# The Tail of the Otter

Nigigwanowe Lac de la Queue de la Outer

#### Introductions



#### What is our role?

- To facilitate the meeting(s) from a neutral position
- We do not have a vested interest in the outcome
- Provided background, and historical information as we know it
- Assist with the process to identify the issues you as residents have with the channel and eventually identify possible solutions.
- We are not here to provide an answer to the issues, we are here only to help you as a community to work together to define what that might be.





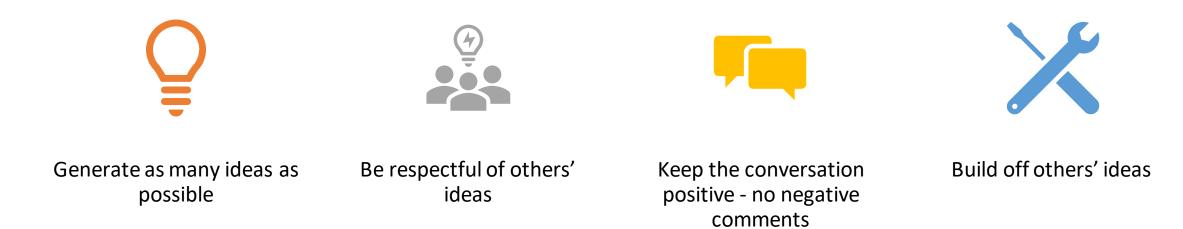
This is the first of a possible series of meetings Jun 9, 2023: history of channel and discuss issues

July 6, 2023: discuss potential solutions to the issues identified

TBD, 2023: discuss permitting with DNR/Army Corps

TBD, 2023: select a path forward

#### Expectations/Ground Rules

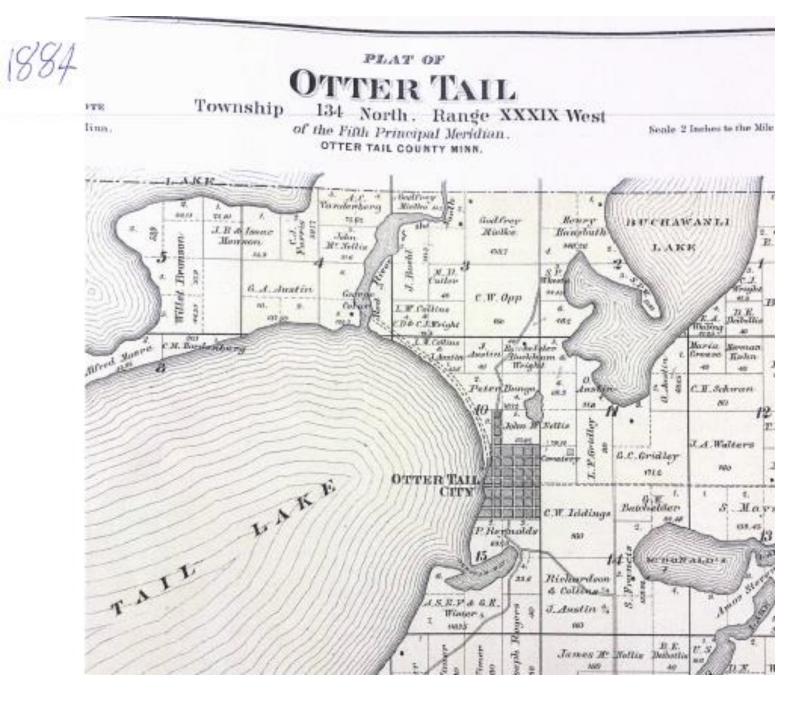


# Why just the tail?

The name "otter tail"

In 1750 the first explores in the area met with a band of natives on the shore of *"Lac de la Queue de la Outer"*, which translates roughly to <u>the Lake of the Otters Tail</u>. The name derives from the sand bar shaped like an otter's tail where the Otter Tail River enters Otter Tail Lake (on the North East end of the lake) and now over two centuries later the otter's tail sand bar is still there.



