MINNESOTA DEPARTMENT OF NATURAL RESOURCES
CENTRAL REGION
1200 WARNER ROAD
SAINT PAUL, MN 55106
651-259-5800

MNDNR

November 3, 2015

Michael Rist
29526 Erie Trail
Burtrum, MN 56318

Dear Mr. Rist:

PUBLIC WATERS PERMIT 2010-0171 – SWAN RIVER – TODD COUNTY

This letter is to address the concerns you have with culverts being installed at the stream crossing along Erie Trail. The concern you had with the additional culverts was the lowering of the water level on Big Swan Lake; upstream from Erie Trail. The following gives a summary of the permit history and follow-up after the new culverts were installed in July 2015:

Permit History:

1. Permit 2010-0171 is an after-the-fact permit for an existing culvert that replaced a bridge. The original permit required an additional 48" culvert set higher to allow water through during high flows
2. The 48" culvert should have been installed by November 30, 2011
3. In the fall of 2014 an application was made to place additional culverts at the road crossing. We reviewed the application and spoke with the Lake Association, working on behalf of the landowner, before issuing the permit on 12/11/2014
4. The permit is for the installation of two (2) - 36" corrugated metal pipe (CMP) culverts. The bottom of the new culverts were to be set 7" higher than the bottom of the existing 59" X 77" oval reinforced concrete pipe (RCP) culvert (see attached Permit 2010-0171)
5. The two CMP culverts were installed sometime in July 2015

DNR Activities after Culvert Installation:

1. We received a complaint about fill and erosion control issues when these culverts were installed.
2. We inspected the site on 07/23/15 and 08/05/15. During the second visit we noted the work needed to fix the issues was done.
3. On 07/30/15 we surveyed all culverts at Erie Trail as well as the stream approximately 300 feet upstream of the culverts. Survey information is attached and all elevations are in NGVD 1929 datum:
    a. The outlet to Big Swan Lake is at 1191.10 feet, an old dam sill approximately 1450 feet upstream of Erie Trail
    b. The bottom of the existing RCP culvert is at 1189.62 feet on the upstream side
    c. New culvert upstream elevations – bottom of the new right 36" CMP is at 1190.47; bottom of the new left 36" CMP is at 1190.23 feet
4. Big Swan Lake levels were taken on the dates listed below:
    a. On 07/30/15 Big Swan was at 1192.88 feet
    b. On 08/14/15 Big Swan was at 1193.45 feet
    c. On 09/10/15 Big Swan was at 1192.85 feet
    d. See also attached graph of water levels from 1998 to the last reading on 09/10/15
5. Average recorded water level from 431 readings is 1193.31 feet. The last recorded elevation from 09/10/15 was about 6 inches lower than average. See attached hydrograph showing normalized water levels

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6. Review of the most current lake readings show water levels are not abnormally low based on historic water level records for Big Swan Lake

Conclusions:

1. The bottom of the new culverts range from 7.30 to 10.20 inches higher than the bottom of the existing culvert at the crossing, and were installed correctly.
2. The lake outlet control (old dam sill) is approximately 1400 feet upstream and 0.63 to 1.48 feet higher than the bottom of the culverts at the crossing.
3. The new culverts will not lower average water levels at Big Swan Lake.

The DNR considers the actions authorized under Permit 2010-0171 to be in compliance with State Public Waters Rules. Please contact me with further questions at (320) 616-2450 ext 234 or kenneth.zeik@state.mn.us. I have also copied other property owners on the lake who have asked for this data, as well as the permittee and agent. I hope this has clarified concerns with this permit.

