

Notice Posting: Thursday, September 3, 2015 5:30 P.M.

**REGULAR MEETING OF THE EAST BAY CHARTER TOWNSHIP BOARD**

**1965 Three Mile Road N., Traverse City, MI 49696**

**Monday~September 14, 2015~6:30 P.M.**

- **Call meeting to order**
- **Pledge of Allegiance**
- **Roll Call**
- **Review for Conflict of Interest**
- **Public Comment**
- **Correspondence**
- **Consent Calendar**

The purpose of the Consent Calendar is to expedite business by grouping non-controversial items together to be dealt with by one Board motion without discussion. Any member of the Board, staff or the public may ask that any item on the Consent Calendar be removed from there and placed elsewhere on the agenda for full discussion. Such requests will be automatically respected. If any item is not removed from the Consent Calendar, the action noted in parentheses on the agenda is approved by a single Board action adopting the Consent Calendar:

- |                                    |                      |
|------------------------------------|----------------------|
| A. Board Minutes                   | (Recommend Approval) |
| B. General Fund                    | (Recommend Approval) |
| C. Emergency Services Fund         | (Recommend Approval) |
| D. Receiving Fund                  | (Recommend Approval) |
| E. Escrow Fund                     | (Recommend Approval) |
| F. Payroll Fund/ Payroll EFT Funds | (Recommend Approval) |
| G. Budget Adjustments (as needed)  | (Recommend Approval) |

**Reports:** Supervisor, Clerk, Treasurer, Trustees, Sheriff Dept., Ambulance Dept., Fire Dept., Engineer, County Commission, County Road Commission, Park Commission

**BUSINESS:**

- 1.) Planner appointment
- 2.) **Public Hearing** -2016 Emergency Services Budget
- 3.) Water tower Well Drilling Contract-Wade Trim
- 4.) GTC Natural Hazards Mitigation Plan
  - a. East Bay Charter Township Resolution 2015-06
- 5.) Resident request to use Township property for access
- 6.) Boardman River Annual Report (slideshow presentation)
- 7.) Park Commission 2-5 Playground
- 8.) Bond #332 payoff proposal

**PUBLIC COMMENT**

**ADJOURNMENT**

*\*If you are planning to attend this public meeting and are disabled requiring any special assistance, please notify the Township Clerk by calling (231) 947-8647 as soon as possible.*

## PUBLIC COMMENT

Any person shall be permitted to address the Township Board which is required to be open to the public under the provision of the Michigan Open Meetings Act, as amended. (MCLA 15.261, et.seq.) Public Comment shall be carried out in accordance with the following Board Rules and Procedures:

- Any person wishing to address the Board will be asked to stand up to the microphone and state his or her name and address.
- No person shall be allowed to speak more than once on the same matter, excluding time needed to answer Board's questions. The Chairperson shall control the amount of time each person shall be allowed to speak, which shall not exceed three (3) minutes.
- When ever individuals want to trade their minutes for a group, and a group wishes to address the Board, the Chairperson may require that the group designate a spokesperson; the Chairperson shall control the amount of time the spokesperson shall be allowed to speak, which shall not exceed fifteen (15) minutes, this should be prearranged at the beginning of the meeting or just prior.
- In order to avoid unscheduled debates, the Board generally will not comment or respond to presenters. Silence or non-response from the Board should not be interpreted as disinterest or disagreement by the Board.

Brought before the East Bay Charter Township Board of Trustees at a Regular Township Meeting on Monday, November 10, 2008,

Motion by: Friend second by: Strait

The motion passed without opposition

Glen Lile 12-2-08  
Glen Lile, Supervisor Date

Susanne M. Courtade 11/11/08  
Susanne M. Courtade, Clerk Date

Consent Calendar

A.)

Minutes

EAST BAY CHARTER TOWNSHIP  
East Bay Charter Township Hall  
1965 N. Three Mile Road  
Traverse City, MI 49696

Regular Board Meeting  
Monday, August 10, 2015

**Call Meeting to Order:** Chairman Lile called the meeting to order at 6:30pm.

**Pledge of Allegiance:** was recited by all in attendance.

**Roll Call:** Board Members Present: Glen Lile, Tracey Bartlett, Matthew Courtade,  
Craig Goodrich, Brian Marrow, Beth Friend and Sue Courtade

**Review for Conflict of Interest:** None

**Correspondence:** Provided in the Board Packets

**Public Comment:** Dean Reed, an East Bay Township property owner, approached the board regarding a possible easement to his property off of Vanderlip Road.

**Consent Calendar: (6:30)**

- A. Board Minutes:** July 13, 2015 Regular Meeting Minutes  
July 28, 2015 Fund Balance Workshop Meeting Minutes
- B. General Fund:** Checks numbered 11697-11748 were paid in the amount of \$50,736.36.
- C. Emergency Fund:** Checks numbered 3151-3171 were paid in the amount of \$8,293.58.
- D. Receiving Fund:** Checks numbered 2285-2291 were paid in the amount of \$101,539.04.
- E. Escrow Fund:** Check numbers 1378-1381 were paid in the amount of \$10,971.82.
- F. Payroll Fund:** The payroll dated 6/28/2015 – 7/11/2015, checks numbered 5252-5269 totaled \$36,811.96 and includes \$6,267.35 for payroll tax and check #5269

for \$974.72 for State of Michigan withholdings.  
Payroll checks lost/reissued 4629, 5062 replaced with  
checks 5270-5272 and voided check 5270 reissued.

The payroll dated 7/12/2015 – 7/25/2015, checks  
numbered 5273-5284 totaled \$26,819.50 and  
includes \$4,665.57 for payroll tax and check #5284  
for \$690.39 for State of Michigan withholdings.

Total amount paid: \$235,172.26

**G.** Motion to accept the proposed Budget Adjustments (as needed).

**H.** Ambulance Job Descriptions

*M. Courtade moved and Friend seconded to adopt the consent calendar as presented. The motion carried unanimously upon a roll call vote.*

**Reports: (6:36)**

**Supervisor:** Lile reported that the July Board of Review saw 37 petitions. He and Leslie Courturier met with MDOT regarding sidewalks from Avenue B to Three Mile Road. TC Talus is still restructuring and there was a third force main leak on US 31.

**Clerk:** S. Courtade said that the Clerk's office is working on the 2016 budget and that Deputy Clerk Helen MacArthur is now a Certified Municipal Clerk.

**Treasurer:** Bartlett said that the Treasurer's Office is collecting money. The PC has a joint meeting with the Garfield Planning Commission on August 26<sup>th</sup> and with the East Bay Board on September 1<sup>st</sup>. The Planning Commission will address a Site Plan Review tomorrow night at its regularly scheduled meeting.

**Trustees:** No reports

**Sheriff Department:** Deputy Sarah Metdepenningen said that there were 590 calls in the Month of July, 2015. She reminded residents to lock their cars at all times. She attended the National Night Out on August 4<sup>th</sup> and also had Supervisor Lile on a ride along. There was a TNT meeting today to address drug issues in some hotels in the township.

**Ambulance Department:** Tim Newton indicated 50 calls for the month of July, 2015. He also attended training on the Ready Link

machine which sends important heart information directly to Munson Hospital. He thanked Munson and the Cardiology Department for the purchase of the machines and will now train the rest of the ambulance staff.

**Fire Department:** Chief Pat Parker said that the Metro stations will have a Ready Link machine as well. July 2015 saw 409 total calls for Metro and 84 of those were in East Bay. During the recent storm, they took 101 storm related calls. The area was declared a disaster zone and, as a result, some funds will flow to the area from the state. Debris can be taken to the old compacting site between the hours of 7am and 7pm. Metro recently received a \$10,000 grant from the tribe for an emergency trailer. They will try to put all emergency mobile services into one trailer.

**Engineer:** Township Engineer Brian Sousa talked about the force main break and research is being conducted to find the cause. Bids for the test well drilling will be opened on August 25<sup>th</sup>.

**County Commissioner:** Commissioner Bob Johnson thanked all the responders for acting so quickly during the recent storm and its aftermath. Commissioners voted to purchase radios and consoles for emergency responders. There are more hazardous waste collections coming up and residents need to make an appointment. Grand Traverse 911 was recently recognized for having an excellent Facebook Page which gives out quick information. Christine Erickson is now handling press releases on the county's behalf and the county is still in the interview process for the County Administrator and Human Resources positions.

**Parks Commission:** Park Commissioner Butch Strait said that the Park Commission received a \$10,000 grant for playground equipment and they are hopeful that something can be started this fall. He added that the Arbutus Five bathroom drawings have been completed and now funding will be sought. Information should be forthcoming on the Gens Park grant soon and the bathroom plans for Grace MacDonald Park have been sent to the state and bids can now go out. The Park Commission also had a budget meeting and Commissioner Walters has picked up three benches funded with plastic caps.

**Road Commission:** No report

## **New Business:**

### **1. Fire Prevention Ordinance – Public Hearing (7:09)**

Asst. Chief Brian Belcher gave a quick overview of the updated Fire Prevention Ordinance and fee schedule. He said that under this ordinance, sky lanterns would be banned.

Lile opened the Public Hearing at 7:13pm and seeing no one wishing to comment, closed the Public Hearing.

*M. Courtade moved and Goodrich seconded to adopt Ordinance 2015-1 Fire Prevention Ordinance. Upon a roll call vote, the motion carried unanimously.*

### **2. Zoning Amendment – Allowable Projections in Waterfront Setback Areas – Public Hearing (7:17)**

Bartlett said that this proposed change came from the ZBA, and would allow an uncovered deck or porch to project into the 50 yd setback on the lake side by an additional 10 feet but also requires soil stabilization, plantings and elevation of a structure off of the ground. She added that the County Planning Commission has approved the amendment as well. Lile opened the Public Hearing at 7:20pm, and seeing no one wishing to speak, closed the public hearing.

*Friend moved and Marrow seconded to adopt Zoning Ordinance Amendment 1-15; Allowable Projections into Waterfront Setback Area. The motion carried unanimously upon a roll call vote.*

### **3. Cross Connection Control Program – Public Hearing (7:22)**

The existing Cross Connection Control Program requires residents to have a water inspection each year. This new Cross Connection Program would require an inspection every three years. Lile opened the Public Hearing at 7:25pm and seeing no one wishing to speak, closed the Public Hearing.

*S. Courtade moved and Goodrich seconded to adopt the amendment to Article VII: Water Supply Cross Connection Rules. The motion carried unanimously upon a roll call vote.*

### **4. 2016 Metro Budget – Introduction (7:25)**

Chief Pat Parker presented preliminary 2016 budget figures to the Board. The new budget proposes a slight increase to 2.4 mills for operations. The 2015 budget was approved at 2.35 mills. He noted that increases took place in salaries due to a minimum wage increase and they would like to purchase another squad for Station 11. Plans for a new fire station in Acme are also in the budget and will be budgeted over 15 years. Parker said it was strictly an inflationary budget. Board members

voiced positive comments regarding Metro services and various funding options were discussed.

*Friend moved that East Bay Township dedicate 2.4 mills to Metro Fire, but charge residents only 2.2 mills, thus subsidizing .2 mills. Bartlett supported the motion.*

*Yeas: Friend, Bartlett, Marrow, Lile*

*Nays: S. Courtade, M. Courtade, Goodrich*

**5. Master Plan Draft Approval to disburse to Local Municipalities (7:50)**

Bartlett said that the planning Commission has completed all of the initial steps in the preparation of a new Master Plan and the next step is to gain approval from the Board to send to neighboring municipalities for a 63 day comment period.

*Goodrich moved and Marrow seconded to approve the Draft Master Plan for distribution to neighboring communities for comments. The motion carried upon a voice vote.*

**6. George Street/ Amy Avenue Sewer Estimate (7:51)**

Township Engineer Sousa presented a sewer project for George Street and Amy Avenue in light of the Health Department comment at a previous meeting. He gathered a complete price and then broke it down per lot in case residents would like to fund the change by a Special Assessment District. The prices are for a gravity sewer. Discussion centered on how to help the homeowners with the cost. He will gauge interest for the project with the residents.

**7. AMO Storage Units – Preliminary Submittal (8:05)**

AMO Outdoor Services is looking to construct a landscaping business along with outdoor storage units along the north side of Hammond Road, just west of Edgecomb Road. Township Engineer Sousa said that according to Township Ordinance 109, the site must be served by water and sewer. The entity installing the utilities could be refunded by developments that move in later and hook up to the utilities. Sousa pointed out that Auto Owners Insurance ran utilities along the front of their site, but not to Edgecomb Road as was expected. Board members agreed that according to the Ordinance, Auto Owners is responsible to run utilities to Edgecomb Road. It was decided that Township representatives would meet with Auto Owners and discuss the issue. Consultant Doug Mansfield asked that the project keep moving forward as quickly as possible.



**8. BPW Sharing Agreement and Bill of Sale (8:22)**

The BPW and its participating Townships have agreed to pool their collective capacities at the City Waste Water Treatment Plant and need to approve the Capacity Sharing Agreement.

*Friend moved and Goodrich seconded to approve the BPW Capacity Sharing Agreement. The motion carried unanimously upon a voice vote.*

**9. MTT Walgreen Company (8:23)**

*S. Courtade moved and Marrow seconded to approve the Stipulation for Entry of Consent Judgement in the Matter of Walgreen Company vs. East Bay Township MTT docket #14-000079. The motion carried unanimously upon a voice vote.*

**Public Comment (8:25)**

None

**Adjournment:** Lile adjourned the meeting at 8:25 pm.

# Reports

## Grand Traverse Sheriff Department Calls for Service Statistics

Month    Year  
August    2015

Day of Week	Mon	Tues	Weds	Thurs	Fri	Sat	Sun	TOTAL				
	728	521	642	518	534	625	650	4,218				
Hour of Day	0	1	2	3	4	5	6	7	8	9	10	11
	133	79	77	44	45	48	64	109	146	181	185	213
	12	13	14	15	16	17	18	19	20	21	22	23
	203	218	262	257	269	237	261	250	180	262	279	216
Location	Citations	Traffic Crashes			Arrests			*Other	Criminal	Non-Criminal	Traffic Crashes	Total
		Fatal	PIA	PDA	OWI	MIP	Criminal					
01 Acme	23	0	2	10	0	0	5	154	26	80	12	272
02 Blair	54	1	5	21	1	0	35	266	97	120	27	510
03 East Bay	30	0	5	28	1	0	23	309	72	161	33	575
04 Fife Lake	15	0	0	4	0	0	1	68	6	16	4	94
05 Garfield	101	2	8	69	3	1	74	799	344	413	79	1,635
06 Grant	2	0	0	5	0	0	0	14	1	5	5	25
07 Green Lake	16	0	2	7	2	0	9	143	47	59	9	258
08 Long Lake	17	0	1	9	2	0	8	99	21	66	10	196
09 Mayfield	16	1	3	5	0	1	4	52	13	17	9	91
10 Peninsula	4	0	0	3	0	0	0	57	14	81	3	155
11 Paradise	14	0	0	6	1	0	2	72	18	24	6	120
12 Union	2	0	0	2	0	0	1	29	3	10	2	44
13 Whitewater	6	0	3	7	0	1	0	61	14	46	10	131
29 Fife Lake Vlg	0	0	0	0	0	0	1	15	8	6	0	29
30 Kingsley Vlg	5	0	0	3	0	0	3	46	12	22	3	83
66 Traverse City	11	0	0	0	3	1	64	0	0	0	0	0
84 Out of County	0	0	0	0	0	0	26	0	0	0	0	0
<b>Totals</b>	316	4	29	179	13	4	256	2,184	696	1,126	212	4,218

\*Other Calls for Service Include: 911 Hangups; BOL; Follow-up to Complaints; Motorist Assists; Public Relations; Serving Legal papers; Traffic Stops; Warrant Attempts  
 Ticket stats are based on what District Court has entered as of 9/01/15.  
 Arrest Stats are as of 9/01/15.



**East Bay Professionals, Inc.**

2346 Valarie Dr. #5  
Zeeland, MI 49464  
231 233-7452  
616 239-1003

e-mail: eastbaypros@gmail.com

**INVOICE**

Invoice Number: 257

Invoice Date: 8/26/15

Customer Information:

Billing Address:		Shipping Address:	
Company:	Charter Township of East Bay	Company:	
Name:	Sue Courtade, Township Clerk	Name:	
Address:	1965 Three Mile Road N.	Address:	
City/State/Zip	Traverse City, MI 49686	City/State/Zip	

Shipping Method:

Order Information:

Qty.	Product Description	Amount Each	Amount
7.50	Hrs. - 10:00 AM – 5:30 PM Mon. 8/24/2015	30.00	225.00
2.50	Hrs. - 9:30 AM – 12:00 PM Tues. 8/25/2015	30.00	75.00
	Next planned Work day - Wed. 9/23/2015		
		Subtotal:	300.00
		Tax:	0.00
		Shipping:	0.00
		<b>Grand Total:</b>	<b>\$300.00</b>

**Notes:**  
 Reconciled the Emergency service, Restricted B and D Fund accounts - 3 at Chase and one at Huntington National. All of the disbursements from the tax account direct to Metro out of the winter taxes need to be recorded to the Emergency Services general ledger as taxes and as transfers to other funds and then to the Metro Services ledger as transfers in and as payments to Metro. The budget for Metro Services should be reduced to reflect only the Metro portion of the winter tax. Prepared journal entry - Interest for July 2015 to be posted as July income.

**Notes continued for 8/26/2015:**

Reconciled the Special Assessment Receiving accounts – five accounts; TC State, MBIA, Chase, Huntington and the investment account at Morgan Stanley. The Morgan Stanley bond purchases are not recorded on the g/l as investments. Tracey is going to contact the auditors to determine whether a reclassification from cash to investments should be done and whether the g/l balance will need to be adjusted to market values at year end. Prepared journal entry - Interest for July 2015 will be recorded with the above interest entry.

Reconciled the property tax accounts – two at Chase. A credit card payment to the bank on July 29<sup>th</sup> in the amount of \$810.86 was journalized August 4<sup>th</sup> with a posting as of July 29<sup>th</sup>, creating a deposit in transit in the amount of \$810.86. Since the money was credited to the bank in July, it should have been journalized with a July date. Prepared journal entry - interest income for July 2015 to be posted as July income.

Reconciled the Escrow accounts – one at Chase.

Reconciled the Health Savings account – one at Chase. There were no transactions.

Reconciled the payroll account – one at Chase.

Reconciled the General accounts - two at Chase and one at Citizens. On July 10<sup>th</sup> the Metro Right of Way deposit in the amount of \$12,799.64 was wired to the General Fund bank account but not recorded to the general ledger. A journal entry should be posted in August to record this revenue, backdated to July. A sign permit fee in the amount of \$40.00 was deposited in July to the tax system in error and then corrected to taxes in August. It was recorded to the general fund as a deposit in July but not transferred to the bank from the tax account until August. Prepared journal entry - interest income for July 2015 to be posted as July income.

The July statements were received through Internet access.

Grand Traverse County Sheriff  
 Daily Officer Summary  
 7/1/2015 - 7/31/2015

Officer	Location	Activity	Hours
Griffard, Sean	52		
	acme		
		53000 public peace	0.25
		ticket issued	0.25
		warning issued	0.25
			<u>0.75</u>
	blair		
		breaks	1.00
		maintenance equip/vehicle	0.50
		off duty	0.00
		training	8.00
			<u>9.50</u>
	east bay		
		13000 assault	1.00
		23003 larceny building	0.50
		23007 larceny other	1.75
		26000 fraud	0.25
		29000 damage to property	0.50
		53000 public peace	0.50
		54001 accident hit and run	0.50
		54003 traffic violation	0.50
		55000 health and safety	1.25
		73000 miscellaneous criminal	1.00
		911 hangups	0.50
		93001 accident, traffic pda	2.50
		93001 accident, traffic pia	1.00
		93006 Traffic Policing/Assist	4.50
		94002 false alarm	0.50
		98003 property checks	4.75
		98007 suspicious situation	1.50
		99006 public relations	0.50
		99008 assist	3.75
		accident, pda followup/report	0.25
		administrative	7.25
		arrest	1.50
		breaks	1.00
		maintenance equip/vehicle	1.25
		off duty	0.00
		paper service attempted	1.25
		paper service completed	0.50
		Residential Patrol	14.00
		ticket issued	0.75
		Traffic Patrol	3.75
		warning issued	5.00
		warrant attempt/arrest	1.25
			<u>65.00</u>
	fife lake		
		breaks	1.00
		training	6.00
			<u>7.00</u>
	garfield		
		22000 burglary	0.25
		29000 damage to property	0.75
		98003 property checks	0.75
		breaks	0.50
		maintenance equip/vehicle	2.25
		Residential Patrol	0.25
		Traffic Patrol	0.25
		warning issued	0.75
			<u>5.75</u>
	jail		
		99008 assist	0.50

Grand Traverse County Sheriff  
 Daily Officer Summary  
 7/1/2015 - 7/31/2015

Page 2 of 2  
 08/18/15 09:55:29

Officer	Location	Activity	Hours
Griffard, Sean 52	jail	arrest	1.25
			1.75
	lec	13000 assault	0.25
		54003 traffic violation	0.25
		73000 miscellaneous criminal	0.25
		administrative	12.50
		maintenance equip/vehicle	0.50
		off duty	0.00
		13.75	
	out of county	99008 assist	8.25
			8.25
	paradise	54003 traffic violation	0.50
		98003 property checks	0.25
		administrative	0.25
		arrest	0.00
		breaks	3.00
		maintenance equip/vehicle	1.50
		off duty	0.00
		warning issued	0.25
			5.75
	recreational vehicle building	maintenance equip/vehicle	3.25
		off duty	0.00
			3.25
	traverse city	98003 property checks	0.25
		99008 assist	6.00
		administrative	0.25
			6.50
whitewater	warning issued	0.25	
		0.25	
	Griffard, Sean	127.50	
	Total	127.50	

Grand Traverse County Sheriff  
Daily Count Summary  
7/1/2015 - 7/31/2015

Page 1 of 1  
08/18/15 09:37:17

Officer	Traffic	Citation	Warning	Paper service	Accident
Griffard, Sean 52	32	6	26	2	4
Total	32	6	26	2	4



Grand Traverse County Sheriff  
 Daily Officer Summary  
 7/1/2015 - 7/31/2015

Officer	Location	Activity	Hours
Metdepenningen, Sarah 69			
acme			
		53000 public peace	0.50
		99008 assist	1.00
			<u>1.50</u>
blair			
		93001 accident, traffic pia	1.50
			<u>1.50</u>
east bay			
		13000 assault	1.00
		22000 burglary	3.75
		23005 larceny from auto	3.00
		23007 larceny other	1.75
		24000 motor vehicle theft	1.25
		26000 fraud	1.75
		27000 embezzlement	0.75
		29000 damage to property	0.75
		3500 vcsa	1.50
		50000 Obstructing Courts	0.25
		53000 public peace	0.50
		53000 weapons offense	0.75
		54002 OWI/OUID	5.50
		54003 traffic violation	0.00
		55000 health and safety	0.25
		911 hangups	1.25
		93001 accident, traffic pda	4.25
		93001 accident, traffic pia	1.00
		93006 Traffic Policing/Assist	4.75
		98003 property checks	0.50
		98006 civil matter	3.50
		98007 suspicious situation	2.25
		99006 public relations	1.75
		99008 assist	7.00
		accident, pda followup/report	0.25
		accident, pia followup/report	1.25
		administrative	11.75
		breaks	8.00
		maintenance equip/vehicle	4.00
		paper service completed	1.75
		Residential Patrol	19.50
		Traffic Patrol	3.50
		training	1.50
		warning issued	2.25
		warrant attempt/arrest	1.00
			<u>103.75</u>
fife lake			
		93001 accident, traffic pia	0.25
		breaks	1.00
		training	14.75
			<u>16.00</u>
garfield			
		99008 assist	1.00
		breaks	0.25
		maintenance equip/vehicle	1.75
			<u>3.00</u>
jail			
		54002 OWI/OUID	1.25
		warrant attempt/arrest	0.25
			<u>1.50</u>
lec			
		22000 burglary	2.75
		26000 fraud	2.00
		3500 vcsa	0.50

Grand Traverse County Sheriff  
 Daily Officer Summary  
 7/1/2015 - 7/31/2015

Officer	Location	Activity	Hours
Metdepenningen, Sarah 69	lec	54003 traffic violation	1.00
		93001 accident, traffic pia	1.00
		93006 Traffic Policing/Assist	0.50
		98006 civil matter	0.50
		accident, pia followup/report	2.25
		administrative	6.75
		maintenance equip/vehicle	0.25
		training	0.25
			<u>17.75</u>
	long lake	93001 accident, traffic pia	3.25
			<u>3.25</u>
	off duty	Green Sheet Take Home Car	0.00
		off duty	0.00
			<u>0.00</u>
	recreational vehicle building	93001 accident, traffic pia	1.50
		accident, pia followup/report	0.75
		maintenance equip/vehicle	3.00
			<u>5.25</u>
	traverse city	54002 OWI/OUID	1.00
		93006 Traffic Policing/Assist	0.75
		99008 assist	5.00
		accident, pia followup/report	2.00
		court	4.25
		maintenance equip/vehicle	1.75
			<u>14.75</u>
	whitewater	93001 accident, traffic pia	2.50
		accident, pia followup/report	1.50
			<u>4.00</u>
	Metdepenningen, Sarah		<u>172.25</u>
	Total		172.25

Grand Traverse County Sheriff  
Daily Count Summary  
7/1/2015 - 7/31/2015

Page 1 of 1  
08/18/15 09:40:42

Officer	Traffic	Citation	Warning	Paper service	Accident
Metdepenningen, Sarah 69	9		9	4	12
Total	9	0	9	4	12

## Community Police Officer Schedule - September 7th to October 4, 2015

OFFICER NAME	TOWNSHIP	BADGE	M	T	W	TH	F	S	S	M	T	W	TH	F	S	S	M	T	W	TH	F							
			7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	1	2
Deputy Chubb	Acme	967	H	/	8/6	8/6	8/6	/	/	7/5	N/10	8/6	/	/	/	/	7/5	/	/	7/5	7/5	/	/	7/5	N/10	8/6	/	/
Dep. Karczewski	Blair	971	H	/	LAB	9/7	C	/	/	10/8	9/7	9/7	/	1/11	/	/	10/8	9/7	9/7	1/11	1/11	/	/	10/8	/	/	/	/
Dep. Metdepenningen	East Bay	929	7/5	10/8	10/8	/	/	/	/	10/8	10/8	7/5	/	/	/	/	7/5	7/5	10/8	/	/	/	/	10/8	10/8	7/5	/	/
Dep. Griffard	East Bay	925	H	C	T	T	T	/	/	/	/	/	C	FH	/	/	/	/	C	C	C	/	/	/	C	C	C	/
Dep. Moeggenborg	Peninsula	933	7/5	10/8	D/T	7/5	7/5	7/5	/	/	B	7/5	7/5	/	/	/	7/5	9/7	9/7	/	/	/	/	10/8	7/5	/	/	/
Dep. Hornacek	Fife Lake	962	H	C	T	T	T	/	/	8/6	9/7	9/7	9/7	/	/	/	/	8/6	10/8	9/7	/	/	/	9/7	9/7	8/6	/	/
Dep. Halleck	Garfield	953	H	/	8/6	8/6	T	8/6	8/6	/	8/6	8/6	8/6	/	/	/	/	8/6	8/6	8/6	/	/	/	8/6	8/6	8/6	/	/
Dep. Makowski	Garfield	966	8/6	11/9	7/5	7/5	/	/	/	/	V	V	/	/	/	/	V	7/5	7/5	/	/	/	/	7/5	7/5	7/5	/	/
Dep. Morgan	Garfield	927	H	/	D/T	10/8	10/8	/	/	/	/	10/8	N/10	10/8	/	/	/	/	10/8	10/8	8/6	/	/	/	10/8	N/10	10/8	/
Dep. White	P.K.M.	939	9/7	9/7	9/7	/	/	/	/	10/8	9/7	9/7	/	/	/	/	7/5	7/5	8/6	8/6	8/6	/	/	/	7/5	/	/	/

**Notes:**

925 & 962 ERT Training Camp Grayling - 9/8 - 9/11  
 953 ERT Negotiator Training Camp Grayling - 9/11  
 966 Reserve Driving Training - 9/8 1800-2000

C2

# Correspondence

EAST BAY CHARTER TOWNSHIP  
PARK COMMISSION  
East Bay Charter Township Hall  
1965 N. Three Mile Road  
Traverse City, MI 49696

Regular Meeting  
Monday, August 17, 2015

**Present:** Park Commission Members Butch Strait, Mindy Walters, Susan LaRose-Grover, Edie Gibbs, Shirley Zerafa, Steve Largent, and Jeri LeRoi

**1. Call Meeting to Order:** Chair Strait called the meeting to order at 6:30pm.

**2. Pledge of Allegiance** was recited by all in attendance.

**3. Roll Call:** Roll was called by the Recording Secretary

**4. Approval of the Agenda:**

*LaRose Grover moved and LeRoi seconded to approve the agenda as amended with the additions of New Business B - Expense Reimbursement and New Business C – Watershed Center Letter for Gens Park Grant.*

*Yeas: LaRose-Grover, LeRoi, Zerafa, Walters, Gibbs, Largent, Strait  
Nays: None*

**5. Approval of the Minutes – July 20, 2015 Regular Meeting and August 3, 2015 Special Meeting**

*Largent moved and Gibbs seconded to approve the minutes of July 20, 2015 as presented noting that under the PRN comments, Erickson's first name is spelled with a "K".*

*Yeas: Largent, Gibbs, Zerafa, Walters, LaRose-Grover, LeRoi, Strait  
Nays: None*

*LaRose-Grover moved and Walters seconded to postpone action on the adoption of the August 3, 2015 Special Meeting Minutes.*

*Yeas: LaRose-Grover, Walters, Zerafa, Largent, Gibbs, LeRoi, Strait  
Nays: None*

**6. Public Comment:**

None

## 7. Reports

### a. *Treasurers Report*

Walters submitted the proposed 2016 to the Clerk's office and also posed the question of what to do with the multi-purpose field at Grace Macdonald Park. She attended the ceremony at the GT Band of Chippewa and Odawa Indians to receive the grant allocation of \$10,000. She noted that the YTD balance is shown on page two of the budget pages and that all rollover funds have been allocated to restricted accts.

