveying began in early June and continued through early August, 2005. Trapping, netting, turning cover, and time constraint visual observations were used to identify species diversity and distribution. Overall species diversity was lower than expected based on habitat quality, site conditions, and surrounding land use. Unusually hot, dry weather is believed to be a major contributor to this seeming lack of species diversity. Of the two parcels surveyed, Stony Creek Corridor had a higher total herpetofaunal species diversity. Species observed included the Blue-Spotted Salamander, Wood Frog, and Eastern Garter Snake. Although a mosaic of upland and wetland habitats is present at the site, Marsh View had fewer species of herpetofauna observed during this study. These included Leopard Frogs, Green Frogs, and Wood Frogs. Additional surveys, conducted during more typical weather conditions for the region and beginning earlier in the field season are recommended to identify the true species diversity and distribution at these locations.

## **Acknowledgements**

Herpetological Resource and Management would like to acknowledge Oakland Township for their financial support. We would also like to thank our staff and volunteers for their help in the field.

## Table of Contents

<b>Abstract</b>	2
<b>Acknowledgement</b>	3
<b>Table of Contents</b>	4
<b>Introduction</b>	5
<b>Objective</b>	6
<b>Methodology</b>	
Herpetofaunal Survey	6
Data Collection	7
Species Mapping	7
<b>Results</b>	8
<b>Discussion</b>	8
<b>Recommendations</b>	9
<b>Conclusion</b>	10
<b>Tables</b>	11
<b>Figures</b>	13

## Introduction

Amphibians and reptiles are key bioindicators of environmental health. This is due in part to their sensitivity to environmental pollution, particularly among the amphibians. This designation is also a function of their natural history requirements and habitat utilization. Many reptiles and amphibians will migrate considerable distances (some more than a mile) to find suitable breeding and nesting sites, and often travel between sites during the mating season. The diversity and density of these organisms at a site can be used as a tool to measure environmental quality in the surrounding areas.

By establishing baseline data, Oakland Township can help assess the effectiveness of restoration and management strategies. The study was set up to allow for future long-term monitoring in the parks in order to gage changes over time.

This herpetological survey was conducted in Marsh View (parcel ID 10-07-400-013) and Stony Creek Corridor (parcel ID 10-25-100-001). Both sites were thoroughly inventoried for herpetofauna. The inventories revealed species richness and types of habitats used by these species. This study has provided a comprehensive reptile and amphibian database that can aid in long-term monitoring of these sites over time.

Studies were conducted in upland, wetland, and riparian habitats. Amphibians and reptiles found within the parcel boundaries were documented. The findings provide

current accounts of amphibian and reptile species distribution within these sites. By surveying both sites in the same field season, the Township will have consistent baseline data that reflects environmental and habitat conditions at the same point in time.

## **Objectives**

This study provides detailed, comprehensive inventories of species diversity and distribution of amphibians and reptiles that occur in the selected Oakland Township properties located in Oakland County. We established baseline data for common, as well as uncommon, species. This data will assist Oakland Township in developing long-term monitoring and conservation programs.

## **Methodology**

### **Herpetofaunal Survey**

Intensive surveys were conducted within the study area. Various methods were employed to document species diversity and distribution. These included the use of traps, turning cover, visual observations and anuran (frog and toad) calling surveys. Herpetofaunal surveys were conducted from early June through early August 2005.

### *Terrestrial Habitats*

Time-constrained ground searches were used to inventory all terrestrial habitats for reptiles and amphibians. Ground searches consisted of turning cover objects (logs, boards, debris, etc.) during the day and searching surface areas with flashlights at night. Amphibians and reptiles discovered during ground searches were identified by visual characteristics (Figures 1 and 2).

### *Aquatic Habitats*

Aquatic searches involved examining each type of aquatic habitat (watercourses, seeps, ephemeral pools, and permanent pools). Aquatic habitats were searched for adult, juvenile, and larval amphibians and reptiles. Sampling for these species involved capturing individuals by hand or dip net, trapping, observation through binoculars, and aural surveys.

### **Data collection**

The following environmental and habitat data were recorded for each collection method: (1) location of the site, including GPS coordinates; (2) date and time of sampling (beginning and ending times); and (3) weather conditions. The following data on amphibians and reptiles were collected: (1) species and numbers; (2) gender of each individual (when possible), and (3) reproductive condition of each individual (if it can be determined).

### **Species Mapping**

An important component of the project was the documentation of geographically referenced herpetofaunal species accounts for potential use in detailed long-term studies. Using a Global Positioning System (GPS), coordinates of each amphibian and reptile that was positively identified during this study were recorded and mapped using a Geographic Information System (GIS). Herpetofaunal locations were recorded using a Trimble Geo XT Global Positioning Unit and mapped using ArcMap 9.1 GIS software. Accounts were overlaid on aerial photos to graphically represent species location and habitat selection at the time of surveying.

## **Results**

A total of seven species were recorded between both sites. Six of the seven species observed during this study were recorded within Stony Creek Corridor (Table 1). The most species rich areas of the Stony Creek Corridor were along the floodplain of the creek (Figure 3). Four species were recorded from Marsh View (Figure 4), all of which were amphibians (Table 2). Species accounts within this site were much more dispersed than Stony Creek Corridor.

## **Discussion**

Unusually hot, dry weather is believed to be a major contributor to the lack of animal observations during the 2005 field season. In addition, the survey was initiated in June, when some species' activities shift and they become more cryptic, reducing the likelihood of observations.

Of the two parcels surveyed, Stony Creek Corridor had a higher total herpetofaunal species diversity of six when compared to that of Marsh View which had only four species. Although observed diversity was lower than expected, the species contained within each site are indicative of areas of high quality (i.e., Red-backed Salamanders and Leopard Frogs).

Also, both sites support a mosaic of upland and wetland habitats conducive to supporting a diverse assemblage of amphibians and reptiles. Based on analysis of habitat characteristics and quality, it is believed that these parcels may support much higher herpetofaunal diversity than observed during the 2005 field season (Tables 3 and 4).

The proximity of these sites to other natural areas helps to increase habitat contiguity, allowing for species to emigrate and migrate between sites. However, long-term measures should be considered for reducing species risk from road-related mortality. In addition, invasive plant species were observed at both sites that, if not treated, may result in reduced habitat quality for these and other organisms.

### **Recommendations**

Further surveys should be conducted to accurately assess the true species diversity of these parcels. Surveys should begin in late winter or early spring depending on spring thaw. This will maximize the survey effort and yield the best results for assessing species diversity and distribution. Surveys should continue through the active season, which would supplement this season's findings.

Due to the rapid development and urban expansion in SE Michigan, habitat preservation is quite possibly the most effective and efficient means of preserving reptile and amphibian diversity and distribution within this region. Addressing the issues of habitat connectivity and invasive plant species colonization will aid in providing suitable habitat for these organisms. However, the proximity of human development will largely determine the extent to which protective measures are successful.

## **Conclusion**

Based on the 2005 field data, Oakland Township has the potential to support a relatively high diversity of herpetofauna. More importantly, these parcels (10-07-400-013 and 10-25-100-001) possess high quality habitats, which are necessary for supporting a diverse assemblage of reptiles and amphibians. This area is a rapidly developing region, and these early biological inventories will aid in assessing the long-term impacts of development to herpetofaunal species diversity and distribution.

## Tables

<b>Stony Creek Corridor Herpetofauna</b>	
Common Name	<i>Scientific Name</i>
<b>Frogs</b>	
Wood Frog	<i>Rana sylvatica</i>
Green Frog	<i>Rana clamitans melanota</i>
<b>Toads</b>	
American Toad	<i>Bufo americanus americanus</i>
<b>Snakes</b>	
Eastern Garter Snake	<i>Thamnophis sirtalis sirtalis</i>
<b>Salamanders</b>	
Blue-spotted Salamander	<i>Ambystoma laterale</i>
Redbacked Salamander	<i>Plethodon cinereus</i>

**Table 1. Species list for Stony Creek Corridor within Oakland Township.**

<b>Marsh View Herpetofauna</b>	
Common Name	<i>Scientific Name</i>
<b>Frogs</b>	
Leopard Frog	<i>Rana pipiens</i>
Green Frog	<i>Rana clamitans melanota</i>
Wood Frog	<i>Rana sylvatica</i>
<b>Toads</b>	
American Toad	<i>Bufo americanus americanus</i>

**Table 2. Species list for Marsh View within Oakland Township.**

<b>Additional Potential Species for Stony Creek Corridor</b>	
Common Name	Scientific Name
<b>Frogs</b>	
Spring Peeper	<i>Pseudacris crucifer crucifer</i>
Chorus Frog	<i>Pseudacris triseriata triseriata</i>
Gray Treefrog	<i>Hyla versicolor and H. chrysosceli</i>
Leopard Frog	<i>Rana pipiens</i>
<b>Salamanders</b>	
Spotted Salamander	<i>Ambystoma maculata</i>
<b>Snakes</b>	
Eastern Massasauga	<i>Sistrurus catenatus catenatus</i>
Butler's Garter Snake	<i>Thamnophis butleri</i>
Northern Brown Snake	<i>Storeria dekayi</i>
Northern Red-bellied Snake	<i>Storeria occipitomaculata occipitomaculata</i>
Northern Ring-necked Snake	<i>Diadophis punctatus edwardsi</i>
Eastern Milk Snake	<i>Lampropeltis triangulum triangulum</i>
Blue Racer	<i>Coluber constrictor foxi</i>

**Table 3. Additional potential species list for Stony Creek Corridor within Oakland Township.**

<b>Additional Potential Species for Marsh View</b>	
Common Name	Scientific Name
<b>Frogs</b>	
Spring Peeper	<i>Pseudacris crucifer crucifer</i>
Chorus Frog	<i>Pseudacris triseriata triseriata</i>
Gray Treefrog	<i>Hyla versicolor and H. chrysosceli</i>
<b>Snakes</b>	
Eastern Massasauga	<i>Sistrurus catenatus catenatus</i>
Eastern Garter Snake	<i>Thamnophis sirtalis sirtalis</i>
Northern Ribbon Snake	<i>Thamnophis sauritus septentrionalis</i>
Butler's Garter Snake	<i>Thamnophis butleri</i>
Northern Brown Snake	<i>Storeria dekayi</i>
Northern Red-bellied Snake	<i>Storeria occipitomaculata occipitomaculata</i>
Blue Racer	<i>Coluber constrictor foxi</i>
Northern Water Snake	<i>Nerodia sipedon sipedon</i>

**Table 4. Additional potential species list for Marsh View within Oakland Township.**

## Figures



**Figure 1. Photo of Eastern Garter Snake from Stony Creek Corridor.**



**Figure 2. Photo of Blue-spotted Salamander recorded within Stony Creek Corridor.**

## Stony Creek Corridor Herpetofaunal Map

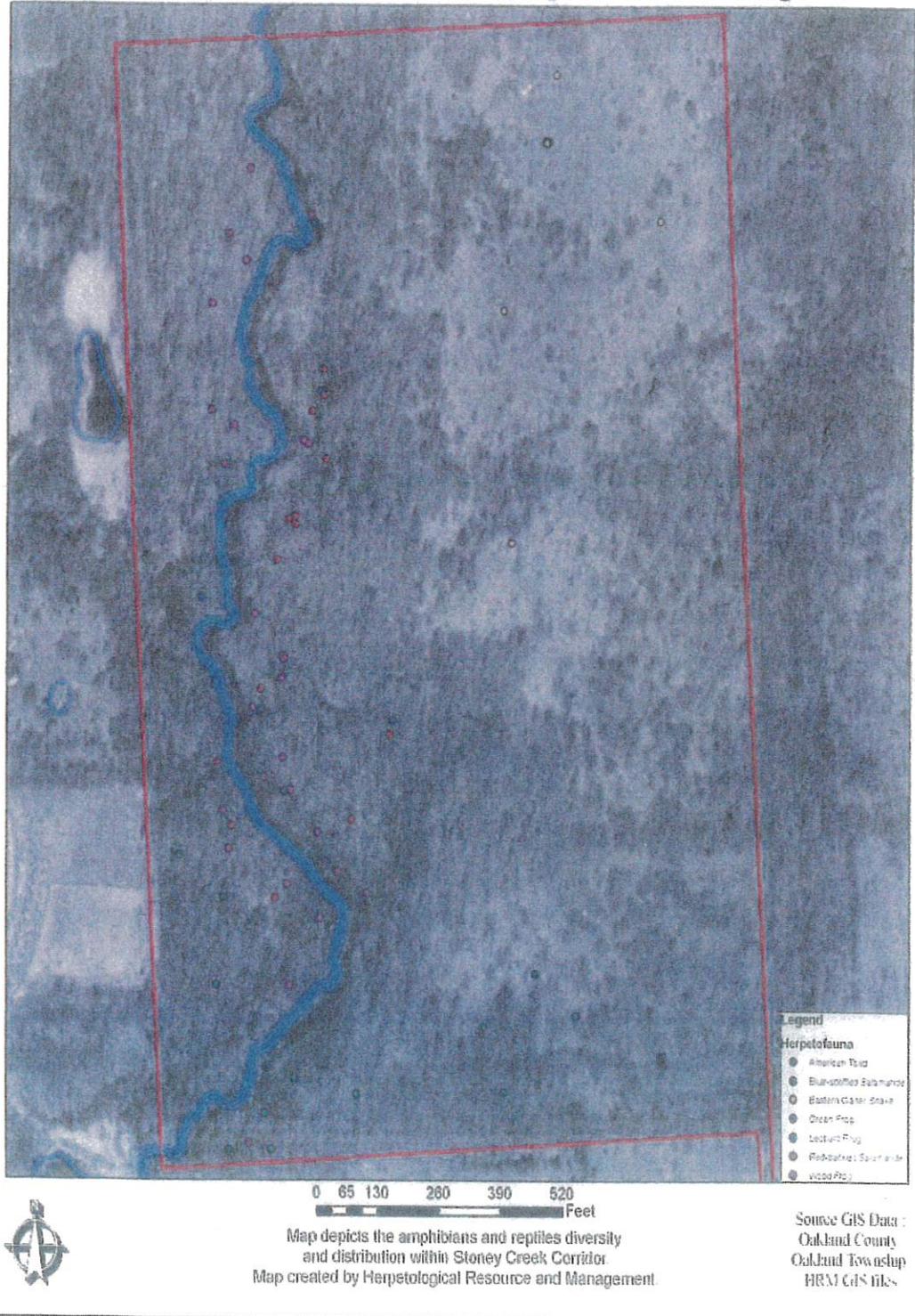


Figure 3. Map showing herpetofaunal diversity and distribution with Stony Creek Corridor.

# Marsh View Herpetofaunal Map

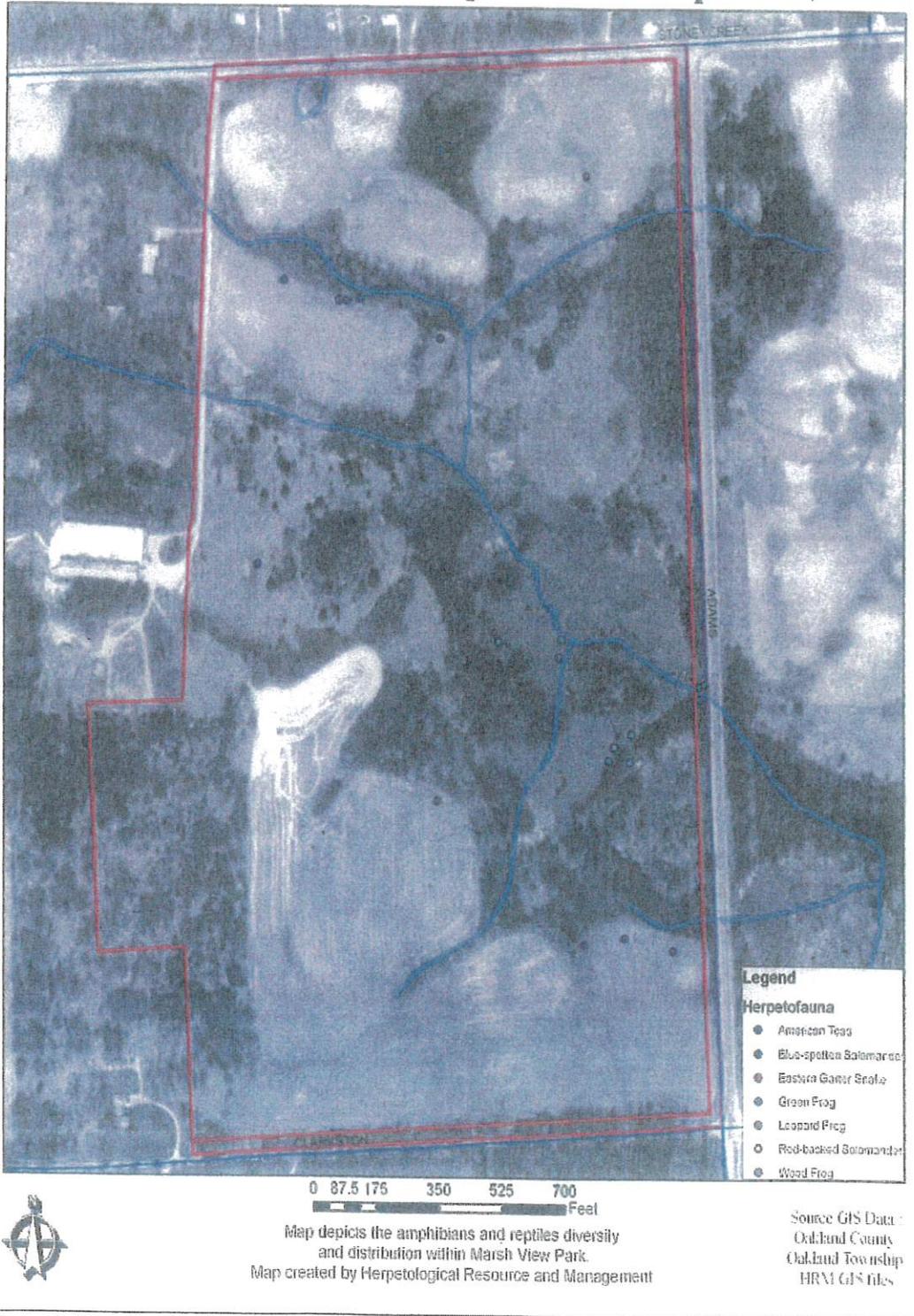


Figure 4. Map showing herpetofaunal diversity and distribution with Marsh View.

**MARSH VIEW PARK --  
MAMMAL COMMUNITY  
ASSESSMENT**

Prepared For

**Charter Township of Oakland --  
Parks and Recreation Commission  
4393 Collins Road  
Rochester, MI 48306-1670**

Prepared by

**Weatherbee's Botanical Surveys  
11405 Patterson Lake Drive  
Pinckney, Michigan  
(734) 878-9178**

**AUGUST 2005**

*“Every child should have mud pies, grasshoppers, water-  
bugs, tadpoles, frogs, and mud-turtles, elderberries, wild  
strawberries, acorns, chestnuts, trees to climb, brooks to  
wade in, water-lilies, woodchucks, bats, bees, butterflies,  
various animals to pet, hayfields, pine-cones, rocks to roll,  
sand, snakes, huckleberries, and hornets; and any child who  
has been deprived of these has been deprived of the best part  
of his or her education.”*

-- Luther Burbank

## INTRODUCTION

In a society with an increasingly urban population, interaction between individuals and the natural world are becoming ever less frequent. Because of our lessened contact with nature, our dependence on the natural world *seems* to becoming evermore remote, but our dependence, though not obvious on a day-to-day basis, does not lessen. With an increasing world population, and concomitant increase in demand for resources, the importance of understanding humankind's reciprocal relationship with the natural world has never been more important, while our day-to-day contact with nature has never been less.

To provide recreational and educational opportunities to the people of Oakland Township, the Oakland Township Parks and Recreation Department (Oakland Township Parks Dept.) and Commissioners, have steadily expanded and improved the Township park system. These efforts have provided greater opportunities in traditional recreational activities, such as picnicking, but have also provided greatly expanded opportunities for experiencing nature. To continue furthering of its goals, the Oakland Township Parks Dept. has contracted Weatherbee's Botanical Surveys (Weatherbee's) to conduct targeted assessments of the ecological resources available at Marsh View Park in Oakland Township. Specifically, Weatherbee's was contracted to further characterize the mammalian and herpetological (amphibians and reptiles) fauna of the park, with special emphasis on determining the presence of any species on the current list of "*Species of Greatest Conservation Need*" (MDNR 2004). The results of the herpetological investigation are presented in a report by Herpetological Resource Management (2005). The current report presents the results of the mammal survey.

## METHODS

Marsh View Park is located at the northwest corner of the intersection of Clarkston and Adams Roads in Oakland Township, Oakland County, Michigan. In 2000 and 2001, Weatherbee's conducted an ecological assessment of five parks, including Marsh View Park (then referred to as Oakland Hills Park), on behalf of the Oakland Township Parks Dept. and submitted an initial and an updated report on the assessment (Weatherbee's 2000, 2001). These ecological characterization

efforts focused primarily on documenting the flora of the parks with respect to plant species and native Michigan plant communities (MNFI 2003). However, anecdotal observations concerning various natural features, birds, mammals, amphibians, and reptiles were also made during the reconnaissance and were reported (Weatherbee's 2000, 2001). The findings in these reports regarding mammals are incorporated into the current report.

For the current focused assessment, as in the original general assessment, Weatherbee's relied primarily on field reconnaissance of the site to expand the information base. A walking survey of Marsh View Park was conducted on 12 May 2005, by Dr. Brian Klatt, for the express purpose of gathering occurrence information on the mammal community of the park. As many mammals tend to be secretive and/or nocturnal, the survey relied not only on direct sighting of mammals, but also on indirect evidence of mammals via "sign", such as tracks, scat, bones, fur, nests, burrows, beds, feeding stations, and paths. Search for such sign was accomplished by a meander walk, which covered virtually all of the park property. Particular use was made of a number of the wetland areas at the park, which were previously mapped and identified (Weatherbee's 2001). These wetland areas provided saturated soils in which animal tracks might be distinguished. Detailed field notes were taken during the reconnaissance regarding track measurements, nests, and other sign. Photographic documentation of most of the sign was also developed and is presented herein as appropriate.

## FINDINGS AND DISCUSSION

Eight mammal species were documented during the reconnaissance either by direct observation of individuals, or via sign (Table 1). Both game and non-game species were represented. In terms of number of species documented, Marsh View Park has comparable numbers to Cranberry Park, and these two parks currently have the highest number of documented mammal species of all of the Oakland Township parks.

Table 1. Mammal species documented during reconnaissance.			
<i>Scientific Name</i>	Common Name	Direct Observation	Sign
<i>Canis latrans</i>	coyote		X
<i>Didelphis marsupialis</i>	opossum		X
<i>Marmota monax</i>	woodchuck	X	X
<i>Microtus pennsylvanicus</i>	meadow vole		X
<i>Odocoileus virginianus</i>	white-tailed deer	X	X
<i>Ondatra zibethicus</i>	muskrat	X	X
<i>Procyon lotor</i>	raccoon		X
<i>Sciurus niger</i>	fox squirrel	X	X
<i>Sylvilagus floridanus</i>	eastern cotton-tail rabbit		X
<i>Vulpes fulva</i>	red fox		X

While a group of white-tailed deer were observed in the central wetland complex, evidence of white-tailed deer in the forms of scat, tracks, and trails (Photo 1) was abundant throughout the park. Based on the amount of sign present, it would appear that use of the park by white-tailed deer is quite extensive.

The species with the next most common sign was the meadow vole, whose clippings-strewn runways were found in most of the old field areas of the park. While not familiar to most people, and usually simply known as "field mice", voles are an extremely important prey item to many predators, including, coyote, fox, snakes, hawks, and owls. Additionally, their grazing activities have been shown to help maintain diverse plant communities in prairies (Klatt 1979).

In addition to the vole, two other grazing mammals are resident in the park. A number of active woodchuck burrows were found in the old field areas in the northwest area of the park (Photo 2). And a muskrat house could be seen in the central Emergent Marsh area (Photo 3).

Single instances of sign of the red fox and coyote were found. An active red fox den is located in the Dry Southern Forest area bordering Adams Road (Photo 4). A tuft of eastern cotton-tail rabbit fur was found near the entrance to the fox den. A single set of coyote tracks was found along the border of the central wetlands complex and uplands bordering Adams Road (Photo 5).

Multiple instances of sign were found several other species. Fox squirrels and "drays" (*i.e.* squirrel nests) were observed in the black locust grove along Adams Road as well as the tree line along Clarkston Road. And opossum and raccoon tracks were found in various areas of the wetlands.

The mosaic nature of the plant communities of Marsh View Park provides a variety of habitats and complementary resources for wildlife. For example, during the reconnaissance, a fox den was found in the oak-hardwood forest. While fox require well-drained soils for their dens, the wetlands provide a ready source of water and will support prey items that the uplands may not. Similarly, the deciduous forest areas provide cover from predators, nesting structure and food for squirrels and potential nesting sites for deer mice, which likely occur on the site, but were not documented. Standing, dead trees may also provide nest sites for raccoon, which were documented for the park; the shrub communities in the oak-hardwood forest and old field areas provide food in the form of fruits and nuts, and browse for deer. The fields provide abundant habitat for voles, which, as noted above, represent a significant prey item for other wildlife. The wetlands and forest provide habitat for the amphibians and reptiles, such as the frogs, toads and salamanders that were observed or heard during the various reconnaissance efforts. The frogs, in turn, can provide food for the fox and coyote that were found on-site, as well as for raccoons, which appear to be plentiful. Thus, the combination of uplands, wetlands, forests, shrubs, and open areas provide a wide array of resources for wildlife use in Marsh View Park.

As evidenced by the list of animals reported from the site, and from the preceding discussion regarding wildlife, it is the opinion of Weatherbee's that Marsh View Park supports a significant mammal community. Additionally, more intense surveying via trapping, mist netting for bats, tracking stations, *etc.* would likely show the mammal community to be even more extensive than is currently demonstrated.

## REFERENCES

- Herpetological Resource Management. 2005. *Oakland Township Herpetological Survey Report*. Herpetological Resource and Management, Plymouth, MI.
- Klatt, Brian J. 1979. *Effects of microtine grazing in an Illinois tall-grass prairie*. M. S. Thesis, Northern Illinois University, Dekalb, Illinois.
- Michigan Department of Natural Resources. 2004. *Species of Greatest Conservation Need*. Michigan Department of Natural Resources, Lansing, Michigan
- Michigan Natural Features Inventory. 2003. *Michigan's Natural Communities: Draft List and Descriptions*. Michigan State University Extension, Michigan Natural Features Inventory, Lansing, Michigan.
- Oakland Township Parks and Recreation Commission. 2005. *Stony Creek Corridor Park Acquisition-Grant Application*. Charter Township of Oakland, Oakland County, Michigan.
- Thompson, Paul. 1974. *Ecological Survey of Oakland Township, Oakland County, Michigan*.
- Weatherbee's Botanical Surveys. 2000. *Recreation Visioning and Preliminary Site Development Plan – Ecological Assessment*. Weatherbee's Botanical Surveys, Pinckney, MI.
- Weatherbee's Botanical Surveys. 2001. *Addendum To: Recreation Visioning And Preliminary Site Development Plan – Ecological Assessment*. Weatherbee's Botanical Surveys, Pinckney, MI.

**APPENDIX A  
PHOTOGRAPHS**



Photograph 1. Deer trail in Dry Southern Forest.



Photograph 2. Woodchuck burrow.



Photograph 3. Muskrat house.



Photograph 4. Red fox den.



Photograph 5. Coyote track.

**CHARTER TOWNSHIP OF OAKLAND**

**ADDENDUM TO:**

**RECREATION VISIONING AND PRELIMINARY  
SITE DEVELOPMENT PLAN –  
ECOLOGICAL ASSESSMENT**

**Prepared by**

**Weatherbee's Botanical Surveys  
11405 Patterson Lake Drive  
Pinckney, Michigan 48169**

**MARCH 2, 2002**

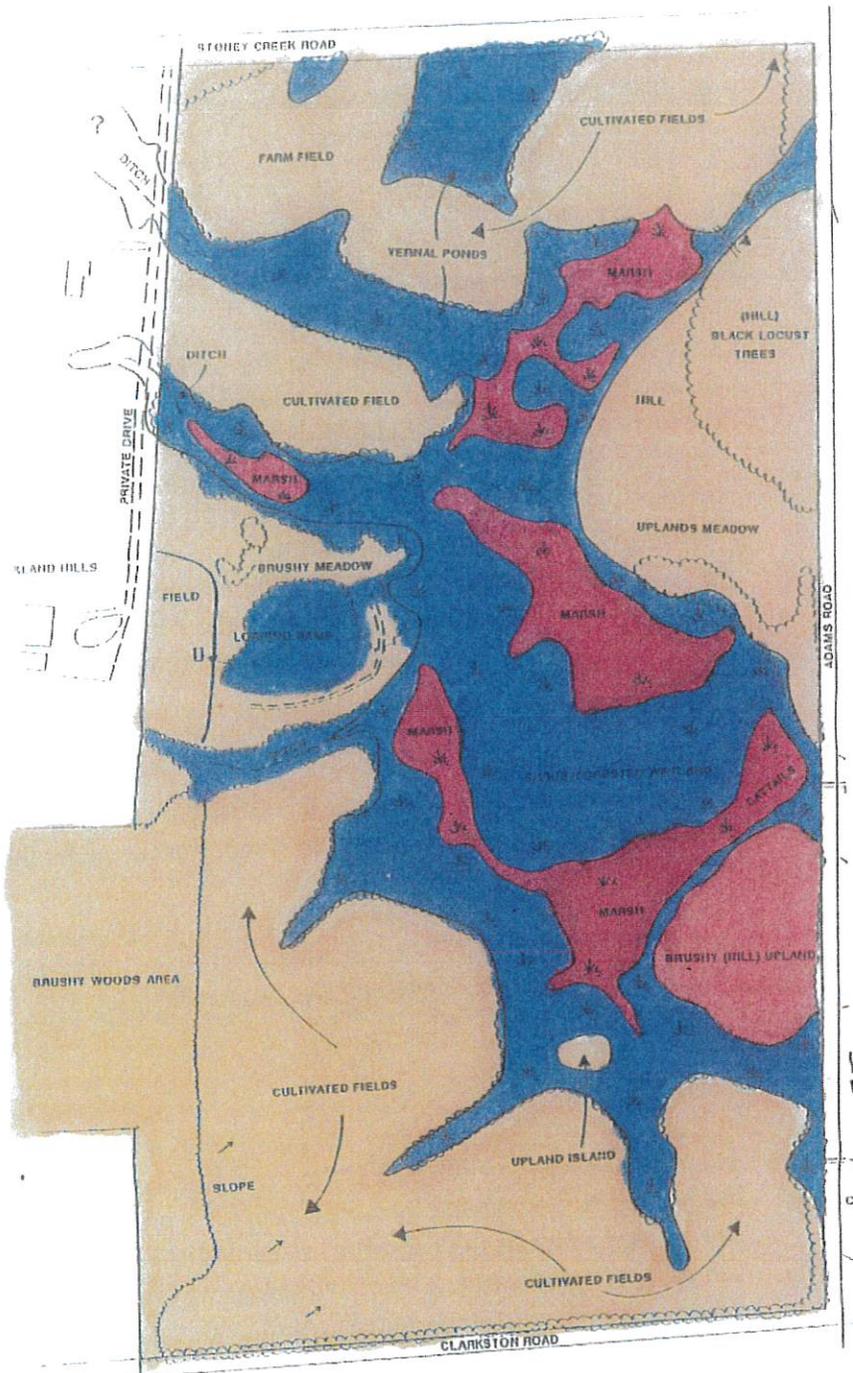
**Oakland Hills Farm.** Emergent marsh, southern swamp/southern shrub-carr complex, dry southern forest and old-field constituted the plant communities on this site (Figure 5.) Of the five sites included in the reconnaissance, this site had scored the lowest with respect to the FQI with a value of 29.33. Of the 126 species found on the site, 86 are native to the state of Michigan.

In our previous report, Weatherbee's (2000) suggested that observation of springs in the swamp areas on the northern end of the site and the presence of marsh marigold in the watercourses flowing off the western side of the site are strongly indicative of a groundwater discharge. We further noted that, if these wetlands on the northern end of the site do, in fact, have a strong groundwater component, it should be possible to improve the ecological health of these areas by controlling the amount of surface runoff that may contain fertilizers (including both chemical fertilizers and biomass fertilizers, such as animal manure) into these areas. Further observations during 2001 revealed that the apparent groundwater discharges are seasonal, *i.e.* the creeks dry up in the later part of the year. The creek beds and banks become either void of vegetation later in the year or dominated by species not considered of high botanical quality, though they may have wildlife value (*e.g.* reed canary grass). It is not clear whether the presence during the spring of the year of plants that are indicative of groundwater discharge is a relict condition, or whether the current situation simply represents a stable balance due to the apparent seasonality of the groundwater flow. Thus, at this point, Weatherbee's suggests that these areas be monitored to determine if the seasonality of the groundwater flow is a normal occurrence or simply occurred during this abnormally dry year.

Weatherbee's maintains the opinion that this park provides opportunity for establishment of a demonstration prairie. However, based on the additional survey work of 2001, we would recommend that the most cost effective possibilities (in terms of actual cost, labor, and probability of success) for such a prairie demonstration is in the recently abandoned fields. If this option is exercised, the project should commence within the next five years, before they undergo significant succession. The two upland hills on the East side of the site, bordering Adams Road, remain as candidates for ecological restoration to hillside prairie along with oak savanna. The possibility of restoration to savanna is suggested especially by the southern hill, which contains a fair number of young black oaks, indicating that this area may be a very early successional stage of dry southern forest. Closer evaluation in 2001 of the shrubby area on the West side of the site did not reveal a substantial number of oaks, but our observations confirmed that the West side of the site is dominated by non-native, invasive shrubs. Thus, a prairie restoration could be initiated on the East side with controlled burns to eliminate the many invasive woody species (but with selective protection of some of the oaks), followed by a program of interseeding to prairie. However, the effort involved with such a project should not be underestimated and for a variety of reasons, such as lack of sufficient fuel to conduct an effective burn, may not succeed. Consequently, it is Weatherbee's opinion that, assuming limited resources, areas within Cranberry Lake Park and Bear Creek Park could probably be used for demonstration prairies for less cost and effort and with a higher probability of success than the hill areas Oakland Hills Park.

- The establishment of a prairie or savannah demonstration would fit in well with use of the historic structures in the park in development of a theme of early settlers and the type of landscape they would have found.
- Charles Ilsley Park
    - Despite the fact that the majority of this park was recently under agriculture and that the forested areas are fairly immature second-growth, the FQI of 33.16 for this park approaches the level of 35, which, based on guidance from the MDNR implies that the area possesses "sufficient conservatism and richness that they are floristically important from a statewide perspective". This seemingly unusually high FQI for such an area is primarily due to the high quality of the buttonbush swamp in the northwest corner of the park. Consequently, we would recommend that this area be managed in a manner to protect it from disturbance and agricultural runoff. In keeping with the general recommendations for wetlands, we would urge that the buffer area around the buttonbush swamp be expanded by at least an additional 50 feet.
    - The second-growth forest of the park should be allowed to undergo natural succession, as it is likely to develop into a good quality forest community in the long-term.
    - Photo-monitoring of two areas in this park is recommended.
      - \* The buttonbush swamp, in order to monitor the general health of the area and the status of invasives.
      - \* The second-growth area as an interpretive exercise to document the ecological succession of the site over time (acquisition of historic photos from previous owners is also recommended, if such photos are available).
- Oakland Hills Park
    - The FQI of 29.33 for this park is the lowest of the five parks that were surveyed. The park has been greatly impacted by human activities, primarily agriculture.
    - The prime feature of the park from an ecological standpoint is the marsh occupying the central portion of the park and the drainageways associated with the marsh.
    - The marsh and drainageway areas could be developed from an interpretive standpoint, with a focus on birdwatching, as many marsh-nesting species would be unfamiliar to most township residents.
    - The old-fields surrounding the marsh should be vegetationally stabilized in order to reduce nutrient and sediment loading to the marsh. The fields are candidates for dry-mesic prairie demonstration areas.
    - While the higher topographic areas of the park were likely once oak-hickory forest or savannah, restoration of these areas to such communities would be very difficult.

Figure 5. Oakland Hills Farm – Plant Community Distribution.



Key

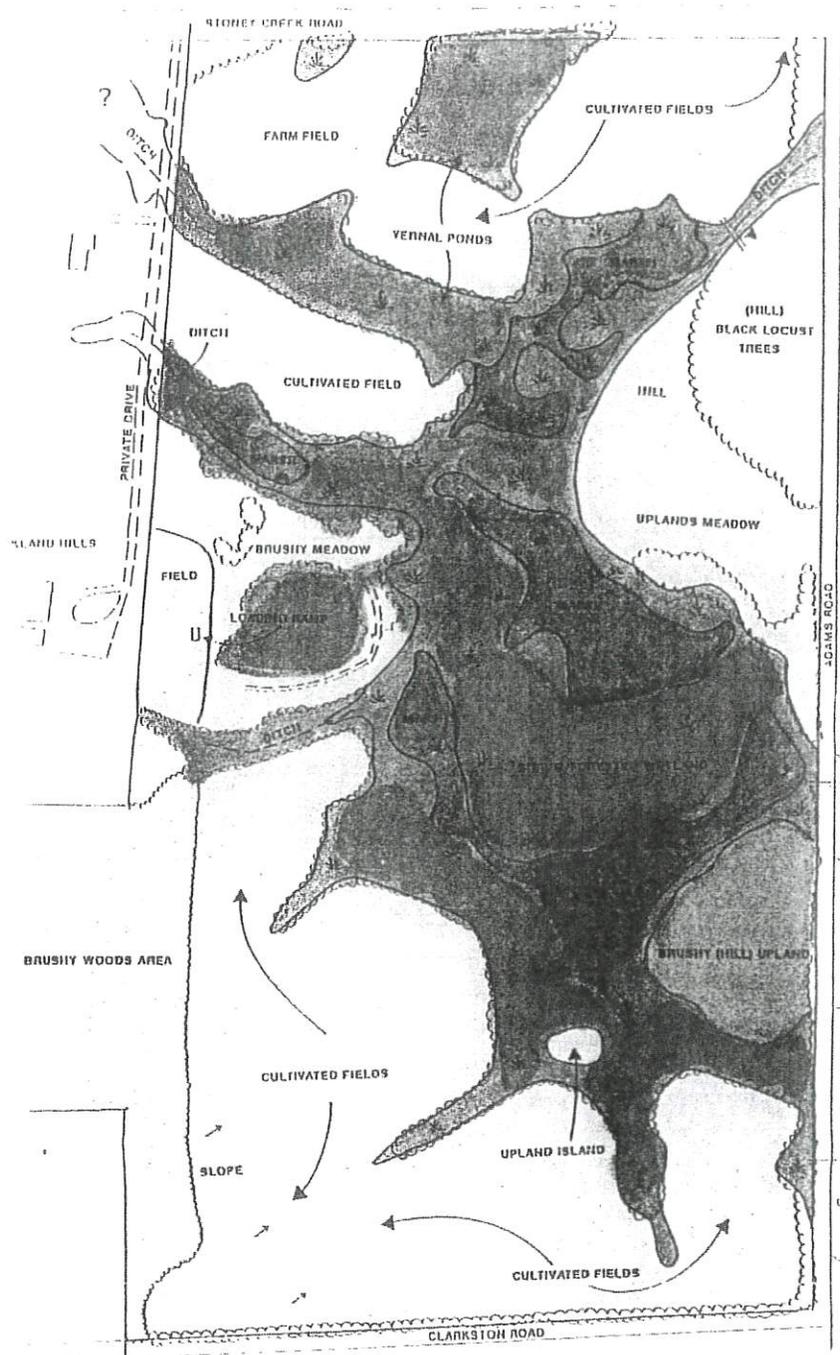
- Emergent Marsh
- Southern Swamp/Southern Shrub-carr Complex
- Dry Southern Forest
- Old Field/Fencerow/Agricultural Field

J & I CONSULTING SERVICES  
FEBRUARY 15, 1999

Map Not to Scale

Map source: J & I. Consulting, Supplied by Charter Township of Oakland

Figure 2. Oakland Hills Farm - Plant Community Distribution.