Sincerely,

Ken Zeik
Area Hydrologist
16543 Haven Road
Little Falls, MN 56345

Enclosures: Permit 2010-0171, DNR Survey Information, Water Level Hydrograph, Normalized Water Level Hydrograph

cc: Rhonda Friese – DNR Conservation Officer
Tim Steiber – Todd County Planning and Zoning/SWCD Director
Frank Becker
Denny Harder
George Brezinka

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MINNESOTA DEPARTMENT OF NATURAL RESOURCES

Amended

Public Waters Work Permit

Expiration Date: 11/30/2015

Permit Number

2010-0171

Pursuant to Minnesota Statutes, Chapter 103G, and on the basis of statements and information contained in the permit application, letters, maps, and plans submitted by the applicant and other supporting data, all of which are made part hereof by reference, **PERMISSION IS HEREBY GRANTED** to the applicant to perform actions as authorized below. This permit supersedes the original permit and all previous amendments.

Project Name:	**County:**	**Watershed:**	**Resource:**
Larson Culvert	Todd	Mississippi River - Brainerd	Stream/River: Swan River (SwR) (77025a)

Purpose of Permit:	**Authorized Action:**
Culvert Construction/Modification/Replacement	Installation of 2 X 36" CMP culverts, with inverts to be placed 7" higher than the invert elevation and on either side immediately adjacent to the existing 59" X 77" oval RCP. Project to adhere to plans received 07/11/2014 and Conditions herein.

Permittee:	**Authorized Agent:**
FRANK BECKER 29833 COUNTY 13 BURTRUM, MN 56318 (320) 732-2252 jbecker1238@gmail.com	DENNIS HARDER 17728 DOGWOOD LOOP GREY EAGLE, MN 56336 (651) 343-0052 denny.harder@usa.net

Property Description (*land owned or leased or where work will be conducted*):

UTM zone 15N, 364522m east, 5085601m north,
NESE of Section 8, T128N, R32W

Authorized Issuer:	**Title:**	**Issued Date:**	**Effective Date:**	**Expiration Date:**
Kenneth Zeik	Area Hydrologist	12/11/2014	12/11/2014	11/30/2015

This permit is granted **subject to** the following **CONDITIONS**:

APPLICABLE FEDERAL, STATE, OR LOCAL REGULATIONS: The permittee is not released from any rules, regulations, requirements, or standards of any applicable federal, state, or local agencies; including, but not limited to, the U.S. Army Corps of Engineers, Board of Water and Soil Resources, MN Pollution Control Agency, watershed districts, water management organizations, county, city and township zoning.

NOT ASSIGNABLE: This permit is not assignable by the permittee except with the written consent of the Commissioner of Natural Resources.

NO CHANGES: The permittee shall make no changes, without written permission or amendment previously obtained from the Commissioner of Natural Resources, in the dimensions, capacity or location of any items of work authorized hereunder.

SITE ACCESS: The permittee shall grant access to the site at all reasonable times during and after construction to authorized representatives of the Commissioner of Natural Resources for inspection of the work authorized hereunder.

TERMINATION: This permit may be terminated by the Commissioner of Natural Resources at any time deemed necessary for the conservation of water resources of the state, or in the interest of public health and welfare, or for violation of any of the conditions or applicable laws, unless otherwise provided in the permit.

COMPLETION DATE: Construction work authorized under this permit shall be completed on or before the date specified above. The permittee may request an extension of the time to complete the project by submitting a written request, stating the reason thereof, to the Commissioner of Natural Resources.

CONDITIONS continued on next page...

CONDITIONS (*Continued from previous page*)

WRITTEN CONSENT: In all cases where the permittee by performing the work authorized by this permit shall involve the taking, using, or damaging of any property rights or interests of any other person or persons, or of any publicly owned lands or improvements thereon or interests therein, the permittee, before proceeding, shall obtain the written consent of all persons, agencies, or authorities concerned, and shall acquire all property, rights, and interests needed for the work.

PERMISSIVE ONLY / NO LIABILITY: This permit is permissive only. No liability shall be imposed by the State of Minnesota or any of its officers, agents or employees, officially or personally, on account of the granting hereof or on account of any damage to any person or property resulting from any act or omission of the permittee or any of its agents, employees, or contractors. This permit shall not be construed as estopping or limiting any legal claims or right of action of any person other than the state against the permittee, its agents, employees, or contractors, for any damage or injury resulting from any such act or omission, or as estopping or limiting any legal claim or right of action of the state against the permittee, its agents, employees, or contractors for violation of or failure to comply with the permit or applicable conditions.