### b. *Township Board Representative*

Strait said he attended the board meeting and reported on the Gens Park Grant and the benches.

### c. *Arbutus 5 Update*

Strait said he would call Ken Ockert to make a few small changes on the map and then the project could be put out for bids. He said he would also contact Township Engineer Brian Sousa regarding grants specific to bathrooms and ask Diane Sinclair about playground installation.

### d. *Grace Macdonald Committee for Improvements*

Strait had no report.

### e. *Gens Park grant update*

Strait reported that the DNR grant had been awarded to the township.

### f. *PRN Meeting Update*

Zerafa had no report.

### g. *Tree Update*

Largent talked with Parshall Tree service and they are presently working on emergency tree removal from the storm before they can perform work at Gens Park. There is a tree leaning and uprooted at Gens, but it poses little danger at this time. Zerafa mentioned that if the damage is reported, it may be able to be taken care of under the state assistance funding for the storm. Trees down at Gens Park and Pine Grove Park will be reported.

### h. *Cap Bench Program Update*

Discussion will take place under New Business B.

## 8. Old Business

### A. *Playground for Grace Macdonald Park*

Walters reported that the Park Commission is about \$5,000 away from enough money for the purchase of the 2-5 Tot Lot at Grace Macdonald Park. The CMS Energy Grant submitted for \$10,000 is still outstanding. The cost of the playground has gone up approximately \$1,500. The team

from Carter's Kids will not charge any more. If the CMS Energy Grant does not come through, Walters would like to ask the Township Board for \$10,000 towards the 2-5 Tot Lot and Swings at Grace Macdonald park so that it can be installed this fall before prices rise further.

*Largent moved and Zerafa seconded to request \$10,000 from The Township Board for the 2-5 Tot Lot and Swings to be installed in Grace Macdonald Park.*

*Yeas: Largent, Zerafa, Gibbs, LeRoi, Walters, LaRose-Grover, Strait  
Nays: None*

#### **B. Arbutus #5 Playground Install**

Walters will check on hiring someone to install the playground equipment.

#### **C. Signage**

LeRoi recommends holding off on purchasing signage this year until the lease agreement is board approved. There is \$10,000 in the budget for signage and brochures for 2016. Board members talked about whether \$10,000 was sufficient and decided it was. Signage will be placed on the agenda in January.

#### **D. Surplus Equipment (Zerafa)**

Zerafa reported that the Old Grace Macdonald swings will be sold as surplus.

### **9. New Business**

#### **A. Budget**

Strait noted that the match was all ready for the Gens Park grant and asked commissioners if the 2016 budget was favorable. All agreed it was.

#### **B. Expense Reimbursement**

Walters picked up the benches in Greenville, Indiana recently and incurred 1,206 miles, \$96.60 in hotel bills, \$48.98 for food and paid for the benches for a total of \$1,532.03. The Girl Scouts have offered their bench to the township, so the township would incur the entire expense for the three benches. Zerafa said that it was possible that the BASA – Bay Area Senior Advocates – may help with these costs. Walters will submit the expenses to the township for approval.

*Largent moved and LeRoi seconded to approve expenditures in amount of \$1,532.03 to be reimbursed to Mindy Walters for park bench procurement.*

*Yeas: Largent, LeRoi, Gibbs, LaRose-Grover, Zerafa, Strait  
Nays: None  
Abstained: Walters*



Discussion took place on where to place benches and it was decided that one would be in Killingsworth Park, and one at Grace Macdonald park for now and Largent would secure them in place.

**C. Watershed Center - Gens Park Grant**

Strait passed out a schedule for the construction of the Gens Park construction and all approved of the timetable. It was proposed that bidding take place from October through March so that walk throughs of the property can be done without inclement weather. A dedication ceremony was discussed.

*Largent proposed that \$2,000 be placed into the 2016 budget for dedications and LaRose Grover seconded.*

*Yeas: Largent, LaRose-Grover, Gibbs, LeRoi, Zerafa, Walters, Strait*

*Nays: None*

Walters will send a copy of the grant application to the Watershed Center for promotion and media purposes.

**10. Public Comment**

LeRoi thanked Walters for the great job with the plastic collection to provide benches and said it was a learning experience for all involved.

The June 2015 minutes need to be approved on the September agenda.

**11. Park Representative for Next Township Meeting**

Walters and Largent will both be in attendance.

**12. Adjournment**

Strait moved to adjourn the meeting a 7:56pm.

East Bay Charter Township

#1

8/25/2015

Township Board,

On Aug. 13<sup>th</sup>. We interviewed Richard Brown for the position on Planner, this interview was performed by myself, Sue, Tracey and Leslie. Richard had all of the qualifications we were looking for in a Planner. Richard is currently employed by a large (40,000 population) Township and has been there since 1995.

Sue has done the background check and everything come back clean. I have contacted his references and present employer and talked to the Human Resource Director that gave Richard an exceptional reference, I also contacted a previous employer and received a great reference.

I am asking the Board to approve the hiring of Richard Brown for the position of Planner at the salary of \$60,000. Per year plus benefit package per our handbook, he will still need to take a drug test.

Glen



# PUBLIC HEARING

## NOTICE OF PUBLIC HEARING

NOTICE OF PUBLIC HEARING  
ON THE SPECIAL ASSESSMENT ROLL FOR EMERGENCY SERVICES  
PROTECTION  
East Bay Charter Township  
Grand Traverse County, Michigan

TO: THE RESIDENTS AND PROPERTY OWNERS OF EAST BAY CHARTER  
TOWNSHIP GRAND TRAVERSE COUNTY, MICHIGAN, AND ANY OTHER  
INTERESTED PERSONS

PLEASE TAKE NOTICE THAT the Township Board of East Bay Charter Township will conduct a Public Hearing at the Township Hall at 1965 Three Mile Road North, Traverse City, Michigan on Monday, September 14, 2015, at 6:30 P.M. to consider the distribution of the Special Assessment Levy and the estimated costs of expenses of Emergency Services associated with the Township's Emergency Services Special Assessment District. **The property tax millage rate proposed to be levied to support the proposed budget will be a subject of this hearing.**

PLEASE TAKE NOTICE THAT the Emergency Services Special Assessment District within which the cost of Emergency Service protection is proposed to be assessed includes the entire township and the estimated cost of providing Emergency Service protection within the special assessment district for the calendar year 2016 is approximately \$1,500,328.00. The amount of the special assessment is based upon the special benefit to real property from the nature level of Emergency Service to be provided by the Township.

PLEASE TAKE NOTICE that the total amount proposed to be specially assessed in the Emergency Services Special Assessment District and the millage rate proposed are:

TOTAL: \$ 1,509,496.00 MILLAGE RATE: 3.059mills.

PLEASE TAKE NOTE that copies of the proposed budget and of the proposed special assessment roll may be inspected at the Township office located at 1965 Three Mile Road North, Traverse City, Michigan 49696, on regular business days, on the township website: [eastbaytwp.org](http://eastbaytwp.org), and may also be inspected at the Public Hearing.

PLEASE TAKE FURTHER NOTICE that at the Public Hearing, the Township Board will review said proposed special assessment roll and any comments or objections thereto which might be made or filed with said board at or prior to the time of said public hearing, and will consider any revisions, amendments, or changes to said proposed special assessment roll and the amount of special assessments to be levied against benefited property.

Appearance and protest at this Public Hearing is required in order to appeal the amount of the special assessment to the State Tax Tribunal. An owner or party interest or his or her agent may appear in person at this hearing to protest the

special assessment, or shall be permitted to file his or her appearance or protest by letter received at or before the public hearing, and if such a letter is filed, then the personal appearance of the person protesting is not required.

The owner or any person having an interest in the real property who protests in person or in writing at this hearing as set forth above may file a written appeal of the special assessment with the State Tax Tribunal within 30 days after the confirmation of the special assessment roll.

PLEASE TAKE FURTHER NOTICE that if the proposed special assessment roll is confirmed, or is modified and confirmed, the special assessment will be collected in the same manner as property taxes as provided for by law.

All interested persons are invited to be present at the aforesaid time and place to submit comments concerning any of the foregoing, or to protest the proposed special assessment roll and/ or special assessment.

East Bay Charter Township will provide necessary reasonable auxiliary aids and services such as signers for the hearing impaired and audio tapes of printed material being considered at the hearing; to individuals with disabilities requiring auxiliary aids or services should contact the township clerk at the address or telephone listed below.

Glen Lile  
Township Supervisor

Susanne Courtade, CMMC/CMC  
Township Clerk

1965 Three Mile Road North  
Traverse City, MI 49696  
231-947-8647

ORDER CONFIRMATION (CONTINUED)

Salesperson: DENISE LINGERFELT

Printed at 08/13/15 11:34 by dling

Acct #: 1394

Ad #: 410647

Status: N

NOTICE OF PUBLIC HEARING

NOTICE OF PUBLIC HEARING  
ON THE SPECIAL ASSESSMENT ROLL FOR EMERGENCY SERVICES  
PROTECTION  
East Bay Charter Township  
Grand Traverse County, Michigan

TO: THE RESIDENTS AND PROPERTY OWNERS OF EAST BAY CHARTER TOWNSHIP GRAND TRAVERSE COUNTY, MICHIGAN, AND ANY OTHER INTERESTED PERSONS

PLEASE TAKE NOTICE THAT the Township Board of East Bay Charter Township will conduct a Public Hearing at the Township Hall at 1965 Three Mile Road North, Traverse City, Michigan on Monday, September 14, 2015, at 6:30 P.M. to consider the distribution of the Special Assessment Levy and the estimated costs of expenses of Emergency Services associated with the Township's Emergency Services Special Assessment District.

**The property tax millage rate proposed to be levied to support the proposed budget will be a subject of this hearing.**

PLEASE TAKE NOTICE THAT the Emergency Services Special Assessment District within which the cost of Emergency Service protection is proposed to be assessed includes the entire township and the estimated cost of providing Emergency Service protection within the special assessment district for the calendar year 2016 is approximately \$1,500,328.00. The amount of the special assessment is based upon the special benefit to real property from the nature level of Emergency Service to be provided by the Township.

PLEASE TAKE NOTICE that the total amount proposed to be specially assessed in the Emergency Services Special Assessment District and the millage rate proposed are:

TOTAL: \$ 1,509,496.00 MILLAGE RATE: 3.059mills.

PLEASE TAKE NOTE that copies of the proposed budget and of the proposed special assessment roll may be inspected at the Township office located at 1965 Three Mile Road North, Traverse City, Michigan 49696, on regular business days, on the township website: eastbaytwp.org, and may also be inspected at the Public Hearing.

PLEASE TAKE FURTHER NOTICE that at the Public Hearing, the Township Board will review said proposed special assessment roll and any comments or objections thereto which might be made or filed with said board at or prior to the time of said public hearing, and will consider any revisions, amendments, or changes to said proposed special assessment roll and the amount of special assessments to be levied against benefited property.

Appearance and protest at this Public Hearing is required in order to appeal the amount of the special assessment to the State Tax Tribunal. An owner or party interest or his or her agent may appear in person at this hearing to protest the special assessment, or shall be permitted to file his or her appearance or protest by letter received at or before the public hearing, and if such a letter is filed, then the personal appearance of the person protesting is not required.

The owner or any person having an interest in the real property who protests in person or in writing at this hearing as set forth above may file a written appeal of the special assessment with the State Tax Tribunal within 30 days after the confirmation of the special assessment roll.

PLEASE TAKE FURTHER NOTICE that if the proposed special assessment roll is confirmed, or is modified and confirmed, the special assessment will be collected in the same manner as property taxes as provided for by law.

All interested persons are invited to be present at the aforesaid time and place to submit comments concerning any of the foregoing, or to protest the proposed special assessment roll and/or special assessment.

East Bay Charter Township will provide necessary reasonable auxiliary aids and services such as signers for the hearing impaired and audio tapes of printed material being considered at the hearing; to individuals with disabilities requiring auxiliary aids or services should contact the township clerk at the address or telephone listed below.

Glen Lile  
Township Supervisor  
Susanne Courtade, CMMC/CMC  
Township Clerk

1965 Three Mile Road North  
Traverse City, MI 49696  
231-947-8647

August 24, 2015-1T

410647



T. C. RECORD-EAGLE, INC.  
120 WEST FRONT STREET  
TRAVERSE CITY MI 49684  
(231) 946-2000

ORDER CONFIRMATION

Salesperson: DENISE LINGERFELT

Printed at 08/13/15 11:34 by dling

Acct #: 1394

Ad #: 410647

Status: N

EAST BAY CHARTER TOWNSHIP  
1965 THREE MILE ROAD N  
TRAVERSE CITY MI 49696

Start: 08/24/2015 Stop: 08/24/2015  
Times Ord: 1 Times Run: \*\*\*  
STDAD 3.00 X 9.35 Words: 641  
Total STDAD 28.05  
Class: 147 LEGALS  
Rate: LEGAL Cost: 192.75  
# Affidavits: 1

Contact:

Phone: (231) 947-8647

Fax#: (231) 922-2094

Email: [scourtade@eastbaytwp.org](mailto:scourtade@eastbaytwp.org)

Agency:

Ad Descript: NOTICE OF PUBLIC HEARING

Given by: EMAIL SUE COURTADE

Created: dling 08/13/15 11:30

P Last Changed: dling 08/13/15 11:34

PUB	ZONE	EDT	TP	START	INS	STOP	SMTWTFS
RE	A	97	W	08/24/15	1	08/24/15	SMTWTFS
IN	AIN	97	W	08/24/15	1	08/24/15	SMTWTFS

AUTHORIZATION

Thank you for advertising in the Record-Eagle, our related publications and online properties. If you are advertising with the Record-Eagle classifieds, your ad will begin running on the start date noted above.

Please be sure to check your ad on the first day it appears. Although we are happy to make corrections at any time, the Record-Eagle is only responsible for the first day's incorrect insertions. Also, we reserve the right to edit or reclassify your ad to better serve buyers and sellers.

No refunds or rebates will be issued if you cancel your ad prior to the stop date.

We appreciate your business.

(CONTINUED ON NEXT PAGE)

2016 Budget  
Ambulance Services  
Fund  
205

Notice: August 24, 2015

Public Hearing: September 14, 2015

Adopted: \_\_\_\_\_

GL NUMBER	DESCRIPTION	2014 AMENDED BUDGET	2015 ADOPTED BUDGET	2016 REQUESTED BUDGET	2016 BUDGET WORKSHOP-1 BUDGET	2016 ADOPTED BUDGET
Dept 000						
ESTIMATED REVENUES						
Function: Unclassified						
PROPERTY TAXES						
205-000-402.000	CURRENT REAL PROPERTY TAXES	1,564,528	1,456,924	1,500,328	0	0
	PROPERTY TAXES	1,564,528	1,456,924		0	0
UNCLASSIFIED						
205-000-622.998	TRANSFERS IN	48,714	123,093	98,692	0	0
	UNCLASSIFIED	48,714	123,093		0	0
MISCELLANEOUS						
205-000-692.000	OTHER REVENUES/DONATIONS	2,707	0		0	0
	MISCELLANEOUS	2,707	0		0	0
Total - Function Unclassified		1,615,949	1,580,017		0	0
TOTAL ESTIMATED REVENUES		1,615,949	1,580,017		0	0
APPROPRIATIONS						
Function: Unclassified						
ACCOUNTS PAYABLE						
205-000-998.000	TRANSFERS TO/FROM OTHER FUNDS	1,490,161	1,506,162	1,500,328	0	0
	ACCOUNTS PAYABLE	1,490,161	1,506,162		0	0
Total - Function Unclassified		1,490,161	1,506,162		0	0
TOTAL APPROPRIATIONS		1,490,161	1,506,162		0	0
NET OF REVENUES/APPROPRIATIONS - 000-		125,788	73,855	98,692	0	0
ESTIMATED REVENUES - FUND 205		1,615,949	1,580,017	1,599,020	0	0
APPROPRIATIONS - FUND 205		1,490,161	1,506,162	1,500,328	0	0
NET OF REVENUES/APPROPRIATIONS - FUND 205		125,788	73,855	98,692	0	0
BEGINNING FUND BALANCE		(73,672)	(73,672)	183	183	183
ENDING FUND BALANCE		52,116	183	98,875	183	183

2016 Budget  
Ambulance Services  
Fund  
206

Notice: August 24, 2015

Public Hearing: September 14, 2015

Adopted: \_\_\_\_\_

GL NUMBER	DESCRIPTION	2014 AMENDED BUDGET	2015 ADOPTED BUDGET	2016 REQUESTED BUDGET	2016 BUDGET WORKSHOP-1 BUDGET	2016 ADOPTED BUDGET
Dept 000						
ESTIMATED REVENUES						
Function: Unclassified						
UNCLASSIFIED						
206-000-622.998	TRANSFERS IN	1,071,708	1,506,162	1,184,305	0	0
	UNCLASSIFIED	1,071,708	1,506,162		0	0
	Total - Function Unclassified	1,071,708	1,506,162		0	0
	TOTAL ESTIMATED REVENUES	1,071,708	1,506,162		0	0
APPROPRIATIONS						
Function: Unclassified						
UNCLASSIFIED						
206-000-896.000	PROPERTY TAX REFUND	2,537	0		0	0
	UNCLASSIFIED	2,537	0		0	0
CONTRACTUAL						
206-000-802.050	METRO	1,071,708	1,506,162	1,184,305	0	0
	CONTRACTUAL	1,071,708	1,506,162		0	0
	Total - Function Unclassified	1,074,245	1,506,162		0	0
	TOTAL APPROPRIATIONS	1,074,245	1,506,162		0	0
	NET OF REVENUES/APPROPRIATIONS - 000-	(2,537)	0	0	0	0
	ESTIMATED REVENUES - FUND 206	1,071,708	1,506,162	1,184,305	0	0
	APPROPRIATIONS - FUND 206	1,074,245	1,506,162	1,184,305	0	0
	NET OF REVENUES/APPROPRIATIONS - FUND 206	(2,537)	0	0	0	0
	BEGINNING FUND BALANCE	0	0	0	0	0
	ENDING FUND BALANCE	(2,537)	0	0	0	0

2016 Budget  
Ambulance Services  
Fund  
207

Notice: August 24, 2015

Public Hearing: September 14, 2015

Adopted: \_\_\_\_\_

GL NUMBER	DESCRIPTION	2014 AMENDED BUDGET	2015 ADOPTED BUDGET	2016 REQUESTED BUDGET	2016 BUDGET WORKSHOP-1 BUDGET	2016 ADOPTED BUDGET
Dept 000						
ESTIMATED REVENUES						
Function: Unclassified						
UNCLASSIFIED						
207-000-622.998	TRANSFERS IN	160,269	161,989	153,176	0	0
	UNCLASSIFIED	160,269	161,989		0	0
REVENUE						
207-000-330.100	LIQUOR LAW ENFORCEMENT	7,000	7,000	7,000	0	0
	REVENUE	7,000	7,000		0	0
Total - Function Unclassified		167,269	168,989		0	0
TOTAL ESTIMATED REVENUES		167,269	168,989		0	0
APPROPRIATIONS						
Function: Unclassified						
UNCLASSIFIED						
207-000-896.000	PROPERTY TAX REFUND	500	300		0	0
	UNCLASSIFIED	500	300		0	0
CONTRACTUAL						
207-000-802.000	CONTRACT SERVICES	160,269	159,632	153,176	0	0
	CONTRACTUAL	160,269	159,632		0	0
Total - Function Unclassified		160,769	159,932		0	0
TOTAL APPROPRIATIONS		160,769	159,932		0	0
NET OF REVENUES/APPROPRIATIONS - 000-		6,500	9,057	7,000	0	0
ESTIMATED REVENUES - FUND 207		167,269	168,989	160,176	0	0
APPROPRIATIONS - FUND 207		160,769	159,932	153,176	0	0
NET OF REVENUES/APPROPRIATIONS - FUND 207		6,500	9,057	7,000	0	0
BEGINNING FUND BALANCE		21,082	21,082	30,139	30,139	30,139
ENDING FUND BALANCE		27,582	30,139	37,139	30,139	30,139

2016 Budget  
Ambulance Services  
Fund  
210

Notice: August 24, 2015

Public Hearing: September 14, 2015

Adopted: \_\_\_\_\_



GL NUMBER	DESCRIPTION	2014 AMENDED BUDGET	2015 ADOPTED BUDGET	2016 REQUESTED BUDGET	2016 BUDGET WORKSHOP-1 BUDGET	2016 ADOPTED BUDGET
Dept 000						
ESTIMATED REVENUES						
Function: Unclassified						
UNCLASSIFIED						
210-000-622.998	TRANSFERS IN	258,200	260,957	<u>261,539</u>	0	0
210-000-692.344	UTIL. F/B AMBULANCE	0	0	<u>180,000</u>	0	0
210-000-692.345	UTIL F/B AMB B	45,464	45,000	<u>45,000</u>	0	0
210-000-692.911	UTILIZATION FUND BALANCE-HRA	2,551	2,551	<u></u>	0	0
	UNCLASSIFIED	<u>306,215</u>	<u>308,508</u>	<u></u>	0	0
INTEREST						
210-000-665.002	RESTRICTED INTEREST FUND B	500	500	<u>25,000</u>	0	0
210-000-665.004	RESTRICTED INTEREST FUND D	2	0	<u></u>	0	0
	INTEREST	<u>502</u>	<u>500</u>	<u></u>	0	0
CHARGES FOR SERVICES						
210-000-628.000	AMBULANCE RUN RESTRICTED B	95,807	90,000	<u>90,000</u>	0	0
	CHARGES FOR SERVICES	<u>95,807</u>	<u>90,000</u>	<u></u>	0	0
	Total - Function Unclassified	<u>402,524</u>	<u>399,008</u>	<u></u>	0	0
	TOTAL ESTIMATED REVENUES	<u>402,524</u>	<u>399,008</u>	<u></u>	0	0
	NET OF REVENUES/APPROPRIATIONS - 000-	<u>402,524</u>	<u>399,008</u>	<u>601,539</u>	0	0

GL NUMBER	DESCRIPTION	2014 AMENDED BUDGET	2015 ADOPTED BUDGET	2016 REQUESTED BUDGET	2016 BUDGET WORKSHOP-1 BUDGET	2016 ADOPTED BUDGET
Dept 344-AMBULANCE						
APPROPRIATIONS						
Function: Unclassified						
MISCELLANEOUS						
210-344-930.000	MAINTENANCE/REPAIRS	9,000	5,000	<u>6,000</u>	0	0
	MISCELLANEOUS	<u>9,000</u>	<u>5,000</u>		<u>0</u>	<u>0</u>
UNCLASSIFIED						
210-344-713.000	OVERTIME WAGES	5,668	5,000	<u>10,000</u>	0	0
210-344-896.000	PROPERTY TAX REFUND	1,500	1,500	<u>1,500</u>	0	0
210-344-897.000	FUND B REFUNDS	1,054	1,000	<u>1,000</u>	0	0
210-344-924.100	CELL PHONES	1,200	1,200	<u>1,200</u>	0	0
	UNCLASSIFIED	<u>9,422</u>	<u>8,700</u>		<u>0</u>	<u>0</u>
CONTRACTUAL						
210-344-801.000	LEGAL EXPENSE/ATTORNEY	150	500	<u>500</u>	0	0
210-344-802.000	CONTRACT SERVICES	8,500	8,500	<u>9,000</u>	0	0
210-344-802.001	NORTHEFLIGHT-SERVICES	30,240	27,000	<u>29,000</u>	0	0
210-344-901.000	INSURANCE & BONDS	15,000	15,000	<u>16,000</u>	0	0
	CONTRACTUAL	<u>53,890</u>	<u>51,000</u>		<u>0</u>	<u>0</u>
PERSONNEL SERVICES						
210-344-718.000	STATION HELP	115,416	120,407	<u>125,000</u>	0	0
210-344-719.000	AMBULANCE ADMINISTRATION	7,240	0	<u>0</u>	0	0
210-344-743.050	UNIFORMS	2,500	3,000	<u>3,000</u>	0	0
210-344-746.000	PART PAID STAFF	65,121	40,000	<u>50,000</u>	0	0
210-344-746.001	NIGHTTIME COMPENSATION	36,400	42,000	<u>40,000</u>	0	0
210-344-873.000	PAYROLL EXPENSES	14,307	13,390	<u>14,000</u>	0	0
210-344-874.000	PENSION PLAN	12,694	13,074	<u>14,000</u>	0	0
210-344-910.000	MEDICAL INSURANCE	38,164	38,164	<u>35,000</u>	0	0
210-344-911.000	HSA DEDUCTIBLE ACCT	16,000	8,000	<u>9,600</u>	0	0
210-344-912.000	LIFE/LTD INSURANCE	1,700	1,700	<u>1,700</u>	0	0

GL NUMBER	DESCRIPTION	2014 AMENDED BUDGET	2015 ADOPTED BUDGET	2016 REQUESTED BUDGET	2016 BUDGET WORKSHOP-1 BUDGET	2016 ADOPTED BUDGET
Dept 344-AMBULANCE						
APPROPRIATIONS						
Function: Unclassified						
PERSONNEL SERVICES						
	PERSONNEL SERVICES	309,542	279,735		0	0
SUPPLIES						
210-344-727.000	POSTAGE	50	50	50	0	0
210-344-740.000	OPERATING SUPPLIES	2,000	2,000	2,000	0	0
210-344-742.000	MEDICAL SUPPLIES	3,559	3,000	3,000	0	0
210-344-743.000	LINEN SUPPLIES	300	150	150	0	0
210-344-744.000	OSHA REQUIRED SUPPLIES	500	0		0	0
210-344-745.000	GAS,OIL & SUPPLIES	6,500	5,250	5,500	0	0
210-344-806.000	EDUCATION	2,000	3,500	3,000	0	0
	SUPPLIES	14,909	13,950		0	0
EXPENSE						
210-344-910.100	PPACA TAX	2,371	2,300		0	0
210-344-910.200	HRA ADMIN FEES	180	180		0	0
210-344-970.000	CAPITAL OUTLAY	0	5,000	5,000	0	0
	EXPENSE	2,551	7,480		0	0
CAPITAL OUTLAY						
210-344-971.000	EQUIPMENT CAPITAL OUTLAY	0	0	12,000	0	0
	CAPITAL OUTLAY	0	0		0	0
INVESTMENTS-CURRENT						
210-344-972.000	RESERVE FOR AMBULANCE	0	0	180,000	0	0
	INVESTMENTS-CURRENT	0	0		0	0
Total - Function Unclassified		399,314	365,865		0	0
TOTAL APPROPRIATIONS		399,314	365,865		0	0
NET OF REVENUES/APPROPRIATIONS - 344-AMBULANCE		(399,314)	(365,865)	(577,200)	0	0
ESTIMATED REVENUES - FUND 210		402,524	399,008	601,539	0	0
APPROPRIATIONS - FUND 210		399,314	365,865	577,200	0	0
NET OF REVENUES/APPROPRIATIONS - FUND 210		3,210	33,143	24,339	0	0
BEGINNING FUND BALANCE		823,650	823,650	856,793	856,793	856,793

GL NUMBER	DESCRIPTION	2014 AMENDED BUDGET	2015 ADOPTED BUDGET	2016 REQUESTED BUDGET	2016 BUDGET WORKSHOP-1 BUDGET	2016 ADOPTED BUDGET
	ENDING FUND BALANCE	826,860	856,793	881,132	856,793	856,793
	ESTIMATED REVENUES - ALL FUNDS	3,257,450	3,654,176	3,545,040	0	0
	APPROPRIATIONS - ALL FUNDS	3,124,489	3,538,121	3,415,009	0	0
	NET OF REVENUES/APPROPRIATIONS - ALL FUNDS	132,961	116,055	130,031	0	0
	BEGINNING FUND BALANCE - ALL FUNDS	771,059	771,059	887,114	887,114	887,114
	ENDING FUND BALANCE - ALL FUNDS	904,020	887,114	1,017,145	887,114	887,114



## GRAND TRAVERSE METRO FIRE DEPARTMENT 2016 BUDGET TIMELINE

Below is the timeline for approving Metro's 2016 Budget:

- June 23, 2015:** Begin discussion regarding 2016 Budget
- July 7, 2015:** 2016 Budget Workshop with Metro Board  
9am - 11am
- July 28, 2015** Metro's Board to approve 2016 Budget, pending Townships approval
- August, 2015:** Take Metro's 2016 Budget to Township Boards for approval
- September, 2015** Public Hearings and Final Approval by the Townships
- Sept. 22, 2015:** Final approval of Metro's 2016 Budget by the Board
- Sept. 30, 2015:** Notify GT County of Townships millage rate for Metro!



