

Greg Bowles

From: Greg Bowles
Sent: Tuesday, February 14, 2012 11:13 AM
To: 'Steven Kummer'; Terry Maurer (terry.maurer@ci.arden-hills.mn.us)
Cc: Nick Tomczik (ntomczik@ricecreek.org); Mark Deutschman; Nancy Stowe
Subject: RE: Conference Call: Valentine Park
Attachments: HEI Frequency Analysis.pdf

Steve,

HEI completed a lake level frequency analysis for Valentine Lake using the available MnDNR lake level data from 1925-2011 (MSL 1912). The results indicate a 100-yr of around 880.1 (NAVD 88). As indicated at the bottom of the graph, a data conversion from MSL 1912 datum to NAVD 88 1988 datum was done by subtracting 1.11 feet (Source: Alan Rupnow, Ramsey County Public Works, 2-14-2012). The result of the frequency analysis are 0.6 feet lower than the reported FEMA Flood Insurance Study (June 4, 2010) 100-year elevation of 880.7 (NAVD 88) shown in Table 2 of the report. The District will enforce the more conservative 100-yr flood elevation of **880.7 (NAVD 88)** for Valentine Lake. This is the elevation that should be used in determining floodplain impacts for Valentine Park.

On a side note, the City should be aware that the Drainage Analysis completed by Bolton Menk (November 2, 2010) does not appear to take into account the datum difference between the MnDNR data and the FEMA Flood Insurance Study.

Greg Bowles

Civil Engineer

Houston Engineering, Inc.

O 763.493.4522 | D 763.493.6670 | F 763.493.5572

From: Greg Bowles
Sent: Monday, February 13, 2012 2:41 PM
To: 'Steven Kummer'
Cc: Nick Tomczik (ntomczik@ricecreek.org); Mark Deutschman
Subject: RE: Conference Call: Valentine Park

Steve,

I spoke to Mark and Nick. HEI has the spreadsheet to run the frequency analysis. Mark proposed to just have HEI run the analysis (it would take about an hour) instead of having a ½ hour conference call to discuss and provide the City with the 100-year elevation. It would be up to the City if they wanted to proceed with getting this recorded with FEMA.

Greg Bowles

Civil Engineer

Houston Engineering, Inc.

O 763.493.4522 | D 763.493.6670 | F 763.493.5572

From: Steven Kummer [<mailto:steven.kummer@ci.maplewood.mn.us>]
Sent: Monday, February 13, 2012 1:05 PM
To: Greg Bowles
Subject: Conference Call: Valentine Park

Greg:

Talked to Terry @ Arden Hills regarding conference call about Valentine Park. He's ok with 4:00pm this afternoon or 3:30pm tomorrow afternoon.

Shoot me an email and let me know what works.