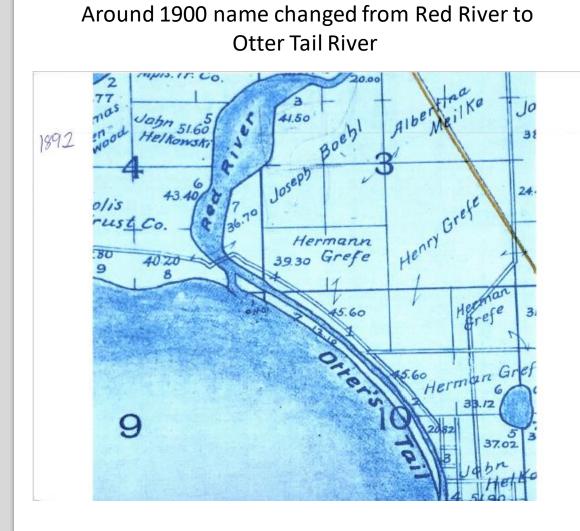


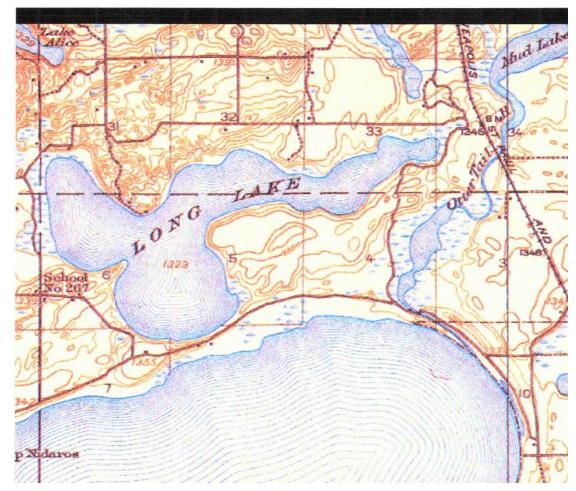
History – What we know

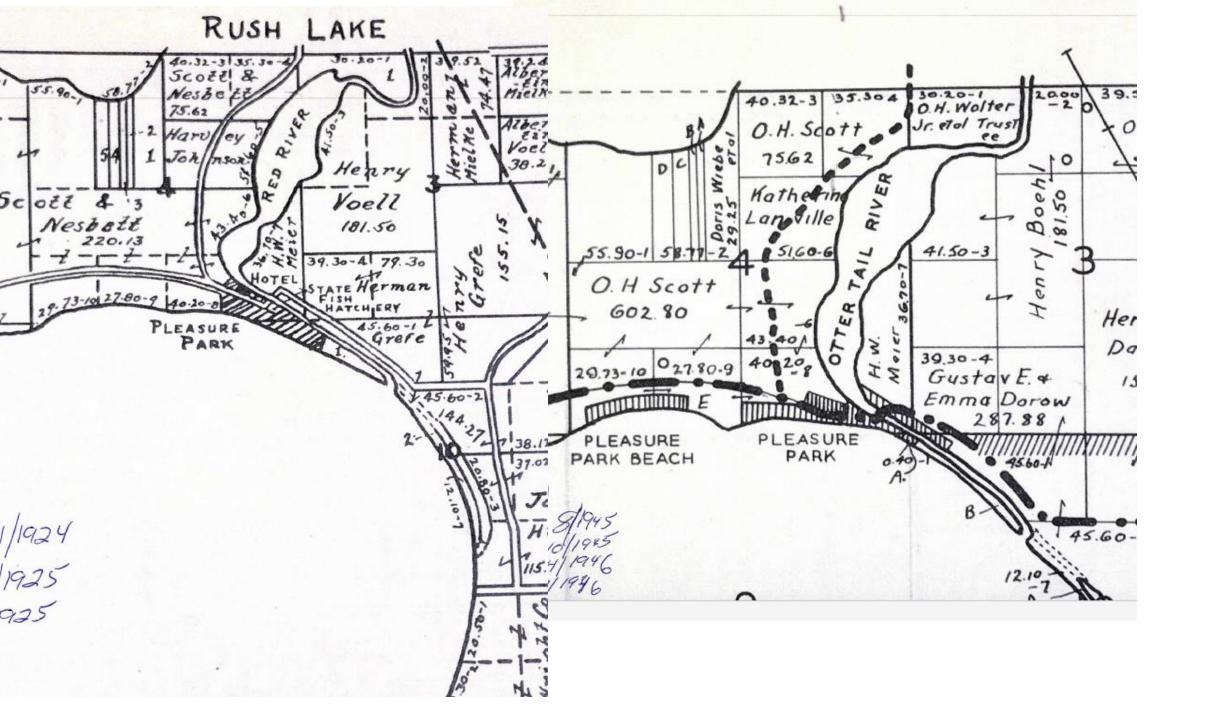


Floating the Logs

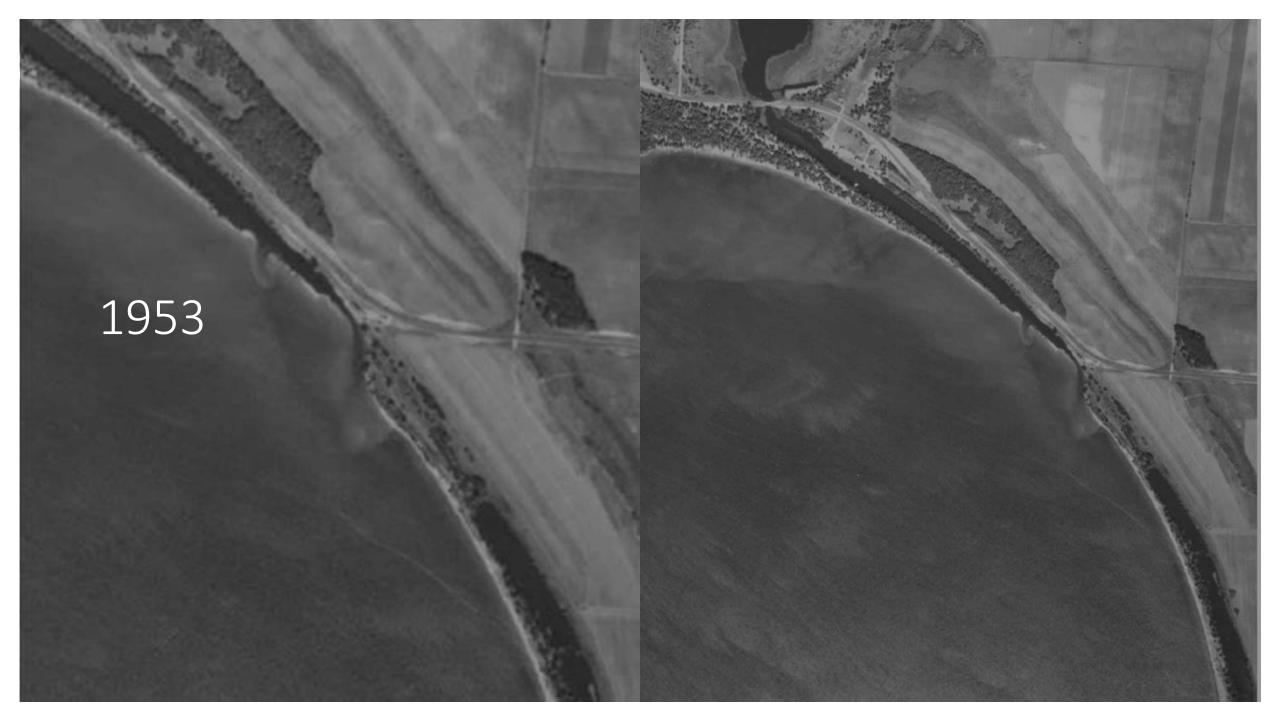
• In the late 1800's the logging industry used the Otter Tail River to move their logs. In the spring logs were "driven" down the Otter Tail River to saw mills in Frazee and Fergus Falls. Dams were constructed to raid the rivers high enough to float the logs. Once the water was raised to proper levels, the dams were released, rushing the logs downstream. Records in 1884 calm that a log drive occurred from Becker County to Winnipeg via the Red River (Otter Tail River) The drive began on April 28 and reached its destination on July 26, floating logs an estimated 1,760 miles.













#### September 1963

#### **Daily Journal Article** ullet

Where's Inlet to Otter Tail Lake Going to

WLET

emained.

tion stating:

fencing concrete blocks, wire

PROPOSED COURSE -

TER TAIL RIVER

OTTER TAL

LAKE

"Where, on-where, shall the riv, current slightly toward, the old from the river, er flow, continues to stir lots of channel comment in the area of Pleasure Merickel claimed he was only

KEY & PRISENT COURSE -

Park on the north end of Otter Tall lake. tect his property-anyway the tion in St. Paul was contacted, In question is the inlot of Otter Tall river. river was actually running over and he was asked to intervene.

At least 43 petitioners say property owned by him, and he that the river should continue to flow out of its present mouth, while at least one man thinks it should continue about another mile parallel to the lake before making an entrance one who had a typewriter handy

The proposed new entrance is and time to do something about really not new at all, but the acthe situation' tual inlet at one time before the One of the grievances volced lver changed its course and by the group was that Merickel should have had a permit to do

broke through a narrow peninsua separating the flowing current rom the lake.

didnt' prove an obstacle to The trouble all seemed to start. boat travel in itself. when Jim Merickel of Wadena However, as the water level ad a portion of the old river dropped during the summer, it and other impediments, interfered, which still contained water, did appear that the present in- ring with the natural channel at redged out, He owns the surlet was getting shaflower. ounding lakeshore property. Immediately some of the property owners began to acuve Merickel of planning to pointed out again that the inlet nel to its recent previous condichange the course of the river. is actually crossing land owned tion." Their fears seemed to be con- by himself.

rmed when Merickel had some In refaliation, the property 20th July. now fence erected in the river group demanded that the anow On the night of August 2, the necessitate about a mile further the which tended to build up a fence and heavy material, includ- fence and posts disappeared.

dredge work and erect the

snow fence, which actually

Ideposit of sand, directing the ling cement blocks, be withdrawn I "The group claimed that Merikel had removed them because No action was taken. of the protests. In June, Sidney A. Frelisen, ditrying to relard the wave action rector of the division of waters

Merickel claimed someone from the lake, and thereby pro- at the department of conserva- and posts without his permission

The group still felt that the should be able to take any action an area game worden investigate there was still some foreign mat-Freilsen directed by letter that and take the required action to terial left below the surface of Spokesman for the group of correct the alleged violation, in the river as a mencae to boatproperty owners was Elmer E. cluding the removal of the snow ing, so the petition was sent in Bowers of Shawnee Mission, fence, concrete blocks and posts, anyway on August 5, Nothing happened. The fence

In the meantime, Senator Cliff Ukkelberg was called into the Then the property owners picture to investigate. Ukkelberg went to work on a petition to requested that a state survey the Department of Conservaerew be called to check the condition of the river and determine "We, the undersigned taxpaythe course the river should take ers of Otter Tail county, State of

The survey crew spent Fri-Minnesota, respectfully request day morning at the site, and that the party, or parties who gathered information for a rehave recently installed posts. port to the conservation department, but declined to comment on their findings.

As it stands today, the property Otter Tail river to Otter Tail group still feels that action Merickel claimed that he was lake be officially ordered to im should he taken against Mericnot required to have a permit to mediately remove all such ob kel, while Merickel still feels his improve his own land, He also structions and restore the chan action was right,

The present inlet provides a nearby access to the lake for the The potition was signed the

travel for them to get to the lake.





ADM172,1000

DEPARTMENT OF NATURAL RESOURCES

Office Memorandum

TO : Morris T. Eng, Supervisor Hydrologic Services Unit DATE Feb. 26, 197

FROM : James Nye, Hydrologist Hydrologic Services Unit

SUBJECT: SPIT - OTTERTAIL LAKE, OTTERTAIL COUNTY

The unique sand spit at the north end of Ottertail Lake was the original name sake of Ottertail Lake, Rivegrand County.

The discharge of the River at this point has formed a sand spit that averages about 100 feet wide and tapers as it extends a mile in length to the southeast.

The northwestern portion of the sand bar which is called Pleasure Bark is connected to the mainland and developed with cottages. The Southeastern portion near the mouth of the river is undeveloped and forms a breakwater to protect the frontage of an area know as "Paulson's Addition."

