Chesapeake Fish Passage Prioritization - Dam Fact Sheet

CFPPP Unique ID: **VA_547** **HAPPY CREEK DAM**

Bay-wide Diadromous Tier	16
Bay-wide Resident Tier	12
Bay-wide Brook Trout Tier	N/A
NID ID	VA00366
State ID	547
River Name	
Dam Height (ft)	20
Dam Type	Gravity
Latitude	38.134
Longitude	-78.2352
Passage Facilities	None Documented
Passage Year	N/A
Size Class	1a: Headwater (0 - 3.861 sq mi)
HUC 12	Dove Fork-South Anna River
HUC 10	Upper South Anna River
HUC 8	Pamunkey
HUC 6	Lower Chesapeake
HUC 4	Lower Chesapeake

Landcover

NLCD (2011)	
% Impervious Surface in Upstream Drainage Area	0.45
% Natural Cover in Upstream Drainage Area	50.83
% Forested in Upstream Drainage Area	49.88
% Agriculture in Upstream Drainage Area	40.46
% Natural Cover in ARA of Upstream Network	46.19
% Natural Cover in ARA of Downstream Network	64.63
% Forest Cover in ARA of Upstream Network	40.72
% Forest Cover in ARA of Downstream Network	53.89
% Agricultral Cover in ARA of Upstream Network	43.88
% Agricultral Cover in ARA of Downstream Network	33
% Impervious Surf in ARA of Upstream Network	0.56
% Impervious Surf in ARA of Downstream Network	0.22

Chesapeake Conservancy (2016)	
% Tree Cover in ARA of Upstream Network	52.45
% Tree Cover in ARA of Downstream Network	66.8
% Herbaceaous Cover in ARA of Upstream Network	42.59
% Herbaceaous Cover in ARA of Downstream Network	26.26
% Barren Cover in ARA of Upstream Network	0
% Barren Cover in ARA of Downstream Network	0
% Road Impervious in ARA of Upstream Network	0.91
% Road Impervious in ARA of Downstream Network	0.41
% Other Impervious in ARA of Upstream Network	0.59
% Other Impervious in ARA of Downstream Network	0.55

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)	5.17	Upstream Size Class Gain (#)	0
Total Functional Network (mi)	31.7	# Downsteam Natural Barriers	0
Absolute Gain (mi)	5.17	# Downstream Hydropower Dams	0
# Size Classes in Total Network	2	# Downstream Dams with Passage	0
# Upstream Network Size Classes	1	# of Downstream Barriers	6

NFHAP Cumulative Disturbance Index	High
Dam is on Conserved Land	No
% Conserved Land in 100m Buffer of Upstream Network	29.38
% Conserved Land in 100m Buffer of Downstream Network	18.5
Density of Crossings in Upstream Network Watershed (#/m2)	2.28
Density of Crossings in Downstream Network Watershed (#/m2)	0.99
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
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)	No
Native Fish Species Richness (HUC8)	56
# Rare Fish (HUC8)	1
# Rare Mussel (HUC8)	3
# 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	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	Moderate
PA IBI Stream Health	N/A

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

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