RIVER STAGE MONITORING

NewFields

Former Frenchtown Mill	Observer: J. Peterson
Project 350.0065.001	Date / Time: 5/10/18 1340-1520
Clark Fork River Berm	Weather: Cloudy, 61 degrees F
Clark Fork Discharge at USGS Gage 12353000 (cfs): 45,200 – 42,700	

GENERAL COMMENTS/OBSERVATIONS

Site observations today are similar to those documented by D. Hoffman on 8 May 2018.
The mill caretaker is on site 3-4 days per week and is keeping an eye on the river stage at the site.
NewFields will continue to monitor the berm throughout the spring runoff period.
Photo point and staff gage locations are shown on **Figure 1**.

The Clark Fork River (CFR) is currently above bankfull and inundating floodplain areas. Floodwaters have reached the bottom of CFR berm along the site in many locations between Photo Point 1 and Photo Point 9.

Flow velocities along CFR berm are relatively low except in Photo Point 8 area where the river has not reached berm and in Photo Point 9/CFR-2 area where velocities are moderate.

No evidence of CFR Berm erosion was observed on either the 'dry' (mill)or 'wet' (river) side of berm.

Soil investigation locations (completed in Dec 2017) along CFR Berm were checked and no evidence of erosion was observed.

Outfalls 1, 2 and 3 were observed and photographed. No issues noted.

No cracks observed along the CFR berm, or other indications of geotechnical issues resulting from high water conditions.

CFR water surface elevations were 6 feet or more below top of CFR Berm elevation over entire length of the Berm. In most locations the berm had more than 6 feet of freeboard.

Clear, pooled water was observed at several locations along the 'dry' side of the berm; however, no observations of sand boils noted along the toe of berm which would indicate internal erosion/piping processes due to through- or under-seepage. The storage ponds on the mill side of the berm are largely dry. Less than 12-inches of water was present in the pooled areas.

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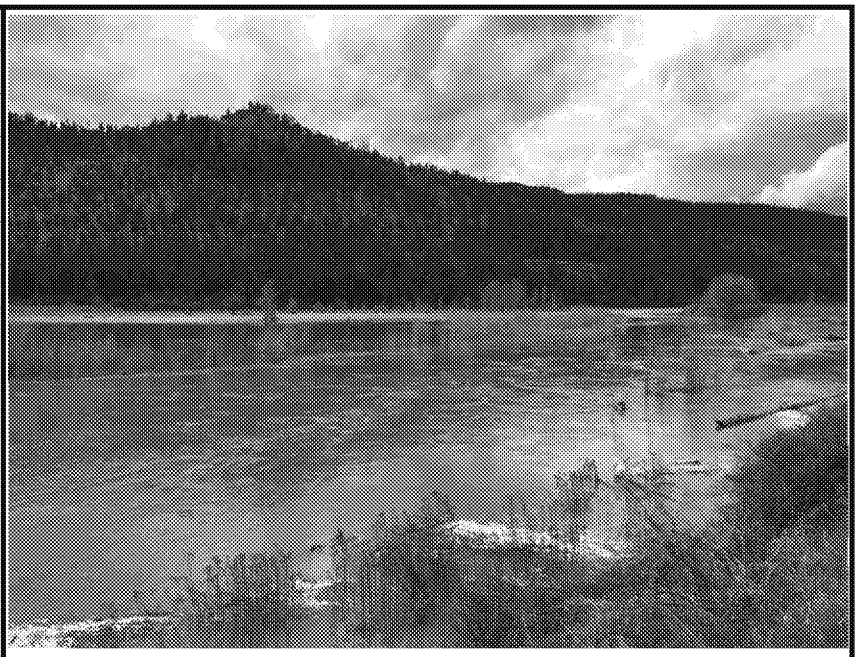
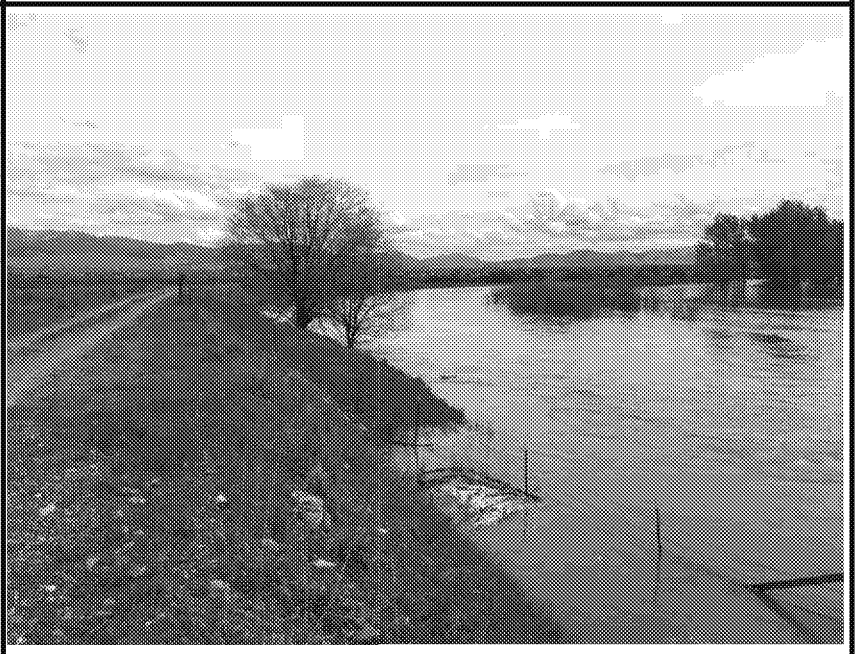
PHOTO LOG

