POLICY & ADVOCACY TEAM
BOARD PRESENTATION
September 19, 2007
(Compiled in collaboration with the Watershed Protection Team)

S OUR WATER: Essential Facts

Worldwide Water

- A mere 3% of the planet's total water supply is freshwater, or water that is fit to drink.
- However, about 68% of that 3% is locked up in glaciers and ice caps – and not usable by humans!
- Approximately 30% is groundwater, which requires some kind of technology on our part to get to it, such as digging a well.
- That means that only 2% of our tiny freshwater supply is surface water in lakes, rivers, and streams.

Great Lakes Facts

- The Great Lakes contain 20% of the surface freshwater in the world—that's about six quadrillion gallons of water! This also represents 90% of the freshwater in the US.
- If all the water contained in the Great Lakes were spread evenly across the United States, the entire country would be covered with 9.5 feet (2.9m) of water.
- From a hydrological perspective, Lake Michigan and Lake Huron are giant lobes of a single lake, connected by the Straits of Mackinac. If they were considered a single lake, its surface area would cover 45,000 square miles (117,400 km) and would replace Lake Superior as the largest freshwater lake.
- With nearly 10,900 miles of total shoreline, depths up to 1,333 feet and 94,250 total square miles of surface area, it's no surprise the North American Great Lakes are one of the world's natural wonders.
- Provide 42 million people with drinking water.

Geologic Formation of the Great Lakes

- The formation of Lake Michigan and Little Traverse Bay began 570 million years ago
- Devonian period: the state of Michigan is covered with shallow, productive seas, filled with worms, mollusks, corals, and other invertebrates. Fossils are easily found; most famous is the Petoskey stone, a type of colonial coral.
- In the period ranging from 330 – 2 million years ago, the seas drained away and the land was uplifted. A large river flowed through what is now Lake Michigan, and a smaller tributary flowed through Little Traverse Bay.

Two million years ago until approximately 10 – 12,000 years ago, a series of four

continental glaciers descended from the north. These widened and deepened the river valleys and eventually filled with water.

After the Glaciers - Post glacial lakes

Lake Algonquin: 10,000 years ago, water was 119' above the present water level. Harbor Springs Airport and M-119 on the north side of the Bay are built in the Lake Algonquin terrace; the ski hills are glacial moraines which were an island during Algonquin times (called Brutus Island)

Lake Chippewa: 9,500 years ago, water levels dropped 350' due to an outlet in the north; Little Traverse Bay was probably dry and forested.

Lake Nipissing: 4,000 years ago the land rebounded from the weight of the glaciers, and the lake level rebounded to about 25-30' higher than present levels.

Lake Michigan: 2,400 years ago to present, the St. Clair River eroded to a stable layer and the lakes have been relatively stable since, but we do experience yearly and seasonal fluctuations.

Lake Michigan Facts

4th largest lake surface area in the world: 22,278 sq. miles; (307 x 118 miles)
1. Superior, 2. Victoria (Africa), 3. Huron, 4. Michigan

5th largest lake volume in the world: 1,180 cu. Miles
1. Baikal (Russia), 2. Tanganyika (Africa), 3. Superior, 4. Nyasa (Africa), 5. Michigan

Depth: quite deep- 924'
Average depth: 279' Many lakes deeper (Superior, Baikal)

Elevation: 580' (bottom almost 350' below sea level, Nubs Nob comparison: 1240' high, 655' above lake surface; Boyne is 1300' high, 735' above the lake surface)

Shoreline length: 1,659 miles

Little Traverse Bay (LTB) Watershed Facts

What is a watershed? A watershed is the land area surrounding any body of water that when it rains or snow melts all of the runoff drains into that lake, river, or wetland.
Boundary determined by topography and can be or different sizes.

Watershed area, not including Bay = 174 sq. miles or 111,207 acres.
Covers Emmet and Charlevoix Counties (and 13 townships). Watershed also includes Walloon Lake, Bear River, Tannery Creek, and other small tributaries.

Little Traverse Bay itself is 31 square miles, Lake Michigan's 4th largest Bay. The Bay is about 10 miles long and 3.5 miles wide between Petoskey and Harbor Springs, with a max width of 8 miles. It is 200 ft deep in outer part of the Bay and 170 feet deep in the inner part of the Bay located between Petoskey and HS.