The spit in the past has been breached from time to time by high water causing a new channel on the northwest portion of the spit. This channel has been maintained for easy lake access by property owners on this end of the river.

Some times the mouth of the river becomes blocked by sand and the river is impounded behind the southern portion of the sand suit. When this occurs the flow of the river is shunted to the lake instead of traveling the entire length of the sand bar. The flow of the river tends to improve the new channel and cause the former mouth and back water area to become blocked and form a marrow enclosed lake area.

It should be noted that property owners of "Pleasure Park" take advantage of the protected waters of the river for their boat docks and so favor the channel on the northwestern end of the sand bar because it shortens the boat run to the lake. Conversely, the residences of Paulson's addition are concerned about the still water and back of lake access caused by the blocked channel in the bay behind the sand bar.

In 1969 permit P.A. 69-1203 was issued to Clarence Paulson to reopen the original channel, block the existing channel, and improve 5000 feet of the channel.

Public sentiment and a subsequent letter from Mr. Paulson requested that the northern channel continue to be kept open. Morria T. Eng Page 2 February 26, 1975

Compounding the situation is the fact that there is not sufficient flow of water in the river during low river stages to maintain the outlets and so the up river opening tends to become dominant.

It is reported that ercsion of the sand bar is now occurring. Regional Hydrologist Jerry Paul has been contacted by local residences about a plan for stabilizing the split with timbers (estimated cost \$3,000.00 for 500-700 feet of timbering).

Representative Wee Graba has also been reported to be willing to sponsor a bill to preserve the area as a historic site.

This raises the questions:

- 1. Does DNR wish to become involved in stabilizing the sand bar. Under "natural conditions" the spit has maintained it self since man has settled in the area. A deposit such as a spit is slavet a living thing which under natural conditions deposits sand at one time and removes it at another.
- What effect, if any, does the new channel have on altering the deposition patherns that formed and maintained the spit originally.

The following permits have been issued in regard to this matter:

P.A. 73-4011 - Memo dated April 17, 1973 G. Paul to L. Saynour -To construct a breakwater - permit denied - "The proposed work would transform the appearance of this natural phenomena into a vertical wall navigation channel." "It would seem to be more important to preserve this unique natural feature for the benefit of the overall public than to alter it for the comvenience of a comparitive few in a new development plat,... therefore, he (Mr. Paulson) should be consigned to the fact that it was his choice to develop land in an area having inherent flow problems and should accept on that basis."...

P.A. 69-1203 - Re-open original channel and block existing opening and improve 5000 feet of channel - application submitted by Clarence Paulson - Subsequent letter by Paulson requested that northern channel also be kept open.

P.A. 69-1249 - Applicate James Merickel - To return river to its original course and open original mouth.

P.A. 61-531 - River breached sand bar in 1958, original mouth closed off. James Ahl?, Ottertail Village council akked that original outlet be restored.

August 13, 1970

12-12

Minnesota Conservation Department Division of Waters, Soils & Minerals Centennial Building Saint Paul, Minnesota 5101

Re: Permit No. 69-1249

Gentlemen:

in accordance with the Ottertail Lake Property Owners Association and the Conservation Department, we would like the original permit amended as follows:

Instead of closing the channel from the river into Ottertail Lake, we will leave an opening 16 ft. in width and approximately four to five feet in depth to permit boat passage. This opening will be reinforced with rock as well as the banks on each side of this opening.

The purpose of this request for amendment is to furnish property owners lake access nearer their respective property lines.

This work will be done by a local contractor and shall be completed early this fall.

Sincerely,

Clarence R. Paulson tuna James Merickel

August 25, 1970

69- 12-3

Dept. of Conservation Division of Lands & Minerals Centennial Office Building Saint Paul, Minnesota

Re: Permits No. 16-1203 and 16-1249

Gentlemen:

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In accordance with the Ottertail Lake Owners Association, improvements are planned as follows:

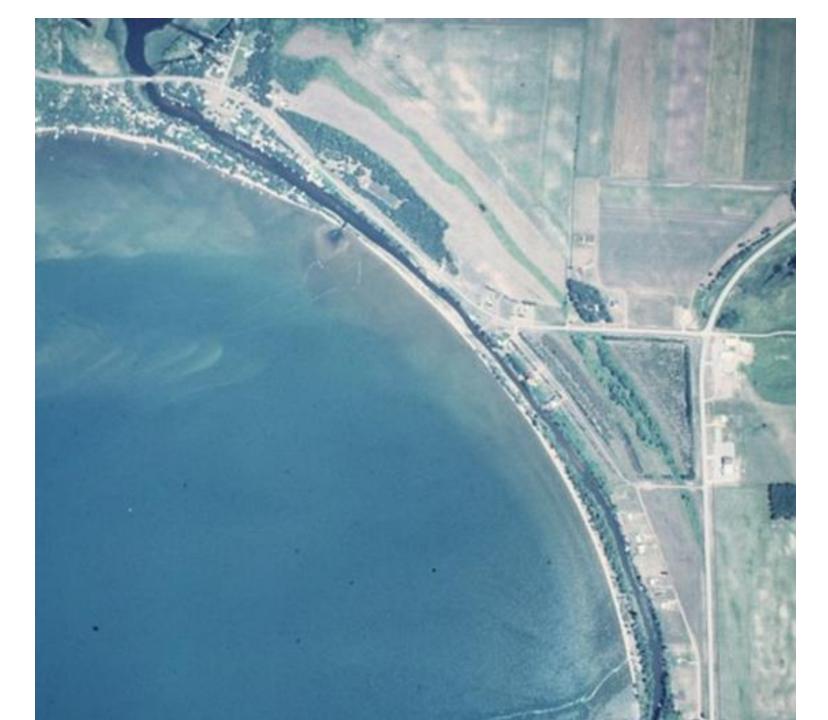
- This opening will be reduced to a width of 16 ft, and a depth of approximately 4' to 5'. This opening will be reinforced with rock as well as the banks on each side. The peninsula north of this opening will be reinforced with rock on the lake side to prevent further erorsion.
- This section of the river will have a uniform width of 50 ft.
- This section of the river has an area approximately 50 ft. wide and 100 ft. long which will require removal of material from the river beds to a depth of 4 ft. The present depth is approximately 2 feet.
- This opening will have an overall depth of 4 feet and will be reinforced on the south side by rock.

Yours very truly,

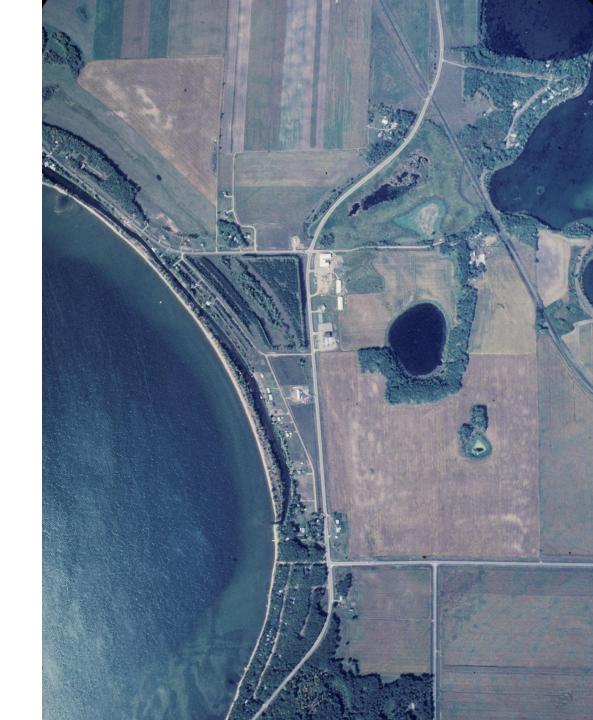
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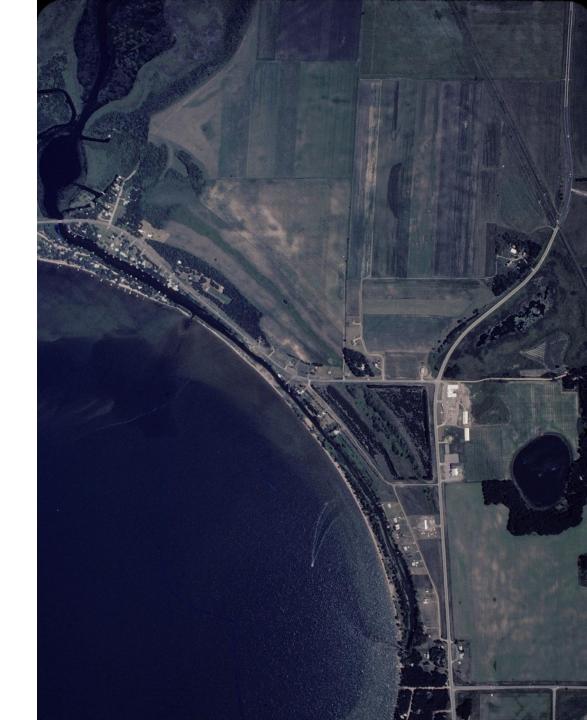
Clarence R. Paulson

