# \*Three Lakes Association

the first 45 years

- \*On July 11, 1966, a group of friends and neighbors gathered to discuss environmental health issues for Clam Lake, Lake Bellaire, and Torch Lake.
- \*In attendance were: Bill Lee;
  Martha and Lloyd Aemisegger;
  Margaret Campbell; Caroline and
  James Kirkpatrick; Kathryn and
  Hartley Comfort; Sam Comfort;
  Betty and John Kohl; Russ Wheeler;
  and Vi Patchen.

# Property Owners Overles Notice A merting of all Righton account of Lake Radium, Clear Pitter (Part Lake, Teeth Cold and Total River of Lake Radium, Clear Pitter (Part Lake, Teeth Cold and Total River of Lake Radium), wellRecord of Packets, University and Advanced Beautiful and River Diverse Poperty, Content. The program of the markets of the American as precladed to represent Lake and River Diverse Poperty, Content. The antichals profile After of the American and The antichals of the American and the profile State of the American and the Content of the Packet River Indian and property and To Profite your learners and have This Record River profile Content and Content Content of River your family, Saturday, July 30, 1948, 3,000 year. Cont. House, Radial-

- \*This meeting inaugurated our organization and, for the record, Kathryn Comfort came up with the name, Three Lakes Association, to indicate the interdependence of Lake Bellaire, Clam Lake and Torch Lake.
- \*Martha Aemisegger drew the first map used for publicity and membership mailings.
- \*Hartley Comfort was elected the first President and Lloyd Aemisegger was elected the first Treasurer.

- \*Baseline Water Quality Monitoring Project began measuring oxygen, clarity, phosphorus, temperature, bacteria, algae.
- \*The science "stars" of our early years were:

  Dr. LaVerne Curry, Chair Department of Biology at
  Central Michigan University, and
  Edward McDuffie, Bellaire High School science teacher.
- \*Their work provided us a reliable ongoing record of the evolving profile of our lakes;
  - \*a means to identify gradual changes in water quality,
  - \*baseline reference points for valid future comparison.

- \*Grass River preservation project began-
- \*Three Lakes Association sponsored a steering committee to preserve the Grass River
  - \*Conceived, directed, and financially supported by TLA, in collaboration with:
    - \* Antrim County Board of Commissioners,
    - \* Antrim Soil Conservation District,
    - \* Nature Conservancy,
    - \* Michigan DNR,
    - \* Michigan Natural Areas Council,
    - \* Elk River Watershed Council,
    - \* Antrim County Planning Commission,
    - \* Antrim County Farm Bureau.

- \* Margaret Campbell was the TLA representative on the steering committee and remained ever afterwards a dedicated volunteer worker for, and advocate of, the Grass River Natural Area.
- \*Mary and Donald Richards, Helen Johnson O'Hair and Walter Reese O'Hair were also TLA volunteers who gave years of service to the formation of this project.
- \*Grass River Natural Area was officially dedicated and launched in 1976.

- \*Sunset Torch Condominium case began
  - \* Originally proposed seventy-four units on the shoreline.
  - \*TLA filed suit to stop construction -
    - \* Would contribute unacceptable pollution to Torch Lake
    - \* Would violate Michigan Environmental Protection Act.
- \*Settled by consent judgment in April 1978 -
  - \*Limited to twenty-eight condo units



- \*Paradise Estates funneling case -
  - \*Established the concept of reasonable level of use
  - \*August 1973 consent decree -
    - \* Limited to twelve the number of people allowed to use the Paradise Estates keyhole on Torch Lake at any one time,
    - \* Established greenbelt and fencing requirements,
    - \* Established restrictions on fertilizer and barbecue grills,
    - \* Prohibited boat moorings,
    - \* Required defendant to pay for necessary improvements and enforcement of the judgment.

- \*Bellaire sewage treatment system instituted in 1972 -
  - \*Used a lagoon for collection and settling, and a wetland for disposal -
- \*Accidental release of 3.5 million gallons of sewage in 1976 -
  - \*Caused algal bloom in Lake Bellaire
  - \*Further releases
    - \* Caused maintenance problems
    - \*Overland water-flows directly into Intermediate River
- \*TLA opposed renewal of Bellaire's DNR surface discharge permit unless corrections were made. New system approved by voters in 1985

- \*White Sands case -
  - \*April 1979 tried before Hon. William R. Brown, Antrim County Circuit Court.
  - \*Judge Brown's order repeated many of the same elements contained in the Paradise Estates consent judgment.
  - \*This case (Three Lakes Association vs. Kessler) cited repeatedly through the years as precedent-setting in riparian law, particularly on the point of "unreasonable over-use of the lake access."

