Goal Implementation Team (GIT) Funding project ideas

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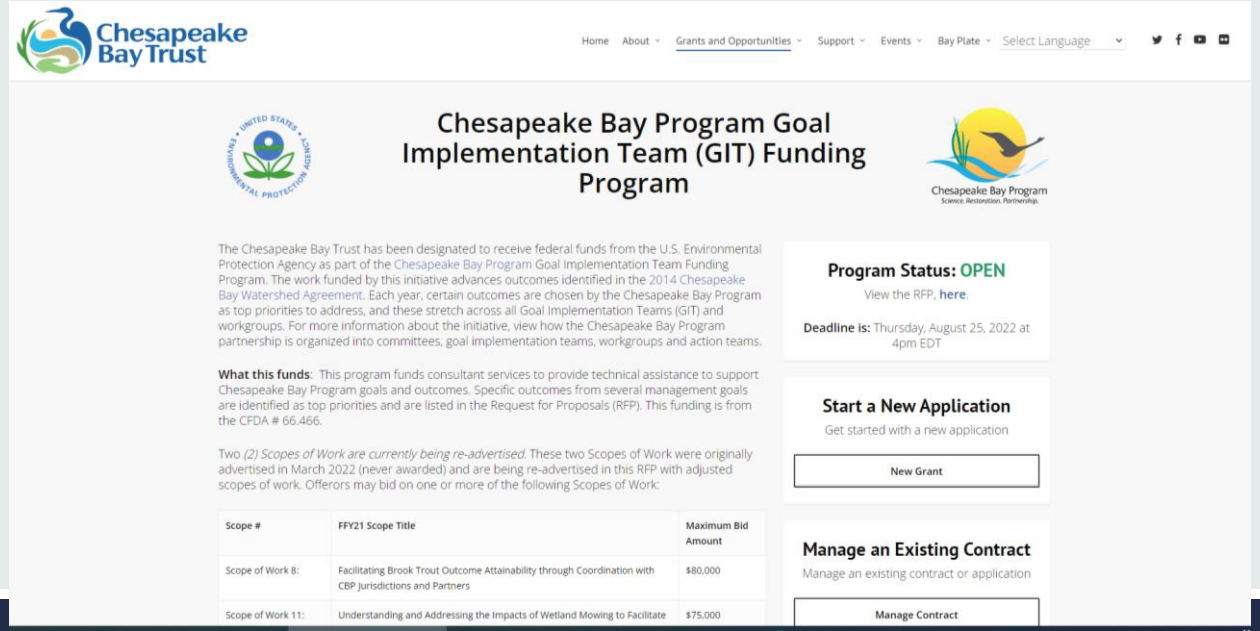
Photo by Chesapeake Bay Program

Quick reminder: how GIT-funding works

- Funding has been around for several years (FY2014) and has supported dozens of projects
- The CBP partnership develops the project ideas and selects projects for funding
- Maryland's Chesapeake Bay Trust facilitates project idea submissions and manages the announcements/awards/contracts for projects with funding from EPA CBPO



Project/funding criteria…

- Projects should…
  - …be focused on filling key gaps that address important factors affecting goal and outcome attainment articulated in Management Strategies and Workplans.
  - …explicitly demonstrate how the proposed project would support, directly or indirectly, the achievement of one or more related Outcomes.
- This funding is not intended to support long-term implementation of restoration, protection, or stewardship projects, but rather it is to support tools or analyses that will make restoration, protection, and stewardship more effective in the future.
- Implementation of pilot projects is acceptable; long-term monitoring projects are not eligible.
- Eligible projects can improve, expand upon, or update past projects and can be phased projects that build upon each other.
- Projects should be unique and not duplicative; proposers must demonstrate how the project is new or explain how it is unique

Key Dates for Phase 1: Development of ideas and selection

- **August 9** – idea sharing meeting
- **September 1** – Draft "Table 1" due, generally 2 pages long
  - Limit one project idea can be submitted per outcome (31 outcomes in 2014 Watershed Agreement)
- **September 23** – Final Table 1 due
- **September 28** – GIT Chairs meet to score project ideas
  - "The Phase 1 Project Ideas are scored and ranked by GIT leaders (e.g., Staffers, Coordinators, Co-Chairs, Chairs) using developed criteria that are updated annually. The GIT Chairs facilitate consensus-focused discussions and ultimately propose the projects to be funded based upon collective scores and input from those involved in scoring. The EPA CBPO Director, with input from other EPA managers, completes final review and approval of projects to be funded." – from FY22 GIT funding program manual

Selected projects move to Phase 2 and development of "Table 2"

Table 2 refines the project idea into a scope of work

Additional weighting factors (bonus points)

- Project addresses a Diversity, Equity, Inclusion, and Justice (DEIJ) need.
- Project addresses a Climate Change need.
- Project addresses a Local Engagement need.
- GIT Priority Project (**one priority project identified per GIT***).
- Projects that address outcomes that are lagging in outcome attainability.