EXTENSION OF PUBLIC WATERS: Any extension of the surface of public waters from work authorized by this permit shall become public waters and left open and unobstructed for use by the public.

WETLAND CONSERVATION ACT: Where the work authorized by this permit involves the draining or filling of wetlands not subject to DNR regulations, the permittee shall not initiate any work under this permit until the permittee has obtained official approval from the responsible local government unit as required by the Minnesota Wetland Conservation Act.

CONTRACTOR RESPONSIBILITY: The permittee shall ensure the contractor has received and thoroughly understands all conditions of this permit. Contractors must obtain a signed statement from the property owner stating that permits required for work have been obtained or that a permit is not required, and mail a copy of the statement to the regional DNR Enforcement office where the proposed work is located. The Landowner Statement and Contractor Responsibility Form can be found at: http://www.bwsr.state.mn.us/wetlands/wca/index.html#general.

INVASIVE SPECIES - EQUIPMENT DECONTAMINATION: All equipment intended for use at a project site must be free of prohibited invasive species and aquatic plants prior to being transported into or within the state and placed into state waters. All equipment used in designated infested waters, shall be inspected by the Permittee or their authorized agent and adequately decontaminated prior to being transported from the worksite. The DNR is available to train inspectors and/or assist in these inspections. For more information refer to the "Best Practices for Preventing the Spread of Aquatic Invasive Species" at http://files.dnr.state.mn.us/publications/ewr/invasives/ais/best_practices_for_prevention_ais.pdf. Contact your regional Invasive Species Specialist for assistance at www.mndnr.gov/invasives/contacts.html. A list of designated infested waters is available at http://files.dnr.state.mn.us/eco/invasives/infested_waters.pdf. A list of prohibited invasive species is available at www.mndnr.gov/eco/invasives/laws.html#prohibited.

EROSION AND SEDIMENT CONTROL: In all cases, methods that have been determined to be the most effective and practical means of preventing or reducing sediment from leaving the worksite shall be installed in areas that slope to the water and on worksite areas that have the potential for direct discharge due to pumping or draining of areas from within the worksite (e.g., coffer dams, temporary ponds, stormwater inlets). These methods, such as mulches, erosion control blankets, temporary coverings, silt fence, silt curtains or barriers, vegetation preservation, redundant methods, isolation of flow, or other engineering practices, shall be installed concurrently or within 24 hours after the start of the project, and will be maintained for the duration of the project in order to prevent sediment from leaving the worksite. DNR requirements may be waived in writing by the authorized DNR staff based on site conditions, expected weather conditions, or project completion timelines.

EROSION AND SEDIMENT CONTROL - SILT CURTAIN: Any work below the water level shall be encircled by a flotation sediment curtain to prevent sediment from being transported beyond the construction site. An example of an appropriately constructed silt curtain is illustrated in Chapter 6.32 Treatment Measures: Flotation Silt Curtains, found in the document Protecting Water Quality in Urban Areas (2000), at www.pca.state.mn.us/index.php/view-document.html?gid=7157. Curtain should be held close to shoreline, encircling the work area, and not interfere with main flows in channels. The barrier shall be removed upon completion of the work after the silt has settled.

FISHERY PROTECTION - EXCLUSION DATES: No activity affecting the bed of the protected water may be conducted between April 1 and June 30, to minimize impacts on fish spawning and migration. If work during this time is essential, it shall be done only upon written approval of the Area Fisheries Manager. See contact list at: http://files.dnr.state.mn.us/fisheries/management/dnr_fisheries_managers.pdf. Should work begin elsewhere in the project area within these dates, all exposed soils that are within 200 feet of Public Waters and drain to those waters must complete erosion control measures within 24 hours of its disturbance to prevent sediment from entering Public Waters.

CONDITIONS continued on next page...

CONDITIONS (*Continued from previous page*)

MAINTENANCE: Maintenance of this project to originally authorized conditions may be authorized by amendment to this permit.