Key

-  Emergent Marsh
-  Southern Swamp/Southern Shrub-carr Complex
-  Dry Southern Forest
-  Old Field/Fencerow/Agricultural Field

J & I CONSULTING SERVICES  
FEBRUARY 15, 1999

Map Not to Scale

Map source: J & I Consulting, Supplied by Charter Township of Oakland

**Table 6. Oakland Hills Park Plant Communities and Species.**

<i>Scientific Name</i> (All CAPS = non-native sp.)	Common Name	Coefficient of Conservatism	Wetland Indicator Status
<i>Populus tremuloides</i>	quaking aspen	1	FAC
<i>RHAMNUS CATHARTICA</i>	common buckthorn	*	FACU
<i>Ribes americanum</i>	wild black currant	6	FACW
<i>Rosa palustris</i>	swamp rose	5	OBL
<i>Rubus hispidus</i>	swamp dewberry	4	FACW
<i>Rubus strigosus</i>	wild red raspberry	2	FACW-
<i>Salix discolor</i>	pussy willow	1	FACW
<i>Salix exigua</i>	sandbar willow	1	OBL
<i>Salix nigra</i>	black willow	5	[OBL]
<i>Solidago altissima</i>	tall goldenrod	1	FACU
<i>Solidago gigantea</i>	late goldenrod	3	FACW
<i>Thalictrum dioicum</i>	early meadow-rue	6	FACU+
<i>TYPHA ANGUSTIFOLIA</i>	narrow-leaved cat-tail	*	OBL
<i>Typha latifolia</i>	broad-leaved cat-tail	1	OBL
<i>Ulmus americana</i>	white or American elm	1	FACW-
<i>Urtica dioica</i>	nettle	1	FAC+
<i>Viburnum lentago</i>	nannyberry; sheepberry	4	FAC+
<i>Viburnum rafinesquianum</i>	downy arrow-wood	5	UPL
<i>Vitis riparia</i>	riverbank grape	3	FACW-
<b>Dry southern forest (early successional)</b>			
<i>Acer negundo</i>	box elder	0	FACW-
<i>Achillea millefolium</i>	yarrow	1	FACU
<i>Agrimonia gryposepala</i>	tall agrimony	2	FACU+
<i>Anemone cylindrica</i>	thimbleweed	6	UPL
<i>Anemone virginiana</i>	thimbleweed	3	UPL
<i>Apocynum cannabinum</i>	Indiar hemp; hemp dogbane	3	FAC
<i>BROMUS INERMIS</i>	Hungarian brome; smooth brome	*	UPL
<i>Carex pensylvanica</i>	sedge	4	UPL
<i>Carex rosea</i>	wood sedge	2	UPL
<i>CATALPA SPECIOSA</i>	northern catalpa	*	FACU
<i>CELASTRUS ORBICULATA</i>	oriental bittersweet	*	UPL
<i>CENTAUREA MACULOSA</i>	spotted knapweed	*	UPL
<i>Cornus foemina</i>	gray dogwood	1	FACW-
<i>DACTYLIS GLOMERATA</i>	orchard grass	*	FACU
<i>DAUCUS CAROTA</i>	wild carrot; Queen-Anne's-lace	*	UPL
<i>ELAEAGNUS UMBELLATA</i>	autumn-olive	*	[FACU]
<i>Equisetum hyemale</i>	scouring rush	2	FACW-
<i>Erigeron strigosus</i>	daisy fleabane	4	FAC-
<i>Euthamia graminifolia</i>	grass-leaved goldenrod	3	FACW-
<i>Fragaria virginiana</i>	wild strawberry	2	FAC-
<i>GALIUM MOLLUGO</i>	white bedstraw	*	UPL

**Table 6. Oakland Hills Park Plant Communities and Species.**

Scientific Name (All CAPS = non-native sp.)	Common Name	Coefficient of Conservatism	Wetland Indicator Status
<i>Geum canadense</i>	white avens	1	FAC
<i>HYPERICUM PERFORATUM</i>	common St. John's-wort	*	UPL
<i>Juniperus virginiana</i>	red-cedar	3	FACU
<i>Lithospermum caroliniense</i>	hairy or plains puccoon	10	[UPL]
<i>LONICERA MAACKII</i>	Amur honeysuckle	*	UPL
<i>LONICERA TATARICA</i>	smooth tartarian honeysuckle	*	FACU
<i>MALUS PUMILA</i>	apple	*	[UPL]
<i>MELILOTUS ALBA</i>	white sweet-clover	*	FACU
<i>Monarda fistulosa</i>	wild bergamot	2	FACU
<i>Parthenocissus quinquefolia</i>	Virginia creeper	5	FAC-
<i>PHLEUM PRATENSE</i>	timothy	*	FACU
<i>Pinus banksiana</i>	jack pine	5	[FACU]
<i>PINUS SYLVESTRIS</i>	scots or scotch pine	*	UPL
<i>PLANTAGO LANCEOLATA</i>	english plantain; ribgrass	*	FAC
<i>POA COMPRESSA</i>	Canada bluegrass	*	FACU+
<i>POA PRATENSIS</i>	Kentucky bluegrass	*	FAC-
<i>Populus deltoides</i>	cottonwood	1	FAC+
<i>Populus tremuloides</i>	quaking aspen	1	FAC
<i>POTENTILLA RECTA</i>	rough-fruited cinquefoil	*	UPL
<i>Potentilla simplex</i>	old-field or common cinquefoil	2	FACU-
<i>PRUNELLA VULGARIS</i>	lawn prunella	*	FAC
<i>Prunus serotina</i>	wild black cherry	2	FACU
<i>Quercus ellipsoidalis</i>	hill's oak; jack-oak	4	UPL
<i>Quercus rubra</i>	red oak	5	FACU
<i>Quercus velutina</i>	black oak	6	UPL
<i>RHAMNUS CATHARTICA</i>	common buckthorn	*	FACU
<i>Rhus typhina</i>	staghorn sumac	2	UPL
<i>ROBINIA PSEUDOACACIA</i>	black locust	*	FACU-
<i>ROSA MULTIFLORA</i>	Japanese or multiflora rose	*	FACU
<i>Rubus allegheniensis</i>	common blackberry	1	FACU+
<i>Rubus occidentalis</i>	black raspberry	1	UPL
<i>Rubus strigosus</i>	wild red raspberry	2	FACW-
<i>Rudbeckia hirta</i>	black-eyed Susan	1	FACU
<i>Sanguinaria canadensis</i>	bloodroot	5	FACU-
<i>Solidago altissima</i>	tall goldenrod	1	FACU
<i>Solidago juncea</i>	early goldenrod	3	UPL
<i>Solidago rigida</i>	stiff goldenrod	5	FACU-
<i>TARAXACUM OFFICINALE</i>	common dandelion	*	FACU
<i>TRAGOPOGON PRATENSIS</i>	common goat's beard	*	UPL
<i>Ulmus americana</i>	white or American elm	1	FACW-
<i>Viburnum acerifolium</i>	maple-leaved arrow-wood	6	UPL
<i>Viburnum lentago</i>	nannyberry; sheepberry	4	FAC+
<i>Virgulus novae-angliae</i>	New England aster	3	FACW
<i>Vitis riparia</i>	riverbank grape	3	FACW-

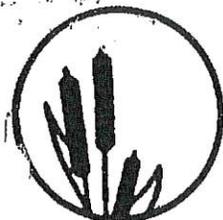
**Table 6. Oakland Hills Park Plant Communities and Species.**

<i>Scientific Name</i> (All CAPS = non-native sp.)	Common Name	Coefficient of Conservatism	Wetland Indicator Status
<b>Old-field</b>			
<i>Acer negundo</i>	box elder	0	FACW-
<i>AGROPYRON REPENS</i>	quack grass	*	FACU
<i>AGROSTIS STOLONIFERA</i>	creeping bent	*	FACW
<i>Anaphalis margaritacea</i>	pearly everlasting	3	[UPL]
<i>Andropogon gerardii</i>	big bluestem grass; turkeyfoot	5	FAC-
<i>Anemone canadensis</i>	Canada anemone	4	FACW
<i>Arabis glabra</i>	tower mustard	3	UPL
<i>ARCTIUM MINUS</i>	common burdock	*	UPL
<i>Aster lateriflorus</i>	side-flowering aster	2	FACW-
<i>Aster pilosus</i>	hairy aster	1	FACU+
<i>BARBAREA VULGARIS</i>	yellow rocket	*	FAC
<i>BROMUS INERMIS</i>	Hungarian brome; smooth brome	*	UPL
<i>CICHORIUM INTYBUS</i>	chicory	*	UPL
<i>CIRSIUM ARVENSE</i>	canadian-thistle	*	FACU
<i>CIRSIUM VULGARE</i>	bull-thistle	*	FACU-
<i>Conyza canadensis</i>	horseweed	0	FAC-
<i>DAUCUS CAROTA</i>	wild carrot; Queen-Anne's-lace	*	UPL
<i>Equisetum arvense</i>	common or field horsetail	0	FAC
<i>Euthamia graminifolia</i>	grass-leaved goldenrod	3	FACW-
<i>Fragaria virginiana</i>	wild strawberry	2	FAC-
<i>HYPERICUM PERFORATUM</i>	common St. John's-wort	*	UPL
<i>INULA HELENIUM</i>	elecampane	*	UPL
<i>Juncus tenuis</i>	roadside rush; path rush	1	FAC
<i>Monarda fistulosa</i>	wild bergamot	2	FACU
<i>Oenothera biennis</i>	common evening-primrose	2	FACU
<i>PHLEUM PRATENSE</i>	timothy	*	FACU
<i>POTENTILLA RECTA</i>	rough-fruited cinquefoil	*	UPL
<i>PRUNELLA VULGARIS</i>	lawn prunella	*	FAC
<i>Rubus occidentalis</i>	black raspberry	1	UPL
<i>Rubus strigosus</i>	wild red raspberry	2	FACW-
<i>Rudbeckia hirta</i>	black-eyed Susan	1	FACU
<i>RUMEX ACETOSELLA</i>	sheep or red sorrel	*	FAC
<i>RUMEX CRISPUS</i>	sour or curly dock	*	FAC+
<i>SAPONARIA OFFICINALIS</i>	bouncing bet; soapwort	*	FACU
<i>Scirpus validus</i>	softstem bulrush	4	OBL
<i>Solidago altissima</i>	tall goldenrod	1	FACU
<i>Solidago rigida</i>	stiff goldenrod	5	FACU-
<i>Solidago speciosa</i>	showy goldenrod	5	UPL
<i>TARAXACUM OFFICINALE</i>	common dandelion	*	FACU
<i>VERBASCUM THAPSUS</i>	common mullein	*	UPL
<i>Vernonia missurica</i>	missouri ironweed	4	FAC+
<i>Virgulus novae-angliae</i>	New England aster	3	FACW

**Table 6. Oakland Hills Park Plant Communities and Species.**

<i>Scientific Name</i> (All CAPS = non-native sp.)	Common Name	Coefficient of Conservatism	Wetland Indicator Status
		Floristic Quality Index	
	Mean Value of Index of Conservatism =	3.16	
	Native Species Count =	86	
	Total Species Count =	126	
	Square Root of Native Species Count =	9.27	
	Floristic Quality Index =	29.33	





## J & L CONSULTING SERVICES

- Environmental Assessments
- Mitigation Plans and Permits
- Site Evaluation and Analyses
- Wetlands Mapping

14 February 1999

Ms. Mindy Milos  
Park Manager  
Park Commission  
Charter Township of Oakland  
4393 Collins Road  
Rochester, MI 48306-1670

Re: Preliminary Wetland Determination, Parcel 10-07-400-010,  
Parcel B, 90.874 Acres, East 1/2 of Section 7, Oakland Twp.

Dear Ms. Milos:

In response to your request, J & L Consulting has prepared a Preliminary Wetlands Map of the subject property. See enclosed drawing. This 90.874 acre parcel is located directly west of Adams Road, and between Clarkston and Stoney Creek Roads. See Figure 1 (Location Map). Note the large, central depression on this property which is so evident on Figure 1.

The wetlands were delineated by interpreting a 1995 black & white aerial photograph, scale 1" = 200 ft, which was obtained from the Economic Planning Department of Oakland County. Be informed that the undersigned is an experienced aerial photo interpreter, and has performed numerous preliminary wetland determinations from aerial photographs. In addition, the undersigned observed the subject property from the adjacent roadways on 2-13-99, and made annotations directly onto the aerial photograph while in the field.

The enclosed Preliminary Wetlands Map was prepared in accordance with Ordinance # 44A - Flood Plain & Wetland Protection, Charter Township of Oakland, as well as in concert with Part 303 - Wetland Protection, of P.A. 451 of 1994 as amended, i.e., the Natural Resources and Environmental Protection Act. The presence of wetland-adapted vegetation served as the primary wetland indicator.

### Findings:

#### 1. Wetlands on Site

As indicated on the enclosed Preliminary Wetlands Map, extensive distributions of wetlands occur on site. These wetlands are a mix of forested, shrub and emergent marsh wetlands. Many of the marshy areas have been identified on the enclosed drawing. These wetlands occur primarily in the center of the property, but have branches which extend outward toward the property margins. Approximately 30 percent of the 90.874 acre property consists of wetlands; that amounts to about 27.25 acres.

## 2. Wetland Regulation

Because these wetlands are interconnected, except for the small patch of wetlands directly south of Stoney Creek Road near the northwest corner of the property, the wetlands on site are subject to regulation by the Michigan Dept. of Environmental Quality (MDEQ) per Part 303 of P.A. 451 of 1994, as well as by the Charter Township of Oakland pursuant to Ordinance # 44A. In addition, several small drainage ditches were observed on site. All wetlands adjacent to watercourses are considered "contiguous", and wetlands contiguous to watercourses are specifically regulated by the Michigan DEQ per Part 303.

Oakland Township also enforces a 25-foot wide wetland setback about the margins of the wetlands. However, these 25-foot setbacks were not been plotted on the enclosed wetlands map.

## 3. Wetland Descriptions

Because the undersigned was not on site, and only observed the wetlands from the adjacent roads, the wetland vegetation can not be described in detail. However, the wetlands appear to be a mix of forested, shrub and emergent marsh. Open water ponds and lakes were not evident. The marshy areas, which appear to consist of Cattail, Carex Sedge and Sensitive Fern, have been partially separated from the other wetlands on the enclosed drawing. Forested wetlands are more abundant in the northern half of the property, and are interspersed throughout the remaining wetlands, which are largely shrub wetlands.

Among the wetland plant indicators observed from the roads are the following: Black Willow, Eastern Cottonwood, Red (Green) Ash, Red Maple, American Elm, Red Osier Dogwood, Silky Dogwood, Nine Bark, Cattail, Carex Sedge, Giant Reed Cane, Reed Canary Grass, Sensitive Fern, and Skunk Cabbage. Nine Bark is a shrub that is particularly abundant on saturated, muck soils.

## 4. Other Wetland Documentation

Additional wetland corroboration was obtained by reviewing the soils map of the local area as well as the National Wetlands Inventory Map.

### a. Soils Map

As indicated in Figure 2 (Soils Map), which was obtained from Sheet # 35 of the Soil Survey of Oakland County, a variety of soils occur on the subject property. The following soil types are considered to be wetland (i.e., hydric) in nature: Brookston & Colwood Loams (# 12) and Houghton & Adrian Mucks (# 27). There is some general correspondence between the wetlands (as mapped by J & L Consulting) and Soil Types # 12 and 27.

### b. National Wetlands Inventory Map (NWI Map)

The National Wetlands Inventory Map for this area of Oakland Township is presented in Figure 3 (NWI Map). This NWI Map also

indicates the presence of the wetlands, particularly near the center of the subject property.

### Summary and Use of the Property

A. Wetlands cover about 30% of the 90.874 acre property, i.e., occupy about 27.25 acres.

B. Except for the small patch of wetlands directly south of Stoney Creek Road (near the NW corner of Parcel B), these wetlands are subject to regulation by the Michigan DEQ and Charter Township of Oakland. Oakland Township also enforces a 25-foot wide wetland setback.

C. Though there are uplands on the property, these upland areas are very patchy, and are separated by wetlands and valleys. Hence, the patchy nature of the upland areas renders the property useful primarily for large-lot residential development, a golf course, a public park, or some other land use which has flexibility.

D. If developed for residential use, it will be difficult to tie the development together, even with wetland permits for road crossings. In addition, a fairly large number of separate stormwater basins will be required. On the other hand, both Adams Road and Stoney Creek Road are paved, which will promote all weather access to the subject property.

E. The wetlands on site appear to provide important wildlife habitat values, and may function as groundwater recharge and runoff storage areas as well. White-Tailed Deer are especially abundant in this portion of the township.

If you have any questions concerning this wetlands report, please contact my office at 734/572-1630.

Sincerely,

  
Eugene Jaworski, PhD  
Principal

Enclosures: Preliminary Wetlands Map (for Planning Purposes Only)  
Figure 1 - Location Map  
Figure 2 - Soils Map, from Sheet # 35 of Soil Survey  
Figure 3 - National Wetlands Inventory Map of Area

# LOCATION MAP

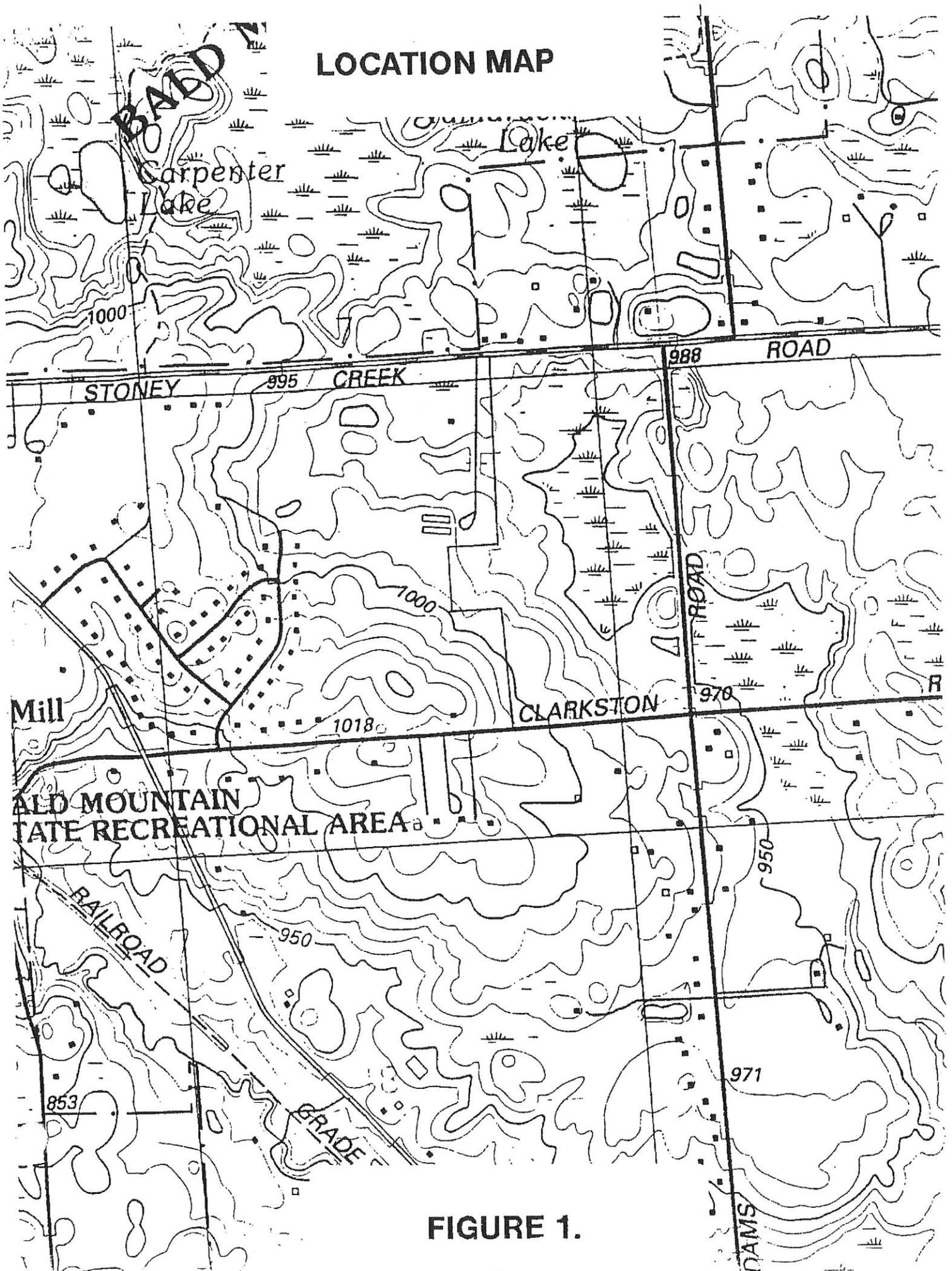


FIGURE 1.

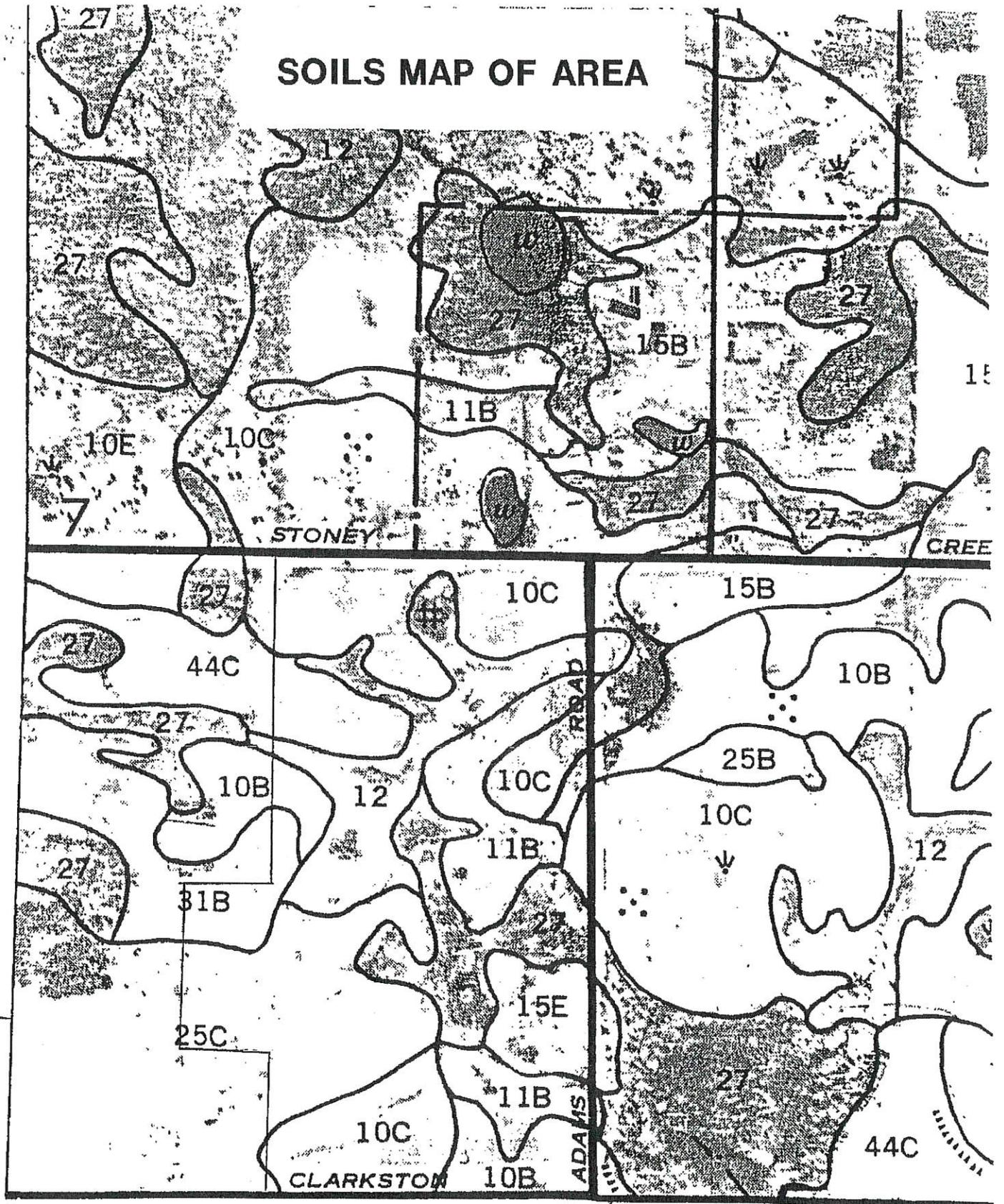
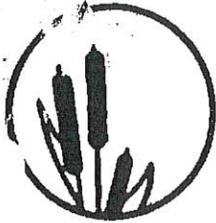


FIGURE 2.





## J & L CONSULTING SERVICES

- Environmental Assessments
- Mitigation Plans and Permits
- Site Evaluation and Analyses
- Wetlands Mapping

29 March 1999

Ms. Mindy Milos  
Park Manager  
Park Commission  
Charter Township of Oakland  
4393 Collins Road  
Rochester, MI 48306-1670

Re: Natural Resources and other Features of Parcel B (-010),  
90.874 Acres, E. 1/2 of Section 7, Oakland Township

Dear Ms. Milos:

This letter is a follow-up to the field visit by the undersigned of J & L Consulting. I inspected this parcel on 3-23-99, along with a group from the Park Commission. There was no snow at that time, and although some spring migrant birds were present, the vegetation had not yet begun to grow.

### Natural Resources and other Features

#### 1. Wetlands on Site

As indicated by the enclosed Preliminary Wetlands Map, approximately 30 percent of this 90.874 acre parcel consists of wetlands. Note that the wetlands are very irregular in shape, and generally occur along the inflow swales and in the central depression. These wetlands consist largely of shrub, emergent marsh, and shrub/forested wetlands. Though these wetlands provide runoff storage and groundwater recharge, the vegetation communities are not exceptional, i.e., do not contain acid bogs, hemi-marshes (emergent marshes with open water patches), or other high quality features. The cattail marshes are rather monotypic in nature.

#### 2. Inflow Swales & Ditches, and Outflow Culverts

Although there are no open-water ponds, lakes or streams on this property, there are small inflow swales and ditches. See enclosed drawing. Also, there are two outflow culverts on the east margin of the parcel, i.e., under Adams Road. The most significant outflow area is the double 24-inch culvert located north of the brushy hill. These culvert areas could facilitate the creation of open-water ponds through localized dredging and raising of the culvert inverts. Of course, MDEQ permits would be required.

#### 3. Overall Character of the Property

In general this parcel is undeveloped, i.e., it contains agricultural land use on the southern, western and northern margins, with shrub, shrub/forested, and emergent marsh wetland in the central depression. The land slopes toward the wetlands and central depression, and some of the slopes are sufficient to facilitate winter tobogganing, sledding, and cross-country skiing.

#### 4. Values as a Park and Recreational Area

##### a. Bird Watching and Photography

One of the most significant features of this property with regard to the wildlife is the potential for bird watching. Given the irregular distribution of the wetlands along with upland meadows, brushy areas and woodlands, a network of trails and boardwalks could be constructed that could expose the participants to a wide range of habitats. Some of the birds that appear to be present are Mourning Doves, Red-Winged Blackbirds, Song Sparrows, Meadow Larks, Bluebirds, Black-Capped Chickadees, Downy Woodpeckers, and others. In addition to passive summertime identification and photography, in winter the nests and habitats could be marked for subsequent identification and habitat study.

##### b. Active Habitat Improvement

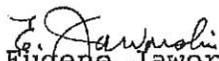
The various plant communities and habitats on site could be made more diverse and productive by the park participants, both young and old. There is considerable Autumn Olive shrubs on site, along with a patch of Giant Reed Cane and a large stand of Black Locust trees. Conversely, there is a absence of open water, only a few pockets of needle-leaved evergreen trees, and two small vernal ponds. With inventory and planning, plans could be developed, with Michigan DEQ approval, to create habitat diversity, to provide for additional nesting habitat, and to increase the food resources of the wildlife. White-Tail Deer and Cottontail Rabbit are abundant herein, and Red-Shouldered Hawks feed along the wooded margins.

##### c. Active Recreation

On the margins of the property where farm fields occur, a variety of active recreational areas could be created, including soccer fields, picnic areas, winter sledging and tobogganing, and a craft shop. The active activities could include the preparation of labels for plant and habitat identification, along with birdhouses, trail markers, and so forth. Studies could also be undertaken, including a historic aerial photograph analysis of the property, as well as studies of the establishment of the Black Locust woodland, and ecology of the ant hill mounds (located southwest of the Black Locust stand).

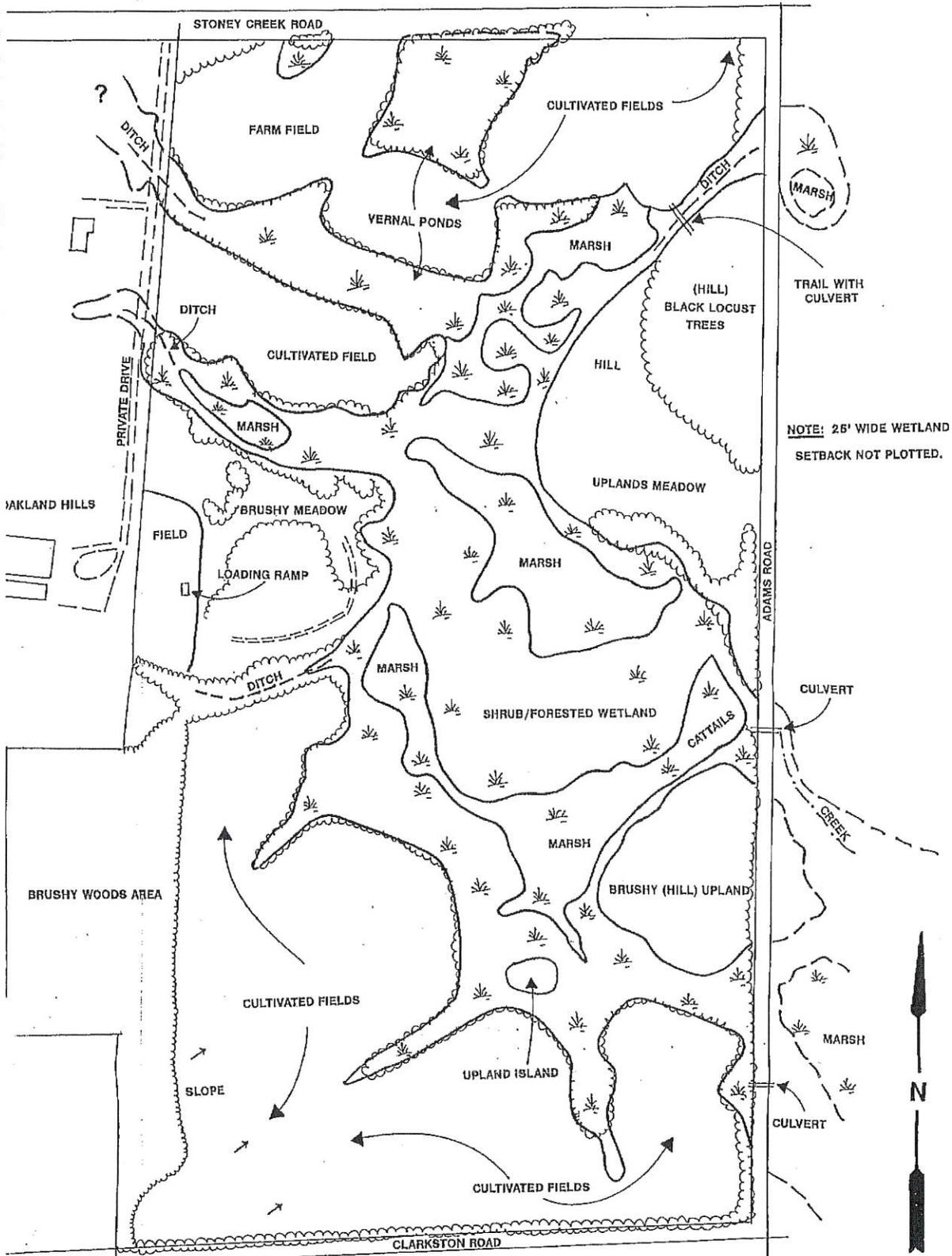
If you have any questions concerning this natural resource review, please contact my office at 734/572-1630.