- \*First Executive Director -
  - \*The all-volunteer board could no longer keep up with the issues it considered important to monitor;
  - \*We needed to hire an executive director;
  - \*William G. Weiss, Jr., Ph.D., P.E. (served 1984 1998).



#### \*Bellaire sewer system

- \*Presentation by TLA at Michigan Water Resources Commission meeting in Lansing, with support of DNR staff.
- \*Village of Bellaire voted overwhelmingly for a sewer bond issue, making possible the construction of new advanced wastewater treatment system.
- \*New system included phosphorus removal.

- \*TLA Lake Watch program concept -
  - \*White-Kuhn-Larsen-Norris method for detecting nutrient pollution from septic systems and fertilizer run-off.
  - \*Cooperative neighborhood approach to finding and correcting pollution problems.
- \*Hayes township case
  - \*This case (Fox & Associates, inc. vs. Hayes Twp.) involved a funneling project on Lake Charlevoix.
  - \*TLA supported the township issues similar to the Paradise Estates and White Sands cases.
  - \*Settled by consent decree cited in the 1992 Hess case.

- \*Formal adoption of the TLA Lake Watch Program -
  - \*Assist people in identifying and rectifying pollution sites along the shores of the lakes and streams.
  - \*TLA trained groups of riparian owners how to take samples for Health Department analysis.
  - \*TLA assisted in deciphering the reported results.
  - \*TLA offered strategies for following up on any pollution found and suggested action for remediation.

#### \*Rosemary's Dockage -

- \*DNR permit application to dredge Torch River bottomland and wetlands to construct thirty-one additional large boat stalls and fill wetlands for parking.
- \*If allowed, it would represent precedent-setting damage to Torch River and its wetlands.
- \*TLA monitoring of DNR permit applications brought this to light.
- \*This project was denied. Later, a smaller addition was permitted.

- \*Kathy's Kampground Torch Lake Village
  - \*Proposed 80-unit condominium on the two-acre site.
    - \* Excavation for septic provisions would open a gasoline contamination site.
    - \* Population density envisioned greater than that of Detroit proposed actual population greater than the village itself.
    - \* TLA volunteers attendance at planning commission meetings helped make clear the highly probable negative impact.
    - \* Planning commission unanimously denied the project.
    - \* Property sold to Virginia & Bill Good, who rented it to the township, for a dollar a year to use as a Day Park until township funds could be accumulated to purchase it.

- \*Kathy's Kampground Torch Lake Village (continued)
  - \*Township Recreation Plan, authored by Jack Norris, and accepted by DNR.
  - \*Grant requests were prepared, the funds allocation bill was passed in Lansing, individual contributions were made, and many volunteer hours of work followed.
  - \*William K. Good Day Park opened and dedicated in 1994 it is recognized as a model of its kind.
  - \*TLA takes pride in having contributed to its creation.

- \*Lamont v. Health Department -
  - \*Plaintiff requested permit for on-site septic disposal on property known to be unbuildable.
  - \*Permit denied. Applicant sued the Health Department.
  - \*TLA filed *amicus curiae* brief in support of the Health Department.
  - \*TLA Water Quality Chair, Jack Norris was called as an expert witness.
  - \*Court found for the Health Department.
  - \*Health Department ultimately issued a permit for a holding tank solution, with specific safeguards.

- \*Watomie Pines -
  - \*Application to build U-shaped harbor with dock extending 112 feet into Clam Lake -
  - \*TLA led a letter-writing campaign to DNR to deny-
  - \*Ultimately a new dock design was permitted by the DNR with no extension into Clam Lake .

- \*Hess v. West Bloomfield Twp -
  - \*Michigan Supreme Court held that townships, under TRZA, do have the authority to prevent funnel developments.
  - \*With the Hess decision in hand, TLA approached the eight townships on our three lakes, asked for zoning ordinance language to ban funnel developments.
  - \*The results are not uniform. This is an ongoing TLA effort.