*More on how we will identify our WQGIT priority at the end (our deadline is Sept. 23)

Project Ideas

Relevant ideas from workgroups, STAR and/or other GITs
Not listed in any particular order

Please reach out directly to the respective contacts with questions

You can use the WebEx chat for discussion or questions, but we will not have time for verbal discussion today

Forestry Workgroup idea (1 of 2)

What is the project? Project type	**Leaning Into the Multiple Benefits of Riparian Forest Buffers**
Agreement outcome(s)	Riparian forest buffer outcome cross-outcome benefits: Brook Trout, Climate Resilience
Contact(s)	Sally Claggett & Katie Brownson, USFS Sophie Waterman, CRC (swaterman@chesapeakebay.net)
Brief summary description/justification	Two phases envisioned: (1) Report(s) to analyze multiple benefits from RFBs (flood reduction, drinking water quality, water temperature, habitat, and climate change mitigation). These reports would be developed with the assistance of a Steering Committee consisting of representatives of local and state governments (e.g., LGAC) engaged citizens (e.g., CAC), as well as area experts. Main thrust of this work is to put science in plain-speak to easily communicate it to all partners. Cost/benefit analysis will be part of the reports on the Benefits. (2) would then be woven into Actionable Plans for Riparian Forest Buffers at the state and local levels. These plans would be plainly written (e.g., for the non-scientist) and use new high-resolution riparian area GIS mask (due out in Fall '22), and other new, available data to prioritize actions

Forestry Workgroup idea (2 of 2)

What is the project? Project type	**Addressing Regional Tree Supply Challenges & Opportunities**
Agreement Outcome(s)	Tree canopy outcome cross-outcome benefits: Riparian Forest Buffers, Water Quality, Climate Resilience, Diversity
Contact(s)	Julie Mawhorter, USFS (julie.mawhorter@usda.gov)
Brief summary description/justification	One important limiting factors on achieving Agreement and WIP goals for tree planting is an adequate supply of high quality, diverse, and climate resilient seedlings and larger stock trees. The few State tree nurseries that exist play a critical role to meet seedling supply but there are limitations and challenges to address in order to effectively plan for and scale up supply. Private or non-profit nursery operations are essential to supplement state nursery supply and to provide the larger stock and variety needed in urban settings. New climate and infrastructure-related funding at the federal level could be directed to bolstering tree supply, but a well-informed, coordinated and strategic approach is needed. This project will lay the groundwork for a strategic approach by: 1) a rapid assessment of the current network of tree suppliers serving the Chesapeake region, including key gaps/issues to address; 2) gathering insights from state forestry agencies, nursery producers, and other major planting organizations in a 2-part virtual Scaling Up Chesapeake Tree Supply Forum, and; 3) providing an actionable set of strategies based on Forum findings and "best practice" examples gleaned from across the country.

Toxics Workgroup idea (1 of 2)

What is the project? Project type	**State of PCB TMDL Implementation in the Chesapeake Bay Watershed - Assessing Status to Accelerate PCB TMDLs in Chesapeake Bay Watershed**
Agreement outcome(s)	Toxic contaminants policy and prevention outcome Cross-outcome benefits: forage fish; healthy streams
Contact(s)	Greg Allen, EPA CBPO (allen.greg@epa.gov)
Brief summary description/justification	PCB TMDLs cover a substantial portion of the tidal waters of Chesapeake Bay and its rivers as well as in some freshwater areas of the watershed. See a story map here. The management strategy for the Toxic Contaminants Policy and Prevention Outcome relies on leveraging the Clean Water Act–driven TMDL programs put in place by the jurisdictions. The intention of the Toxic Contaminant Workgroup (TCW) is to be helpful to the jurisdictions with goals to accelerate PCB TMDL implementation where they are already approved and to find efficiencies and best practices for future PCB TMDLs. A marquis symposium event would allow the jurisdictions and federal agencies to come together to share status and approaches in the PCB TMDL programs across the watershed. A contractor to help organize the symposium and prepare a report, would fill a critical shortfall in available staff time. It would also serve as a basis for more meaningful support work by TCW and inform ways that the CBP could act to accelerate progress toward reducing PCBs.

Toxics Workgroup idea (2 of 2) & Plastic Pollution Action Team (PPAT)

What is the project? Project type	**Assessing Biological impacts of microplastic pollution exposure on young-of-year striped bass (Morone saxatilis) in Chesapeake Bay and its tributaries**
Agreement outcome(s)	Toxic contaminants research outcome Cross-outcome benefits: forage fish; healthy streams
Contact(s)	Matt Robinson, DC DOEE (matthew.robinson@dc.gov)
Brief summary description/justification	To date, the PPAT has partially completed the first two steps of an ecological risk assessment (ERA) looking at microplastic impacts to young-of-year (YOY) striped bass. In order to develop a complete ERA, the PPAT requires additional data on: 1) Presence of microplastic contamination in mysid shrimp collected in the Chesapeake Bay and its tributaries. Quantitative food web analysis previously conducted for the preliminary ERA has shown that mysids are a very important prey item for striped bass. 2) Biological impacts on YOY striped bass fed with mysid shrimp contaminated with microplastics. Examples of biological impacts include, but are not limited to, hepatosomatic ratio, growth, stress response, and mortality. The PPAT is interested a project that couples (1) a lab-based study examining biological impacts of microplastics on YOY striped bass fed with contaminated mysid shrimp, with (2) field surveys sampling mysid shrimp in the Chesapeake Bay and one or more of its tributaries for microplastic contamination.