Sincerely,

  
Eugene Jaworski, PhD  
Principal

Enclosure: Preliminary Wetlands Map of Property (Parcel -010)

# PRELIMINARY WETLANDS MAP





ECOLOGICAL SURVEY

OAKLAND TOWNSHIP

OAKLAND COUNTY, MICHIGAN

Paul Thompson

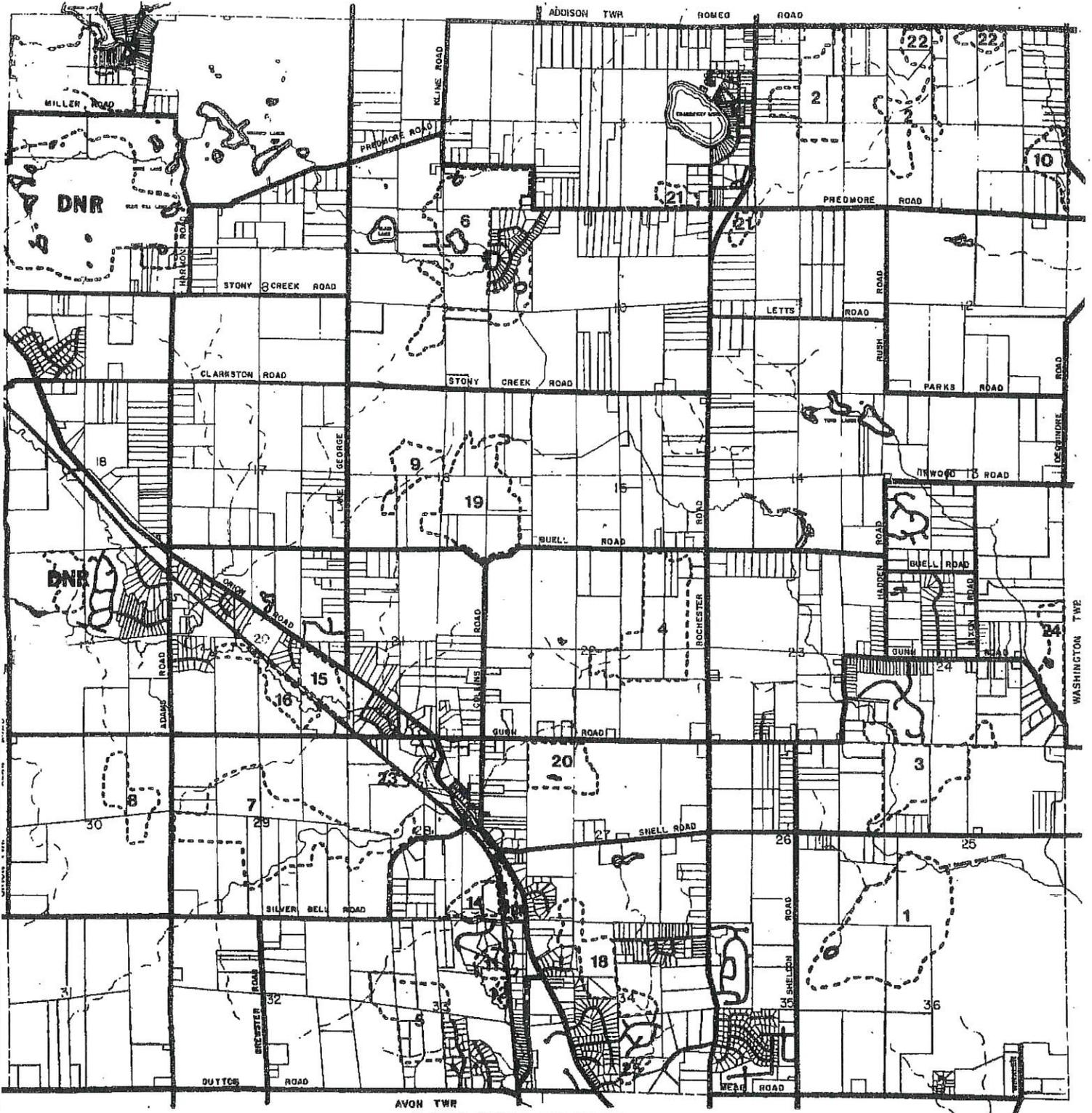
1974

Oakland Township  
4393 Collins Road  
Rochester, Michigan  
48063

TABLE OF CONTENTS

	Page
SECTOR MAP . . . . .	ii
SECTION INDEX . . . . .	iii
CRITICAL AREA MAP . . . . .	iv
CRITICAL AREA INDEX . . . . .	v
ECOLOGICAL SURVEY MAP LEGEND . . . . .	vi
GEOLOGICAL MAP . . . . .	vii
I. SOUTHWEST TRIANGLE . . . . .	1
A. Introduction . . . . .	1
B. Field Survey . . . . .	1
Southwest Triangle Map . . . . .	10
Southwest Triangle Ecological Survey Map . . . . .	11
II. NORTHWESTERN TRIANGLE . . . . .	12
A. Introduction . . . . .	12
B. Field Survey . . . . .	12
Chamberlain Lakes Site Report . . . . .	15
Chamberlain Lakes Nature Area Map . . . . .	17
Northwestern Triangle Map . . . . .	18
Northwestern Triangle Ecological Survey Map . . . . .	19
III. NORTHERN SECTOR . . . . .	20
A. Character of Sector . . . . .	20
B. Field Survey . . . . .	20
Northern Sector Map . . . . .	26
Northern Sector Ecological Survey Map . . . . .	27
IV. SOUTHERN SECTOR . . . . .	28
A. Character of Sector . . . . .	28
B. Field Survey . . . . .	28
Southern Sector Map . . . . .	33
Southern Sector Ecological Survey Map . . . . .	34
V. PAINT CREEK SECTOR . . . . .	35
A. Character of Sector . . . . .	35
B. Field Survey . . . . .	35
Paint Creek Sector Map . . . . .	40
Paint Creek Sector Ecological Survey Map . . . . .	41
VI. SUMMARY AND EVALUATION . . . . .	42
Topography . . . . .	42
Vegetation . . . . .	43
A Natural Area System . . . . .	43
Methods of Acquiring Lands for Natural Areas . . . . .	44
Recommendations and Evaluations of Natural Areas (Critical Areas) . . . . .	45
INDEX TO WOODLAND TRACTS, STREAMS AND SPECIAL FEATURES . . . . .	48

CRITICAL AREA MAP



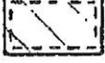
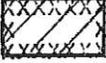
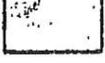
1974  
--- Critical Area

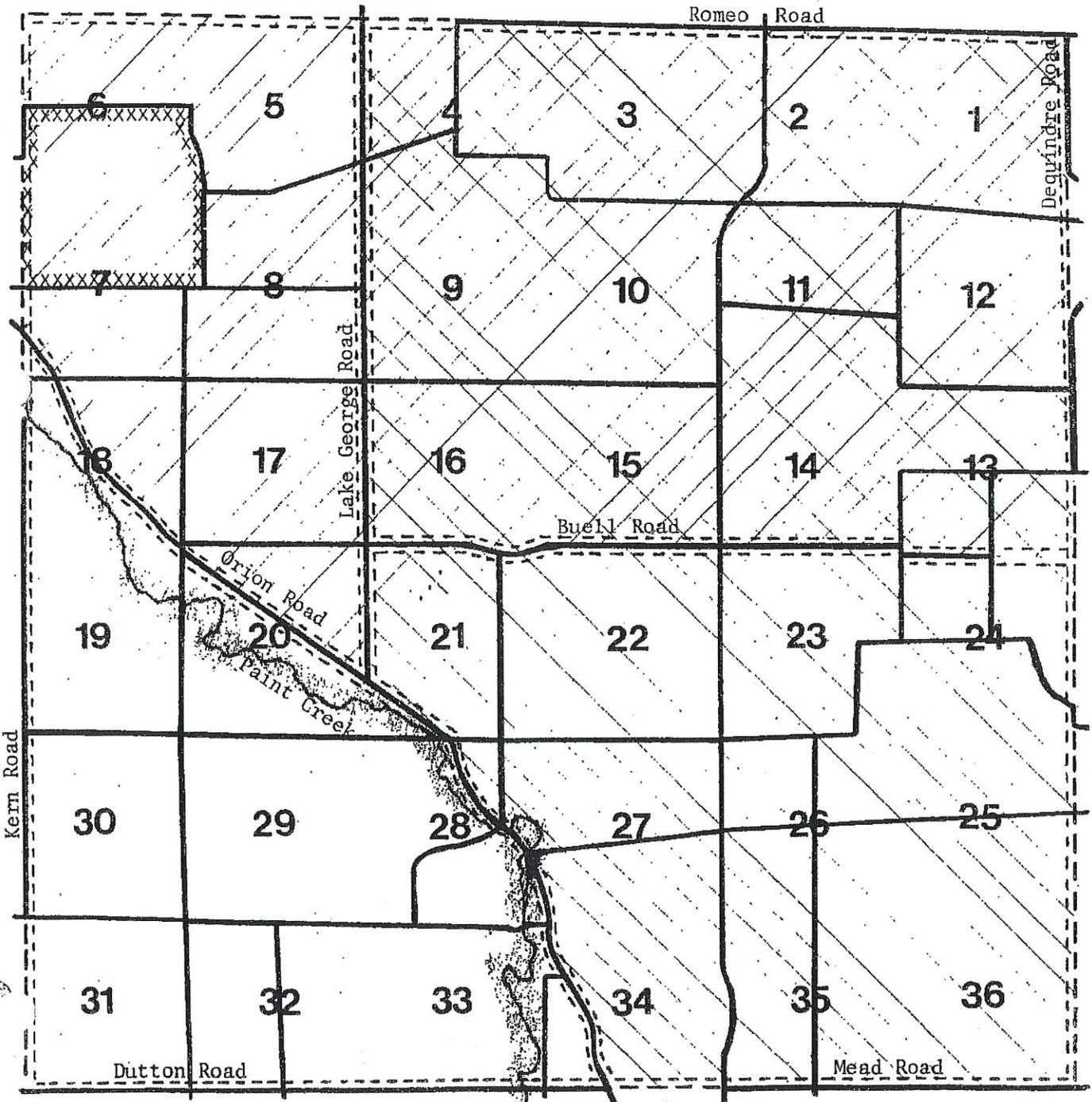
OAKLAND TOWNSHIP  
ECOLOGICAL SURVEY  
Paul Thompson

Zoning Ordinance  
Section 22.06.03

OAKLAND TOWNSHIP  
 ECOLOGICAL SURVEY

SECTORS

- |   |                       |  |                    |
|---|-----------------------|--|--------------------|
|  | Southern Triangle     |  | Northern Sector    |
|  | Northwestern Triangle |  | Southern Sector    |
|  | Chamberlain Lakes     |  | Paint Creek Valley |



SECTION INDEX

	Page		Page
Section 1.....	24, 46, 47	Section 19.....	7, 8, 47
Section 2.....	24, 45, 47	Section 20.....	8, 14
Section 3.....	22	Section 21.....	28
Section 4.....	20	Section 22.....	28, 45, 47
Section 5.....	13	Section 23.....	29
Section 6.....	12, 16, 46	Section 24.....	29, 45, 47
Section 7.....	12, 16	Section 25.....	29, 45
Section 8.....	13, 14	Section 26.....	29
Section 9.....	20, 45	Section 27.....	31, 46, 47
Section 10.....	22	Section 28.....	4, 5, 31, 46, 47
Section 11.....	25	Section 29.....	2, 5, 46
Section 12.....	25	Section 30.....	4, 5, 46
Section 13.....	25	Section 31.....	7, 9
Section 14.....	25	Section 32.....	6, 9
Section 15.....	23	Section 33.....	5, 6, 45
Section 16.....	23, 46	Section 34.....	31, 46, 47
Section 17.....	14	Section 35.....	29
Section 18.....	8, 13, 14	Section 36.....	29, 45
		Paint Creek Valley...	8, 35, 46

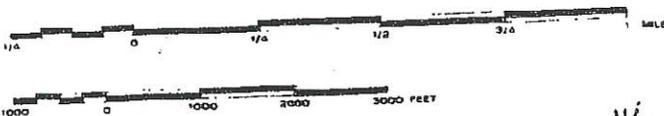
CRITICAL AREA INDEX

<u>Area</u>	<u>Components</u>	<u>Page</u>
1	W-65, F-6 . . . . .	1, 30, 45, 46
2	W-47 . . . . .	24, 28, 29, 30, 45
3	W-58, W-63, W-64, F-5 . . . . .	29, 30, 45
4	W-55 . . . . .	28, 45
5	W-13, W-14, W-15, S-6, S-7, F-3 . . . . .	5, 6, 8, 45
6	W-35, W-36, W-37 . . . . .	21, 22, 45
7	W-1, W-2, W-3, W-4, S-1 . . . . .	2, 3, 4, 5, 7, 45, 46
8	W-11 . . . . .	4, 5, 46
9	W-46, S-13. . . . .	14, 21, 23, 46
10	W-51 . . . . .	25, 46
11	1d . . . . .	36
12	F-4 . . . . .	6, 46
13	1b . . . . .	36
14	2a . . . . .	37
15	4a . . . . .	38
16	4b . . . . .	38
17	W-26 . . . . .	12, 46
18	W-71, W-72, W-75 . . . . .	31, 46
19	W-45 . . . . .	23, 46
20	W-67, W-68, W-69, W-70 . . . . .	31, 46, 47
21	. . . . .	47
22	. . . . .	47
23	S-3 . . . . .	3, 4, 46
24	W-62 . . . . .	29, 47
25	W-73, S-20 . . . . .	31, 47

# OAKLAND TOWNSHIP ECOLOGICAL SURVEY

## map legend

	<b>F O R E S T S</b>
O	OAK including HICKORY
F	MIXED
B	BEECH-MAPLE
S	SWAMP
S <sub>1</sub>	BLACK SPRUCE-LEATHERLEAF
T	TAMARACK
W	WHITE PINE
	<b>S C E N I C V I E W S</b>
	<b>G E O L O G I C F E A T U R E S</b>
	<b>V E G E T A T I V E C O V E R</b>
L	LOWLAND including ILEX
M	MARSH
M <sub>1</sub>	SEDGE MEADOW
M <sub>2</sub>	CATTAIL
D	DRY
A	AQUATIC
	<b>S P R I N G F L O R A</b>
	<b>W I L D L I F E</b>
	<b>L A K E S a n d P O N D S</b>



FIELD SURVEY: PAUL THOMPSON, I  
Research Associate in Ecology,  
Cranbrook Institute of Science

MICHIGAN NATURAL AREAS COUNCIL  
Michigan Representative of The Nature Conservancy

Chamberlain Lakes Site Report

(Bald Mountain Recreation Area)

Introduction

The Chamberlain Lakes section of the Bald Mountain Recreation Area is located directly east of Lake Orion, Michigan, in an area bounded by Miller, Harmon, Stony Creek, and Conklin Roads. Lying along a portion of the Defiance Moraine, it possesses a varied topography. The tract is dominated by a large central hill, approximately 1,030 feet in elevation, that rises eighty feet above the surrounding land. The outlying areas at the base of this hill are low and relatively flat, forming very wet, boggy habitats. Several small lakes -- Hart, Blue Gill, and Shoe -- and the Chamberlain Lakes chain are found in this portion of the tract. A small stream flowing eastwards through the north part of the area is a part of the Paint Creek drainage system.

Natural Features

The character of the terrain is especially conducive to creation of boggy conditions so that most of the small lakes of the area are surrounded by bog mats and bog vegetation, including tamarack, poison sumac, and in some localities black spruce. Consequently this section possesses a rich flora of bog plants, including a number of interesting species, such as the water arum (*Peltandra virginica*), pitcher plant, and several of the native wild orchids. Certain species found here represent southern plants at their northern limits, whereas several other northern plants discovered here are near the southern limit of their range.

The area to the south of Hart Lake and most of the low section in the southern portion of the tract is covered by swamp forest, which creates an excellent habitat for a wide variety of ferns and other swamp species of plants. Most of the higher ground is covered by upland oak forest. This woodland has a wide variety of spring flowering species.

The diverse nature of the terrain has resulted in many small potholes, ponds, boggy niches. Consequently the area harbors over a dozen species of amphibians, including most of the common species of southern Michigan. Fourteen different species of reptiles have been found here, and eighteen species of mammals. The bird population is unusually high: more than seventy species have been identified, and of this number, more than fifty species have been found nesting in the area. Extensive nesting studies<sup>(1)</sup> carried out here uncovered some very unusual nesting records which showed thirteen different species of warblers, including the rare hooded warbler.

---

(1) Middleton, Douglas S., "Some Notes on the Summering Warblers at Lake Orion." *The Jack-Pine Warbler*, 30 2(1952). (Michigan Audubon Society)

Recommendations

The Chamberlain Lakes Tract is unique in the wide variety of plants and animals which it contains. It is ideally suited as a nature study area for educational use, biological training, and ecological studies. The area has been widely used in past years by conservation organizations, scouting groups, and educational institutions. With expanding educational demands and rapidly decreasing acreages of native vegetation in the Metropolitan Detroit area, its use in the future will be drastically increased. It is therefore strongly recommended that the area shown on the attached map be officially dedicated as Chamberlain Lakes Nature Study Area. Furthermore, the remaining land in the plot bounded by Miller, Harmon, Stony Creek, and Conklin Roads should be retained in as natural state as possible as a buffer zone for the above nature study tract. This buffer zone will also serve to furnish space for public facilities, such as picnic area, toilets, and parking spaces for the use of persons visiting the nature study area.

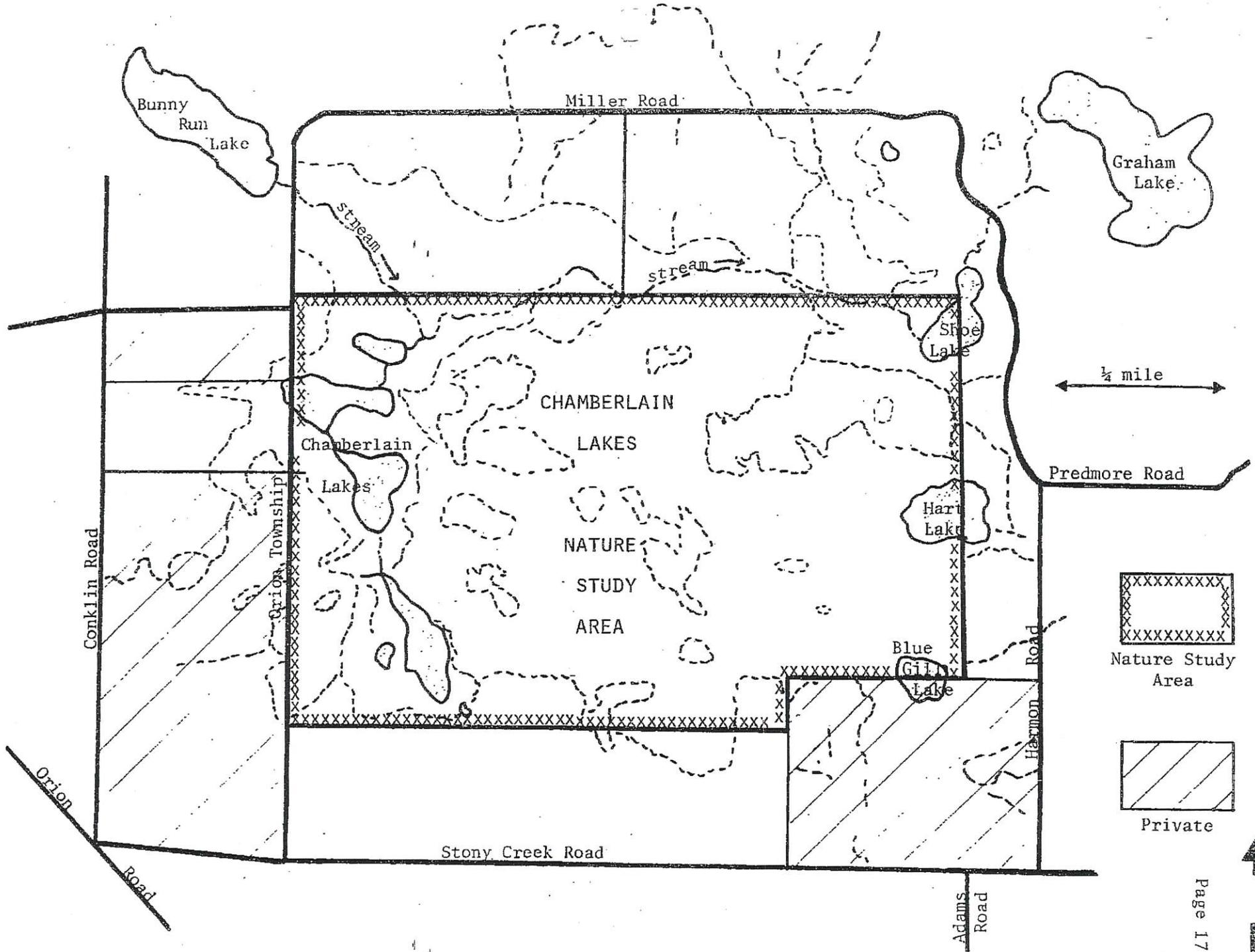
Basically the nature study area would consist essentially of the southernmost quarters of the south quarter sections of section 6, and the northern third of section 7 of Oakland Township of Oakland County -- T 4 N, R 11 E, except for the southeast quarter of the southeast quarter section of section 7, which is in private ownership. This would consist of an area of approximately 350 acres. Whereas this is adequate for present usage, it is doubtful if this acreage will be sufficient for future requirements.

Respectfully submitted:

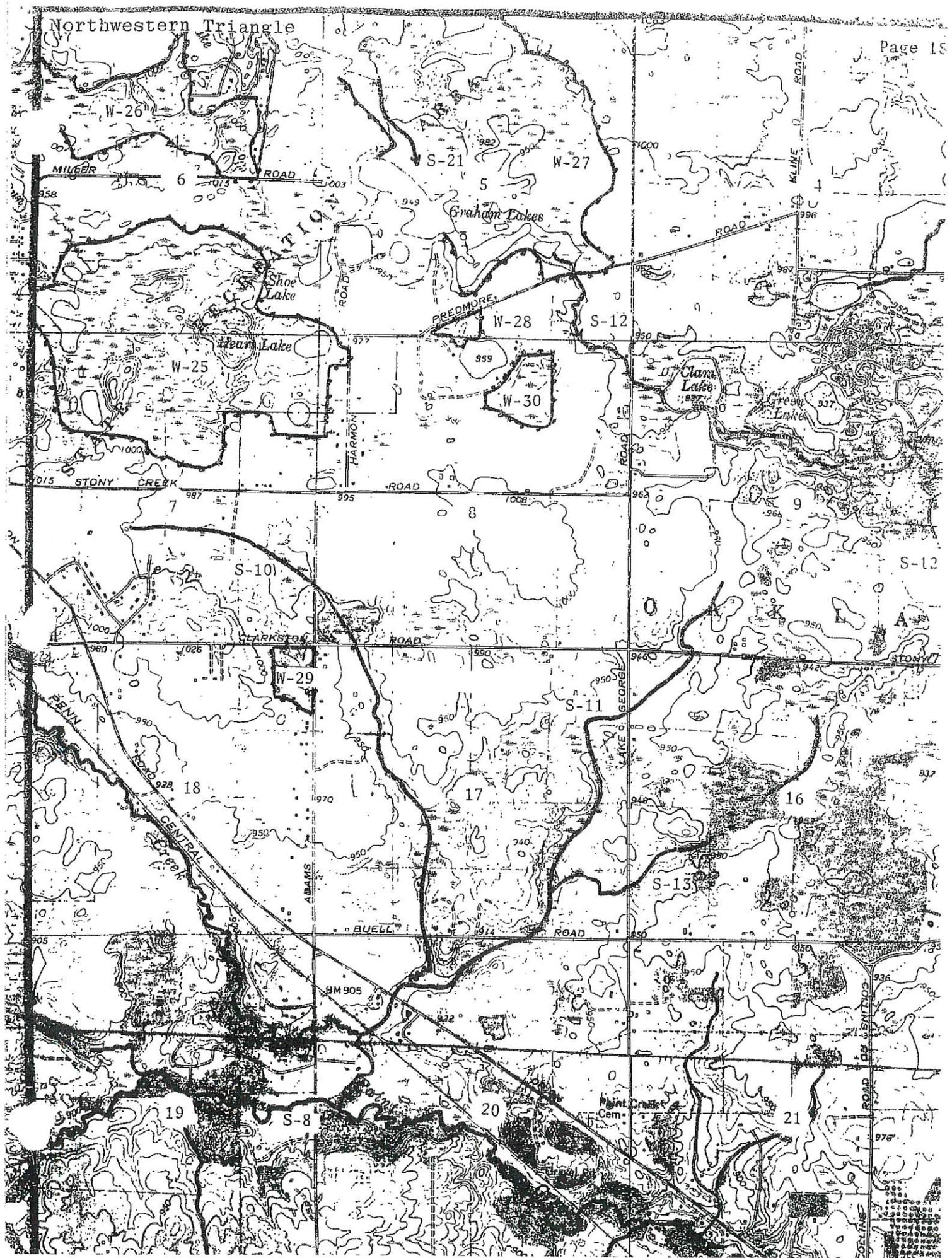
Chamberlain Lakes Site Committee:

Dr. Walter P. Nickell  
Dr. Warren P. Stoutamire  
Mr. Paul W. Thompson (chairman)

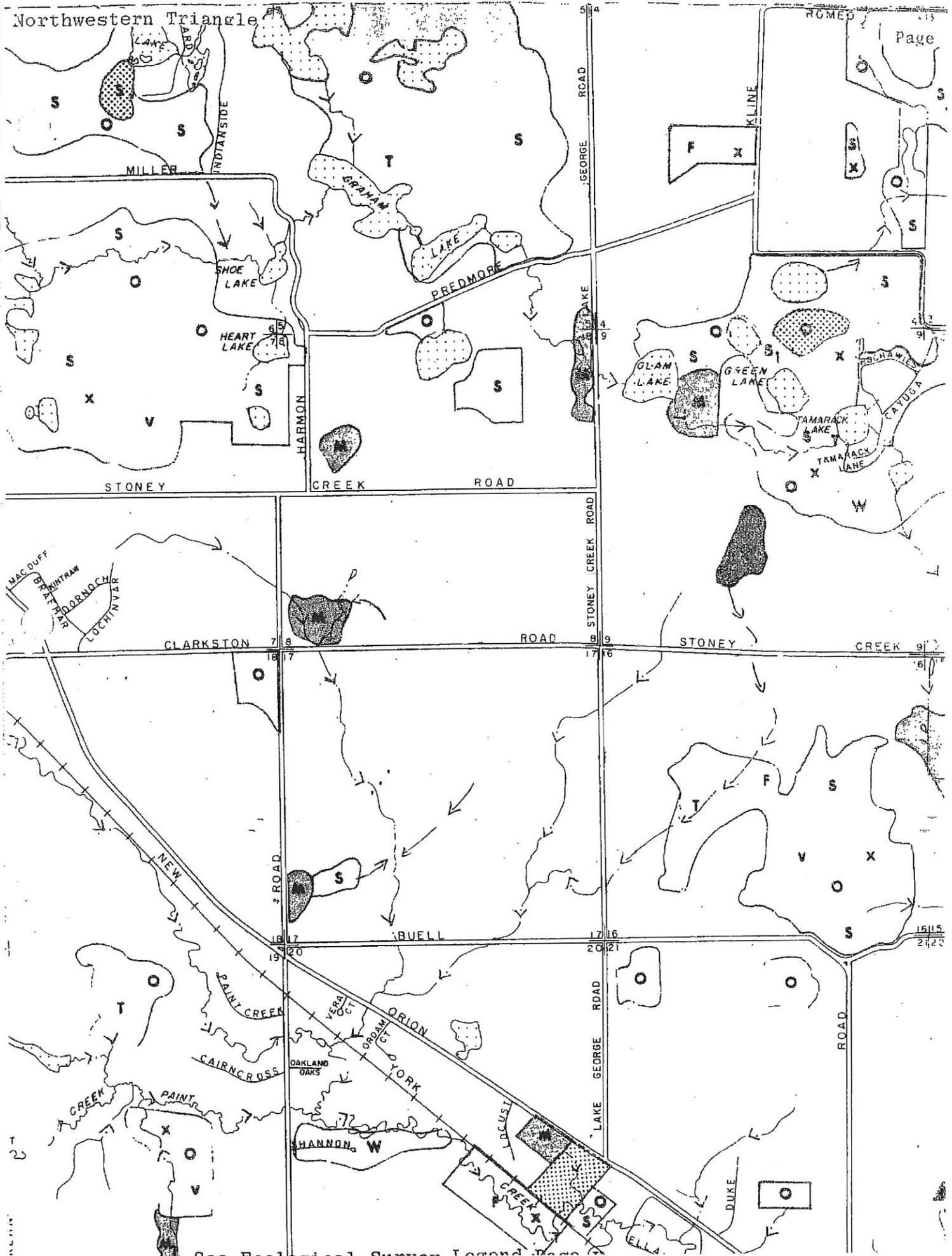
DALD MOUNTAIN REGULATION AREA



Northwestern Triangle



Northwestern Triangle



See Ecological Survey Legend Page

**TF19-0074 Marsh View Park Restroom Improvements Maintenance Plan (February 25, 2019)**

**Proposed Restroom Facilities**

Double Restroom vertical groove-sided Structure -2800 gallon Vault (approximately 4800 uses per vault). Life expectancy of vault toilet structure is 25 years and vault will be 35+ years.

**Current Maintenance Budget**

Oakland Township's Parks and Recreation Parks millage funds the improvements, operation and maintenance of Oakland Township parks. The operations and maintenance portion of Oakland Township's 2019/2020 Parks and Recreation Millage budget will total \$1,066,000.

**Annual Maintenance Schedule and Costs for Marsh View Park Restroom Improvements**

TASK NAME	FREQUENCY ESTIMATED	CONTRACTOR COST	ANNUAL STAFF TIME (\$17/hr)	EQUIPMENT/ MATERIALS COST	COMMENTS
Restroom Interior Cleaning and Paper Products	Weekly		200 hours staff time 1 person	\$500 for cleaning/paper supplies	
Pumping of restroom vault	Yearly	\$1000			
<b>TOTALS</b>		<b>\$1,000</b>	<b>\$3,400</b>	<b>\$500</b>	<b>GRAND TOTAL</b>
					<b>\$4,900</b>

**Additional Maintenance Costs**

TASK NAME	FREQUENCY	ANNUAL STAFF TIME	CONTRACTOR, EQUIPMENT/MATERIALS COST	TOTAL COST DURING 25 YEARS
Staining of Restroom Siding	5 year cycle	16 hours staff time, 1 person	\$200	\$2,360
<b>TOTAL 25-Year COSTS</b>				<b>\$2,360</b>

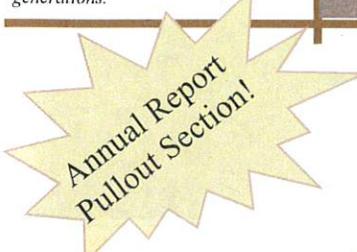
**Total Life Cycle Cost Estimate**

TASK NAME	FREQUENCY	ANNUAL STAFF TIME	CONTRACTOR, EQUIPMENT/MATERIALS COST	TOTAL LIFE CYCLE COST DURING 25 YEARS
Design/Construction	Once			\$127,400
Annual Maintenance	Annual	\$3,400	\$1,500	\$122,500
Additional Maintenance	As Necessary			\$2,360
<b>TOTAL 25-Year COST</b>				<b>\$252,260</b>

# Oakland Township Parks and Recreation Commission Newsletter

Fall 2017

The Mission of Oakland Township Parks and Recreation Commission is to provide a sustainable system of parks, trails, programs, amenities, and services which create memorable experiences and a sense of place, contributes to the economic value of the Township and preserves the historical and natural heritage of the landscapes for existing and future generations.



## Archery Range Expansion Celebration

Goodison Good Tyme is relocating to Marsh View Park for 2017 only!

By: Recreation Manager Becky McLogan

### Inside this issue:

Archery Range Celebration	1, 3
Goodison Good Tyme	
What's New in the Parks	2
Lost Lake Nature Park	4, 5
Open Houses & Programs	
Fitness/Nature/Kayak/	6-12
Archery Programs	
Annual Report	Center
Stewardship,	Pullout
Phragmites Outreach	13, 14
PRC Team Update	15
Thank Yous	
Spider Webs	16, 20
Historic District Commission,	
Square Dance,	17, 19
Down on the Farm	
Oakland Township	
Historical Society,	18
Six Rivers Land	
Conservancy	
Paint Creek Trail News	19
Agricultural Video Contest	
Parks In Fall	21
Program Registration Policy	22
Program Registration Form	23
Park Map	24
Hunting Application	25

Oakland Township Parks and Recreation Commission invites everyone to the **Grand Re-Opening Celebration** of our updated **Marsh View Park Archery Range** which will be held from 11am to 3pm, on **Saturday, September 9<sup>th</sup>**.

Try your hand at target shooting under the supervision of USA Archery certified instructors and earn a Marsh View Park Archery Range T-shirt! No archery experience needed to participate. At 1pm there will be a brief ribbon cutting ceremony with refreshments.

The celebration, which will take place at Marsh View Park, is in conjunction with our annual free family-friendly Goodison Good Tyme fall festival.



Activities include Kite Decorating and Flying, Amazon Zip Line, LED Rock Wall (Klime Wallz), face painters, balloon artists, hot dogs and chips!

**All activities and food are FREE! Details on page 3.**

The archery range grand re-opening celebrates the expansion of the range's maximum shooting distance from 45 yards to 90 meters! This expansion allows us to offer a wider variety of programs from beginning to Junior Olympic Archery Development, recreation and competitive leagues (See pages 11 & 12 for archery programs), and host school teams and special events as well as USA Archery sanctioned tournaments. Additionally, we've added a new paved parking lot at the western-most end of the park to service the range.

Marsh View Park is located at 3100 East Clarkston Road.

#### Special points of interest:

- ◆ Goodison Good Tyme!
- ◆ Programs/Kayaking/Archery
- ◆ Paint Creek Trail
- ◆ Lost Lake Open Houses!



## What's New in the Parks

### From The Director...

#### Much Park Planning Going On!

**Gallagher Creek Park**, located near areas of high population in our Township, is slated for recreation facility planning this year! This 15-acre park located on Silverbell Road, east of Adams Road, has an existing 10-space gravel parking lot, mowed pathways that are popular with nearby residents, and an observation deck overlooking Gallagher Creek. Natural areas here feature an upland prairie restoration and the headwaters of Gallagher Creek. Our goal is to balance the protection of these unique natural areas with the appropriate addition of recreation facilities including a nature-inspired playground and a picnic pavilion. A new sidewalk is being planned from Adams Road so that visitors will be able to reach this park by foot or bike too.

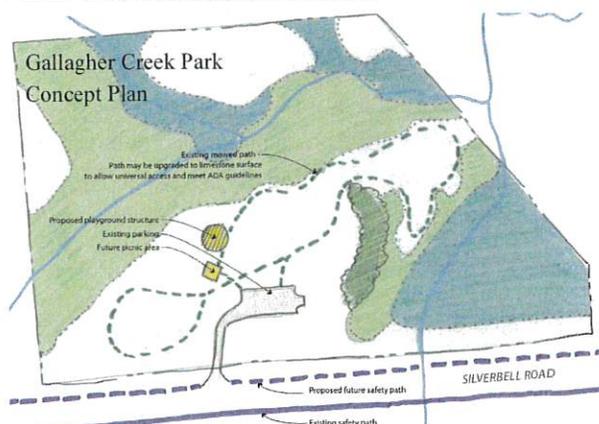
Natural area stewardship activities have been ongoing at Gallagher Creek Park for years but recreation facility planning is just starting! The PRC will be contracting with a qualified engineering firm to lead these efforts. Design ideas will be reviewed at Parks and Recreation Commission (PRC) meetings this fall. All are invited to provide their ideas and opinions.

**Paint Creek Trail Bridge 33.7** The Oakland Township Parks and Recreation Commission and the Paint Creek Trailways Commission are partnering on the renovation of bridge 33.7, located on the Paint Creek Trail between Dutton and Silverbell Roads. Alternative bridge designs will be presented for public review this fall with the intent of selecting a preferred design for construction in 2018.

**Watershed Ridge Park** This 170-acre park, located at the northeast corner of Buell and Lake George Roads, is slated for recreation facility planning later this year. Agricultural and natural area stewardship activities have been ongoing at this park which also houses our parks maintenance and storage building. Proposed improvements include the development of a trail system, parking lot and picnic area.

*Mindy Milos-Dale*

*Parks and Recreation Director*



### Seed Collecting and Cleaning

Help harvest and clean native plant seeds this fall! Join us for this fun and relaxing way to learn native plant species and discover our natural areas at the same time. Gathered seed is used to restore areas where invasive plants have been removed. *See page 13 for details*

Cam, Catherine & Dawn collect seed at Paint Creek Heritage Area-Wet Prairie. Photo: Ben VanderWeide.



### Celebrate New Partnership With Us!



Join us for one, two, or all **four FREE open houses** this fall at Lost Lake Nature Park's Nature

Center! Our inaugural partnership season continues with a great selection of nature classes including Teddy Bear Tea and Year of the Dog! Presented in partnership with Dinosaur Hill Nature Preserve. *Full details on pages 4 & 5.*



### Boot Camp Gold—New Program!

This fall we're offering a great new way for adults 55 and up to maintain or improve their current fitness levels! Facilitated by a fitness instructor, this class benefits your heart with gentle cardio segments. Have fun building strength and conditioning your entire body at your own pace. Sign up for this sure fire way to feel refreshed and make new friends! *See page 7 for details.*

### People of the Three Fires - New Program!

Learn about the tribes that were - and still are - a very large part of Michigan's history. Examine the Potawatomi, Ojibwa, and Ottawa tribes - learning about their customs, language, and social systems by actively moving through the life of a Native American born in the area all the way through their death. Put together some authentic Native American recipes to sample! *See page 9.*

# Goodison Good Tyme

Joint Celebration!



## Archery Range Grand Re-Opening



SATURDAY, SEPTEMBER 9th, 2017 11am - 3pm

MARSH VIEW PARK, 3100 East Clarkston Road

### Archery Range Grand Re-Opening!

Join us to celebrate our newly expanded Olympic archery range!

### Goodison Good Tyme!

Join us for our annual family friendly fall festival!

#### ARCHERY EVENTS

##### ◆ 11am Archery Range Shoots

Every 15 minutes.

Try your hand at target shooting and earn a Marsh View Park Archery Range T-shirt!

USA Archery Certified Instructors.

##### ◆ 1pm Ribbon Cutting Ceremony

Light refreshments



#### FESTIVAL ONGOING ACTIVITIES

11am - 3pm

- ◆ Face Painters
- ◆ Balloon Artists
- ◆ Amazon Zip Line
- ◆ LED Rock Wall
- ◆ Soccer Obstacle Course
- ◆ 11am Kite Decorating and Flying  
Every 1/2 hour



#### COMMUNITY RESOURCES

##### ◆ Historic District Commission

Historical Displays



##### ◆ Oakland Township Historical Society

Craft Sale and Bake Sale

##### ◆ Oakland Township Parks and Recreation

Parks, Recreation and Stewardship display tables showcasing opportunities and programs.

Hot dogs, chips, and water!

While supplies last!



Mums compliments of



Sponsored by Oakland Township Parks and Recreation  
For more information call 248-651-7810 or visit [oaklandtownship.org](http://oaklandtownship.org)

**FREE!**

# LOST LAKE NATURE PARK PARTNERSHIP

Oakland Township Parks and Recreation & Dinosaur Hill Nature Preserve



## Lost Lake Nature Park

846 Lost Lake Trail, Oakland Charter Township, MI 48363



Oakland Township Parks and Recreation and Dinosaur Hill Nature Preserve have partnered to bring Oakland Township residents and others exciting new programs at Lost Lake Nature Park. Family, friends and neighbors are invited to explore everything this partnership has to offer at one of four summer open houses.



# FREE!

## Fall Open Houses!

# FREE!

Open houses are FREE! ~ Open houses are FUN! ~ Open houses are for the **WHOLE FAMILY!**

The nature center will be open from 12Noon to 4pm for each Open House. You are welcome to drop by any time during those hours. Explore this amazing park, check out the nature center, participate in crafts, games and other ongoing activities! Each month features a new theme - come to one or come to all! Make an afternoon of it and bring along a picnic and enjoy the scenic view of the huge pine trees and beautifully secluded Lost Lake.

**Fall 2017 Open Houses ~ Sundays, 12Noon-4pm ~ No Registration Required! ~ All Ages Welcome!**

### September 24 - Hey There Hibernator

With Autumn casting it's cool shadow across the canopy it's time for all of our animals to begin readying for the long winter. We will have squirrel feeders available to craft and bring home, binoculars to view all the busy animals in the trees, and games themed around hibernation!

### October 8 - Creepy Crawlies

Nothing screams October like taking a look at some spooky stuff! We will have a true bugtastic day as we put together our own spiders to take home, look at some insects under stereoscopes, and go on a bug safari to see if we can locate any that call Lost Lake home!

### November 5 - Gobble Games

Turkeys often frequent the woods and lawns of Lost Lake in search of snacks and fun so let's join them for a day celebrating the amazing turkey! Drop-in fun will abound; join the flock for field games with a turkey twist, a turkey craft, turkey feathers and turkey mounts. We'll perfect our gobble to try and lure any in the woods out to the party!

### December 17 - A Tribute to Snow Days

We've always been fans of snow days so we're going to try to encourage a few this year by celebrating all the fun you can have with a day off provided by Mother Nature. We will have snow shoes and cross-country skis available for anyone who wants to try and, depending on the weather, either several snow activities or field games! Regardless of the snowfall, you'll be able to craft an ornament to take home, play table games and nibble on snow-themed snacks! Snow or not, we're going to have a lot of fun and keep warm!

**Classes are a great way to experience Lost Lake Nature Park** as they're led by talented instructors who walk participants through quite a large variety of subject matter in a structured yet completely fun setting. Each class will feature an indoor and outdoor portion with many having crafts for participants to take home with them. **Sign up for these classes at [www.dinosaurhill.org](http://www.dinosaurhill.org) or 248-656-0999.** Find the class which interests you before simply signing up and paying from the convenience of your own home. Registration is required in advance and closes a week before the class date, this ensures that we have time to purchase supplies for everyone.

**[Class Registration Required via www.dinosaurhill.org](http://www.dinosaurhill.org)**



**Monday September 18, 1pm-2pm - Preschoolers**

**Teddy Bear Tea**

Even our teddy bears need to get ready for their hibernation this winter. Preschoolers (and their favorite stuffed animal) are encouraged to join us as we learn why some animals take winter off and all the hard work that goes into a very long nap. We will even explore our own teddy bear cave and have a tea party with teddy!

**Sunday October 1, 1-2:30pm - 1st-4th Graders**

**I'm Your Food—Creatures that Drink the Blood of Other Animals!**

Forget Transylvanian vampires in black cloaks ... leeches, mosquitoes, ticks, vampire bats are the real bloodsuckers of the animal kingdom! Let's take a look at some of these animals that prey on human beings! How many of these blood-drinking species can we find in Michigan? We will even top this interesting class off with a special 'blood snack' made of strawberry syrup!

**Tuesday November 14, 4:30-6pm - Afterschool, Families Welcome**

**The Fall Harvest**

From every corner of the globe you can find a culture with a deity relating to the autumn harvest and so, before Thanksgiving, let's get our harvest on! We will have a cornucopia of freshly harvested autumn fruit and veggies for snacking and crafting as we put together zucchini cars, edible carrot dolls and shrunken apple heads. We'll round out the class with our famous 'pumpkin bowling' event!

**Saturday, December 30, 10-11:30am - Families**

**Year of the Dog**

Sure, we're jumping the gun on celebrating the Chinese New Year (February 16<sup>th</sup>, mark your calendars) but we just can't wait because 2018 is going to be the year of the dog and we want to talk about canines right now. Join us as we put together dog-themed New Year's charms, learn a little about wild canines here in Michigan and put together a snack that you can share with a pup in your life.

**Register for these classes at 248-656-0999 or [dinosaurhill.org](http://dinosaurhill.org)**

## **Tai Chi Fall Session (Indoors) - Adults 18+**

## **Fall 2017 Fitness/Wellness Programs**

*Tuesdays, October 3 - November 21, 2017, 6:00 - 7:00 pm*

*Paint Creek Cider Mill, 4480 Orion Rd., Rochester, 48306*

Find peace and serenity from a busy, stressful day through Tai Chi. Tai Chi exercises the mind and body by increasing wellbeing and improving balance, coordination and strength. Students will learn the basic forms and elegant movements of the Yang Style Short Form Tai Chi. Students should be able to support their weight while standing or bring a chair if unable to stand. Students should wear loose and comfortable clothing and shoes. No flip flops or sandals. Traditional Tai Chi shoes are optional. Bring water bottle. Led by Marci Jenkins. 8-week session.

