# Chesapeake Fish Passage Prioritization - Dam Fact Sheet

CFPPP Unique ID: **VA_309** **PAINES DAM**

| | |
|---|---|
| Bay-wide Diadromous Tier | 10 |
| Bay-wide Resident Tier | 9 |
| Bay-wide Brook Trout Tier | N/A |
| NID ID | VA00311 |
| State ID | 309 |
| River Name | |
| Dam Height (ft) | 30 |
| Dam Type | Earth |
| Latitude | 38.0947 |
| Longitude | -78.4586 |
| Passage Facilities | None Documented |
| Passage Year | N/A |
| Size Class | 1a: Headwater (0 - 3.861 sq mi) |
| HUC 12 | South Fork Rivanna River |
| HUC 10 | South Fork Rivanna River |
| HUC 8 | Rivanna |
| HUC 6 | James |
| HUC 4 | Lower Chesapeake |


## Landcover

| NLCD (2011) | |
|---|---|
| % Impervious Surface in Upstream Drainage Area | 20.41 |
| % Natural Cover in Upstream Drainage Area | 34.16 |
| % Forested in Upstream Drainage Area | 30.84 |
| % Agriculture in Upstream Drainage Area | 4.3 |
| % Natural Cover in ARA of Upstream Network | 60 |
| % Natural Cover in ARA of Downstream Network | 79.33 |
| % Forest Cover in ARA of Upstream Network | 35 |
| % Forest Cover in ARA of Downstream Network | 65.28 |
| % Agricultral Cover in ARA of Upstream Network | 0 |
| % Agricultral Cover in ARA of Downstream Network | 16.03 |
| % Impervious Surf in ARA of Upstream Network | 7.58 |
| % Impervious Surf in ARA of Downstream Network | 0.71 |

| Chesapeake Conservancy (2016) | |
|---|---|
| % Tree Cover in ARA of Upstream Network | 60.6 |
| % Tree Cover in ARA of Downstream Network | 79.1 |
| % Herbaceaous Cover in ARA of Upstream Network | 12.51 |
| % Herbaceaous Cover in ARA of Downstream Network | 15.73 |
| % Barren Cover in ARA of Upstream Network | 0 |
| % Barren Cover in ARA of Downstream Network | 0.1 |
| % Road Impervious in ARA of Upstream Network | 3.65 |
| % Road Impervious in ARA of Downstream Network | 0.6 |
| % Other Impervious in ARA of Upstream Network | 5.72 |
| % Other Impervious in ARA of Downstream Network | 0.78 |

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) | 1.09 | Upstream Size Class Gain (#) | 0 |
| Total Functional Network (mi) | 5432.11 | # Downsteam Natural Barriers | 0 |
| Absolute Gain (mi) | 1.09 | # Downstream Hydropower Dams | 2 |
| # Size Classes in Total Network | 6 | # Downstream Dams with Passage | 4 |
| # Upstream Network Size Classes | 1 | # of Downstream Barriers | 4 |

| | |
|---|---|
| NFHAP Cumulative Disturbance Index | High |
| Dam is on Conserved Land | No |
| % Conserved Land in 100m Buffer of Upstream Network | 0 |
| % Conserved Land in 100m Buffer of Downstream Network | 11.23 |
| Density of Crossings in Upstream Network Watershed (#/m2) | 2.92 |
| Density of Crossings in Downstream Network Watershed (#/m2) | 0.84 |
| 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 | Potential Current | Downstream Striped Bass | None Documented |
| Downstream Blueback | Potential Current | Downstream Atlantic Sturgeon | None Documented |
| Downstream American Shad | None Documented | Downstream Shortnose Sturgeon | None Documented |
| Downstream Hickory Shad | None Documented | Downstream American Eel | Current |

| | |
|---|---|
| Presence of 1 or More Downstream Anadromous Species | Potential Curre |
| # 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 | Yes |
| Barrier Blocks a Modeled BKT Catchment (DeWeber) | No |
| Native Fish Species Richness (HUC8) | 36 |
| # Rare Fish (HUC8) | 0 |
| # Rare Mussel (HUC8) | 4 |
| # Rare Crayfish (HUC8) | 0 |

## Stream Health

| | |
|---|---|
| Chesapeake Bay Program Stream Health | VERY_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 |

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