



## Clearwater County Highway Department

Daniel S. Sauvé P.E.

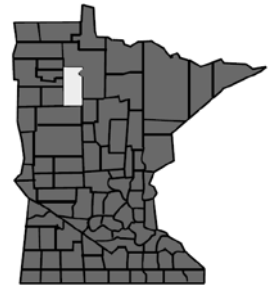
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July 22, 2015

Red Lake Watershed District  
Attn: Myron Jesme, Administrator  
1000 Pennington Ave. South  
Thief River Falls, MN 56701

Re: Judicial Ditch No. 5 Abandonment Hearing and 4 Legged Lake

Dear Myron:

In accordance with Minnesota Statutes Section 103E.811 Subd. 5, Clearwater County hereby objects to the abandonment of the drainage system on the grounds that the drainage system serves a useful purpose for the surrounding property, to our county roads, to township roads, and to the general public. We have documented damages to our road system which has occurred as a result of the unauthorized raising of the ditch outlet. Without this ditch system in place the potential damages to our road system will greatly increase and without maintenance on the ditch system it is likely our road would flood out and we would have to abandon our road which will have a great impact to the public. The County Board does agree that the outlet does not have to be restored to the original depth. As such, there are acceptable road damages that the County Board is willing to accept.

The JD 5 records show that prior to the construction of JD 5 in 1921 the water elevation of West Four Legged Lake was recorded to be approximately 1432 and East Four Legged Lake was recorded to be approximately 1433. Without the outlet constructed as part of this legal ditch system the water level has the potential to rise above elevation 1434 on West Four Legged Lake and elevation 1436 on East Four Legged Lake. If the ditch is abandoned there is a potential for the water level to rise high enough to flood out our County State Aid Highway (CSAH) 2 road at elevation 1430.6, CSAH 23 at elevation 1432.6 and 450<sup>th</sup> Street, a Dudley Township road, at elevation 1431.3. I know of three homes where if the ditch was abandoned and the water on East Four Legged Lake was allowed to rise, they would have water problems including Patricia Olson, John and Marilyn Renner, and Jonathan and Orpha Auken residences. The water level on JD 5 and the Four Legged Lake chain must continue to be controlled by a responsible agency to protect the health and welfare of the public.

It is important to note that over the years the outlet elevations of this ditch system have changed. My main concern is CSAH 2, so from here on I will just discuss the outlet elevations of West Four Legged Lake. A little history of the elevation changes as I understand it is as follows. The original outlet elevation is hard to determine due to the datum used in the early 1920's. I saw in

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one RLWD presentation that the 1921 outlet was around elevation 1421.7 plus or minus. A 1939 aerial photo shows a dry lake bed with portions of the lake being hayed; this confirms to me that the lake was drained to that elevation that matches what the original ditch plans show. A road where CSAH 2 is located was present on the dry ridge between the lakes in the 1939 photo. In 1964 CSAH 2 was reconstructed with a portion of the road moved east of its present location to higher ground. The road survey notes from March 16, 1960 shows the top of ice of the lake to be at elevation 1423.4 (1929 datum) converted to 1988 datum the elevation of top of ice is 1424.6. It appears to me that the outlet was raised sometime between 1939 and 1960 before CSAH 2 was reconstructed. I am not aware if the change made to the outlet at that time was made with or without approval of the drainage authority. The elevation I believe the outlet was raised to was approximately 1423.8 (1988 datum). This outlet elevation of 1423.8 remained until the late 1990's when the outlet was raised without any approvals. This approximate outlet elevation of 1423.8 is based on observations of the channel immediately downstream of the outlet culvert, observations that the outlet of the CSAH 2 culvert was dry, and that the old road bed used to always be dry. The outlet culvert was raised without authority of the ditch authority by the township in 1998-1999 timeframe to elevation 1427.0.