Site: Photo Point 1	
Date/Time: 5/10/18 14:20	
Staff Gage (ft): N/A	
Location:	
N 46.95066	
W 114.20983	
Comments:	
Looking northwest. Southwest corner of HP2.	

Site: Photo Point 2	
Date/Time: 5/10/18 14:25	
Staff Gage (ft): N/A	
Location:	
N 46.951097	
W 114.213278	
Comments:	
Looking east. South of HP2.	

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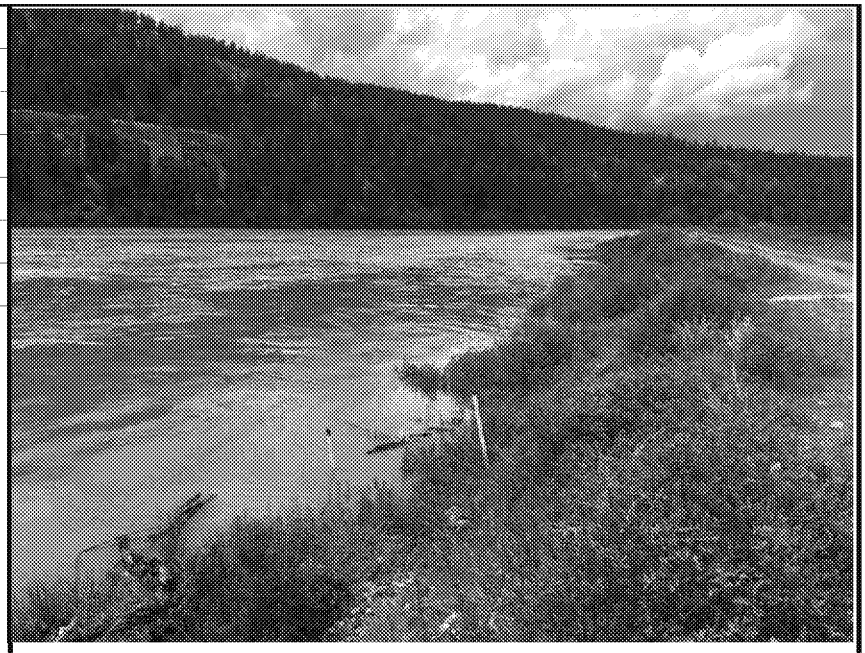
Site: Photo Point 3
Date/Time: 5/10/18 14:25
Staff Gage (ft): 1.65
Location:
N 46.95146
W 114.21378
Comments:
Looking northwest. West side of HP2, second staff gage. River is turbid.



Site: Photo Point 4
Date/Time: 5/10/18 14:35
Staff Gage (ft): N/A
Location:
N 46.95341
W 114.21720
Comments:
Looking north. West side of HP2.