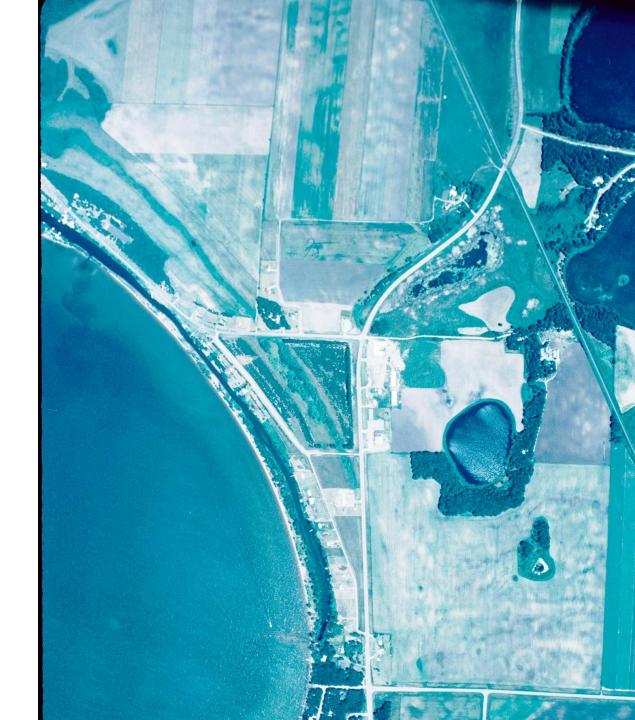


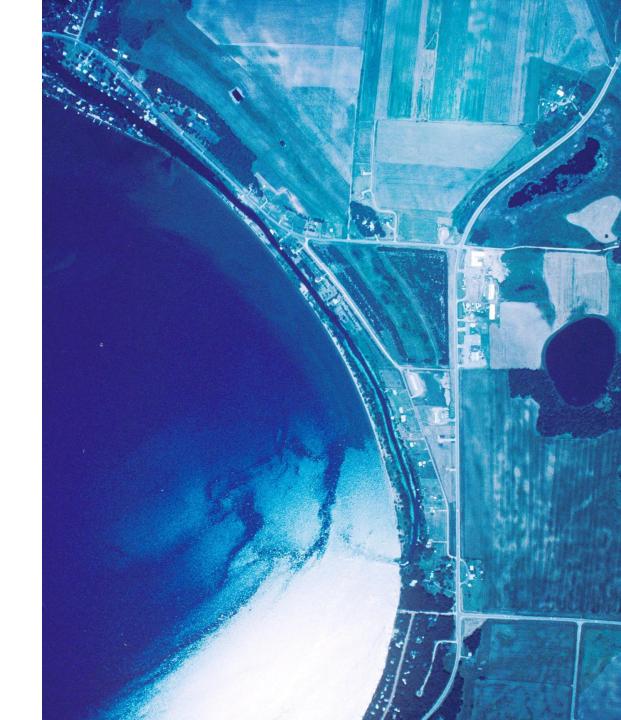


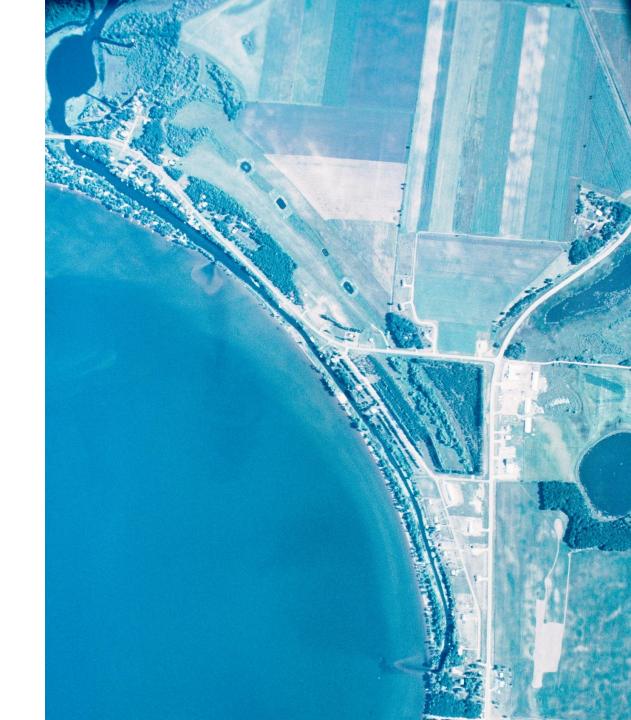


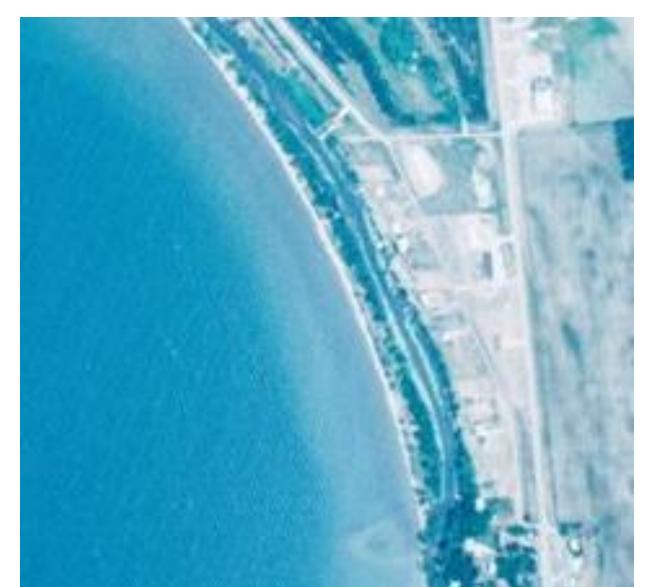


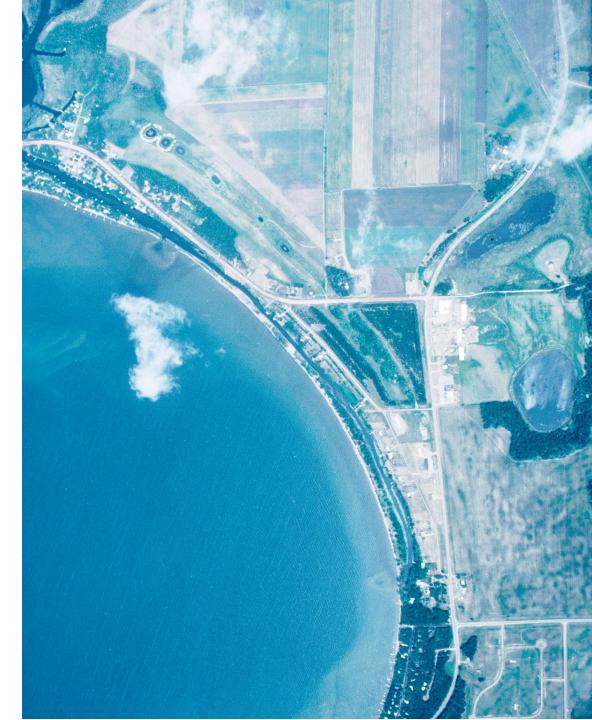