Harbor Point- large underwater dune: Recurve sand spit, formed during the last few thousand years, by prevailing winds, waves and wind driven currents.

S OUR WATER: Current health and threats

The Great Lakes are essential to the economic and cultural identity of the region:

- Tourism industry generates $971 million in state tax revenues and supports 193,000 jobs statewide
- Hunting, fishing and wildlife watching generate more than $15 billion annually
- Sport fishing alone generates more than $4.5 billion in regional economic activity
- Recreational boating supports 107,000 jobs in the region and generates approximately $20 billion for the Great Lakes Basin
- Additionally, they are the foundation of industry and commerce for the region.

Great Lakes: Urgent Threats

INVASIVE SPECIES:

- Over 186 aquatic invasive species have entered the Great Lakes ecosystem – a new one is discovered every 6-8 months.
- Rapid collapse of the base of the food chain – especially disappearance of diporeia, a small shrimp which serves as a major source of food for fish.
- Cost for control and damage of invasive species is $120 billion annually in the United States and $5 billion per year for the Great Lakes Basin
- Asian carp were originally imported into the US for aquaculture. During flooding, the Asian carp escaped into the Mississippi River in the 1990s. A temporary barrier in the Chicago Sanitary and Ship Canal was installed in 2002, it repels fish by firing electric pulses through cables along the bottom of the Canal. To be effective, the barriers needs to completed and need funding for future operation and maintenance.

SPECIES HABITAT

- Loss or degradation of habitat due to human settlement and activities
- More than half the original wetlands and 2/3 of coastal wetlands in the Basin
- 60 percent of forest lands lost
- Only small remnants of other habitat types such as savannah or prairie remain

COASTAL HEALTH / RAW SEWAGE:

- More than 24 billion gallons of untreated sewage enter the Great Lakes every day (equivalent of 100 Olympic size pools of raw waste per day)
- In 2005 there were 2,740 days of beach closings or advisories

AREAS OF CONCERN/SEDIMENTS

- -Toxic hotspots where hazardous chemicals and contaminated sediments have polluted the water
- 43 AOCs through US and Canada
- Only 3 sites (2 in Canada and 1 in US) have been de-listed since 1987

NONPOINT SOURCE POLLUTION
- Resurgence of the Lake Erie "dead zone" where few fish and other aquatic life can survive.

TOXIC POLLUTANTS
- -While certain toxic substances have been significantly reduced in the Basin over the past 30 years, they continue to be present at levels that pose a threat to human and wildlife health
- Fish advisories exist for all 5 Lakes

Great Lake Solutions:
- In May 2004, President Bush signed an Executive Order recognizing the Great Lakes as a "national treasure" and called for a "regional collaboration of national significance" to develop the national restoration and protection action plan for the Great Lakes.

- Great Lakes Regional Collaborative (GLRC) – comprehensive blueprint for restoring and protecting the Great Lakes based on consensus from over 1,500 governmental officials, citizens, business representatives, scientists, and conservationists. The plan calls for $20 billion over $15 years.

Reps. Vern Ehlers (MI) and Rahm Emanuel (IL) along with Senators Carl Levin (MI) and George Voinovich (OH) introduced a bill to implement the recommendations of the GLRC strategy to protect and restore the Great Lakes.

The Great Lakes Collaboration Implementation Act would:

- Stop the introduction and spread of aquatic invasive species by enacting a comprehensive national program.
- Prevent the Asian carp from entering the Great Lakes by authorizing the Corps of Engineers to maintain and operate the dispersal barrier on the Chicago Sanitary and Ship Canal and prohibit the importation and sale of Asian carp.
- Restore fish and wildlife habitat by reauthorizing the Great Lakes Fish & Wildlife Restoration Act at $20 million.
- Prevent sewage contamination by reauthorize the State Revolving Loan Fund and provide $20 billion over five years to assist communities nationally with improving their wastewater infrastructure.

- Clean up contaminated sediment under the Great Lakes Legacy Act by authorizing $150 million per year.
- Phase out mercury in products by establishing a new grant program and improving existing research programs.
- Coordinate and improve Great Lakes programs by establishing the Great Lakes Interagency Task Force and the Great Lakes Regional Collaboration process.