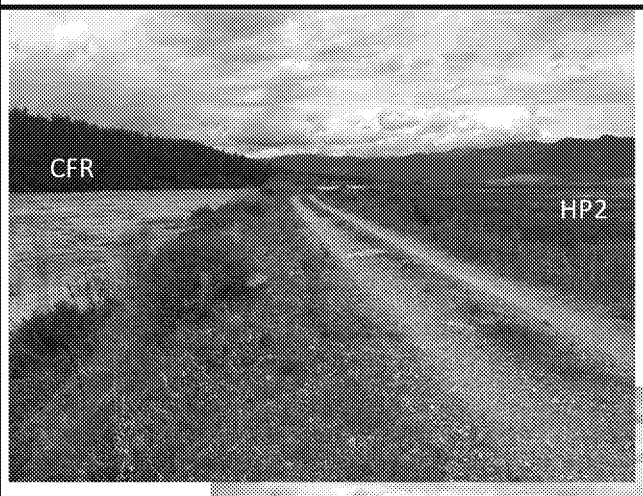


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PHOTO LOG

Site: Photo Point 5
Date/Time: 5/10/18 14:40
Staff Gage (ft): Below gage
Location:
N 46.95862
W 114.21883
Comments:
Looking south. Located at outfall 1, west side of HP2/HP7. Gage installed on concrete structure on 7/27/17.

Site: Photo Point 6
Date/Time: 5/10/18 14:42
Staff Gage (ft): N/A
Location:
N 46.96022
W 114.21975
Comments:
Looking north. Southwest side of HP11.