*\*Marci has over 20 years of Tai Chi training and practice. She has experience in the Yang Style and Wu System of Tai Chi. She is currently teaching at the Older Persons' Commission in Rochester.*



**Residents: \$40      Non-residents: \$80      Register by: September 26**

## **Outdoor Boot Camp In The Park - Ages 12+**

*Mondays, September 11 - October 16, 2017, 6:00 - 7:00pm*

*Bear Creek Nature Park, 740 W. Snell Road, Rochester, MI 48306*



Break out of the confines of your gym and take in the refreshing fall air of Bear Creek Nature Park! Bear Creek Nature Park offers a small-group outdoor boot camp that uses the different features around the park to create a fun workout for all levels. Circuit activities like the meadow mile, pavilion push-ups, and nature node knee bends, are sure to offer enough variety to keep you motivated. This fun and challenging boot camp-in-the-park will get you fit! Taught by Retro Fitness' Sharon DeRouin, a certified trainer with 25 years experience. 6-week session. 1 hour class (5 min. warm up, 45 min. circuit activities, 10 min. cool down and stretch).

**Residents: \$40      Non-residents: \$80      Register by: September 5**

## **Yoga On The Lake - Session 3 - Adults 12+**

*Sundays, September 10 - October 15, 2017, 9:30 - 10:30 am*

*Lost Lake Nature Park, 846 Lost Lake Trail, Oakland, MI 48363*



Wouldn't you rather be outside during the fall? Step out of the studio and enjoy doing yoga in the warmth of the sun and in full view of serene Lost Lake. Whether you are a seasoned practitioner or newer to yoga, this gentle All Levels class is just right for you! Bring your own yoga mat. Led by Pavel Bednarski, RYT 200 Certified Yoga Instructor. All Levels. 6-week session. All classes will take place on the dock. Rain location is the on-site Nature Center.

**Residents: \$48      Non-residents: \$72      Register by September 1**

## **All Levels Yoga - Fall Indoors Adults 12+**

*Sundays, October 29 - December 10, 2017 9:30 - 10:30 am*

*Cranberry Lake Farm House, 388 West Predmore, Oakland, MI 48363*



In this class you will learn basic yoga postures and breathing exercises making this class suitable for the beginner as well as anyone looking for a refresher. Whether you are a seasoned practitioner or newer to yoga this All Levels class is just right for you! Bring your own yoga mat. Led by Pavel Bednarski, RYT 200 Certified Yoga Instructor. All Levels. 6-week session.

**Residents: \$48      Non-residents: \$72      Register by October 23**

## Oakland Township Parks and Recreation 2017 Fitness/Wellness Fall Programs

Register by mail with registration page or in person at our office.



### **Oakland Township Parks and Recreation and SOMO Fall Run/Walk Club - Adults 16+**

Wednesdays, September 13 - October 18, 2017, 6:00 - 7:00 pm

Paint Creek Cider Mill, 1st Floor Conference Room, 4480 Orion Road, Rochester, MI 48306

Tired of running and walking alone? Looking for a new way to motivate yourself and others to get moving or a good way to expand your workout group? Exercising with family, friends and neighbors can keep you motivated, improve your accountability and help you meet new people with similar goals. Oakland Township Parks and Recreation has partnered with Socially Motivated Wellness (SOMO) to offer our very own Running and Walking Club! The club participants will use either a run/walk/run or a walk/shuffle interval method. Anyone can participate. Groups will be introduced to a variety of terrain on trails at Bear Creek Nature Park and Paint Creek Trail. The beginning of each session will feature an expert speaker covering various topics including how to dress for the elements, proper nutrition, yoga, stretching, how to run/walk safely, and more. Workouts will run approximately 20 to 50 minutes. *SOMO has nine years of experience in training people for running races and has worked with race organization such as the Crim Fitness Foundation and The Brookside Way.* Fee includes training materials and entry into a local 5K (3.1 mile) race. 6 weeks.

**Residents: \$60      Non-residents: \$80      Register by: September 6**



### **Boot Camp Gold - 55+**

Tuesdays, September 12 – October 17, 2017, 1:00 - 2:00pm

Lost Lake Nature Park – Lakeside Patio

846 Lost Lake Trail, Oakland, MI 48363

# New!



If you are an older adult (55 and up) looking for ways to maintain or improve your current fitness levels while having fun in a group, Boot Camp Gold is for you! Boot Camp Gold begins with a 10 minute stretch period to warm up your muscles, followed by (and here's the fun part) a circuit of fitness exercises to build strength and condition your entire body from head to toe, while getting benefits for your heart with gentle segments of cardio built in. After about 40 minutes of a great workout, you will feel refreshed and ready for a 10 minute cool down. Be prepared for music that makes you want to move and groove. Best of all, the class is facilitated by a terrific fitness instructor, but you work at your own pace and do the exercises YOU can do. Come join the FUN!

Requirements: Participants should be able to stand, bend gently, move arms and legs freely, walk and tolerate gentle cardio segments. As with all fitness programs, please check with your physician to make sure you are fit for duty for the program listed above. It is suggested that participants wear sturdy gym shoes and dress appropriately in layers in anticipation of weather changes. 6 weeks. *On-site rain location: Warming Shelter.*

**Residents: \$42      Non-residents: \$84      Register by: September 5**

Complete Registration information on pages 22 & 23

### ***The Crazy Colorful Kaleidoscope of Nature - Grandparent & Grandchild Ages 5-8***

*Sunday, September 10<sup>th</sup> 2017 1:00-2:30pm*

### **Fall 2017 Explore Nature Programs**

*Bear Creek Nature Park, 740 West Snell Rd., Rochester, 48306*

We're beginning to notice Mother Nature dipping her brush in orange, red and yellow paints and applying them to trees so I guess it's time to take a lesson from the wilds and start our own nature art projects to take home. For this special program we invite grandchildren of all ages to bring their grandparents to Bear Creek Nature Park for an afternoon of natural crafts (from paint-by-numbers leaf collages to pine cone people), snacks from nature (dried fruits and crickets), and a quick hike on a short even-terrain trail (perfect for walkers or canes) in search of beautiful works of art produced by nature! We will even take a look at some pretty intricate spider webs and portions of nature up close with our handheld field microscopes.

**Residents: \$5 Non-residents: \$7 Family Max 4 or more \$20/\$28**

**Register by: September 5**

### ***Fall Mushrooms of Michigan - Adult 18+***

*Sunday, September 17, 2017 11:00am - 1:00pm*

*Lost Lake Nature Park, 846 Lost Lake Trail, Oakland, 48363*



Take a tour of the amazing world of mushrooms. Learn about where and how they grow while inspecting samples up close. Discover the many types of mushrooms in Michigan in this unique and hands-on program from mushroom expert, Phil Tedeschi of Michigan Mushroom Hunters Club. We'll take a walk (no picking) to search for mushrooms in the park too! There is no substitute for the excellent opportunity of a mushroom hunt with a true expert! Participants will receive copies of Fall Mushrooms of Michigan PowerPoint handouts.

**Residents: \$5 Non-residents: \$7 Register by: September 11**

### ***Meteorology Made Easy! - Grandparent & Grandchild Ages 8-13***

*Tuesday, November 14, 2017 4:30 - 6:00pm*

*Lost Lake Nature Park - Nature Center, 846 Lost Lake Trail, Oakland, 48363*



Have you ever wondered just what makes a day rainy or cloudy? Have you ever thought about where the wind comes from or how people are able to predict the weather? If so, we invite you to take dip into the fascinating world of meteorology - the study of the atmosphere. Inside we will learn about the forces that lead to weather and put together our own windicators and cloud charts to take home. While outside, we will use some tools of the trade to measure and examine the weather of the day. And no weather class would be complete without a demonstration from our tornado machine. This easy class is perfect for those who can't do too much hiking as most of our fun will occur inside with a naturalist leading the children outdoors.

**Residents: \$5 Non-residents: \$7 Family Max 4 or more \$20/\$28**

**Register by: November 7**

### ***The Great Pumpkin Roll - Family, All Ages***

*Friday, September 29, 2017 7-8:30pm*

*Lost Lake Nature Park, 846 Lost Lake Trail, Oakland, MI, 48363*



We excitedly invite you to celebrate the majesty of the orange pumpkin by engaging in the largest pumpkin bowling course ever imagined. We will be turning on the spotlights surrounding the Lost Lake sledding hill and setting up trashcan pins at the bottom of the hill. Participants will have to carry their ammunition to the top of the hill, aim true, and then send their pumpkin careening back down with the intention of obliterating the cans. This ultimate celebration in pumpkin destruction wouldn't be complete without a snack so expect cider and doughnuts to keep you energized and climbing that hill. Please bring your own pumpkins to roll.

**Residents: \$5 Non-residents: \$7 Family Max 4 or more \$20/\$28**

**Register by: September 22**

**Seasons of Color Nature Tour of Lost Lake - Adults 18+**

Saturday, October 14, 2-3:30pm

Lost Lake Nature Park

846 Lost Lake Trail, Oakland, MI 48363

**Fall 2017 Kayak Nature Programs**

Join a park naturalist as we venture gently into the world of kayaking. While we are out in our boats we will learn about the nature we see along the way...from basking turtles to the Great Blue Heron fishing in the reeds. There are no waves on the lake and the winds are normally pretty calm...the dock is fully accessible which makes getting into and out of the kayaks much easier than a shore launch. Prior kayaking experience necessary. Formal instruction not provided.

**Residents: \$5 Non-residents: \$7 Register by: October 7**

**Kayaks Available for Rental at Lost Lake Nature Park!**

We have recently purchased kayaks to offer park users the opportunity to get out on Lost Lake, where wildlife and water lilies abound! Paddlers can rent kayaks at Lost Lake Nature Park on Saturdays and Sundays, throughout the warm weather season. Lost Lake's small size and easily accessible kayak launch are great for paddlers of all abilities. Take advantage of this opportunity to practice your kayaking skills while exploring this 8-acre glacial lake. Kayak, paddle and life vest supplied.

Note: Weight limit for single kayak is 230 lbs. Kayak at your own risk.

No supervision or instruction is provided.

View our kayak rental policy on our website: [www.oaklandtownship.org](http://www.oaklandtownship.org)

**Registration must be completed one week in advance of requested rental date.**

Anyone under 18 must be accompanied by an adult. See park pages at [www.oaklandtownship.org](http://www.oaklandtownship.org) for registration details. One person kayak: minimum age 10 years old. Two person kayak: minimum age 6 years old with an adult on board.

**Rental Dates**

**Saturdays: September 16, Oct. 7, 14, 21**

**10am - 12pm or 12pm - 2pm**

**Sundays: September 10, 24, Oct. 8, 22**

**12pm - 2pm or 2pm - 4pm**

**Resident Rate:**

1-person kayak for 2 hours \$10/boat  
2-person kayak for 2 hours \$15/boat

**Non-resident Rate:**

1-person kayak for 2 hours \$20/boat  
2-person kayak for 2 hours \$30/boat

**People of The Three Fires - Adults 18+**

**Fall 2017 Explore Nature Programs**

Friday, November 17, 6-7:30pm

Cranberry Lake Farm, 388 West Predmore, Oakland, MI 48363

In 1817 the Graham family learned a lot about the Greater Rochester area by getting advice from the local Native American tribes. Join us as we learn a little about the tribes that were (and still are) a very large part of Michigan's history. We will examine the Potawatomi, Ojibwa, and Ottawa tribes, learning about their customs, language, and social systems by actively moving through the life of a Native American born in the area all the way through their death. We will even put together some authentic Native American recipes to sample!

**Residents: \$5 Non-residents: \$7 Register by: November 10**



## Oakland Township Parks and Recreation 2017 Outdoor Adventure Fall Programs

Register by mail with registration page or in person at our office.

### ***Fun Basics of Kayaking - Ages 10+***

Registration Form on page 23.

Saturday, September 23, 2017 10:00am - 12:00pm

Lost Lake Nature Park, 846 Lost Lake Trail, Oakland, MI 48363

This clinic is taught both on land and in the water and will focus on safety and introductory stroke *techniques*. Learn basic kayaking safety skills such as fitting your life jacket, what clothing to wear and getting into and out of your kayak from a dock. Basic paddling skills include forward, reverse, and turning strokes. Designed for new paddlers and anyone who would like formal instruction. Lost Lake is open calm flat water without jet skis and motor boats. Lost Lake Nature Park and its beautiful dock and kayak launch are universally accessible.

Residents: \$20 Non-residents: \$35 Register by: September 16

Items to bring: water bottle, water shoes or light weight sneakers, sunglasses, bug repellent, and wear synthetic clothing. At the time of registration we will ask you for your approximate height and weight so that we may size you with the proper gear. We paddle in light rain (it is a water sport). However, if there is a 60% or greater chance of thunderstorms 2 hours prior to the clinic we will contact you to cancel with a full refund issued or reschedule the clinic.

### ***Next Step Beginning Kayaking - Ages 10+***

Sign-up for both ~ get a discount!

Saturday, September 23, 2017 12:30 - 2:00pm

Fee for Both Kayak Classes:

Resident: \$30; Non-resident: \$60

Lost Lake Nature Park, 846 Lost Lake Trail, Oakland, MI 48363

This clinic is for those who have completed our *Fun Basics of Kayaking* clinic (*Stay after the 10am class!*) or have some experience at kayaking and are looking to increase their skill level. This clinic will focus on safety on the water and stroke *development*. Learn how to fit your boat to your body on land in order to practice techniques for staying in your boat on water to avoid tipping over! Discuss what to do if you do tip over. Learn about the different types of paddles and the side stroke. Then use paddling patterns to practice and perfect your paddling strokes. For the more adventurous we may have kayak races!

Residents: \$20 Non-residents: \$35 Register by: September 16

### ***Stand Up Paddle Boarding! - Adults 14+***

Saturday, September 30, 2017

10:00 - 11:00am or 11:30am - 12:30pm

Draper Twin Lake Park, 1015 Inwood Rd., Rochester, MI, 48306



Stand Up Paddle Boarding (SUP) is a great new water activity sweeping the country, and it's easy and fun to learn. Learn to paddle in a safe environment with experienced instructions, and quality equipment at breathtaking Draper Twin Lake! Paddlers 14 years and older welcome. All equipment is included. Please wear a bathing suit or clothes you don't mind getting wet. All levels welcome. Weight limit is 220lbs.

\*The distance from the parking lot to the dock, which has lake access, is approximately one-half mile via accessible path.

Residents: \$20 Non-residents: \$35 Register by: September 23

**Archery Range Expanded!** In 2010, Marsh View Park Archery Range opened as a beginner range offering 10 universally accessible shooting lanes with a shooting maximum distance of 45 yards catering to children, organized groups and families. Feedback from residents, patrons, and local archery enthusiasts concluded that many were interested in a more versatile range that would provide programs and shooting opportunities for all ages and abilities. With the expansion this year to 90 meters, we now have the facility to offer a wider variety of programs from beginning to Junior Olympic, recreational and competitive leagues, school teams, special events and hosting USA sanctioned tournaments! Refer questions to [bmclogan@oaklandtownship.org](mailto:bmclogan@oaklandtownship.org) or 248-651-7810, ext. 400.

***Hunger Games Shoot***

Learn the survival skills you need to put the odds in your favor. Learn to make cordage (rope) from plant fibers, then learn to make six survival knots. Learn about wild edibles, useful plants, plants to avoid, and how to identify animal tracks and scat. Learn archery and how to execute a perfect shot to harvest an animal humanely.

Saturday 9/16/17 3:00 - 5:00pm **Register by: Sept. 8**

**Residents: \$15 Non-Residents: \$20**

***Hunger Games Group Events***

Reserve the range for Hunger Games scout badge workshops or private events. Contact the Parks and Recreation office at 248-651-7810 for pricing, reservations and to confirm instructor availability. Two hour session. All equipment provided.

Minimum of 7 participants/Maximum of 10 participants per event.

Saturday 10/14/17 3:00 - 5:00pm **Register by: Oct. 6**

**Residents: \$150 Non-Residents: \$200**



***Zombie Apocalypse (Ages 8 +)***

Create your own zombie, then head over to the range to shoot monster targets and your zombie. See if you survive! All equipment provided.

Saturday 10/21/17 3:00 - 5:00pm

**Register by: Oct. 13**

**Residents: \$15 Non-Residents: \$20**



***Trick or Treat Shoot (Ages 8 +)***

Come in costume and shoot for treats. Test your skills, show off your costume, and leave with some Halloween treats. All equipment provided.

Saturday 10/28/17 3:00 - 4:00pm

**Register by: Oct. 20**

**Residents: \$5 Non-Residents: \$10**

You are cordially invited to attend

**The Marsh View Park Archery Range Grand Re-Opening**

Saturday, September 9th, 2017

11am-3pm

3100 East Clarkston Road (at Adams Road)



**Highlights:**

- ◆ Up to 90 meter Archery Shooting to earn a T-shirt
- ◆ Ribbon Cutting Ceremony
- ◆ Kite Decorating & Flying
- ◆ Amazon Zip Line
- ◆ LED Rock Wall
- ◆ Face Painters & Balloon Artists
- ◆ Soccer Obstacle Course
- ◆ Hot Dogs & Chips

Host: Oakland Township Parks & Recreation

Need more information?

Give us a call! 248-651-7810



**Beginning Archery - All Ages (Ages 8 - Adult)**

**Fall 2017 Archery Programs**

Looking for something new and fun to try on a beautiful fall Friday evening or Saturday morning? This fun class is for you and your family! Our instructors will cover safety, equipment and basic fundamentals of shooting. All equipment provided.



**Residents: \$45 Non-Residents: \$60**

Fridays 9/8/17 - 9/29/17 5:30 - 7:00pm  
(one instructor; max 8 students) 4-week program

Saturdays 9/16/17 - 10/14/17 9:00 - 10:00am  
(two instructors; max 16 students) 5-week program

**Register by: September 1**

**Register by: September 8**

**Intermediate Archery - All Ages (Ages 9 - Adult)**

This program is for archers who have taken Beginning Archery or archers with experience. Focus on improving your archery form and accuracy. Equipment provided or may use your own. No crossbows or broadheads. 6-week program.

Saturdays 9/16/17 - 10/21/17 10:00 - 11:00am

**Residents: \$60 Non-Residents: \$77 Register by: Sept. 8**

All classes held at  
Marsh View Park Archery Range  
3100 E Clarkston Rd  
USA Certified Archery Instructors

**OPEN RANGE SHOOT - Ages 8 - Adult FREE!**

Drop-in opportunity to practice archery skills! Prior archery experience necessary. No instruction provided. Monitored by a safety officer. Bring your own equipment or use ours on first-come first- served basis. No crossbows or broadheads.

*Children between 8 and 17 years of age must be accompanied by an adult.*



**FREE to the public. DROP-IN NO REGISTRATION NEEDED**

Saturdays 9/2/17 - 11/25/17 11:00am - 3:00pm (13 weeks) *No Open Range 9/9/17*

Come shoot at our Range Celebration on Saturday, September 9 from 11:00am—3:00pm and get a t-shirt!  
Open Labor Day weekend, Saturday, 9/2/17

**Archery Leagues**

League shooters attend any open range shooting time they choose to shoot their 30 arrows for the week, each week for 4 weeks. Every week we tabulate the scores, and at the end of the league award the top 3 shooters with prizes. Need not be present to collect league awards. Everyone receives an Archery shirt. League shooters can bring their own equipment or you may use our equipment. **Residents: \$40 Non-residents: \$50**

**Adult Archery League - Adults 18+**

Adult League 1 9/16/17 - 10/7/17  
Award date: 10/7/17 at 2:00pm  
Adult League 2 10/14/17 - 11/11/17  
Award date: 11/11/17 at 2:00pm

**Register by: September 8 for League 1 or  
October 6 for League 2**

**Youth Archery League - Ages 8-17**

Youth League 1 9/16/17 - 10/7/17  
Award date: 10/7/17 at 2:00pm  
Youth League 2 10/14/17 - 11/11/17  
Award date: 11/11/17 at 2:00pm

**Register by: September 8 for League 1 or  
October 6 for League 2**

**Complete Registration information on page 23**

**REGISTER NOW!**



# Oakland Township Parks and Recreation 2016/2017 Annual Report

**The Force is With Us!**

*"In my experience there is no such thing as luck." - Obi-Wan Kenobi*



Light Saber Training at 2017 Marsh View Park Winter Carnival

## MESSAGE FROM THE DIRECTOR

2016 has been both a year of both renewal and changes! I am proud to say that on August 2, 2016 a record-breaking 73.47% of Oakland Township voters chose to renew the 10-year Parks and Recreation millage, demonstrating the value that our residents place on local parks and recreation and the confidence they place in our department. On November 8, 2016 Oakland Township voters also chose seven new Parks and Recreation Commissioners who are already collaborating with staff on 3-year budgets, capital projects, programs and more!

*Mindy Milos-Dale*

Mindy Milos-Dale, Director

## Community and Events Comes Together In Spite of Wild Weather

Neither lack of snow nor torrential rain nor blistering heat prevented our staff and 1500 residents from enjoying our Star Wars themed Winter Carnival, 14<sup>th</sup> annual Goodison Good Tyme and the 11th year of Music in the Meadows, our unsurpassed outdoor concert series that celebrates jazz, bluegrass and classical music!



Chewbacca Welcomes Mindy to Carnival



Winter Archery, Ice Carving, and Penguin Bowling at Winter Carnival



Adaptive Archery Class May 2016

### Maximizing Marsh View Park Facilities

The number of people using our Marsh View Park athletic facilities increases every year. Local soccer leagues played more than 120 games on our fields. The Intro to Archery classes and open range archery shoot are on target - we have exponentially increased the open range participation. OTPRC provides range supervision and archery equipment at no cost to Township residents. We also offered an adaptive archery class for people with disabilities where modified equipment was provided tailored to each person's capabilities.

### Summer Camps Surge!

In addition to our popular summer soccer camps, which attracted 81 youth, we hosted three new week-long summer camps that taught outdoor skills, explored archery and immersed children in nature at the Wild Kids of Lost Lake camp.



Outdoor Skills Camp



Explore Archery Camp



Halloween at Bear Creek. Nature Park

### Milestones Achieved for Nature Study

2016 will be the third year that Lost Lake Nature Park hosted field trips led by Dinosaur Hill Nature Preserve naturalists for 1000 Rochester Community School students. New Halloween, Thanksgiving, and Christmas programs proved very popular with families and were well attended.



Lost Lake Nature Park Stand Up Paddleboard Clinic

### New Adult Nature, Fitness and Wellness Classes on Lakes, Trails and Lawns

In addition to our residents' favorite nature programs we offered classes targeted to adult audiences about spring warblers, marsh birds, fall mushroom identification, and a winter class about the Nature of Chocolate.

We also offered adults new fitness opportunities including hiking, stand up paddle boarding, kayaking by moonlight and practicing yoga both indoors and outdoors.

## Natural Areas Stewardship

### Working at a Regional Level to Protect our Natural Heritage

Oakland Township Parks and Recreation (OTPRC) officially joined the Oakland County Cooperative Invasive Species Management Association (OC CISMA). As a member, we work cooperatively and strategically to inventory, monitor, control, and prevent the spread of invasive species across jurisdictional boundaries within Oakland County. We participated in the \$243,775 Michigan Invasive Species Grant awarded to the OC CISMA and were able to use the Oakland Township portion of those funds to complete treatment of phragmites, Japanese knotweed, and swallow-wort infestations in Oakland Township Parks and road right-of-ways.

### It's the Little Things that Matter

Did you know that Oakland Township has over 100 vernal pools in its parks? These seasonal wetlands are biodiversity hotspots, serving as homes for unique creatures such as fingernail clams, fairy shrimp, and diving beetles, and breeding areas for salamanders, spring peepers, and other amphibians. The Natural Areas Stewardship Manager is working with volunteers to monitor vernal pools at Bear Creek Nature Park and participates in the Michigan Vernal Pools Partnership, a new group that works on vernal pool mapping, science, education, and protection.



Juvenile Salamander at Bear Creek Nature Park Vernal Pool

### Prairie Restoration Continues to Grow!

With the help of a US Fish and Wildlife Service grant, we increased our prairie restoration acreage, preparing and planting 15 more acres at Charles Ilsley Park and two more acres at Gallagher Creek Park. These prairie plantings increase our parks' beauty and biodiversity; attracting desirable grassland insects and birds.



Culver's Root at Gallagher Creek Park



Invasives Cleared at Stony Creek Ravine

### Making Room for Natives

This year we initiated a multi-year effort to clear large swaths of invasive plants that are usurping the space, sun, and nutrients that our remaining native plants need to thrive. At Stony Creek Ravine Nature Park and Watershed Ridge Park, by clearing more than 20 acres of autumn olive shrubs, park visitors can now see how the glaciers shaped our rolling parkland and opening these areas also provides space for future trail improvements.

### Natural Area Activities Accomplished in All Seasons

- **Stewardship staff managed invasive plants** (including removal of garlic mustard, swallowwort, Japanese knotweed, autumn olive, oriental bittersweet, crown vetch and glossy buckthorn) and native plant seeding at 14 Oakland Township parks.
- **Stewardship staff assisted with prescribed burns** at Gallagher Creek Park, five areas along the Paint Creek Trail and at Lost Lake Nature Park. After years of planning, our **volunteer prescribed burn crew completed burns** at Bear Creek Nature Park, Blue Heron Environmental Area, Marsh View Park, and along the Paint Creek Trail.



Geraniums at Blue Heron Environmental Area

## Sustainability

### Maintenance of Paint Creek Trail in Oakland Township

Our maintenance staff remain busy with rubbish removal, trail surface maintenance, removal of downed trees, potential log jams, repairing bridge railings, creek overlook and access areas, and mowing of trail shoulders.

In 2016 maintenance staff increased Paint Creek Trail user safety by repairing steps and adding railings at the Paint Creek Trail boardwalk between Silverbell and Gallagher.



Before Repair

After Repair



Before Repair

After Repair

Emerald Ash Borer tree damage has contributed to more frequent log jams on the Paint Creek. OTPR used boulders excavated during recent Marsh View Park construction to lower the cost to stabilize three erosion areas that could have negatively impacted Paint Creek trail surfacing, fishing access and wooden walkways.

### \$2.5 Million in Grants Helps Funding Stretch Much Further

OTPR has obtained regional, state and national grant funding to support worthy projects.

\$2,200,000 Michigan Natural Resources Trust Fund grant will add 209 acres of natural habitat to Stony Creek Ravine Nature Park. This rare site represents Michigan's native biodiversity and natural landscapes.



Pre-cast Concrete Bridge Proposed for Trail



Prairie Buttercup on Paint Creek Trail

\$300,000 Transportation Alternatives Program grant will help fund replacement of a deteriorating railroad bridge between Livernois and Silver Bell roads on the Paint Creek Trail.

Three grants fund our removal and replacement of non-native plants with species that support native wildlife:



Drilling prairie seed at Gallagher Creek Park

- \$7,700 US Fish and Wildlife Service Partners for Fish and Wildlife Grant funded restoration of 17 acres of prairie at Charles Ilesley Park and Gallagher Creek Park.
- \$20,250 USDA Wildlife Habitat Incentives Program (WHIP) grant funded removal of invasive plants on 33 acres of forest, prairie, and wetland along Paint Creek Trail.
- Michigan Invasive Species Grant and matching funds from Road Commission of Oakland County funded treatment of Phragmites infestations on eight miles of Oakland Township roads.

## Sustainable Maintenance and Improvement of Park Facilities

Maintenance and Stewardship Staff have reduced costs by taking on projects in lieu of hiring contractors. Ongoing projects include hazardous tree management, performing botanical baseline surveys, clearing trail shoulders and prairie restoration areas of unwanted vegetation, and recycling paper, glass, plastics and metals.

### **New Cranberry Lake Park Trail Keeps Tires, Feet and Hooves Dry**

Maintenance staff completed the installation of a one-third mile section of new limestone trail and culverts at the



Before: Low and Wet Trail

After: High and Dry Trail Surface

north end of Cranberry Lake Park, creating a dry, stable, walking surface in areas that had been wet and mucky.

This project was accomplished within budget and at a significant savings using department labor in lieu of contractors.

## Honors from Michigan Recreation and Parks Association

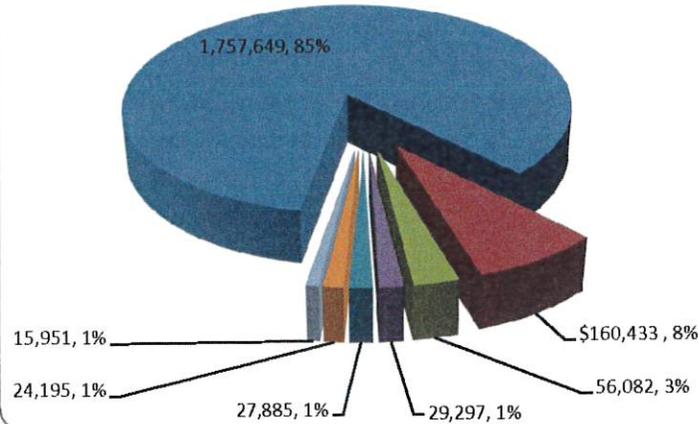
On April 20, 2016 Community Service Awards were given to Parks and Recreation Commissioners David Mackley, Alice Tombouljian, Colleen Barkham and Joseph Peruzzi for their ongoing and tireless commitment to Parks and Recreation services in the community. During a total of more than 100 years of service on the Oakland Township Parks and Recreation Commission they have provided outstanding leadership, integrity, and unselfish dedication to our community. They participated in many aspects of park acquisition, planning and management that have resulted in our outstanding 1100-acre system of more than 15 parks.



Vic Chiasson, MRPA President; Parks and Recreation Commissioners Tombouljian, Mackley, Barkham, Peruzzi and Director Milos-Dale

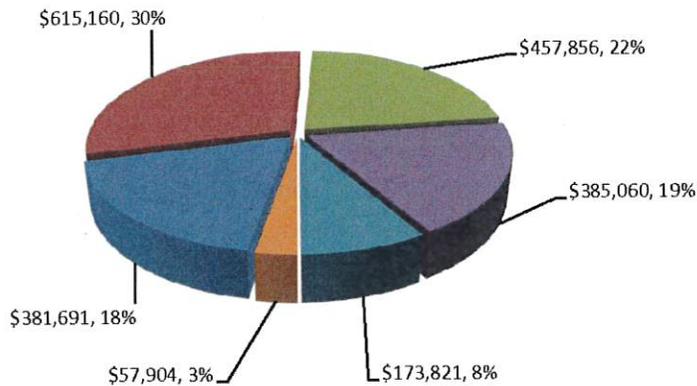
## Summary for Fiscal Year 2016/2017 (April 1, 2016-March 31, 2017)

### Actual Total Revenues = \$2,071,492



- Parks and Land Preservation Millages, \$1,757,649
- Planned Use of Fund Balance, \$160,433
- Paint Creek Trail Payroll Administration, \$56,082
- Charges for Services & Rental Income, \$29,297
- Grants, \$27,885
- Investment Income, \$24,195
- Other, \$15,951

### Actual Total Expenditures = \$2,071,492



- Operation of Parks, Facilities, Programs, and Natural Areas Stewardship, \$381,691
- Capital Outlay, \$615,160
- Debt Service, \$457,856
- Payroll, \$385,060
- Benefits, \$173,821
- Paint Creek Trail Operation Payroll, \$57,904

This information will be subject to an independent audit in 2017.



#### OTPRC 2016 - 2020 Term

Commissioners Choi, Bukowski, Barkham,  
Van Agen, Rooney, Simon and Blust

#### Parks and Recreation Office

4393 Collins Road, Rochester, MI 48306

248-651-7810

[www.oaklandtownship.org](http://www.oaklandtownship.org)



## Natural Areas Stewardship Events

Please come out and join us for one of these events! Updated information and any last minute changes to these events can be found on our Natural Areas Notebook website at [oaklandnaturalareas.com](http://oaklandnaturalareas.com).

\*All minors must have a waiver signed by a guardian, and minors under 14 must be accompanied by a guardian.

### Seed Collecting & Cleaning

Many native plant seeds are only available for collecting for a few weeks in the fall, so we need as much help as possible during harvest! Seed collecting is a fun, relaxing way to learn new native plant species while experiencing unique natural areas. We use the seed to restore areas where we have removed invasive plants. All workdays are 12:30 - 3:30 pm.

**Seed Collecting.** Meet at the Paint Creek Cider Mill before heading to our site for the day.  
October 6, 12, 19, & 26

**Seed Cleaning.** Meet at Watershed Ridge Park, 1720 W. Buell Rd. December 5.



### Wet Prairie Invasive Shrub Control

We will remove invasive shrubs such as buckthorn and autumn olive at the Paint Creek Heritage Area – Wet Prairie. This special natural area contains a rare prairie plant community. Expect work to be physically demanding. Meet at the Silver Bell Rd parking lot along the Paint Creek Trail. All workdays are 9 am to 12 pm. November 2, 11, 16, and 30.

### Weekly Bird Walks

Join us every Wednesday from September through November 15 for our weekly bird walks. We want to document the bird species using our parks so that we can work to improve their habitat. Walks will start at 8 am. Extra binoculars are available.

1<sup>st</sup> Wednesday of month – Bear Creek Nature Park

2<sup>nd</sup> Wednesday of month – Cranberry Lake Park

3<sup>rd</sup> Wednesday of month – Charles Ilsley Park

4<sup>th</sup> Wednesday of month – Draper Twin Lake Park



Eagle Creek Academy students at volunteer workday



The Natural Areas Notebook has the latest about what's happening in the parks (like Cam Mannino's weekly feature **This Week at Bear Creek**), news about the latest stewardship work, and up-to-date information about stewardship events. Find this and much more at [oaklandnaturalareas.com](http://oaklandnaturalareas.com).

# Oakland Township Parks Natural Areas

# Stewardship



## *Phragmites Control Planned Along Major Oakland Township Roads*

Oakland Township will be treating invasive Phragmites along major roads right-of-ways in August and September 2017. Phragmites is a grass that grows in wetlands and can reach heights of 15 feet or more, leading to safety and environmental problems. Phragmites can cause hot, damaging fires if ignited; blocks views at intersections; and impairs drainage in ditches and streams, damaging road infrastructure. This large grass forms dense stands, crowding out habitat for wildlife and native plants.

Oakland Township Parks and Recreation is participating in the Oakland County Cooperative Invasive Species Management Area (OC CISMA) and is contracting with PLM, a qualified contractor for this service.

## NOTICE 2017

PLM Lake and Land Management Corp  
10222 Rose Blvd,  
Morrice, MI 48857  
(800) 382-4434(o) (517) 913-6233(f)  
www.plmcorp.net



### **The Oakland Township Phragmites treatments along roadway Right-of-Ways have been scheduled during the months of August & September, 2017**

DEQ permitting restrictions, national holidays, and/or weather conditions may influence the timing of treatments. The treatment schedule is approximate. Please watch your property if you are adjacent to planned treatment areas for the posting of the 8.5x11 inch, yellow signs. The signs will indicate the date of the treatment, the products used, and any restrictions on the use of treated property. A 2017 treatment location map is available at <http://bit.ly/OTPhragmitesMap>.

This notice is being circulated in accordance with Department of Environmental Quality (DEQ) procedures. Below is a list of herbicides that may be applied and the associated use restrictions. On the day of treatment, signs will be posted that indicate what products were used and specific restrictions that apply:

Check all that apply	Chemical product/active ingredient	Chemical trade name	Do Not Enter Area Until Plants Are Dry
X	Glyphosate	Aquaneat, AquaPro	X
X	Imazapyr	Habitat	X
X	Adjuvant	Cygnat Plus	X
X	Triclopyr	Renovate 3	X

**For a complete listing of all product labels, please see the PLM website.**

The chemicals used for Aquatic Nuisance Control are registered by the U.S. Environmental Protection Agency and the Michigan Department of Agriculture. The potential for damage to fish and other non-target organisms is minimal provided that the product is used as directed on the product label and the permit. To minimize the possible effects on health and the environment, the treated area is restricted for the above purposes.

**PLM Lake & Land Management Corp. Certified Applicators:** Salvatore Adams, Jason Broekstra, Jim Chatel, David Comeau, Jaimee Conroy, Bill D'Amico, Jeff Fischer, BreAnne Grabill, Dustin Grabill, Benjamin Halbersma, Steve Hanson, Mitch Hiler, Jake Hunt, Nate Karsten, Justin Krueger, Blake Mallory, Michael Pichla, James Scherer, Ben Schermerhorn, Casey Shoaff, Lucas Slagel, Jeff Tolan, Andy Tomaszewski, Dennis Vangessel, Mathew Warddell.

# Parks and Recreation Team Update

SEASONAL STEWARDSHIP TECHNICIANS

## Thank-you to our Seasonal Land Stewardship Technicians!

A big thank-you to Zach Peklo, Billy Gibala, and Josh Auyer for their great work this summer as land stewardship technicians. Together the crew pulled thousands of pounds of garlic mustard! They also collected native plant seed, installed new wildflowers in natural areas and native plant beds, and controlled many acres of invasive plants. Each crew member contributed their skills and background to help us enhance and restore our natural areas. Good luck as you return to college or move on to other endeavors!

If this position sounds like fun to you, consider applying for the 2018 crew! Look for the job announcement this winter on our website.



Natural Areas Stewardship Manager Dr. Ben with Zach, Stewardship Specialist Alex Kriebel, Josh and Billy

## Natural Areas Stewardship Volunteers Summer 2017

THANK YOU!

Joe Agosta, Cynthia Crozier, Jordan Cushman, Gregg Daviskiba, Daryl DeBano, Kate Dolata, Sue Ferko, Randy Gerken, John Ihrig, Mark Isken, Anna Leona, Cam Mannino, Melissa Markus, Patrick McCourt, Ellen Newkirk, Dan Russ, Sangeeta Theru, Gary VanDekerkhove, Irina Vostriakova, Erin Waskiewicz, Peter Woronha, Zhenhua Zhu, Eagle Creek Academy 4<sup>th</sup> and 5<sup>th</sup> graders.

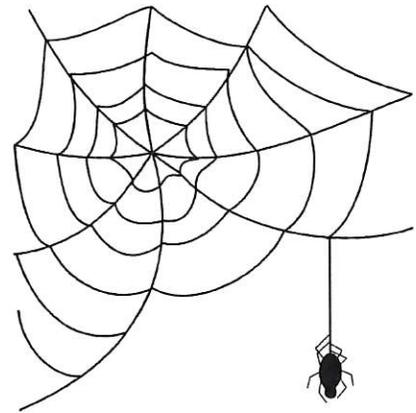


Eagle Creek Academy 4th and 5th grade students at Gallagher Creek Park workday.

# Home Building as a Leap of Faith

By Sue Neal, Executive Director, Dinosaur Hill Nature Preserve

As fall settles into the air, children and adults alike start thinking of Halloween and all of the creepy, crawly, spooky creatures and critters that haunt our dreams this time of year. One of the most ubiquitous decorations this time of year is the giant spider web. I love going through the subdivisions and seeing these gigantic webs scrawled across the manicured bushes...usually with an oversized black spider lurking somewhere...just waiting for the trick or treaters!



