Chesapeake Fish Passage Prioritization - Dam Fact Sheet

CFPPP Unique ID: **VA_440** **ARNOLDS DAM**

Bay-wide Diadromous Tier	4
Bay-wide Resident Tier	5
Bay-wide Brook Trout Tier	N/A
NID ID	VA13519
State ID	440
River Name	
Dam Height (ft)	25
Dam Type	Earth
Latitude	37.2325
Longitude	-78.1182
Passage Facilities	None Documented
Passage Year	N/A
Size Class	1a: Headwater (0 - 3.861 sq mi)
HUC 12	West Creek
HUC 10	Deep Creek
HUC 8	Appomattox
HUC 6	James
HUC 4	Lower Chesapeake

Landcover

NLCD (2011)	
% Impervious Surface in Upstream Drainage Area	0.64
% Natural Cover in Upstream Drainage Area	63.47
% Forested in Upstream Drainage Area	36.2
% Agriculture in Upstream Drainage Area	29.47
% Natural Cover in ARA of Upstream Network	52.5
% Natural Cover in ARA of Downstream Network	88.39
% Forest Cover in ARA of Upstream Network	30.62
% Forest Cover in ARA of Downstream Network	61
% Agricultral Cover in ARA of Upstream Network	41.88
% Agricultral Cover in ARA of Downstream Network	9.87
% Impervious Surf in ARA of Upstream Network	0.75
% Impervious Surf in ARA of Downstream Network	0.27

Chesapeake Conservancy (2016)	
% Tree Cover in ARA of Upstream Network	49.76
% Tree Cover in ARA of Downstream Network	86.58
% Herbaceaous Cover in ARA of Upstream Network	37.67
% Herbaceaous Cover in ARA of Downstream Network	9.87
% Barren Cover in ARA of Upstream Network	0
% Barren Cover in ARA of Downstream Network	0.08
% Road Impervious in ARA of Upstream Network	1.65
% Road Impervious in ARA of Downstream Network	0.36
% Other Impervious in ARA of Upstream Network	0.03
% Other Impervious in ARA of Downstream Network	0.38

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)	0.48	Upstream Size Class Gain (#)	0
Total Functional Network (mi)	2957.15	# Downsteam Natural Barriers	0
Absolute Gain (mi)	0.48	# Downstream Hydropower Dams	3
# Size Classes in Total Network	5	# Downstream Dams with Passage	3
# Upstream Network Size Classes	0	# of Downstream Barriers	3

NFHAP Cumulative Disturbance Index	Not Scored / Unavailable at this scale
Dam is on Conserved Land	No
% Conserved Land in 100m Buffer of Upstream Network	0
% Conserved Land in 100m Buffer of Downstream Network	5.91
Density of Crossings in Upstream Network Watershed (#/m2)	0
Density of Crossings in Downstream Network Watershed (#/m2)	0.5
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	Current	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	Current
# Diadromous Species Downstream (incl eel)	2

Resident Fish

Barrier is in EBTJV BKT Catchment	No
Barrier is in Modeled BKT Catchment (DeWeber)	No
Barrier Blocks an EBTJV Catchment	No
Barrier Blocks a Modeled BKT Catchment (DeWeber)	No
Native Fish Species Richness (HUC8)	58
# 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	Very High
PA IBI Stream Health	N/A

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