What you can do:

-Ask your Member of Congress to support the Great Lakes Implementation Act of 2007

-When considering presidential candidates, ask about their stand on Great Lakes issues

-Write letters to the editors

-Share your stories with your friends and family to build support **throughout the nation**

-Visit www.healthylakes.org to stay up to date about Great Lakes Restoration efforts. Website sponsored by the Healing Our Waters (HOW) Coalition – formed in 2005; consists of more that 90 civic, hunting, fishing, environmental and conservation organizations, zoos, aquariums, and museums. The coalition seeks a comprehensive Great Lakes restoration plan and the funding to implement it.

Lake Michigan and LTB: Overall Health

Tip of the Mitt Watershed Council Comprehensive Water Quality Monitoring: Began in 1987, with 10 lakes; now nearly 50 lakes and streams

Tip of the Mitt Watershed Council Volunteer Lake Monitoring: began in 1984

Parameters Used:

Chloride: Chloride, a component of salt, is one of the common anions found in freshwater and thus chloride levels are directly related to conductivity. Due to the marine origin of bedrock in Northern Michigan, chloride is present in the ground water; usually in concentrations less than 12 mg/l. Surface waters seem to have a normal level of 4 mg/l. Even slight increases in chloride concentration can have a subtle impact on aquatic ecosystems, but most fish and other large aquatic organisms are not directly affected until concentrations reach 1,000 mg/l or more. Chlorides are common in many products associated with human activities. (Chloride in LTB ranged from 7.8– 10.6mg/L 1987–2004)
Phosphorus: Phosphorus is the most important nutrient for productivity in surface waters because it is usually in shortest supply relative to nitrogen and carbon. A water body is considered phosphorous limited if the ratio of nitrogen to phosphorous is greater than 15:1. Phosphorus is normally found at concentrations less than 10 micrograms per liter (ug/l = parts per billion) in high quality surface waters. (Phosphorus ranged from 10ug/L in 1987 to around 3 ug/L in 2004—peak in 1992 at 22.3ug/L).

Secchi Depth: The more algae or sediment in water, the less clear it is. Clarity is also described by terms like turbid, cloudy, or muddy. Generally, the clearer the water, the fewer the nutrients and the better the water quality. Waters which are not clear may be less productive, because sunlight cannot penetrate deeply. Muddy waters also clog fish gills, smother spawning beds, inhibit the sight and feeding of many fishes, and can reduce angling success. The clarity of water is a simple and valuable way to assess water quality. We measure water clarity using a Secchi Disc, a weighted disc eight inches in diameter painted black and white in alternating quarters. Clarity varies greatly, from several feet in small inland lakes, to about 50 feet in large inland lakes and bays of the Great Lakes.

Chlorophyll-a: Chlorophyll-a is a pigment found in all green plants, including algae. Measuring the amount of chlorophyll-a in water provides a measure of the amount of phytoplankton, which is directly related to the nutrient level. Phytoplankton is extracted from the water with a filter device, and the filter membranes are analyzed in a laboratory to determine the amount of chlorophyll-a. We collect chl-a samples to determine if turbidity of the water is due to sedimentation or the presence of phytoplankton.

Clarity is increasing, but chl-a is decreasing over time. Zebra mussels consume chl-a and excretes phosphorus wastes, contributing to nuisance algae growths.

Other LT Bay parameters: DO and pH are in the normal ranges for waters of Northern Michigan Lowest nutrient levels are found in Lake Michigan compared to inland lakes. Conductivity levels remained relatively stable.

Biological Characteristics: The current fish community in LT Bay consists of smallmouth bass, yellow perch, and whitefish. These fish are original species that are still relatively abundant, although not as much so as before pollution, over-fishing, habitat destruction, and competition and predation from nuisance species has changed the fish community. Species such as lake sturgeon and lake trout were once abundant but now cannot sustain themselves through natural reproduction, and four species of chubs are extinct. Good sport fishing opportunities are still present due to stocking of trout and salmon (in LT Bay and the mouth of the Bear), but overall fish populations are unstable and not as abundant as they once were.

