

## Oyster Restoration Indicator

**Oyster outcome**—continually increase finfish and shellfish habitat and water quality benefits from restored oyster populations. Restore native oyster habitat and populations in 10 tributaries by 2025 and ensure their protection.




The Chesapeake Bay Program uses a suite of environmental indicators to track its progress toward the goals and outcomes of the Chesapeake Bay Watershed Agreement. Oversight groups use these indicators to hold us accountable for our work, while students, teachers and the interested public use these data and the stories they tell to understand Chesapeake Bay health and restoration. To this end, the Sustainable Fisheries Goal Implementation Team (Fisheries GIT) is developing an indicator to track the restoration process and progress toward completion of in-water implementation in 10 tributaries. The approach we propose is:

1. a dashboard that illustrates the tributaries selected and their individual restoration status, and
2. a chart that depicts the in-water implementation progress, in acres, of each selected tributary toward restoration targets established in the individual tributary plans.

The number of acres of in-water restoration within a tributary is proposed as the indicator for this process due to the complexity and longer term timeframes required to deem a tributary restored per the [oyster metrics](#). In-water restoration is defined as the number of acres within a tributary where implementation of restoration practices (reef construction and/or seeding) has been completed. In the web text surrounding this indicator, the Partnership will reference the other oyster metrics to effectively show that while this indicator demonstrates success towards the number of acres, other metrics exist for determining long-term success. The dashboard and acreage indicator, if approved by the Fisheries GIT, will be published on the [Chesapeake Progress website](#) of the Chesapeake Bay Program and likely updated annually based on updates from the Maryland and Virginia Oyster Restoration Interagency Teams.

The Fisheries GIT has set a target deadline of December 2016 for approval and adoption of the indicator.




Tributary Restoration Status Dashboard

Tributaries	Tributary	Reef Construction and	Monitoring and	Completed
	Restoration	Seeding	Evaluation	Acreage/Target
	Plan			Acreage
1. Harris Creek	 ✓	✓	✓	350/350
2. Tred Avon	 ✓	✓		2.6/147
3. Little Choptank	 ✓	✓		85.8/440
4. Piankatank	 ✓			0/500-1000
5. Lynnhaven				
6. Lafayette	 ✓	✓		70/80
7. Not Selected				
8. Not Selected				
9. Not Selected				
10. Not Selected				

**Commented [CK1]:** These checkmarks imply to me that each phase in question is complete rather than in progress. This works well for the Tributary Restoration Plan column, but could be misleading for the other two. I would suggest using a different graphic (and think we should consult with our web design experts before we commit to a graphic here).

This dashboard represents the progress being made on the Oyster Restoration outcome. The columns represent the major steps necessary to conduct restoration at each selected location. In all, there are six selected sites out of an agreed ten designations. Next to the name of the tributary colors and/or graphics are used as appropriate to indicate the progress of restoration.

#### Legend

-  Red stop light indicates not having started any restoration process, even if a tributary has been named.
-  Yellow indicates a started restoration project that has been postponed
-  Green stop light indicates that the restoration process is ongoing for that tributary
- ✓ Checkmark indicates that the site has, at minimum, started the process of developing a tributary restoration plan, constructing and seeding reefs, and/or monitoring/evaluation.

**Commented [FL2]:** When does something officially become postponed? Suggest being specific, i.e., no work scheduled for the next 6 months. We will have to explain how we make the distinction that something is postponed in our Analysis and Methods documentation, so we might as well be clear about it here.