Land Use Workgroup idea (1 of 3)

What is the project? Project type	**Predictive modeling of wetland presence/absence**
Agreement outcome(s)	Wetlands Cross-outcome benefits: land use methods and metrics
Contact(s)	Peter Claggett, USGS (pclagget@chesapeakebay.net)
Brief summary description	Develop machine-learning methods to better map potential wetlands with aerial photography and LiDAR derivates. The National Wetlands Inventory is 30-40 years out of date throughout much of the watershed west of the fall line along I-95. This project would enable the identification of potential wetlands which include undeveloped depressional landforms with spectral and other properties representing wetlands.

Land Use Workgroup idea (2 of 3)

What is the project? Project type	**Monitor changes in wetland health and function**
Agreement outcome(s)	Wetlands Cross-outcome benefits: land use methods and metrics; climate resiliency
Contact(s)	Peter Claggett, USGS (pclagget@chesapeakebay.net)
Brief summary description	Survey wetland scientists working in the region to identify key remotely-sensed variables related to wetland health and function (e.g., greenness (NDVI) and wetness) that can be tracked with available hyper-temporal satellite imagery (e.g., Landsat and/or Sentinel). Develop automated workflows to generate and track changes in the remotely-sensed metrics on a sub-monthly basis from the early 2000's to present. Analyze the data to detect trends in wetland condition. These data could be used to inform updates to the high-res land use/land cover maps and to identify where field campaigns are needed to update state wetland inventories.

Land Use Workgroup idea (3 of 3)

What is the project? Project type	**Develop methods to improve the mapping of agricultural field boundaries and to differentiate pasture from hay based on spectral and other remotely sensed properties**
Agreement outcome(s)	- Cross-outcome benefits:
Contact(s)	Peter Claggett, USGS (pclagget@chesapeakebay.net)
Brief summary description	Field boundaries are difficult to discern, particularly in the western portion of the watershed where fields and fallow land are adjacent and intertwined. This project would help improve the accuracy of the agricultural data informing the Bay TMDL and related partnership efforts to reduce nutrient pollution.

Habitat GIT (SAV Workgroup)

What is the project?	**Targeted GIS exercise/analysis: areas of high flow and SAV acreage/density impacts and trends**
Agreement outcome(s)	Submerged aquatic vegetation (SAV) Cross-outcome benefits: water quality, oysters,
Contact(s)	Brooke Landry, MD DNR (Brooke.Landry@maryland.gov)
Brief summary description	Evaluate and review land use in areas where high flow directly impacts SAV beds. Correlation with land-based BMPs and SAV impacts, explore possible co-locating options for BMPs in those areas. Assess potential for land-based BMPs, co-locating BMPs, choosing best land-based or in-water BMPs (oysters) to support the SAV outcome. Both tidal and nontidal SAV beds to be selected, including sites of varying health for analysis. From SAV Logic & Action plan (action 1.1c): Determine the local effect of flow/stormwater runoff on SAV density and acreage and options for targeting BMPs that would protect priority SAV areas. This action was specifically recommended by the Management Board. a. Targeted GIS exercise to explore areas of high flow and SAV acreage/density impacts. b. Review land-use in areas where flow directly impacts SAV; explore BMP options for those areas.

STAR

What is the project? Project type	**Develop a monitoring plan for an outcome or network** (contractor support)
Agreement outcome(s)	Water quality standards attainment & monitoring Cross-outcome benefits: TBD, 2025 WIP outcome
Contact(s)	Breck Sullivan, USGS (bsullivan@chesapeakebay.net)
Brief summary description	To hire contractor to facilitate follow-up meetings and discussions for partnership investments in a TBD monitoring network or for a TBD outcome. Current prospect: Contractor support to develop a monitoring and implementation plan to support dissolved oxygen criteria assessment needs. This includes short-duration dissolved oxygen criteria attainment assessments, connects shallow water and offshore high temporal frequency data collections and fish habitat assessment needs. STAR hopes to coordinate with the Sustainable Fish GIT, possibly healthy habitats too. The work would provide a discrete reference on sampling design with an implementation plan on who is funding what to sustain the monitoring efforts.

Our next steps

- We will generate a short survey based on the project ideas that are submitted on September 1, and we will ask WQGIT members to rank the projects online
  - If unable to access the survey (Google Forms) you can provide responses via email
- We expect to share survey link after Labor Day (likely Tue. September 6), and request that survey be completed **by COB Friday September 16**
- Top cumulative score will be designated as WQGIT's top priority
  - GIT priority grants a bonus point, does not guarantee selection