Solutions: Little Traverse Bay Watershed Protection Plan

- Our watershed plans have a nonpoint source pollution focus.
- We follow the document "Developing a Watershed Management Plan for Water Quality" as recommended by the Michigan Department of Environmental Quality
- Watershed plans do not necessarily need government approval, but it is necessary if applying for state or federal funding for implementation.
    - CMI funds eligible- Michigan Department of Environmental Quality
    - 319 funds eligible- US Environmental Protection Agency (as of FY 2003)
- Recently received our EPA approval from DEQ for eligibility to apply for federal grants

The first incarnation of the Little Traverse Bay Watershed Protection Plan was completed in March 2004, and recently updated in early 2006. **The goal of the *Little Traverse Bay Watershed Protection Project* is to protect and enhance the water quality of the Bay and its tributaries by reducing current and future nonpoint source pollution/polluted runoff.**

Advisory Committee meets quarterly and includes over 40 partner groups from throughout the watershed, including other environmental organizations, state and local government officials,

conservation groups, regional planning agencies, the health department, lakeshore associations, and local and state government agencies.

Watershed management plan contents:

- Overview of the health and status of the lakes, rivers, wetlands, ground water in the watershed
- Specific results of inventories and studies
- Recommendations with cost estimates and timelines
- Over 100 recommendations totaling nearly 17 million dollars over 10 years

Priority recommendations: In an effort to successfully protect water resources in the Little Traverse Bay Watershed, specific and tangible recommendations have been developed. Highlights of the recommendations include:

- Work with local units of government, business, and individuals to reduce pollution from stormwater.
- Educated citizens in urban areas about stormwater.
- Work with local units of government to incorporate natural resource impacts into decision-making.
- Repair erosion problem areas on streambanks and shorelines.
- Educate shoreline property owners about how activities on their land impact water quality.
- Restore road/stream crossings in cooperation with the Emmet and Charlevoix County Road Commissions.
- Encourage land stewardship and permanent land protection.
- Improve zoning to ensure consistent water resource protection.
- Manage forests in a manner consistent with water resource protection goals.

Activities and accomplishments to date as outlined in the plan:

A. Aquatic Invasive Species Management at local level

- Monitoring and mapping: AIS patrol
- Biological control program: Eurasian water milfoil (EnviroScience); purple loosestrife (beetle collection)

B. "Healing the Bear"

- Bear River Cleanup- just held sixth annual event, cleaned up 4 cubic yards of trash with the help of 70 volunteers—prevent from getting into LT Bay
- Bear River streambank erosion control and restoration

C. Michigan Clean Marina Program and boater education

- all of the marinas on LT Bay are certified as "Clean Marinas" according to the program criteria of Michigan Sea Grant and Michigan Boater Manufacturers Association
- Includes managing and filtering stormwater, using water-quality friendly cleaning products, improved fueling practices,
- Presented at events around the bay to educate boaters on environmentally friendly cleaning products and preventing invasive species introductions

D. Stormwater runoff education and Best Management Practices

- Harbor Springs and Petoskey have both installed various municipal stormwater BMPs
- Freshwater Center demonstration area- utilize 4 BMPs to filter runoff from property 100%
- Stormwater education- brochures for educating residents, businesses, and local government officials

E. Other

- Continue monitoring the Bay and tributaries- CWQM, VLM, VSM (Bear River)
  Local government participation- Emmet County Master Plan revisions, City of Petoskey Master Plan revisions including recommendations from the LT Bay Plan, keeping an eye on local issues

S OUR WATER: Policy Issue Briefings

Bay Harbor

The Watershed Council remains engaged in the process, and we will continue to keep you informed. Next month, the DEQ is coming here to discuss the on-going permit application process. We are talking to everyone else, as well – CMS, EPA, the tribe, the Health Dept., citizens, etc. We are interested in making sure every possible avenue is explored, in terms of options for solving this very complicated problem. We are providing oversight to ensure that whatever is approved provides effective protection for the health of the Bay.

Beach Grooming

The DEQ recently changed the permit requirements for shoreline management activities which is essential to limit adverse impacts to the Great Lakes coastal wetlands and for effective enforcement of violations. The DEQ recently created a new General Permit category for certain shoreline management activities through an expedited permit process. Activities that may qualify under the General Permit include:

- Leveling and grooming of sand in areas free of vegetation;
- Construction and maintenance of a temporary access walkway using on-site materials;
- Limited mowing of vegetation for a pathway and certain recreation areas, and;
- Limited mowing for control of invasive or non-native species (such as *Phragmites australis*) in compliance with an invasive species control plan.

To protect the health of our coastal wetlands and Great Lakes, it is best to allow shoreline vegetation to remain untouched. Beach maintenance and removal of vegetation significantly alters the chemical and physical conditions of nearshore waters, kills aquatic vegetation, increases the spread of invasive species, decreases the number of invertebrates (the source of food for fish), and reduces fish populations in the Great Lakes. Taken together, these impacts equal disaster for our Great Lakes coastal wetlands.