# GRAND TRAVERSE METRO FIRE DEPARTMENT 2016 BUDGET ASSUMPTIONS/ISSUES Preliminary

Below are assumptions/issues for the 2016 Budget:

- 1) 2.3% increase in Townships real property taxable valuations.  
(at 2.35 mills, this impact is approx \$81,000 of additional revenue from Townships in 2016).
- 2) Wages and Benefits
  - \* Wage increases for firefighters, administrative and fire inspectors
  - \* Budgeted 10% increase in health insurance premiums
  - \* Increase PT FF hourly rate by \$0.35. Effective 1/1/16, Michigan minimum wage will increase by \$0.35/hour to \$8.50 per hour.
- 3) Purchase new Squad 11 out of PIF funds (similar to truck purchased in 2015)
- 4) In 2016, payments for Tanker 12 Cherryland loan will be paid out of the Public Improvement Fund (\$62,492) (same as previous years)
- 5) Lease payment for Engine 8 is \$99,500 per year out of the General Fund. (purchased 2013)
- 6) Monies transferred to Public Improvement Fund ("PIF") represents funds to pay for Station 8 construction debt only. This is the fifth year in a row where monies won't be transferred to PIF to save for future capital needs.
- 7) **Payments for Station 8 debt of \$185,387 are included in the PIF budget - which is 0.12 mills.**  
Debt total \$2,250,000 for 15 years at 2.9%, with a balloon payment or refinance after 10 years.
- 8) The General Fund budget presented results in a millage of 2.46 mills in order to have a balanced budget.
- 9) **Metro Board Recommendation:** To approve a 2.4 mills 2016 Budget for Metro, resulting in a loss (use of fund balance) of (\$92,536) for the General Fund.
- 10) The 2016 Budget for the Public Improvement Fund results in a loss (use of fund balance) of (\$115,492). The 2016 projected end of year fund balance for PIF is \$263,780.
- 11) Based on the **combined** budgets presented (for general fund and PIF), Metro is budgeting a use of approximately 12% or (\$208,028) of its projected 12/31/2015 combined fund balance of \$1,756,000.

**GRAND TRAVERSE METRO FIRE DEPARTMENT  
TOWNSHIP FUNDING OPTIONS  
2016 BUDGET**



Note: GT Metro is requesting 2.4 mills from each of its Townships to fulfill its 2016 Budget. The below chart shows different funding scenerio's for the Township's to evaluate.

Township	2.4 Mills 0.0024	2.3 Mills 0.0023	2.2 Mills 0.0022	2.1 Mills 0.0021
----------	---------------------	---------------------	---------------------	---------------------

**Garfield Township: 48.9%**

Net Taxable Value	751,415,592	751,415,592	751,415,592	751,415,592
Property Tax Revenue	\$ 1,803,397	\$ 1,728,256	\$ 1,653,114	\$ 1,577,973
Township Allocation	0	75,142	150,283	225,425
<b>Total 2016 Revenue to Metro</b>	<b>\$ 1,803,397</b>	<b>\$ 1,803,397</b>	<b>\$ 1,803,397</b>	<b>\$ 1,803,397</b>

**East Bay Township: 32.1%**

Net Taxable Value	493,460,516	493,460,516	493,460,516	493,460,516
Property Tax Revenue	\$ 1,184,305	\$ 1,134,959	\$ 1,085,613	\$ 1,036,267
Township Allocation	0	49,346	98,692	148,038
<b>Total 2016 Revenue to Metro</b>	<b>\$ 1,184,305</b>	<b>\$ 1,184,305</b>	<b>\$ 1,184,305</b>	<b>\$ 1,184,305</b>

**Acme Township: 19.0%**

Net Taxable Value	292,463,461	292,463,461	292,463,461	292,463,461
Property Tax Revenue	\$ 701,912	\$ 672,666	\$ 643,420	\$ 614,173
Township Allocation	0	29,246	58,493	87,739
<b>Total 2016 Revenue to Metro</b>	<b>701,912</b>	<b>701,912</b>	<b>701,912</b>	<b>701,912</b>

Note: GT Metro's 2015 budget was approved at 2.35 mills. Potential Township payment of 0.15 Mills is as follows:

	2015 Budgeted Add'l Pymt
Garfield	\$ 113,998
East Bay	\$ 74,750
Acme	\$ 43,648
	<b>\$ 232,396</b>

**GRAND TRAVERSE METRO FIRE DEPARTMENT  
OPERATING AND CAPITAL BUDGET  
2016 BUDGET**



Description	2013		2014		(budget) 2015		(budget) 2016		
		Mills		Mills		Mills		Mills	
Township Milage Rate		2.1 Mills		2.2 Mills		2.35 Mills		2.40 Mills (proposed)	
Township Net Taxable Value	\$	1,452,320,006	\$	1,476,556,066	\$	1,502,817,154	\$	1,537,339,569	
Net Operating Expenses (net of other revenues)		2,853,643	1.96	3,063,874	2.08	3,371,249	2.24	3,497,306	2.27
				5.60%		8.11%		1.41%	
Debt Payments - General Fund		103,119	0.071	219,335	0.149	167,345	0.111	99,457	0.065
Transfer to PIF - Sta8 debt pymt		-		-		-		185,387	0.121
<b>Total Operating Expenses</b>	<b>\$</b>	<b>2,956,762</b>	<b>2.04</b>	<b>\$ 3,283,209</b>	<b>2.22</b>	<b>\$ 3,538,594</b>	<b>2.35</b>	<b>\$ 3,782,150</b>	<b>2.46</b>

**PIF Vehicle & Debt Payments: (use of PIF fund balance)**

Debt Payments - PIF		62,491	0.043	62,491	0.042	62,492	0.042	62,492	0.041
Vehicles - paid PIF cash						50,000	0.033	50,000	0.033
<b>Total PIF Vehicle &amp; Debt Payments</b>		<b>62,491</b>	<b>0.043</b>	<b>62,491</b>	<b>0.042</b>	<b>112,492</b>	<b>0.075</b>	<b>112,492</b>	<b>0.073</b>





**GRAND TRAVERSE METRO FIRE DEPARTMENT  
2016 BUDGET WORKSHEET - PRELIMINARY  
NET TAXABLE VALUE ALLOCATION  
Preliminary**

<b>TOTAL BUDGETED EXPENDITURES:</b>	<b>2016</b>
	\$ 4,023,960
<b>LESS: OTHER REVENUE ITEMS:</b>	\$ 241,810
<b>NET EXPENDITURES TO BE ALLOC.</b>	<b>\$ 3,782,150</b>
<b>TOWNSHIP ASSESSED VALUES, net</b>	<b>1,537,339,569</b>

Millage rate to breakeven **2.46**  
 92,536 Use of fund balance  
 (reduce to get to 2.4 mills)

ALLOCATION BASED ON TAXABLE VALUE - 2.4 MILLS					
		2016 BUDGETED TWP REVENUE	2015 BUDGETED TWP REVENUE	DIFFERENCE	% CHANGE
ACME	19.0%	701,912	663,304	38,608	5.82%
EAST BAY	32.1%	1,184,305	1,135,935	48,370	4.26%
GARFIELD	48.9%	1,803,397	1,732,381	71,016	4.10%
<b>TOTAL</b>		<b>3,689,614</b>	<b>3,531,620</b>	<b>157,994</b>	<b>4.47%</b>

	2015 TAXABLE VALUE (net of personal prop.)	2014 TAXABLE VALUE (net of personal prop.)	DIFFERENCE	% CHANGE
ACME	292,463,461	282,257,218	10,206,243	3.62%
% of total	19.0%	18.8%		
EAST BAY	493,460,516	483,376,426	10,084,090	2.09%
% of total	32.1%	32.2%		
GARFIELD	751,415,592	737,183,510	14,232,082	1.93%
% of total	48.9%	49.1%		
<b>TOTAL</b>	<b>1,537,339,569</b>	<b>1,502,817,154</b>	<b>34,522,415</b>	<b>2.30%</b>

**BUDGET WORKSHEET**  
2016 Proposed Metro Budget

W/GTFX

Month: 6/30/2015	Prior Year Actual	Current Year			(6) Requested	(7) Recommended	(8) Adopted	
		Original Budget	Amended Budget	Actual Thru June				Estimated Total
<b>Fund: 206 - METRO FIRE</b>								
<b>Revenues</b>								
Dept: 000								
Acct Class: 000 Revenues								
600.001 Acme Township - Cont.	577,176	663,304	663,304	630,192	0	701,912	701,912	0
600.002 East Bay Twp. Contr	1,026,182	1,135,935	1,135,935	1,023,828	0	1,184,305	1,184,305	0
600.003 Garfield Charter Twp.	1,522,962	1,732,381	1,732,381	1,616,030	0	1,803,397	1,803,397	0
650.000 MI Tax Tribunal Refunds	0	-5,000	-5,000	-527	0	-5,000	-5,000	0
664.000 Earned Interest	5,484	4,000	4,000	2,189	0	4,000	4,000	0
667.100 EMS Firefighter Revenue	134,341	95,810	95,810	49,619	0	95,810	95,810	0
668.100 Simulator Revenue	0	5,000	5,000	0	0	2,000	2,000	0
668.500 Cost Recovery Revenue	49,775	70,000	70,000	27,810	0	60,000	60,000	0
668.600 911 Memorial Donations	2,861	0	0	717	0	0	0	0
669.000 Plan Reviews	60,052	50,000	50,000	37,987	0	60,000	60,000	0
669.001 Refunds and Donations	43,198	12,000	12,000	22,101	0	20,000	20,000	0
669.002 Sale of Surplus Assets	18,100	5,000	5,000	1,800	0	5,000	5,000	0
669.006 Misc. Grant Receipts	55,513	0	11,930	11,930	0	0	0	0
Revenues	3,495,644	3,768,430	3,780,360	3,423,676	0	3,931,424	3,931,424	0
Acct Class: 990 DEBT SERVICE								
675.000 Debt Proceeds	360,000	0	0	0	0	0	0	0
DEBT SERVICE	360,000	0	0	0	0	0	0	0
Dept: 000	3,855,644	3,768,430	3,780,360	3,423,676	0	3,931,424	3,931,424	0
Total Revenues	3,855,644	3,768,430	3,780,360	3,423,676	0	3,931,424	3,931,424	0
<b>Expenditures</b>								
Dept: 336 METRO FIRE EXPENDITURES								
Acct Class: 701 PERSONNEL SERVICES								
702.000 Wages and Salaries	1,034,857	1,111,083	1,137,318	498,123	0	1,249,295	1,249,295	0
702.001 Longevity	22,649	29,000	29,000	0	0	32,000	32,000	0
702.010 Overtime Wages	22,885	0	0	0	0	0	0	0
703.000 Metro Firefighters Comp.	50,030	90,000	86,794	16,196	0	55,000	55,000	0
703.001 Metro Fire Officers Salaries	12,000	12,000	12,000	5,700	0	12,000	12,000	0
703.200 Metro FF Wages	568,487	560,400	534,165	264,786	0	547,600	547,600	0
703.300 Part-time Administrative	39,671	50,000	50,000	20,792	0	50,000	50,000	0
705.000 Personal Day Payout	28,186	25,000	25,650	211	0	29,500	29,500	0
715.000 FICA/Medicare	50,761	74,826	73,194	31,146	0	74,078	74,078	0
715.001 Medicare/Salaried Only	17,091	0	0	0	0	0	0	0
716.000 Health/Dental/Optical Ins.	322,550	403,000	403,000	228,544	0	423,000	423,000	0
716.003 Life Ins./LTD/STD	14,265	20,000	20,000	4,814	0	17,000	17,000	0
717.001 AD&D Insurance	9,374	10,000	10,000	9,761	0	11,000	11,000	0
718.000 Retirement	165,142	168,500	172,688	75,892	0	188,538	188,538	0

**BUDGET WORKSHEET**  
2016 Proposed Metro Budget

WJGTFX

Month: 6/30/2015	Prior Year Actual	Current Year			Estimated Total	(6) Requested	(7) Recommended	(8) Adopted
		Original Budget	Amended Budget	Actual Thru June				
Fund: 206 - METRO FIRE								
Expenditures								
Dept: 336 METRO FIRE EXPENDITURES								
Acct Class: 701 PERSONNEL SERVICES								
719.000 Workers Comp. Insurance	63,919	65,000	65,000	58,447	0	69,000	69,000	0
PERSONNEL SERVICES	2,422,867	2,618,809	2,618,809	1,214,412	0	2,758,011	2,758,011	0
Acct Class: 726 SUPPLIES								
727.000 Office Supplies	11,137	11,750	11,750	4,664	0	13,250	13,250	0
729.000 Printing and Binding	3,549	6,800	6,800	2,274	0	5,000	5,000	0
730.000 Postage	2,426	2,500	2,500	974	0	2,500	2,500	0
743.000 Other Supplies	20,918	24,000	24,000	7,320	0	21,500	21,500	0
745.000 Uniforms and Accessories	20,862	20,500	20,500	9,746	0	21,500	21,500	0
745.002 Fire Gear & PPE	34,182	38,500	38,500	15,242	0	30,000	30,000	0
748.000 Fuel, Oil, Grease	58,647	61,500	61,500	16,967	0	61,000	61,000	0
760.000 Medical Supplies	10,810	10,000	10,000	5,375	0	9,700	9,700	0
SUPPLIES	162,531	175,550	175,550	62,562	0	164,450	164,450	0
Acct Class: 800 CONTRACTUAL SERVICES								
801.000 Legal Fees	11,666	20,000	20,000	5,634	0	15,000	15,000	0
810.000 Subscriptions	5,532	3,500	3,500	3,290	0	4,000	4,000	0
810.001 Dues	7,111	7,500	7,500	4,450	0	7,500	7,500	0
818.000 Contract Services	69,989	34,300	34,300	18,959	0	33,600	33,600	0
830.000 Fire Hydrant Maintenance	20,055	20,000	20,000	0	0	20,055	20,055	0
850.001 Telephone	33,630	28,800	28,800	16,232	0	35,100	35,100	0
CONTRACTUAL SERVICES	147,983	114,100	114,100	48,565	0	115,255	115,255	0
Acct Class: 900 OTHER SERVICES AND CHARGES								
910.000 Fleet & Liability Property Ins	65,894	68,000	68,000	65,138	0	68,000	68,000	0
920.000 Heat Utilities	38,111	32,000	32,000	21,444	0	38,000	38,000	0
921.000 Electric Utilities	46,160	47,000	47,000	19,742	0	46,000	46,000	0
923.000 Sewer and Water Utilities	14,472	16,000	16,000	5,818	0	16,000	16,000	0
924.000 Waste Disposal	6,660	6,200	6,200	969	0	2,000	2,000	0
930.000 Bldg. Repair and Maintenance	61,421	51,000	51,000	28,358	0	55,000	55,000	0
932.000 Equipment Repair & Maint.	15,650	15,000	15,000	5,732	0	15,000	15,000	0
932.001 Radio/Pager Repair and Maint.	4,261	7,000	7,000	828	0	7,500	7,500	0
932.100 SCBA Repair/Maintenance	4,774	10,000	10,000	1,736	0	10,000	10,000	0
934.000 Vehicle Repair and Maintenance	123,473	102,000	102,000	47,737	0	64,000	64,000	0
934.100 Vehicle R&M - parts	0	0	0	32	0	43,000	43,000	0
934.500 Simulator Expenses	28	2,500	2,500	158	0	2,500	2,500	0
934.600 911 Memorial Costs	17,693	0	0	0	0	0	0	0
935.000 Ground Care and Maintenance	22,275	34,000	34,000	11,640	0	28,000	28,000	0
955.000 Employee Physicals & Wellness	40,162	43,700	43,700	19,843	0	43,700	43,700	0
956.000 Employee Train. and Develop.	51,908	50,000	50,000	33,145	0	51,500	51,500	0

**BUDGET WORKSHEET**  
2016 Proposed Metro Budget

W/GTFX

Month: 6/30/2015	Prior	Current Year			Estimated	(6)	(7)	(8)
	Year	Original	Amended	Actual Thru				
	Actual	Budget	Budget	June	Total	Requested	Recommended	Adopted
Fund: 206 - METRO FIRE								
Expenditures								
Dept: 336 METRO FIRE EXPENDITURES								
Acct Class: 900 OTHER SERVICES AND CHARGES								
956.001 Computer Support	20,988	23,500	23,500	12,417	0	28,000	28,000	0
OTHER SERVICES AND CHARGES	533,930	507,900	507,900	274,737	0	518,200	518,200	0
Acct Class: 970 CAPITAL OUTLAY								
976.001 Building Improvement	24,239	33,000	33,000	12,522	0	28,500	28,500	0
977.000 Machinery and Equipment	136,421	134,500	146,430	41,868	0	134,500	134,500	0
978.000 Vehicles Acquisition	380,702	0	0	0	0	0	0	0
980.000 Office Equipment	0	2,000	2,000	0	0	2,000	2,000	0
980.100 Computer Replacement	5,231	12,000	12,000	946	0	8,000	8,000	0
CAPITAL OUTLAY	546,593	181,500	193,430	55,336	0	173,000	173,000	0
Acct Class: 990 DEBT SERVICE								
990.000 Debt payment	572,022	132,630	132,630	48,226	0	97,198	97,198	0
990.005 Interest Expense	7,313	34,715	34,715	1,502	0	2,259	2,259	0
DEBT SERVICE	579,335	167,345	167,345	49,728	0	99,457	99,457	0
Acct Class: 992 CONTINGENCY								
992.000 Contingency	0	10,000	10,000	0	0	10,000	10,000	0
CONTINGENCY	0	10,000	10,000	0	0	10,000	10,000	0
Acct Class: 993 EMERGENCY CONT FUND								
992.001 Emergency Cont. Fund	0	200	200	0	0	200	200	0
EMERGENCY CONT FUND	0	200	200	0	0	200	200	0
Acct Class: 999 TRANSFERS OUT								
985.100 Transfer to Public Imp. Fund	0	0	0	0	0	185,387	185,387	0
TRANSFERS OUT	0	0	0	0	0	185,387	185,387	0
METRO FIRE EXPENDITURES	4,393,239	3,775,404	3,787,334	1,705,340	0	4,023,960	4,023,960	0
Total Expenditures	4,393,239	3,775,404	3,787,334	1,705,340	0	4,023,960	4,023,960	0
METRO FIRE	-537,595	-6,974	-6,974	1,718,336	0	-92,536	-92,536	0

**BUDGET WORKSHEET**  
2016 Proposed Metro Budget

MI/GTFX

Month: 6/30/2015	Prior Year Actual	Current Year			Estimated Total	(6) Requested	(7) Recommended	(8) Adopted
		Original Budget	Amended Budget	Actual Thru June				
<b>Fund: 207 - METRO PUBLIC IMPROVEMENT FUND</b>								
Revenues								
Dept: 000								
Acct Class: 000 Revenues								
664.000 Earned Interest	1,688	2,000	2,000	622	0	2,000	2,000	0
669.006 Misc. Grant Receipts	0	0	0	0	0	0	0	0
699.100 Transfer in - Fund Balance	0	0	0	0	0	185,387	185,387	0
<b>Revenues</b>	<b>1,688</b>	<b>2,000</b>	<b>2,000</b>	<b>622</b>	<b>0</b>	<b>187,387</b>	<b>187,387</b>	<b>0</b>
Acct Class: 990 DEBT SERVICE								
675.000 Debt Proceeds	0	0	0	0	0	2,250,000	2,250,000	0
<b>DEBT SERVICE</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2,250,000</b>	<b>2,250,000</b>	<b>0</b>
Dept: 000	1,688	2,000	2,000	622	0	2,437,387	2,437,387	0
<b>Total Revenues</b>	<b>1,688</b>	<b>2,000</b>	<b>2,000</b>	<b>622</b>	<b>0</b>	<b>2,437,387</b>	<b>2,437,387</b>	<b>0</b>
Expenditures								
Dept: 337 PIF METRO EXPENDITURES								
Acct Class: 970 CAPITAL OUTLAY								
975.000 Land Acquisition	0	0	0	0	0	0	0	0
976.300 Station #8 Construction	8,114	0	11,000	7,571	0	2,250,000	2,250,000	0
977.000 Machinery and Equipment	0	0	0	0	0	0	0	0
978.000 Vehicles Acquisition	0	50,000	55,522	55,522	0	50,000	50,000	0
<b>CAPITAL OUTLAY</b>	<b>8,114</b>	<b>50,000</b>	<b>66,522</b>	<b>63,093</b>	<b>0</b>	<b>2,300,000</b>	<b>2,300,000</b>	<b>0</b>
Acct Class: 990 DEBT SERVICE								
990.000 Debt payment	62,492	62,492	62,492	36,453	0	184,165	184,165	0
990.005 Interest Expense	0	0	0	0	0	63,714	63,714	0
<b>DEBT SERVICE</b>	<b>62,492</b>	<b>62,492</b>	<b>62,492</b>	<b>36,453</b>	<b>0</b>	<b>247,879</b>	<b>247,879</b>	<b>0</b>
Acct Class: 992 CONTINGENCY								
992.000 Contingency	0	5,000	5,000	0	0	5,000	5,000	0
<b>CONTINGENCY</b>	<b>0</b>	<b>5,000</b>	<b>5,000</b>	<b>0</b>	<b>0</b>	<b>5,000</b>	<b>5,000</b>	<b>0</b>
<b>PIF METRO EXPENDITURES</b>	<b>70,606</b>	<b>117,492</b>	<b>134,014</b>	<b>99,546</b>	<b>0</b>	<b>2,552,879</b>	<b>2,552,879</b>	<b>0</b>
<b>Total Expenditures</b>	<b>70,606</b>	<b>117,492</b>	<b>134,014</b>	<b>99,546</b>	<b>0</b>	<b>2,552,879</b>	<b>2,552,879</b>	<b>0</b>
<b>METRO PUBLIC IMPROVEMENT FUND</b>	<b>-68,918</b>	<b>-115,492</b>	<b>-132,014</b>	<b>-98,924</b>	<b>0</b>	<b>-115,492</b>	<b>-115,492</b>	<b>0</b>
<b>Grand Total:</b>	<b>-606,513</b>	<b>-122,466</b>	<b>-138,988</b>	<b>1,619,412</b>	<b>0</b>	<b>-208,028</b>	<b>-208,028</b>	<b>0</b>



**GT METRO FIRE DEPARTMENT  
DEBT AND CAPITAL OUTLAY  
2016 BUDGET  
Preliminary**

YEAR	DESCRIPTION	FINANCING		Budget		Projected						
				2015	2016	2017	2018	2019	2020	2021		
2011	Tanker 12	5 yrs, 0%	\$	374,949								
	Cherryland Interest Free Loan			Principal	62,494	62,495	15,623					
	1st pymt 5/2011			Interest								
	5,207.63/month			Total	62,494	62,495	15,623					
	Payments thru PIF											
2013	Engine 8	5 yrs, 2.5%	\$	600,000								
	(360,000 interest free CEC)			Principal	96,598	97,198	97,808	98,428				
	Matures 12/1/19			Interest	2,859	2,259	1,649	1,029				
				Total	99,457	99,457	99,457	99,457	99,457			
2015	New Station 8	15 yrs at 2.9%	\$	2,250,000								
	Payments thru PIF			Principal	36,032	121,673	125,227	128,886				
				Interest	31,856	63,714	60,160	56,501				
				Total	67,888	185,387	185,387	185,387	185,387	185,387	185,387	185,387
						0.1234						
2016	New replacement Squad - PIF				50,000	50,000	50,000	55,000	55,000	55,000	55,000	60,000
2017	Engine 9	5 yrs @ 4%	\$	500,000								
				Total			56,500	113,000	113,000	113,000	113,000	113,000
2020	Rescue 11	5 yrs @ 4%	\$	250,000								
				Total						56,500	56,500	
<b>GRAND TOTAL</b>				Cash Pay	50,000	50,000	50,000	55,000	55,000	55,000	55,000	60,000
				Principal	195,124	281,366	295,158	340,314	397,844	354,887	354,887	
				Interest	34,715	65,973	61,809	57,530	-	-	-	
				Total	279,839	387,339	406,967	452,844	452,844	409,887	414,887	
				Mills.: (2% increase in taxable value 2017-2021)	0.1862	0.2585	0.2595	0.2831	0.2776	0.2463	0.2444	

1,537,339,569    1,568,086,360    1,599,448,088    1,631,437,049    1,664,065,790    1,697,347,106    2% increase



July 2015

To: East Bay Township Board  
From: East Bay Budget Committee  
Re: East Bay Ambulance 2016 Proposed Budget

Township Board Members,

Attached is the proposed 2016 Ambulance operating budget.

It has been quite a year. Since Mikie stepped down I have taken on the responsibilities of the daily operations and moving the ambulance into the future as a solid service. In reviewing the current budget and the utilization of allocated funds, I feel that there is no need for a mileage increase for the 2016 budget year.