AS-BUILT INFORMATION: Upon project completion, as-built elevations on all culverts, new and existing, and a location map shall be submitted. Elevations shall be listed in NGVD 1929 datum, benchmark to be used is the upstream invert (bottom) of the concrete culvert located downstream on County Road 13 (upstream invert elevation = 1188.81 NGVD 1929).

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cc: Dan Lais, EWR District Manager
Rhonda Friese, Conservation Officers, Long Prairie
John Overland, BWSR Wetland Specialists, Todd
Erica Hoaglund, DNR Regional Nongame Specialists, Central - North
Brooke Haworth, DNR Regional Environmental Assessment Ecologist, Region 3
Beau Liddell, DNR Wildlife, Little Falls
Eric Altena, DNR Fisheries, Little Falls Area
Linda Bleess, County, Todd
Rob Maroney, Corps of Engineers, Todd
Tim Stieber, SWCD, Todd SWCD
Greg Ostrowski, SWCD, Todd SWCD

All elevations in NGVD 1929

Benchmark	1201.39
HI	6.05
HI_1	1207.44
TP 1	-11.17
BM_2	1196.27
HI	4.93
HI_2	1201.2

Stream Profile

50	12.39	1188.81
100	11.71	1189.49
150	11.03	1190.17
200	10.9	1190.3
300	10.88	1190.32

300	1190.32
200	1190.3
150	1190.71
100	1189.49
50	1188.81
0 (US INV)	1189.62

Lake Outlet-located approx 1450' upstream of crossing
1191.1

Right "East" New 36" CMP

New v Existing Elevaiton Difference

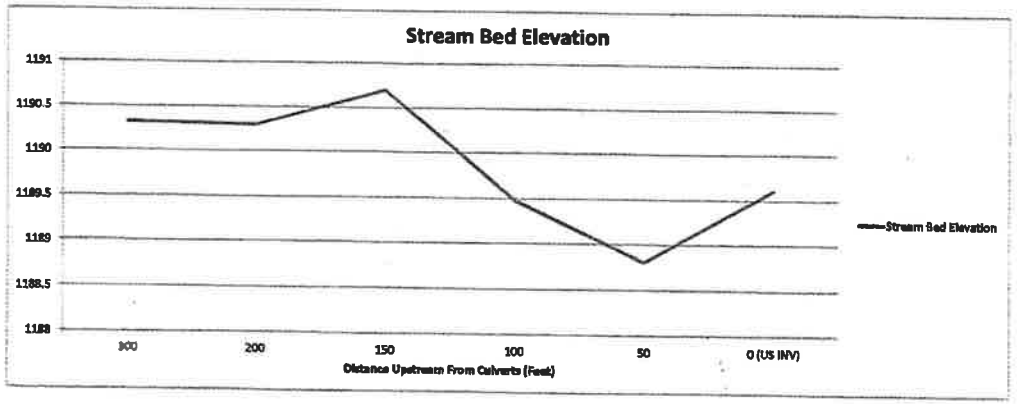
US Inv	10.79	1190.47	0.85	10.2" higher than existing
US Top	7.58	1193.62		
DS Inv	11.25	1189.95	0.32	
DS Top	8.23	1192.97		