The Nestlé Case

On July 25th, the Michigan Supreme Court, in a 4-to-3 decision, agreed with lower court rulings that Nestlé's groundwater extraction illegally harmed the lakes, stream, and wetlands in Mecosta County. They upheld the ruling that the company has and will cause unreasonable harm to the water resources off the Nestle property, and that the limits imposed on the company's pumping remain in place. The limits restrict pumping as much as 75% during the low flow or drier months based on a monitoring regime that is in place for over 20 years, with reporting of weekly and biweekly results and at Nestlé's cost. Unfortunately, the Court also reversed part of the lower court's ruling by limiting the citizen groups' legal right to bring a lawsuit against Nestlé under Michigan's Environmental Protection Act (MEPA) for damaging a lake and wetlands on its own property. The Court's decision said that the citizens group has standing (the right to bring the lawsuit) to protect lakes and streams that are owned or used by individuals or the group's members, but no right to bring suit to stop a polluter from destroying a lake and wetland on his or her own property.

The Great Lakes Compact and State Water Use Laws

Michigan's legislature is scheduled to review and pass significant protections for the Great Lakes including the eight-state Great Lakes Compact and accompanying laws. This legislation will safeguard against diversion and misuse of the globally-significant waters of the Great Lakes. Such protections will create jobs, improve the economy, and enhance quality of life. The Compact has been signed by all 8 Great Lakes governors. It strengthens existing laws and recognizes the new and unique threats posed by invasive species, increasing consumption, and development of wetlands. As the only state entirely within the Great Lakes basin, Michigan has much more to gain through the Compact and its strengthening laws. We can not afford to wait. We advocate passage of the Compact with strong implementing laws that will; 1) bring Michigan into compliance with the Compact, and 2) protect Michigan's valuable water for generations to come. Such a package of

legislation will create strong protections for the Great Lakes and our valuable inland lakes, streams, groundwater and wetlands. The laws must include:

1. Public Trust Extends to All Water. Enact a law affirming that the public trust should include all waters of the state, clearly articulating that the Public Trust Doctrine applies to not only surface waters used for fishing, commerce, and navigability, but also to wetlands, streams and groundwater resources vital to the health and economy of our society and ecosystems.

Problem:

- Increasing global demand for fresh water will pit in-state water users against water takers. Our current system does not distinguish between users and takers, jeopardizing the public control of Michigan's waters.

Solution:

HB 5067 gives the Administration the duty to determine that a commercial or industrial groundwater withdrawal does not "impair the waters of the state or other natural resources of the state or the public trust in those natural resources."

HB 5072 requires bottled water producers that use more than 100,000 gallons of groundwater per day to demonstrate that this won't affect the rights of other property owners to enjoy the reasonable use of groundwater.

2. Prevent Adverse Impacts to Michigan's Water and Wetlands. Ecosystems function as a unit; their health depends upon the symbiotic relationships of the resources included and none of them are up for grabs.

Problem:

- Our water use permitting program does not adequately capture potential problems. Current water use laws define adverse resource impacts too narrowly, creating regulatory holes that leave the door open for exploitation and damage to our water resources.

Solution:

HB 5065 redefines the "index flow" to help determine whether commercial or industrial groundwater withdrawals are having a negative impact. This makes it easier to impose restrictions when withdrawals affect water flow levels in rivers and streams.

HB 5069 requires the Administration to create an online "Water Withdrawal Assessment Tool," which enables commercial and industrial facilities to determine from various factors what impact they are likely to have with their proposed withdrawal. The tool uses data on stream flows throughout the state to assess the potential for an "adverse resource impact" from nearby groundwater withdrawals, based on the volume and location of such withdrawals.

HB 5071 requires the Administration to evaluate the impact of a proposed waterworks system for new municipal community water supplies that withdraw more than 1 million gallons of groundwater per day. Under current law, the Administration may but is not required to evaluate systems that withdraw more than 2 million gallons per day.

HB 5072 requires bottled water producers that use more than 100,000 gallons of groundwater per day to perform rigorous hydro-geological studies; assess their impact on flows and levels of groundwater, springs, lakes and streams, wetlands, or nearby wells; submit precipitation studies; do pump tests; and participate in public hearings.