Currently some of the line items we have no idea on actual expenses are medical insurance, pension, life insurance, accident insurance and payroll expenses. These are estimated using the 2015 budget as a guide.

On the revenue side of the budget we are speculating the purchase of a new ambulance so we added money from the fund balance line item # 210-000-692.344 and showed that same expense in the capital outlay reserve for ambulance line item # 210-344-972.000.

The budget is very close to last year with just a few of the line items showing an increase. The main increase is in the wage and employee expense line items. We would like to participate in the 3% COL increase for all ambulance staff if this is what the township is doing. We have increased the station help and part paid staff line items to reflect this. We will adjust these line items if needed. We are also starting to feel that another permanent part time employee might be needed in the near future and feel that is also covered in the part paid wage line item with the budget increase. At this time there will not be an increase in the on call pay. Our staff gets a set fee as well as their hourly wage if they go out on a call during their on call time. Also there will not be any other wage increases at this time. The nighttime compensation has been decreased. Our overtime wages has been increased due to last minute schedule changes, illness and family emergencies and vacations. Pension and payroll expenses have increased due to the above changes.

Our other big increase is in line item # 210-344-971.000, equipment capital outlay. This has been added with the hopes of obtaining some grants for new cots for our ambulances. Quite often grants only go to a certain amount of money and require that some of our own funds be used as well. Some of last years pancake breakfast money was allocated to assist with the purchase of new power cots for the ambulances.

In our supplies expense capital outlay line item # 210-344-999.000 we are researching the purchase of new office chairs and the possibility of a new computer.

Maintenance/repairs, contract services, Northflight intercepts, insurance and bonds and gas /oil have been increased slightly due to the fluctuations in our daily to monthly usage. The rest of the line items are staying the same or have been decreased for the same reason.

We will continue to monitor our income and expenses throughout the year and make adjustments accordingly.

Thank you

Tim Newton

cc: file

Sue Courtade, Clerk - To copy to all Township Board Members



GL NUMBER	DESCRIPTION	2014 AMENDED BUDGET	2015 ADOPTED BUDGET	2016 REQUESTED BUDGET	2016 BUDGET WORKSHOP-1 BUDGET	2016 ADOPTED BUDGET
Dept 000						
ESTIMATED REVENUES						
Function: Unclassified						
MISCELLANEOUS						
210-000-692.000	OTHER REVENUES/DONATIONS	0	0	<u>—</u>	0	0
MISCELLANEOUS		0	0	<u>—</u>	0	0
REVENUE						
210-000-692.003	OTHER REVENUES DONATIONS	0	0	<u>—</u>	0	0
REVENUE		0	0	<u>—</u>	0	0
CHARGES FOR SERVICES						
210-000-625.000	NORTHFLIGHT REVENUES	0	0	<u>—</u>	0	0
210-000-628.000	AMBULANCE RUN RESTRICTED B	95,807	90,000	<u>90,000</u>	0	0
CHARGES FOR SERVICES		95,807	90,000	<u>90,000</u>	0	0
UNCLASSIFIED						
210-000-622.998	TRANSFERS IN	258,200	260,957	<u>261,539</u>	0	0
210-000-665.022	HRA INTEREST	0	0	<u>—</u>	0	0
210-000-692.002	UTILIZATION F/B 9A INSIDE IMPROVE	0	0	<u>—</u>	0	0
210-000-692.344	UTIL. F/B AMBULANCE	0	0	<u>180,000</u>	0	0
210-000-692.345	UTIL F/B AMB B	45,464	45,000	<u>45,000</u>	0	0
210-000-692.911	UTILIZATION FUND BALANCE-HRA	2,551	2,551	<u>—</u>	0	0
UNCLASSIFIED		306,215	308,508	<u>486,539</u>	0	0
INTEREST						
210-000-665.001	EARNED INTEREST FUND A	0	0	<u>—</u>	0	0
210-000-665.002	RESTRICTED INTEREST FUND B	500	500	<u>250</u>	0	0
210-000-665.003	RESTRICTED INTEREST FUND C	0	0	<u>—</u>	0	0
210-000-665.004	RESTRICTED INTEREST FUND D	2	0	<u>—</u>	0	0
INTEREST		502	500	<u>250</u>	0	0
Total - Function Unclassified		402,524	399,008	<u>576,789</u>	0	0
TOTAL ESTIMATED REVENUES		402,524	399,008	<u>576,789</u>	0	0
NET OF REVENUES/APPROPRIATIONS - 000-		402,524	399,008	<u>576,789</u>	0	0

---

GL NUMBER	DESCRIPTION	2014 AMENDED BUDGET	2015 ADOPTED BUDGET	2016 REQUESTED BUDGET	2016 BUDGET WORKSHOP-1 BUDGET	2016 ADOPTED BUDGET
-----------	-------------	---------------------------	---------------------------	-----------------------------	-------------------------------------	---------------------------

---

GL NUMBER	DESCRIPTION	2014 AMENDED BUDGET	2015 ADOPTED BUDGET	2016 REQUESTED BUDGET	2016 BUDGET WORKSHOP-1 BUDGET	2016 ADOPTED BUDGET
Dept 344-AMBULANCE						
APPROPRIATIONS						
Function: Unclassified						
MISCELLANEOUS						
210-344-930.000	MAINTENANCE/REPAIRS	9,000	5,000	<u>6,000</u>	0	0
210-344-999.999	MISCELLANEOUS AUDIT ADJUSTMEN	0	0	<u>-</u>	0	0
	MISCELLANEOUS	<u>9,000</u>	<u>5,000</u>	<u>6,000</u>	0	0
ACCOUNTS PAYABLE						
210-344-998.000	TRANSFERS TO/FROM OTHER FUNDS	0	0	<u>-</u>	0	0
	ACCOUNTS PAYABLE	<u>0</u>	<u>0</u>		0	0
PERSONNEL SERVICES						
210-344-718.000	STATION HELP	115,416	120,407	<u>125,000.</u>	0	0
210-344-719.000	AMBULANCE ADMINISTRATION	7,240	0	<u>-</u>	0	0
210-344-743.050	UNIFORMS	2,500	3,000	<u>3,000.</u>	0	0
210-344-746.000	PART PAID STAFF	65,121	40,000	<u>50,000</u>	0	0
210-344-746.001	NIGHTTIME COMPENSATION	36,400	42,000	<u>40,000</u>	0	0
210-344-746.002	WEEKEND DAY TIME COMP	0	0	<u>-</u>	0	0
210-344-873.000	PAYROLL EXPENSES	14,307	13,390	<u>14,000</u>	0	0
210-344-874.000	PENSION PLAN	12,694	13,074	<u>14,000</u>	0	0
210-344-910.000	MEDICAL INSURANCE	38,164	38,164	<u>35,000</u>	0	0
210-344-911.000	HRA DEDUCTIBLE ACCT	16,000	8,000	<u>8,000</u>	0	0
210-344-912.000	LIFE/LTD INSURANCE	1,700	1,700	<u>1,700</u>	0	0
	PERSONNEL SERVICES	<u>309,542</u>	<u>279,735</u>	<u>290,700</u>	0	0
UNCLASSIFIED						
210-344-713.000	OVERTIME WAGES	5,668	5,000	<u>10,000</u>	0	0
210-344-801.100	EMERGENCY SERVICES LEGAL	0	0	<u>-</u>	0	0
210-344-896.000	PROPERTY TAX REFUND	1,500	1,500	<u>1,500</u>	0	0
210-344-897.000	FUND B REFUNDS	1,054	1,000	<u>1,000</u>	0	0
210-344-924.100	CELL PHONES	1,200	1,200	<u>1,200</u>	0	0

GL NUMBER	DESCRIPTION	2014 AMENDED BUDGET	2015 ADOPTED BUDGET	2016 REQUESTED BUDGET	2016 BUDGET WORKSHOP-1 BUDGET	2016 ADOPTED BUDGET
Dept 344-AMBULANCE						
APPROPRIATIONS						
Function: Unclassified						
UNCLASSIFIED						
210-344-970.002	STATION 9 INSIDE IMPROVEMENTS	0	0		0	0
	UNCLASSIFIED	9,422	8,700	13,700	0	0
CONTRACTUAL						
210-344-801.000	LEGAL EXPENSE/ATTORNEY	150	500	500	0	0
210-344-802.000	CONTRACT SERVICES	8,500	8,500	9,000	0	0
210-344-802.001	NORTHFLIGHT-SERVICES	30,240	27,000	29,000	0	0
210-344-802.050	METRO	0	0		0	0
210-344-901.000	INSURANCE & BONDS	15,000	15,000	16,000	0	0
	CONTRACTUAL	53,890	51,000	54,500	0	0
SUPPLIES						
210-344-727.000	POSTAGE	50	50	50	0	0
210-344-740.000	OPERATING SUPPLIES	2,000	2,000	2,000	0	0
210-344-742.000	MEDICAL SUPPLIES	3,559	3,000	3,000	0	0
210-344-743.000	LINEN SUPPLIES	300	150	150	0	0
210-344-744.000	OSHA REQUIRED SUPPLIES	500	0		0	0
210-344-745.000	GAS,OIL & SUPPLIES	6,500	5,250	5,500	0	0
210-344-806.000	EDUCATION	2,000	3,500	3,000	0	0
	SUPPLIES	14,909	13,950	13,700	0	0
EXPENSE						
210-344-910.100	PPACA TAX	2,371	2,300	—	0	0
210-344-910.200	HRA ADMIN FEES	180	180	—	0	0
210-344-970.000	CAPITAL OUTLAY	0	5,000	5,000	0	0
210-344-999.000	BAD DEBT EXPENSE	0	0		0	0
	EXPENSE	2,551	7,480	5,000	0	0
CAPITAL OUTLAY						

GL NUMBER	DESCRIPTION	2014 AMENDED BUDGET	2015 ADOPTED BUDGET	2016 REQUESTED BUDGET	2016 BUDGET WORKSHOP-1 BUDGET	2016 ADOPTED BUDGET
Dept 344-AMBULANCE						
APPROPRIATIONS						
Function: Unclassified						
CAPITAL OUTLAY						
210-344-971.000	EQUIPMENT CAPITAL OUTLAY	0	0	<u>12,000</u>	0	0
	CAPITAL OUTLAY	<u>0</u>	<u>0</u>	<u>12,000</u>	<u>0</u>	<u>0</u>
INVESTMENTS-CURRENT						
210-344-972.000	RESERVE FOR AMBULANCE	0	0	<u>180,000</u>	0	0
	INVESTMENTS-CURRENT	<u>0</u>	<u>0</u>	<u>180,000</u>	<u>0</u>	<u>0</u>
	Total - Function Unclassified	<u>399,314</u>	<u>365,865</u>	<u>575,600</u>	<u>0</u>	<u>0</u>
	TOTAL APPROPRIATIONS	<u>399,314</u>	<u>365,865</u>	<u>575,600</u>	<u>0</u>	<u>0</u>
	NET OF REVENUES/APPROPRIATIONS - 344-AMBULANCE	<u>(399,314)</u>	<u>(365,865)</u>	<u>575,600</u>	<u>0</u>	<u>0</u>

GL NUMBER	DESCRIPTION	2014 AMENDED BUDGET	2015 ADOPTED BUDGET	2016 REQUESTED BUDGET	2016 BUDGET WORKSHOP-1 BUDGET	2016 ADOPTED BUDGET
Dept 999-MISC. G/L ADJUSTMENTS						
APPROPRIATIONS						
Function: Unclassified						
MISCELLANEOUS						
210-999-999.999	MISCELLANEOUS AUDIT ADJUSTMEN	0	0		0	0
	MISCELLANEOUS	0	0		0	0
	Total - Function Unclassified	0	0		0	0
	TOTAL APPROPRIATIONS	0	0		0	0
	NET OF REVENUES/APPROPRIATIONS - 999-MISC. G/L ADJUS	0	0	0	0	0
	ESTIMATED REVENUES - FUND 210	402,524	399,008	576,789 0	0	0
	APPROPRIATIONS - FUND 210	399,314	365,865	575,600 0	0	0
	NET OF REVENUES/APPROPRIATIONS - FUND 210	3,210	33,143	1,189 0	0	0
	BEGINNING FUND BALANCE	823,650	823,650	856,793	856,793	856,793
	ENDING FUND BALANCE	826,860	856,793	856,793	856,793	856,793





# WADE TRIM

September 2, 2015

East Bay Township  
1965 3 Mile Road  
Traverse City, MI 49649

Attention: Mr. Glen Life  
Township Supervisor

Re: Water Tower Site  
Well Drilling Contract

Dear Glen:

On August 25, 2015, East Bay Township held a public bid opening for the installation of a municipal well to be drilled at the proposed water tower site on the northeast corner of Hammond Road and 5 Mile Road. Three bids were received as follows:

- |                            |              |
|----------------------------|--------------|
| 1. Birkmeier Well Drilling | \$ 90,904.00 |
| 2. Raymer Well Drilling    | \$125,000.00 |
| 3. Northern Well and Pump  | \$181,500.00 |

Based on the bid proposals received, we have prepared the attached Bid Tabulation Sheet, which outlines all of the unit prices and makes it easy to compare process from one contractor to the next. It also allows us to check to make sure all of the items and costs were added correctly. There were no math errors found in the bid proposals.

Wade Trim has worked with the low bidder, Birkmeier Well Drilling, in the past on projects and does not see a reason to withhold the project award to the low bidder. If the Township concurs with this award, please sign the attached Notice of Award and return it to us. This will begin the process so the contractor can secure the needed project bonds and insurances for review. Once all is in place, we will hold a preconstruction meeting, issue the Notice to Proceed and the contractor can begin construction. If you should have any questions, please feel free to contact us.

Sincerely,

Wade Trim, Inc.

Brian C. Sousa  
Vice President

BCS:daj  
EBT 3415 03C  
P:\NDocs\Corresp\2015BidRecLtr  
Attachments

Wade Trim, Inc.  
10850 East Traverse Highway  
Suite 2260  
Traverse City, MI 49684

231.947.7400  
800.968.6660  
231.946.1000 fax  
www.wadetrim.com





**Section 00 5100  
Notice of Award**

To: Ed Birkmeier Well Drilling Ltd.  
P.O. Box 324  
New Lothrop, MI 48460

Date: September 15, 2015

Attention: Marty Zuber

Project: PUBLIC WATER SUPPLY TEST WELL

Pursuant to the provisions of Article 1.11 of the Instructions to Bidders, you are hereby notified that the Charter Township of East Bay (OWNER) during a Regular Township Board Meeting held on September 14, 2015, has directed the acceptance of your Bid for the above-referenced Project in the amount of \$90,904.00 (ninety thousand, nine hundred and four dollars). This project shall consist of Drilling one 12" diameter Type 1 municipal well, two observation wells, water quality testing and aquifer performance testing all in accordance with the State of Michigan Department of Environmental Quality, and East Bay Charter Township as delineated in your Bid submitted to East Bay Charter Township on August 25, 2015.

Please comply with the following conditions within 15 days of the date of this Notice of Award; that is by September 30, 2015.

1. Deliver to the ENGINEER **three (3)** fully executed counterparts of the Agreement including all the Contract Documents.
2. Deliver with the executed Agreement the Contract Security (Bonds), on the form included in the Contract Documents, as specified in the General Conditions (Article 5).
3. Deliver with the executed Agreement the Insurance Certificates (and other evidence of insurance) as specified in the General Conditions (Article 5).
4. Please do not date Agreement and Contract Security (Bonds), as these will be dated by the OWNER when executed by him.

It is important to comply with these conditions and time limits as failure to comply with these conditions within the time specified will entitle OWNER to consider your bid abandoned, to annul this Notice of Award and to declare your Bid Security forfeited.

Within ten (10) days after you comply with those conditions, OWNER will return to you two (2) fully signed counterparts of the Agreement with the Contract Documents attached.

In accordance with paragraph 2.05 of the General Conditions, please submit to the ENGINEER the required schedules prior to the scheduling of a Pre-Construction Meeting.

**Copy to ENGINEER:**

Wade Trim, Inc.  
10850 East Traverse Highway, Suite 2260  
Traverse City, MI 49684

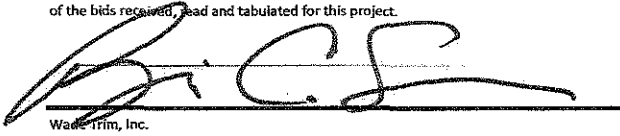
\_\_\_\_\_  
(OWNER)

By: Glen Lile, Supervisor

(Authorized Signature)

**Tabulation of Bids**

I hereby certify that this is a true and correct copy of the bids received, read and tabulated for this project.



Wade Trim, Inc.

**Project: Hammond Road  
Public Water Supply Test Well**  
**Received at: East Bay Charter Township  
1965 North Three Mile Road  
Traverse City, MI 49696**  
**Bids opened: Tuesday, August 25, 2015, at 2:00 p.m.**

**BASE BID ITEMS**

Item No.	Description	Quantity	Units	Birkmeier Well Drilling		Raymer		Northern Well & Pump	
				UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT	UNIT PRICE	AMOUNT
1.00	Mobilization	1	LS	\$ 11,612.00	\$ 11,612.00	\$ 10,000.00	\$ 10,000.00	\$ 17,000.00	\$ 17,000.00
2.00	2" Observation Well	2	EA	\$ 8,376.00	\$ 16,752.00	\$ 10,000.00	\$ 20,000.00	\$ 20,000.00	\$ 40,000.00
3.00	12" Type I Well Drilling	400	LFT	\$ 55.00	\$ 22,000.00	\$ 70.00	\$ 28,000.00	\$ 137.50	\$ 55,000.00
4.00	12" Steel Casing Pipe	370	LFT	\$ 46.00	\$ 17,020.00	\$ 80.00	\$ 29,600.00	\$ 80.00	\$ 29,600.00
5.00	12" Stainless Steel Well Screen	30	LFT	\$ 264.00	\$ 7,920.00	\$ 280.00	\$ 8,400.00	\$ 350.00	\$ 10,500.00
6.00	Well Development and Step Test	1	EA	\$ 3,500.00	\$ 3,500.00	\$ 10,000.00	\$ 10,000.00	\$ 12,600.00	\$ 12,600.00
7.00	Aquifer Testing & Reporting	1	LS	\$ 9,600.00	\$ 9,600.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00
8.00	Water Quality Testing	1	LS	\$ 2,500.00	\$ 2,500.00	\$ 4,000.00	\$ 4,000.00	\$ 1,800.00	\$ 1,800.00
<b>TOTAL BASE CONTRACT PRICE (Items 1 through 8)</b>					\$ 90,904.00		\$ 125,000.00		\$ 181,500.00

Highlighted (in yellow) area indicates math error found during audit. Corrected amount shown.



East Bay Charter Township  
**Natural Hazard Mitigation Plan Adoption Resolution**  
**Resolution No.2015-06**

**Whereas;** East Bay Charter Township, has experienced risks that may damage commercial, residential and public properties, displace citizens and businesses, close streets and impair infrastructure, and present general public health and safety concerns; and

**Whereas;** Grand Traverse County has developed the Grand Traverse County Natural Hazard Mitigation Plan that outlines the counties options to reduce damages and impacts from natural and technological hazards; and

**Whereas;** the Natural Hazard Mitigation Plan has been reviewed by residents, business owners, and federal, state and local agencies, and has been revised where appropriate to reflect their concerns;

**Now, therefore, be it resolved that:**

The Natural Hazard Mitigation Plan is hereby adopted as an official plan of East Bay Charter Township

**Passed this 14th day of September, 2015**

\_\_\_\_\_  
Glen Lile, Township Supervisor

\_\_\_\_\_  
Date

\_\_\_\_\_  
Susanne M. Courtade CMMC/CMC Township Clerk

\_\_\_\_\_  
Date

**NOTE: AN OFFICIAL SIGNED COPY OF A RESOLUTION OF ADOPTION MUST BE SUBMITTED TO THE MICHIGAN STATE POLICE EMERGENCY MANAGEMENT AND HOMELAND SECURITY DIVISION (to comply with the requirements of the Disaster Mitigation Act of 2000).**

# Grand Traverse County Michigan

## Natural Hazards Mitigation Plan



**2015**

## TABLE OF CONTENTS

I.	Acknowledgements	Page 4
II.	FEMA Letter of Approval	Page 5
III.	Preface	Page 7
IV.	Executive Summary Table 1: Planning Goals Table 2: Priority Areas Table 3: Mitigation Strategies	Page 8 Page 8 Page 9 Page 10
V.	Purpose of the Plan Figure 1: Disaster Declarations for the State of Michigan	Page 11 Page 12
VI.	Community Profile Table 4: Geographic features Table 5: Land Use Table 6: Grand Traverse County Population by Municipality Table 7: Forecasted Population Table 8: Poverty Statistics Table 9: Economic Census	Page 13 Page 13 Page 13 Page 14 Page 14 Page 15 Page 16
VII.	The Development of the Plan Table 10: Critical Facilities and Infrastructure • Natural Flood Insurance Program (NFIP) Table 11: NFIP Participation • Natural Hazards Information Table 12: Flood Events Table 13: Hail Events Table 14: Extreme Winter Weather Events Table 15: Severe Thunderstorm Events Table 16: Tornado Events • Grand Traverse County Natural Hazards Task Force and Public Input • Natural Hazards Priority Areas • Emergency Warning System Coverage • Economic Impact Analysis Table 17: Damage Cost by Natural Hazard Table 18: Geographic Economic Value	Page 17 Page 17 Page 18 Page 18 Page 19 Page 19 Page 20 Page 21 Page 21 Page 23 Page 24 Page 25 Page 26 Page 26 Page 26 Page 26
VIII.	Natural Hazards Mitigation Goals and Objectives	Page 27
IX.	Identification and Selection of Mitigation Strategies	Page 29
X.	Participation in the Development of the Natural Hazards Mitigation Plan Table 17: Plan Participation	Page 31 Page 32
XI.	Implementation of the Natural Hazards Mitigation Plan • Natural Hazards Mitigation Plan Managers and Technical Assistance • Funding the Implementation of the Plan • Action Agenda Table 19: Action Strategies • Monitoring and Evaluation	Page 33 Page 33 Page 33 Page 34 Page 34 Page 36
XII.	Natural Hazards Mitigation Plan Adoption Resolution	Page 37
XIII.	Appendices A. Glossary B. Detailed Maps C. Population Density Map D. Risk Assessment Work Sheet E. Examples of Past Mitigation Projects F. Resources	Page 38 Page 38 Page 41 Page 45 Page 46 Page 47 Page 48

## **I. ACKNOWLEDGEMENTS**

The Plan is the culmination of the interdisciplinary and interagency planning effort that required the assistance and expertise of numerous agencies, organizations, and individuals. Without the technical assistance and contributions of time and ideas of these agencies, organizations, and individuals, this plan could not have been completed.

Each jurisdiction within Grand Traverse County is a continuing participant in the update of the Plan. The following is a list of key contributors who were instrumental in the update of the Grand Traverse County Natural Hazards Mitigation Plan:

### **Grand Traverse County Emergency Management**

Gregg Bird

### **Grand Traverse County Planning Commission**

### **Grand Traverse County Planning Department**

John Sych

### **Grand Traverse County Board of Commissioners**

Herb Lemcool

### **Grand Traverse County Health Department**

Wendy Trute

### **Traverse City Police Department**

Joe McCarthy

### **Traverse City Fire Department**

Jim Tuller

### **Grand Traverse Band of Ottawa and Chippewa Indians**

Joe Hahn

### **Others**

Grand Traverse Central 911

Grand Traverse Metro Emergency Services

Grand Traverse Rural Fire

Peninsula Twp Fire & EMS

Blair Twp Fire & EMS

Grand Traverse Road Commission

Michigan State Police

Traverse City Public Services

Grand Traverse County Public Works

North Flight EMS

Munson Medical Center

FBI, Traverse City Office

Grand Traverse Pavilions

National Cherry Festival

WTCM radio (EAS broadcast station)

Grand Traverse Band of Ottawa & Chippewa Indians

Traverse City Light and Power

Consumers Energy

Tyson Foods

Cherry Capitol Airport

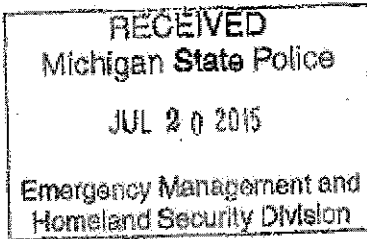
Transportation Safety Administration

Area Commission on Aging

USCG, Air Station Traverse City

American Red Cross

II. FEMA Letter of Approval



U.S. Department of Homeland Security  
Region V  
536 S. Clark St., 6th Floor  
Chicago, IL 60605-1509



**FEMA**

JUL 15 2015

Mr. Matt Schnepf  
State Hazard Mitigation Officer  
Michigan State Police  
Emergency Management and Homeland Security Division  
4000 Collins Rd  
Lansing, MI 48910

Dear Mr. Schnepf:

Thank you for submitting the adoption documentation for the Grand Traverse County Hazard Mitigation Plan. The plan was reviewed based on the local plan criteria contained in 44 CFR Part 201, as authorized by the Disaster Mitigation Act of 2000. Grand Traverse County met the required criteria for a multi-jurisdiction hazard mitigation plan and the plan is now approved for the County. Please submit the adoption resolutions for any remaining jurisdictions who participated in the planning process.

The approval of this plan ensures continued availability of the full complement of Hazard Mitigation Assistance (HMA) Grants. All requests for funding, however, will be evaluated individually according to the specific eligibility and other requirements of the particular program under which the application is submitted.

We encourage Grand Traverse County to follow the plan's schedule for monitoring and updating the plan, and continue their efforts to implement the mitigation measures. The expiration date of the Grand Traverse County Plan is five years from the date of this letter. In order to continue project grant eligibility, the plan must be reviewed, revised as appropriate, resubmitted, and approved no later than the plan expiration date.

Please pass on our congratulations to Grand Traverse County for this significant action. If you or the communities have any questions, please contact Kirstin Kuenzi at (312) 408-4460 or [Kirstin.Kuenzi@fema.dhs.gov](mailto:Kirstin.Kuenzi@fema.dhs.gov).

Sincerely,

A handwritten signature in cursive script that reads "Christine Stack".

Christine Stack, Director  
Mitigation Division



THIS PAGE LEFT INTENTIONALLY BLANK

### III. PREFACE

Hazard mitigation is any action taken before, during, or after a disaster to permanently eliminate or reduce the long-term risk to human life and property from natural and technological hazards. This procedure is an essential element of emergency management, along with preparedness, response, and recovery. Emergency management includes four phases: a community prepares for a disaster; responds when it occurs; and then there is a transition into the recovery process, during which mitigation measures are evaluated and adopted. The evaluation improves the preparedness posture of the County for the next incident, and so on. When successful, mitigation will lessen the impacts of natural hazards to such a degree that succeeding incidents will remain incidents and not become disasters.

The mission of the Grand Traverse County Natural Hazard Mitigation Plan is to permanently eliminate or reduce long-term risks to people and property from natural hazards so that county assets such as transportation, infrastructure, commerce, and tourism can be sustained and strengthened. This can be accomplished through collaborative efforts/activities amongst agencies within Grand Traverse County.

Mitigation allows repairs and reconstruction to be completed after an incident occurs in such a way that does not just restore the damaged property as quickly as possible to pre-disaster conditions. This process is needed to ensure that such cycles are broken, that post-disaster repairs and reconstruction take place after damages are analyzed, and that sounder, less vulnerable conditions are produced. Through a combination of regulatory, administrative, and engineering approaches, losses can be limited by reducing susceptibility to damage.

Recognizing the importance of reducing community vulnerability to natural hazards, Grand Traverse County is actively addressing the issue through the development and implementation of this plan. The many benefits to be realized from this effort are:

Community Benefits of a Natural Hazard Mitigation Plan
Protection of the public health and safety
Preservation of essential services
Prevention of property damage
Preservation of the local economic base

This process will help ensure that Grand Traverse County remains a vibrant, safe, enjoyable place in which to live, raise a family, continue to conduct business, and maintain a tourist base.