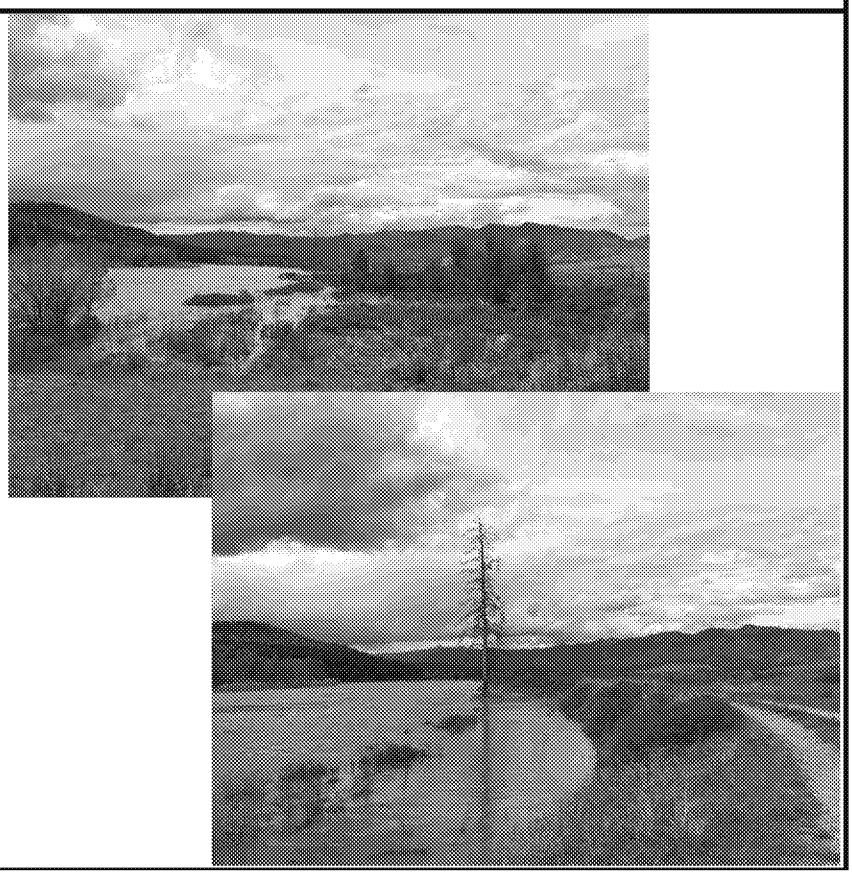

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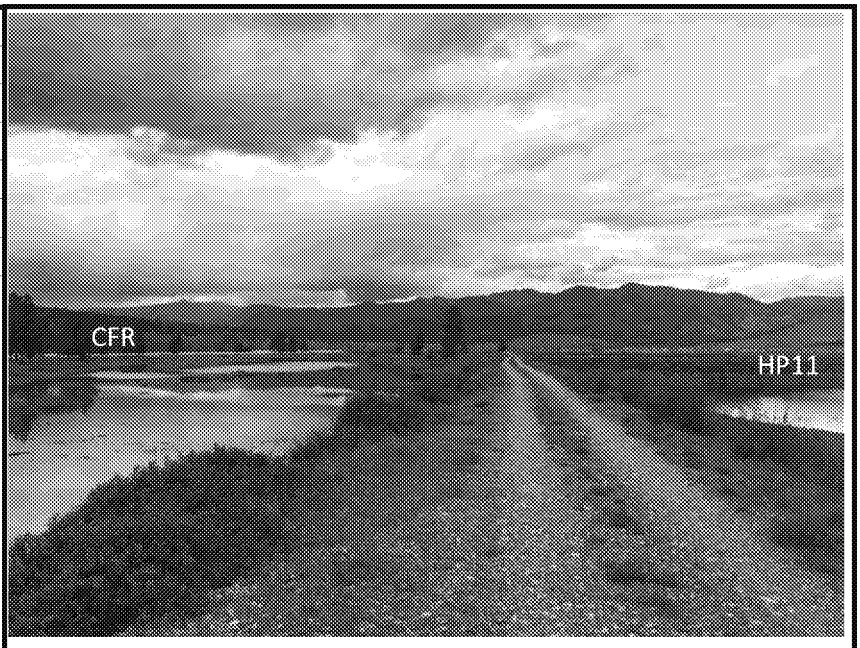
PHOTO LOG

Site: Photo Point 7
Date/Time: 5/10/18 14:45
Staff Gage (ft): N/A
Location:
N 46.96448
W 114.22173
Comments:
Looking north. West side of HP11.



Site: Photo Point 8
Date/Time: 5/10/18 14:50
Staff Gage (ft): Below gage
Location:
N 46.97270
W 114.22433
Comments:
Looking north. West side of HP12.