3. Meaningful Conservation. We are seeing changes in Michigan. Winters have been milder, lakes levels are lower, lakes don't freeze over the way they used to, and weather patterns are different. It is appropriate to have legislative language requiring the development of a meaningful conservation program, with goals and objectives and a way to evaluate accomplishment of goals.

Problem:

- Drought, climate change, and a growing global demand for fresh water resources make us vulnerable to demands for Great Lakes water. Michigan cannot say that we won't allow diversions of our water because we have to protect it – and then turn around and waste it. If we have water to waste, then in the eyes of a US court of law or a World Trade Organization forum, we also have water to send away.

Solution:

HB 5066 gives the Administration authority to impose water conservation procedures on commercial or industrial facilities that have the capacity to withdraw 100,000 gallons of groundwater per day. The specific conservation procedures depend on the type of facility.

4. Permitting. Reaffirm the public's interest in all waters of the state and require any commercial water packaging and sale facility that is not a public water supply to obtain a permit. Require all permit applications to include a complete hydrogeological study and assessment of the water source, including the right to FOIA.

Problem:

- The current permitting thresholds capture very few large-scale users; as a result, Michigan does not have a good handle on the withdrawals occurring in state.

Solution:

This package of legislation has 5 important permit triggers:

1. Any new or increased withdrawal using 2 million gpd or more from the Great Lakes must apply for a permit.
2. Any new or increased withdrawal using 1 million gpd or more from inland waters must apply for a permit.
3. Any party using 100,000 gpd or more is required to register and use the Water Withdrawal Assessment Tool. If the tool flags them as having a potential adverse resource impact, they are required to apply for a permit.
4. A person who proposes a withdrawal of any volume that would result in more than a 5% reduction in the flow of a stream or river within the state must apply for a permit.
5. A water bottling facility using 100,000 gpd or more must apply for a permit.

HB 5073 gives the Administration authority to write and enforce rules that have the force of law so as to regulate and restrict the use of groundwater by industrial and commercial businesses, as proposed by House Bills 5065 to 5072.

5. Community Involvement. Elevate the level of community involvement and public participation in water use decisions, making sure citizens have adequate time to thoughtfully review complicated data required for permitting. Local actions and decisions reflect the pressures of neighborhoods and communities; these voices must figure prominently in the implementation of any decisions affecting water use. All permit and petition processes should include mandatory 90-day public noticing and comment periods, and opportunities to request public hearings.

Problem:

- Today's permitting and petition process does not include a public notice requirement. As a result, current users have limited input in the approval process for large-scale facilitates, which could have an impact upon their ability to use and enjoy water resources and ecosystems.

Solution:

HB 5067 authorizes "interested parties" and county prosecutors to sue businesses when they believe a violation has occurred. Civil fines for most violations of water withdrawal regulations written and enforced by the Administration would increase from $1,000 to $10,000.

HB 5068 lengthens from 120 days to 180 days the time the Administration has to act on a permit request (once it determines that the application is "administratively complete"), and requires a public comment period.

HB 5070 gives any "interested persons" the ability to submit a petition to the director of the Department of Environmental Quality if they believe that adverse resource impacts are occurring or are likely to occur as a result of a facility using groundwater, and requires the Administration to investigate the petition. The bill also gives local governments the authority to regulate large quantity commercial and industrial groundwater withdrawals.

6. Investment into Michigan's Waters through Restoration Efforts. All permit holders must be partners in restoration efforts. Require waters of the state used by permit holders to be returned to the sub-watershed of origin, minus that which is consumed. Restoration initiatives should not be measures already required by existing law.

Problem:

- The Great Lakes continue to be under considerable pressure; the restoration needs are running into the billions of dollars. Currently, however, large water users are not required to participate in restoration efforts.

Solution:

HB 5066 gives the Administration the discretion and authority to order facilities to perform activities to mitigate hydrologic impacts of water withdrawals.

Hot Local Issues:

Road Ends – Earlier this year, the Michigan House of Representatives passed HB 4463 and 4464, which have now been referred to the Senate Committee on Government Operations and Reform. We do not believe these bills represent good Road Ends policy, and urge

anyone interested in this issue to contact members of this Senate committee to express opposition. If these bills do not move out of this committee by the end of the legislative session, they will be defeated. We are currently in the 94th Legislative Session, which runs until December 2008. If these bills do not move out of this committee by then, when the 95th session begins in January 2009, the sponsors would have to start all over again. We know that the committee members have noticed the letters they are getting about this issue. This is very encouraging because right now, it looks like these bills will not be taken up.