We understand that many residents do not want JD 5 lowered to the original 1921 ditch grade. However, in order to avoid damage to our road, the outlet culvert should be lowered to the approximate elevation of 1423.8 where it was prior to CSAH 2 reconstruction in 1964. This elevation remained until the outlet culvert was raised without approval in the late 1990's to elevation 1427.0. This unauthorized raising of the culvert raised the lake by 3.2 feet. The County Board is willing to accept some damage to our CSAH 2 with the higher water if the wishes of the landowners in the area are to keep the water elevation higher. The County is willing to accept a normal pool water elevation somewhere below 1427.0 with an outlet structure constructed so that water can occasionally be drained down to elevation 1423.8 at the request of the Highway Department for road maintenance purposes. It is believed that lowering the system water down to the 1423.8 elevation for road maintenance will likely only need to happen less than once every 20 years.

I understand RLWD's dilemma with a legal ditch system where the water level was raised without authority and without any hearings. I understand the landowners do not want to continue to pay into a ditch system where they may have lost part of their benefits. I understand the cost involved to the landowners to take on a redetermination of benefits for raising the system water elevation. However, just abandoning the ditch system is not the solution. The surrounding landscape, public infrastructure, and buildings have changed since the 1920's. The landowners may be willing to give up some marginal land that they farmed in the past to avoid paying into the ditch system, but too much other damage to public infrastructure and homes could occur if the ditch system is abandoned without some public agency with the authority and ability to manage the ditch system is not in place. Just abandoning the ditch system is not an option. The ditch system and its water elevations must be continue to be managed. Can this be done in a manner without spending a large sum of money to redetermine benefits? Myron tells me that the ditch system must be abandoned in order to turn it into a flood reduction project and that this abandonment proceeding is a completely separate issue. It is not a separate issue; the abandonment can only proceed if some authority has agreed to maintain the ditch system at acceptable water levels to avoid damages.

The only way Clearwater County will accept the abandonment of the ditch system is if RLWD can demonstrate and guarantee to the County that they will have legal authority to maintain the ditch system in some other format outside Minnesota Statute 103E in perpetuity at acceptable water elevations. Acceptable water levels to the County for West Four Legged Lake is to have the outlet structure constructed so that water can occasionally be drained down to elevation 1423.8 at the request of the Highway Department for road maintenance purposes. It is believed that this lowering of the system water will very infrequently have to occur to that low of an elevation, likely less than once every 20 years. The elevation of the normal pool of West Four Legged Lake is maintained somewhere below elevation 1427.0, the lower the better. If West Four Legged Lake is used as a flood reduction project the County is willing to accept a maximum water elevation for short periods of time to be maintained below 1429.0 to give us a safe freeboard on our CSAH 2. This elevation will cause damage to the road bed and in places cover some of the recovery area with water, so the duration of water placed on the road bed must be kept short to protect the road and safety of the public. The outlet structure must be designed to handle a 100 year event with the water elevation on that 100 year event not exceeding elevation 1429.6 with back to back events. The upstream basins must similarly meet acceptable water elevations to the township and the county if any changes are made. The ditch in the upstream basins must also be maintained as part of the system. If the JD 5 system is changed over to a flood reduction project it must be done perpetually and in a manner that assures that the system will continually be actively managed to control beavers and the water elevation to minimize the impact to our road system. In the past the RLWD has not been actively managing this system at great cost to Clearwater County.

To give residents an idea of what West Four Legged Lake will look like at elevation 1427, pictures of West Four Legged Lake are attached. The pictures were taken on July 16, 2015 with the lake level close to the 1427 foot elevation. Again elevation 1427 is what we can accept as the maximum normal pool. A lower normal pool would be better suited for our road and provide for more flood reduction storage. We understand that there is a push to keep the water level of West Four Legged Lake close to current levels. If the only goals were for a flood reduction project and protection of our road, a lower normal pool would be more desirable. I believe that legally the outlet could be placed back to the approximate 1423.8 elevation where it was prior to the unauthorized raising of the culvert in late 1990's.