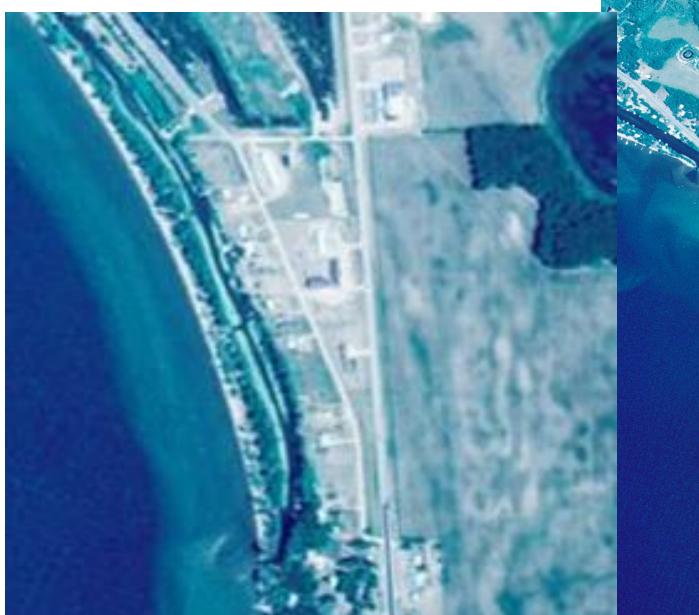








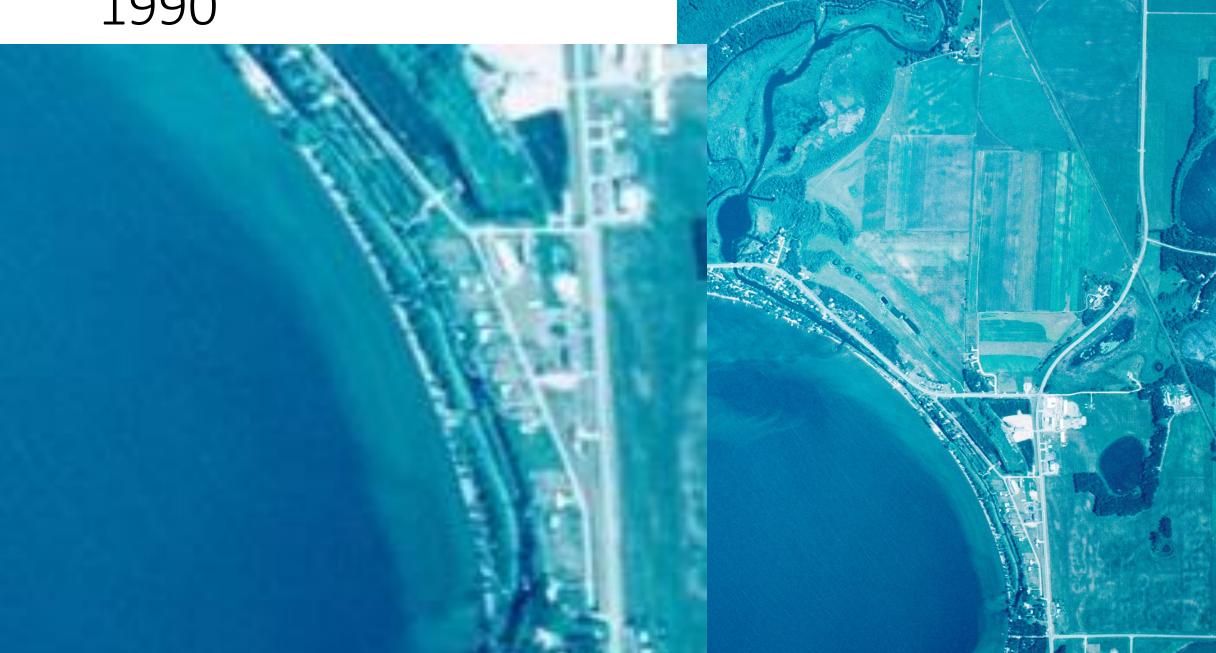




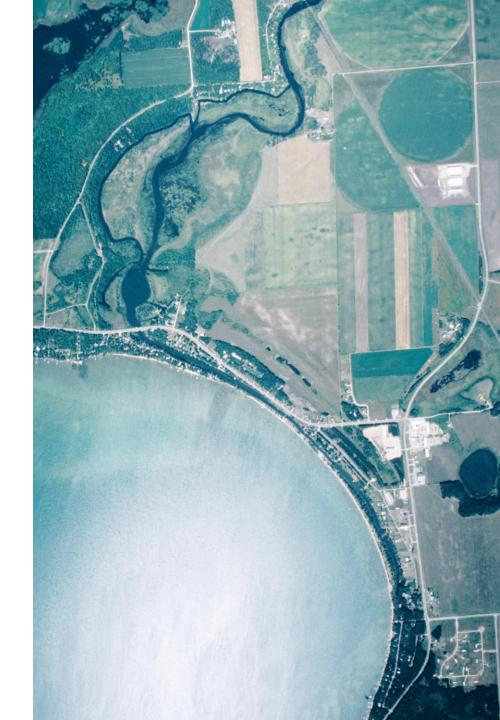




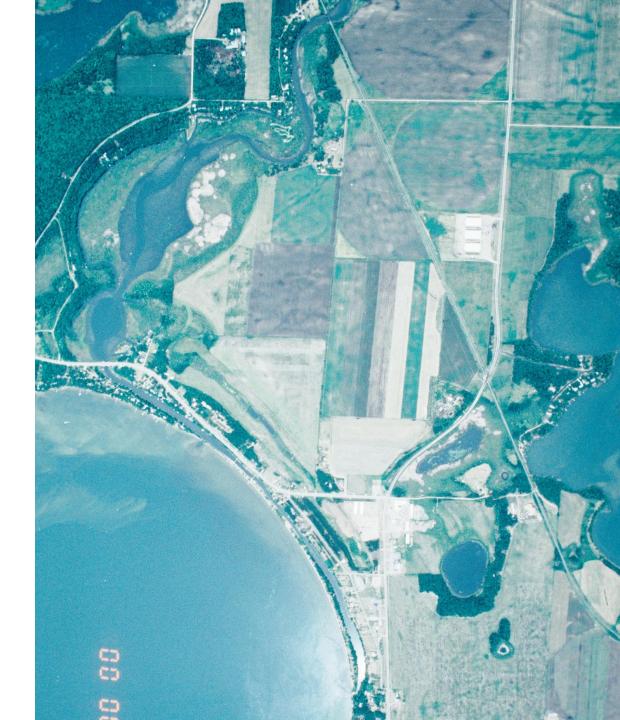


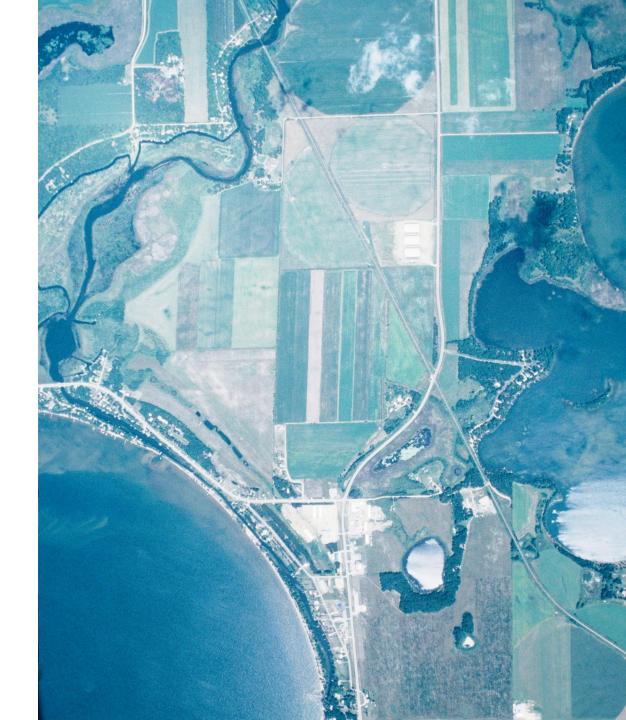