#### IV. EXECUTIVE SUMMARY

In 2000, the Disaster Mitigation Act shifted the Federal Emergency Management Agency's (FEMA) scope of work to promoting and supporting prevention, or what is called hazard mitigation planning. FEMA now requires government entities to have natural hazards mitigation plans in place as a condition for receiving grant money, such as hazard mitigation grant program funds, in the future.

To meet this requirement, the Michigan State Police provided funding to encourage regional cooperation in the development of individual county Natural Hazards Mitigation Plans. The **Northwest Michigan Hazard Mitigation Planning Project update** was coordinated by the Northwest Michigan Council of Governments (NWMCOG) with Leelanau County being the Fiduciary. The update included Antrim, Kalkaska, Missaukee, Wexford, Grand Traverse, Leelanau, Benzie, and Manistee counties. NWMCOG worked with the Task Forces to update plans for these counties, which includes a general community profile, a comprehensive inventory of existing hazards, a hazard analysis, goals and objectives, and feasible mitigation strategies to address the prioritized hazards.

The Grand Traverse County Natural Hazards Mitigation Plan focuses on natural hazards such as drought, wildfires, flooding, shoreline erosion, thunderstorms and high winds, tornadoes, and extreme winter weather, and was created to protect the health, safety, and economic interests of the residents and businesses by reducing the impacts of natural hazards through planning, awareness, and implementation. Through this Plan, a broad perspective was taken in examining multiple natural hazards mitigation activities and opportunities in Grand Traverse County. Each natural hazard was analyzed from a historical perspective, evaluated for potential risk, and considered for possible mitigative action.

The Plan serves as the foundation for natural hazard mitigation activities and actions within Grand Traverse County, and will be a resource for building coordination and cooperation within the community for local control of future mitigation and community preparedness around the following:

Table 1: Planning Goals

Natural Hazards Mitigation Planning Goals for Grand Traverse County
Goal 1: Increase local participation in natural hazards mitigation
Goal 2: Integrate natural hazards mitigation considerations into the County's comprehensive planning process
Goal 3: Utilize available resources and apply for others for natural hazards mitigation projects
Goal 4: Develop and complete natural hazards mitigation projects in a timely manner

Table 2: Priority Areas for Grand Traverse County

<b>Natural Hazards Mitigation Priority Areas</b>	
<b>Priority Area 1:</b> Public infrastructure (culverts, dams, bridges, etc.) located throughout Boardman River communities (Garfield, Blair, Paradise, East Bay, and Union Townships; City of Traverse City)	
Mitigation Strategies: <i>Flooding</i>	
<b>Priority Area 2:</b> Countywide historical record of severe thunderstorms and high wind events that may produce lightning strikes, flash flooding, hail, strong winds, and tornadoes.	
Mitigation Strategies: <i>Severe Thunderstorms/High Winds</i>	
<b>Priority Area 3:</b> Countywide historical record of heavy snow, extreme temperatures, ice damage occurrences	
Mitigation Strategies: <i>Extreme Winter Weather</i>	
<b>Priority Area 4:</b> Countywide potential wildfire/urban interface	
Mitigation Strategies: <i>Wildfire</i>	
<b>Priority Area 5:</b> Countywide potential of (shoreline) erosion and ice damage	
Mitigation Strategies: <i>Erosion</i>	

Table 3: Mitigation Strategies for Grand Traverse County

Frequent Natural Hazard	Mitigation Strategies
<p style="text-align: center;"><b>Flooding</b></p>	<ul style="list-style-type: none"> <li>• Drainage improvements in high flooding potential areas</li> <li>• Removal of unsafe dams on the Boardman River (2)</li> <li>• Continue enforcement of building codes and soil erosion regulations</li> </ul>
<p style="text-align: center;"><b>Severe Thunderstorms/ High Winds</b></p>	<ul style="list-style-type: none"> <li>• Establish emergency shelters</li> <li>• Utilize a ham radio channel for local warnings if primary communications is interrupted</li> <li>• Promote the establishment of a robust, interoperable communication system</li> <li>• Enhance cooperation with utility companies (tree management, promotion of burying utility lines in new construction, and high outage areas)</li> <li>• Identify potential wind damage areas</li> <li>• Establish new generators where needed</li> <li>• Update the County's debris removal plan</li> </ul>
<p style="text-align: center;"><b>Extreme Winter Weather</b></p>	<ul style="list-style-type: none"> <li>• Continue enforcement of building code regarding snow load limits through the permitting process</li> <li>• Utilize a ham radio channel for local warnings if primary communications is interrupted</li> <li>• Promote the establishment of a robust, interoperable communications system</li> </ul>
<p style="text-align: center;"><b>Wildfire</b></p>	<ul style="list-style-type: none"> <li>• Public education and awareness activities such as programs and brochures regarding fuel management, proper vegetation, fire breaks</li> <li>• Continue enforcement of state fire codes regarding setback requirements</li> <li>• Public education utilizing the Michigan Department of Natural Resources flyers and the Federal Emergency Management Administration information at parks and campgrounds</li> <li>• Real estate and insurance agents to distribute information</li> <li>• Assess fire suppression access and make improvements</li> <li>• Research the Department of Natural Resources' State Forest wildfire/urban interface rules or plan</li> </ul>
<p style="text-align: center;"><b>Erosion</b></p>	<ul style="list-style-type: none"> <li>• Drainage control projects</li> <li>• Enforcement of soil erosion statutes/permits</li> <li>• Enforcement of building and zoning codes for current and future development</li> <li>• Enforcement of the grading levels no more than 10%</li> <li>• Placement of vegetation and utilizing native vegetation</li> </ul>

## V. PURPOSE OF THE PLAN

In 2000, the Disaster Mitigation Act shifted the Federal Emergency Management Agency's (FEMA) scope of work to promoting and supporting prevention, or what is referred to as hazard mitigation planning. FEMA requires government entities to have natural hazards mitigation plans in place and updated on a 5-year cycle as a condition for receiving grant money related to natural hazard remediation.

The **purpose of the Grand Traverse County Natural Hazards Mitigation Plan** is to find solutions to existing problems, anticipate future problems, prevent wasteful public and private expenditures, protect property values, and allocate land resources. The implementation of the Plan is to prevent injury, loss of life, property damage, breakdown in vital services like transportation and infrastructure, economic slumps, diminished tourist activity, liability issues, and damage to a community's reputation. For Grand Traverse County in the northwest region of the lower peninsula of Michigan, the **planning process** utilized the following steps in the development of the Plan. Emphasis was placed on natural hazards that have had significant impact on the community in the past.

Steps in the Planning Process
Identification of natural hazards and risks
Preparation of draft plan
Identification of natural hazards mitigation goals and objectives for emergency management programs
Selection of evaluation criteria
Selection of mitigation strategies using locally chosen criteria
Public Comment
Completion of the final plan

### What is a Hazard?

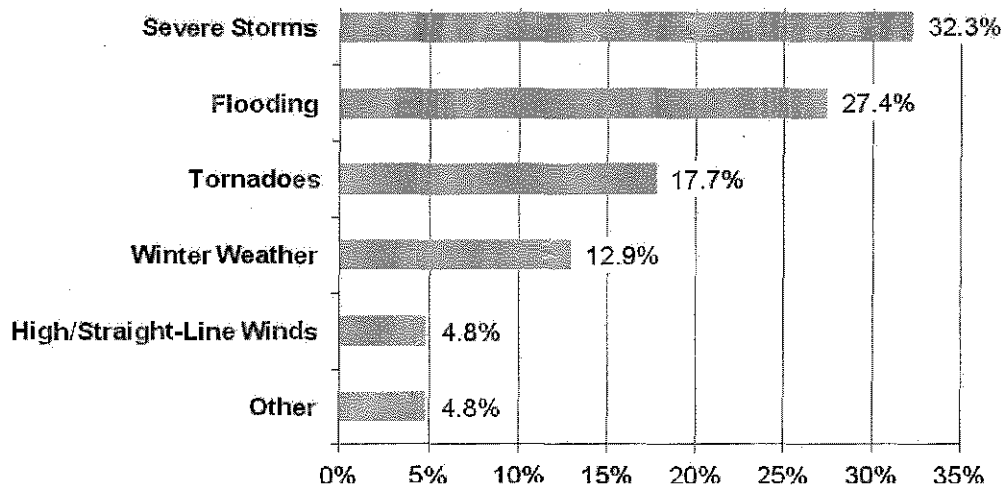
A **hazard** is an event or physical condition that has potential to cause fatalities, injuries, property damage, infrastructure damage, agricultural loss, damage to the environment, interruption of business, or other types of harm or loss. This plan focuses on principle natural hazards that occur in the northern lower region (see Page 12). This Plan is intended to be a resource for building coordination and cooperation within a community for local control of future mitigation and community preparedness.

Principle Natural Hazards in Northern Lower Michigan
Severe Storms (Thunderstorms, Winter storms)
High Winds
Tornadoes
Extreme Temperatures
Flooding
Shoreline Hazards
Dam Failures
Drought
Wildfires
Invasive Species
Subsidence

Source: FEMA

**Percent of natural hazard events for all formal disaster declarations in the State of Michigan (1953 – 2014)**

Figure 1: Disaster Declarations for the State of Michigan



Source: FEMA

**What is Mitigation?**

Mitigation is the sustained action taken to lessen the impact from natural hazards and to work to reduce the long-term risk to human life and property, and their effects. This long-term planning distinguishes mitigation from actions geared primarily to emergency preparedness and short-term recovery. This Plan can be used to lessen the impact, to support and be compatible with community goals, to lay out considerations in choosing and evaluating methods, and to look at the feasibility of mitigation strategies.

## VI. COMMUNITY PROFILE

Grand Traverse county is approximately 314,700 acres or 492 square miles in area. The predominant land use/land cover is, by far, forest which covers almost 43% of the land area. This is followed by a substantial amount of agricultural land at 14.9%, then wetlands and open land.

Agricultural land is concentrated on Old Mission Peninsula, in the northern halves of Acme and Whitewater Townships, on the fringe of the urban area of Traverse City, and throughout the southern portion of the county.

More intense land uses such as commercial, industrial, institutional and transportation are primarily found in the Traverse City area and to a lesser extent in village areas and in small parcels on major corridors throughout the county.

Commercial land is the largest intensive use category in the county with 3,440 acres. Residential uses are found predominantly in and around Traverse City including Garfield Township and East Bay Township, village areas of Kingsley, Interlochen and Fife Lake, and around the Long Lake and Spider Lake areas.

There has not been any major infrastructure development, nor major hazard mitigation efforts, in the county since the last adoption of the Plan in 2007.

Community data is provided for planning and implementing natural hazard mitigation strategies.

*Table 4: Geographic features*

Feature	Measure
Land Area	136 sq. miles
Area in Water	492 sq. miles
Grand Traverse Bay shoreline	66.72 miles
Operating Farms	504

Source: U.S. Census Bureau; Grand Traverse County GIS Department; USDA, National Agricultural Statistics Service

*Table 5: Land Use*

Classification	Acres	Percent
Residential	33,265	10.6%
Institutional	1,589	0.5%
Recreation	3,025	1%
Commercial	3,440	1.1%
Industrial	901	0.3%
Transportation/Utilities	1,347	0.4%
Agricultural	46,805	14.9%
Open Land	32,421	10.3%
Forest	133,966	42.6%
Wetlands	39,037	12.4%
Barren	1,568	0.5%
Water	17,336	5.5%
<b>TOTAL ACREAGE</b>	<b>314,700</b>	

Source: Grand Traverse County Planning & Development Department



Grand Traverse County is comprised of thirteen (13) townships, two (2) villages and one (1) city

Table 6: Population by Municipality

Unit of Government	2010 Count	2013 Estimate	Percent Change 2010 to 2013
Grand Traverse County	86,986	89,987	3.4%
Fife Lake Village	443	451	1.8%
Kingsley Village	1,480	1,517	2.5%
Traverse City (Grand Traverse County only)	14,482	14,827	2.4%
Acme Township	4,375	4,581	4.7%
Blair Township	8,209	8,459	3.0%
East Bay Charter Township	10,663	11,139	4.5%
Fife Lake Township	2,348	2,373	1.2%
Garfield Charter Township	16,256	16,668	2.5%
Grant Township	1,066	1,117	4.8%
Green Lake Township	5,784	6,029	4.2%
Long Lake Township	8,662	9,054	4.5%
Mayfield Township	1,550	1,607	3.7%
Paradise Township	4,713	4,785	1.5%
Peninsula Township	5,433	5,680	4.5%
Traverse City (including Leelanau County)	14,674	15,018	2.3%
Union Township	405	420	3.7%
Whitewater Township	2,597	2,712	4.4%

Source: Grand Traverse County

Table 7: Forecasted Population

Year	Forecasted Population	Percent Increase from 2010
2015	94,044	8.1%
2020	101,164	16.3%
2025	107,105	23.1%
2030	111,925	28.7%
2035	116,081	33.4%
2040	120,127	38.1%

Source: MDOT-Statewide & Urban Model Travel Analysis Section & U-M Institute for Research on Labor, Employment, and the Economy

In 2010, Grand Traverse County had a total population of 86,986, an increase of 12% from the 2000 population of 77,655 – making it the third fastest growing county in Michigan during this period. Garfield Township’s population increased 17% from 2000 to 2010 making it the most populated community in the county.

As of 2013, the estimated total population for Grand Traverse County is 89,987. The projected growth for 2020 is 101,164 and for 2030 is 111,925.

As a tourist destination and an area of many vacation homes, Grand Traverse County experiences an increased population due to its transient population. The annual average transient population is 11% higher than the permanent population counted by the U.S. Census. This translates into an addition of nearly 10,000 to the resident population. The month of July has the highest at 22% higher or almost 20,000.

At 41.3 years, the median age of Grand Traverse County is higher than the state and national median ages. Locally, the lowest median age, 32.6, was in the Village of Kingsley where 31% of the population is under 18 years. The highest median age, 53.4, was in Peninsula Township where 26% of the population is over 65 years. In 2010, 22% of the population was under 18 years and 15% was 65 years or older. In 2040, 36% of the households are projected to be 65 years or older.

There are 41,598 housing units in Grand Traverse County, of which 34,362 are occupied. The average household size is 2.45 persons per household. 38.8% of the households have 2 persons.

**Additional population profile information:**

- The number of residents 19 years and under is 21,383, or 24.6% of the population.
- The number of residents over 65 years with a disability is 4,042, or 4.6% of the population.
- The total number of residents with a disability is 10,236, or 12.0% of the population.
- The number of residents that have a language barrier or are linguistically isolated is 1,484, or 1.71% of the population. There is an increase of migrant workers in the summer and fall season that do not speak English.
- The number of families in poverty with children is 1,520 or 6.7% of all families.
- The number of households with income less than \$15,000 is 9.9%.
- Individuals in poverty is 9,573

*Table 8: Poverty Statistics*

Poverty	Statistics
Families in poverty	6.7%
Income less than \$15,000	9.9%
Population in poverty	9,573

Source: U.S. Census Bureau, 2008-2012 American Community Survey

Table 9: Economic Census

Industry Description	Number of Establishments	Number of Employees
Manufacturing	178	4,522
Wholesale trade	156	1,347
Retail trade	565	7,035
Information	68	734
Real estate, rental, leasing	150	458
Professional, scientific, technical services	371	2,382
Administrative, support, waste management, remediation services	183	1,327
Educational Services	35	794
Health care, social assistance	396	8,802
Arts, entertainment, recreation	48	345
Accommodation and food services	250	5,501
Other services (except public administration)	274	1,723

Source: US Census Bureau: County Business Patterns 2008-2012

## VII. THE DEVELOPMENT OF THE PLAN

### Data Methodology and Map Development

Grand Traverse County staff identified the critical facilities and infrastructure on the base map and provided updated GIS shp files for mapping purposes.

Table 10: Critical Facilities and Infrastructure

2	<b>Airports</b> <ul style="list-style-type: none"> <li>• Traverse City Cherry Capital Airport – 378,241 passengers (2013)</li> <li>• Green Lake Township Airport</li> </ul> <a href="http://mdotcf.state.mi.us/public/airportstats/">http://mdotcf.state.mi.us/public/airportstats/</a>
1	<b>Bus Terminal</b> <ul style="list-style-type: none"> <li>• Indian Trails in Traverse City</li> </ul>
82	<b>Places of Worship (2010)</b> <a href="http://www.thearda.com/rcms2010/">http://www.thearda.com/rcms2010/</a>
1	<b>Coast Guard Air Station</b>
3	<b>Dams – Union Street, Boardman, Sabin</b>
1	<b>Emergency Management Services Facility</b>
14	<b>Fire Stations</b>
45	<b>Government Buildings</b>
1	<b>Hospital – Munson Medical Center</b>
4	<b>Industrial Facilities</b>
5	<b>Law Enforcement</b>
11	<b>Medical Facilities</b> <ul style="list-style-type: none"> <li>• Primary physicians per 100,000 population is 124.2 (2010)</li> </ul> <a href="http://www.healthindicators.gov/">http://www.healthindicators.gov/</a>
9	<b>Mobile Home Parks</b>
10	<b>Post Offices</b>
200	<b>Resort/Recreation</b>
44	<b>Schools/Library</b>
1	<b>Sewage Treatment Facilities</b> <ul style="list-style-type: none"> <li>• 40.1% public sewer</li> <li>• 58.9% individual septic/cesspool</li> <li>• 1.0% other</li> </ul>
10	<b>Utility</b>
9	<b>Water Tower</b> <ul style="list-style-type: none"> <li>• 39.8% of population on public system or private company (2005)</li> <li>• 60.9% of population on individual wells (2005)</li> </ul> <a href="http://censtats.census.gov/usa/usa.shtml">http://censtats.census.gov/usa/usa.shtml</a>

Source: Grand Traverse County Data

**Flood Data**

Flood hazard information may be obtained from the Flood Rate Insurance Maps (FIRM) available for jurisdictions. In order to delineate potential flood plain areas (seasonal floodplains) for each county, NWMCOG overlaid wetland, soils, and elevation data to determine the most likely flood prone areas. Once overlaid; isolated polygons (areas) were deleted in order to show a more accurate representation of potential flood prone areas along lakes, rivers, and streams. Sources: Temporary/Seasonally Flooded Areas data are from the National Wetland Inventory of the US Fish and Wildlife Service; Hydric soils data are from the county digital soil surveys (were available); and Digital Elevation Model data are from the Center for Geographic Information, Michigan Department of Information Technology.

**NFIP Participation Status:**

Grand Traverse County is currently participating in the update of new digital flood maps, which will not be final for 1 to 2 years. The county has only one property that has been identified by the National Flood Insurance Program as having suffered repetitive flood losses. The property is a single-family home located in Blair Township. It had been damaged by floods in 2012 and 2014, with similar amounts of damage occurring during each event. This property should be prioritized for flood mitigation activities, in order to prevent or reduce such losses in the future.

Table 11: NFIP Participation

Municipality	NFIP status	Flood Maps	Year Joined
Acme Township	P	N	1986
Blair Township	P	N	1988
East Bay Township	P	N	1986
Fife Lake Township	NP		
Garfield Township	P	N	1986
Green Lake Township	NP		
Grant Township	NP		
Long Lake Township	P	Y	1988
Mayfield Township	NP		
Paradise Township	P	Y	1986
Peninsula Township	P	N	1986
Union Township	P	Y	1988
Whitewater Township	P	Y	1988
Village of Fife Lake	NP		
City of Traverse City	P	Y	1982

P = Participates  
 NP = Non Participating  
 Y = Yes  
 N = No

Source: Department of Environmental Quality

**Fire Data**

Modern forest fire data were obtained from the USDA forest service and the Departments of Natural Resources in Minnesota, Wisconsin, and Michigan. Fire regimes data (fire prone areas) were provided by the USDA Forest Service, North Central Research Station located in Wisconsin. Land type associations, and historical and modern fire rotations were used to identify the fire prone areas.

**Tornadoes** - National Weather Service

**Damaging Winds** - National Weather Service

**Large Hail** - National Weather Service

**Winter Weather** - National Weather Service

**Shoreline Erosion** - Shoreline erosion incident zones delineated by the US Geological Service. Digital Elevation Model data was obtained from the Center for Geographic Information, Michigan Department of Information Technology.

**Other hazards** such as earthquakes and subsidence were considered but are not substantial risks in Grand Traverse County.

**Natural Hazards Recorded Events**

Data for weather events was compiled from the National Oceanic and Atmospheric Administration’s (NOAA) website utilizing the following sections:

- Weather/Climate Events, Information, Assessments
- Climatology and Extreme Events
- NOAA Storm Event Database; 1950 to present, local storm reports, damage reports, events checked for Grand Traverse County included: Drought (Drought), Flood (Flash Flood, Flood, Lakeshore Flood), Hail (Hail), Extreme Winter Weather (Blizzard, Extreme Cold/Wind Chill, Freezing Fog, Frost/Freeze, Heavy Snow, Ice Storm, Lake-effect Snow, Sleet, Winter Storm, Winter Weather), Tornado (Tornado, Funnel Cloud), Thunderstorm and High Wind (Heavy Rain, High Wind, Lightning, Strong Wind, Thunderstorm Wind), Wildfire (Wildfire)

The following list includes the frequency, dates, and descriptions of the most severe natural hazard events that have occurred within Grand Traverse County, according to the NOAA Storm Event Database; January 1950 – August 2014. *Extreme Winter Weather* includes events with ice covering, property damage, and/or up to/over 12 in. of snow. *Severe Thunderstorm* include 50 knot winds + and property damage figures.

**Flood/Flash Flood: 7 events**

Table 12: Flood Events

Month	Year	Location	Effect	Damage
February	1986*	County/Statewide	Great Lakes flooding, wave action	NA
January	1993	County/Region	Heavy rainfall and snowmelt	\$5,000
March	1993	County/Region	Flooding	NA
April	1993	County/Region	Flood	\$5,000,000
July	1999	Traverse City	Secondary street flooding/ basement flooding	NA
July	2000	Traverse City	Street flooding	NA
September	2000	Countywide	Street flooding, power outages, 1 fatality from lightning	NA
April	2001	County (north central)	Flooding along Boardman River	NA
April	2012	Grawn	Boardman River flooded homes	\$75,000
October	2012	Grawn	Failure of temporary dam on Boardman River/homes and other property damaged or destroyed	\$1,800,000
November	2013	Traverse City	2 in. rain in 1 hour/ roads flooded and impassable	\$14,000

**Hail: 26 events**

*Table 13: Hail Events*

Month	Year	Location	Effect	Damage
September	1958	Countywide	0.75 in.	NA
May	1970	Countywide	1.75 in.	NA
May	1971	Countywide	0.75 in.	NA
April	1975	Countywide	1.50 in.	NA
July	1980	Countywide	2.00 in.	NA
July	1982	Countywide	1.00 in.	NA
April	1993	Traverse City	1.00 in.	NA
April	1993	Bates	1.00 in.	NA
April	1999	Traverse City	0.75 in.	NA
June	2000	Traverse City	1.00 in./flooding/60 mph gusts	NA
September	2000	Traverse City	1.00 in./flooding/60 mph gusts	NA
June	2003	Fife Lake	0.75 in.	NA
August	2003	Traverse City	0.88 in.	NA
September	2005	Interlochen	0.88 in.	NA
June	2006	Traverse City	0.88 in.	NA
June	2006	Kingsley	0.75 in.	NA
July	2006	Old Mission	0.88 in.	NA
October	2006	Traverse City	1.25 in.	NA
June	2008	Traverse City	1.25 in.	NA
June	2008	Williamsburg	1.00 in.	NA
July	2010	Traverse City	0.88 in.	NA
April	2011	Hannah	0.88 in.	NA
June	2011	Old Mission	1.25 in.	NA
June	2011	Old Mission	1.00 in.	NA
May	2012	Acme	1.00 in.	NA
May	2012	Williamsburg	1.25 in.	NA
May	2012	Fife Lake	1.00 in.	NA
July	2014	Countywide	0.88 in.	NA
July	2014	Countywide	0.75 in.	NA
July	2014	Countywide	0.75 in.	NA
July	2014	Countywide	1.00 in.	NA

**Extreme Winter Weather: 105 events**

Table 14: Extreme Winter Weather Events

Month	Year	Location	Effect	Damage	Event
January	1993	County/Region	6 - 12 in. snow	\$50,000	
April	1993	County/Region	Heavy Snow	\$50,000	
December	1993	County/Region	10 - 15 in. snow/ 3 ft. drifts/accidents and injuries	NA	
January	1994	Statewide	.1 - .3 in. ice	\$5,000,000	Freezing Rain/ Heavy Snow
January	1997	Countywide	12 - 18 in. snow	NA	
March	1998	County/Region	8 - 12 in. snow/ 45 mph gusts	NA	Blizzard
December	1998	Countywide	6 - 12 in. snow	NA	
January	1999	Countywide	6 - 12 in. snow	NA	
December	2001	Traverse City	20.5 in. snow	NA	
December	2002	County/Region	1/4 in. ice	NA	Ice Storm
January	2003	County/Region	6 - 12 in. snow	NA	
January	2004	County/Region	20 in. snow	NA	
November	2005	County/Region	10 - 17 in. snow	NA	
January	2007	County/Region	11 -13 in. snow	NA	
February	2007	County/Region	-20 to -30 wind chills	NA	Extreme Temp
December	2009	County/Region	6 - 16 in. snow	NA	
December	2010	County/Region	6 -12 in. snow	NA	
March	2011	County/Region	6 - 15 in. snow	NA	
March	2012	County/Region	6 - 14 in. snow/widespread power outages	NA	
April	2012	Statewide	Killing freeze	\$15,000,000 (crop)	Extreme Temp
December	2012	County/Region	Trees and power lines down	\$12,000	
November	2013	County/Region	8 - 12 in. snow	NA	
January	2014	County/Region	12 - 16 in. snow	NA	
February	2014	County/Region	45 mph winds/ -15 to -25 wind chills	NA	

**Severe Thunderstorm/High Wind: 54 events**

Table 15: Severe Thunderstorm Events

Month	Year	Location	Effect	Damage	Event
August	1955	Countywide	61 knot winds	NA	
July	1956	Countywide	60 knot winds	NA	
July	1966	Countywide	50 knot winds	NA	
July	1969	Countywide	52 knot winds	NA	
July	1972	Countywide	55 knot winds	NA	



**Severe Thunderstorm/High Wind (continued)**

Month	Year	Location	Effect	Damage	Event
July	1974	Countywide	65 knot winds	NA	
May	1975	Countywide	50 knot winds	NA	
July	1982	Countywide	52 knot winds	NA	
July	1987	Countywide	70 knot winds	NA	
October	1989	Countywide	50 knot winds	NA	
July	1995	Acme	52 knot winds/ trees down	NA	
April	1997	Traverse City	52 knot winds	NA	
May	1998	Traverse City	50 knot winds/ trees and power lines down	NA	
September	1998	Countywide	52 knot winds/ trees down	NA	
November	1998	County/Region	50 knot winds	NA	
February	1999	Traverse City	50 knot winds/ tree down	NA	
June	1999	Traverse City	52 knot winds/ trees and power lines down	NA	
June	1999	Interlochen	50 knot winds/ trees down	NA	
July	1999	Traverse City	60 knot winds/ trees and power lines down/ straight line wind damage/ structure damages	NA	
August	2000	Countywide	Lightning sparked explosion at oil company in Blair Twp.	\$20,000	Lightning
September	2000	Traverse City	50 knot winds	NA	
September	2000	Traverse City	Lightning sparked garage fire/ 1 fatality	\$20,000	Lightning
August	2001	Traverse City/ Williamsburg	50 knot winds/ trees and power lines down	NA	
April	2002	Traverse City/ Kingsley	50 - 60 knot winds/ trees and power lines down/ roof damage	\$15,000	
April	2002	Old Mission	Fire sparked by lightning destroyed home	\$125,000	
July	2002	Traverse City/ Fife Lake	50 - 65 knot winds/ trees and power lines down	NA	
August	2003	Acme	5 knot winds/ tree down	NA	
November	2003	County/Region	68 knot winds/ trees and power lines down/ power outages	\$30,000	
August	2004	Traverse City	56 knot winds/ trees down/ crops damaged	\$1,000 (crop)	
September	2005	Traverse City	52 knot winds/ structure damage	\$45,000	
November	2005	County/Region	40 knots sustained winds/ trees down	\$3,000	
November	2005	County/Region	55 knot winds/ trees down/ structure damage	\$45,000	
July	2006	Traverse City	51 knot winds/ trees down/ property damage	\$3,000	
July	2006	Long Lake	65 knot winds/ over 200 trees down/ property damage	\$35,000	
July	2006	Interlochen	50 knot winds/ trees down/ property destroyed	\$8,000	

### Severe Thunderstorm/High Wind (continued)

Month	Year	Location	Effect	Damage	Event
July	2006	Williamsburg	Structure damage/ crop damage	\$5,000	
June	2007	Kingsley	52 knot winds/ trees down	\$5,000	
October	2007	Traverse City	52 knot winds/ trees down	\$4,000	
June	2009	Interlochen	55 knot winds/ trees and power pole down/ property and structures damaged	\$30,000	
June	2009	Karlin	52 knot winds/ trees down	\$3,500	
April	2010	Hannah	52 knot winds/ trees down	\$4,000	
October	2010	County/Region	55 knot winds/ trees and power lines down/ power outages/ structure damage	\$24,000	
May	2011	Hannah	56 knot winds/ trees down	\$3,000	
June	2012	Mapleton	52 knot winds/ trees down	\$4,000	
June	2012	Monroe Center	64 knot winds/ trees down/ property and structures damaged	\$10,000	
July	2002	Traverse City	52 knot winds/ trees down	\$3,000	
July	2013	Fife Lake	55 knot winds/ trees down/ structure damage	\$15,000	
August	2013	Monroe Center	52 knot winds/ trees down/ structure damage	\$11,000	
August	2014	Traverse City	52 knot winds/ trees down	\$6,000	

### Tornado: 4 events

Table 16: Tornado Events

Month	Year	Location	Effect	Damage
April	1956	Countywide	F4/ 15 miles long, 400 yards wide, 2 deaths and 24 injuries	\$250,000
September	1961	Countywide	F2/ 14.4 miles long, 33 yards wide	\$25,000
May	1964	Countywide	F2/ 16.6 miles long, 440 yards wide/ structure damage	\$250,000
June	1969	Countywide	F3/ 6.4 miles long, 600 yards wide/ trees and power lines down/ homes and property destroyed	\$250,000

\* Governor and Presidential Hazard Declaration

### Wildfires:

56 wildfires occurred in Grand Traverse County from 1981 to 2010, affecting nearly 212 acres countywide.