- \*Cicinelli v Michigan DNR -
  - \*Cicinelli, Mayer, Grear, and Zahler sued DNR over proposed development of launch site for large boats on property with 200 feet of Torch Lake Frontage.
    - \* At the site water depth is only 3.3 feet at distance of 270 feet from shore.
    - \* DNR plan included dredging a 300 foot channel into Torch Lake, in violation of the local township zoning ordinance.

- \*Cicinelli v Michigan DNR (continued)
  - \*The four plaintiffs argued:
    - \* 1) wrong to violate local zoning with boat launch in residential district;
    - \*2) new launch not needed enough existed already;
    - \*3) dredging the lake bottom for 300 feet would:
      - \* destroy the natural earth bank at the water's edge,
      - \* make large earth changes,
      - \* degrade the water quality of Torch Lake in violation of Michigan's 1970 Environmental Protection Act.
  - \*TLA agreed and gave \$5,000 to help defray their legal costs.

- \*Cicinelli v Michigan DNR (continued)
  - \*Spring 1996 -
    - \* Judge Philip E. Rodgers, Jr., issued preliminary injunction against any construction until all permits and environmental concerns were satisfied -
    - \* administratively closed the case, thereby retaining jurisdiction.
- \*Carrying-capacity model ordinance work in conjunction with Planning and Zoning Center of Lansing

- \*The Star Buoy project, inspired and led by Jinks Ross:
  - \*A mooring buoy carrying a black 5-pointed star, placed at a measured distance of 100 feet from the shoreline, a dock, or raft:
    - \* Provides temporary boat mooring.
    - \* Aids boat operators in abiding by the "100 foot law."
    - \* Is recognized by the Antrim and Kalkaska County Sheriffs' Marine Patrols, and by the local DNR officials, as an aid in marine law enforcement and education.

\*The Star Buoy project, inspired and led by Jinks Ross:

\* "The buoy program is not intended as a punitive measure -it's a positive thing. We're putting these mooring buoys out
for mooring purposes, obviously, but with careful placement
and marking, these buoys can also help boaters stay away
from swimmers and children playing in the water. "JSR



#### \*Torch Tip Resort -

- \*Citizen Tomlinson brought suit against the resort, claiming overuse of the lake, inadequate septic system, and operation of unlicensed marina -
  - \*TLA supported the suit with an amicus curiae brief -

#### \*Result:

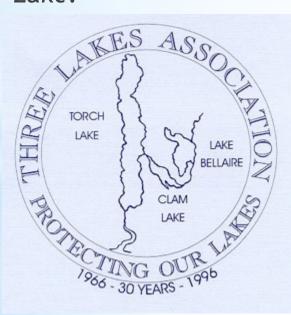
- \* Defendant ceased marina activity and sold the property -
- \* Property reverted to single family residential -
- \* Water quality improved

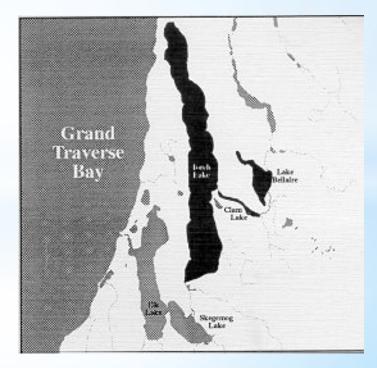
\*Thirtieth anniversary -

\*In this year, the original corporate existence was changed from "30 years" to "in perpetuity."

\*The history of TLA was published in "The First 30 Years: Preserving and Protecting Lake Bellaire, Clam Lake & Torch

Lake."





- \*Hanysack case settled -
  - \*Defendant sought to dredge a channel into Torch Lake in order to secure a residential water intake.
  - \*Citizens' concerns and efforts to protect the lake resulted in formation of TLPOA.
  - \*TLA supported the case with \$3,000 and an *amicus curiae* brief.
  - \*Judge Rodgers' found for the plaintiffs. His decision put water quality concerns into the judicial record.