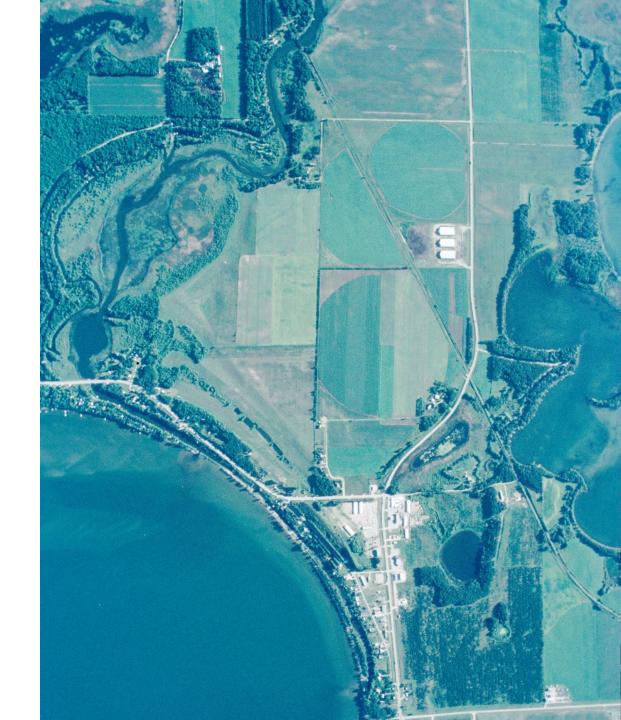




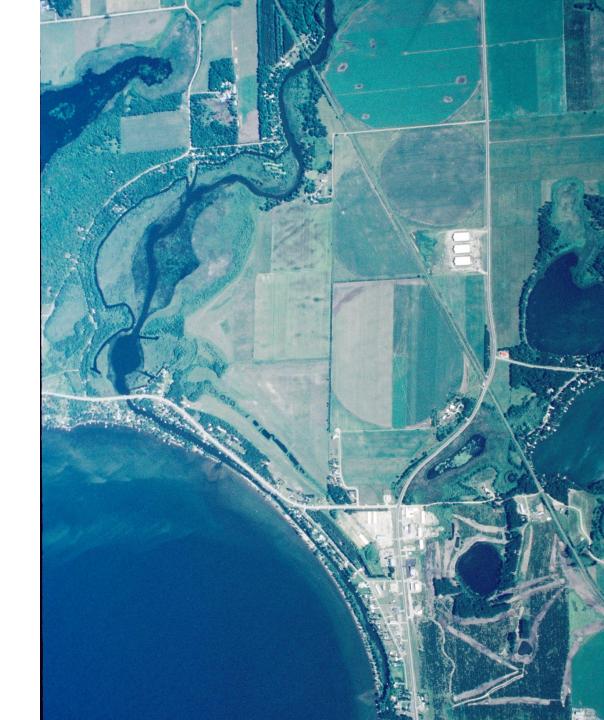




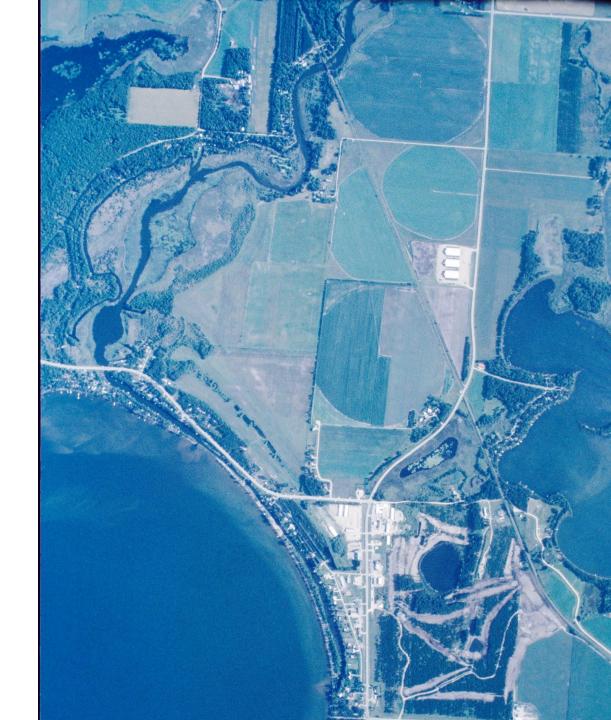


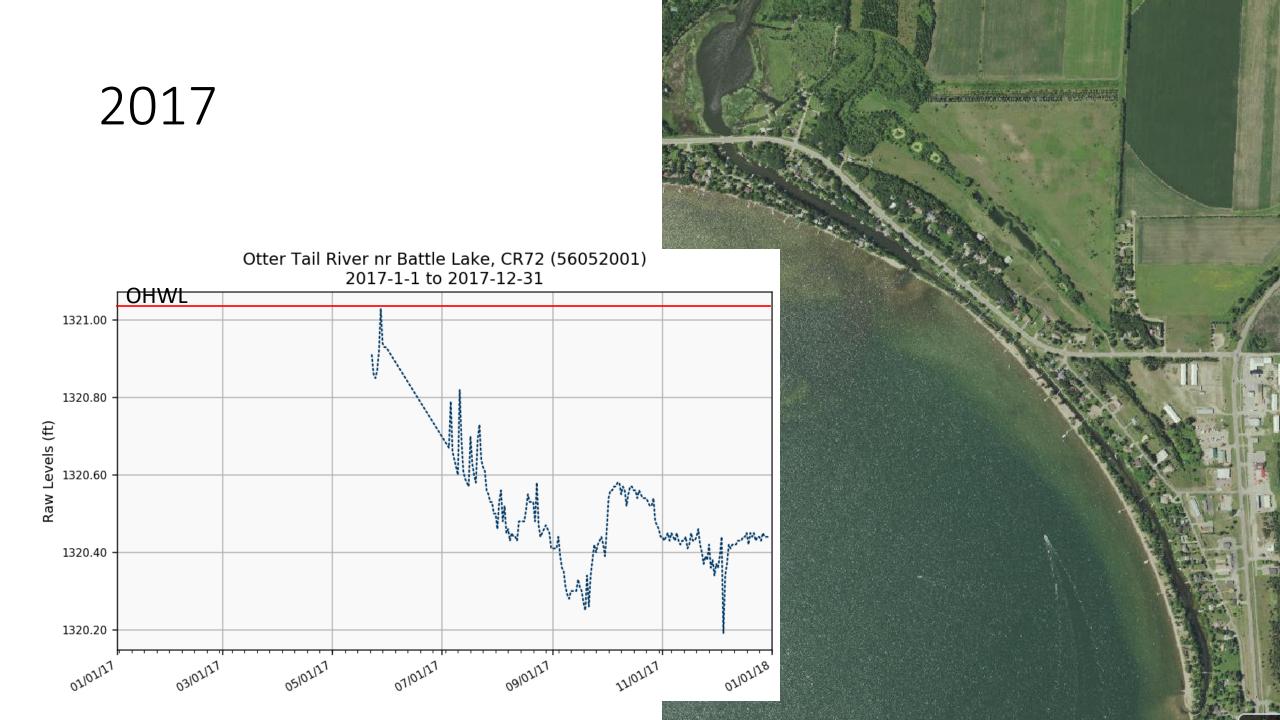


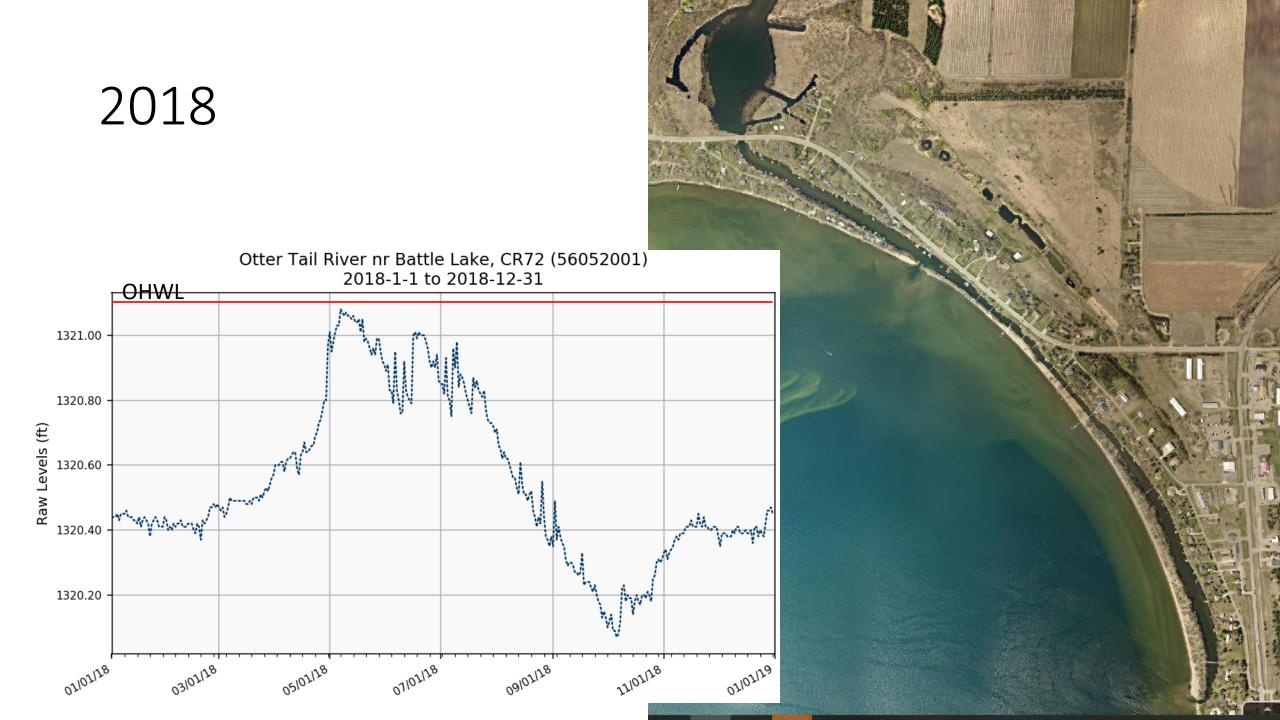