### Other Potential Natural Hazards

#### Shoreline Erosion

The Great Lakes experienced record high lake levels in 1985-86, and again in 1997-98. Governors Disaster Declarations for shoreline problems in the State was enacted in 1985-1986 and included Grand Traverse County.

### **Storm Surges (Seiches) and Rip Currents**

Weather-related events can also cause lake fluctuations that can last from several hours to several days. For example, windstorms combined with differences in barometric pressure can temporarily tilt the surface of a lake up at one end by as much as eight feet. This phenomenon is called a storm surge or seiche and can drive lake waters inland over large areas, cause weakening and erosion of shoreline areas, make water travel hazardous, and cause flood damages, deaths, and injuries to occur.

A rip current is a strong flow of water returning seaward from the shore. When wind and waves push water towards the shore, the previous backwash is often pushed sideways. This water streams along the shoreline until it finds an exit back to the sea. The resulting rip current is usually narrow and located between sandbars, under piers or along jetties. The current is strongest at the surface, and can dampen incoming waves, leading to the illusion of a particularly calm area. Rip current speeds are typically 1-2 feet per second. However, speeds as high as 8 feet per second have been measured. Rip currents cause approximately 100 deaths annually in the United States, more than all other natural hazards except excessive heat. In the Great Lakes alone, the average over the last six years is 10 drownings per year caused by rip currents. About 80% of rescues by surf beach lifeguards are due to rip currents. According to the National Climatic Data Center, Michigan has experienced at least 17 deaths and 9 injuries caused by rip currents in just the past 10 years.

### **Drought**

In Northern Michigan's forested regions, drought can adversely impact timber production and some tourism and recreational enterprises. This can also cause a drop in income, which impacts other economic sectors. The biggest problem drought presents, however, is the increased threat of wildfire. Many Northern Michigan counties are heavily forested and are therefore highly vulnerable to drought-related wildfire threats. The most extreme drought was in January 1931, when the Palmer index hit a record low of -8.07. Lengthy drought incidents took place in 1895-1896 (17 months), 1898-1899 (8 months), 1899-1901 (21 months), 1901-1902 (15 months), 1908-1911 (37 months), 1913-1914 (11 months), 1914-1915 (10 months), 1919-1920 (8 months), 1920-1922 (17 months), 1925-1926 (17 months), 1929-1931 (28 months), 1935-1936 (20 months), 1955-1956 (13 months), and 1976-1977 (13 months).

### **Pandemics or other Public Health Emergencies**

Naturally occurring pandemics may cause widespread precautions around the world. The Grand Traverse County Health Department created a pandemic plan that serves as a template for responding to a large-scale outbreak of influenza and other highly infectious respiratory diseases.

### **Probability of Natural Hazards:**

The probability that a natural hazard such as hail, thunderstorm and high wind, tornadoes, and snow and ice will affect this area of Michigan is an annual possibility. The magnitude and severity depends on the season, which determines temperature, moisture in the air, ice cover on the lakes, etc. Also, the severity of an event is connected with tourist activity during the year, the pace of developing second homes, and an increasing base population in northwest, lower Michigan which in turn leads to more development. The events recorded by NOAA show that natural hazard events may be happening more frequently, but the geographic impact of the natural hazards' impact has remained the same in Grand Traverse County.

The areas where natural hazards overlap in Grand Traverse County can include heavy snow that causes trees and power lines down, and then melting, rain and flooding.

### **Grand Traverse County Natural Hazards Task Force and Public Input**

The Natural Hazards Task Force comprised of the County's Local Planning Team (LPT) which is a collection of first responders and local, regional, and state public entities that ensure the readiness of County entities by recommending equipment purchases, training and exercises, and public education on preparedness issues. The Task Force meetings were scheduled monthly in 2014, held in various locations throughout the county, and open to the public. Participants analyzed and updated the hazard priority maps, goals & objectives, hazard

priority areas, mitigation measures, and the action agenda items. The general list of hazard priorities and locations of concern was also reviewed and updated by the Task Force:

- Thunderstorms
- High winds
- Heavy rain and effect on agriculture
- Mobile home parks
- National Cherry Festival Emergency Plan
- More communication and notification
- Ingress and egress at campgrounds
- Construction area
- Interlochen Arts Academy area
- Extreme winter weather
- Hail and frost affecting agriculture
- Power outages
- Flooding in the Boardman River area, dams, bridges
- Wildfires – specifically in Cedar Run, Blair Township, Kingsley areas
- Erosion along Grand Traverse Bay and Peninsula Township
- Ice damage

The Natural Hazards Priority Areas have not changed since the original plan. However, the task force altered the chronological order of the priority list and placed “Public infrastructure” as the top priority, due to proposed programming and immediate implementation of pre-disaster mitigation projects that will address flooding hazard issues, should funding become available.

### **Top Five Natural Hazards Priority Areas**

#### **1. Public infrastructure (culverts, dams, bridges, etc.) located throughout Boardman River communities (Garfield, Blair, Paradise, East Bay, and Union Townships; City of Traverse City)**

Inadequate drainage infrastructure under South Airport road near the commercial/retail development *Logan's Landing* are causing frequent flooding of the road and nearby property, especially during heavy rain events and the spring snow melt season.

The Michigan Hazard Analysis of 2012 identifies the Three (3) Dams in the County as a “high hazard”, meaning there is development downstream in the dam’s hydraulic shadow; and Four (4) Dams as a “significant hazard,” meaning structural failure may cause an uncontrollable high volume of water downstream, damaging bridges and other key infrastructure.

Other flooding may involve low-lying areas that collect runoff waters; flaws or shortcomings in existing sewer infrastructure; undersized or poorly designed stormwater control practices; collective effects of land use and development trends; illegal diversion of water, or actions that interfere with system function.

#### **2. Potential of Severe Thunderstorms and High Winds - Countywide**

There is a historical record of high wind events and tornadoes in Grand Traverse County. Damage from straight line winds usually affects multiple counties through the loss of electricity from trees/tree limbs downing power lines; causing widespread property damage; and potentially exposing the public to severe injury or fatality due to flying debris.

Mobile home parks, campgrounds, construction areas, institutions (schools, places of worship, etc.), and numerous festivals that draw a large number of tourists such as the National Cherry Festival were identified as specific areas of concern.

### 3. Potential of Extreme Winter Weather - Countywide

Grand Traverse County experiences frequent heavy snow events due to its location in a “snow-belt” area. Heavy snow events have the potential of shutting down towns and businesses for a significant period of time. Blowing and drifting snow with blizzard conditions cause driving hazards. Ice damage may occur when high winds push lake water and ice past the shoreline, causing damage to public infrastructure and residential property.

### 4. Potential Wildfire/Urban interface - Countywide

Forest types (white/red pine, and white pine and hemlock) within Grand Traverse County are susceptible to wildfires. Additional factors that increase fire risk include dead or dying Ash trees as a result of disease/invasive species, lightning strikes, and human factors such as the number of persons residing, camping, or traveling through the County.

### 5. Potential of Erosion and Ice damage - Countywide

Shoreline or soil erosion hazards involve the loss of property or necessitate the relocation of homes as sand or soil is removed by flowing water (lake, river, etc.) and carried away over time. The foundation of a structure, or underground utility pipes in the area, may become fully exposed and vulnerable to weather, extreme temperatures, water damage, or other sources of risk. Shoreline banks that support roadways may erode and cause the road surface to crack, become unstable, or more prone to deposits of sand, snow, water, and ice.

This hazard is especially relevant to those municipalities that contain residential and commercial development along Grand Traverse Bay (Peninsula, East Bay and Acme Townships; Traverse City) that experience seasonal shifts in water levels and possible ice erosion hazards.

### Emergency Warning System Coverage

Mobile warning system: Grand Traverse County uses the CodeRed Emergency Communications Network, which is an electronic high-speed outbound notification service available to the general public.

Tornado/Severe Weather Systems: Manual sirens are located at Metro Station #9 (East Bay Twp), Rural Station #6 (Fife Lake), and the Blair Twp. fire department. Weather alert radios were purchased and distributed to all the schools, nursery schools, and senior homes.

Flood warning system: For dam failures/flooding downstream an active warning system is located at Logan’s Landing on South Airport Rd. An inactive system is located on River Road.

### Economic Impact Analysis

The total Damaging Events’ Costs recorded since 1950 with the National Oceanic and Atmospheric Administration for Grand Traverse County, the region, and the state are as follows:

Table 17: Damage Cost by Natural Hazard

Grand Traverse County	Property Damage Cost	Crop Damage Cost
Flood	\$6,894,000	NA
Hail or Wildfire	NA	NA
Extreme Winter Weather	\$5,112,000	\$15,000,000
Tornado	\$775,000	NA
Thunderstorm and High Wind	\$481,500	\$1,000

The Grand Traverse County Equalization Department calculated each Priority Area's economic value through the State Equalized Values (SEV) for real and personal property (residential and commercial). The following includes 2010 Census data and 2014 SEV dollar amount times two (estimated fair market values) for each priority area. According to the 2014 Northwest Michigan Season Population Analysis, assume a 19% increase to account for the annual average seasonal population within the county.

Table 18: Geographic Economic Value

Priority Area	Geography	Population	State Equalized Value
	Grand Traverse County	86,986	\$10,648,994,584
3	Boardman river Area	46,306	\$5,289,726,800
5	Grand Traverse Bay communities	35,145	\$5,463,458,000

### VIII. NATURAL HAZARDS MITIGATION GOALS AND OBJECTIVES

The mission of the Grand Traverse County Natural Hazards Mitigation Plan is to protect the health and safety of the public and property in the County which includes prevention of injury, loss of life, property damage, breakdown in vital services like transportation and infrastructure, economic slumps, maintain tourist base, and liability issues. This is done by taking action to permanently eliminate or reduce the long-term risks from natural hazards.

Specific goals and objectives have been established based upon the community's natural hazards analysis, as well as input from the Task Force participants and the public through meetings, request for comments on the draft plan, and the presentation of the plan to the Grand Traverse County Planning Commission.

#### Goal 1: Increase local awareness and participation in natural hazards mitigation Strategies

- Encourage cooperation and communication between planning and emergency management officials
- Encourage additional local governmental agencies to participate in the natural hazards mitigation process
- Encourage public and private organizations to participate, including organizations who advocate for individuals with functional or access needs

#### Goal 2: Integrate natural hazards mitigation considerations into the community's comprehensive planning process

- Enforce and/or incorporate natural hazards mitigation provisions in building code standards, ordinances, and procedures
- Create or update ordinances to reflect building codes, shoreline protection rules, etc.
- Incorporate natural hazards mitigation into basic land use regulation mechanisms
- Develop community education programs and public warning systems
- Strengthen the role of the Local Emergency Planning Committee in the land development process
- Integrate natural hazards mitigation into the capital improvement planning process so that public infrastructure does not lead to development in natural hazards areas
- Encourage county agencies to assess local roads, bridges, dams, and related transportation infrastructure for natural hazards vulnerability

**Goal 3: Utilize available resources and apply for additional funding for natural hazards mitigation**

- Provide a list of desired community mitigation measures to the State
- Encourage the application for project funding from diverse entities

**Goal 4: Develop and complete natural hazards mitigation projects in a timely manner**

- Encourage public and business involvement in natural hazards mitigation projects

## **IX. IDENTIFICATION AND SELECTION OF MITIGATION STRATEGIES**

### **Selection of Feasible Mitigation Strategies**

A set of evaluation criteria was developed to determine which mitigation strategies were best suited to address the identified problems in Grand Traverse County.

- The measure must be technically feasible.
- The measure must be financially feasible.
- The measure must be environmentally sound and not cause any permanent, significant environmental concerns.
- The measure must be acceptable to those participating in the strategy and/or primarily affected by the strategy.

By anticipating future problems, the County can reduce potential injury, structure losses, loss of power, such as electric and gas, and prevent wasteful public and private expenditures.

### **Priority Area 1. Potential of flooding along the Boardman River affecting public infrastructure (culverts, dams, bridges, etc.)**

#### **Flood Mitigation Strategies**

- Drainage improvements in high flooding potential areas, specifically near *Logan's Landing*
- Removal of unsafe dams on the Boardman River
- Continue enforcement of building codes and soil erosion regulations

### **Priority Area 2. Potential of Severe Thunderstorms and High Winds throughout the County**

#### **Thunderstorm, High Winds, and Tornado Mitigation Strategies**

- Establish emergency shelters
- Utilize a ham radio channel for local warnings if primary communications is interrupted
- Promote the establishment of a robust, interoperable communication system
- Enhance cooperation with Utility Companies (tree management, promotion of burying utility lines in new construction, and high outage areas)
- Identify potential wind damage areas
- Establish new generators where needed
- Update the County's debris removal plan

### **Priority Area 3. Potential of Extreme Winter Weather throughout the County**

#### **Snow Load Mitigation Strategies**

- Continue enforcement of building code regarding snow load limits through the permitting process
- Utilize a ham radio channel for local warnings if primary communications is interrupted
- Promote the establishment of a robust, interoperable communications system



## **Selection of Feasible Mitigation Strategies (continued)**

### **Priority Area 4. Potential Wildfire/Urban interface throughout the County**

#### **Wildfire Mitigation Strategies**

- Public education and awareness activities such as programs and brochures regarding fuel management, proper vegetation, fire breaks
- Continue enforcement of state fire codes regarding setback requirements
- Public education utilizing the Michigan Department of Natural Resources flyers and the Federal Emergency Management Administration information at parks and campgrounds
- Real estate and insurance agents to distribute information
- Assess fire suppression access and make improvements
- Research the Department of Natural Resources' State Forest wildfire/urban interface rules or plan

### **Priority Area 5. Potential of Erosion and Ice damage throughout the County**

#### **Shoreline Erosion Mitigation Strategies**

- Drainage control projects
- Enforcement of soil erosion statutes/permits
- Enforcement of building and zoning codes for current and future development
- Enforcement of the grading levels no more than 10%
- Placement of vegetation and utilizing native vegetation

#### **Other mitigation strategies**

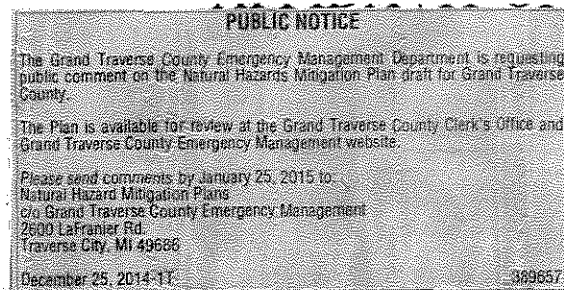
- Public education and awareness activities
- Work towards uniform mapping and zoning throughout the county for natural hazards mitigation
- Incorporate the Natural Hazards Mitigation Plan into the County's Master Plan and local zoning ordinances if in place.

## X. Participation in the Development of the Grand Traverse County Natural Hazards Mitigation Plan

The opportunities for review by other governmental entities and the public included the following:

- Public Notices were published in the Record Eagle

### Public Notice



- The Natural Hazards Mitigation Plan was presented to the Grand Traverse County Planning Commission where the meetings are posted in the newspaper and are open to the public. Commission members gave their input and there were no comments from the public.
- The Natural Hazards Mitigation Plan was presented to the Grand Traverse County Board of Commissioners where the meetings are posted in the newspaper and are open to the public. Commissioners gave their input and there were no comments from the public.
- During development of the plan, all townships and villages were provided the opportunity to formally comment on plan drafts and other related materials. They were given the opportunity via mailings of both meeting notices and draft copies of the plan for comment. Notification was also provided to them that the plans were posted on the NWMCOG website and could be reviewed there. While no jurisdictions (other than the county) provided formal written comments, they did provide county staff (particularly the county emergency manager) with feedback via other informal means. This feedback took the form of phone calls, emails and conversations that occurred at various non-mitigation related meetings throughout the county. This information was provided back to NWMCOG staff by the county staff and used in development of the plan, including the risk assessment and community profile sections.

In addition, the townships and villages (whether or not they have their own zoning) have indicated to NWMCOG and the county emergency manager that they will follow the county's lead in identifying mitigation projects and developing grant applications to fund those projects. Land use issues associated with those projects (where applicable) will be handled by each jurisdiction that controls zoning in the project area.

Community planning services are provided by the professional staff of the Grand Traverse County Planning & Development Department. The Department assists communities in developing plans and zoning ordinances, provides resource information and technical assistance, and convenes communities to address land use issues of common interest. The Grand Traverse County Planning Commission coordinates and reviews local zoning and master plans to ensure consistency across jurisdictional boundaries.

Building permits are issued by the Grand Traverse County Construction Code Department, except in Garfield and Fife Lake townships where they are handled locally.

The Townships/Villages in the priority areas include:

Acme Township – Zoning  
 Blair Township - Zoning  
 East Bay Township – Zoning  
 Fife Lake Township – Zoning  
 Garfield Township – Zoning  
 Grant Township – Zoning  
 Green Lake Township – Zoning  
 Long Lake Township – Zoning

Mayfield Township – Zoning  
 Paradise Township – Zoning  
 Peninsula Township – Zoning  
 Union Township – Zoning  
 Whitewater Township – Zoning  
 Village of Fife Lake – Zoning  
 Village of Kingsley – Zoning  
 City of Traverse City - Zoning

Table 17: Plan Participation

County/Township/Others	Zoning	Participation
Grand Traverse County	No	Task Force meetings, review/development of updated elements: Board of Commissioners Conservation District Emergency Management Coordinator Equalization Department Health Department Planning Commissioners Planning Department Road Commission
Acme Township	Yes	See last bullet point paragraph, above
Blair Township	Yes	See last bullet point paragraph, above
East Bay Township	Yes	See last bullet point paragraph, above
Fife Lake Township	Yes	See last bullet point paragraph, above
Garfield Township	Yes	See last bullet point paragraph, above
Grant Township	Yes	See last bullet point paragraph, above
Green Lake Township	Yes	See last bullet point paragraph, above
Long Lake Township	Yes	See last bullet point paragraph, above
Mayfield Township	Yes	See last bullet point paragraph, above
Paradise Township	Yes	See last bullet point paragraph, above
Peninsula Township	Yes	See last bullet point paragraph, above
Union Township	Yes	See last bullet point paragraph, above
Whitewater Township	Yes	See last bullet point paragraph, above
Village of Fife Lake	Yes	See last bullet point paragraph, above
Village of Kingsley	Yes	See last bullet point paragraph, above
City of Traverse City	Yes	See last bullet point paragraph, above
Grand Traverse Band of Ottawa and Chippewa	Yes	See last bullet point paragraph, above

*\*\*The Grand Traverse Band has their own planning authority over lands they own that have been put in trust with the Federal Government. The County Natural Hazards Mitigation Plan would not cover the Tribe/lands, but the Tribes may adopt the approved County plan as their own.*

*N/A = Not applicable; these are non-governmental authority entities*

## **XI. IMPLEMENTATION OF THE GRAND TRAVERSE COUNTY NATURAL HAZARDS MITIGATION PLAN**

### **Natural Hazards Mitigation Plan Managers and Technical Assistance**

The County Board will lead the implementation of the Natural Hazards Mitigation Plan with assistance from the Emergency Management Coordinator and the Administration/Planning Department. Inter-agency partnerships and collaboration are encouraged to accomplish the goals and objectives of the Plan.

- Grand Traverse County Government Staff
- Townships, cities, and villages
- Grand Traverse County Conservation District
- Grand Traverse County Drain Commissioner
- Grand Traverse County Road Commission
- Grand Traverse Band of Ottawa and Chippewa Indians
- Grand Traverse Regional Land Conservancy
- The Watershed Center Grand Traverse Bay
- New Designs for Growth
- Michigan State University Extension
- Michigan Department of Environmental Quality
- Michigan Department of Natural Resources
- U.S. Environmental Protection Agency
- U.S. Army Corps of Engineers
- U.S. Department of Agriculture Natural Resources Conservation Service
- Insurance Companies
- Real Estate Companies

All natural hazards mitigation planning could be pursued using Michigan Public Act 226 of 2003, the Joint Municipal Planning Act. This Act provides for joint land use planning by cities, villages, and townships, and allows two or more municipalities' legislative bodies to create a single joint planning commission to address planning issues. This tool helps with planning for the "big picture" issues such as natural hazards that cross jurisdictional boundaries.

The intent of this legislation is for local governments to consider the following:

- Individual units of government modifying their ordinances simultaneously to include language that would incorporate aspects of protection
- Developing an overlay zoning district that would cross jurisdictional boundaries which would be incorporated into existing independent units of government's zoning ordinances
- Forming a new joint (multi-jurisdictional) planning commission or zoning board
- Sharing zoning administration and enforcement activities

### **Funding the Implementation of the Plan**

To assist with the funding of the proposed natural hazards mitigation strategies, the following is a list of potential financial assistance entities to help fund the implementation projects of the Plan.

- Federal Emergency Management Administration – Hazard Mitigation Grant Program
- U.S. Environmental Protection Agency
- U.S. Department of Agriculture Natural Resources Conservation Service
- U.S. Department of Agriculture Rural Development: Rural broadband opportunity – high speed telecommunication funding from the Public Telecommunications Facilities Planning and Construction grants
- U.S. Department of Housing and Urban Development
- Michigan Department of Environmental Quality
- Michigan Department of Natural Resources

## Funding the Implementation of the Plan (continued)

- National Oceanic and Atmospheric Administration
- Community, Regional Foundations
- Businesses

## Action Agenda

The following is a summary for accomplishing the **recommended natural hazards mitigation actions** for Grand Traverse County.

Table 19: Action Strategies

Priority and Action Strategies	Responsible Parties	Timeframe
<b>Priority Area 1: Flood Mitigation Strategies</b>		
a. Drainage improvements in high flooding potential areas, including upgrading the twin culverts on S. Airport Rd at Logan's Landing	Drain Commissioner Road Commission County Conservation District Emergency Management Department Townships, Villages, City	2-4 years from adoption of the plan
b. Removal of unsafe dams on the Boardman River	County Conservation District County Planning Department Emergency Management Department MI Department of Natural Resources Townships of Garfield, Blair, Paradise, East Bay, City of Traverse City	4-8 years from adoption of the plan
c. Continue enforcement of building codes and soil erosion regulations	County Building Inspector Building Construction Code Dept. County Conservation District	Ongoing
<b>Priority Area 2: Thunderstorms and High Winds Mitigation Strategies</b>		
a. Promote the establishment of the State of Michigan's Primary Radio Communication system for throughout the County	Emergency Management Department County Planning Department Townships, Villages, City	1-2 years from adoption of the plan
b. Have a debris removal plan for safety	Emergency Management Department County Planning Department County Building Inspector Townships, Villages, City	2-4 years from adoption of the plan
c. Utilize ham radio channel for local warnings	Emergency Management Department	1-2 years from adoption of the plan
d. Work with utility companies	Emergency Management Department County Planning Department County Building Inspector Utility Companies	1-3 years from adoption of the plan
e. Tree management	Utility Companies Emergency Management Department Townships, Villages, Private Landowners	1-3 years from adoption of the plan
f. Promotion of burying utility lines in new construction	County Building Inspector Utility Companies Emergency Management Department County Planning Department Townships, Villages, City	1-3 years from adoption of the plan

Priority and Action Strategies	Responsible Parties	Timeframe
<b>Priority Area 2: Thunderstorms and High Winds Mitigation Strategies (continued)</b>		
g. Burying power lines in high outage areas	County Building Inspector Utility Companies Emergency Management Department County Planning Department Townships, Villages, City	1-3 years from adoption of the plan
h. Identify potential wind damage areas	Emergency Management Department County Planning Department Townships, Villages, City	1-2 years from adoption of the plan
i. Establish new generators where needed	Emergency Management Department County Planning Department Townships, Villages, City	2-3 years from adoption of the plan
<b>Priority Area 3: Extreme Winter Weather (Snow Load and Ice Build Up) Mitigation Strategies</b>		
a. Continue enforcement of building code regarding snow load limits through the permitting process	County Building Inspector Townships, Villages, City County Planning Emergency Management Coordinator	Ongoing
b. Promote the establishment of the State of Michigan's Primary Radio Communication system for throughout the County	Emergency Management Department County Planning Department Townships, Villages, City	1-2 years from adoption of the plan
c. Utilize a ham radio channel for local warnings	Emergency Management Department	1-2 years from adoption of the plan
<b>Priority Area 4: Wildfire/Urban Interface Mitigation Strategies</b>		
a. Public education and awareness activities such as programs and brochures regarding fuel management, proper vegetation, fire breaks	County Planning Department Emergency Management Department Building Inspector County Soil Conservation District MI Department of Natural Resources Townships, Villages, City	1-3 years from adoption of the plan
b. Continue enforcement of state fire codes regarding setback requirements	Building Inspector Townships, Villages, City	Ongoing
c. Public education utilizing the MI Department of Natural Resources flyers and the FEMA information at parks and campgrounds	Emergency Management Department County Conservation District MI Department of Natural Resources Townships, Villages Parks and Campgrounds, public and private	1-3 years from adoption of the plan
d. Real estate and insurance agents to distribute information	Emergency Management Department County Planning Department Townships, Villages	1-3 years from adoption of the plan
e. Assess fire suppression access and make improvements	Emergency Management Department County and local fire departments	1-3 years from adoption of the plan
f. Research the MI Department of Natural Resources' State Forest wildfire/urban interface rules or plan	Emergency Management Department County and local fire departments County Planning Department	1-3 years from adoption of the plan

Priority and Action Strategies	Responsible Parties	Timeframe
<b>Priority Area 5: Shoreline Erosion Mitigation Strategies</b>		
a. Drainage control projects	Building Construction Code Dept. Drain Commissioner County Conservation District Emergency Management Department Townships, Villages, City	2-4 years from adoption of the plan
b. Enforcement of soil erosion statutes/permits	Building Construction Code Dept. Drain Commissioner County Conservation District County Planning Department Emergency Management Coordinator MI Department of Environmental Quality U.S. Army Corps of Engineers	Ongoing
c. Enforcement of the building codes	County Building Inspector	Ongoing
d. Enforcement of the grading levels no more than 10%	Building Construction Code Dept. Drain Commissioner County Conservation District County Planning Department	Ongoing
e. Placement of vegetation and utilizing native vegetation	County Building Inspector Building Construction Code Dept. Drain Commissioner County Conservation District County Planning Department Townships of Peninsula, East Bay, Acme, City of Traverse City	Ongoing

#### Additional Mitigation Strategies

- General Public education and awareness activities
- Work towards uniform mapping and zoning throughout the county for natural hazards mitigation
- Incorporate the Natural Hazards Mitigation Plan into the County's Master Plan and local zoning ordinances if in place.