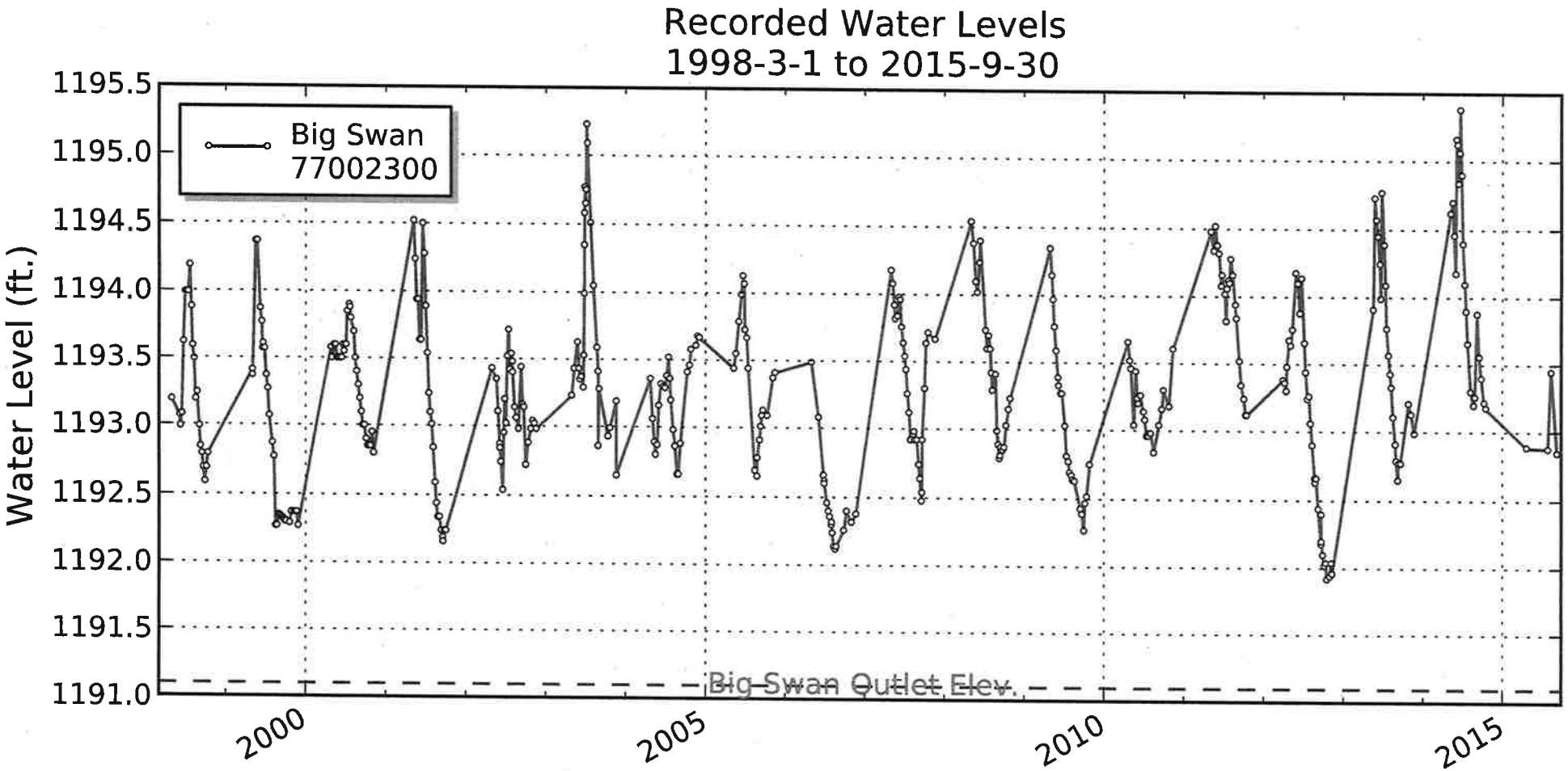
Center 60" CMP (Existing)

