

**STRATEGY: Continually improve our ability to braid together scientific, Indigenous, and local knowledge towards restoring ecological integrity, promoting community well-being, and fostering sustainable land and water management practices.**

As a result of this strategy:

- Tribal Nations and community members will co-develop the design and delivery of research as equal partners to enhance outcomes, increase the efficiency of monitoring efforts and insights, accelerate innovation, and enhance decision-making.
- The development of ethical space protocols will mutually honor perspectives from science knowledge, Indigenous Knowledge and oral histories, and local community insights and will build stronger partnerships.
- Cultural/local identity will be strengthened and the transmission and cross-fertilization of all types of knowledge will be enhanced.
- Research initiatives will support shared decision-making on the best way to interpret and share data and results so that research and findings are received as relevant and beneficial to Tribal Nations and local communities, support positive shifts in behavior, and improve overall relationship to healthy land and waters.

### ***Why is this necessary?***

Indigenous science or Indigenous Knowledge represents world views and longitudinal datasets that encompass thousands of years of observation, management, and connection with the natural world. Despite the presence of seven federally recognized tribes now implementing water, forest, and natural resource management programs, the formal incorporation of Indigenous Knowledge is completely absent in the Chesapeake Bay Program. Other watershed initiatives such as the [Puget Sound Partnership](#), the [Great Lakes Restoration Initiative](#) and the [Haida Gwaii](#) (also known as the Great Bear Rainforest) have demonstrated the effectiveness in honoring the contributions of Sovereign Nations and Indigenous Knowledge within large-landscape scale restoration and conservation initiatives. These partnerships are accelerating the pace and quality of conservation, supporting the protection and access to cultural resources as critical to ecosystem restoration, and delivering cost-efficient results because of Indigenous Guardians, Indigenous Knowledge or participatory science partnerships that enhance ecosystem and community well-being.

Local knowledge will also be critical in our restoration efforts moving forward, as we look for increased effectiveness through more strategic use of resources and a more heightened and collaborative engagement with partners at all scales (federal, state, and local). Tools and approaches such as spatial targeting, pay-for-performance, tiered implementation, and regulatory sandboxing rely heavily on local knowledge. While modelling tools are critical to our efforts, in many cases they may be generally right but specifically wrong. Local knowledge is critical to avoid ineffective use of resources.

### ***How can Indigenous Knowledge and local knowledge improve the overall effectiveness and efficiency of the Chesapeake Bay Program?***

Incorporating local and traditional knowledge into restoration projects ensures that interventions are more context-specific, culturally appropriate, and efficient. It promotes sustainable practices and successful outcomes by bridging the gap between scientific approaches and traditional/local wisdom. Co-developed research activities have been initiated with Tribes and scientific institutions on issues involving the culturally important sturgeon, river herring, shad, and diamondback terrapin. In addition, collaborative work on developing plans for a changing Bay climate as well as natural and nature-based shoreline activities for Tribal lands are ongoing. For example, the William & Mary Business School and the Virginia Institute of Marine Science co-developed a project with the Chickahominy Indian Tribe to

establish a native plant nursery, answering the need of landowners and communities in the coastal zone that are increasingly adopting nature-based solutions, such as living shorelines and riparian buffers, that utilize native plants to stabilize coastal areas and enhance biodiversity.

As articulated by the Tribe: “...the Chickahominy Tribe believes that our vision of life in harmony with creation holds profound significance and offers hope for our nation and the world. As stewards of the land, we are committed to promoting sustainable practices and drawing from the wisdom of our ancestors. We are confident that the Chickahominy people can contribute meaningfully to shaping a better future for all.”

A native plant nursery offers a unique opportunity to leverage tribal cultural knowledge and stewardship of the land while providing economic benefits to the Tribe and surrounding communities. By cultivating and selling native plants, the Tribe can promote environmental conservation, support biodiversity, and create sustainable livelihoods for Tribal members. This proposal brings together a coalition of scientific, business, and tribal experts to develop a comprehensive business plan for the establishment of a native plant nursery on Chickahominy Indian Tribe's land.

Local knowledge plays a similar role as it incorporates the cultural beliefs, practices, and values of the communities that reside in or near the restoration area. Incorporating this knowledge can enhance the cultural relevance of the project, promote community acceptance, and provide insights into what practices have been effective or detrimental, thus guiding current restoration strategies.

Local knowledge also provides detailed insights about the specific conditions of the area, such as soil types, climatic patterns, water sources, plant and animal behaviors, and seasonal changes. This includes knowledge of which species might be more resilient to changing local conditions or how to manage local pests and diseases. Building solutions upon local knowledge can lead to improved stewardship of the restored environments, with communities taking an active role in ongoing management and monitoring.

***How can the Chesapeake Bay Program Partners Benefit from this Strategy:***

This strategy allows us to make several principles specified in the Watershed Agreement manifest in our work. It also takes advantage of existing accountability and governance structures in its implementation, such as the SRS process, Advisory Committees, public-facing vehicles such as Chesapeake Progress and Chesapeake Decisions, and the existing organizational structure. It may also attract new resources to the effort. For example, a new network of Indigenous Guardians is growing in the United States to bring Indigenous Knowledge and local perspectives to large-watershed scale conservation. The Indigenous Conservation Council, an intertribal organization with representation by all the seven federally recognized tribes located in the Chesapeake Bay watershed, has built a formal partnership with the Indigenous Leadership Initiative to ensure greater funding, capacity support services, and shared lessons learned in developing and implementing Indigenous Guardians programs here in the Chesapeake Bay. Supporting Indigenous Guardians programs that have been proven to attract private philanthropic support, unlock new strategies to work with nature to support ecosystem resilience and adaptive management, and develop Tribal Capacity needed to accelerate conservation and restoration goals is a critical needed outcome for the Chesapeake Bay Program.