Chesapeake Fish Passage Prioritization - Dam Fact Sheet

CFPPP Unique ID: **VA_984** **BUFFALO RIVER DAM #4A**

Bay-wide Diadromous Tier	8
Bay-wide Resident Tier	6
Bay-wide Brook Trout Tier	N/A
NID ID	VA00924
State ID	984
River Name	Mill Creek
Dam Height (ft)	64
Dam Type	Earth
Latitude	37.6591
Longitude	-79.0786
Passage Facilities	None Documented
Passage Year	N/A
Size Class	1b: Creek (3.861 - 38.61 sq mi)
HUC 12	Stonewall Creek-Buffalo River
HUC 10	Buffalo River
HUC 8	Middle James-Buffalo
HUC 6	James
HUC 4	Lower Chesapeake

Landcover

NLCD (2011)	
% Impervious Surface in Upstream Drainage Area	0.51
% Natural Cover in Upstream Drainage Area	54.72
% Forested in Upstream Drainage Area	50.75
% Agriculture in Upstream Drainage Area	40
% Natural Cover in ARA of Upstream Network	67.28
% Natural Cover in ARA of Downstream Network	68.36
% Forest Cover in ARA of Upstream Network	57.21
% Forest Cover in ARA of Downstream Network	67.89
% Agricultral Cover in ARA of Upstream Network	28.62
% Agricultral Cover in ARA of Downstream Network	23.78
% Impervious Surf in ARA of Upstream Network	0.35
% Impervious Surf in ARA of Downstream Network	0.66

Chesapeake Conservancy (2016)	
% Tree Cover in ARA of Upstream Network	66.3
% Tree Cover in ARA of Downstream Network	78.06
% Herbaceaous Cover in ARA of Upstream Network	22.55
% Herbaceaous Cover in ARA of Downstream Network	20.46
% Barren Cover in ARA of Upstream Network	0
% Barren Cover in ARA of Downstream Network	0
% Road Impervious in ARA of Upstream Network	0.65
% Road Impervious in ARA of Downstream Network	0.79
% Other Impervious in ARA of Upstream Network	0.24
% Other Impervious in ARA of Downstream Network	0.3

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

The Nature Conservancy

Chesapeake Fish Passage Prioritization - Dam Fact Sheet

CFPPP Unique ID: **VA_984** **BUFFALO RIVER DAM #4A**

Network, System Type and Condition

Functional Upstream Network (mi)	27.75	Upstream Size Class Gain (#)	0
Total Functional Network (mi)	221.39	# Downsteam Natural Barriers	0
Absolute Gain (mi)	27.75	# Downstream Hydropower Dams	2
# Size Classes in Total Network	3	# Downstream Dams with Passage	4
# Upstream Network Size Classes	2	# of Downstream Barriers	6

NFHAP Cumulative Disturbance Index	Moderate
Dam is on Conserved Land	No
% Conserved Land in 100m Buffer of Upstream Network	4.92
% Conserved Land in 100m Buffer of Downstream Network	10.99
Density of Crossings in Upstream Network Watershed (#/m2)	1.21
Density of Crossings in Downstream Network Watershed (#/m2)	1.31
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	Historical	Downstream Striped Bass	None Documented
Downstream Blueback	Historical	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	Historical
# 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)	No
Native Fish Species Richness (HUC8)	50
# Rare Fish (HUC8)	0
# Rare Mussel (HUC8)	4
# Rare Crayfish (HUC8)	0

Stream Health

Chesapeake Bay Program Stream Health	FAIR
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	Moderate
PA IBI Stream Health	N/A

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

The Nature Conservancy