- \*Cedar Meadows -
  - \*Cedar Meadows Boat Owners' Association applied for a marina permit -
    - \* In violation of the Cedar Meadows deed restrictions and by-laws,
    - \* Against the wishes of the Property Owners Association,
  - \*DEQ was leaning toward issuing the permit -
    - \* In spite of defects in the application
  - \*TLA supported the Property Owners Association viewpoint
    - \* Ultimately the project was abandoned

- \*Cedar River TLA supported the Friends of the Cedar River Watershed in that group's efforts to protect the river from these threats:
  - \*New golf course that would cross the river in two places
    - \* Course-grooming chemicals and fertilizers run-off.
    - \* Traffic pollution at the crossings golf carts, pedestrians.
  - \*Increased water withdrawal for irrigation and snow-making
    - \* Would lower river level by 1.5 inch, exposing approximately 25 acres of watered wetland
  - \*Siltation from new-construction ski runs raw earth 27 feet from the river with no retention ponds

- \*TCE plume from Dura location:
  - \*Contaminant plume flowing through the groundwater
  - \*TCE contamination of several drinking water wells
  - \*Contamination reached Shanty-Schuss area by mid 2000
  - \*TLA part of ACUTE (Antrim County United Through Ecology) seeking solutions through collaboration
- \*The Technical Outreach Services for Communities Program at Michigan State University provided assistance to help find solutions for TCE Plume. Memorandum of Understanding signed in May 2004.

- \*Boat safety law signs donated and posted at launch sites around the lakes
- \*Antrim County News article, September 3, 1997

PAGE 2-A WEDNESDAY, SEPTEMBER 3, 1997 ANTRIM COUNTY NEWS

#### Lake advisory reminders posted locally

cently installed at 18 local boat-rules," he added. Sheriff Department.

Summarizing several important and Kalkaska counties. rules of the Marine Safety Act, the "The 100-foot rule is possibly the

personal watercraft.

message to PWC drivers, many of important law."

TORCH RIVER - It's the law, whom are ignorant of the beating laws proclaims the boating safety sign re- and untrained in basic water safety

launch ramps and fuel docks by of- TLA water safety committee chairficers of the DNR and Antrim County man John Ross explained the signs' emphasis on star-marked "measured The signs were donated by the distance" mooring buoys, which have Three Lakes Association (TLA). been in use for three years in Antrim

signs are located throughout the area most important safety rule in the serviced by TLA (Bellaire, Clam and book, and our star-marked buoys have Torch lakes and connecting rivers). made local boaters aware of this criti-Local DNR Conservation Officer cal margin of safety," he said. "Fea-John Crane noted the emphasis on turing the buoys on the launch ramp signs will tell visiting boaters what "This is one more step to get our they mean, and remind all to obey this



OBEY THE 100-FOOT RULE Married State (1970) I State (1970) Deleted (1970) From State of decision is seen as a property PWC ("JET SKI") SPECIAL BULES The last of the last of

ANTRIM COUNTY Marine Pa trol Commander Scott Coy (right) and Marine Patrol Officer Ron Thorson stand by one of the boating safety signs (inset) provided by Three Lakes Association. Photo courtesy Three Lakes Association

#### —IT'S THE LAW \*—

STAR-MARKED "MEASURED DISTANCE" MOORING BUOYS



INDICATE 100' OR LESS TO A DOCK, RAFT OR SHORELINE

#### OBEY THE 100-FOOT RULE

ALL BOATS - including Personal Watercraft (PWC'S or "Jet Skis"), and water skiers or other persons under tow, MUST STAY AT LEAST 100' AWAY from any dock, raft, shoreline, moored boat, buoyed or occupied swimming area - except at slow no-wake speed or when dropping or picking up skiers

#### NO BOAT MAY ENTER A BUOYED SWIMMING AREA AT ANY TIME

WATER SKIING, tubing, etc. is PROHIBITED FROM ONE HOUR AFTER SUNSET TO ONE HOUR BEFORE SUNRISE. Tow boat must have an operator PLUS AN OBSERVER.

#### OPERATION of any boat while UNDER THE INFLUENCE OF INTOXICANTS or DRUGS is PROHIBITED

CHILDREN UNDER AGE 16 who do not possess a MDNR Boating Safety Certificate MAY NOT OPERATE ANY BOAT over 6HP unless supervised by someone 16 or older: if child is UNDER AGE 12, boat must have NO MORE THAN 35 HP and MUST NOT BE A PERSONAL WATERCRAFT (PWC).

#### PWC ("JET SKI") SPECIAL RULES

PWC's MAY NOT CROSS WITHIN 150' behind another boat, other than another PWC, unless that boat is moving at slow no-wake speed. WEAVING IN AND OUT of boats or JUMPING THE WAKE of another boat unreasonably or too close CONSTITUTES RECKLESS OPERATION.