However, as often happens in Lansing, things could change. So, if you have not yet sent a letter about this, please do so. If you know others who would be affected but have not yet written, please encourage them to write, as well. Getting numerous individuals to contact committee members tends to be very effective in these situations. Your voices have a much greater impact when legislators see that you have taken the time to individually write.

The Government Operations and Reform Committee members are: Senators Bishop, Patterson, Cassis, Kuipers, Schauer, Clarke, and Olshove. Committee Clerk: Michael Healy, S-106 Capitol Bldg. Phone: (517) 373-2417. You can find all the contact information to reach these members *here (http://www.watershedcouncil.org/mistatesenate.pdf)*.

Wetland destruction at Elk Rapids Preserve and Capa Bran: Both of these development sites included valuable wetland assets that were destroyed. Construction has been halted due to conflicts that have been on-going for many years. In the wake of the Rapanos-Carabel Supreme Court decision in 2006, Capa Bran filed an appeal and the US Army Corps of Engineers will re-visit wetland jurisdiction there. The Elk Rapids Preserve development has been halted since May, 2002 and has been ordered to restore important wetlands connected to Lake Michigan through Corps of Engineers "after-the-fact" permits. This is one of the few Clean Water Act enforcement actions currently on-going in northern Michigan. More updates will be posted soon, but if you have any questions please contact Mr. Greg Reisig, gazingnorth@hotmail.com, or at 231-264-8396.

Horses and the Right to Farm Act at Intermediate Lake: Private residents with lakefront property asked Kearney Township officials to allow them to continue to keep horses in an area that is zoned residential. After a series of events starting in 2006, the owners invoked the Right to Farm Act (RTFA) this year in an effort to keep the horses on site. Even though Michigan Court of Appeals cases have found that this statute can suspend local zoning to protect agricultural interests, including small individual pursuits, the deciding factor is whether or not the use constitutes a "farm operation" producing a "farm product," "commercially". On Friday, May 22, The Antrim Review reported that Kearney Township Attorney Bryan Graham advised the Township that the property owners were in compliance with the RTFA. His investigation determined that business records indicate the farm is a commercial operation. Many neighbors disagree with this finding, citing personal relevant observations, but they were unable to examine the records in question.

Tip of the Mitt Watershed Council joined members of the Intermediate Lake Association and other neighbors to express concerns to the Kearny Township Supervisor about this issue. We believe RTFA is an important statute that protects the interests of legitimate farming

operations, and we understand and appreciate both the needs of individual farmers and private horse owners. However, we have unanswered questions regarding the use of RTFA in this instance, and we cannot dismiss the water quality issues that are raised for Intermediate Lake by keeping horses on lakefront property. Even though horse manure, urine and soiled bedding are organic materials, many of their biological and chemical properties can be detrimental to fish, insects, and other aquatic life if those wastes get into local water bodies. Nutrients from this waste carried by stormwater runoff can lead to algae blooms. Even small amounts of ammonia from urine dissolved in water can kill fish. Salts contained in manure do not breakdown and when carried to the lake, the presence of salts can be a limiting factor upon the species of fish, amphibians, and invertebrate life.

In July, the township proposed a change to their 30+ year old zoning ordinance. If enacted, the change would allow farm animals to be kept in residential areas. Residents owning at least 5 acres of land would be allowed to keep two farm animals, such as horses, in residentially-zoned areas, with one additional animal allowed for each additional acre of land. According to The Antrim Review, with a few exceptions, most people in attendance were passionate in their opposition. Tip of the Mitt Watershed Council is also opposed to this zoning change. A final decision has not been made, and we will continue to watch and work on this issue.

Norwood Mining Issue: The Watershed Council has been involved in this issue since it first came to light. The DEQ has denied required permits, but we expect an appeal of that decision and subsequent fights.

Paradise Lake Mining Issue: Emmet County Planning officials requested our input. We are asking for assurances regarding groundwater resources and surface water runoff. The applicant requested that the issue be tabled so they can respond to various concerns.

PCLA/TOMWC Emmet Co. Zoning Change: We suggested word changes, and staff is reviewing with their attorney. We'll get this changed, eventually…then on to the results of the local zoning **GAPS ANALYSIS** we will do this winter!