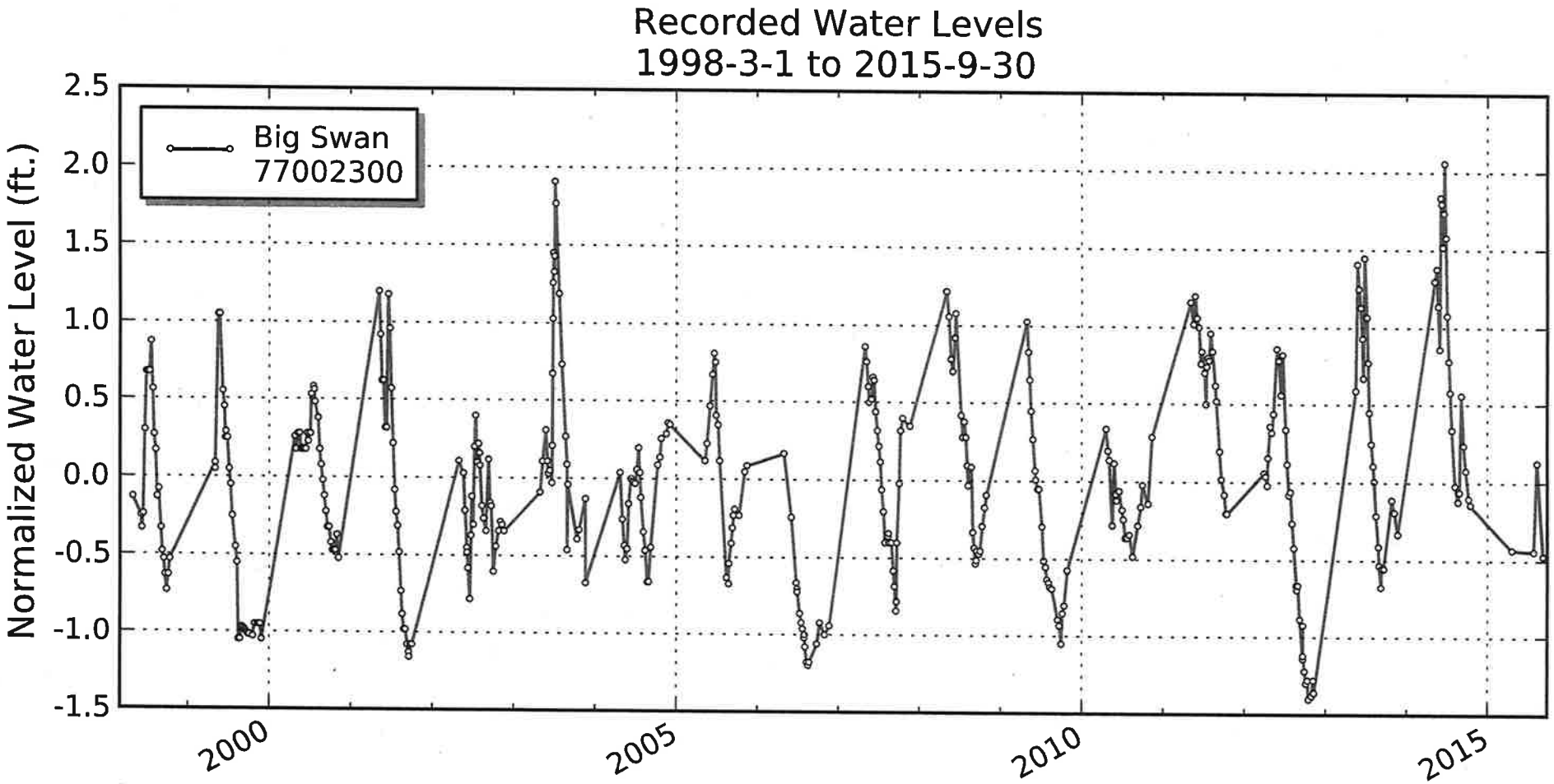
			1.48	17.76
US Inv	11.58	1189.62		
US Top	6.78	1194.42		
DS Inv	11.57	1189.63		
DS Top	6.72	1194.48		

Left "West" New 36" CMP

US Inv	10.97	1190.29	0.61	7.32" higher than existing
US Top	7.88	1193.32		
DS Inv	10.77	1190.49	0.8	
DS Top	7.79	1193.41		




Recorded Water Levels
1998-3-1 to 2015-9-30
Big Swan
77002300
Water Level (ft.)
1195.5
1195.0
1194.5
1194.0
1193.5
1193.0
1192.5
1192.0
1191.5
1191.0
Big Swan Outlet Elev.
2000
2005
2010
2015


Recorded Water Levels
1998-3-1 to 2015-9-30
Big Swan
77002300
Normalized Water Level (ft.)
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
2000
2005
2010
2015