#### PERSONAL WATERCRAFT (PWC'S) ARE PROHIBITED FROM SUNSET TO SUNRISE

CHILDREN UNDER AGE 12 SHALL NOT OPERATE A PWC AT ANY TIME.

#### SHERIFF'S DEPARTMENTS OF ANTRIM AND KALKASKA COUNTIES

Excerpts from Michigan Marine Safety Act provided by Three Lakes Association

- \*Inaugural year of the Three Lakes Association summer internship program
- \*E. coli survey of five beaches
- \*Interns:
  - \*Sarah Conkle, Jessi Dewey, Savannah Bryant, Nathan Graham, and Brianne Lunn
- \*Advisors:
  - \*Tim Hannert, Norton Bretz



- \*Intern program one -
  - \*Cladophora Survey on Bellaire, Clam, and Torch Lakes
    - \* Interns:
      Sarah Conkle, Brianne Lunn, and Jocelyn Menestrina
    - \* Advisors:
      Norton Bretz, Trish Narwold, and Tim Hannert-
  - \*Identified 114 sites
    - \*75 on Torch Lake
    - \*24 on Clam Lake
    - \* 15 on Lake Bellaire



- \*Intern program two -
  - \*Water flow and water quality testing on Torch Lake
    - \* Interns: Keenan Bailey, Anna Ash
    - \* Advisors:
      Norton Bretz, Tim Hannert, Dean Branson



- \*Water Quality Predictive Model project Phase 1 begins
  - \*Characterize the water profile for Torch Lake
  - \*Received \$62K grant from DEQ for Torch Lake
  - \*Predictive model is to be nutrient-based
  - \*Phase 1 should be complete by fall of 2005
- \*DNR special use permit for TLA to wash boats at launch sites on the three lakes

- \*Intern program project one -
  - \* Ground water flow
- \* Interns:
  - \*Jessica Arnold (Central Lake), Emily Lowery (Bellaire)
- \*Report:
  - \* "Estimates of Groundwater Entering Torch Lake"
- \*Advisors:
  - \*Tim Hannert, Norton Bretz, Dean Branson

- \*Intern program project two-
  - \* Seasonal variation in profile of Torch Lake
- \* Interns:
  - \* Lauren Elbert, Samantha Fox (Elk Rapids)
- \*Report:
- \* "Seasonal Variations of Temperature, Dissolved Oxygen, pH, and Specific Conductivity in Torch Lake"
  - (available on the website: <u>3lakes.com</u>)
- \*Advisors:
  - \*Tim Hannert, Norton Bretz, Dean Branson

- \*Intern program project three-
  - \* Torch Lake phosphorus input and output
- \* Intern:
  - \* Derek Walton (Elk Rapids)
- \*Report:
  - \* "Total Phosphorus Input and Output of Torch Lake plus the Watershed Boundary of Shanty Creek" (available on the website: 3lakes.com)
- \*Advisors:
  - \*Tim Hannert, Norton Bretz, Dean Branson



- \*Intern program project four-
  - \* Torch Lake groundwater flux and phosphorus loading
- \* Intern:
  - \* Mike Nelson (Notre Dame)
- \*Report:
- \* "Piezometric Determination of Groundwater Flux and Phosphorus Loading in Torch Lake"
- \*Advisors:
  - \*Tim Hannert, Norton Bretz, Dean Branson

- \*Internship program part of the Predictive Water Quality Model project, Phase 2.
- \*Interns:
  - \*Jesse Belanger, Rachel Proudfoot, Bethany Springsdorf, and Kristine Vliet (Bellaire), and Jaime Lanter (Central Lake).
- \*Report: "Analysis of Hydrolab Profiles for Torch Lake, Lake Bellaire, and Clam Lake in Antrim County, Michigan

" (available on the website: 3lakes.com)





### \*Intern program -

- \*Survey of glacial relict benthic invertebrates in Lake Bellaire and Elk Lake.
  - \* organisms at the bottom of the food chain,
  - \* excellent indicators of the health of the lake.