## Timeline of Tributary Selection

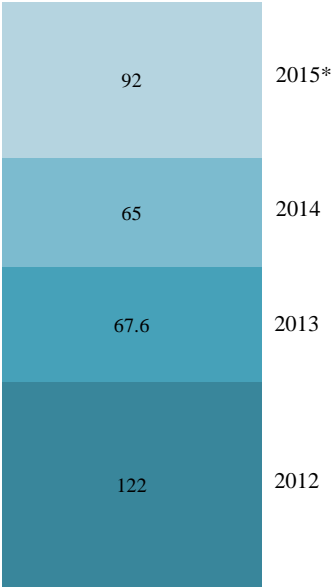


Six Chesapeake Bay tributaries have been selected for oyster restoration: Harris Creek and the Little Choptank and Tred Avon rivers in Maryland, and the Lafayette, Lynnhaven and Piankatank rivers in Virginia. Each selected tributary is at a different level of progress for restoration implementation.

Four more tributaries must be selected, and all tributaries should have completed in-water restoration by 2025.

**Harris Creek In-Water  
Restoration Completed  
Annually**

\*Goal of 350 Acres Achieved

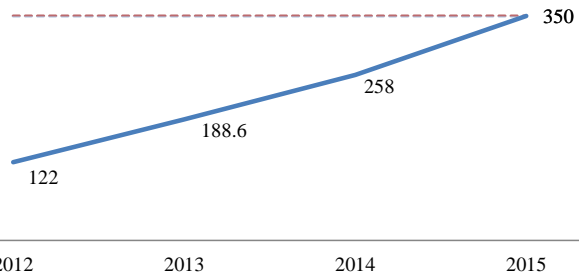


## Restoration Progress in Harris Creek

100% In-water  
Restoration  
complete, 350  
acres

## Harris Creek Restoration

--- Goal    — In-Water Restoration (Acres)

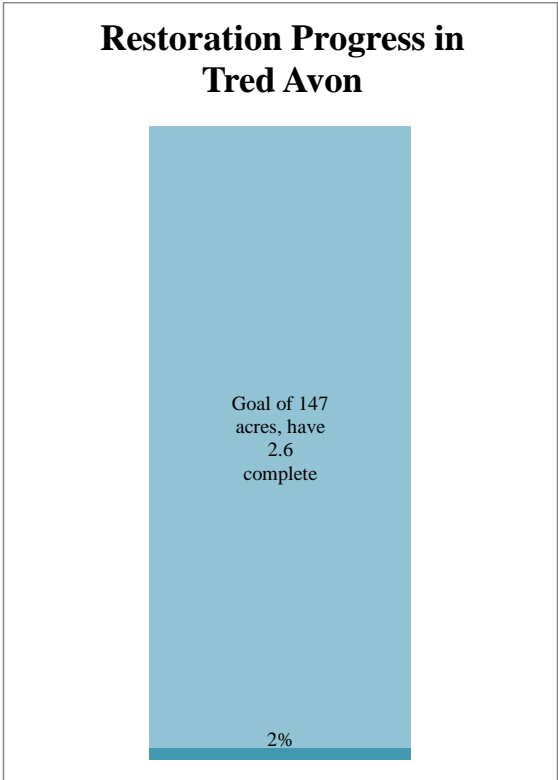


100% in-water restoration practices in place. The tributary restoration success will be evaluated per the established [performance metrics](#).

Q: Both above graphs indicate completed in-water restoration at the Harris Creek site. The difference is choosing to show the detailed annual progress break down or simply showing that 100% of the target has been achieved. The question is:

Should we include the extra detail in the indicator graph for each tributary?

If the break-down approach is adopted, each tributary will have another level of complexity involved with the indicator graph. If one or both of the simple progress graphs is adopted, then the tributary graphs will look like the second graph above, and all the graphs below.



**Commented [CK3]:** Proposal for final chart: I think one stacked bar chart that offers a look at the status of each tributary would be helpful. There are two versions we could consider, both of which would use Acres as the Y axis and Tributary as the X axis. The first version would cover one point in time, and use two colors in each bar to depict the number of acres restored and the number of acres left to go. The second version would cover change over time, and use several colors in each bar to depict the number of acres restored in a given year and the number of acres left to go. The former is probably the way to go, but we can mock up both versions (even on ChesapeakeProgress) if you'd like.

# Restoration Progress in Little Choptank