#### Monitoring and Evaluation

The Grand Traverse County Natural Hazards Mitigation Plan will be monitored on a regular basis by the Emergency Management Staff and Planning Staff. Because Grand Traverse County is a dynamic, changing county with population growth, it is expected that the plan should be reviewed on an annual basis.

To assess the effectiveness of the Plan, some questions to ask in the review include: 1) How many and which mitigation strategies were developed? Implemented? 2) Did any new natural hazards events take place the past year to report? This review will be administered by the Emergency Management Coordinator with the Local Emergency Planning Committee, the County Planning Commission, and the public. If changes are needed, the plan will be presented to the Task Force participants for revisions.

Although review of the plan will occur annually, and a formal revision may not be needed each year, a new edition of the plan will be expected within every five year period. A continual process for updates will take place with annual reviews, monitoring, evaluation, and an accumulation of official feedback and public input through public notices. When it is appropriate to publish a revised version of the plan, the Task Force participants shall again be involved in the revision process. Each new edition of the plan will again be officially adopted by the Grand Traverse County Board of Commissioners.

**XII. NATURAL HAZARDS MITIGATION PLAN ADOPTION RESOLUTION**

**Grand Traverse County  
Natural Hazard Mitigation Plan Adoption Resolution  
RESOLUTION 92-2015**

**Whereas;** Grand Traverse County, Michigan has experienced risks that may damage commercial, residential and public properties, displace citizens and businesses, close streets and impair infrastructure, and present general public health and safety concerns; and

**Whereas;** Grand Traverse County has developed the Grand Traverse County Natural Hazard Mitigation Plan that outlines the counties options to reduce damages and impacts from natural and technological hazards; and

**Whereas;** the Natural Hazard Mitigation Plan has been reviewed by residents, business owners, and federal, state and local agencies, and has been revised where appropriate to reflect their concerns;

**Now, therefore, be it resolved that:**

The Natural Hazard Mitigation Plan is hereby adopted as an official plan of Grand Traverse County, Michigan.

**Passed this 1st day of July, 2015**

HEREBY CERTIFY THIS COPY TO BE A TRUE AND CORRECT COPY OF THE RECORD ON FILE WITH THE OFFICE OF COUNTY CLERK BONNIE SCHEEL  
GRAND TRAVERSE COUNTY CLERK  
BY: *Bonnie Scheele*  
CLERK/DEPUTY COUNTY CLERK  
DATE: July 2, 2015

**Chair, Grand Traverse County Board of Commissioners**

*Maybauer*

**Date**

7-2-15

**Grand Traverse County Clerk**

*Bonnie Scheele*

**Date**

7-2-15

**NOTE: AN OFFICIAL SIGNED COPY OF A RESOLUTION OF ADOPTION MUST BE SUBMITTED TO THE MICHIGAN STATE POLICE EMERGENCY MANAGEMENT AND HOMELAND SECURITY DIVISION (to comply with the requirements of the Disaster Mitigation Act of 2000).**



### XIII. APPENDICES

#### Appendix A

##### **Glossary of Mitigation Planning Terms**

**Alluvial fan:** A gently sloping fan-shaped landform created over time by the deposition of eroded sediment and debris.

**Base Flood:** A flood having a one percent chance of being equaled or exceeded in any given year.

**Coastal high hazard area:** An area of special flood hazard extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms.

**Community:** Any state, area, or political jurisdiction or any Native American Tribe, authorized tribal organization, Alaska native village, or authorized native organization that has the authority to adopt and enforce floodplain management ordinances for the area under its jurisdiction. In most cases, a community is an incorporated city, town, village, township, or an unincorporated area of a county.

**Disaster:** A major detrimental impact of a hazard upon the population and economic, social, and built environment of an affected area.

**Exposure:** The number, types, qualities, and monetary values of various types of property or infrastructure and life that may be subject to an undesirable or injurious hazard event.

**Flood Insurance Rate Map:** As defined under the National Flood Insurance Program, an official map of the community on which the administrator of the Flood Insurance Administration has delineated both the special flood hazard areas and the risk premium zones applicable to the community.

**Floodplain or flood prone area:** Any land area susceptible to being inundated by water from any source.

**Floodplain management:** The operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plans, flood control works, and floodplain management regulations.

**Fuel:** Combustible plant material, both living and dead, that is capable of burning in a wildland situation; any other flammable material in the built environment that feeds a wildfire.

**Hazard:** An event or physical condition that has the potential to cause fatalities, injuries, property damage, infrastructure damage, agricultural loss, damage to the environment, interruption of business, or other types of harm or loss.

**Hazard identification:** The process of defining and describing a hazard, including its physical characteristics, magnitude and severity, probability and frequency, causative factors, and locations or areas affected.

**Lifeline systems:** Public works and utilities such as electrical power, gas and liquid fuels, telecommunications, transportation, and water and sewer systems.

**Major disaster:** As defined in the Stafford Act, "any natural catastrophe or, regardless of cause, any fire, flood, or explosion in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance under this Act to supplement the efforts and available resources of states, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby."

**Mitigation:** Sustained action taken to reduce or eliminate the long-term risk to human life and property from natural hazards and their effects. Note that this emphasis on long-term risk distinguishes mitigation from actions geared primarily to emergency preparedness and short-term recovery.

**Multiple-objective management:** A holistic approach to floodplain management (or the management of other hazards) that emphasizes the involvement of multiple distinct interest in solving land use problems related to the hazardous area.

**Natural hazard:** Hurricanes, tornadoes, storms, floods, tidal wave, tsunamis, high or wind-driven waters, volcanic eruptions, earthquakes, snowstorms, wildfires, droughts, landslides, and mudslides.

**One hundred year flood:** The flooding event that has a one percent chance of occurring in a particular location in any given year. While this is the most common reference point statistically because it is used for regulatory purposes in the National Flood Insurance Program, the same language applies in referring to other actual or hypothetical events in terms of their statistical probabilities.

**Risk:** The potential losses associated with a hazard, defined in terms of expected probability and frequency, exposure, and consequences.

**Risk assessment:** A process or method for evaluating risk associated with a specific hazard and defined in terms of probability and frequency of occurrence, magnitude and severity, exposure, and consequences.

**Special flood hazard area:** Land in the floodplain within a community subject to one percent or greater chance of flooding in any given year.

**Stafford Act:** The Robert T. Stafford Disaster Relief and Emergency Assistance Act (P.L. 93-288, as amended by P.L. 100-707), which provides the greatest single source of federal disaster assistance.

**Structure:** A walled and roofed building, including a storage tank for gas or liquid that is principally above ground, as well as a manufactured home.

**Tornado Classifications:**

F-Scale Number	Intensity Phrase	Wind Speed	Type of Damage Done
F0	Gale tornado	40-72 mph	Some damage to chimneys, breaks branches off trees, pushes over shallow-rooted trees, damages sign boards.
F1	Moderate tornado	73-112 mph	The lower limit is the beginning of hurricane wind speed, peels surface off roofs; mobile homes pushed off foundations or overturned, moving autos pushed off the roads, attached garages may be destroyed.
F2	Significant tornado	113-157 mph	Considerable damage. Roofs torn off frame houses, mobile homes demolished, boxcars pushed over, large trees snapped or uprooted, light object missiles generated.
F3	Severe tornado	158-206 mph	Roof and some walls torn off well constructed houses, trains overturned, most trees in forest uprooted

F4	Devastating tornado	207-260 mph	Well-constructed houses leveled, structures with weak foundations blown off some distance, cars thrown and large missiles generated.
F5	Incredible tornado	261-318 mph	Strong frame houses lifted off foundations and carried considerable distances to disintegrate, automobile sized missiles fly through the air in excess of 100 meters, trees debarked, steel reinforced concrete structures badly damaged.
F6	Inconceivable tornado	319-379 mph	These winds are very unlikely. The small area of damage they might produce would probably not be recognizable along with the mess produced by F4 and F5 wind that would surround the F6 winds. Missiles, such as cars and refrigerators would do serious secondary damage that could not be directly identified as F6 damage. If this level is ever achieved, evidence for it might only be found in some manner of ground swirl pattern, for it may never be identifiable through engineering studies

**Urban Wildfire:** A fire moving from a wildland environment, consuming vegetation as fuel, to an environment where the fuel consists primarily of buildings and other structures.

**Urban/wildland interface:** A developed area, also known as the “I-zone,” occupying the boundary between an urban or settled area and a wildland characterized by vegetation that can serve as fuel for a forest fire.

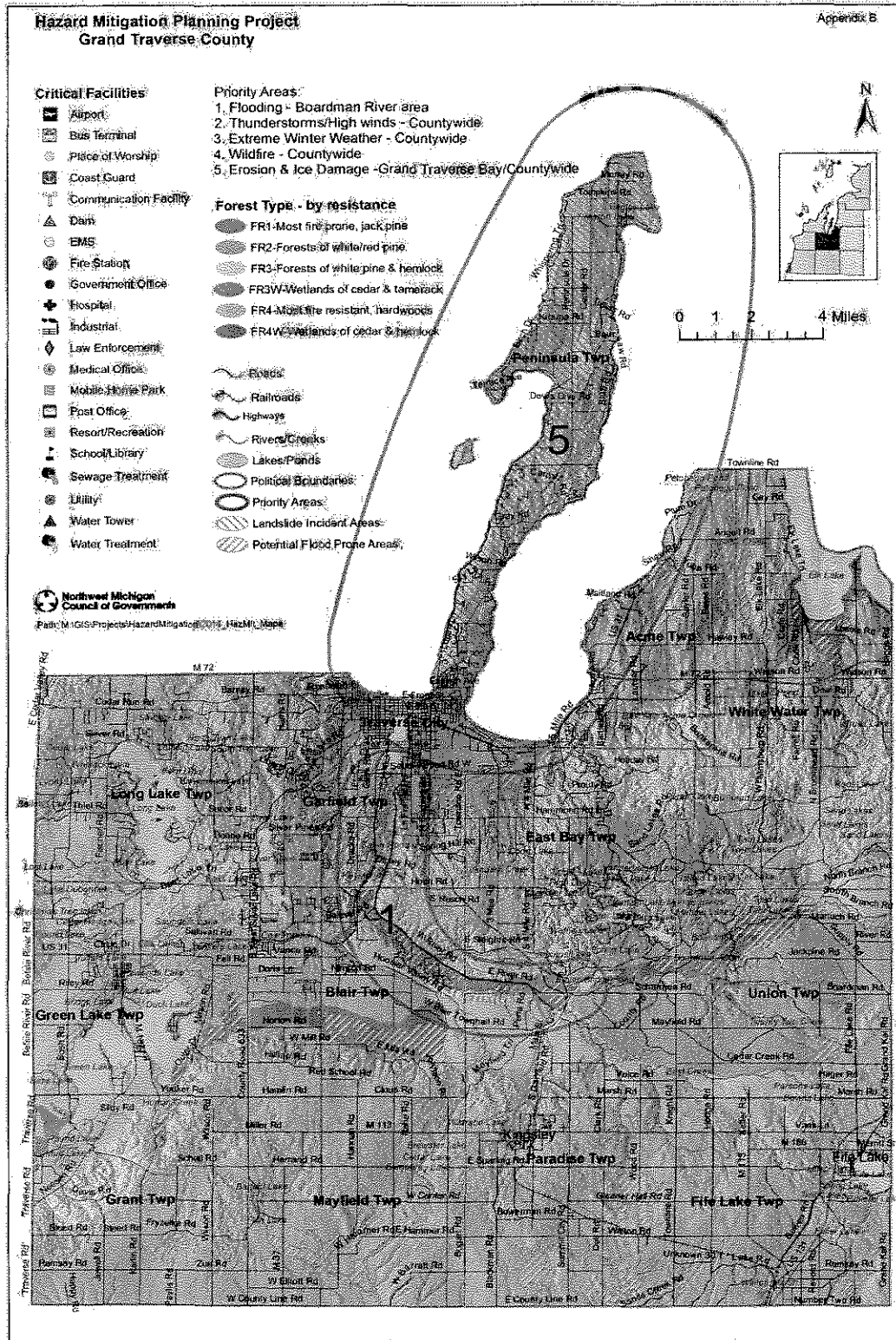
**Vulnerability:** The level of exposure of human life and property to damage from natural hazards.

**Watershed management:** The implementation of a plan or plans for managing the quality of flow of water within a watershed, the naturally defined area within which water flows into a particular lake or river or its tributary. The aims of watershed management are holistic and concern the maintenance of water quality, the minimization of stormwater runoff, the preservation of natural flood controls such as wetlands and pervious surface, and the preservation of natural drainage patterns. Watershed management is, in many ways, an enlargement of most of the concerns that underlie floodplain management.

**Wildland:** An area in which development has not occurred with the exception of some minimal transportation infrastructure such as highways and railroads, and any structures that are widely spaced and serve largely recreational purposes.

# Appendix B

## Detailed Maps



**Hazard Mitigation Planning Project  
Grand Traverse County - Northeast**

Appendix B

**Critical Facilities**

- Airport
- Bus Terminal
- Place of Worship
- Coast Guard
- Communication Facility
- Dam
- EMS
- Fire Station
- Government Office
- Hospital
- Industrial
- Law Enforcement
- Medical Office
- Mobile Home Park
- Post Office
- Resort/Recreation
- School/Library
- Sewage Treatment
- Utility
- Water Tower
- Water Treatment

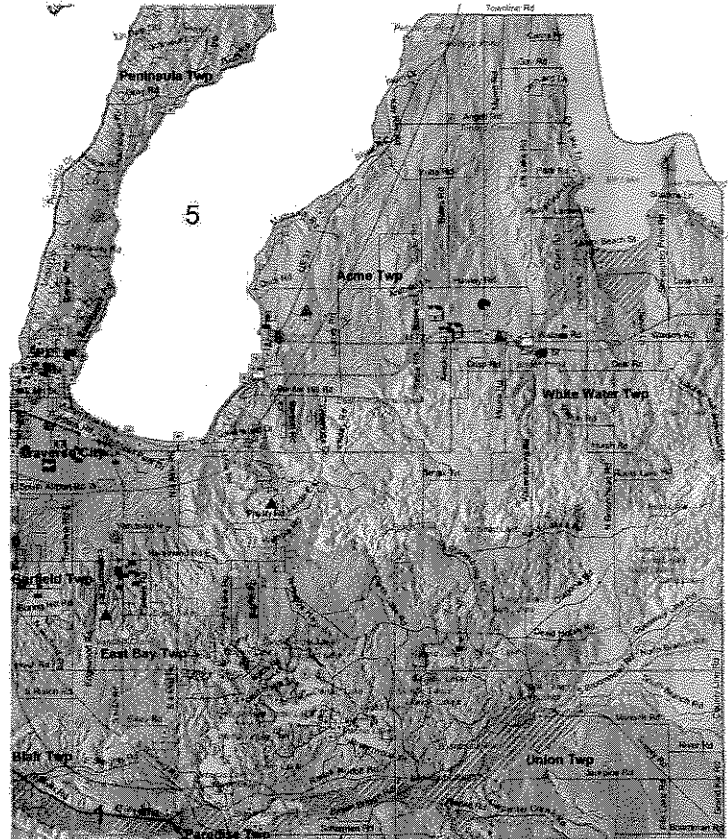
- Roads
- Railroads
- Highways
- Rivers/Creeks
- Lakes/Ponds
- Political Boundaries
- Priority Areas
- Landslide Incident Areas
- Potential Flood-Prone Areas

- Forest Type - by resistance**
- FR1-Most fire prone, jack pine
  - FR2-Forests of white/red pine
  - FR3-Forests of white pine & hemlock
  - FR3W-Merlotans of cedar & tamarack
  - FR4-Most fire resistant, hardwoods
  - FR4W-Wetlands of cedar & hemlock



**Priority Areas:**

1. Flooding - Boardman River Area
2. Thunderstorms/High winds - Countywide
3. Extreme Winter Weather - Countywide
4. Wildfire - Countywide
5. Erosion & Ice Damage - Grand Traverse Bay Countywide



Northwest Michigan Council of Governments  
 Path: M:\GIS\Projects\HazardMitigation\2014\_hazmit\Map

**Hazard Mitigation Planning Project  
Grand Traverse County - Northwest**

Appendix B

**Critical Facilities**

- Airport
- Bus Terminal
- Place of Worship
- Coast Guard
- Communication Facility
- Dam
- EMS
- Fire Station
- Government Office
- Hospital
- Industrial
- Law Enforcement
- Medical Office
- Mobile Home Park
- Post Office
- Resort/Recreation
- School/Library
- Sewage Treatment
- Utility
- Water Tower
- Water Treatment

- Roads
- Railroads
- Highways
- Rivers/Creeks
- Lakes/Ponds
- Political Boundaries
- Priority Areas
- Landslide Incident Areas
- Potential Flood-Prone Areas

- Forest Type - by resistance**
- FR1-Most fire prone, jack pine
  - FR2-Forests of white/red pine
  - FR3-Forests of white pine & hemlock
  - FR3W-Merlotans of cedar & tamarack
  - FR4-Most fire resistant, hardwoods
  - FR4W-Wetlands of cedar & hemlock



**Priority Areas:**

1. Flooding - Boardman River Area
2. Thunderstorms/High winds - Countywide
3. Extreme Winter Weather - Countywide
4. Wildfire - Countywide
5. Erosion & Ice Damage - Grand Traverse Bay Countywide



Northwest Michigan Council of Governments  
 Path: M:\GIS\Projects\HazardMitigation\2014\_hazmit\Map

**Hazard Mitigation Planning Project**  
**Grand Traverse County - Old Mission Peninsula**

Appendix B

**Critical Facilities:**

- Airport
- Bus Terminal
- Place of Worship
- Coast Guard
- Communication Facility
- Dam
- EMS
- Fire Station
- Government Office
- Hospital
- Industrial
- Law Enforcement
- Medical Office
- Mobile Home Park
- Post Office
- Resort/Recreation
- School/Library
- Sewage Treatment
- Utility
- Water Tower
- Water Treatment

**Priority Areas:**

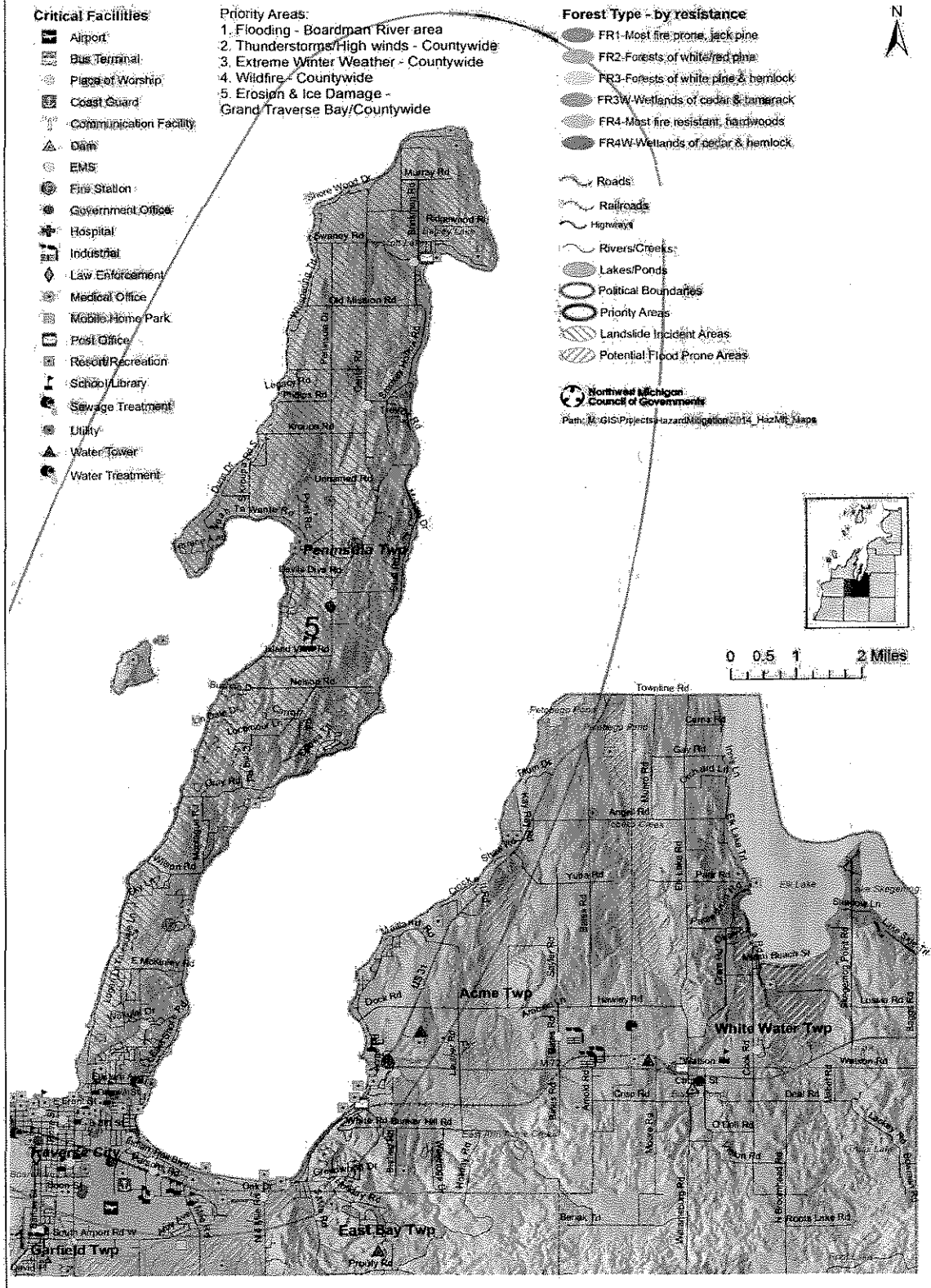
1. Flooding - Boardman River area
2. Thunderstorms/High winds - Countywide
3. Extreme Winter Weather - Countywide
4. Wildfire - Countywide
5. Erosion & Ice Damage - Grand Traverse Bay/Countywide

**Forest Type - by resistance**

- FR1 - Most fire prone, jack pine
- FR2 - Forests of white/red pine
- FR3 - Forests of white pine & hemlock
- FR3W - Wetlands of cedar & tamarack
- FR4 - Most fire resistant, hardwoods
- FR4W - Wetlands of cedar & hemlock

- Roads
- Railroads
- Highways
- Rivers/Creeks
- Lakes/Ponds
- Political Boundaries
- Priority Areas
- Landslide Incident Areas
- Potential Flood Prone Areas

**Northwest Michigan Council of Governments**  
 Path: M:\GIS\Projects\hazardmitigation2014\_HazMit\_Maps



Hazard Mitigation Planning Project  
Grand Traverse County - South



Critical Facilities

- Airport
- Bus Terminal
- Place of Worship
- Coast Guard
- Communication Facility
- Dam
- EMS
- Fire Station
- Government Office
- Hospital
- Industrial
- Law Enforcement
- Medical Office
- Mobile Home Park
- Post Office
- Resort/Recreation
- School/Library
- Sewage Treatment
- Utility
- Water Tower
- Water Treatment

- Road
- Lake/Embayment
- Medical Office
- Mobile Home Park
- Post Office
- Resort/Recreation
- School/Library
- Sewage Treatment
- Utility
- Water Tower
- Water Treatment

- Rivers
- Railroads
- Highways
- Rivers/Creeks
- Lakes/Ponds
- Political Boundaries
- Priority Areas
- Landslide Inherent Areas
- Potential Flood Prone Areas

Forest Type - by resistance

- FR1 - Most fire prone, Jack pine
- FR2 - Forests of white/red pine
- FR3 - Forests of white pine & hemlock
- FR3W - Wetlands of cedar & hemlock
- FR4 - Most fire resistant, hardwoods
- FR4W - Wetlands of cedar & hemlock

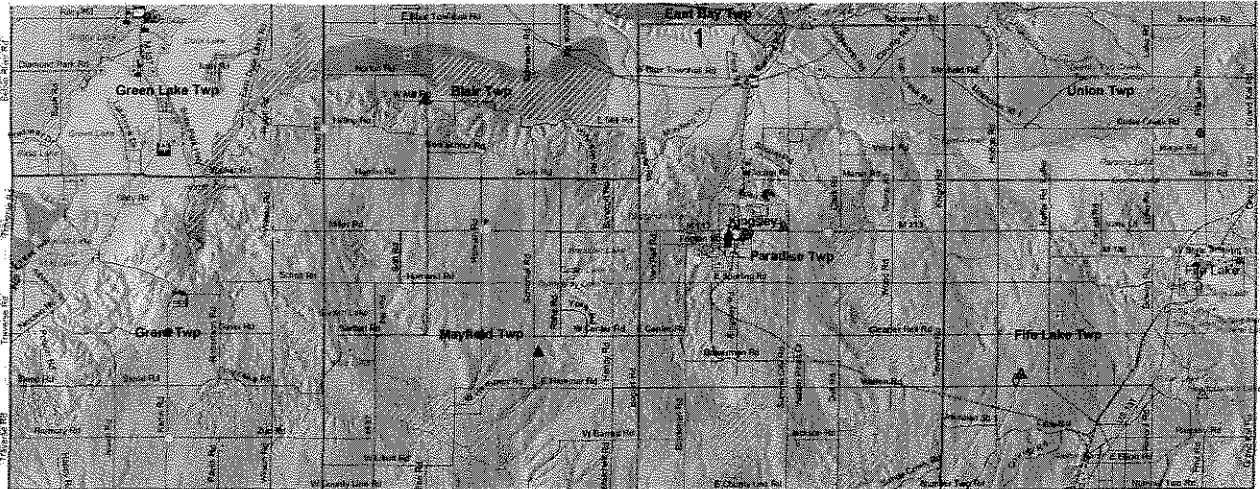
Priority Areas:

1. Flooding - Boardman River area
2. Thunderstorms/High winds - Countywide
3. Extreme Winter Weather - Countywide
4. Wildfire - Countywide
5. Erosion & Ice Damage - Grand Traverse Bay/Countywide

Northwest Michigan Council of Governments  
File: M:\GIS\Projects\hazmit\MapInfo\2014\_HazMit\_South



0 0.5 1 2 Miles



Appendix B

Hazard Mitigation Planning Project  
Grand Traverse County - Traverse City

Appendix B

Critical Facilities

- Airport
- Bus Terminal
- Place of Worship
- Coast Guard
- Communication Facility
- Dam
- EMS
- Fire Station
- Government Office
- Hospital
- Industrial
- Law Enforcement
- Medical Office
- Mobile Home Park
- Post Office
- Resort/Recreation
- School/Library
- Sewage Treatment
- Utility
- Water Tower
- Water Treatment

