Chesapeake Fish Passage Prioritization - Dam Fact Sheet

CFPPP Unique ID: **VA_1097** **LAKE FREDRICK DAM**

Bay-wide Diadromous Tier	13
Bay-wide Resident Tier	6
Bay-wide Brook Trout Tier	N/A
NID ID	VA06913
State ID	1097
River Name	Crooked Run
Dam Height (ft)	74
Dam Type	Gravity
Latitude	39.0424
Longitude	-78.1583
Passage Facilities	None Documented
Passage Year	N/A
Size Class	1a: Headwater (0 - 3.861 sq mi)
HUC 12	Crooked Run
HUC 10	Crooked Run-Shenandoah River
HUC 8	Shenandoah
HUC 6	Potomac
HUC 4	Potomac

Landcover

NLCD (2011)	
% Impervious Surface in Upstream Drainage Area	1.71
% Natural Cover in Upstream Drainage Area	65.05
% Forested in Upstream Drainage Area	56.12
% Agriculture in Upstream Drainage Area	27.21
% Natural Cover in ARA of Upstream Network	82.49
% Natural Cover in ARA of Downstream Network	61.79
% Forest Cover in ARA of Upstream Network	62.65
% Forest Cover in ARA of Downstream Network	53.27
% Agricultral Cover in ARA of Upstream Network	14.71
% Agricultral Cover in ARA of Downstream Network	28.34
% Impervious Surf in ARA of Upstream Network	0.39
% Impervious Surf in ARA of Downstream Network	1.76

Chesapeake Conservancy (2016)	
% Tree Cover in ARA of Upstream Network	63.86
% Tree Cover in ARA of Downstream Network	59.79
% Herbaceaous Cover in ARA of Upstream Network	13.57
% Herbaceaous Cover in ARA of Downstream Network	28.7
% Barren Cover in ARA of Upstream Network	0.95
% Barren Cover in ARA of Downstream Network	0.68
% Road Impervious in ARA of Upstream Network	0.36
% Road Impervious in ARA of Downstream Network	1.87
% Other Impervious in ARA of Upstream Network	2.31
% Other Impervious in ARA of Downstream Network	2.27

Metric descriptions can be found at:
http://52.53.143.233/chesapeake-dev/plugins/barrier-prioritization-proto2/images/Metric_Glossary.pdf

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Network, System Type and Condition

Functional Upstream Network (mi)	9.86	Upstream Size Class Gain (#)	0
Total Functional Network (mi)	842.38	# Downsteam Natural Barriers	1
Absolute Gain (mi)	9.86	# Downstream Hydropower Dams	2
# Size Classes in Total Network	5	# Downstream Dams with Passage	3
# Upstream Network Size Classes	1	# of Downstream Barriers	4

NFHAP Cumulative Disturbance Index	Moderate
Dam is on Conserved Land	No
% Conserved Land in 100m Buffer of Upstream Network	14.88
% Conserved Land in 100m Buffer of Downstream Network	30.89
Density of Crossings in Upstream Network Watershed (#/m2)	0
Density of Crossings in Downstream Network Watershed (#/m2)	1.29
Density of off-channel dams in Upstream Network Watershed (#/m2)	0
Density of off-channel dams in Downstream Network Watershed (#/m2)	0

Diadromous Fish

Downstream Alewife	None Documented	Downstream Striped Bass	None Documented
Downstream Blueback	None Documented	Downstream Atlantic Sturgeon	None Documented
Downstream American Shad	None Documented	Downstream Shortnose Sturgeon	None Documented
Downstream Hickory Shad	None Documented	Downstream American Eel	Current

Presence of 1 or More Downstream Anadromous Species	None Docume
# Diadromous Species Downstream (incl eel)	1

Resident Fish

Barrier is in EBTJV BKT Catchment	No
Barrier is in Modeled BKT Catchment (DeWeber)	No
Barrier Blocks an EBTJV Catchment	Yes
Barrier Blocks a Modeled BKT Catchment (DeWeber)	Yes
Native Fish Species Richness (HUC8)	36
# Rare Fish (HUC8)	0
# Rare Mussel (HUC8)	0
# Rare Crayfish (HUC8)	0

Stream Health

Chesapeake Bay Program Stream Health	POOR
MD MBSS Benthic IBI Stream Health	N/A
MD MBSS Fish IBI Stream Health	N/A
MD MBSS Combined IBI Stream Health	N/A
VA INSTAR mIBI Stream Health	High
PA IBI Stream Health	N/A

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