Chesapeake Fish Passage Prioritization - Dam Fact Sheet

CFPPP Unique ID: **VA_959** **BIG ISLAND DAM**

Bay-wide Diadromous Tier	6
Bay-wide Resident Tier	2
Bay-wide Brook Trout Tier	N/A
NID ID	VA00902
State ID	959
River Name	James River
Dam Height (ft)	18
Dam Type	Gravity
Latitude	37.5356
Longitude	-79.3558
Passage Facilities	None Documented
Passage Year	N/A
Size Class	3b: Medium Mainstem River (1,
HUC 12	Otter Creek-James River
HUC 10	Reed Creek-James River
HUC 8	Middle James-Buffalo
HUC 6	James
HUC 4	Lower Chesapeake

Landcover

NLCD (2011)	
% Impervious Surface in Upstream Drainage Area	0.72
% Natural Cover in Upstream Drainage Area	82.71
% Forested in Upstream Drainage Area	81.22
% Agriculture in Upstream Drainage Area	11.94
% Natural Cover in ARA of Upstream Network	78.45
% Natural Cover in ARA of Downstream Network	77.47
% Forest Cover in ARA of Upstream Network	72.08
% Forest Cover in ARA of Downstream Network	73.44
% Agricultral Cover in ARA of Upstream Network	8.81
% Agricultral Cover in ARA of Downstream Network	16.59
% Impervious Surf in ARA of Upstream Network	1.42
% Impervious Surf in ARA of Downstream Network	1.12

Chesapeake Conservancy (2016)	
% Tree Cover in ARA of Upstream Network	82.97
% Tree Cover in ARA of Downstream Network	81.36
% Herbaceaous Cover in ARA of Upstream Network	9.57
% Herbaceaous Cover in ARA of Downstream Network	13.94
% Barren Cover in ARA of Upstream Network	0
% Barren Cover in ARA of Downstream Network	0.04
% Road Impervious in ARA of Upstream Network	1.16
% Road Impervious in ARA of Downstream Network	0.56
% Other Impervious in ARA of Upstream Network	1.09
% Other Impervious in ARA of Downstream Network	1.15

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)	60.03	Upstream Size Class Gain (#)	0
Total Functional Network (mi)	178.69	# Downsteam Natural Barriers	0
Absolute Gain (mi)	60.03	# Downstream Hydropower Dams	6
# Size Classes in Total Network	3	# Downstream Dams with Passage	4
# Upstream Network Size Classes	3	# of Downstream Barriers	8

NFHAP Cumulative Disturbance Index	Very High
Dam is on Conserved Land	No
% Conserved Land in 100m Buffer of Upstream Network	51.45
% Conserved Land in 100m Buffer of Downstream Network	10.24
Density of Crossings in Upstream Network Watershed (#/m2)	1.56
Density of Crossings in Downstream Network Watershed (#/m2)	1.52
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	None Documented
One or More DS Anadromous Species	Historical	# Diadromous Sp Dnstrm (incl eel)	0

Resident Fish and Rare Species

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)	Yes
Native Fish Species Richness (HUC8)	50
# Rare Fish (HUC8)	0
# Rare Mussel (HUC8)	4
# Rare Crayfish (HUC8)	0
Globally rare or fed listed fish/mussel sp HUC12	No
Globally rare or fed listed fish/mussel sp in upstream or downstream functional network	No

Stream Health

Chesapeake Bay Program Stream Health	GOOD
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

Rare fish or mussel sp in HUC12	Yes
Rare fish or mussel in upstream or downstream functional network	No

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