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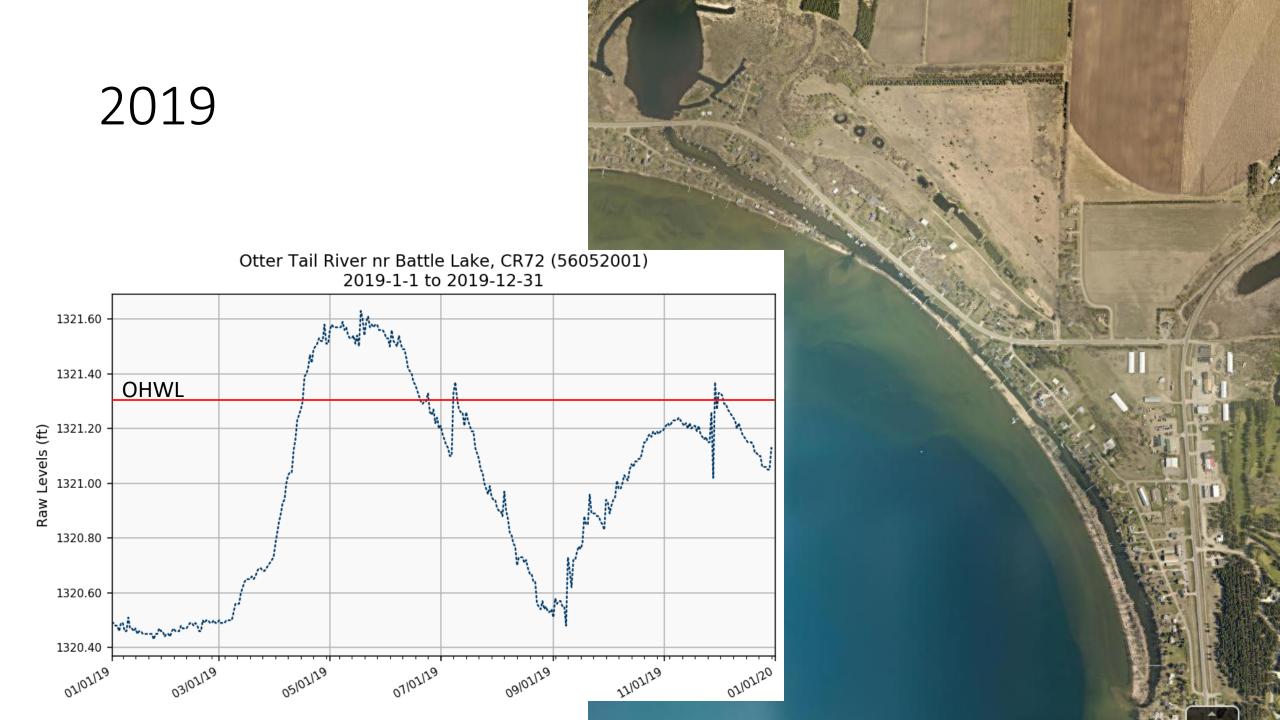


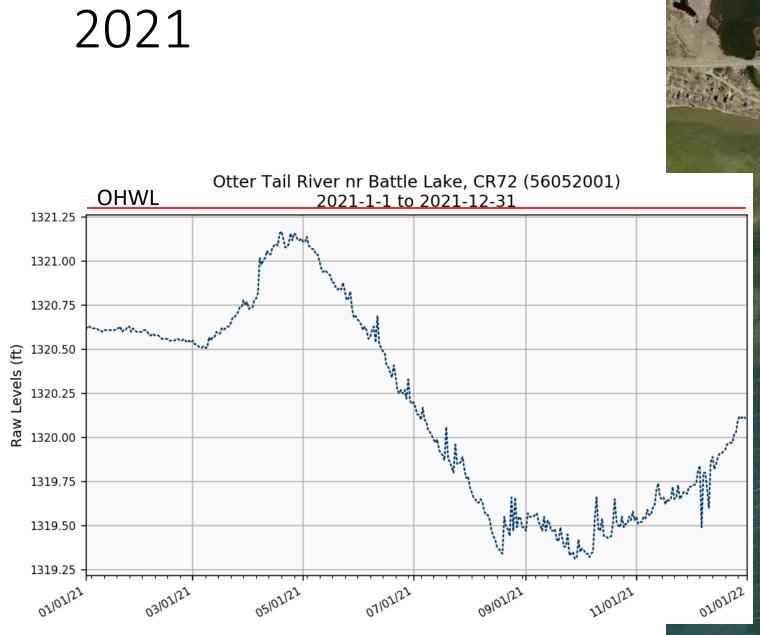
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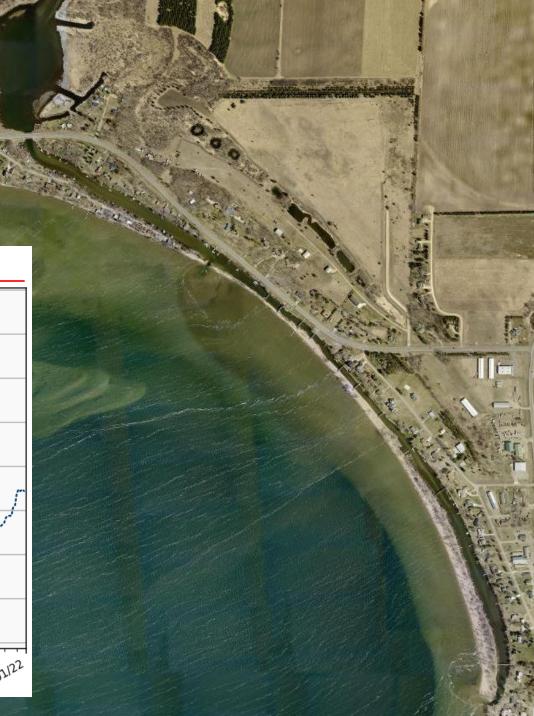


