Chesapeake Fish Passage Prioritization - Dam Fact Sheet

CFPPP Unique ID: **VA_157** **UPPER BIG BETHEL DAM**

Bay-wide Diadromous Tier	15
Bay-wide Resident Tier	17
Bay-wide Brook Trout Tier	N/A
NID ID	VA19911
State ID	157
River Name	Brick Kiln Creek
Dam Height (ft)	27
Dam Type	Earth
Latitude	37.0924
Longitude	-76.4257
Passage Facilities	None Documented
Passage Year	N/A
Size Class	1b: Creek (3.861 - 38.61 sq mi)
HUC 12	Northwest Branch Back River
HUC 10	Back River-Lower Chesapeake B
HUC 8	Lynnhaven-Poquoson
HUC 6	Lower Chesapeake
HUC 4	Lower Chesapeake

Landcover

NLCD (2011)	
% Impervious Surface in Upstream Drainage Area	28.57
% Natural Cover in Upstream Drainage Area	21.91
% Forested in Upstream Drainage Area	9.26
% Agriculture in Upstream Drainage Area	0.01
% Natural Cover in ARA of Upstream Network	23.78
% Natural Cover in ARA of Downstream Network	62.04
% Forest Cover in ARA of Upstream Network	9.17
% Forest Cover in ARA of Downstream Network	5.63
% Agricultral Cover in ARA of Upstream Network	0
% Agricultral Cover in ARA of Downstream Network	0
% Impervious Surf in ARA of Upstream Network	28.57
% Impervious Surf in ARA of Downstream Network	13.15

Chesapeake Conservancy (2016)	
% Tree Cover in ARA of Upstream Network	43.03
% Tree Cover in ARA of Downstream Network	48.6
% Herbaceaous Cover in ARA of Upstream Network	20.83
% Herbaceaous Cover in ARA of Downstream Network	12.06
% Barren Cover in ARA of Upstream Network	0.73
% Barren Cover in ARA of Downstream Network	0.04
% Road Impervious in ARA of Upstream Network	10.21
% Road Impervious in ARA of Downstream Network	7.01
% Other Impervious in ARA of Upstream Network	19.56
% Other Impervious in ARA of Downstream Network	8.2

Metric descriptions can be found at:
http://52.53.143.233/chesapeake-dev/plugins/barrier-prioritization-proto2/images/Metric_Glossary.pdf

The Nature Conservancy

Chesapeake Fish Passage Prioritization - Dam Fact Sheet

CFPPP Unique ID: **VA_157** **UPPER BIG BETHEL DAM**

Network, System Type and Condition

Functional Upstream Network (mi)	15.53	Upstream Size Class Gain (#)	0
Total Functional Network (mi)	17.08	# Downsteam Natural Barriers	0
Absolute Gain (mi)	1.55	# Downstream Hydropower Dams	0
# Size Classes in Total Network	2	# Downstream Dams with Passage	0
# Upstream Network Size Classes	2	# of Downstream Barriers	1

NFHAP Cumulative Disturbance Index	Very High
Dam is on Conserved Land	No
% Conserved Land in 100m Buffer of Upstream Network	1.47
% Conserved Land in 100m Buffer of Downstream Network	0
Density of Crossings in Upstream Network Watershed (#/m2)	2.69
Density of Crossings in Downstream Network Watershed (#/m2)	2.63
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	None Documented

Presence of 1 or More Downstream Anadromous Species	Historical
# Diadromous Species Downstream (incl eel)	0

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)	25
# Rare Fish (HUC8)	1
# Rare Mussel (HUC8)	0
# Rare Crayfish (HUC8)	0

Stream Health

Chesapeake Bay Program Stream Health	NO_SCORE
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

Metric descriptions can be found at:
http://52.53.143.233/chesapeake-dev/plugins/barrier-prioritization-proto2/images/Metric_Glossary.pdf

The Nature Conservancy