

## Chesapeake Fish Passage Prioritization - Dam Fact Sheet

CFPPP Unique ID: **VA\_24**

**ESSEX MILL DAM**

|                           |                                 |
|---------------------------|---------------------------------|
| Bay-wide Diadromous Tier  | 2                               |
| Bay-wide Resident Tier    | 2                               |
| Bay-wide Brook Trout Tier | N/A                             |
| NID ID                    | VA05707                         |
| State ID                  | 24                              |
| River Name                | Mill Creek                      |
| Dam Height (ft)           | 14                              |
| Dam Type                  | Gravity                         |
| Latitude                  | 37.8606                         |
| Longitude                 | -76.8469                        |
| Passage Facilities        | None Documented                 |
| Passage Year              | N/A                             |
| Size Class                | 1b: Creek (3.861 - 38.61 sq mi) |
| HUC 12                    | Piscataway Creek                |
| HUC 10                    | Cat Point Creek-Rappahannock    |
| HUC 8                     | Lower Rappahannock              |
| HUC 6                     | Lower Chesapeake                |
| HUC 4                     | Lower Chesapeake                |



### Landcover

| NLCD (2011)                                       |       | Chesapeake Conservancy (2016)                   |       |
|---|-------|---|-------|
| % Impervious Surface in Upstream Drainage Area    | 0.53  | % Tree Cover in ARA of Upstream Network         | 89.53 |
| % Natural Cover in Upstream Drainage Area         | 76.64 | % Tree Cover in ARA of Downstream Network       | 75.45 |
| % Forested in Upstream Drainage Area              | 57.11 | % Herbaceous Cover in ARA of Upstream Network   | 4.9   |
| % Agriculture in Upstream Drainage Area           | 18.54 | % Herbaceous Cover in ARA of Downstream Network | 15.78 |
| % Natural Cover in ARA of Upstream Network        | 95.63 | % Barren Cover in ARA of Upstream Network       | 0     |
| % Natural Cover in ARA of Downstream Network      | 84.87 | % Barren Cover in ARA of Downstream Network     | 0.01  |
| % Forest Cover in ARA of Upstream Network         | 60.37 | % Road Impervious in ARA of Upstream Network    | 0.44  |
| % Forest Cover in ARA of Downstream Network       | 37.92 | % Road Impervious in ARA of Downstream Network  | 0.55  |
| % Agricultural Cover in ARA of Upstream Network   | 2.18  | % Other Impervious in ARA of Upstream Network   | 0.52  |
| % Agricultural Cover in ARA of Downstream Network | 11.74 | % Other Impervious in ARA of Downstream Network | 0.72  |
| % Impervious Surf in ARA of Upstream Network      | 0.19  |   |       |
| % Impervious Surf in ARA of Downstream Network    | 0.31  |   |       |

Metric descriptions can be found at:

[http://52.53.143.233/chesapeake-dev/plugins/barrier-prioritization-proto2/images/Metric\\_Glossary.pdf](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)                                   | 22.23                                  | Upstream Size Class Gain (#)   | 0 |
| Total Functional Network (mi)                                      | 144.24                                 | # Downstream Natural Barriers  | 0 |
| Absolute Gain (mi)   | 22.23                                  | # Downstream Hydropower Dams   | 0 |
| # Size Classes in Total Network                                    | 3                                      | # Downstream Dams with Passage | 0 |
| # Upstream Network Size Classes                                    | 2                                      | # of Downstream Barriers       | 0 |
| NFHAP Cumulative Disturbance Index                                 | Not Scored / Unavailable at this scale |                                |   |
| Dam is on Conserved Land   | No                                     |                                |   |
| % Conserved Land in 100m Buffer of Upstream Network                | 6.27                                   |                                |   |
| % Conserved Land in 100m Buffer of Downstream Network              | 2.9                                    |                                |   |
| Density of Crossings in Upstream Network Watershed (#/m2)          | 0.23                                   |                                |   |
| Density of Crossings in Downstream Network Watershed (#/m2)        | 0.29                                   |                                |   |
| 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       | None Documented |
| Downstream Blueback                                 | 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 | Current         |                               |                 |
| # Diadromous Species Downstream (incl eel)          | 3               |                               |                 |

### 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)              | 58 |
| # Rare Fish (HUC8)                               | 2  |
| # Rare Mussel (HUC8)                             | 2  |
| # 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         | Outstanding |
| PA IBI Stream Health                 | N/A         |

Metric descriptions can be found at:

[http://52.53.143.233/chesapeake-dev/plugins/barrier-prioritization-prot02/images/Metric\\_Glossary.pdf](http://52.53.143.233/chesapeake-dev/plugins/barrier-prioritization-prot02/images/Metric_Glossary.pdf)