- Road
- Lake/Embayment
- Medical Office
- Mobile Home Park
- Post Office
- Resort/Recreation
- School/Library
- Sewage Treatment
- Utility
- Water Tower
- Water Treatment

Forest Type - by resistance

- FR1 - Most fire prone, Jack pine
- FR2 - Forests of white/red pine
- FR3 - Forests of white pine & hemlock
- FR3W - Wetlands of cedar & hemlock
- FR4 - Most fire resistant, hardwoods
- FR4W - Wetlands of cedar & hemlock

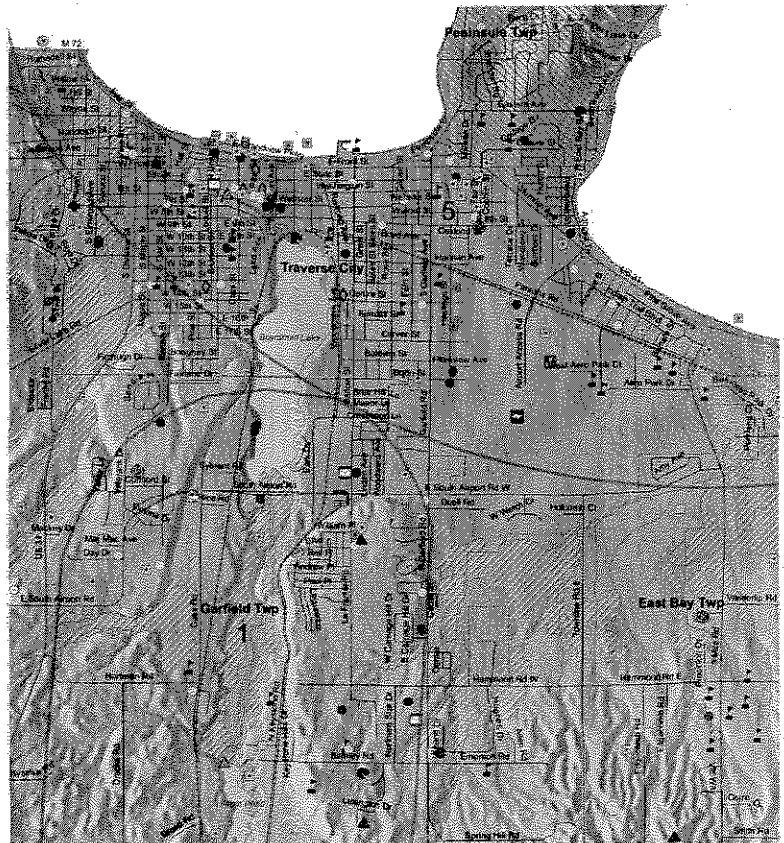
0 0.225 0.45 0.9 Miles



Priority Areas:

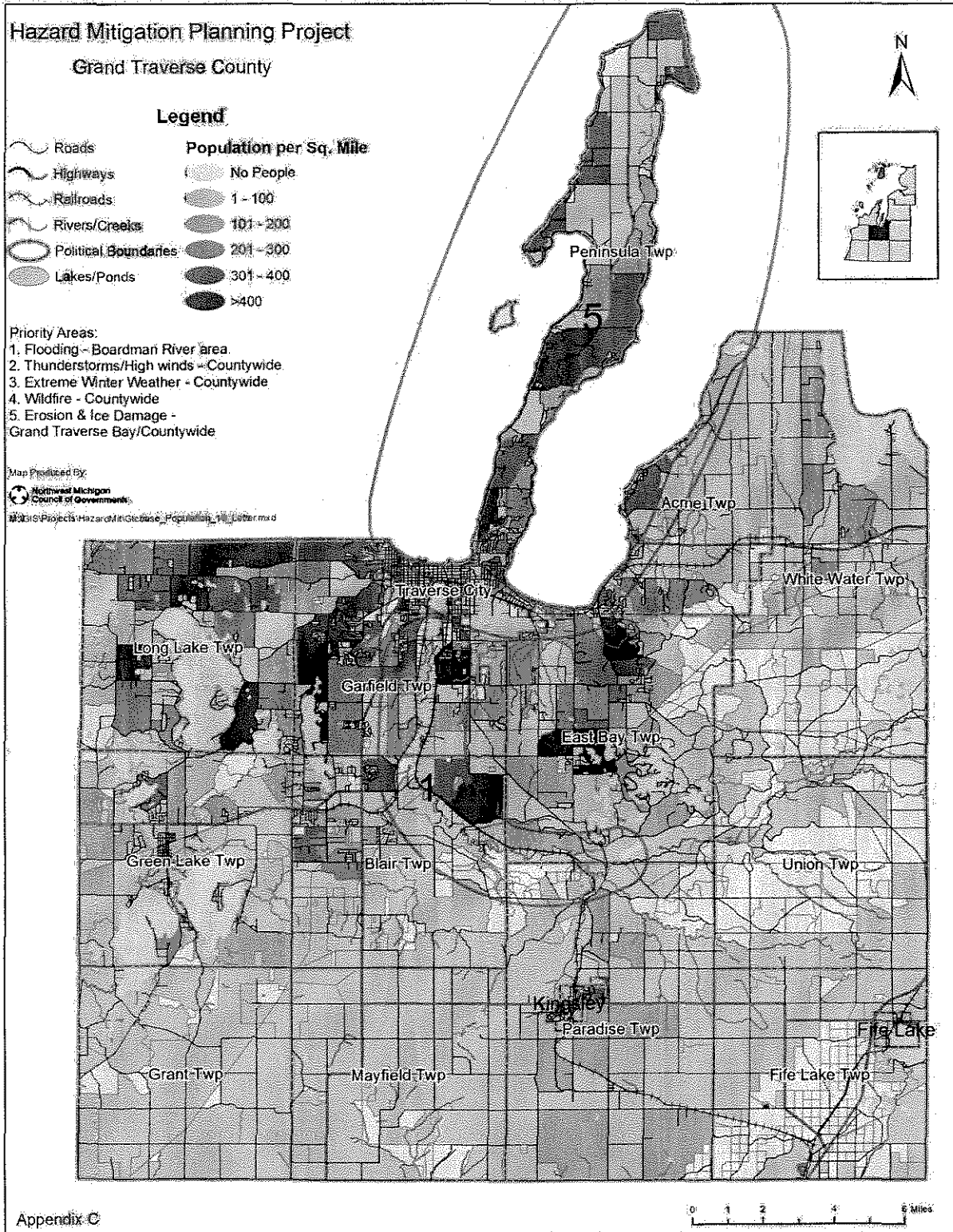
1. Flooding - Boardman River area
2. Thunderstorms/High winds - Countywide
3. Extreme Winter Weather - Countywide
4. Wildfire - Countywide
5. Erosion & Ice Damage - Grand Traverse Bay/Countywide

Northwest Michigan Council of Governments  
File: M:\GIS\Projects\hazmit\MapInfo\2014\_HazMit\_North



# Appendix C

## Population Density Map





**Appendix D**

**Risk Assessment Summary Table: GRAND TRAVERSE COUNTY**

HAZARD (Years of Record)	Number of Events	Probability**	Geographic Size Affected	Population Impacted	Specific Priority Area	Estimated Damage Known Costs
<b>Flooding (1986 – 2013)</b>	7	Frequent	<b>County Wide</b>  Boardman River Communities	86,986  46,306	1	\$6,894,000 property damage
<b>Hail (1958 – 2014)</b>	26	Frequent	<b>County Wide</b>	86,986		.75 inch to 2 inch magnitude
<b>Shoreline Erosion</b>	No recorded major events	Rare	Traverse City, Peninsula, East Bay, and Acme Townships	35,145	5	
<b>Extreme Winter Weather (1993 – 2014)</b>	105	Frequent	<b>County Wide</b>	86,986	3	\$5,112,000 property damage and power outages  \$15,000,000 crop damage (statewide)
<b>Severe Thunderstorm/High Winds/Lightning (1955 – 2014)</b>	54	Frequent	<b>County Wide</b>	86,986	2	\$477,500 property damage
<b>Tornadoes</b>	4	Rare	<b>County Wide</b>	86,986	2	\$775,000 property damage
<b>Wildfires (1981 – 2010)</b>	386	Occasional	<b>County Wide</b>	86,986	4	1300 acres

\*\*Rare - Hazard event is likely to occur less than once every 30 years.

Occasional - Hazard event is likely to occur less than once every 5 years, but more often than once every 30 years.

Frequent - Hazard event is likely to occur more than once every 5 years.

**Appendix E**

**Examples of Past Mitigation Projects**

<b>Flood Projects</b>	<b>Tornado/Wind Projects</b>	<b>Extreme Cold/Winter/Infrastructure Failure Projects</b>
Replace culvert with bridge	Modify roof ballast system on airport	Insulate municipal water tower
Install stormwater relief drain	Construct storm shelters in public buildings	Insulate city infrastructure
Upgrade road culvert	Construct storm shelters for homes, facilities	Insulate sanitary/storm sewer mains
Elevate floors of homes	Wind bracing for microwave/radio towers	Insulate water mains
Acquire of floodway properties	Construct mobile home park storm shelter	Bury utility lines
Create retention basin	Wind retrofitting for municipal buildings	Relocate sewer mains
Construct new dike	Wind bracing for school facilities	Reroute power lines under a river
Upgrade bridge over a creek (for greater stream flow)	Upgrade warning sirens**	Install plumbing devices to prevent sewer backup
Install sea wall	Install warning sirens**	Elevate and build casing for generator for EOC
Install rip rap to protect roadway	Purchase/Distribute NOAA radios**	Living snow fences for highways and roadways
Re-route various county drains	Severe weather monitoring systems**	
Purchase back-flow prevention valves	Implement long-term community outreach**	
Construct new drains for flood relief		
Flood study for home acquisition		
Flood study of community's flood risk	<b>Thunderstorm/Lightning Projects</b>	<b>Wildfire Projects</b>
Flood study for stream, roadways		
Elevate electrical equipment in basements	Lightning protection (grounding/phasing)	Vegetation management for roadways
Floodproof wastewater treatment plant	Purchase/Distribute NOAA radios**	Vegetation mgmt. for urban interface areas of city
Warning sensor for creek/river	Install weather alert monitors**	Vegetation mgmt. for homes in fire prone areas
Warning sensor for dam		Urban Interface Education Program**
Raise manholes above 100-Yr floodplain		
Expand storm sewer network for subdivision		
Excavate floodway channel bypass		
Establish permanent flood elevation benchmarks**		
Increase pump capacity for pump stations		
Remove abandoned dam		
Construct emergency floodway		
Install plumbing devices to prevent sewer backup		

\*\*Denotes Hazard Mitigation Grant Program State Discretionary projects (only 5-10% set aside of HMGP funding)

## **Appendix F**

### *Resources*

*Benchmarks 2014*, Northwest Michigan Council of Governments

*Confronting Climate Change in the Great Lakes Region, Michigan* fact sheet, Union of Concerned Scientists and the Ecological Society of America, April 2003.

*Integrating Human-Caused Hazards Into Mitigation Planning, State and Local Mitigation Planning how-to guide*: Federal Emergency Management Agency, September 2002, FEMA 386-7 CD.

*Local Hazard Mitigation Planning Workbook*: EMD-PUB 207, February 2003, Emergency Management Division, Michigan Department of State Police.

*Michigan Hazard Analysis 2012*, EMD-PUB 103, July 2012, Emergency Management and Homeland, Security Division / Michigan Department of State Police

*National Oceanic and Atmospheric Administration: Weather/Climate Events, Information, Assessments; Climatology and Extreme Events; U.S. Storm Events Data Base; 1950-present, local storm reports, damage reports, etc. from various sources.* [www.ncdc.noaa.gov](http://www.ncdc.noaa.gov)

*Northwest Michigan County Profiles 2010*, Northwest Michigan Council of Governments, November 2002.

Northwest Michigan Council of Governments Website Data, [nwm.org](http://nwm.org).

*Planning for a Disaster-Resistant Community: A One-Day Workshop for City and County Planners, Planning Officials, and Consultants*: American Planning Association Research Department, American Planning Association, 2002 in cooperation with the Federal Emergency Management Agency, Planning and Mitigation Branch (materials only).

*Platte River Watershed Management Plan*, Benzie County Conservation District, April 2002.

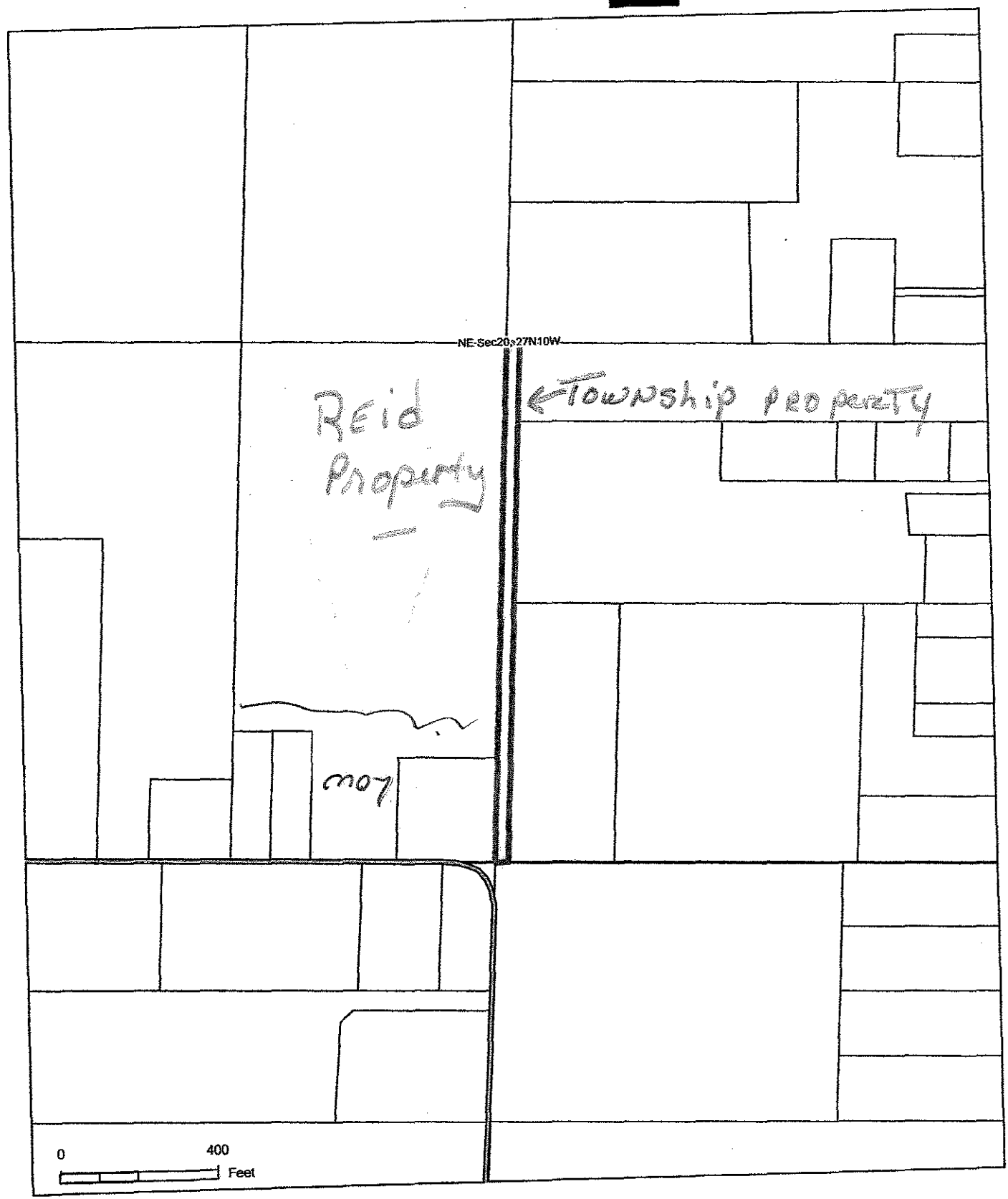
*State and Local Mitigation Planning how to guide: Understanding Your Risks, identifying hazards and estimating losses*: Federal Emergency Management Agency, August 2001, FEMA 386-2.



3100 5682

Dean

# EB14



The Reids are interested in using the Township property for access to the north



East Bay Charter Township

#7

Fall 2015 – 2-5 Age Group Playground with SWINGS

East Bay Township Parks Commission has been successful over the past 12 months at securing some great funding for our parks. Grace Bathrooms, and sidewalk upgrades, boardwalk and Kayak Ramp at Gen's Park, as well as, Playground Funding for our proposed 2-5 playground at Grace Macdonald Park. As you are aware, we have secured the following:

Grace Macdonald Park:

2-5 Playground

- \$ 5,000 Olsen Foundation
- \$ 10,000 GTB of Ottawa and Chippewa Indians
- \$ 6,000 Anonymous Donation through Carter's Kids

2015 Price of the Playground \$ 67,480.22, due to a Price Increase for the Game Time Equipment. 2014 Price \$66,000.

So where are we with budget ?

Olsen Foundation Grant	\$	5,000.00	
GTB 2% Allocation		10,000.00	
Anonymous Donation (through Carter's Kids)		6,000.00	
<b>Fund Balance (101-000-390.044)</b>		<b>22,593.75</b>	
2015 Budget Line Item - Playground Equipment		18,008.52*	
Total Amount Available for 2-5 Playground	\$	61,602.27	
Short		(5,877.95)	
Plus Expenses (Bob Cat/ Auger Rental, Loader)		( 750.00)	
Note: 2014 Expenses \$ 397.50			
Total Short		6,627.98	
CARTER'S KIDS GRANT / Game Time Grant		6,980.22**	(Fall 2015 Install)
<b>Amount Requested from General Fund</b>	<b>\$</b>	<b>0.00</b>	
<b>Total Grants / Donations Received</b>	<b>\$</b>	<b>27,980.22</b>	<b>(41%)</b>

\*= Assuming all Bench and related expenses come from this line item

Therefore, the Parks Commission is Requesting a Fund Balance Transfer Approval of \$22,593.75, for installation of the 2-5 Carter's KIDS Playground with SWINGS, to be installed in 2015.



User: SUE

DB: East Bay Twp

PERIOD ENDING 09/30/2015

GL NUMBER	DESCRIPTION	2014 AMENDED BUDGET	2015 AMENDED BUDGET	YTD BALANCE 09/30/2015	ACTIVITY FOR MONTH 09/30/2015	AVAILABLE BALANCE	% BDGT USED
Fund 101 - GENERAL FUND							
Expenditures							
Dept 751-PARK COMMISSION							
101-751-706.000	BOARD MEETING FEES	7,335.00	7,150.00	5,320.00	0.00	1,830.00	74.41
101-751-706.010	RECORDING SECRETARY	0.00	0.00	796.00	94.00	(796.00)	100.00
101-751-706.020	MEETING RECORDING	0.00	720.00	260.00	0.00	460.00	36.11
101-751-706.100	ADDITIONAL/SPECIAL MEETINGS	975.00	850.00	1,100.00	0.00	(250.00)	129.41
101-751-726.000	SUPPLIES	0.00	1,000.00	661.05	0.00	338.95	66.11
101-751-747.000	PLAYGROUND EQUIPMENT	1,717.00	20,000.00	552.45	0.00	19,447.55	2.76
101-751-748.000	MAINT & REPAIR	0.00	1,500.00	0.00	0.00	1,500.00	0.00
101-751-749.000	GEN'S PARK CAPITAL OUTLAY	0.00	0.00	0.00	0.00	0.00	0.00
101-751-750.000	PINES PARK CAPITAL OUTLAY	0.00	0.00	0.00	0.00	0.00	0.00
101-751-751.000	PARK LAND ACQUISITION	0.00	0.00	0.00	0.00	0.00	0.00
101-751-752.000	PARK CONSTRUCTION FUND	0.00	0.00	0.00	0.00	0.00	0.00
101-751-801.001	ATTORNEY/ENGINEER/GRANT FEES	0.00	0.00	0.00	0.00	0.00	0.00
101-751-802.000	CONTRACT SERVICES	11,505.26	15,000.00	14,898.51	0.00	101.49	99.32
101-751-802.047	LITTLE LIBRARY	0.00	0.00	72.95	0.00	(72.95)	100.00
101-751-873.000	PAYROLL EXPENSES	635.74	612.00	491.16	0.00	120.84	80.25
101-751-970.000	CAPITAL OUTLAY	0.00	0.00	0.00	0.00	0.00	0.00
101-751-970.100	CAPITAL OUTLAY PINES PARK	0.00	0.00	0.00	0.00	0.00	0.00
101-751-970.751	CAPITAL OUTLAY BATHROOMS	0.00	15,000.00	3,100.00	0.00	11,900.00	20.67
101-751-970.752	CAPITAL OUTLAY GENS PARK	20,000.00	55,000.00	0.00	0.00	55,000.00	0.00
101-751-970.753	GRACE MACDONALD PARK PLAYGROUND	73,000.00	0.00	0.00	0.00	0.00	0.00
Total Dept 751-PARK COMMISSION		115,168.00	116,832.00	27,252.12	94.00	89,579.88	23.33
TOTAL Expenditures		115,168.00	116,832.00	27,252.12	94.00	89,579.88	23.33
Fund 101 - GENERAL FUND:							
TOTAL REVENUES		0.00	0.00	0.00	0.00	0.00	0.00
TOTAL EXPENDITURES		115,168.00	116,832.00	27,252.12	94.00	89,579.88	23.33
NET OF REVENUES & EXPENDITURES		(115,168.00)	(116,832.00)	(27,252.12)	(94.00)	(89,579.88)	23.33

Fund 101 GENERAL FUND

GL Number	Description	Balance
*** Assets ***		
101-000-001.000	OPERATING CASH	1,434,423.78
101-000-001.300	RESTRICTED CASH	665,469.03
101-000-002.000	HRA Fund	74,063.30
101-000-004.000	PETTY CASH	200.00
101-000-006.000	PAYROLL CHECKING	5,000.00
101-000-020.000	RE PROP TAXES REC-CURRENT	130.91
101-000-084.890	DUE FROM LANDS END	18,000.00
Total Assets		<u>2,197,287.02</u>
*** Liabilities ***		
101-000-205.000	ACCRUED PAYROLL	(190.21)
101-000-206.000	DEFERRED PROPERTY TAXES	130.91
101-000-232.000	ING DEDUCTION	(801.00)
101-000-314.590	ADVANCE	(672,391.05)
Total Liabilities		<u>(673,251.35)</u>
*** Fund Balance ***		
101-000-390.000	FUND BALANCE	1,602,135.43
101-000-390.022	HRA FUNDBALANCE	80,215.32
101-000-390.033	GROUNDS VEHICLE	29,495.56
101-000-390.034	BLDG & GROUNDS MAINT/REPAIR	56,005.23
101-000-390.044	PLAYGROUND EQUIP. RESTRICTED	22,593.75
101-000-390.045	BATHROOMS GMACDONALD PARK	49,450.00
101-000-390.046	GENS PARK FUNDRAISER	20,940.00
101-000-390.047	LITTLE LIBRARIES FUND RAISER	30.60
101-000-390.055	PARKS CONSTRUCTION RESTRICTED	8,746.00
101-000-390.191	ELECTIONS CAPITAL	63,000.00
101-000-390.209	CAPITAL-ASSESSING	18,260.21
101-000-390.247	TWP REVOLVING IMPROVEMENT FUN	20,000.00
101-000-390.265	CAPITAL BUILDING MAINT	69,139.73
101-000-390.266	CAPITAL-INTERIOR CONTENTS	74,588.73
101-000-390.267	CAPITAL-EXTERIOR BUILDING	97,241.30
101-000-390.268	TWP HALL LANDSCAPING-CAPITAL	1,532.06
101-000-390.448	STREETLIGHTS CAPITAL	12,481.97
101-000-390.619	INVASIVE PEST CONTROL	49,107.50
101-000-390.677	ROAD PROJECTS	166,985.24
101-000-390.751	CAPITAL-PARKS/BATHROOMS	30,000.00
101-000-396.000	FUTURE PARK LAND PURCHASES	6,864.75
Total Fund Balance		<u>2,478,813.38</u>
Beginning Fund Balance		2,478,813.38
Net of Revenues VS Expenditures		391,724.99
Ending Fund Balance		2,870,538.37
Total Liabilities And Fund Balance		2,197,287.02

**East Bay Charter Township**

**#8**

Glen Lile, Supervisor  
Susanne M. Courtade, Clerk  
Tracey Bartlett, Treasurer



Matt Courtade, Trustee  
Craig R. Goodrich, Trustee  
Bryan Marrow, Trustee  
Beth Friend, Trustee

Date: September 14, 2015

To: East Bay Charter Township Board of Trustees

From: Tracey Bartlett, Treasurer

RE: Bond #332 Payoff

During some of the discussions lately came the question about self-funding bonds. I contacted Dean Bott and Heidi Scheppe at the County to see which Bonds were eligible for payoff. There is one that we would be able to payoff at this time.

Bond #332 is a water bond and is currently being held by the County with an interest rate of 4.5%. It is my recommendation that we use General Fund unrestricted fund balance to pay the County bond off and continue to make the same payments from the Water Fund to the General Fund.

The payoff as of 9-15-15 is \$505,000.00 Principal and \$7,581.92 Interest.



Tracey Bartlett <tbartlett@eastbaytwp.org>

**Bond #332**

2 messages

**Tracey Bartlett** <tbartlett@eastbaytwp.org>

Mon, Aug 17, 2015 at 2:31 PM

To: Heidi Scheppe <hscheppe@grandtraverse.org>, Dean Bott <dbott@grandtraverse.org>

Heidi and Dean,

Would you please send me the payoff for 9-15-15 for the Bond #332.

Thank you

—  
Tracey Bartlett, MICPT  
Treasurer  
East Bay Charter Township  
1965 N. Three Mile Road  
Traverse City, MI 49696

Phone: 231 947-8647  
Cell: 231 735-1326  
Fax: 231 922-2094  
Website: eastbaytwp.org

**Dean Bott** <dbott@grandtraverse.org>

Mon, Aug 17, 2015 at 4:56 PM

To: Tracey Bartlett <tbartlett@eastbaytwp.org>

Cc: Heidi Scheppe <hscheppe@grandtraverse.org>

Tracey,

Principal	\$505,000.00
Interest	7,581.92 (505,000 x .04 x 137/365) May 2 to 9/15 = 137 days
Total	\$512,581.92

Dean  
[Quoted text hidden]



Tracey Bartlett <tbartlett@eastbaytwp.org>

---

## Bonds

---

Heidi Scheppe <hscheppe@grandtraverse.org>  
To: Tracey Bartlett <tbartlett@eastbaytwp.org>  
Cc: Dean Bott <dbott@grandtraverse.org>

Thu, Jun 25, 2015 at 1:40 PM

Tracey,

Fund 332 bond was paid off, you are reimbursing the county so that can be paid off at any time.

Fund 336 is shared between you and Peninsula so I think the first questions should be if they are able to pay off their share or if we would need to do another partial refund on this bond and if it is possible. These bonds were refunded in 2012 to pay off Acme's share of the debt so I am not sure if you can do another refund so soon.

Looking in the bond book it states: "The refunding Bonds maturing prior to November 1, 2020 shall not be subject to redemption prior to maturity. Refunding Bonds maturing on or after November 1, 2020 shall be subject to redemption prior to maturity at the option of the Township, in any order, in whole or in part on any date on or after November 1, 2019."

We should probably ask for an official opinion from Axe & Ecklund. I think this may mean you have to wait until 2019 but they are the experts. And if you do have to wait at least you can plan on refunding at that time and maybe Peninsula will be able to pay off at that time also.

I hope this answers your question, let me know if you need anything else.

Heidi

[Quoted text hidden]

—  
**Heidi Scheppe, CPFO, CPFIM**  
Grand Traverse County Treasurer  
400 Boardman Ave  
Traverse City, MI 49684  
231-922-4740