Chesapeake Fish Passage Prioritization - Dam Fact Sheet

CFPPP Unique ID: **VA_77** **NEALS DAM**

Diadromous Tier	15
Brook Trout Tier	N/A
Resident Tier	13
NID ID	VA13705
State ID	77
River Name	
Dam Height (ft)	20
Dam Type	Gravity
Latitude	38.1753
Longitude	-78.1924
Passage Facilities	None Documented
Passage Year	N/A
Size Class	1a: Headwater (0 - 3.861 sq mi)
HUC 12	Blue Run
HUC 10	Blue Run-Rapidan River
HUC 8	Rapidan-Upper Rappahannock
HUC 6	Lower Chesapeake
HUC 4	Lower Chesapeake

Landcover

NLCD (2011)	
% Impervious Surface in Upstream Drainage Area	0.39
% Natural Cover in Upstream Drainage Area	44.16
% Forested in Upstream Drainage Area	41.99
% Agriculture in Upstream Drainage Area	49.85
% Natural Cover in ARA of Upstream Network	41.73
% Natural Cover in ARA of Downstream Network	45.08
% Forest Cover in ARA of Upstream Network	7.09
% Forest Cover in ARA of Downstream Network	42.26
% Agricultral Cover in ARA of Upstream Network	47.24
% Agricultral Cover in ARA of Downstream Network	49.71
% Impervious Surf in ARA of Upstream Network	0.92
% Impervious Surf in ARA of Downstream Network	0.5

Chesapeake Conservancy (2016)	
% Tree Cover in ARA of Upstream Network	27.57
% Tree Cover in ARA of Downstream Network	59.12
% Herbaceaous Cover in ARA of Upstream Network	38.44
% Herbaceaous Cover in ARA of Downstream Network	37.94
% Barren Cover in ARA of Upstream Network	0
% Barren Cover in ARA of Downstream Network	0.35
% Road Impervious in ARA of Upstream Network	0
% Road Impervious in ARA of Downstream Network	0.72
% Other Impervious in ARA of Upstream Network	0
% Other Impervious in ARA of Downstream Network	0.61

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)	1.18	Upstream Size Class Gain (#)	0
Total Functional Network (mi)	521.66	# Downsteam Natural Barriers	0
Absolute Gain (mi)	1.18	# Downstream Hydropower Dams	0
# Size Classes in Total Network	4	# Downstream Dams with Passage	1
# Upstream Network Size Classes	1	# of Downstream Barriers	2

NFHAP Cumulative Disturbance Index	Very High
Dam is on Conserved Land	Yes
% Conserved Land in 100m Buffer of Upstream Network	100
% Conserved Land in 100m Buffer of Downstream Network	33.18
Density of Crossings in Upstream Network Watershed (#/m2)	3.56
Density of Crossings in Downstream Network Watershed (#/m2)	0.88
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)	56
# Rare Fish (HUC8)	1
# Rare Mussel (HUC8)	3
# 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	Moderate
PA IBI Stream Health	N/A

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