#### \*Interns:

\*Courtney Platte, Danielle Haydell (Central Lake), Jesse Belanger, Brittani Mizckiewicz (Bellaire), Maggie Petersen, Andrew Mach, and Cameron Schaefer (Elk Rapids)

### \*Report:

\* "Glacial Relicts of the Elk River Chain-of-Lakes, Antrim, Kalkaska, and Grand Traverse Counties, Michigan," available (available on the website: 3lakes.com)

### \*Water Quality Predictive Model completion

\*Reports: Development of a Predictive Nutrient-Based Water Quality Model for Torch Lake, and Characterization of Groundwater Phosphorus in Torch Lake (available on the website: 3lakes.com)





- \*Intern program -
  - \*Lake Bellaire Shoreline Survey
- \*Interns:
  - \*Braden Ackerman, Billy Bohannon (Bellaire), and Wilhelmina Witt (Central Lake)
- \*Advisors:
  - \*Tim Hannert, Norton Bretz, Trish Narwold, Peg Comfort
- \*Report: "Lake Bellaire Shoreline Survey Summary

Report" (available on the website: 3lake

### \*School Outreach program began

- \*Wish lists granted for the following teachers:
  - \* Bellaire
    - \* Diane Bennett, Kim Clark, and Tom Baeckeroot,
  - \* Central Lake
    - \* Kari Groll, Bridget McAvoy, Brenda Jones, Tim VanderHart, Barb Schecter, Laura Brown, Dennis Richardson, and Eric Boyce.
  - \* Kalkaska
    - \* Michelle Moeggenberg, Diane Wildfong, Kathy Liverance, Paul Guy, Andy Henderson, and Staci Short.
  - \* Mancelona
    - \* Jenny Angell

- \*Intern program -
  - \*Lake Bottom Survey Torch Lake and Lake Bellaire
  - \*Interns:
    - \* Braden Ackerman, Billy Bohannon (Bellaire), Jordan Gunderson (Kalkaska), Wilhelmina Witt, David Witt, Alisha Youmans (Central Lake)
  - \*Advisors:
    - \* Norton Bretz, Dean Branson, Trish Narwold, Becky Norris
- \*Report: "Survey of Food-Chain Macroinvertebrates: Torch Lake and Lake Bellaire"

(available on the website: 3lakes.com)



- \*School Outreach program second year
  - \*Wish lists granted for the following teachers:
    - \* Bellaire
      - \* Sue Mills, Kelli Hammond, Kim Clark, and Tom Baeckeroot,
    - \* Central Lake
      - \* Kari Groll, Bridget McAvoy, Brenda Jones, Tim VanderHart, Barb Schecter, Laura Brown, Dennis Richardson, and Eric Boyce.
    - \* Kalkaska
      - \* Paul Guy, Andy Henderson, Ryan Moore, and Amy Urquhart.
    - \* Mancelona
      - \* Jenny Angell, Jeff Brey, and Karen Malloy.

### \*Internship program -

\*Cladophora survey along the shorelines of Torch Lake, Clam Lake, and Lake Bellaire - by kayak

#### \*Interns:

\*Marisa Kerr, Sadie Small (Bellaire), Natalie Ranger (Elk Rapids), Emily Blaney (Ellsworth), Jake Crawford (Kalkaska), and Jessica Kubin (Mancelona)

#### \*Advisors:

\*Norton Bretz, Melissa Makowski, Doug Morse, Art Hoadley, Dean Branson, Trish Narwold, Becky Norris

\*Report: "A Shoreline Algal Survey of Torch Lake, Clam Lake, and Lake Bellaire"



- \*School Outreach program third year
  - \*Wish lists granted for the following teachers:
    - \* Bellaire
      - \* Rebecca Benson, Judy Schieber, Sue Mills, Kim Clark, and Tom Baeckeroot,
    - \* Central Lake
      - \* Kari Groll, Laura Brown, and Tim VanderHart.
    - \* Kalkaska
      - \* Randall Atwood, Andrew McCarty, Carrie Baic, Andy Henderson, Ryan Moore, and Amy Urquhart.
    - \* Mancelona
      - \* Barb Costello, Jenny Angell, and Gina Middaugh.

\*Beginning of the collaborative river sedimentation study for Grass River and Rapid River

#### \*Interns:

\*Roger Barber (Kalkaska), Eric Youmans, Carrick Conway (Central Lake), and David Witt (Ellsworth Arts Academy)

#### \*Advisors:

\*Gary Knapp, Becky Norris, Dean Branson, Fred Sittel, Trish Narwold, Norton Bretz, Braden Ackerman, and

Jim Kelderhouse.