Spider webs are actually a truly amazing engineering feat...particularly when you realize that these webs are designed and constructed by one lonely little spider operating with no extra tools or materials. I don't know about you, but I have enough trouble building something even with access to a Home Depot, the internet, a laser level and best cordless tools I can find. I am lucky if I get a structure that can hold up to light wind, not to mention one that can withstand a rainstorm, protect me from predators and catch my dinner for the night.

Orb weavers design the most beautiful, classic spider webs you will find in nature. The webs have incredible symmetry and they all share some basic design elements. There is no daddy spider to show the little ones the ropes, so web building is an innate instinct in these spiders and you will see common design across regions and times. You can recognize the orb weaver by the design of their web alone...as you can distinguish almost any spider species from another solely by this design unique to each species.



Arrowshaped Micrathena Orbweaver; Image © Mike Boone, Creative Commons License CC BY SA 2.5; [www.spiders.us](http://www.spiders.us)

The web building process begins with the production of the silk. Spider silk is incredibly strong (stronger than steel as most of us have heard) but it is also flexible and can stretch without breaking. It is composed simply of proteins. The silk is spun in the spiders aptly named "spinnerets".

The Orb weaver spider will then begin their web building process with a simple act of faith. They use their legs to draw several lengths of silk from their spinnerets to form a loose balloon of web. This balloon is held aloft as the spider patiently waits for a soft breeze to carry it away. The spider retains connection to the silk so that he will sense the balloon as it is carried off by the breeze and subsequently will feel when the balloon lands and gets caught in a nearby branch, leaf or twig. The spider uses this balloon as an anchor. He will draw the silk back until it is taut and then use this as a guide to link the two connections together: one end at his original site and another wherever his silk balloon drifted to. And thus it has begun, by tossing his balloon to the breezes and leaving his home building site to fate.

**Step 1** This is only the first step. The Orb spider will repeat this exact process up to 20 times as the guy-wire structure of the web begins to take a rough, circular shape. Once he has enough of these supporting lines in place, it is time to neaten things up a bit. If you have ever examined an Orb spider web up close, you will notice a well-spaced series of silks emanating from the center of the web to anchors at the outer edge...not 20 randomly strung ones. So our spider will go back around, examining the various connections that have been made from tossing the silk balloons to the breezes. He will simply choose the 7 strongest and most evenly spaced of the silks. These will remain and will form the base of the web. The rest of the silks will be consumed and become...well, "recycled building material".

After the 7 structural supports are in place, then the building becomes less an act of faith and more of a regular

*(Continued on page 20)*

# Cranberry Lake Farm Historic District

*A community historical center - work in progress for you!*

**For more information contact Historic District Commission office 248-608-6807**



## **Free Square Dance on Saturday, September 9, 2017 from 7 PM to 9 PM**

The Vintage Family Square Dance is free and open to the public. **Glen Momingstar and the Ruffwater Stringband** will return to calling dances at this must-attend event. We dance in the barn or on the lawn so please wear appropriate shoes. Bring your own picnic dinner or check the website to reserve a barbeque sandwich for a fee of \$10 per person - only served from 6 to 7, and reservations are required; [bbarber@oaklandtownship.org](mailto:bbarber@oaklandtownship.org). The square dance is free and open to all ages who like do-si-do!



## **\*\*FREE\*\* Down on the Farm, Saturday October 7, from 11am to 2pm!**

*HDC working in partnership with Oakland Township Historical Society with assistance from Dinosaur Hill Nature Preserve and Oakland Township Parks and Recreation.*



**Back by popular demand – cultural treats, crafts and fun in the Township’s very own historic backyard!**

Come on out for tractors, pumpkin painting in the hen house, hayrides around the park, quilt display, spinning demonstration, cider tastings, local artist paintings on exhibit, historical games, butter churning, chickens, horses, and to learn about the apple orchard, all set to the tunes by Just Banjos as well as other musicians! *A good time by all!*



- September 6, 6:30 pm **Fall Potluck & Program** - Bring a dish to pass Cranberry Lake Farm Flumerfelt Barn Anthony Kowalchick - "Roads of Oakland and Nearby Townships"
- September 9, 11am-3pm **Goodison Good Tyme** – Marsh View Park – Visit the OTHS table!
- September 9, 7pm **Square Dance** - Cranberry Lake Farm Flumerfelt Barn
- October 7, 11am-2pm **Down on the Farm**-Cranberry Lake Farm
- October 7 & 8, 10am-4pm **Flumerfelt Flea Market**-Cranberry Lake Farm Flumerfelt Barn  
If you have items to donate for the Flea Market – we pick up! - call Colleen Barkham at 248-652-0712.
- November 1, 7pm **OTHS Meeting and Program** –Cranberry Lake Farm Main House  
Lori Feret - "Timber, Venison & Booze - Booty of Great Lakes Pirates"
- December 6 – 6:30pm **OTHS Christmas Meeting** - Paint Creek United Methodist Church  
*The Archive Team is typically on-site at Cranberry Lake Farm Historic District from 1 to 4pm on Wednesdays; email [othsmember@comcast.net](mailto:othsmember@comcast.net) to make an appointment.*



~For information about the Oakland Township Historical Society visit [www.oaklandtownshiphistoricalsociety.org](http://www.oaklandtownshiphistoricalsociety.org)~



Six Rivers Land Conservancy  
448 Orion Road  
P.O. Box 80902,  
Rochester, MI  
48308-0902  
248-601-2816  
[www.sixriversrlc.org](http://www.sixriversrlc.org)  
[info@sixriversrlc.org](mailto:info@sixriversrlc.org)

**Juried Category Prizes:**

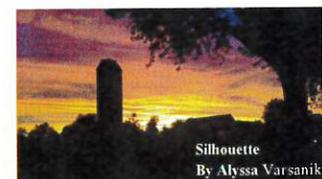
- First Place \$200
- Second Place \$150
- Third Place \$100
- People's Choice \$150

**Enthusiast Category:**

- People's Choice \$100

Entries must be accompanied with a completed submission form. See our website at [www.sixriversrlc.org](http://www.sixriversrlc.org) for complete rules and submission forms.

Submit up to five photos celebrating our natural environment in Southeastern Michigan in a JPEG (.jpg) file format to [SixRiversPhotos@gmail.com](mailto:SixRiversPhotos@gmail.com). Photo submissions will be accepted through September 13, 2017. All photos that meet our guidelines will be eligible and available for public viewing. We have two categories for submission: **Juried** (photo files of 5MB or greater) and **Enthusiast** (photo files less than 5MB). In the Juried category, the 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> place award winners will be determined by a distinguished panel of judges. Finalists in the Enthusiast category will be selected by Six Rivers staff with the winning entry, "People's Choice: Enthusiast," selected by attendees at the Six Rivers' Conservation Celebration, October 15, 2017. Attendees will also vote for the "People's Choice: Juried" winner. See [www.sixriversrlc.org](http://www.sixriversrlc.org) for rules, submission form and details of the Conservation Celebration.



---

# Paint Creek Trail News

By Kristen Myers, Trail Manager



## 12th Annual Paint Creek Trail Labor Day Virtual Bridge Walk and Run Monday, September 4, 2017

Join us for our 12th Annual Labor Day Virtual Bridge Walk and Run! Starting at the Rochester Municipal Park Kiwanis Pavilion, participants can choose either a 2 mile walk or 10K run on the Paint Creek Trail. Onsite registration starts at 8:00 am, and the event starts at 9:00 am. This is a free community event, with a suggested donation of \$5.00 per family to benefit the “Bike Lids for Kids” program. Online registration will open August 15th at <http://paintcreektrail.org/wordpress/events/labor-day-bridge-walk>. Join us for giveaways, fun, and donuts!



*Sponsored by: Socially Motivated Wellness, Trader Joe's, Starbuck's, Lucido Fine Jewelry, Red Knapp's Dairy Bar, Dillman & Upton, Great Clips and Retro Fitness.*



## Announcing a Video Competition!



The Oakland Township Historic District Commission and Oakland Township Historical Society are sponsoring a video competition! We are seeking creative videos about agricultural life in and around the Greater Rochester area. All approved videos will be screened at Down on the Farm event at Cranberry Lake Farm on October 7<sup>th</sup>, 2017. There will be Prizes for 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> places. Open to all ages.

**Videos should be 3-5 minutes in length and must be appropriate for families and children.** All videos should be submitted by Monday, September 18<sup>th</sup> 2017 via email to [bbarber@oaklandtownship.org](mailto:bbarber@oaklandtownship.org).

### Choose from the following prompts for your video:

It is the summer of 1835 and you are an early settler in the Rochester and Oakland Township area. What is life like for you? What happens when an average day on the farm goes comically wrong? What do you do for fun without our modern conveniences? What might you invent to make life easier for you and your family? [Feel free to answer just one, all, or a combination of the questions listed above]

It's 1935 and the Great Depression is in full swing. You and your family own the scenic Cranberry Lake Farm but families all around you are losing everything, including their property. With no work available and bills to pay, you fear that you too may soon lose your farm. How will you save your farm from the auction block?

Create your own! Take creative license and create a video that deals with agricultural life in the area or Oakland Township history.

Be creative and have fun! Questions? Please call the HDC office 248-608-6807 or email

[bbarber@oaklandtownship.org](mailto:bbarber@oaklandtownship.org).



## Home Building as a Leap of Faith... (Continued from page 16)

9 to 5 job. The spider will systematically connect the supporting guy wires with silk running around the outside of the rough circle formed by the supports. He will begin at the furthest point and go around...and around...and around until the web is filled in and he ends in the very center. These outer silks are smooth and strong. They will serve as the spider's home security system, alerting him by vibration if a predator gets too close.

The silks in the very center of the web will be of a slightly different formulation. These silks will have properties that make them sticky. This portion of the web is kind of a spider's version of a kitchen. Well, if your kitchen catches flies so you can suck them dry that is. So these sticky silks are the spiders trap...any insect that happens to fly into, or stroll into them is likely to get stuck. The spider will be waiting nearby, out of site and will rush to the site once the prey is entangled. The rest of the story is left to your Halloween nightmares.

While spiders may seem a little creepy, you have to stop to appreciate the utterly amazing engineering, design and skill that goes into the creation of a simple web. It can take hours for the spider to construct them but they remain vulnerable to destruction with the simple passage of a large animal or bad storm...and the itsy bitsy spider will come out to begin the process over again. It is rather amazing to realize though that these spiders are born with the ability to construct these webs and that elements of their construction are so similar across members of an individual species that a spider expert can identify the type of spider merely by examining its web.

Want to learn more about spiders and some of the other equally fascinating and spooky creatures that we have on our minds as Halloween draws near? Consider attending the upcoming Dinosaur Hill Nature Preserve program at Lost Lake Nature Center sponsored by the Oakland Township Parks and Recreation Commission on October 8 (See page 4).

Copyright © Amy Dixon. All rights reserved. [www.amydixonillustration.com](http://www.amydixonillustration.com)

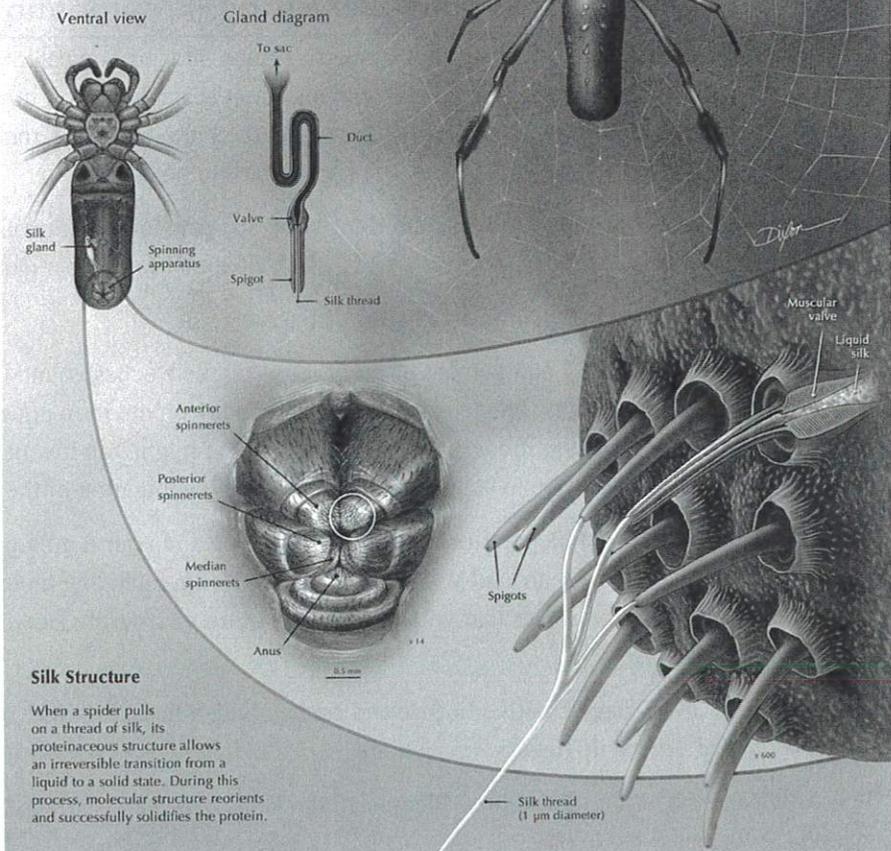
### SILK SPINNING ANATOMY OF THE GOLDEN ORB WEAVER

(*Nephila clavipes*)

Orb weaver spiders are the quintessential arachnid web builders. The golden silk orb weaver, *Nephila clavipes*, a natural architect, can produce several types of silk via glands located in its abdomen.

#### Silk Glands

A typical gland consists of a sac, an "S-shaped" duct, and a muscular valve at the end of the duct. The ducts terminate externally as spigots in the spinning apparatus of the ventral abdomen. Silk begins as small protein droplets and travels as a liquid down the duct until it is expelled by abdominal pressure or extracted by the spider's hind legs.



#### Silk Structure

When a spider pulls on a thread of silk, its proteinaceous structure allows an irreversible transition from a liquid to a solid state. During this process, molecular structure reorients and successfully solidifies the protein.

# Fall Fun in the Oakland Township Parks

*Oakland Township Parks offer great places to explore on crisp fall days.*

*Head out to walk, hike, bike, or ride your horse! Here are some highlights of the upcoming season.*



**Draper Twin Lake Park** - 90 acres of meadows, farm fields, wetlands, woodlands, and Twin Lake! Park in the gravel lot off Inwood and Hadden to hike the trail to the dock - don't forget your fishing pole and license! The 1181 Inwood entry provides access to the eastern park trails where Michigan's largest birds, Sandhill Cranes, like to forage before their late autumn migration. Already offering a smorgasbord for birds, the food diversity is sure to increase with the prairie restoration! Join us the 4<sup>th</sup> Wednesday monthly through November for bird walks here. (Page 13)

**Charles Hsley Park's** 120 acres of farmland and hardwoods with hidden springs and vernal ponds sits north of East Predmore Road. It's home to wild turkey, deer, coyote and beautiful meadows. Sign-out our *Discovery Backpack* before your visit and challenge yourself to a nature exploration hike! See if you can spot an orb weaver web or a crab spider hiding in the goldenrod! Bird walks are held here the 3<sup>rd</sup> Wednesday through November. (Page 13) Great park for hiking and horseback riding.



**Bear Creek Nature Park** - 107 acres of glacially carved hills and vernal ponds. A perfect place for a family stroll and quiet nature observation. Look for praying mantis hunting in the fields. Challenge yourself to get fit with *Boot Camp* (Page 6), come out for a nutty date with your grandchild (Page 8), or just bring the kids to visit the popular playground.

**Paint Creek Trail** is more than a great place to bike or walk from Rochester to Lake Orion; it is an easy access travel corridor for creatures both seen and hidden! Look for the tall prairie grasses including big bluestem (*looks like a turkey foot*) and Indian grass. Help collect seed, (Page 13) or participate in the 12th Annual Labor Day Bridge Walk and Run Monday September 4<sup>th</sup>. (Page 19)



**Lost Lake Nature Park** provides a great backdrop for watching birds, insects, and butterflies, especially on the water. Rent a kayak or participate in kayak class (Pages 9 & 10). Check out our new partnership Open Houses and programs. (Pgs 4 & 5) Wild sassafras and oaks color the woods with reds, yellows and oranges—can you spot the fungi among them at our fall mushroom class? (Pg 8) Dock fishing is permitted with state license.



**Cranberry Lake Park** - 213 acres include meadows of showy goldenrod. With bright yellow flower clusters, Showy goldenrod attracts butterflies and finches. Find about the Native Americans who called this area home at our November program (Page 9) or engage in a relaxing Yoga class. (Page 6) A great park to view fall migrant birds. Trails are good for horseback riding, mountain biking and hiking. The historic district is also the setting for several Historic District Commission and Historical Society functions this fall. (See pages 17 & 18)



Dogs are welcome when they are leashed and cleaned up after!

All Oakland Township Parks Maps are available on the Parks and Recreation pages of the Oakland Township website: [www.oaklandtownship.org](http://www.oaklandtownship.org).

If you have questions or would like more information call us at (248) 651-7810.

-Please note that all areas are unsupervised and users assume all risks and liabilities.-

Charter Township of Oakland  
Parks and Recreation Commission  
Program Registration Policy



Three Easy Ways to Register!

**Walk In:** Our friendly staff will be happy to assist you in our second floor office at the Paint Creek Cider Mill, 4480 Orion Road, Rochester, MI 48306

**Drop In:** Our after-hours drop-box is located to the right of the Main Township Hall entry doors located at 4393 Collins Road, Rochester, MI 48306

**Mail In:** Charter Township of Oakland, Parks and Recreation Commission, 4393 Collins Road, Rochester, MI 48306

\*All registrations are first-come, first-served and will not be accepted at a class/program.

**Registration Deadlines:** In order to provide you with quality programs, we have assigned registration deadlines to all programs. Non-residents may register one week or five (5) business days before the deadline. The deadline is the official date that we will be able to confirm the status of the program. If the number of participants registered at the time of the deadline do not meet the minimum required, the program may be cancelled and you will be issued a full refund.

**Payment Methods:** Full payment is required at the time of registration. No program openings will be held or saved for persons without payment. We accept cash, personal checks, money orders, VISA, MasterCard, Discover and American Express. Checks and Money Orders should be made payable to "Charter Township of Oakland". Credit cards may only be used in person and there is a \$2.95 service fee for all credit card payments.

**Resident/Non-resident Status:** Any participant who resides in or pays taxes to Charter Township of Oakland is considered a 'resident'. Resident verification may be requested. A person who does not fit this description will be charged a non-resident fee. Oakland Township residents contribute to the financing and operation of the Parks and Recreation Department through taxes.

**Waiting List Procedure:** Programs have maximums assigned. Waiting lists are a source of contact information and do not guarantee you'll receive a call back. You will receive a call back only if a space becomes available or a new class is added. Special requests cannot be honored.

**Refunds:** Registrants will receive a full refund for programs cancelled by Oakland Township Parks and Recreation. Registrants withdrawing more than four (4) business days prior to the program start date will receive a refund, less a \$5.00 administrative fee. No refunds will be made if withdrawing less than four (4) business days from program start date. All registrants wishing to withdraw must do so during regular business hours Monday through Friday, 8:00am-4:30pm in person at 4480 Orion Road, or by phone at 248-651-7810. Refund checks are payable to the individual named on the receipt from registration and mailed to that individual's address. All refunds will be subject to approval by the Director of Parks and Recreation.

***And when the snow flies...***

**Lost Lake Nature Park Sled Hill**  
846 Lost Lake Trail  
Open Daily 10am - 5pm  
Friday and Saturday nights until 9pm

**Warming Shelter Open Hours**  
Friday nights 5pm - 9pm  
Saturdays 1pm - 9pm  
Sundays 1pm - 5pm

**Sled Hill Hotline 248-651-4440 Ext. 299**

**Marsh View Park Skating Rink**  
3100 E. Clarkston Road  
Open Daily 10am - 5pm



**Ice Rink Hotline 248-651-4440 Ext. 289**

*Visit our web pages for complete information on these winter areas including Rules and Maps!  
Don't forget to check the hotlines to confirm the sled hill and ice rink are open before heading out.*

## Registration Information

**Oakland Township** resident registration starts NOW!

*(This is for residents living within the Oakland Township boundary.)*

Non-Resident registration begins one week prior to the program registration deadline date.

*Programs fill-up quickly so please contact us early!*



### Registration Options:

1. **Fill out the form below, print & complete a waiver for each participant, and register by mail, or drop in the drop-box after hours.**

Make checks payable to "Charter Township of Oakland" and mail with registration form and signed waiver for each participant to:

*Charter Township of Oakland  
4393 Collins Rd., Rochester, MI 48306*

2. **Visit us at our office location and register in person.**

Credit cards (MasterCard, American Express, or Discover) accepted in person only. **(\$2.95 fee)**

Cash or check

*Paint Creek Cider Mill Bldg. (2nd Floor)  
4480 Orion Rd., Rochester, MI 48306*

Office Hours:

Monday - Friday 8am - 4:30pm

Waivers are available to print from the park pages at <http://bit.ly/OTParkPrograms>

### Refund policy:

Registrants will receive a full refund for programs cancelled by Oakland Township Parks and Recreation.

Registrants withdrawing more than 4 business days prior to the program start date will receive a refund, less a \$5.00 administration fee. No refunds will be made if withdrawing less than 4 business days from program start date. All registrants wishing to withdraw, must do so during regular business hours Monday-Friday, 8am-4:30pm in person at the Paint Creek Cider Mill, 4480 Orion Rd., or by phone at 248-651-7810.

Visit [www.oaklandtownship.org](http://www.oaklandtownship.org) for complete program information and other Park and Recreation information, permits, and ordinances.

*Mail at least two weeks before program date!*

Adult's Name: \_\_\_\_\_

Address: \_\_\_\_\_

City/Zip: \_\_\_\_\_ Emergency phone: \_\_\_\_\_

Home Phone: \_\_\_\_\_ Cell Phone: \_\_\_\_\_

E Mail Address: \_\_\_\_\_

Resident of (circle one): Oakland Twp. Rochester Rochester Hills Other

Enrollee's Name: \_\_\_\_\_ Age (if child): \_\_\_\_\_

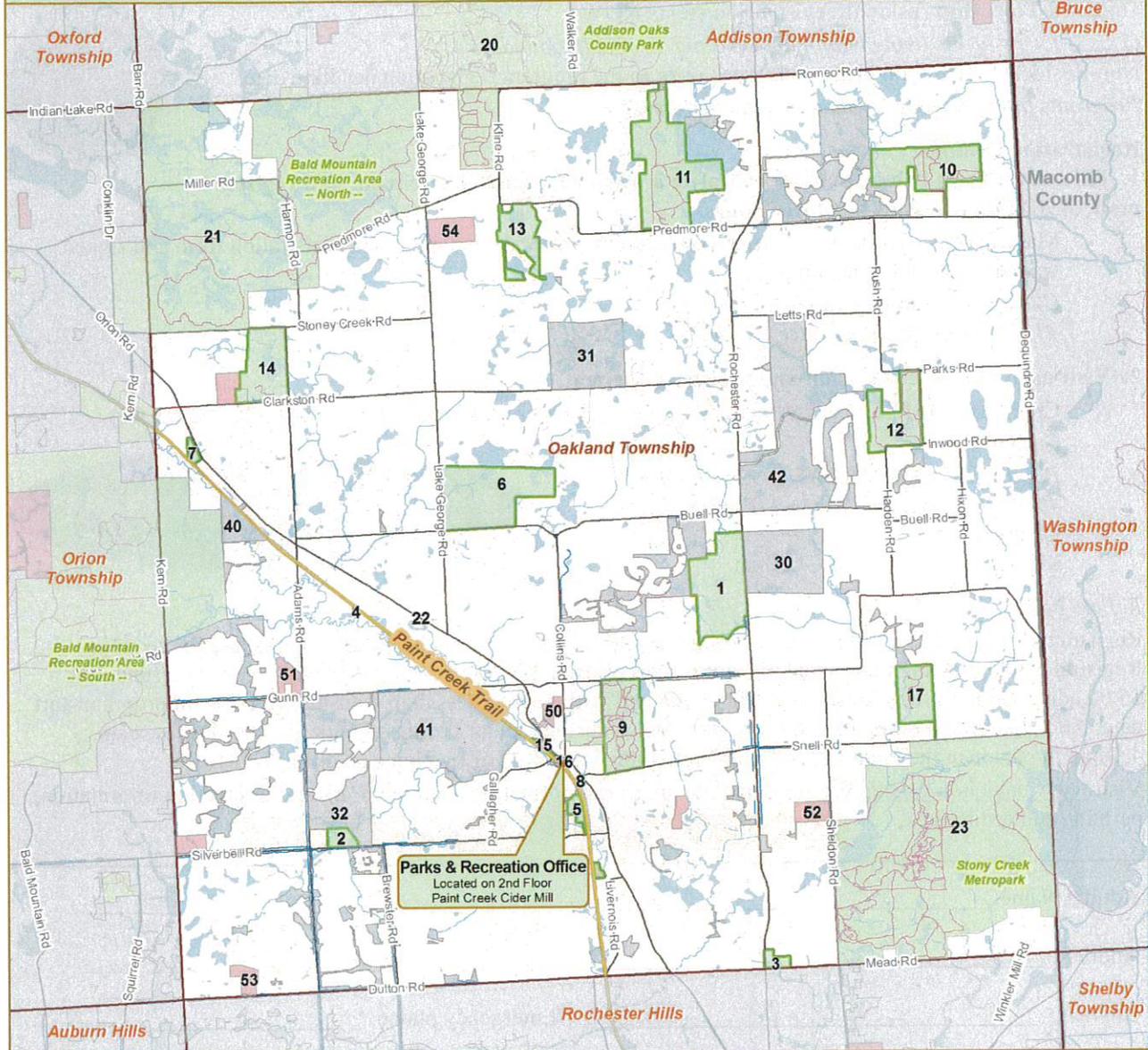
Program Name: \_\_\_\_\_ Date and Time: \_\_\_\_\_

Program Name: \_\_\_\_\_ Date and Time: \_\_\_\_\_

Amount Due: \_\_\_\_\_

**REGISTER NOW!**

# Parks and Recreation Opportunities in Oakland Township



## Oakland Township Parks and Recreation Facilities

### Conservation Parks

1. Blue Heron Environmental Area
2. Gallagher Creek Park
3. O'Connor Nature Park
4. Paint Creek Heritage Area - Fen
5. Paint Creek Heritage Area - Wet Prairie
6. Watershed Ridge Park

### Future Trail Connections

7. Paint Creek Junction Park
8. Mill Creek Crossing

### Community Parks & Recreation Facilities

9. Bear Creek Nature Park
10. Charles Ilsley Park
11. Cranberry Lake Park
12. Draper Twin Lake Park
13. Lost Lake Nature Park
14. Marsh View Park
15. Mill Race Trail
16. Paint Creek Cider Mill (Parks & Rec Office)
17. Stony Creek Ravine Nature Park

## Other Parks and Recreation Facilities

### Other Public Parks

20. Addison Oaks County Park
21. Bald Mountain State Recreation Area
22. Paint Creek Trail
23. Stony Creek Metropark

### Other Public Recreation Facilities

30. Blackheath Golf Club
31. The Myth Golf and Banquet
32. Westwynd Golf Course

### Private Recreation Facilities

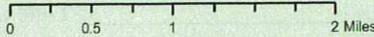
40. Royal Oak Archers
41. The Wyndgate Golf Course
42. Twin Lakes Golf and Swim Club

### Public Schools

50. Baldwin Elementary School
51. Delta Kelly Elementary School
52. Huger Elementary School
53. Musson Elementary School
54. Oakview Middle School

### Key to Features:

- [Red Line] Municipal Boundary
- [Green Box] Oakland Township Parks
- [Blue Box] Lakes & Ponds
- [Red Line] Park Path
- [Yellow Line] Paint Creek Trail
- [Blue Box] Private Recreation
- [Black Line] Major Roads
- [Blue Line] Streams & Rivers
- [Blue Line] Safety/Side Path
- [Green Box] Public Recreation
- [Red Box] Public School



Leaflet © OpenStreetMap contributors, Imagery © Mapbox

**Controlled Archery Antlerless Deer Hunting at Stony Creek Ravine Nature Park  
(Other Township parks do not permit any type of hunting)**

Oakland Township purchased Stony Creek Ravine Nature Park in March 2008 with 67% of our purchase cost being paid by a Michigan Natural Resources Trust Fund grant. One of the conditions of our receipt of this substantial grant was that we must allow controlled archery deer hunting at this park as part of the DNR's program to manage deer populations in southeast Michigan.

To meet this commitment, a maximum of four hunters per hunt date will be issued Township permits for antlerless archery deer hunting at Stony Creek Ravine Nature Park on restricted weekdays between October 1 and December 31, 2017. On the days when hunting will occur the park will be closed to other types of use. Signs are posted on the park perimeter indicating these days of closure.

**Hunters will be selected on a first-come, first-served basis. To be considered for this program, applications must be submitted between 8am and 4:30pm on the below-listed Mondays.**

**Hunters must each hunt with a partner to participate in this program. Partners' applications must be submitted at the same time to qualify for selection. Hunters must obtain their own deer hunting license and kill tags and must obey all Township regulations and State of Michigan hunting laws. Hunters must provide their own portable blinds and will be responsible for their own field dressing and transporting of all harvested deer. No baiting of any kind is allowed. On the application date indicated below, between 8am and 4:30pm, bring this application, a copy of your current deer hunting license, and a copy of the identification used to purchase your deer hunting license, such as a driver's license to:**

Oakland Township Parks and Recreation Office,  
Paint Creek Cider Mill, 4480 Orion Road, Rochester, MI 48306

If you have questions about this procedure please call (248) 651-7810. **No mailed applications will be accepted.**

-----

Name \_\_\_\_\_ Driver's License# \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_ Vehicle Plate# \_\_\_\_\_

Phone: Home \_\_\_\_\_ Work \_\_\_\_\_ Cell \_\_\_\_\_

Hunting Partner's Name \_\_\_\_\_ Phone: \_\_\_\_\_

Check the dates you are interested in for antlerless archery deer hunting only:

<u>Monday, Sept 25 Application</u>	<u>Monday, Oct 16 Application</u>	<u>Monday, Nov 27 Application</u>
<i>For hunt dates of:</i>	<i>For hunt dates of:</i>	<i>For hunt dates of:</i>
Tues/Weds, Oct 3 & 4	Tues/Weds, Oct 24 & 25	Tues/Weds, Dec 5 & 6
Tues/Weds, Oct 10 & 11	Tues/Weds, Oct 31 & Nov 1	Tues/Weds, Dec 12 & 13
Tues/Weds, Oct 17 & 18	Tues/Weds, Nov 7 & 8	Tues/Weds, Dec 19 & 20

Waiver  Safety Zone Map  Hunter Phone Numbers  Ordinance 38A-1  Hunter Rules  Mirror Tag Permit

Parks and Recreation Commission  
Charter Township of Oakland  
4393 Collins Road  
Rochester, MI 48306-1670

PRESORTED  
STANDARD  
US POSTAGE PAID  
ROCHESTER, MI  
PERMIT NO 73

Phone: (248) 651-7810  
Fax: (248) 601-0106  
www.oaklandtownship.org

\*\*\*ECR WSS\*\*\*

POSTAL CUSTOMER



*Seal designed by  
Richard Krupp*

### Commission Meetings

The Parks & Recreation Commission meets at 7 pm on the second Wednesday of every month in the Township Hall Boardroom.

### Office Hours and Location

Park permits, maps and descriptions are available at the Parks and Recreation Department office, located on the second floor of the Paint Creek Cider Mill, 4480 Orion Road. Normal office hours are from 8am to 4:30pm Monday through Friday.

### Parks and Recreation Commissioners

Colin Choi, Chairman  
Hank Van Agen, Vice Chairperson  
Craig Blust, Treasurer  
Emily Barkham, Secretary  
Dan Bukowski, Commissioner  
Cathy Rooney, Commissioner  
Dan Simon, Commissioner

### Oakland Township Parks and Recreation Staff

Parks and Recreation Director	Mindy Milos-Dale
Administrative Assistant	Carol Kasprzak
Clerical Assistant	Deb Gallo
Recreation Manager	Becky McLogan
Recreation Program Assistant	Mary Black
Maintenance Foreman	Doug Caruso
Maintenance Technician	Jeff Johnson
Natural Areas Stewardship Manager	Dr. Ben VanderWeide
Stewardship Specialist	Alex Kriebel
Seasonal Stewardship Technicians	Zach Peklo, Billy Gibala, Joshua Auyer
Maintenance and Recreation Staff	Clif Selent, Robert Zbytowski, Alex Dziadzio, Dan Barton



Oakland Township Park Rules are enforced by the Oakland County Sheriff's Office.

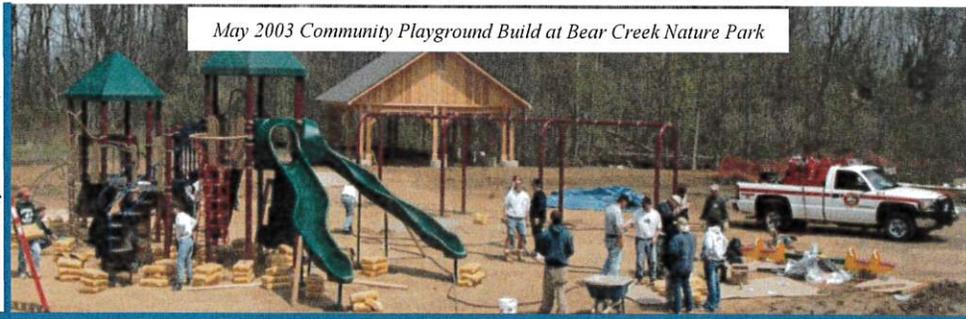
### **FOR EMERGENCIES CALL 911**

If you have information or questions concerning a reported crime or accident, call the substation at 248-652-4617 Monday-Friday, 8 am-4 pm. All other calls please use dispatch at 248-858-4950.

# Oakland Township Parks and Recreation Commission Newsletter

## Winter/Spring 2018

The Mission of Oakland Township Parks and Recreation Commission is to provide a sustainable system of parks, trails, programs, amenities, and services which create memorable experiences and a sense of place, contributes to the economic value of the Township and preserves the historical and natural heritage of the landscapes for existing and future generations.



## Come Help Install New Playground at Gallagher Creek Park!

The Parks and Recreation Commission (PRC) is working with our Township engineer to add recreation facilities, including a playground, a picnic pavilion, pathways and restroom facilities to Gallagher Creek Park.

In Spring 2018, Township residents are invited to participate in the installation of the new playground. This custom-designed playground for children ages 2 through 12 will offer a variety of play opportunities including multiple slides, swings, and many climbing areas.

The “community built” playground installation process offers the opportunity to have fun, meet some of your neighbors, and work together on a very worthwhile project. Our ever-popular Bear Creek Nature Park playground was successfully installed using this process.

*Be One of the 45 Who Care!*

The PRC will contract with a playground installer who will lead interested volunteers. A minimum of 45 volunteers, including Team Leaders, is needed to make this “community built” installation a success. Ages 15 and up can participate in the actual equipment assembly and installation.

If you, your PTA, homeowner’s association, religious group or service club is interested in helping we are ready to accommodate you! Pre-registration is

*(Continued on page 29)*

### Inside this issue:

Community Playground Build	1, 29
Winter Carnival	1, 3
What's New in the Parks	2
Marsh View Ice Rink	4
Lost Lake Sled Hill	5
Dinosaur Hill Partnership Programs	6-8 9-17
Program Registration Form	18
Historic District Commission	19
Stewardship	20-23
Six Rivers Land Conservancy News	24
OTHS News, Paint Creek Trail News	25
Stars Article	26-27
Parks Map	30
Parks in Winter	31
Commissioners, Staff	32

#### Special points of interest:

- ◆ Winter Carnival
- ◆ Skating Rink!
- ◆ Sled Hill!
- ◆ Programs
- ◆ Stewardship
- ◆ Paint Creek Trail

**Mark your calendars for Winter Carnival on January 27, 2018!** Head on over to Marsh View Park for a fun-filled winter day of activities including ice skating, ice carving demonstration, kiddie sledding, archery, magic and balloon shows, and more! Bring your own skates or use a pair of ours. *Children must have adult supervision. See page 3.*

# What's New in The Parks

## From the Director

### You Can Help End Park Encroachments

Over the years Oakland Township Parks and Recreation has experienced an assortment of park encroachments. Encroachments occur when park neighbors enter into activities that go beyond their property lines. These illegal activities can take a variety of forms:

- dumping of yard waste and debris
- removal of trees and other vegetation
- extending yards onto parkland
- installation of landscaping and irrigation,
- erection of fences and structures including play structures
- storage of equipment and materials.

Encroachments impact our park resources. Yard waste may introduce invasive plants into natural areas; removing trees and vegetation reduces wildlife habitat and can cause erosion; and extending yards, storing private property and erecting structures on parkland limits access to public land by our citizens.

Although our staff routinely monitors our parks it is not possible to inspect all park boundaries on a daily basis. Our Township park visitors and neighbors are the first line of defense in the protection of our parks and their natural areas. Your protection of these special areas will serve as a positive role model for other park users.

### How You Can Help

- Know your property borders before you build.
- Don't mow past your property line.
- Don't dump yard waste or debris on parkland.
- If you observe a neighbor encroaching please consider talking to them or contact Oakland Township Parks and Recreation at 248-651-7810.

**Together We Can Reduce  
Encroachment In Our Parks!**

Melinda Milos-Dale  
Parks and Recreation Director



## Tracey is back!

Here's your chance to learn ice skating basics from a real champ! National skating champion Tracey Daniels gives ice skating lessons to youngsters and adults on Saturday, January 6th and Monday, January 15th (Martin Luther King Day) at Marsh View Park's outdoor ice rink. In addition to being a 10-time national medalist Tracey is Figure Skating Director and Coach at Suburban Sports Group in Farmington Hills. This will be Tracey's third winter leading skating clinics at our rink. Tracey loves coming to Oakland Township and we feel very lucky to host this outstanding athlete and coach. Small class size so sign up early to reserve your spot! *See page 9.*



## Paint Creek Trail Closure

The Paint Creek Trail is scheduled for two major construction projects in 2018. Bridge 33.7, which is located on the trail between Dutton and Silver Bell Roads, is scheduled to be replaced in late Spring or early Summer 2018. The Paint Creek Trail between Dutton Road and Silver Bell Roads will be completely closed to thru traffic for 60-90 days. Unfortunately, there is no detour. You will be able to use the trail from Rochester Municipal Park to Dutton Road, or Silver Bell Road to Children's Park in Lake Orion. Please plan your visit to the Paint Creek Trail accordingly.