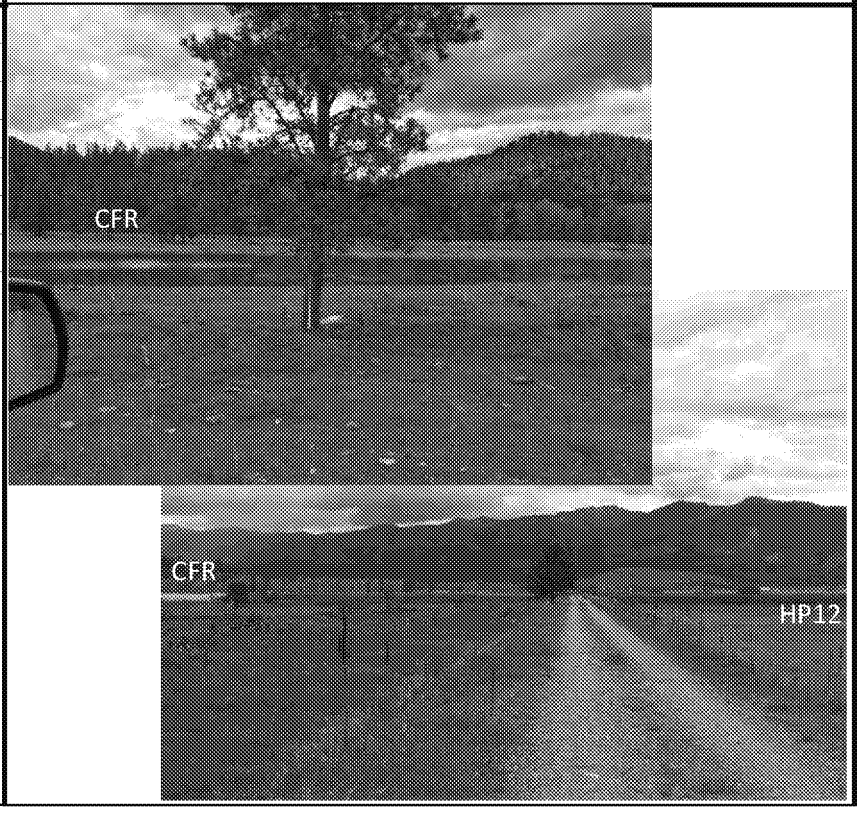


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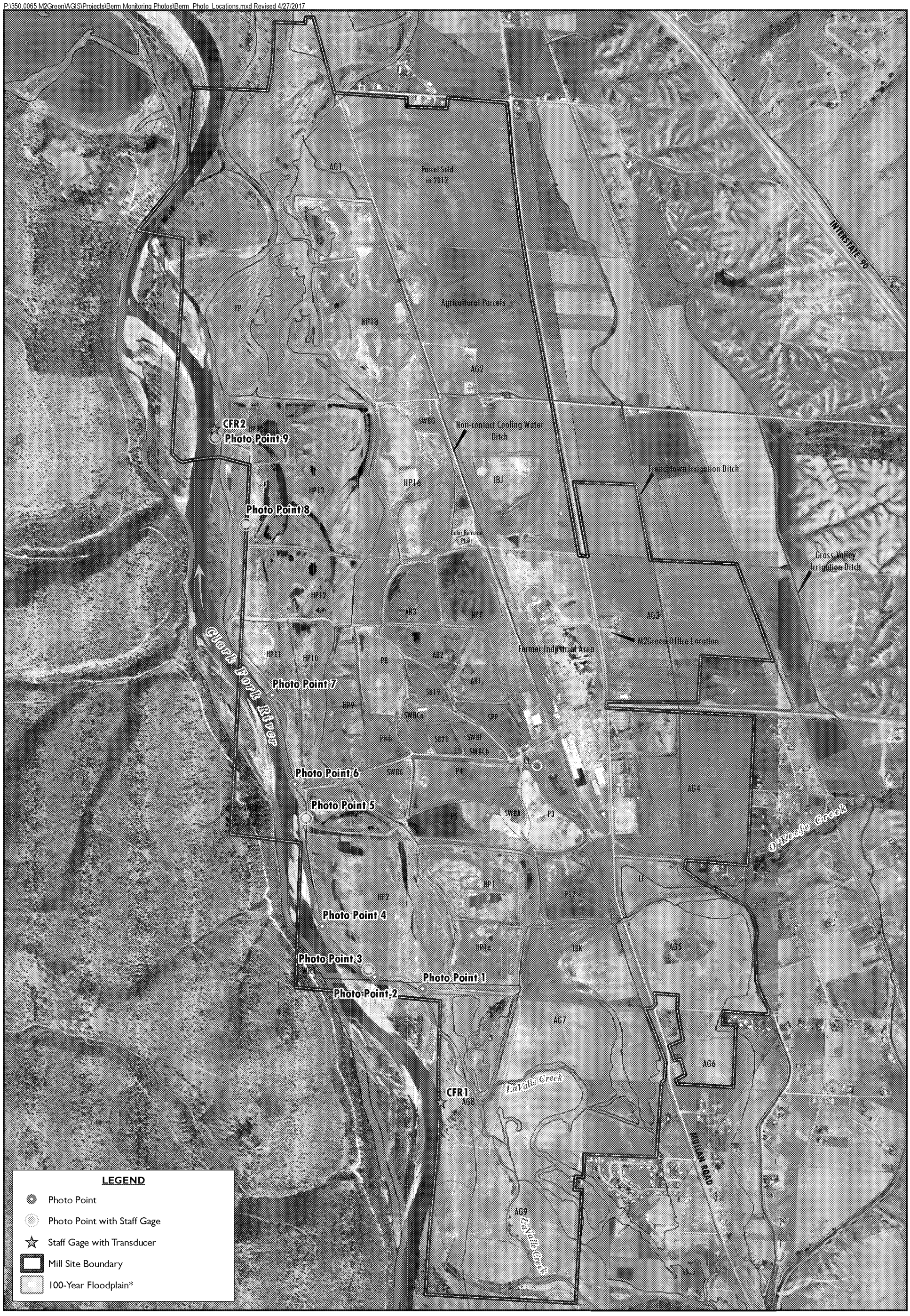
PHOTO LOG

Site: Photo Point 9/CFR-2
Date/Time: 5/10/2018 15:00
Staff Gage (ft): above gage
Location:
N 46.97682
W 114.22689
Comments:
Looking north. West side of HP13a. River gage submerged. A transducer is present at this gage site and stage data will be collected when the gage becomes accessible.

P:\350.0065 M2Green\AGIS\Projects\Berm Monitoring Photos\Berm_Photo_Locations.mxd Revised 4/27/2017



Aerial Photo Source: NAIP 2011 and Newfields 2016 (Within Site Boundary)

0 Feet 1,600

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*Floodplain Source:
As defined by the Federal Emergency Management Agency (FEMA) 2013 Digital Flood Insurance Rate Map (DFIRM). (NFIP 2013)

Notes

AG - Agricultural Land
AB - Aeration Stabilization Basin
CFR - Clark Fork River
CL - Clarifier
FP - Floodplain
HP - Holding or Storage Pond
IB - Rapid Infiltration Basin
NPP - North Polishing Pond
P - Settling Pond
SB - Spoils Basin
SPP - South Polishing Pond
SWB - Solid Waste Basin
WR - West of River

Clark Fork River Stage Monitoring Sites
Former Frenchtown Mill Site
Missoula County, Montana
FIGURE 1