

NOVEMBER 2025

Paul,

Thank you for providing additional background information regarding this issue. A few of us at WisDOT were able to meet internally last Friday to discuss. Based on that meeting, here are some notes for you:

1. The culvert under STH 70 was upsized by WisDOT when the road was repaired (1968), but the elevation of the existing culvert was not changed during that replacement according to our staff. There was roadway fill placed, but this fill placement would not have changed drainage patterns as long as the culvert was set at the same elevation as before. I don't personally have a copy of that survey data, but we should be able to get that to you (if needed).
2. Historic aerial photography was reviewed. I've attached aerial photography of the area between Warner Lake and Big Sand Lake from 1938, 1950, 1962, and 1980. None of these indicate an open stream channel between the two lakes. That does not mean that there was never a "flowing stream" under the highway in this location, just that if it existed, it wasn't captured in the photographs and could have been seasonal in nature.
3. The inlet from Warner Lake is called "an intermittent feeder inlet" in a 1984 DNR Fisheries report (attached for your reference – courtesy of Amy Cronk). The report mentions that culvert replacement at the outlet of Big Sand Lake (not STH 70 culvert we're talking about) before 1940 may have altered the water flow enough to eliminate wild rice that was previously common around the lake. The report also mentions that walleyes were introduced to the lake in 1935.
4. The 1984 DNR Fisheries report states (anecdotally) that the flow into Big Sand Lake from Warner Lake was permanent in the late 1960s, but that changes to the Warner Lake outlet affected the discharge rate, and also that there was a spring walleye run between the lakes until about 1970. Based on this information, it appears that there may have been a walleye run in this area for around 35 years (after walleyes were introduced in 1935 until 1970). The 1984 fish survey states that walleye "are definitely declining and probably about to disappear from the lake". The 2022 DNR Fisheries survey report (attached) states that walleye populations are purely maintained by tribal stocking (see p. 4).
5. Survey data shows that the culvert elevation was not changed when it was replaced, so the waterway flow between Warner Lake and Big Sand Lake has not been modified in a long time – sometime before 1968, and potentially since the 1930s (at least, on the outlet side close to Big Sand Lake). Since we have a functioning highway culvert in an area that isn't slated for repair/replacement for at least the next 6 years (the extent of our planning program), WisDOT does not have a directive to study this area further. However, we can provide existing data and records as requested in conjunction with your work in this area.

Thank you for including WisDOT as you look into drainage in this area, and please continue to reach out if I can be of assistance. Regards,

Pete Young, PE
Storm Water & Erosion Control Engineer
Wisconsin Department of Transportation – NW Region
718 West Clairmont Avenue, Eau Claire, WI 54701
Office: 715-836-4517 | Cell: 715-450-0953
peter.young@dot.wi.gov