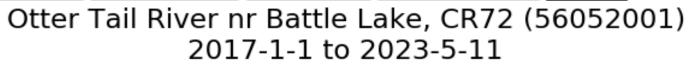


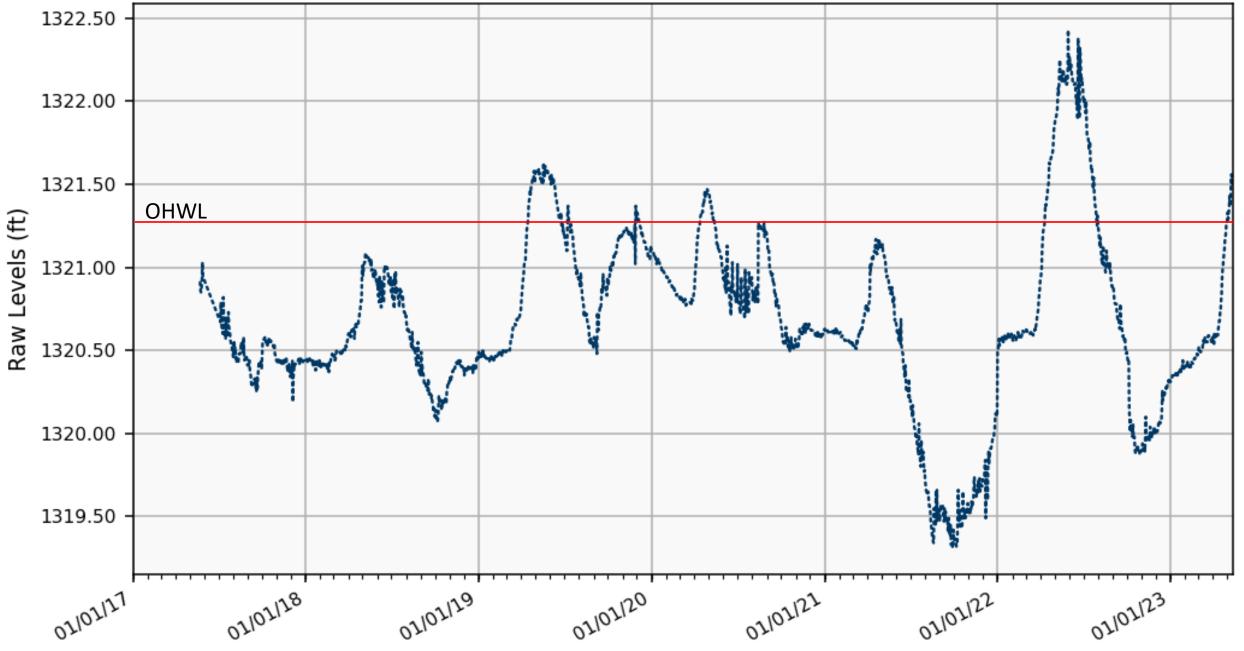












### Otter Tail River Ordinary High Water Level: 1321.30 (MSL 1912) Period of record- 1919-2022

 Recorded Water Level Elevations

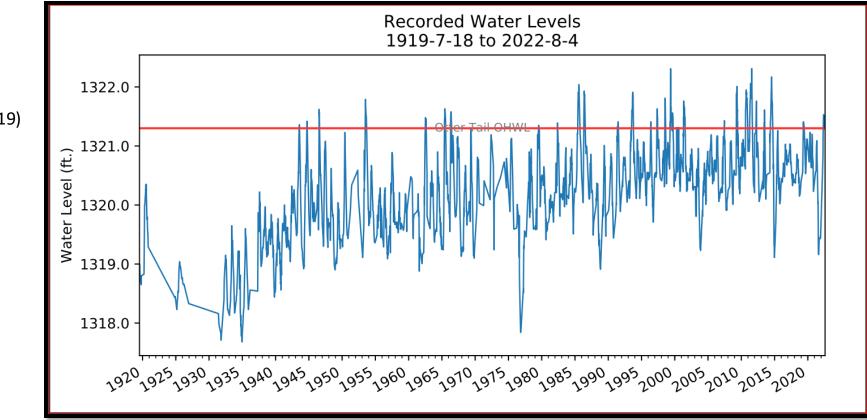
 Beginning Elevation: 1318.95 (07-18-1919)

 Ending Elevation: 1320.63 (08-04-2022)

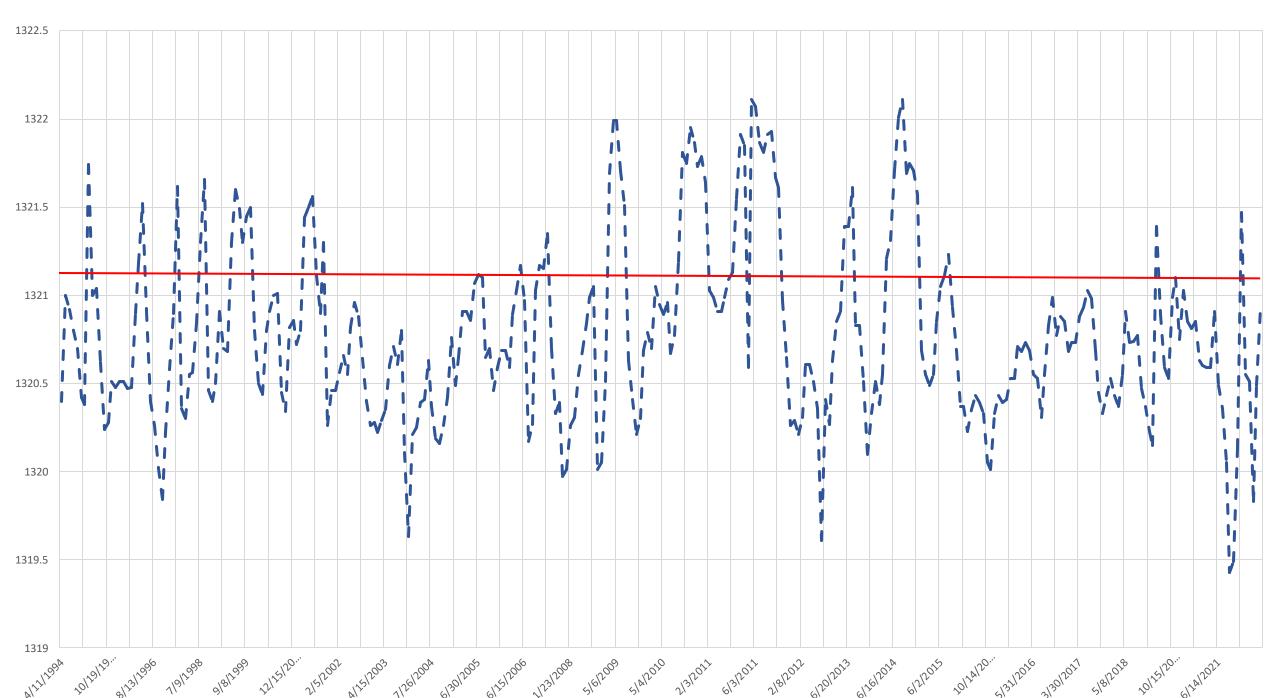
 Highest Recorded: 1322.31 (08-01-2011)

 Lowest Recorded: 1317.68 (12-18-1934)

Number of Readings: 3,691



#### Otter Tail Lake Water Level 1994-2023



# Breakout Groups

- Answer the following question:
  - What are the issues with the channel?



# Issues Identified by Citizens

- No flow after mid-June to July at south end
- Water gets stagnant, sandbar grows
- The original mouth is three times shorter distance than north mouth to deeper water
- Water fluctuates up and down
- Water stagnate in the wintertime
- Weeds from ag runoff
- Who controls the levels from the dams upstream?

## • The weeds in the river, slows the flow of water, silt builds up

- If the first mouth is closed, would another break occur elsewhere
- Access and navigation
- Water quality on south section is poor late in the season
- Riparian rights
- Weeds, muck, low levels, access
- Shallow spots, water quality, navigation
- Weeds in river, trash in river

- Lack of flow, unnavigable
- Wild rice infestation, zebra mussels, excessive watercrafts
- Rush lake dam-maintain as is
- Flow, navigation, vegetation, can't get out
- Wild rice, water level fluctuations, sand and muck, rush lake
- Weeds between both openings are a concern later in the season
- Wild rice is out of control
- South end is a nightmare later in the summer

- Channels clogged with muck and wild rice
- Flow, weed growth makes channel unnavigable
- Sediment in channel
- Ease of navigation
- Water fluctuation
- Floating bogs
- Lack of flow, too much vegetation
- Invasive vegetation?

