Chesapeake Fish Passage Prioritization - Dam Fact Sheet

CFPPP Unique ID: **VA_815** **BROWN'S ISLAND DAM (VEPCO FLASH** **Manchester Dam**

Bay-wide Diadromous Tier	1
Bay-wide Resident Tier	12
Bay-wide Brook Trout Tier	N/A
NID ID	VA76009
State ID	815
River Name	James River
Dam Height (ft)	8
Dam Type	
Latitude	37.5337
Longitude	-77.4445
Passage Facilities	Breach
Passage Year	1989
Size Class	4: Large River (3,861 - 9,653 sq
HUC 12	Little Westham Creek-James Riv
HUC 10	Tuckahoe Creek-James River
HUC 8	Middle James-Willis
HUC 6	James
HUC 4	Lower Chesapeake

Landcover

NLCD (2011)	
% Impervious Surface in Upstream Drainage Area	1.2
% Natural Cover in Upstream Drainage Area	78.66
% Forested in Upstream Drainage Area	73.48
% Agriculture in Upstream Drainage Area	14.2
% Natural Cover in ARA of Upstream Network	35.58
% Natural Cover in ARA of Downstream Network	66.86
% Forest Cover in ARA of Upstream Network	1.89
% Forest Cover in ARA of Downstream Network	23.65
% Agricultral Cover in ARA of Upstream Network	0
% Agricultral Cover in ARA of Downstream Network	11.44
% Impervious Surf in ARA of Upstream Network	29.13
% Impervious Surf in ARA of Downstream Network	7.27

Chesapeake Conservancy (2016)	
% Tree Cover in ARA of Upstream Network	9.67
% Tree Cover in ARA of Downstream Network	50.43
% Herbaceaous Cover in ARA of Upstream Network	21.65
% Herbaceaous Cover in ARA of Downstream Network	21.6
% Barren Cover in ARA of Upstream Network	0
% Barren Cover in ARA of Downstream Network	1.39
% Road Impervious in ARA of Upstream Network	13.66
% Road Impervious in ARA of Downstream Network	3.27
% Other Impervious in ARA of Upstream Network	14.42
% Other Impervious in ARA of Downstream Network	6.14

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)	0.84	Upstream Size Class Gain (#)	0
Total Functional Network (mi)	297.2	# Downsteam Natural Barriers	0
Absolute Gain (mi)	0.84	# Downstream Hydropower Dams	0
# Size Classes in Total Network	4	# Downstream Dams with Passage	0
# Upstream Network Size Classes	1	# of Downstream Barriers	0

NFHAP Cumulative Disturbance Index	Moderate
Dam is on Conserved Land	No
% Conserved Land in 100m Buffer of Upstream Network	2.96
% Conserved Land in 100m Buffer of Downstream Network	7.43
Density of Crossings in Upstream Network Watershed (#/m2)	2.88
Density of Crossings in Downstream Network Watershed (#/m2)	1.5
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	Current
Downstream Blueback	Current	Downstream Atlantic Sturgeon	Current
Downstream American Shad	Current	Downstream Shortnose Sturgeon	Current
Downstream Hickory Shad	Current	Downstream American Eel	Current

Presence of 1 or More Downstream Anadromous Species	Current
# Diadromous Species Downstream (incl eel)	8

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)	51
# Rare Fish (HUC8)	0
# 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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