*Continued on page 25.*

## Natural Areas Stewardship Winter Potluck

*Thursday, January 18, (6:30 pm to 8:00 pm) at the  
Paint Creek Cider Mill*

Trying to shake that winter gloom? Come join us for a celebration of last year's achievements as we warm ourselves with hearty conversation and great food. Learn about upcoming events and projects while connecting with others involved in our programs. Please **RSVP** to [bvanderweide@oaklandtownship.org](mailto:bvanderweide@oaklandtownship.org) or 248-651-7810 ext. 401 by Tuesday, January 16.

# 2018 Winter Carnival

Saturday, January 27, 2018 12 Noon-4pm

Marsh View Park, 3100 East Clarkston Road

**FREE!**



*Bundle up, grab your skates, and head on over!*



**FREE!**

*Snow or No Snow! Games must go on!  
All activities and food are free of charge!*

## Ongoing Events

12 Noon - 4pm

### Ice Carving Demonstrations

Ice carvers sculpt frosty works of art!  
Photo ops available.



### Olympic Obstacle Course

Run, climb, crawl, and throw your way to the finish line.



### Olympic Snow Games

- \* Penguin Bowling
- \* Pin Nose on Snowman
- \* Hockey Goal Shoot
- \* Snow Ball Shot Put

### Archery Target Shoot

Now's your chance to target shoot like Katniss Everdeen! Ages 8 and up.



### Ice Skating

Skate on our fabulous ice rink!  
Limited number of skates for loan.



### Luge

Toss a wooden "snow snake" down a track of snow!



### Discus (disc golf)

Play DISC GOLF in the snow! Teens to adult.



### Skeleton (kiddie sledding)

5 years of age and under.  
Limited number of kiddie sleds for loan.

## Scheduled Events

### "Magic Joe" is back!

12:15-1pm & 2:15-3pm



### "Michigan Stiltwalker"

### Balloon Show

1:15-2pm & 3:15-4pm



## Food Tent

Warm beverages and a choice of pizza or sandwiches!



1pm until supplies last.

## Sponsored by Oakland Township Parks and Recreation

For more information:  
call 248-651-7810 or  
visit [oaklandtownship.org](http://oaklandtownship.org)



Pizza Donated By: Hungry Howie's,  
4930 N. Adams Rd.  
Oakland Twp., MI 48306

**Marsh View Park**  
 3100 E Clarkston Road  
 Oakland, MI 48363

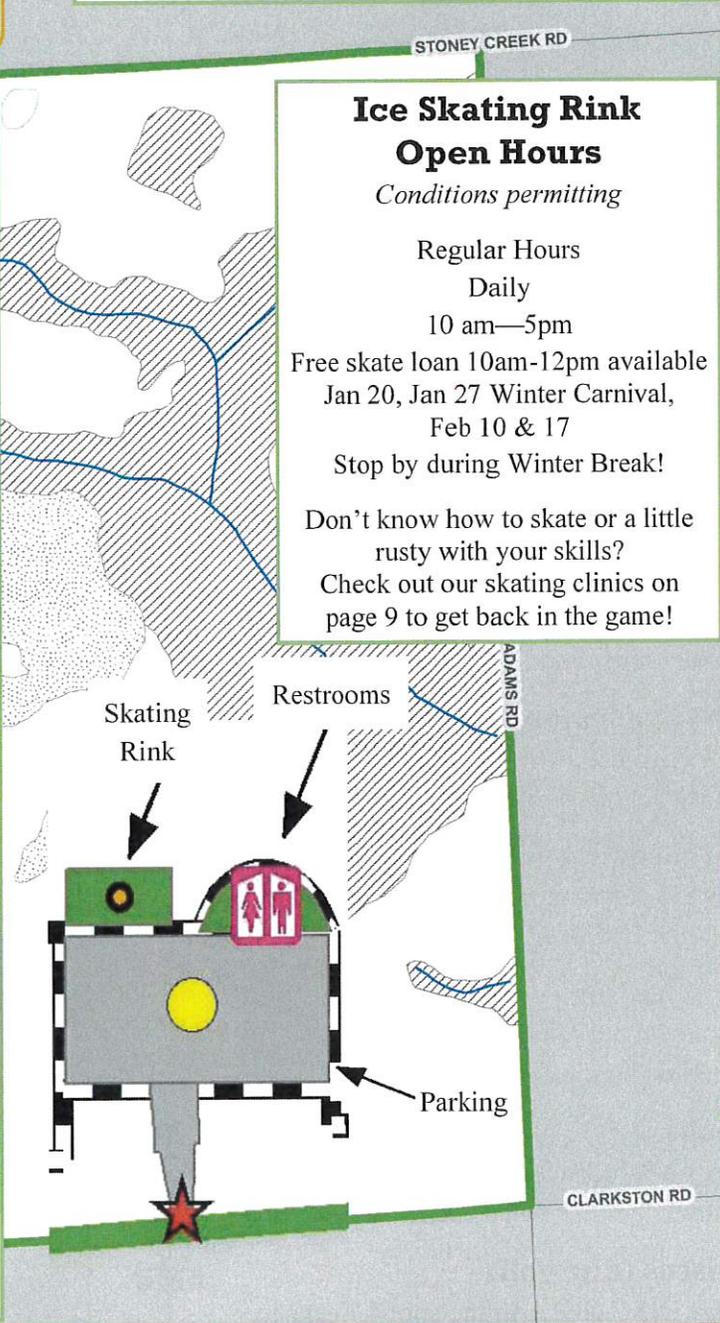
**Call the ice rink hotline at 248-651-4440,  
 ext. 289 to confirm rink is open.  
 Ice must be frozen solid for rink to be open.**

- Ice Skating Rink Rules**  
 Ice Skating Rink users must abide by the following rules and regulations:
1. Ice rink unsupervised; skate at your own risk.
  2. Do not enter the ice rink area when posted "Rink Closed - No Skating."
  3. No digging, spraying, chipping or throwing ice.
  4. Skating in a manner that endangers other skaters is not permitted.
  5. No hockey, sticks or pucks are permitted.
  6. Skaters must skate with the flow of traffic.
  7. No loitering or use of the rink by persons without skates.
  8. Do not carry items such as headsets, cell phones, etc., while skating.
  9. No pets permitted in the ice rink area.
  10. No drink or food including chewing gum is permitted on the ice.
  11. Do not sit on, lean over, or leave articles on the side boards.
  12. Children 12 years old and under must have adult supervision.
  13. Children 6 years old and under must wear a helmet.
  14. All other posted Oakland Township Parks rules apply.

**Ice Skating Rink  
 Open Hours**  
*Conditions permitting*

Regular Hours  
 Daily  
 10 am—5pm  
 Free skate loan 10am-12pm available  
 Jan 20, Jan 27 Winter Carnival,  
 Feb 10 & 17  
 Stop by during Winter Break!

Don't know how to skate or a little rusty with your skills?  
 Check out our skating clinics on page 9 to get back in the game!



**MARSH VIEW PARK - 91 Acres**

<p><b>Park Facilities</b></p> <ul style="list-style-type: none"> <li>★ Vehicular Entrance</li> <li>● Parking</li> <li>▲ Dock/Deck/Launch</li> <li>☒ Portable Toilet</li> </ul>	<p><b>Trails &amp; Walkways</b></p> <ul style="list-style-type: none"> <li>— 8' Wide Asphalt (Universally Accessible)</li> <li>~ Roads</li> </ul>	<p><b>Ecosystem Types</b></p> <ul style="list-style-type: none"> <li>○ Open Area</li> <li>▨ Wetlands</li> <li>▨ Woodlands</li> <li>~ Lakes &amp; Ponds</li> <li>~ Rivers &amp; Streams</li> </ul>	<p><b>Boundaries</b></p> <ul style="list-style-type: none"> <li>■ Oakland Township Park</li> <li>■ Play Field</li> <li>■ Other Recreation Area</li> </ul>
--	---	---	---

**Oakland Township Parks  
 Administrative Office  
 248-651-7810**

N

0 100 200 300 Feet

## Lost Lake Nature Park

846 Lost Lake Trail  
Oakland, MI 48363

Call the sled hill hotline at 248-651-4440,  
ext. 299, to confirm hill is open.  
Must be 2 inches of packed snow on  
frozen ground for hill to be open

### Sledding Under The Lights!

Every Friday &  
Saturday Night

### Sled Hill Open Hours

Conditions permitting

Daily

10am - 5pm

Friday and  
Saturday

10am - 9pm

### Sled Hill Rules

1. Sledding is allowed in designated areas only.
2. No snowboarding or skiing.
3. Maximum 2 persons per sled.
4. Only walk up the hill using the designated return trail.
5. No sledding allowed on return trail.
6. Children must be supervised by an adult.
7. Glass bottles or containers are prohibited.
8. Be sure the hill is clear before proceeding.
9. No pets allowed in the active sledding area.
10. No building of ramps, jumps, or moguls.

### Warming Shelter Open Hours

Friday nights 5pm - 9pm

Saturdays 12pm - 9pm

Sundays 12pm - 5pm

Holiday Break 12pm - 5pm

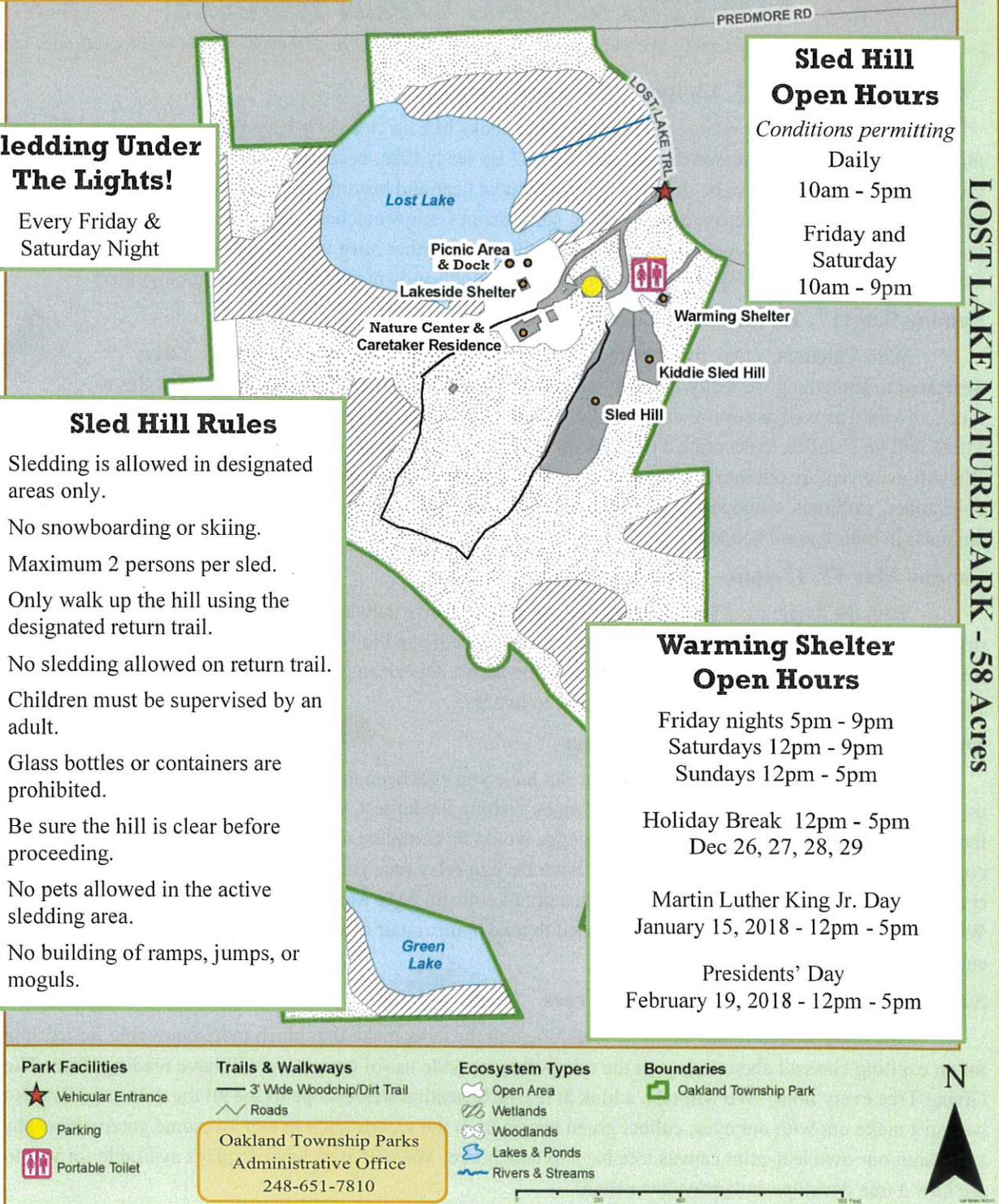
Dec 26, 27, 28, 29

Martin Luther King Jr. Day

January 15, 2018 - 12pm - 5pm

Presidents' Day

February 19, 2018 - 12pm - 5pm



LOST LAKE NATURE PARK - 58 Acres



# LOST LAKE NATURE PARK PARTNERSHIP

Oakland Township Parks and Recreation & Dinosaur Hill Nature Preserve

Lost Lake Nature Park

846 Lost Lake Trail, Oakland Charter Township, MI 48363



**FREE!**

## WINTER/SPRING OPEN HOUSES!

**FREE!**

Family, friends and neighbors are invited to explore everything this partnership has to offer at one of five winter/spring open houses!



### Sunday Jan 21<sup>st</sup>, 12-4pm – The Snow Games

Have you ever wondered what a snowflake looks like up close? Or have you ever imagined life before plows and how people traversed through the woods? Be ready then, because our programming department has you covered. We're going to be donning all of our snow gear and heading out into a wonderland of excitement. We will have snow shoes, cross country skies, stereoscopes, snow catchers, and more games and activities than you can shake a stick at. Depending on the snowfall we will either have very unique snow games (like snow snakes) or field games to play, as well as an awesome dough snowman craft inside to put together!

### Sunday Feb 11<sup>th</sup>, 12-4pm – We Love Animals!

With Valentine's Day right around the corner we thought it only fitting to have a day dedicated to something we really love: animals! We will have plenty of furs, feathers and scales to touch and hold as well as several crafting stations set up inside to put together your own friends to take home. There will be a station to decorate a pet rock, a station to create a pinecone owl, and even a paper chain snake. We will even venture out into the wilderness (with snow shoes if the weather allows) to search for sparrows, chickadees, cardinals, woodpeckers, blue jays, white tailed deer, turkeys, field mice (and other subnivean animals) in their natural habitats!



### Sunday Mar 4<sup>th</sup>, 12-4pm – The Potawatomi

With the maple trees being tapped and the winter snows thawing we're always reminded of the People of the Three Fires, and it's about time we had a program dedicated to Native Americans! Join us as we put together our own dreamcatchers, play a few genuine native American games and learn all about surviving in the woods in this, the most difficult part of the year to live in.



### Sunday Apr 15<sup>th</sup>, 12-4pm – All The Eggs

You may have dyed some for Easter, but have you ever seen those dyed by mother nature herself? Join us as we take a journey through the world of eggs, visiting the largest, smallest and most colorful specimens that we have discovered! No day celebrating eggs would be complete without a few egg games, so be sure to come with a great sense of balance. We will have the egg relay race and egg obstacle course ready to accept challengers! No program about the intricate beauty of colorful eggs would be complete without a dying station. We will have eggs, dye and all the tools needed to take home a pair of your own! Consider this your one stop egg shop!



### Sunday May 6<sup>th</sup>, 12-4pm – Leaf it to Trees

One thing we really like doing is breathing and the trees make that much more enjoyable for us. Join us for an exciting class all about trees and the things they provide us (of course we will have readings from The Giving Tree every hour). We will take a look at leaves beneath a stereoscope to see all the veins and details that we can't make out with our eyes, collect green leaves from the woods (rich in that awesome green chlorophyll) and stamp our own leaf-print canvas tote bags to take home! We will even have displays available for you to see how a tree develops and grows over time!



## LOST LAKE NATURE PARK PARTNERSHIP

Oakland Township Parks and Recreation & Dinosaur Hill Nature Preserve

Lost Lake Nature Park

846 Lost Lake Trail, Oakland Charter Township, MI 48363



# WINTER/SPRING PROGRAMS!

Experience Lost Lake Nature Park with a class featuring both indoor and outdoor learning!  
Sign up and pay in advance at [dinosaurhill.org](http://dinosaurhill.org). Registration closes a week before each class date.

### *The Siege of Snow (6 - 10 years old) 12 max*

**Thursday, Jan 11, 2018**

**4:30 - 6:00pm**

We are well aware that the greatest way to warm up during these frigid months is to continuously be active... but we are also aware that is a lot of effort. So we've decided to disguise our activity through the guise of incredibly entertaining survival games. Learn how to make a survival shelter in the woods, put together your very own bow and learn how to make arrows to take home, learn the basics of tracking animals (or campers) in the wilderness and top it all off with a glass of hot chocolate. This is the ultimate of snow days. Be aware, the sun will begin to fall during this class so you can't afford any dawdling if you'll survive the siege of snow!



**Resident or DHNP member: \$5 Non-resident: \$7**

### *Backpacking 101 (Adults 18+) 10 max*

**Saturday, Feb 17, 2018**

**10:30am - 12:00pm**

There are hundreds of great campsites all across this state that cannot be accessed by train, car, or boat. The only way to these secluded gems is to pack all of your belongings up and carry them with you. This daunting task can seem overwhelming at first as you begin to figure out what you should and shouldn't pack for the trip. We're here to assist you with not only figuring out what to pack but HOW to pack it, when the best time for backpacking in Michigan is and where some of our favorite spots are hidden (some in the upper peninsula and some a little closer to home). We will discuss gear, weather, plant identification, wild animal awareness and safety and so much more. We will even have some practice gear for you to try out and on!



**Resident or DHNP member: \$5 Non-resident: \$7**

### *Maple Sugaring is Pretty Sweet (Families) 30 max*

**Saturday, Mar 10, 2018**

**2:00 - 3:30pm**

The staple of Midwest nature centers in late February and early March and we're not going to miss our opportunity to siphon delicious sugar from the trees. Bring your grandparents, your cousins, and your entire family to Lost Lake Nature Park for a live demonstration of maple sugaring. We will take some time inside to learn how to identify a maple tree and what's allowing us to capture sap before heading outdoors and putting what we've learned to the test and tapping a real tree! We'll even use the collected sap (as well as some syrup we've boiled down) to produce some of the sweetest snacks you'll ever taste.

**Pre-registration required  
at [www.dinosaurhill.org](http://www.dinosaurhill.org)  
or 248-656-0999**

**Residents or DHNP member: \$5 Non-residents: \$7 Family Max 4 or more \$20/\$28**



# LOST LAKE NATURE PARK PARTNERSHIP

Oakland Township Parks and Recreation & Dinosaur Hill Nature Preserve

Lost Lake Nature Park  
846 Lost Lake Trail, Oakland Charter Township, MI 48363



## WINTER/SPRING PROGRAMS! cont'd

Experience Lost Lake Nature Park with a class featuring both indoor and outdoor learning!  
Sign up and pay in advance at [dinosaurhill.org](http://dinosaurhill.org). Registration closes a week before each class date.

### ***Orienteering Treasure Hunt (5-8 years old) 12 max***

**Sunday, March 18, 2018**

**1:00 - 2:30pm**

Learning how to properly read a map is a critically important skill and figuring out the complexities of orienteering compasses can be a total snooze-fest.... So why not turn it into a treasure hunt? Join a Dinosaur Hill naturalist on an exciting treasure hunt, complete with maps, compasses and clues that will help students learn how to properly navigate using a map and compass as well as reward those whom are paying attention with fabulous prizes and treasure.



**Resident or DHNP member: \$5 Non-resident: \$7**

### ***My Own Tornado! (Families) 30 max***

**Saturday, Apr 14, 2018**

**1:00 - 2:30pm**

April showers bring May flowers, but they can also bring devastating lightning and deafening thunder! Luckily, we're not afraid of a little weather and don't mind replicating it in the safety of the nature center. Join us as we clairvoyantly forecast the weather and then roll up our sleeves to make our predictions come true. We will produce an actual tornado inside (as well as make our very own to take home), visually see what happens during an earthquake, blow up our own volcanoes and have a swell time playing with natural disasters.



**Residents or DHNP member: \$5 Non-residents: \$7 Family Max 4 or more \$20/\$28**

### ***Wildflowers, Tea, Mommy & Me (3-7 years old) 12 max***

**Saturday, May 5, 2018**

**10:00 - 11:30am**

Consider this an early Mother's Day gift this year (perfect for the last minute shoppers and children unable to sneak out to purchase mom a gift). We will meet within the Lost Lake Nature Center where a naturalist will lead a tea party for mom and child, complete with cookies, lemonade, and activities to do at each table! Once mom is happily full of sweets and 'tea' we shall take a walk out through the park and explore many of the wild flowers in bloom. We'll end by heading back in the nature center to put together a bouquet (not of wildflowers though, we follow a strict 'no pick' policy). Out on the trails we may see early violets, wild geranium, meadow rue, golden alexander, ragwort, thimbleweed, columbine, violets, clover, may apples and other common early spring blooms!



**Resident or DHNP member: \$5 Non-resident: \$7**

**Pre-registration required at [www.dinosaurhill.org](http://www.dinosaurhill.org) or 248-656-0999**

# OAKLAND TOWNSHIP PARKS AND RECREATION

## Winter/Spring 2018 Fitness/Wellness Programs



Call 248-651-7810 for more information. For registration go to our website at [www.oaklandtownship.org](http://www.oaklandtownship.org) or mail in the registration page at the end of our programs.

### **Introduction to Ice Skating**

*Marsh View Park, 3100 Clarkston Rd., Oakland, MI 48363*

Learn how to skate with 10-time national medalist, Tracey Daniels! Clinics will be held at Marsh View Park's outdoor skating rink. These clinics are for people who have little or no skill at ice skating. Each clinic will focus on basic fundamentals of ice skating like falling down, skating forward, stopping and practicing your new skating skills. Please wear weather appropriate clothing including gloves. Safety is very important and we encourage skaters to wear a helmet and additional padding. Two dates to choose from!

**Saturday, January 6, 2018, Register by January 2.**

**Monday, January 15, 2018, (Martin Luther King Day), Register by January 8.**

**Tots 4 to 5 years old and Parents** (45 minutes) 10 - 10:45am *(Parents free)*

Come and share the excitement of ice skating with your child! Each tot must be accompanied by a parent or guardian who can skate. For the first 30 minutes, tots will learn basic balance and skating skills. The last 15 minutes will be free skate playtime to help your tot practice their new skating skills.



**Ages 6 to 12 years old** (45 minutes) 11:15am - 12pm

Be like Elsa and Kristoff from the movie "Frozen" and learn how to skate! Learn the basic fundamentals and have fun practicing at our Outdoor Skating Rink!

**Ages 13 to Adults** (1 hour) 12:30 - 1:30pm

**Resident: \$10 each Non-resident: \$15 each**

Arrive at least 20 minutes early to class to check-in and change into skates. **Please bring a pair of your own sharpened skates, or skates may be rented for a fee of \$3 a pair.** Please provide your shoe size during class registration. Do not walk with exposed blades on parking lot or asphalt paths; wear your skate guards when not on the ice surface.

All skaters six years and under are required to wear either a bike or hockey helmet (not provided).

Registration information on page 18.



## OAKLAND TOWNSHIP PARKS AND RECREATION

### Winter/Spring 2018 Fitness/Wellness Programs cont'd



#### **Boot Camp at the Sled Hill - Adults 14+**

**Mondays, January 8 - February 12, 2018 Session 1 6:00 - 7:00pm**

*Lost Lake Nature Park Sled Hill and Warming Shelter*

846 Lost Lake Trail, Oakland, 48363

**Register by January 4**



Don't just survive this winter. Thrive this winter with our Outdoor Winter Boot Camp! Retro Fitness' Sharon DeRouin, a certified trainer with 25 years of experience, will lead you through a series of aerobic and strength training exercises that utilize the natural features of Lost Lake Sled Hill. Get a leg burning aerobic workout while running up the sled hill, and isolate your core muscles while sledding back down! Working out has never been more fun! Participants should wear layers, hat, gloves, and winter traction footwear. Bring a bottle of water. The Lost Lake Warming Shelter will be available for warming up during and after your workout. Sleds provided. 6 weeks.

**Residents: \$40 Non-residents: \$80**

Registration information on page 18.

#### **Boot Camp In The Park - Ages 12+**

**Mondays, March 5 - April 9, 2018**

**Session 2 Register by February 26**

**Mondays, April 23 - May 28, 2018**

**Session 3 Register by April 16**

*Bear Creek Nature Park, 740 West Snell Road, Rochester, 48306 6:00 - 7:00pm*

Break out of the confines of your gym and take in the refreshing spring air of Bear Creek Nature Park! Bear Creek Nature Park offers a small-group outdoor boot camp that uses the different features around the park to create a fun workout for all levels.

Circuit activities like the meadow mile, pavilion push-ups, and nature node knee bends, are sure to offer enough variety to keep you motivated. This fun and challenging boot camp-in-the-park will get you fit! Taught by Retro Fitness' certified trainer, Sharon DeRouin, a certified trainer with 25 years experience. 6 week sessions. 1 hour class (5 min. warm up, 45 min. circuit activities, 10 min. cool down and stretch).

**Residents: \$40 Non-residents: \$80**



#### **Tai Chi - Adults 18+**

Find peace and serenity from a busy, stressful day through Tai Chi. Tai Chi exercises the mind and body by increasing wellbeing and improving balance, coordination and strength. Students will learn the basic forms and elegant movements of the Yang Style Short Form Tai Chi. Students should be able to support their weight while standing. Students should wear loose and comfortable clothing and shoes. No flip flops or sandals. Traditional Tai Chi shoes are optional. Bring water bottle. Led by Marci Jenkins.\* 3 sessions available, 8 week sessions.

*\*Marci has over 20 years of Tai Chi training and practice. She has experience in the Yang Style and Wu System of Tai Chi. She is currently teaching at the Troy Community Center in Troy.*

#### **Winter (Indoors)**

*Paint Creek Cider Mill, 4480 Orion Rd. 6:00-7:00pm*

**Tuesdays, January 9 - Feb. 27, 2018**

**Session 1 Register by: January 2**

**Tuesdays, March 6 - April 24, 2018**

**Session 2 Register by: February 27**

#### **Spring/Summer (Outdoors)**

*Bear Creek Nature Park, 740 West Snell Road 6:00 - 7:00pm*

*Rain location-Paint Creek Cider Mill, 4480 Orion Rd.*

**Tuesdays, May 8 - June 26, 2018**

**Register by: April 30**

**Residents : \$40 Non-residents: \$80**



# Oakland Township Parks and Recreation

## Winter/Spring 2018 Fitness/Wellness Programs cont'd



### **Yoga on the Lake Session 1 Adults 12+ to Adult**

**Sundays, June 3 - July 8, 2018 9:30 - 10:30 am**

Lost Lake Nature Park, 846 Lost Lake Trail, Oakland, MI 48363



Wouldn't you rather be outside during springtime? Step out of the studio and enjoy practicing yoga in the warmth of the sun and with a full view of serene Lost Lake. Whether you are a seasoned practitioner or newer to yoga, this gentle All Levels class is just right for you! Bring your own yoga mat. Led by Pavel Bednarski, RYT-200. All Levels. 6 sessions. All classes will take place on the dock. Rain location is the on-site Warming Shelter.

**Residents: \$48 Non-residents \$72 Register by: May 12**

### **All Levels Yoga Adults 12+ to Adult**

Cranberry Lake Farm House, 388 W. Predmore, Oakland, MI 48363

**Sundays, January 7 - February 11, 2018 Session 1 Register by: January 2**

**Sundays, February 25 - April 8, 2018 Session 2 Register by: February 10**

*(no class April 1)*

**Sundays, April 15 - May 30, 2018 Session 3 Register by: March 24**

**Class Times: 9:30 - 10:30 am**

In this class you will learn basic yoga postures and breathing exercises making this class suitable for the beginner as well as anyone looking for a refresher. Whether you are a seasoned practitioner or newer to yoga, this All Levels class is just right for you! Bring your own yoga mat. Led by Pavel Bednarski, RYT-200. All Levels. 6 sessions.

**Residents: \$48 Non-residents \$72**

**Adult Men's Soccer League at Marsh View Park** Did you love playing soccer as a kid? You can play post-high school to post-retirement right in your own backyard by joining the Michigan United Soccer League. Marsh View Park is host to MUSL games - players are mostly local or from the Greater Rochester Area. To join visit: [musl.net](http://musl.net)



**REGISTER NOW!**

Call, email, mail, or visit us in person! Complete registration details on page 18



## OAKLAND TOWNSHIP PARKS AND RECREATION

### Winter/Spring 2018 Outdoor Adventure Programs



Call 248-651-7810 for more information. For registration go to our website at [www.oaklandtownship.org](http://www.oaklandtownship.org) or mail in the registration page at the end of our programs.

#### ***Fun Basics of Kayaking - 5 sessions! Ages 6 yrs. to Adult***

Lost Lake Nature Park, 846 Lost Lake Trail, Oakland, 48363



<b>Saturday, May 12, 2018</b>	<b>10am - 12pm</b>	<b>Session 1</b>	<b>Register by May 4</b>
<b>Saturday, June 2, 2018</b>	<b>10am - 12pm</b>	<b>Session 2</b>	<b>Register by May 25</b>
<b>Saturday, July 21, 2018</b>	<b>10am - 12pm</b>	<b>Session 3</b>	<b>Register by July 13</b>
<b>Saturday, August 25, 2018</b>	<b>10am - 12pm</b>	<b>Session 4</b>	<b>Register by Aug. 17</b>
<b>Saturday, September 22, 2018</b>	<b>10am - 12pm</b>	<b>Session 5</b>	<b>Register by Sept. 14</b>

This clinic is taught both on land and in the water and will focus on safety and introductory stroke *techniques*. Learn basic kayaking safety skills such as fitting your life jacket, what clothing to wear and getting into and out of your kayak from a dock. Basic paddling skills include forward, reverse, and turning strokes. Designed for new paddlers and anyone who would like formal instruction. Lost Lake is open calm flat water without jet skis and motor boats. Lost Lake Nature Park and its beautiful dock and kayak launch are universally accessible.

One person kayak: minimum age 10 years old.

Two person kayak: minimum age 6 years old with an adult on board.



**Residents: \$20 Non-residents: \$35**

Items to bring: water, water shoes or light weight sneakers, wear synthetic clothing, sunglasses, and bug repellent. At the time of registration we will ask you for your approximate height and weight so that we may size you with the proper gear. We paddle in light rain (it is a water sport). However, if there is a 60% or greater chance of thunderstorms 2 hours prior to the clinic we will contact you to cancel with a full refund issued or reschedule the clinic.

#### ***Next Step Beginning Kayaking - 5 sessions! Ages 6 yrs. to Adult***

Lost Lake Nature Park, 846 Lost Lake Trail, Oakland, 48363

<b>Saturday, May 12, 2018</b>	<b>12:30 - 2pm</b>	<b>Session 1</b>	<b>Register by May 4</b>
<b>Saturday, June 2, 2018</b>	<b>12:30 - 2pm</b>	<b>Session 2</b>	<b>Register by May 25</b>
<b>Saturday, July 21, 2018</b>	<b>12:30 - 2pm</b>	<b>Session 3</b>	<b>Register by July 13</b>
<b>Saturday, August 25, 2018</b>	<b>12:30 - 2pm</b>	<b>Session 4</b>	<b>Register by Aug. 17</b>
<b>Saturday, September 22, 2018</b>	<b>12:30 - 2pm</b>	<b>Session 5</b>	<b>Register by Sept. 14</b>

This clinic is for those who have completed our *Fun Basics of Kayaking* clinic or have some experience at kayaking and are looking to increase their skill level. This clinic will focus on safety on the water and stroke *development*. Learn how to fit your boat to your body on land in order to practice techniques for staying in your boat on water to avoid tipping over! Discuss what to do if you do tip over. Learn about the different types of paddles and the side stroke. Then use paddling patterns to practice and perfect your paddling strokes. For the more adventurous we may have kayak races!

One person kayak: minimum age 10 years old.

Two person kayak: minimum age 6 years old with an adult on board.



**Residents: \$20 Non-residents: \$35**

# OAKLAND TOWNSHIP PARKS AND RECREATION

## Winter/Spring 2018 Outdoor Adventure Programs cont'd



### **Kayaks Available for Rental at Lost Lake Nature Park!**

We have recently purchased kayaks to offer park users the opportunity to get out on Lost Lake, where wildlife and water lilies abound! Starting April 29, 2017, paddlers can rent kayaks at Lost Lake Nature Park on Saturdays and Sundays, throughout the warm weather season. Lost Lake's small size and easily accessible kayak launch are great for paddlers of all abilities. Take advantage of this opportunity to practice your kayaking skills while exploring this 8-acre glacial lake. Kayak, paddle and life vest supplied. Note: Weight limit for single kayak is 230 lbs. Kayak at your own risk. No supervision or instruction is provided. View our kayak rental policy on our website: [www.oaklandtownship.org](http://www.oaklandtownship.org)

**Registration must be completed one week in advance of requested rental date.**

Anyone under 18 must be accompanied by an adult. Pre-registration, driver's license, signed liability waiver, rental fee and deposit required. One person kayak: minimum age 10 years old. Two person kayak: minimum age 6 years old with an adult on board.

### **Rental Dates:**

#### **Saturdays**

April 28, May 5, 26, June 16, 23, 30

10am - 12pm or 12pm - 2pm

#### **Sundays**

April 29, May 13, 20, 27, June 3, 10, 17, 24

12pm - 2pm or 2pm - 4pm

### **Fees:**

#### **Resident Rate:**

1-person kayak for 2 hours \$10/boat

2-person kayak for 2 hours \$15/boat

#### **Non-Resident Rate:**

1-person kayak for 2 hours \$20/boat

2-person kayak for 2 hours \$30/boat



### ***Stand Up Paddle Boarding! - Adults 14+***

**Saturday, May 19, 2018 10 - 11am and 11:30am - 12:30pm**

*Lost Lake Nature Park, 846 Lost Lake Trail, Oakland, 48363*

**Register by May 11**

**Saturday, June 9, 2018 10 - 11am and 11:30am - 12:30pm**

*Draper Twin Lake Park, \* 1015 Inwood, Rochester, 48306*

**Register by June 1**



Stand Up Paddle Boarding (SUP) is a great new water activity sweeping the country, and it's easy and fun to learn. Learn to paddle in a safe environment with experienced instructors and quality equipment at breathtaking Lost Lake or beautiful Draper Twin Lake! Paddlers 14 years and older welcome. All equipment is included. Please wear a bathing suit or clothes you don't mind getting wet. All levels welcome.

**Residents: \$20 Non-residents: \$35**

*\*Draper Twin Lake is the larger of the two lakes and will be more challenging for the beginner. Both are calm water lakes. Come early. The distance from the parking lot to the dock, which has lake access, is approximately .4 miles via accessible path.*

## OAKLAND TOWNSHIP PARKS AND RECREATION

### Winter/Spring 2018 Nature Programs

Call 248-651-7810 for more information. For registration go to our website at [www.oaklandtownship.org](http://www.oaklandtownship.org) or mail in the registration page at the end of our programs. All nature programs led by Dinosaur Hill Nature Preserve naturalists.



#### **Beginner Winter Plant Identification - Adults**

**Sunday, January 14, 2018 1:00 - 2:30pm**

*Cranberry Lake Park, 388 West Predmore, Oakland, MI 48363*

When looking at a snow-covered landscape it's easy to overlook the small details that bring the world to life. So often when taking strolls in the winter we do not stop and ask ourselves what we're looking at. Join us as we take a winter stroll (with snowshoes if the weather cooperates) to Cranberry Lake Nature Park to learn the basics of identifying plants in the winter. We will take a look at branches and the bark of trees, colorful branches on shrubs and plants which reach up through the snow to absorb as much sun as they can during the bitter months. Snowshoes supplied.



**Resident or DHNP member: \$5 Non-resident: \$7 Register by: January 5**

#### **A Valentine for Nature - Preschool (Ages 3 to 5 years old)**

**Wednesday, February 14, 2018 9:30 - 11:00am**

*Lost Lake Nature Center, 846 Lost Lake Trail, Oakland, MI 48363*

It's Valentine's Day and we're looking to celebrate it with mother nature! Join a Dinosaur Hill park naturalist as we put together our own papercraft penguins to take home, head outdoors and create works of art directly on the snow, go snow bowling with colorful balls of ice and try out special snow shoes for children's feet. This exciting adventure through the chilled wilderness will feature a visit to the warming shelter to defrost our little toes and put together our craft. Snowshoes supplied.



**Resident or DHNP member: \$5 Non-resident: \$7 Register by: February 7**

#### **Calling All Owls - Families (Ages 5 to Adults)**

**Saturday, March 17, 2018 8:00 - 9:30pm**

*Cranberry Lake Park, 388 West Predmore, Oakland, MI 48363*

Did you know that Michigan is home to over 10 different species of owls? Join a park naturalist as we take a fascinating look at owls after dark. We will investigate taxidermy mounts of Great Horned Owls, Screech Owls, and Snowy Owls before being given the opportunity to feel their wings, talons and beaks. We will dig through their regurgitated undigestibles and put together our own real skeleton to take home. Finally, we'll venture out in the park for an owl safari, learning how to call Great Horned Owls and listen for a hoot back!



**Residents or DHNP member: \$5 Non-residents: \$7**  
**Family Max 4 or more \$20/\$28 Register by: March 9**

**REGISTER NOW!**

Call, email, mail, or visit us in person! Complete registration details on page 18



## OAKLAND TOWNSHIP PARKS AND RECREATION

### Winter/Spring 2018 Nature Programs

Call 248-651-7810 for more information. For registration go to our website at [www.oaklandtownship.org](http://www.oaklandtownship.org) or mail in the registration page at the end of our programs. All nature programs led by Dinosaur Hill Nature Preserve naturalists.



#### ***All Animals Are Awesome - Afterschool (ages 6 to 12 years old)***

**Thursday, April 19, 2018 4:30 - 6:00pm**

*Lost Lake Nature Center, 846 Lost Lake Trail, Oakland, 48363*



We often attempt to narrow down our animal classes into a particular family or specific species but often feel as though the rest of the animal kingdom feels envious. Then it hit us! Why not create an all-encompassing animal class that features not only local wildlife, but exotic species from around the world? Join us as we explore the animal kingdom. We will look up close (and have the opportunity to hold) geckos, turtles, frogs, insects, spiders, and lizards while learning about each in turn. We'll then turn our attention to the animals that call Lost Lake Nature Park home and see if we can find them in their natural habitats!

**Resident or DHNP member: \$5 Non-resident: \$7 Register by: April 12**

#### ***Big & Little Friendly Birds - Parent & Baby (under 3)***

**Monday, May 21, 2018 9:30 - 11:00am**

*Bear Creek Nature Park, 740 West Snell Rd., Rochester, 48306*

Not all the creatures on earth are trapped in strollers and not all those friendly critters are even on the ground! Join us for an exciting outdoor adventure exclusively for parents and toddlers and babies 3 and under. We will listen to an engaging story about birds (that will require everyone's help!), play a color matching game with eggs and nests, get hands-on with bird feathers, put together our own feather masks to squawk like birds and even get a bird kite into the air above us to watch it soar!



