



Swan Lake Raise

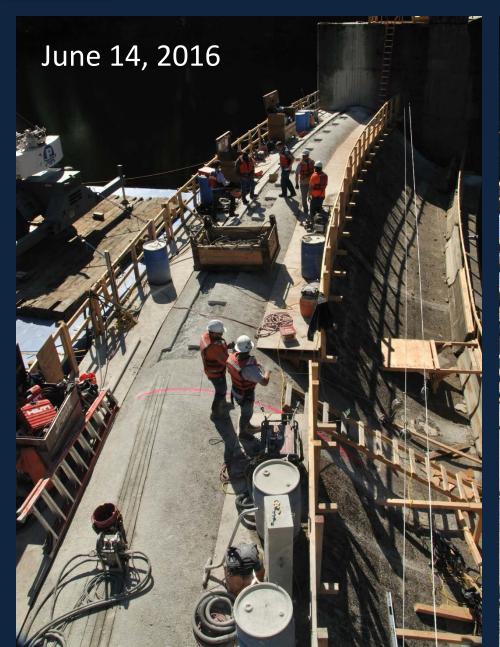
April 2015-Sucessful Model Testing accepted by BOC May 2015-License Amendment expected March 2015, late due to FERC Legal review caused by APT intervention June 2015 Signed contract with MCM/Jacobs for 100% August 2015- FERC License Amendment Issued November 2015-Flashboard Design Build Contract negotiated January 2016- Vertical Gate design build Contract Issued January 2016-Issued Construction Contract for Bid March 2016-Delay caused by IMCo failed Bid Process April-May Conformed Contract with PPM May 22- Swan Lake stops spilling June-Initial Survey work, safety barriers July-August Civil Construction August 2, Kunz Equipment delivered to site September 2016- Flashboard and vertical gate installation End of April-Beginning of May 2016







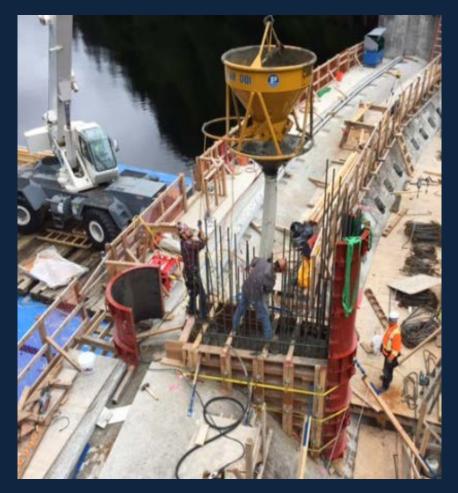
Swan Lake Raise-Concrete Demolition







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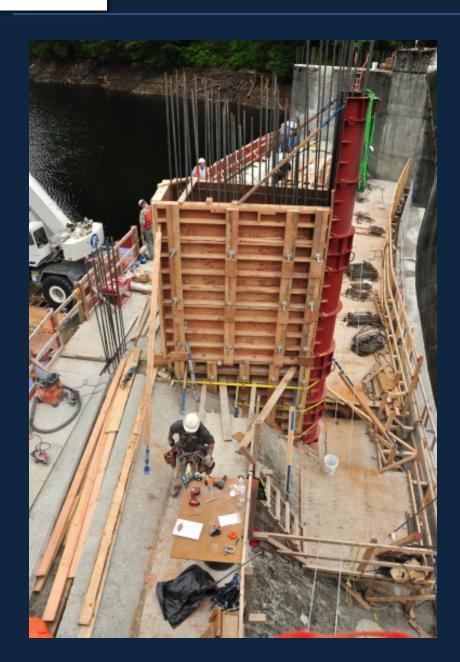