Thanks,
Steve K

Steve Kummer, P.E. ~ Staff Engineer ~ City of Maplewood, Minnesota

1902 County Road B East | Maplewood, MN 55109 | <http://www.ci.maplewood.mn.us>

Direct: 651-249-2418 | Office: 651-249-2400 | Fax: 651-249-2409



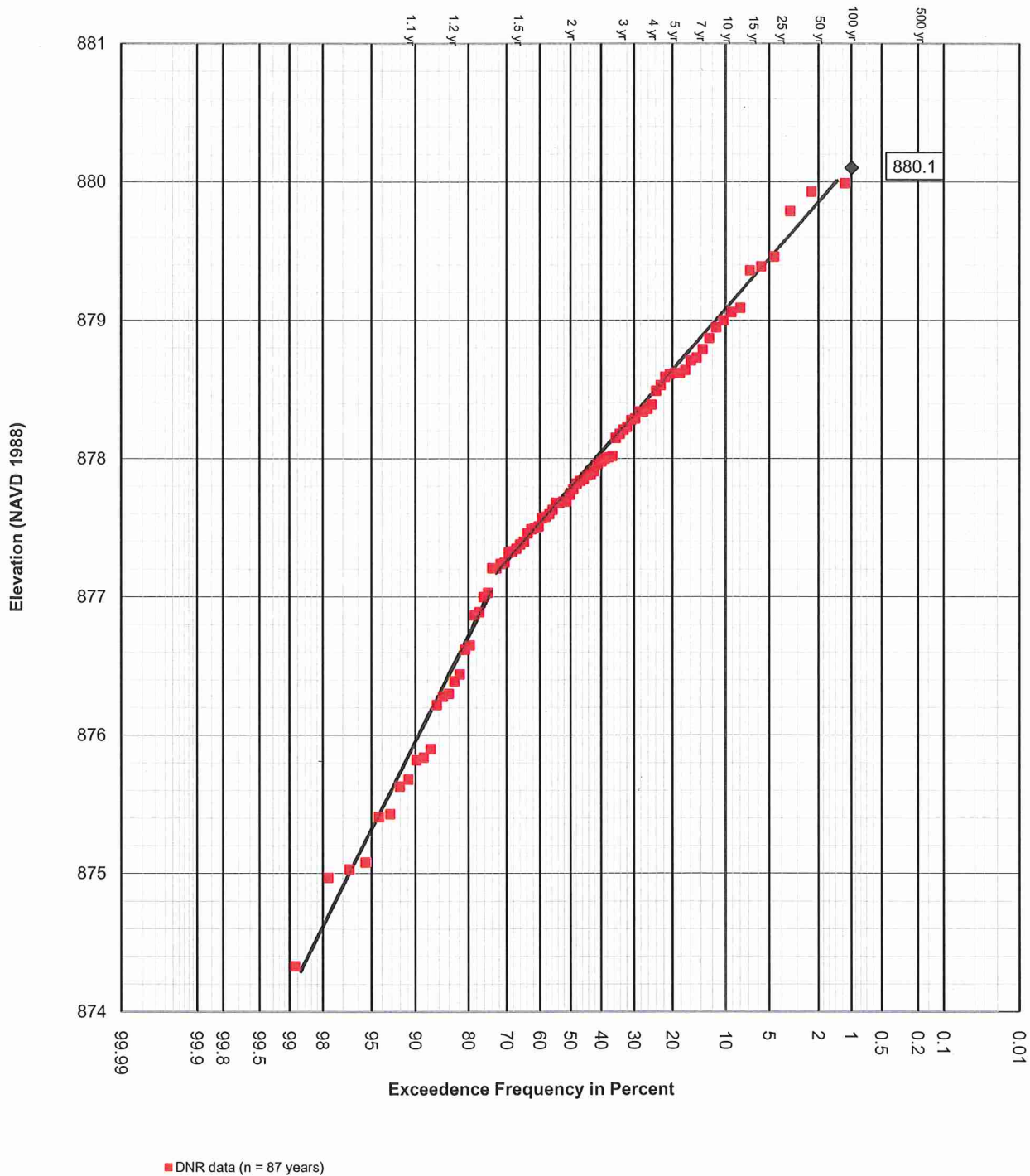
Like it **green?** Keep it on the **screen.**

Table 2 - Summary of Stillwater Elevations (*continued*)

<u>Flooding Source</u>	Water Surface Elevations (Feet NAVD ¹)			
	<u>10-Percent- Annual-Chance</u>	<u>2-Percent- Annual-Chance</u>	<u>1-Percent- Annual-Chance</u>	<u>0.2-Percent- Annual-Chance</u>
SILVERTHORN POND	890.2	890.5	890.6	891.0
SNAIL LAKE	882.8	883.1	883.3	883.7
SOUTHEAST POND	872.3	873.5	874.3	876.0
SPRING VIEW LANE POND	875.5	877.0	877.5	878.7
STONE POND	888.3	888.5	888.7	889.1
TAMARACK POND	885.9	886.4	886.6	887.0
TURTLE LAKE	892.5	892.7	892.8	892.9
TWIN LAKE	870.8	871.4	871.7	872.2
VADNAIS HEIGHTS LAKE NO. 2	*	*	889.3	*
VADNAIS HEIGHTS LAKE NO. 5	*	*	892.4	*
VADNAIS HEIGHTS LAKE NO. 6	*	*	904.4	*
VADNAIS HEIGHTS LAKE NO. 7	*	*	918.4	*
VADNAIS HEIGHTS LAKE NO. 9	*	*	912.0	*
VADNAIS HEIGHTS LAKE NO. 10	*	*	915.2	*
VADNAIS HEIGHTS LAKE NO. 11	*	*	919.6	*
VADNAIS HEIGHTS LAKE NO. 13	*	*	940.6	*
VADNAIS HEIGHTS LAKE NO. 16	*	*	893.9	*
VADNAIS HEIGHTS LAKE NO. 21	*	*	906.5	*
VADNAIS HEIGHTS LAKE NO. 22	*	*	900.5	*
VADNAIS HEIGHTS LAKE NO. 24	*	*	897.3	*
VADNAIS HEIGHTS LAKE NO. 27	*	*	908.4	*
VADNAIS HEIGHTS LAKE NO. 28	*	*	949.2	*
VADNAIS HEIGHTS LAKE NO. 29	*	*	949.2	*
VADNAIS HEIGHTS LAKE NO. 32	*	*	915.3	*
VADNAIS HEIGHTS LAKE NO. 33	*	*	903.7	*
VADNAIS HEIGHTS LAKE NO. 34	*	*	909.2	*
VADNAIS HEIGHTS LAKE NO. 35	*	*	899.8	*
VALENTINE LAKE	879.7	880.5	880.7	881.3

Preliminary Lake Level Frequency Analysis - February 14, 2012

Valentine Lake Levels (NAVD 88)
Maximum Annual Series Frequency Curve
(Weibull Plotting Positions)



Note on Datum:

MnDNR 1925-2011 data converted from MSL 1912 datum to NAVD 1988 datum by subtracting 1.11 feet.

Source: Alan Rupnow, Ramsey County Public Works, 2-14-2012.