**Resident or DHNP member: \$5 Non-resident: \$7 Register by: May 14**

#### ***Free Fishing - Families (Ages 4 to Adult) 2 sessions!***

**Saturday, June 9, 2018 9 - 10:15am or 10:30 - 11:45am**

*Lost Lake Nature Center, 846 Lost Lake Trail, Oakland, 48363*

**Sunday, June 10, 2018 9 - 10:15am or 10:30 - 11:45am**

*Draper Twin Lake Park\*, 1181 Inwood, Oakland, 48363*



Fishing is a part of Michigan's heritage. Fishing is also a relaxing pastime and a great way to spend time with your family...there is no room for cell phones, texting or tv on the dock. This program is your chance to try out fishing...we will supply the equipment and know how...you supply the sense of humor and willingness to try something new. We will also learn about types of bait and lures to use, the types of fish you may encounter in township parks and some tips on nearby "fishing holes"... you don't have to go up north to get away! All fishing license fees are waived, register early as we fill up quickly! FREE!

**Register by June 1**

Registration information on page 18.

*\*The distance from the parking lot to the dock, which has lake access, is approximately .4 miles via accessible path.*

## OAKLAND TOWNSHIP PARKS AND RECREATION

### Spring 2018 Archery Programs



Call 248-651-7810 for more information. For registration go to our website at [www.oaklandtownship.org](http://www.oaklandtownship.org).

All classes held at Marsh View Park Archery Range, 3100 E. Clarkston Rd., Oakland, MI 48363.

Outdoor range. Rain or shine we shoot! **No crossbows or broadheads.**

#### ***Easter Egg Archery Shoot - Family Ages 6 to Adult***

***Saturday, March 31, 2018 4 sessions!***

***Noon - 12:30pm, 12:30 - 1:00pm, 1:00 - 1:30pm, 1:30 - 2:00pm***



*Hop on by the range and enjoy an afternoon of archery with an Easter theme. Fun for the whole family! Try your skill shooting at a target of Easter eggs filled with vouchers for prizes such as an archery t-shirt, candy, an *Introductory to Archery* class (value \$15), *Beginning Archery* program (value \$45), and more! Each session is one-half hour in length. No experience necessary. Receive instruction and win prizes. All equipment provided. You can also reserve your spot and sign up for our spring *Beginning Archery* classes right there at the range!*

**Residents: \$5 Non-residents: \$7 Register by: March 23**

#### ***Beginning Archery - Ages 8 to Adult***

***Fridays, April 20 - May 11, 2018 6:00 - 7:30pm Session 1 (4 week session)***

**Register by: April 13**

***Fridays, May 18 - June 15, 2018 6:00 - 7:30pm Session 2 (4 week session)***

**Register by: May 11 (no class May 25)**

***Saturdays, April 21 - May 19, 2018 9:00 - 10:00am (5 week session)***

**Register by: April 13**

Looking for something new and fun to try on a beautiful spring Friday evening or Saturday morning? This fun class is for you and your family! Our instructors will cover safety, equipment and basic fundamentals of shooting. All equipment provided.

**Registration information on page 18.**

**Residents: \$60 Non-Resident fee: \$77**

#### ***Next Step Archery - Ages 8 to Adult***

***Saturdays, April 14 - May 19, 2018 10:00 - 11:00am Register by: April 6***

This program is for archers who have taken *Beginning Archery* or archers with experience. Focus on improving your archery form and accuracy. Equipment provided or may use your own. 6 week program.

**Residents: \$60 Non-Resident fee: \$77**

#### ***Open Range Shoot - Ages 8 to Adult***

***Saturdays, April 14 - November 24, 2018 11:00am - 3:00pm***

Drop-in opportunity to practice archery skills! Prior archery experience necessary. No instruction provided. Monitored by a safety officer. Bring your own equipment or use ours on first-come, first-serve basis. Every Saturday including holidays!



***Children between 8 and 17 years of age must be accompanied by an adult.***

**FREE to the public. DROP-IN. NO REGISTRATION REQUIRED.**

## OAKLAND TOWNSHIP PARKS AND RECREATION

### Spring 2018 Archery Programs cont'd



No crossbows or broadheads.

#### ***Introduction to Archery - All Ages (Ages 8 - Adult)***

This is a "Taste of Archery" class. This class will give all participants a brief introduction to target archery using a compound bow. All equipment provided. Participants can choose from one of the following classes. If you love it, sign up for one of our beginning programs!

***Saturday, April 14, 2018 3:00 - 4:00pm***

If you enjoy this course sign up for Beginning Archery programs on Saturdays, April 21 - May 19, 2018

***Saturday, May 12, 2018 3:00 - 4:00pm***

If you enjoy this course sign up for Beginning Archery programs on Fridays, May 18 - June 15, 2018



**Residents: \$15 Non-residents: \$20 per person**

**Register at least one week in advance**

Registration information on page 18.

#### ***Cinco de Mayo Shoot Ages 8 - Adult***

***Saturday, May 5, 2018 3:30 - 4:30pm***

Nothing says fiesta like a piñata! Come down to the Marsh View Park Archery Range and celebrate Cinco de Mayo in style by shooting at archery themed piñatas filled with goodies! No experience necessary. Receive instruction and win prizes. All equipment provided.



**Residents: \$5 Non-resident: \$7 Register by April 27**

#### ***Hunger Games - Group Events (Ages 8+)***

***Saturday, May 19, 2018 3:30 - 5:30pm***

Learn the survival skills you need to put the odds in your favor. Learn to make cordage (rope) from plant fibers, then learn to make six survival knots. Learn about wild edibles, useful plants, plants to avoid, and how to identify animal tracks and scat. Learn archery and how to execute a perfect shot to harvest an animal humanely. Reserve the range for Hunger Games scout badge workshops or private events. Contact the Parks and Recreation office at 248-651-7810 for pricing, reservations and to confirm instructor availability. Two hour session. All equipment provided.



**Register by May 11**

#### ***Fifty and Older Archery***

***Saturdays, June 2 - June 23, 2018 10:00 - 11:00am***

Archery may not come to mind when you think of senior-friendly sports, but archery provides a variety of health benefits for seniors. One of the most notable is that it improves one's balance. Keeping still while aiming and shooting the arrow requires balance and strengthens your core and upper body muscles. Learn the fundamentals of archery while you review equipment, learn about safety, learn basic shooting skills & have fun! A perfect foundation for training to participate in the Michigan Senior Olympics! All equipment provided. 4 week program.



**Rochester, Rochester Hills or Oakland Township Resident Seniors: \$40; Non-residents: \$50**

**Register by May 25**

## Registration Information

**Oakland Township** resident registration starts NOW!

*(This is for residents living within the Oakland Township boundary.)*

Non-Resident registration begins one week prior to the program registration deadline date.

*Programs fill-up quickly so please contact us early!*



### Registration Options:

**1. Fill out the form below, print & complete a waiver for each participant, and register by mail, or drop in the drop-box at Township Hall after hours.**

Make checks payable to "Charter Township of Oakland" and mail with registration form and signed waiver for each participant to:

*Charter Township of Oakland  
4393 Collins Rd., Rochester, MI 48306*

**2. Visit us at our office location and register in person.**

Credit cards (MasterCard, American Express, or Discover) accepted in person only. **(\$2.95 fee)**

Cash or check

*Paint Creek Cider Mill Bldg. (2nd Floor)  
4480 Orion Rd., Rochester, MI 48306*

Office Hours:

Monday - Friday 8am - 4:30pm

Waivers are available to print from the park pages at <http://bit.ly/OTParkPrograms>

### Refund policy:

Registrants will receive a full refund for programs cancelled by Oakland Township Parks and Recreation. Registrants withdrawing more than 4 business days prior to the program start date will receive a refund, less a \$5.00 administration fee. No refunds will be made if withdrawing less than 4 business days from program start date. All registrants wishing to withdraw, must do so during regular business hours Monday-Friday, 8am-4:30pm in person at the Paint Creek Cider Mill, 4480 Orion Rd., or by phone at 248-651-7810.

Visit [www.oaklandtownship.org](http://www.oaklandtownship.org) for complete program information and other Park and Recreation information, permits, and ordinances.

*Mail at least two weeks before program date!*

Adult's Name: \_\_\_\_\_

Address: \_\_\_\_\_

City/Zip: \_\_\_\_\_ Emergency phone: \_\_\_\_\_

Home Phone: \_\_\_\_\_ Cell Phone: \_\_\_\_\_

E Mail Address: \_\_\_\_\_

Resident of (circle one): Oakland Twp. Rochester Rochester Hills Other

Enrollee's Name: \_\_\_\_\_ Age (if child): \_\_\_\_\_

Program Name: \_\_\_\_\_ Date and Time: \_\_\_\_\_

Program Name: \_\_\_\_\_ Date and Time: \_\_\_\_\_

Amount Due: \_\_\_\_\_

**REGISTER NOW!**

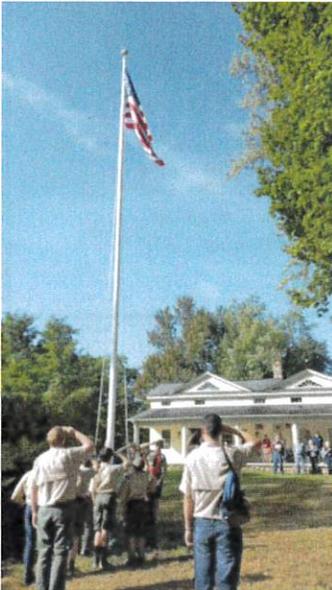
# CRANBERRY LAKE FARM HISTORIC DISTRICT

*A community historical center - work in progress for you!*

**For more information contact Historic District Commission office 248-608-6807**



The Historic District Commission would like to invite you out to the Farm in the next year for local square dances, beekeeping programs, field games, music, and Down on the Farm day events, plus more! We will also be offering our Cooking, Crafts, and Culture programs in February with the History of Romance through the Ages. Please check the website for details at [www.oaklandtownship.org](http://www.oaklandtownship.org) and also the Oakland Township Historical Society website [www.oaklandtownshiphistoricalsociety.org](http://www.oaklandtownshiphistoricalsociety.org)



**Ramblings from the Past - Historical Progress Report by David A. Phillips, Chairman:** We have much to celebrate in Oakland Township at Cranberry Lake Farm! The apple orchard fence restoration project has returned the farm to its former glory and it is a WOW factor. The rough sawn oak is native hardwood from northern Michigan. The Commissioners restored the fence to enclose the apple orchard and to recreate the fencing from the 1940s era. A variety of 25 apple trees were planted and enhanced by an Eagle Scout project. The Scout, Jimmy Stukenborg, built and installed tree caging for protection from the deer so the young fruit trees can mature. Another significant improvement was the installation of a 30' fiberglass Flagpole as a replacement of the original that stood on the same footprint during the ownership time period of former Congressman Howard Aldridge Coffin.





**Winter 2018 Stewardship Talks**

Join us for winter talks about ecology and natural area stewardship. This year we will learn about steps you can take in your yard to enhance habitat for butterflies and bees, and the benefits of capturing and using rainwater.

**Ecology and Conservation of Metro-Detroit's Bees:  
Protecting Wild Pollinators in Your Own Backyard.**

*Caleb Wilson, Graduate Student, Oakland University  
Thursday, January 25, 6:30 pm at the Paint Creek Cider Mill*

Did you know that there are over 4,000 species of bees in the U.S., at least 450 of which are native to Michigan? Caleb Wilson will explore the fascinating world of wild bee species, debunking common myths and explaining our current understanding of recent, rapid bee population declines. His research focuses on understanding how the local environment at farms and community gardens impacts wild bee communities. Caleb will share how his research into the bees of the metro Detroit area can help us better understand and protect pollinators in our own back yards.



*Bombus impatiens on Allium flower,  
By Caleb Wilson.*

Caleb Wilson is a Master's student in Biology at Oakland. He began his research on urban bees while working toward a BS in Environmental Sciences at the University of Iowa. Caleb is an avid gardener and conservationist, working and volunteering in Japanese gardens, prairie restorations, student farms, and native plant gardens.

**Water as a Resource in Your Landscape**

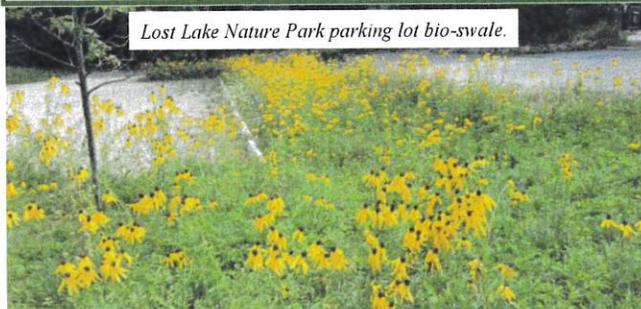
*Matt Demmon, Professional in Ecological Restoration and Native Landscaping, PlantWise LLC*

*Thursday, February 8, 6:30 pm at the  
Paint Creek Cider Mill*

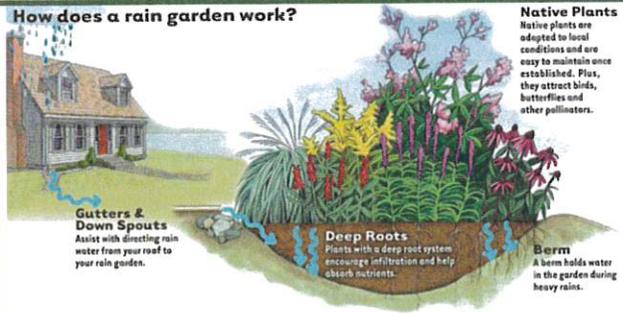
In the past, storm water has been viewed as something to be disposed of as quickly as possible. This viewpoint has been changing significantly in recent years. Matt Demmon from PlantWise, LLC, an Ann Arbor based ecological restoration and native landscaping company, will share from his 10 years of experience with rain gardens, rain barrels, green roofs, detention basins, and more. Learn about the aesthetic, ecological, and wildlife benefits realized by slowing down and capturing water in your landscape.



*Functional rain garden,  
By Matt Demmon, CNSP*



*Lost Lake Nature Park parking lot bio-swale.*



# Oakland Township Parks Natural Areas

# Stewardship



## Controlled Fire: Why We Use Prescribed Burns to Manage Natural Areas

*Ben VanderWeide, Natural Areas Stewardship Manager, Oakland Township Parks and Recreation*

*Thursday, February 22, 6:30 pm at the Paint Creek Cider Mill*

Regular prescribed fire benefits many of our forests, meadows, and wetlands. Learn more about reasons for using controlled fire in our natural areas, preparations for controlled fire, and how a controlled fire crew conducts a burn. We will also review the Oakland Township parks scheduled for controlled fire in 2018.

## Volunteer Fire Crew Training

*Saturday, February 24, (9:00 am to 2:30 pm) at the Paint Creek Cider Mill*

If you are interested in volunteering with our prescribed fire crew, join us for this training workshop. We will cover reasons for using prescribed fire, preparations for conducting a fire, necessary tools, roles of each burn crew member, and ignition patterns. Weather permitting, we will do a small demonstration burn after lunch. New crew members are required to attend; past volunteers are encouraged to attend as a refresher. Snacks provided, but please bring your own lunch. **RSVP required** to [bvanderweide@oaklandtownship.org](mailto:bvanderweide@oaklandtownship.org) or 248-651-7810 ext. 401 by Thursday, February 22.



*Paint Creek Heritage Area - Wet Prairie. From left, Prescribed fire in process, By Sue Greenlee; Burn Crew Members Dr. Ben VanderWeide, Burn Crew Member, Commissioner Dan Simon, Jim Lloyd, By Sue Greenlee; Flowers in bloom after prescribed fire.*

## Spring 2018 Controlled Burns in Oakland Township Parks

Oakland Township Parks and Recreation will conduct prescribed burns in spring 2018 between late February and mid-May at **Bear Creek Nature Park, Charles Ilesley Park, Cranberry Lake Park, Draper Twin Lake Park, Lost Lake Nature Park, Marsh View Park, and natural areas along the Paint Creek Trail.**

Historically, fire occurred regularly in natural communities of southeast Michigan. Our prairies, oak savannas, oak woodlands, and even some wetlands are not only adapted to fire, but require fire for their continued existence. We use prescribed burns to help restore ecological function to these natural communities.

Prescribed burns are conducted by a trained fire crew and done with permission from the local fire department. Although burns create smoke, we work to minimize the amount of smoke produced and limit public exposure to the smoke. We consult the weather forecast in the morning before making the decision to burn, so we cannot schedule prescribed burns for a specific day.



You can find more information about controlled burns at [oaklandnaturalareas.com/prescribed-fire](http://oaklandnaturalareas.com/prescribed-fire).



### Natural Areas Stewardship Events

Please come out and join us for one of these events! Updated information and any last minute changes to these events can be found on our Natural Areas Notebook website at [oaklandnaturalareas.com](http://oaklandnaturalareas.com).

#### Help Wildlife! Join Our Annual Garlic Mustard Pulls

Garlic mustard and dame's rocket push out the native plants that our wildlife need. We need your help to remove these invasive plants from our parks! Pulls last from 9 am to 12 pm, but will be cancelled if the weather is bad. It's easy work and we provide refreshments. All volunteers must sign a waiver (with minor's waiver signed by a guardian), and minors under 14 must also be accompanied by a guardian.

**May 3 and 10**

Bear Creek Nature Park, 740 W. Snell Rd.

**May 17**

Blue Heron Environmental Area,  
3320 N. Rochester Rd.

**May 24**

Paint Creek Trail, meet at Paint Creek Cider Mill,  
4480 Orion Rd.

#### Weekly Bird Walks

Join our friendly birders every Wednesday from January to May. We want to document the bird species using natural areas in our parks so that we can work to improve their habitat. Walks will start at 8:30 am in January, February, and March, and 8 am in April and May. Extra binoculars are available.

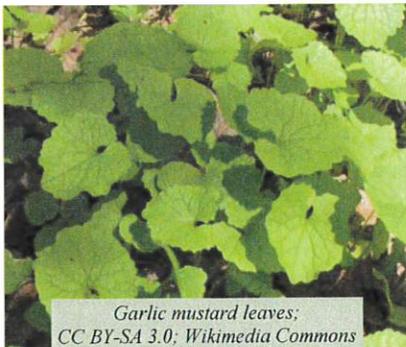
1<sup>st</sup> Wednesday of month –  
Bear Creek Nature Park

2<sup>nd</sup> Wednesday of month –  
Cranberry Lake Park

3<sup>rd</sup> Wednesday of month –  
Charles Ilsley Park

4<sup>th</sup> Wednesday of month –  
Draper Twin Lake Park

5<sup>th</sup> Wednesday of January & May –  
Lost Lake Nature Park



Garlic mustard leaves;  
CC BY-SA 3.0; Wikimedia Commons



Garlic mustard flowers;  
CC-BY-SA-3.0; Wikimedia Commons



Dame's Rocket flowers;  
CC BY-SA 2.0; Wikimedia Commons

#### Watch the Woodcock Dance: An Earth Day Observation

Free - drop in!

Alex Kriebel, Stewardship Specialist, Oakland Township Parks and Recreation  
Friday, April 20, 7:30 pm at Cranberry Lake Park south parking lot



We'll savor s'mores and watch "timberdoodles" do their cool aerial mating dance! While we wait for sunset, we'll enjoy snacks, a spring evening, and some cool facts about woodcock biology. As the light fades we will watch with hushed anticipation for this avian spectacle. Bring a comfortable lawn chair, binoculars, and layers to add as the night cools down.

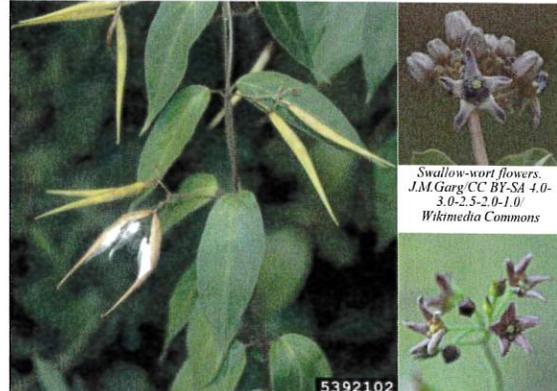
Woodcock image credit: <http://t691.photobucket.com/albums/vv273/staceym13/Paintings/woodcockimage.jpg>



### One Terrible Twining Invasive: Swallow-Wort

Black Swallow-wort, *Cynanchum louiseae*, and Pale Swallow-wort, *Cynanchum rossicum*, are invasive vining plants. Although they belong to the milkweed family, they host few insects and provide little benefit for native wildlife. In fact, these European invaders push out native species and can be toxic for dogs, horses and young Monarch caterpillars. Starting in May and June, Swallow-wort has shiny, dark green leaves. The vines can grow up to seven feet in length, producing tiny star-shaped purple or pink flowers. Like its milkweed relatives, Swallow-wort produces pods in mid-summer that open to release seeds with fluffy parachutes. However, Swallow-wort does not make a milky sap. Swallow-wort patches turn into single-species mats over a few years if not controlled. If you see swallow-wort in an Oakland Township park, please let us know. If you find Swallow-wort on your property, contact a professional immediately to begin a control program. To learn more visit:

<https://mnfi.anr.msu.edu/invasive-species/Swallow-wortBCP.pdf>



Fruits: *Cynanchum rossicum*. John Randall.  
© 2017 CC BY-NC 3.0. bugwood.org

Swallow-wort flowers. Rob  
Routledge CC BY 3.0/  
Wikimedia Commons

### Native Spotlight: Squaw Root, A Pine-Cone Looking Parasite



Squaw Root, *Conopholis americana*.  
Photo credit: Alex Kriebel

This curious looking plant is a native, parasitic plant known as Squaw Root, *Conopholis americana*. This plant does not have chlorophyll and therefore can't make its own food. Squaw Root uses special roots called haustoria to obtain nutrition from the roots of oak trees. Since it does not need light to obtain food, Squaw Root lives primarily underground and can only be detected from the surface when its cone-shaped inflorescence emerges in the summer. After pollination, the inflorescence produces seeds and dies back. Look for this unique plant popping up in late spring underneath canopies of mature oak forest at Bear Creek Nature Park.

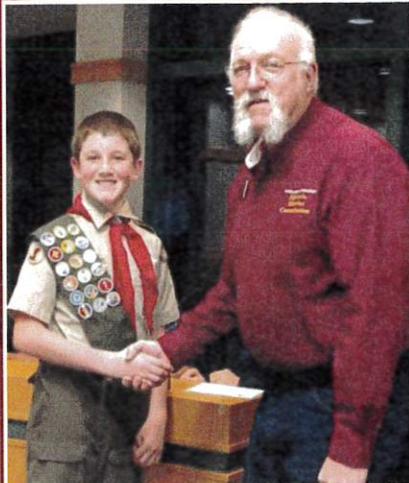
### Natural Areas Information at your Fingertips!



Have you checked out our blog recently? The **Natural Areas Notebook** has the latest about what's happening in the parks, news about the latest stewardship work, and up-to-date information about stewardship events. This beautiful picture of the hickory lane at Cranberry Lake Park was featured in one of Cam Mannino's recent posts. Find this and much more at [oaklandnaturalareas.com](http://oaklandnaturalareas.com).



Cranberry Lake Park, hickory lane  
Photo by Cam Mannino



Eagle Scout candidate Jimmy Stukenborg and HDC Chairman David A. Phillips

## ***Eagle Scout Candidate Helps out at Cranberry Lake Farm***

The Historic District Commission extends their thanks to Eagle Scout candidate Jimmy Stukenborg for installing twenty-five protective cages around the young apple trees recently planted during the Cranberry Lake Farm apple orchard restoration. Jimmy also wrapped each tree trunk and placed mulch over the roots for winter protection. Thanks for your hard work Jimmy!



## ***Six Rivers Land Conservancy News***

*We conserve, sustain and connect natural areas, lands and water that make the places we live special.*

Do you have a classic car? Love the southeastern Michigan landscape? Consider joining us in 2018 for our **2<sup>nd</sup> Annual Country Drive Car Tour!** This leisurely, Sunday drive is taking place on May 20<sup>th</sup>, and we'll be providing an all-new route for our participants. We will once again be starting the day at MI Concourse with breakfast and a parade lap around their performance track. Following that, participants will take a scenic journey over paved, two-lane roads, ending with an afterglow event at Spicer Orchards. Visit us online at [www.sixriversrlc.org](http://www.sixriversrlc.org) to learn more about this and other events!



This past summer Six Rivers helped Waste Management with **nest box monitoring** at their Orion Township landfill site, Eagle Valley. Weekly, staff and interns monitored wood duck and blue bird boxes as well as bat houses at the natural areas surrounding the landfill. Along with logging and observing the native occupants, nonnative species such as house sparrows were removed. Certified by the Wildlife Habitat Council (WHC), Waste Management maintains suitable habitat for wildlife at many sites in their network. Six Rivers will continue the monitoring program next summer. For information on this program and other internship opportunities, contact Danielle Devlin at [ddevlin@sixriversrlc.org](mailto:ddevlin@sixriversrlc.org) or 248.601.2816

Six Rivers Land Conservancy, 4480 Orion Road, P.O. Box 80902, Rochester, MI 48308-0902  
248-601-2816 - [www.sixriversrlc.org](http://www.sixriversrlc.org) - [info@sixriversrlc.org](mailto:info@sixriversrlc.org)

**Wednesday, March 14**



**Detroit Beer History**

Offsite program at Home Grown Brewing Company  
28 N Washington Street, Oxford, MI



**Wednesday, April 4**

**Sheepshank Sam**

Old Time Lumberjack and Teller of Tall Tales  
Cranberry Lake Farm, 388 W Predmore Rd.

**May**

**Date to be determined**

**Joint Field Trip** with Rochester Avon Historical Society to Belle Isle Sites

**Saturday and Sunday  
May 19 & 20**

**Greater Rochester Heritage Days and  
OTHS Famous Perennial Plant Sale**

Rochester Municipal Park



**Wednesday, June 6**

**Annual Meeting and Potluck** --- Program to be announced

Cranberry Lake Farm, 388 W Predmore Rd.

*~For information about the Oakland Township Historical Society visit [www.oaklandtownshiphistoricalsociety.org](http://www.oaklandtownshiphistoricalsociety.org)~  
~For membership information contact Sue Fox at [othsmember@comcast.net](mailto:othsmember@comcast.net)~*



**Paint Creek Trail Closure** *(Continued from page 2)*

By Kristen Myers, Paint Creek Trail Manager

**\*2018 Paint Creek Trail Construction and Closure Alert\***

This bridge replacement project is being funded by a \$300,000 Michigan Natural Resources Trust Fund Grant, a \$300,000 Federal Transportation Alternatives Program grant, and a \$150,000 cash match from Oakland Township Parks and Recreation. After the bridge is replaced, the Paint Creek Trail is tentatively scheduled to be re-surfaced with crushed limestone from Rochester to Lake Orion with rolling closures. At this time, bridge construction is tentatively planned to start around June 1, 2018 and both projects will tentatively be completed by September 30, 2018. This schedule is tentative, and subject to change. You can get regular updates on the construction and trail closures the following ways:

- \* Paint Creek Trail Facebook Page: <https://www.facebook.com/paintcreektrail/>
- \* Paint Creek Trail Twitter Page: <https://twitter.com/paintcreektrail>
- \* Paint Creek Trail Website Page: <http://paintcreektrail.org/wordpress/2018-trail-construction-updates>
- \* Email: [manager@paintcreektrail.org](mailto:manager@paintcreektrail.org)
- \* Phone: 248-651-9260





## The Stars At Night...Are Big and Bright!

By: Sue M. Neal, Executive Director,  
Dinosaur Hill Nature Preserve

Winter is upon us and many of us will be huddled indoors around the fireplace. I can give you one really good reason to head outside on the coldest winter evening though. Did you realize that if you brave the cold you might well be treated to some of the best star gazing of the entire season? Before we get in to the whys and hows...let's get ready to head outside. Don't forget your warm coat, your hat, your mittens and scarf and maybe a thermos of hot tea or hot cocoa and a good pair of binoculars. Now find a good snowbank to stretch out on and look up into the sky.



Why are the winter skies actually the best skies for viewing stars? First off...it gets dark a whole lot earlier...which means you don't have to stay awake way past bedtime in order to view the stars. Consider December when the sun goes down around 5:00PM and twilight is over before 7:00 PM. This means that you can head out on an astronomical adventure right after dinner!

We all know that the air is drier in the winter right? Well, this lack of humidity also helps to improve visibility in the winter. Humidity in the air is in the form of water vapor...tiny little droplets of water. Water vapor reflects and refracts light and so this suspended moisture in the atmosphere can create a haze effect. Cold air cannot hold as much moisture as warm air. During the coldest winter nights the air can be extremely dry...which also means that the atmosphere is very clear and you will be able to get a fabulous view of the sky!



There is another factor at work though in making those winter skies so amazing and it has to do with our location in the Universe. As you may know, our planet is located in the Milky Way...our home galaxy. We are situated on the far end of the Orion Spur...one arm of the galaxy that spirals out from the center of the Milky Way. During our summers here in Oakland Township the Earth is oriented such that when we look up at night we are facing the center of the Milky Way. The center of the galaxy is packed with stars...all creating light...all this light can make our skies a bit hazy looking in the summer which mutes our view of any individual star. In winter though, we look out toward the edge of our galaxy and into the void of deep space. This means we see fewer stars...but those we do see appear clearer and brighter because they have a lot less competition!

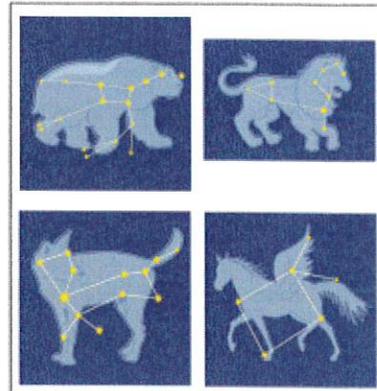


(Continued on page 27)

## The Stars At Night...Are Big and Bright!

(Continued from page 26)

This change in orientation also changes the stars that we see. This is why we can see different constellations in winter than we see in the summer. It is like a whole new astronomical adventure! In the winter evenings you will be able to see some of my personal favorites: Canis Major and the astrological signs of Gemini and Taurus to name a few. In the mornings you might spy Ursa Major or Virgo and Leo (the lion!).



Now you know why I asked you to bring your hat and coat and mittens (and scarf and ear warmers and...) but why did I ask you to pack your binoculars? Binoculars are my favorite way to introduce people to the fun and excitement of astronomy. Easy to find, simple to use and relatively inexpensive, binoculars are an awesome alternative to a telescope. You will be amazed at what you can see! Go out on one of our cold, crisp winter nights and simply view a full moon. Incredible! You will be able to easily view the craters of the moon and other neat features. You will also be able to explore our neighbors in the Orion Arm. In the winter, remember we look out into deep space so you will even be able to view another galaxy! The Andromeda is about 2 million light years away. This means that the light that we are seeing took 2 million years to reach earth...we are looking far, far into the past. And yet you can view all of this during the winter right here in Oakland Township...if you brave the cold.

If winter nights sometimes feel lonely, perhaps it is because we are staring out into the unknown world beyond the edge of our galaxy! Don't forget the hot cocoa and tea...it'll be worth the effort.



*"... During the coldest winter nights the air can be extremely dry... which also means that the atmosphere is very clear and you will be able to get a fabulous view of the sky! ..."*



Check out the night sky in the parks during late afternoon and evening programs at Lost Lake Nature Park (pages 7 & 10), during sled hill evening hours (page 5), or at Cranberry Lake Park's Owl program (page 14) or Woodcock program (page 22).

# Thank You To Our Volunteers!

Our outstanding park system just wouldn't be the same without the help of our many kind supporters!

Summer and Fall 2017 stewardship volunteers:

Daryl DeBano, Sue Ferko, Mark Isken, Alex Korb, Tom Korb, Cam Mannino, Dawn Sun, Walter Zechmeister, R. Stewart Robertson, Vinnie Morganti, Dan Simon, Jim Lloyd

Donations to Prairie Seed Purchase:

Maryann Whitman & Anne Bray

Nature Center specimen donations:

Barbara Schmidt, Colleen Barkham, Alice Tomboulion, Bill Jandeska

2017 Music in the Meadows stage flowers and Goodison Good Tyme mums generously donated by Piechnik's Garden Gate - Oakland Township

2017 Goodison Good Tyme volunteers:

Oak Arbor School

2018 Winter Carnival donation:

Hungry Howie's - Oakland Township



## Dogs In Township Parks Must be On a Leash and Under Control

A dog may well be man's – and woman's best friend, but off-leash dogs in public parks can pose problems to themselves or others. The leash law for the State of Michigan dictates that whenever dogs are not on their owner's property, they must be restrained with a leash. Oakland Township's Parks and Recreation regulations specifically state that pets must be on a leash and that the pet must be kept under control at all times.

***Keep your dog on a 6 foot long regular leash – not a retractable one!***

Retractable leashes can allow dogs to get far enough away from their humans that a situation can quickly turn dangerous. An off-leash dog or a dog on a retractable leash is often able to make uninvited contact with other dogs or people, potentially endangering your dog, other dogs, or people. Your dog may be the one who gets injured. The state and local regulations are in place to protect everyone – it is in your best interest to obey them!

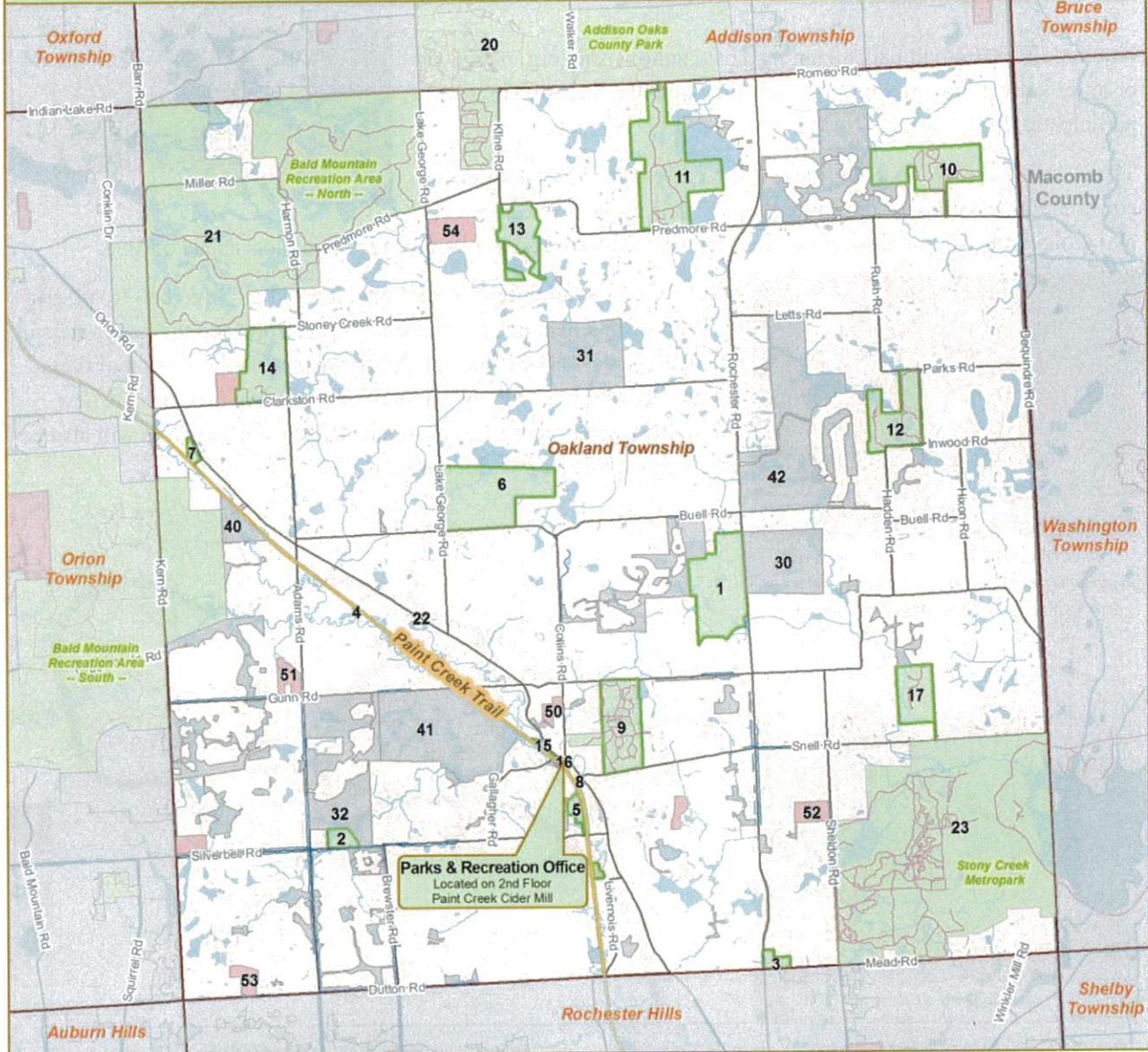


Many species of viewable wildlife decline along the trail edges when dogs explore the brush. Off-leash dogs prevent turkey and other birds from ground-nesting, may discover and harm fawns (a natural instinct), and push mammals further into the woodlands, thus decreasing the park experience for all visitors.

Dog excrement is both unpleasant and can spread disease to humans and wildlife. Clean-up bag dispensers are located at several park entries and along the Paint Creek Trail for your use.



# Parks and Recreation Opportunities in Oakland Township



## Oakland Township Parks and Recreation Facilities

### Conservation Parks

1. Blue Heron Environmental Area
2. Gallagher Creek Park
3. O'Connor Nature Park
4. Paint Creek Heritage Area - Fen
5. Paint Creek Heritage Area - Wet Prairie
6. Watershed Ridge Park

### Future Trail Connections

7. Paint Creek Junction Park
8. Mill Creek Crossing

### Community Parks & Recreation Facilities

9. Bear Creek Nature Park
10. Charles Ilsley Park
11. Cranberry Lake Park
12. Draper Twin Lake Park
13. Lost Lake Nature Park
14. Marsh View Park
15. Mill Race Trail
16. Paint Creek Cider Mill (Parks & Rec Office)
17. Stony Creek Ravine Nature Park

## Other Parks and Recreation Facilities

### Other Public Parks

20. Addison Oaks County Park
21. Bald Mountain State Recreation Area
22. Paint Creek Trail
23. Stony Creek Metropark

### Other Public Recreation Facilities

30. Blackheath Golf Club
31. The Myth Golf and Banquet
32. Westwynd Golf Course

### Private Recreation Facilities

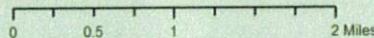
40. Royal Oak Archers
41. The Wyndgate Golf Course
42. Twin Lakes Golf and Swim Club

### Public Schools

50. Baldwin Elementary School
51. Delta Kelly Elementary School
52. Hugger Elementary School
53. Musson Elementary School
54. Oakview Middle School

### Key to Features:

- Municipal Boundary
- Oakland Township Parks
- Lakes & Ponds
- Park Path
- Private Recreation
- ~ Major Roads
- Streams & Rivers
- Safety/Side Path
- Public Recreation
- Public School



Last Update: 08/15/2018

# Oakland Township Parks

Get outdoors and explore our winter wonderland!