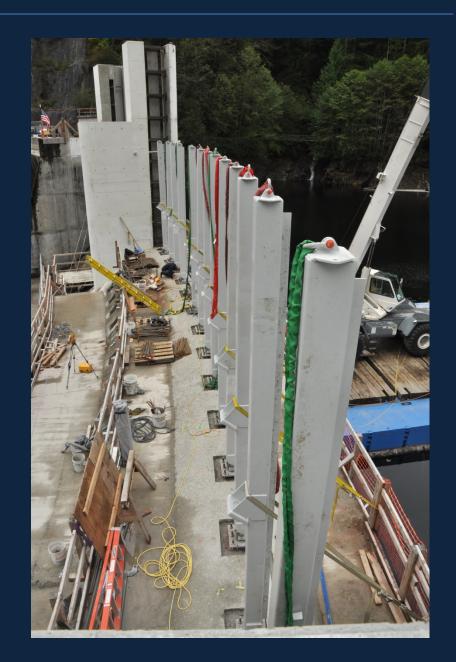
July 7 2016

August 10 2016



Swan Lake Raise-Center Pier & Flashboard Progress







Swan Lake Raise-Schedule

Demolition Work	84 days	Mon 5/23/16	Sun 8/14/16	26
Spillway Demolition	20 days	Mon 5/23/16	Sat 6/11/16	26
Setup Access Platforms	4 days	Mon 5/23/16	Thu 5/26/16	26
Setup Survey Control	2 days	Fri 5/27/16	Mon 5/30/16	31
Demolition to South Pier and Middle Pier Chipping	7 days	Tue 5/31/16	Mon 6/6/16	32
Demo/Chip Spillway Crest	8 days	Tue 5/31/16	Tue 6/7/16	33SS
Wire Saw/Demo North Pier	5 days	Tue 6/7/16	Sat 6/11/16	33
Demo for Bracing	1 day	Wed 6/8/16	Wed 6/8/16	34
Forebay Wall Demolition	8 days	Sun 7/31/16	Sun 8/7/16	93
Demo Railing	0.5 days	Sun 7/31/16	Sun 7/31/16	93
Demo Parapet Construction Joints	4.5 days	Sun 7/31/16	Thu 8/4/16	38
Remove/Preserve JB and Conduit and Ladder	2 days	Fri 8/5/16	Sat 8/6/16	39
Demo Jib Crane	1 day	Sun 8/7/16	Sun 8/7/16	40
Boat Dock Demolition	2.5 days	Mon 8/8/16	Wed 8/10/16	41
Remove Boat House and Superstructure	1.5 days	Mon 8/8/16	Tue 8/9/16	41
Remove Dock Posts/Foundations	1 day	Tue 8/9/16	Wed 8/10/16	43
Intake House Demolition	4.5 days	Wed 8/10/16	Sun 8/14/16	44
Demo Parapet Wall	2 days	Wed 8/10/16	Fri 8/12/16	44
Demo Doors	1.5 days	Fri 8/12/16	Sat 8/13/16	46
Demo Mangate, guardrail, other misc demo	1 day	Sun 8/14/16	Sun 8/14/16	47
Concrete Work	113 days	Thu 6/9/16	Thu 9/29/16	36
First Stage - North Pier Concrete	33 days	Sat 6/18/16	Wed 7/20/16	36
Trial Run for Concrete Mix	1 day	Sat 6/18/16	Sat 6/18/16	65
Fabricate Wood Forms	1 day	Tue 6/28/16	Tue 6/28/16	70
Form/Rebar/Pour Lift 1 Concrete	5 days	Wed 6/29/16	Sun 7/3/16	52,9
Form/Rebar/Pour Lift 2 Concrete	5 days	Mon 7/4/16	Fri 7/8/16	53
Form/Rebar/Pour Lift 3 Concrete	5 days	Sat 7/9/16	Wed 7/13/16	54
Cure Concrete	18 days	Sun 7/3/16	Wed 7/20/16	53FS-1 day
First Stage - Middle Pier Concrete	31 days	Thu 6/16/16	Sat 7/16/16	69
Fabricate Wood Forms	1 day	Thu 6/16/16	Thu 6/16/16	69
Form/Rebar/Pour Lift 1 Concrete	5 days	Sun 6/19/16	Thu 6/23/16	51,9
Form/Rebar/Pour Lift 2 Concrete	5 days	Fri 6/24/16	Tue 6/28/16	59
Form/Rebar/Pour Lift 3 Concrete	5 days	Wed 6/29/16	Sun 7/3/16	60
Form/Rebar/Pour Lift 4 Concrete	5 days	Mon 7/4/16	Fri 7/8/16	61
Cure Concrete	24 days	Thu 6/23/16	Sat 7/16/16	59FS-1 day
First Stage - South Pier Concrete	32 days	Fri 6/17/16	Mon 7/18/16	58
Fabricate Wood Forms	1 day	Fri 6/17/16	Fri 6/17/16	58
Form/Rebar/Pour Lift 1 Concrete	4 days	Sat 7/9/16	Tue 7/12/16	62,9
Cure Concrete	7 days	Tue 7/12/16	Mon 7/18/16	66FS-1 day
Spillway Crest Concrete	25 days	Thu 6/9/16	Sun 7/3/16	36
Drill/Epoxy Dowels	7 days	Thu 6/9/16	Wed 6/15/16	36
Install Embed Plate / Place Grout	12 days	Thu 6/16/16	Mon 6/27/16	69
Cura Grout	7 days	Mon 6/27/16	Sup 7/2/16	70ES 1 day

Swan Lake Raise-Schedule Building the center pier is the critical path



Swan Lake Raise & Water Management

