Chesapeake Fish Passage Prioritization - Dam Fact Sheet

CFPPP Unique ID: **VA_1304a** **TOWN OF ORANGE DAM**

Bay-wide Diadromous Tier	8
Bay-wide Resident Tier	5
Bay-wide Brook Trout Tier	N/A
NID ID	VA02929
State ID	1304a
River Name	Rapidan River
Dam Height (ft)	38
Dam Type	Gravity
Latitude	38.2658
Longitude	-78.1572
Passage Facilities	Denil
Passage Year	2003
Size Class	3a: Medium Tributary River (200
HUC 12	Poplar Run-Rapidan River
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	0.59
% Natural Cover in Upstream Drainage Area	60.26
% Forested in Upstream Drainage Area	58.8
% Agriculture in Upstream Drainage Area	34.16
% Natural Cover in ARA of Upstream Network	45.08
% Natural Cover in ARA of Downstream Network	41.91
% Forest Cover in ARA of Upstream Network	42.26
% Forest Cover in ARA of Downstream Network	37.83
% Agricultral Cover in ARA of Upstream Network	49.71
% Agricultral Cover in ARA of Downstream Network	51.17
% Impervious Surf in ARA of Upstream Network	0.5
% Impervious Surf in ARA of Downstream Network	0.76

Chesapeake Conservancy (2016)	
% Tree Cover in ARA of Upstream Network	59.12
% Tree Cover in ARA of Downstream Network	55.58
% Herbaceaous Cover in ARA of Upstream Network	37.94
% Herbaceaous Cover in ARA of Downstream Network	41.39
% Barren Cover in ARA of Upstream Network	0.35
% Barren Cover in ARA of Downstream Network	0
% Road Impervious in ARA of Upstream Network	0.72
% Road Impervious in ARA of Downstream Network	0.93
% Other Impervious in ARA of Upstream Network	0.61
% Other Impervious in ARA of Downstream Network	0.87

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)	520.49	Upstream Size Class Gain (#)	0
Total Functional Network (mi)	1061.27	# Downsteam Natural Barriers	0
Absolute Gain (mi)	520.49	# Downstream Hydropower Dams	0
# Size Classes in Total Network	4	# Downstream Dams with Passage	0
# Upstream Network Size Classes	4	# of Downstream Barriers	1

NFHAP Cumulative Disturbance Index	High
Dam is on Conserved Land	No
% Conserved Land in 100m Buffer of Upstream Network	33.18
% Conserved Land in 100m Buffer of Downstream Network	10.22
Density of Crossings in Upstream Network Watershed (#/m2)	0.88
Density of Crossings in Downstream Network Watershed (#/m2)	0.87
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	Historical	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	No
Barrier Blocks a Modeled BKT Catchment (DeWeber)	No
Native Fish Species Richness (HUC8)	38
# Rare Fish (HUC8)	0
# Rare Mussel (HUC8)	4
# 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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