Bundle up and head out to one of your favorite parks this season. These natural jewels provide great opportunities for you to get off the couch and burn some calories this winter!! Best of all, they're just minutes away, easy to find and FREE!! In addition to enhancing your cardiovascular workouts, winter is without a doubt the best time to observe tracks and animal signs in the snow; a pastime that changes with each new snowfall. One excellent book to help in that pursuit is *Tracking and The Art of Seeing* by Paul Rezendes.



**Marsh View Park** — Come enjoy our ice skating rink! (*Details on page 4.*) Don't miss January's Ice Skating Clinics led by National Medalist Tracey Daniels (*page 9*). Next comes Winter Carnival on Saturday, January 27 (*see page 3*). In April we shift gears for the return of archery and soccer seasons once again (*pages 11, 16, & 17*). Call 248-651-4440, ext. 289, for ice rink conditions.



**Lost Lake Nature Park** — Home to a great sled hill (*page 5*), this 58-acre park is located at 846 Lost Lake Trail on the south side of Predmore between Kline and Rochester Roads. Wild turkey like this park for winter roosting — try spotting them while you're at the park for one of our programs (*pages 6-8*)! Welcome the wonders of spring with Yoga & Kayaking (*See pages 11-13*). Note: Dogs are not permitted in the sledding area or on the hill. Call 248-651-4440, ext. 299, for sled hill conditions.

**Cranberry Lake Park** — This 213-acre park is just right for cross-country skiing with gentle hills, meadows, red maple swamps and thickets full of birds and rabbits. Join us as we look for eastern bluebirds and soaring red-tailed hawks (*page 22*). Parking and a portable toilet are located at 388 West Predmore Road. Parking is also an option at the Romeo Road entry where you can pick up the Addison Connector Trail. Join us for programs (*pages 14 & 22*) at this park. The historic farmstead is open to the public during scheduled programs and events (*pages 19 & 25*).



**Charles Ilsley Park** — 1479 East Predmore Road. The rolling hills at this 120-acre park provide an ideal setting for quiet cross-country skiing. Enjoy the solitude of the wide-open fields and picturesque fence-row oaks while the prairie plants sleep below the snow. Look for coyote tracks or a flock of turkey at the woods' edge! Parking is available on the north side of Predmore, between Rush and Dequindre Roads. One of several parks managed with prescribed burns (*page 21*).

**Draper Twin Lake Park** — This 90-acre park offers a level trail system in the east meadow area - great for a brisk cross-country ski or snowshoe workout! Park near the maintenance garage at 1181 Inwood. If you prefer a more tranquil outing, try some tracking or nature photography along the lake trail, accessed just northeast of the Hadden and Inwood Roads intersection at 1015 Inwood Road. In the spring join us for Free Fishing Day on June 10th (*See page 15*).



Be safe, stay warm and have fun!!

If you have questions or would like more information, call the Oakland Township Parks and Recreation Office at 248-651-7810.

-Please note that all areas are unsupervised and users assume all risks and liabilities.-

Parks and Recreation Commission  
Charter Township of Oakland  
4393 Collins Road  
Rochester, MI 48306-1670

Phone: (248) 651-7810  
Fax: (248) 601-0106  
www.oaklandtownship.org

PRESORTED  
STANDARD  
US POSTAGE PAID  
ROCHESTER, MI  
PERMIT NO 73

\*\*\*ECR WSS\*\*\*

POSTAL CUSTOMER



*Seal designed by  
Richard Krupp*

### Commission Meetings

The Parks & Recreation Commission meets at 7 pm on the second Wednesday of every month in the Township Hall Boardroom.

### Office Hours and Location

Park permits, maps and descriptions are available at the Parks and Recreation Department office, located on the second floor of the Paint Creek Cider Mill, 4480 Orion Road. Normal office hours are from 8am to 4:30pm Monday through Friday.

### Parks and Recreation Commissioners

Colin Choi, Chairman  
Hank Van Agen, Vice Chairperson  
Craig Blust, Treasurer  
Emily Barkham, Secretary  
Dan Bukowski, Commissioner  
Cathy Rooney, Commissioner  
Dan Simon, Commissioner

### Oakland Township Parks and Recreation Staff

Parks and Recreation Director	Melinda Milos-Dale
Administrative Assistant	Carol Kasprzak
Clerical Assistant	Deb Gallo
Recreation Manager	Becky McLogan
Recreation Program Assistant	Mary Black
Maintenance Foreman	Doug Caruso
Maintenance Technician	Jeff Johnson
Natural Areas Stewardship Manager	Dr. Ben VanderWeide
Stewardship Specialist	Alex Kriebel
Maintenance and Recreation Staff	Clif Selent, Robert Zbytowski, Alex Dziadzio



Oakland Township Park Rules are enforced by the Oakland County Sheriff's Office.

**FOR EMERGENCIES CALL 911**

If you have information or questions concerning a reported crime or accident, call the substation at 248-652-4617 Monday-Friday, 8 am-4 pm. All other calls please use dispatch at 248-858-4950.

# Charter Township of Oakland Parks and Recreation Commission



## ACCESSIBILITY WORKSHOP FOR PROPOSED OAKLAND TOWNSHIP RECREATION IMPROVEMENTS

Oakland Township Parks and Recreation is presenting an Accessibility Workshop to receive public comments and input from disability advocates and individuals on two Michigan Natural Resources Trust Fund grant applications. The purpose of the workshop is to receive comments and suggestions regarding accessibility for individuals with disabilities.

**The Accessibility Workshop will be held Monday, September 10, 2018 from 6:30-8:30 pm at the Paint Creek Cider Mill, 4480 Orion Road, Rochester, Michigan, 48306. Project engineers will be present to discuss the projects and answer any questions regarding the designs.**

### **IRON BELLE – PAINT CREEK TRAIL NORTHERN TRAILHEAD – Grant Application TF18-0098**

The project site is at Oakland Township's Paint Creek Junction Park; 2210 and 2280 Orion Rd, Oakland, MI 48363, between Clarkston and Adams Roads. The project will provide access, parking and rest facilities for Paint Creek Trail users including pedestrians, bicyclists, skiers, and equestrians on the 1.5-mile section between Adams Road and Clarkston Road. This project will include a universally accessible parking lot, access trail, two unisex universally accessible vault toilets, an accessible well for potable water and a picnic area.

### **MARSH VIEW PARK RESTROOM – Grant Application TF18-0099**

The project site is located at Oakland Township's Marsh View Park, 3100 E. Clarkston Road, Oakland, MI 48363. This project will provide restroom facilities for increasing number of Marsh View Park visitors. Portable toilets will be replaced with two environmentally sustainable and universally accessible flushable vault toilets. These all-season restrooms will support the increasing use of this park's soccer fields, basketball court, picnic area, walking paths and Olympic archery range during warmer seasons as well as an ice skating rink during the winter.

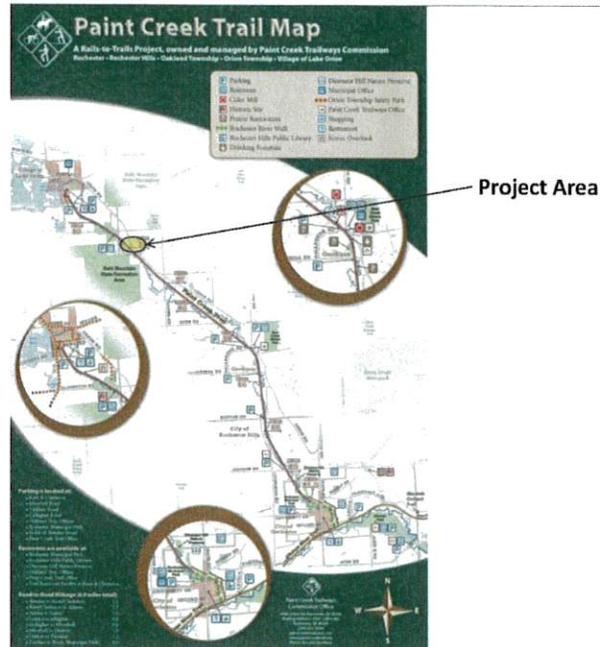
The grant applications are available for review on the Township website, [www.oaklandtownship.org](http://www.oaklandtownship.org), and at the Parks and Recreation Offices at the Paint Creek Cider Mill, 4480 Orion Road, Rochester, MI 48306. We look forward to your participation and input. If you are planning to attend the workshop and require any special assistance, please notify the Parks and Recreation Director at 248-651-7810 as soon as possible. If you cannot attend the workshop but would like to provide input, written comments can be emailed to [mmdale@oaklandtownship.org](mailto:mmdale@oaklandtownship.org) or mailed to "Oakland Township 2018 MNRTF Grant Accessibility Workshop", 4393 Collins Road, Rochester, MI 48306.

Mailing: 4393 Collins Road, Rochester, Michigan, 48306-1670

Office: 4480 Orion Road, Rochester, Michigan 48306-1670

Telephone: (248) 651-7810 Fax: (248) 601-0106

[www.oaklandtownship.org](http://www.oaklandtownship.org)



Iron Belle – Paint Creek Trail Northern Trailhead Location

## MEDIA ALERT FOR IMMEDIATE RELEASE August 23, 2018

*From:* Mindy Milos-Dale, *Director,*  
*Oakland Township Parks and Recreation*  
248-431-9950 or [mmdale@oaklandtownship.org](mailto:mmdale@oaklandtownship.org)

Kristen Myers, Trail Manager  
*Paint Creek Trail*  
248-651-9260 or [manager@paintcreektrail.org](mailto:manager@paintcreektrail.org)

*Contacts:* Colin Choi, Chairperson,  
*Oakland Township Parks and Recreation Commission*  
586-431-7961 or [cchoi@oaklandtownship.org](mailto:cchoi@oaklandtownship.org)

David Becker, Chairperson,  
*Paint Creek Trailways Commission*  
[dbecker@oakland.edu](mailto:dbecker@oakland.edu)

### ACCESSIBILITY WORKSHOP FOR PROPOSED RECREATION IMPROVEMENTS in OAKLAND TOWNSHIP

Oakland Township Parks and Recreation is presenting an Accessibility Workshop to receive comments and input from the general public and disability advocates on two Michigan Natural Resources Trust Fund grant applications. **The Accessibility Workshop will be held Monday, September 10, 2018 from 6:30-8:30 pm at the Paint Creek Cider Mill, 4480 Orion Road, Rochester, Michigan, 48306.** Project engineers will be present to discuss the projects and answer any questions regarding the designs.



Paint Creek Trail Northern Trailhead

“We would love to get feedback from a variety of participants to ensure our projects will be appropriate and accessible for everyone,” said Parks Director Mindy Milos-Dale.

**IRON BELLE – PAINT CREEK TRAIL NORTHERN TRAILHEAD – Grant Application TF18-0098**

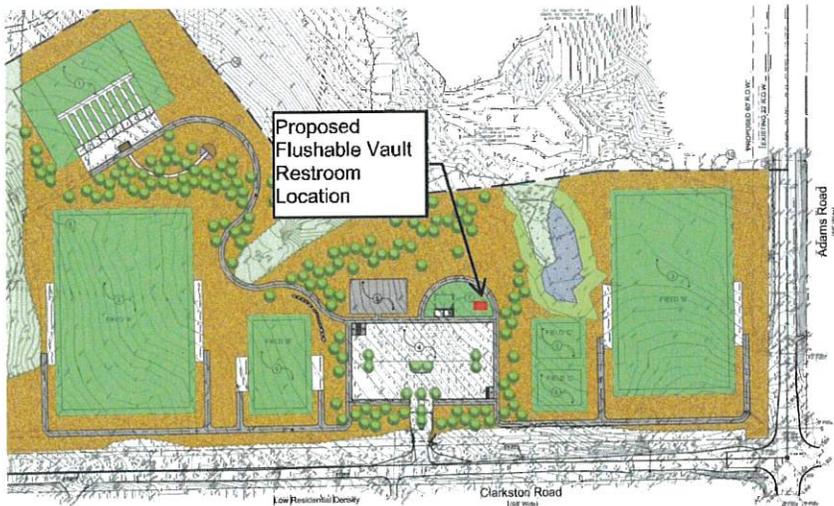
This project site is at Oakland Township’s Paint Creek Junction Park; 2210 and 2280 Orion Rd, Oakland, MI 48363, between Clarkston and Adams Roads.

Oakland Township Parks and Recreation and the Paint Creek Trailways Commission have been discussing the need for a parking facility and rest area near the Adams Road crossing of the Paint Creek Trail. “We are very

excited about this project, and our partnership with Oakland Township Parks and Recreation. Additional parking and restroom facilities in this area have been listed in our Recreation Master Plan for over 20 years. While look forward to ideas and suggestions at our Accessibility Workshop from all participants, including the general public and disability advocates,” said Paint Creek Trail Manager Kristen Myers.

The addition of this trailhead will greatly improve accessibility in the only section of the Paint Creek Trail that lacks a parking lot and rest area. The project will provide Iron Belle and Paint Creek Trail pedestrians, bicyclists, skiers, and equestrians with a universally accessible parking lot, access trail, two unisex universally accessible vault toilets, an accessible well for potable water and a picnic area. Oakland Township owns the proposed project site, which is adjacent to the Paint Creek Trail, and has applied for a Michigan Natural Resources Trust Fund grant to help fund the construction.

**MARSH VIEW PARK RESTROOM – Grant Application TF18-0099**



The project site is located at Oakland Township’s Marsh View Park, 3100 E. Clarkston Road, Oakland, MI 48363. This project will replace portable toilets with two environmentally sustainable and universally accessible flushable vault toilets. These all-season restrooms will support the increasing use of this park.

Since the development of Marsh View Park’s recreation facilities in 2007, this park has become a regional recreation resource. During warm seasons the soccer fields are occupied by adult and youth soccer leagues and the 10-lane universally-accessible Olympic-level archery range is also occupied with

beginning, intermediate and Junior Olympic archery classes. In the winter an ice rink, installed on the basketball court, is open daily and ice skating lessons are offered. Colin Choi, Chairperson, Oakland Township Parks and Recreation Commission, explained “Based on resident feedback, the #1 park improvement that residents want to see is restrooms. Couple that with the growing demand for recreational activities at Marsh View Park and we felt the need to upgrade the restroom facilities to better accommodate all users of this park.”

Both grant applications are available for review on the Township website, [www.oaklandtownship.org](http://www.oaklandtownship.org), and at the Parks and Recreation Offices at the Paint Creek Cider Mill, 4480 Orion Road, Rochester, MI 48306.

If you are planning to attend the workshop and require any special assistance, please notify the Parks and Recreation Director at 248-651-7810 as soon as possible.

If you cannot attend the workshop but would like to provide input, written comments can be emailed before September 15, 2018 to [mmdale@oaklandtownship.org](mailto:mmdale@oaklandtownship.org) or mailed to “Oakland Township 2018 MNRTF Grant Accessibility Workshop”, 4393 Collins Road, Rochester, MI 48306.

Oakland Township Parks and Recreation - Paint Creek Trailways Commission  
Iron Belle – Paint Creek Trail Northern Trailhead Development  
MNRTF 2018 Grant Application TF18-0098  
Accessibility Workshop  
Disability Advocate Invitation List

Paralyzed Veterans of America  
46701 Commerce Center Drive  
Plymouth, MI 48170  
Mike Harris- Government Relations Director  
(248) 476-9000  
mharris@michiganpva.org

Disability Network of Oakland and Macomb  
1709 John R Road  
Troy, MI 48083  
Mark Bashaw- Community Resource Specialist  
(586) 268-4160 ext. 6606  
mebashaw@dnom.org

Leader Dogs for the Blind  
1039 Rochester Rd S  
Rochester Hills, MI 48307  
Rod Haneline- Chief Programs and Service Officer  
(248) 651-9011  
RHaneline@leaderdog.org

Older Person's Commission  
650 Letica Dr  
Rochester, MI 48307  
Renee Cortright- Executive Director  
(248) 656-1403 (main office)  
renee\_cortright@opcseniorcenter.org

Oakland County Parks Adaptive Recreation  
27725 Greenfield Rd  
Southfield, MI 48076  
Sandra Dorey- Recreation Supervisor Adaptive Recreation  
(248) 424-7081  
Adaptive@oakgov.com

**Area Agency on Aging**

(AAA 1-B Central Office (Oakland County))

**The Franklin**

**29100 Northwestern Hwy #400**

**Southfield, MI 48034**

**Michael Karson-Chief Executive Officer (direct dial 248-262-9200)**

**(800) 852-7795**

**mkarson@aaa1b.com**

**Orion Center**

**1335 Joslyn Road**

**Lake Orion, MI 48360**

**Aaron Whatley – Parks and Recreation Director**

**(248) 391-0304 x 3501**

**awhatley@oriontownship.org**

**Macomb Oakland Regional Center (MORC)**

**16200 19 Mile Rd.**

**Clinton Township , MI 48038**

**Carla Dean-Ogene**

**(586) 263-8700 (main office)**

**(586) 263-8715 (direct dial)**

**Carla.dean-ogene@morcinc.org**

**The Arc of Oakland County**

**Coventry Place**

**1641 West Big Beaver Rd**

**Troy, MI 48084**

**Thomas Kendziorski- Executive Director**

**(248) 816-1900**

**info@thearcoakland.org**

**Dutton Farm**

**2270 Dutton Rd**

**Rochester, MI 48306**

**Michele Smither- Chief Executive Officer**

**(248) 760-6081**

**michelesmither@att.net**

United Cerebral Palsy, Detroit  
23077 Greenfield Rd  
Suite 205  
Southfield, MI 48075  
Leslynn R Angel- President  
(248) 557-5070  
langel@ucpdetroit.org

Dinosaur Hill Nature Preserve  
333 North Hill Cir  
Rochester, MI 48307  
Sue Neal- Executive Director  
(248) 656-0999  
sue@dinosaurhill.org

Ascension Crittenton Hospital  
Community Health and Education  
1101 W University Drive  
Rochester, MI 48307  
Angie DelPup- Director, Community Health and Education  
248-652-5000  
Angela.delpup@ascension.org

Easter Seals Michigan  
2399 E Walton Blvd  
Auburn Hills, MI 48326  
Craig Sharum- Director, Communications and Outreach  
(248) 475-6400  
csharum@essmichigan.org

Rochester Community School District  
Special Education  
501 W University  
Rochester, MI 48307  
Anne Evans- Executive Director Special Education  
(248) 726-3195  
aevans@rochester.k12.mi.us

Lake Orion Community School District  
90 Pine Tree Road  
Lake Orion, Mich. 48362-2547  
Julie Gutman- Director of Special Education  
(248) 693-5430  
Julie.Gutman@lok12.org

Baldwin Elementary School  
4325 Bannister  
Rochester Hills, MI 48306  
Cathy Kochanski- Principal  
(248) 726-3200  
ckochanski@rochester.k12.mi.us

Delta Kelly Elementary School  
3880 Adams Rd  
Oakland, MI 48363  
Dr. Amanda McKay, Principal  
(248) 726-3500  
amckay@rochester.k12.mi.us

Musson Elementary School  
3500 Dutton Rd  
Rochester Hills, MI 48306  
Principal: Laura Walsh  
(248) 726-4200 (main office)  
248.726-4201 (direct)  
lwalsh@rochester.k12.mi.us

Oakview Middle School  
917 Lake George Rd  
Lake Orion, MI 48363  
Sarah Manzo, Principal  
(248) 693-0321  
Sarah.Manzo@lok12.org

CHARTER TOWNSHIP OF OAKLAND PARKS AND RECREATION COMMISSION  
ACCESSIBILITY WORKSHOP FOR PROPOSED IMPROVEMENTS

September 10, 2018

---

The September 10, 2018, Accessibility Workshop for Proposed Oakland Township Recreation Improvements was called to order at 6:40 p.m. in the main conference room of the Paint Creek Cider Mill.

PRESENT: Melinda Milos-Dale, Director  
Emily Barkham, PRC Commissioner  
Jeff Smith, Project Engineer, PEA, Inc.  
Ingrid Kliffel, Recording Secretary  
Rod Haneline on behalf of Leader Dogs for the Blind  
Roger and Earlene Steeley, residents who live near the Iron Belle –  
Paint Creek Trail Northern Trailhead  
Maureen Kijek on behalf of Dutton Farm  
Michelle Smither on behalf of Dutton Farm  
Kelly Zazekis, physical therapist with Rochester Community Schools  
Cathy Kochanski, principal, Baldwin Elementary School

**WELCOME AND INTRODUCTION**

Rod Haneline was present on behalf of Leader Dogs for the Blind.

Roger and Earlene Steeley are residents who live near the Iron Belle – Paint Creek Trail Northern Trailhead.

Maureen Kijek and Michelle Smither were present on behalf of Dutton Farm. They explained that Dutton Farm is a place where adults with disabilities, who have completed school, can go to build life skills and receive job training. Dutton Farm offers skill building, has a micro-enterprise opportunity, and offers supportive employment.

Kelly Zazekis is one of two physical therapists who work for the Rochester Community School District.

Cathy Kochanaki is the principal of Baldwin Elementary School, located in Goodison.

Director Milos-Dale welcomed everyone. She explained that Oakland Township is looking to receive public comments and input regarding accessibility for individuals with disabilities from disability advocates and individuals on two Michigan Natural Resources Trust Fund grant applications.

Ms. Milos-Dale explained that one project is the Iron Belle – Paint Creek Trail Northern Trailhead (grant application TF18-0098). The project site, Oakland Township's Paint Creek Junction Park, is located on the west side of Orion Road between Clarkston and Adams Road. The project will provide access, parking and restroom facilities for Paint Creek Trail users including pedestrians, bicyclists, skiers and equestrians on the 1.5 mile section between Adams Road and Clarkston Road. This project will include a universally accessible parking

CHARTER TOWNSHIP OF OAKLAND PARKS AND RECREATION COMMISSION  
ACCESSIBILITY WORKSHOP FOR PROPOSED IMPROVEMENTS

September 10, 2018

---

lot, access trail, two unisex universally accessible vault toilets, an accessible well for potable water, and a picnic area. Ms. Milos-Dale noted that this trailhead is close to the new proposed trail connection to Bald Mountain State Park.

The second project is the Marsh View Park Restroom (grant application TF18-0099). Oakland Township's Marsh View Park is Oakland Township's active recreation facility, and is located on Clarkston Road, just west of Adams Road. This project will provide restroom facilities for the increasing number of Marsh View Park visitors. Portable toilets will be replaced with two environmentally sustainable and universally accessible flushable vault toilets. These all-season restrooms will support the increasing use of this park's soccer fields, basketball court, picnic area, walking paths and universally accessible Olympic archery range during warmer seasons, as well as an ice skating rink during the winter. Ms. Milos-Dale noted that, while we currently have portable restrooms at this park, there is a demand for flushable toilets.

**REVIEW OF PROJECT GRAPHICS AND DISCUSSION REGARDING  
ACCESSIBILITY IMPROVEMENTS**

**Iron Belle – Paint Creek Trail Northern Trailhead**

Project Engineer Jeff Smith shared maps and presented an overview of this project. Oakland Township's Paint Creek Junction Park is approximately 6 acres in size, and is currently vacant. This park is proposed to be able to accommodate equestrians with an area for horse trailer parking, and a separate path for equestrians to access the Paint Creek Trailways. There will also be three paved handicapped parking spaces (only two are required, so this exceeds that minimum requirement), with a paved pathway to access two universally accessible vault toilets. Park amenities include an ADA accessible hand pump for potable water (the pump is both wheelchair accessible and requires only a gentle cranking motion to operate), a picnic table that has an open end so that a wheelchair can wheel up to it, and an asphalt pad for a future bicycle repair station. The pathway from the restrooms to the picnic area is gradual, to meet ADA requirements.

Ms. Kijek asked if there will be an adult-sized changing table in either restroom. She explained that it is challenging to plan outings with adults who wear incontinence products if they need assistance and there is no place to change them. She explained that an adult-sized changing table is much like a baby changing table in that it folds down from the wall. The changing table could also be used for babies. Those present agreed that this would be a good thing to include.

Paint Creek Junction Park will also have interpretive signage (the "SoundPost" system). Oakland Township is already using this system in other parks. The interpretive signs will be located along the ADA accessible paths in the Paint Creek Junction Park.

CHARTER TOWNSHIP OF OAKLAND PARKS AND RECREATION COMMISSION  
ACCESSIBILITY WORKSHOP FOR PROPOSED IMPROVEMENTS

September 10, 2018

---

The group next discussed details regarding the toilets. Ms. Milos-Dale explained that they will be on a concrete pad, and the pathway will be surfaced from the parking lot to the restrooms. The restrooms meet all ADA requirements. The restrooms have a door, but Ms. Milos-Dale asked if there was a preference to have a privacy screen or not; those present did not have a preference. In response to questions, Ms. Milos-Dale explained that we do not have electricity at the site, so the doors are not electrically operated. They do, however, have ADA appropriate door pulls, the toilet has a riser, there is an appropriate turning radius, etc. It was noted that there is also no running water at the site (this is a vault toilet, which will have to be pumped periodically), but restrooms will have hand sanitizer available.

Director Milos-Dale, Mr. Smith and those present discussed the location of the vault toilets as compared to the other park amenities. While the vault toilets use “sweet smell technology,” they agreed that it is nonetheless “good insurance” to locate the picnic area at a distance. Ms. Kijek asked about the surfacing of the pathway from the restrooms to the picnic areas and pump, noting that it is difficult for wheelchairs to wheel on a gravel/crushed limestone surfacing. After discussion, everyone agreed that it would be good to extend the paved surfacing from the restrooms to the picnic table and hand pump well.

Ms. Milos-Dale asked if Mr. Haneline had any comments as they might pertain to the visually impaired. He responded that he has no concerns as the restrooms are unisex (so there is no signage issue), and the trails do not cross roads.

**Marsh View Park Restroom**

Director Milos-Dale next reviewed the proposed restroom improvements to Marsh View Park. She explained that the new restrooms are proposed to be located to the north of the easternmost parking lot. We currently have two portable ADA accessible toilets at this location. They will be removed, the pad that they currently sit on will be enlarged, and the new flushable vault toilets will be placed in this area. She continued that these are unisex toilets, they will have wooden siding, and there will be a ramp to access them. Other improvements include new concrete walkways to access this area, and recycling facilities.

Ms. Milos-Dale explained that this park has wetlands on it, so we cannot have a septic field on the park, and there is no sewer available. We do, however, have electricity and water at the site. This flushable vault toilet is new technology, which uses a low volume flush. The toilet will look like a regular flush toilet, there will be a waterless urinal, and there will be a sink (with ADA appropriate push down faucets) for hand washing. While it will look like a regular flush restroom, we will need to have the vault pumped periodically.

Again, Ms. Kijek asked that Oakland Township add adult-sized changing tables. There were no other suggestions relative to this proposed project.

CHARTER TOWNSHIP OF OAKLAND PARKS AND RECREATION COMMISSION  
ACCESSIBILITY WORKSHOP FOR PROPOSED IMPROVEMENTS

September 10, 2018

---

**SUMMARY OF FINDINGS**

Director Milos-Dale expressed her gratitude to everyone who attended and shared their suggestions. She explained that we submitted our grant application to the Michigan Natural Resources Trust Fund in April, but have the opportunity to amend it now. Oakland Township will be able to incorporate these ideas to improve the projects. In Michigan, we are very fortunate to have the resource of grants through the MNRTF; we would not be able to complete these projects without this funding. Ms. Milos-Dale will send our revised grant application to the MNRTF. If anyone wishes to send a letter in support, that would be wonderful.

Ms. Kijek wondered how many people use the Paint Creek Trailways each year. Director Milos-Dale said this is a regional trail, but she understands that most of the people who use this section of the trail are local. A figure she has from several years ago is an estimate of 100,000 users annually. Ms. Kijek said a rough guide is that 10 percent of park users have disabilities, so these improvements have the potential for making the park experience better for many people.

**ADJOURNMENT**

Director Milos-Dale thanked everyone for coming this evening, and for sharing their expertise. There being no further business, the workshop was adjourned at 7:22 p.m.

Respectfully submitted,

Ingrid R. Kliffel  
Recording Secretary

Wednesday,  
March 21, 2018



To Whom It May Concern,

On behalf of the Safety Paths and Trails Committee of Oakland Township, we would like to express our wholehearted support of the Marsh View Park Restroom Improvements Grant Applications (TF18-0099, LW18-0042, RP18-0056) submitted by our Parks and Recreation Department.

The assets of Marshview Park have expanded over the years to offer recreational opportunities for our citizens that have far exceeded expectations - soccer, archery, nature study, Ice skating, basketball, dog walking, etc. With that heavy use in mind, restroom improvements are certainly in order and the flush-vault toilets proposed are a "green" match to this sewer-free site.

From the perspective of the Safety Paths and Trails Committee (SPTC), Marshview park is an important link in our master township- and county-wide trails and pathways plan. A proposed path from the Paint Creek Trail north up Adams Road to Marshview park is a high priority for our committee. Plus, the north boundary of Marshview Park is adjacent to the north unit of Bald Mountain Recreation area. With that in mind, the SPTC is in preliminary discussions with DNR SE Michigan Trail Specialist, Nikki Van Bloem, regarding a township-built east-west trail along Stoney Creek Road connecting Bald Mountain's North unit to existing trails that connect directly to the Paint Creek Trail hub at Clarkston and Kern Roads. Improved restroom facilities at Marshview Park would certainly be an asset in would prove to be a very popular trail loop.

We urge you to approve this important project.

Sincerely,

A handwritten signature in cursive script, appearing to read "Libby Dwyer".

Libby Dwyer  
Chairman,  
Oakland Township  
Safety Paths and Trails Committee.

---

# RISING PHOENIX

---

March 23, 2018

Ms. Merrie Carlock  
DNR Grants Management  
P.O. Box 30425  
Lansing, MI 48909-7925

On behalf of Rising Phoenix Archery Club, I am very excited about the prospect of improved restroom facilities at Marshview Park. Our membership which uses the facility on Tuesdays and Saturday's during the warmer months of the year can have as many as fifty members present as well as parents and siblings.

Additionally the park often has pickup games of basketball going at the same time as our Tuesday sessions and on weekends, the fields can be full of games for soccer players as well. This is a great park that is serving a number of different community interests besides archery. It's great to see so many people using this outdoor space on a weekly basis.

I hope that you will consider approving the grant application to help support the needs of the local community at this facility.

Sincerely yours,

Brandon Wright

Head Coach

Rising Phoenix Archery



Dinosaur Hill Nature Preserve

333 North Hill Circle, Rochester, MI 48306 [www.dinosaurhill.org](http://www.dinosaurhill.org)

Ms. Merrie Carlock  
DNR Grants Management  
P.O. Box 30425  
Lansing, MI 48909-7925

March 25, 2018

Dear Ms. Carlock,

I am writing to express my support of Oakland Township Parks and Recreation Commission's grant proposal for Marsh View Park Restroom Improvements. The proposed project would have great benefit to the many recreational users of Marsh View Park. With a number of facilities including soccer fields and archery ranges the proposed restroom improvements would add greatly to the comfort of park users.

Dinosaur Hill Nature Preserve provides educational enrichment and outdoor recreation programs at many of the Township parks through a partnership with their Commission. Many of our programs include families with small children. Adequate, permanent restroom facilities are extremely desirable for families. We feel that the improvements proposed by the Township would enhance our ability to offer programs for a range of users.

We hope that you will give all possible consideration to this project which will further enhance the outdoor recreational opportunities available to residents in our community. Should you have any questions regarding our support of this project please feel free to contact me.

Regards,

Sue M. Neal  
Executive Director  
Dinosaur Hill Nature Preserve



**Rochester Soccer Club**  
6841 Rochester Rd. #301A  
Rochester Hills, Michigan 48306  
(248) 650-0113  
[www.rscsoccer.org](http://www.rscsoccer.org)



March 26, 2018

Mindy Milos-Dale, Director  
Parks and Recreation Department  
Charter Township of Oakland  
4393 Collins Road, Rochester, MI 48306-1670

Dear Mindy:

I am writing on behalf of the Rochester Soccer Club. I am the Office Manager and was asked to write this letter on behalf of the Rochester Soccer Club, our Board of Directors and our customers. This is in support of the Oakland Township Parks proposal and grant applications to fund the Marsh View Park Restroom Improvements.

The opening of the soccer fields at Marsh View Park has made a tremendous impact on the quality of the soccer programs that we provide for our customers. In an area where fields are at a premium, we are very lucky to have the use of these fields for game days.

Our families typically attend the games as a family (parent, siblings, grandparents, etc.) to support one another and cheer on their soccer players. While we appreciate the soccer fields, the current "port-a-jons" are challenging for families with young children. Helping a child to use the facilities is very challenging in the small space available. Also, players who need to change their jersey, make a quick uniform change from a back-to-back event, bringing multiple children into a small space find the current facilities challenging. In addition, the "port-a-jons" can also be challenging for grandparents and parents with special needs children.

The Rochester Soccer Club strongly supports this grant application and the focus on a positive user experience at Marsh View. This improvement will not only benefit soccer players but all users of this Park. We are proud to be a supporter of the Oakland Township Park system.

If we can provide any additional information to help with this process, please let me know.

Sincerely,

*Diane Goethals*

Diane Goethals  
Office Manager, Rochester Soccer Club  
6841 N. Rochester Rd, #301A  
Rochester Hills, Mi 48306  
248-650-0113 (Office)  
248-933-6170 (Cell)

Equal opportunity for all youth to have fun, learn skills and appreciate the beauty of soccer



March 26, 2018

Ms. Merrie Carlock  
DNR Grants Management  
P.O. Box 30425  
Lansing, MI 48909-7925

This letter is in support of a grant application submitted by the Oakland Township Parks and Recreation Department concerning the proposed improvement in the restroom facilities at Marsh View Park. Our organization, Michigan United Soccer League, is the largest adult soccer league in Michigan. Our teams represent six counties in the extended greater Detroit area. We have several teams in the greater Rochester area (Rochester, Rochester Hills and Oakland Township), as well as Lake Orion, that utilize the Marsh View soccer fields.

We use Marsh View Park fields on four days per week, April through October. Our members have often commented on the excellent quality of the fields at Marsh View, as well as the beauty of the park. However, the only drawback is the lack of sufficient restroom facilities. We hope the DNR can help alleviate this situation.

Thank you.

Lawrence Myers, MUSL Administrator  
Michigan United Soccer League  
4921 Leafdale Blvd.  
Royal Oak, MI 48073

(248) 495-4368



# OUR GLOBAL KIDS

4330 Grayton Detroit MI, 48224

Attention:  
Michigan Natural Resources Trust Fund  
Land and Water Conservation Fund  
Recreation Passport

March 22, 2018

Our Global Kids is a 501c3 non-profit public charity dedicated to environmental and cultural education for students and families. We are proud to support Oakland Township Parks and Recreation on the Marsh View Park Restroom Improvements project. It is our understanding that these facility improvements may increase nature program participation, wildlife observation and nature interpretation at the park, which is in keeping with our mission as an organization.

Further, the new restroom facilities will support the expansion of archery programs and camps and the initiation of regional archery tournaments, which we provide through our sports component Motor City Archers.

As a Certified Interpretive Guide through the National Association of Interpreters and a Level 4 NTS Coach through USA Archery I see the full benefit of these improvements and fully support this initiative.

Sincerely,

Nick T. Di Cresce

Director of Environmental Education  
Our Global Kids  
Director of Archery  
Motor City Archers



An Informed, Coordinated and Collaborative  
Body Supporting Oakland County Green  
Infrastructure Network Initiatives

**ALLIANCE SUPPORTERS**

- Addison Oaks Trail Riders
- Addison Township
- Arch Environmental
- AutoBike, Inc.
- Carlisle/Wortman Associates, Inc.
- Charter Township of Oakland Parks and Recreation
- Charter Township of Orion
- Charter Township of Waterford
- Charter Township of Waterford Parks & Recreation
- City of Madison Heights
- City of Rochester Hills
- City of Southfield
- Clinton River Watershed Council
- Friends of the Clinton River Trail
- Friends of the Parks-Springfield Township
- Friends of the Pontiac Parks Association
- Harley Ellis Devereaux
- Highland Equestrian Conservancy
- Highland Township
- Huron River Watershed Council
- Huron-Clinton Metroparks
- ITC Holdings
- MichiganTrailMaps.com
- MSU Extension
- North Oakland Headwaters Land Conservancy
- Novi Parks, Recreation and Cultural Services
- Oakland County Economic Dev. & Community Affairs
- Oakland County Parks and Recreation Commission
- Oakland Parks Foundation
- Paint Creek Trailways Commission
- Pheasants Forever - Oakland County Chapter
- Royal Oak Nature Society
- Six Rivers Land Conservancy
- Southeast Michigan Council of Governments
- Southeast Michigan Wild Ones
- Springfield Township
- Springfield Township Parks and Recreation
- Springfield Site Action Committee
- Village of Bingham Farms
- Waste Management
- West Bloomfield Parks & Recreation Commission



March 20, 2018

Attn: Ms. Merrie Carlock  
DNR Grants Management  
PO Box 30425  
Lansing, MI 48909-7925

RE: Marsh View Park Restroom Improvements

Dear Ms. Carlock,

I am writing on behalf of the Oakland County Trail, Water & Land Alliance (TWLA) to offer strong support for the development grant application being submitted by Oakland Township for improvements at Marsh View Park. The proposed project will provide park users with two environmentally sustainable and universally accessible flushable vault toilets. These all-season restrooms will support the increasing use of this park's soccer fields, basketball court, picnic area, walking paths, Olympic archery range and ice skating rink.

TWLA was formed in 2012 when the Oakland County Natural Areas Advisory Group merged with the Oakland County Trails Advisory Council. Since then, TWLA has worked to enhance the quality of life, share information, coordinate green infrastructure related efforts and establish partnerships in both the public and private sector in Oakland County. Completing projects like the Marsh View Park plays a key role in improving the outdoor recreation experience as well as being sensitive to surrounding wetlands and high quality natural areas.

Thank you for your consideration. Again, we strongly support this request.

Sincerely,

Kristen Myers, Chair  
Oakland County Trail, Water & Land Alliance



**MICHIGAN DEPARTMENT OF NATURAL RESOURCES**

---

**INTEROFFICE COMMUNICATION**

---

March 30, 2018

**TO:** Merrie Carlock, Grant Coordinator, Grants Management

**FROM:** Paul Yauk, State Trail Coordinator, Trail System and Services

**SUBJECT:** Support for Recreation Facility Improvements at Marsh View Park, Oakland Township

A handwritten signature in blue ink, appearing to read "Paul Yauk", is written over the "FROM:" line of the communication.

The Trail System and Services Section of Parks and Recreation welcomes the opportunity to support Oakland Township's effort to build new restroom facilities. We understand the new restrooms will support additional recreation opportunities including hiking/ bicycling/skiing trails that will connect to DNR State Park facilities and the Iron Belle Trail, increased soccer field usage, archery skill development, wildlife observation and nature interpretation.

This collaborative effort by Oakland Township to help connect the recreation amenities in their region regardless of who manages them is an excellent example of how local governments, trail and park advocates and state government can work together to accomplish common goals. We applaud you for your leadership in moving forward with this project.

cc: Mindy Milos-Dale, Oakland Township  
Kristen Bennett, DNR