In summary, Clearwater County objects to the abandonment of the drainage system because it must continue to be actively managed to protect our roads and the welfare of the public. We can accept some form of conversion of the complete drainage system over to a perpetual flood reduction project with an operating plan which falls into the elevation ranges discussed above and still protects the interests of our residents.

Sincerely

A handwritten signature in cursive script that reads "Dan Sauv ".

Dan S. Sauv , P.E.  
County Engineer



CENTERLINE OF 450TH STREET  
 WEST TO EAST  
 1431.33  
 1431.40  
 1431.36

CENTERLINE CULVERT ON OLD RAILROAD TRACKS  
 SOUTH SIDE  
 CULVERT INVERT: 1426.68  
 WATER: 1427.93  
 NORTH SIDE  
 CULVERT INVERT: PLUGGED BY BEAVER  
 WATER: 1429.12

TOP OF ROAD ON CSAH 23  
 SOUTH TO NORTH  
 EDGE OF SHOULDER: 1434.66  
 EDGE OF BIT: 1434.81  
 CENTERLINE: 1435.13  
 EDGE OF BIT: 1434.80  
 EDGE OF SHOULDER: 1434.72

CENTERLINE OF 263RD AVE.  
 SOUTH TO NORTH  
 1436.04  
 1436.45

CENTERLINE CULVERT ON CSAH 2  
 WEST SIDE  
 CULVERT INVERT: 1424.93  
 WATER: 1427.12  
 EDGE OF SHOULDER: 1430.61  
 EDGE OF BIT: 1430.85  
 CENTERLINE OF ROAD: 1431.66  
 EDGE OF BIT: 1432.35  
 EDGE OF SHOULDER: 1432.31  
 EAST SIDE  
 CULVERT INVERT: 1425.36  
 WATER: 1427.14

CENTERLINE CULVERT ON CSAH 23  
 WEST OF 253RD AVE  
 SOUTH SIDE  
 CULVERT INVERT: 1426.48  
 WATER: 1427.92  
 EDGE OF SHOULDER: 1436.81  
 EDGE OF BIT: 1437.03  
 CENTERLINE OF ROAD: 1437.44  
 EDGE OF BIT: 1436.84  
 EDGE OF SHOULDER: 1436.60  
 NORTH SIDE  
 CULVERT INVERT: 1426.40  
 WATER: 1427.93

WATER SOUTH OF CSAH 23  
 1429.18

CENTERLINE CULVERT ON 233RD AVE  
 WEST SIDE  
 CULVERT INVERT: 1425.98  
 WATER: 1424.50  
 CENTERLINE OF ROAD: 1434.45  
 EAST SIDE  
 CULVERT INVERT: 1426.95  
 WATER: 1427.04

CENTERLINE CULVERT ON CSAH 23  
 EAST OF 253RD AVE  
 SOUTH SIDE  
 CULVERT INVERT: 1428.51  
 EDGE OF SHOULDER: 1432.65  
 EDGE OF BIT: 1432.89  
 CENTERLINE OF ROAD: 1433.25  
 EDGE OF BIT: 1432.94  
 EDGE OF SHOULDER: 1432.57  
 NORTH SIDE  
 CULVERT INVERT: 1428.91

**CLEARWATER COUNTY**  
 Surveyed on: 7/16/15



Handwritten annotations in the top-left quadrant:  
9-51  
9-40  
A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z  
A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z

Handwritten annotations in the middle-left quadrant:  
4-40  
18

Handwritten annotations in the bottom-left quadrant:  
9-70  
4-129  
A, B, C, D, E

Handwritten annotations in the middle and bottom-right quadrants:  
A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z  
4-98  
4-71  
17  
A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z



A  
B  
C

4-23

9

F

A

G

4-43

B

C

E

D

4-31

B

C

B  
C

C

4-52

A

B

10



West Four Legged Lake from CSAH 2 Looking West



West Four Legged Lake from CSAH 2 Looking East  
Water elevation on July 16, 2015 1427.1