### FY 2014 GIT Focused Funding Proposals Summary August 19, 2014

# **Proposed Projects Summary**

| Pg    | ID | Title  | Proposer<br>GIT | Cost      |
|-------|----|--|-----------------|-----------|
| 2     | 13 | Forage fish indicator/metric development   | 1               | \$50,000  |
| 3     | 17 | Brook trout monitoring support to EBTJV  | 2               | \$40,000  |
| 4     | 20 | Citizen monitoring of land conversion to development, tree cover, and riparian buffers   | 3/4             | \$60,000  |
| 5     | 21 | Identification of additional healthy waters  | 4               | \$50,000  |
| 6     | 24 | Development of baseline indicator of citizen stewardship   | 5               | \$75,000  |
| 7     | 10 | Facilitation and technical content development support for GIT development of management strategies  | 6               | \$50,000  |
| 8     | 1  | CBSAC Research Needs   | 1               | \$85,000  |
| 9     | 3  | Black Duck Prioritization  | 2               | \$30,000  |
| 10-11 | 11 | Climate change, marsh erosion, and the Chesapeake Bay TMDL   | 1-5             | \$82,000  |
| 12    | 26 | Landscape level demonstration project designed to test incentive for forestland retention through the TMDL model   | 4               | \$50,000  |
| 13    | 23 | Metrics finalization and state implementation plans/Environmental literacy planning  | 5               | \$75,000  |
| 14    | 8  | Synthesis of Local Leadership Development Programs   | 5/6             | \$20,000  |
| 15    | 15 | Striped Bass Health Indicator Development  | 1               | \$40,000  |
| 16    | 25 | Accelerate wetland restoration in support of WIPs/GIT integration  | 2               | \$40,000  |
| 17    | 4  | Summarizing potential benefits of nutrient and sediment practices to reduce toxic contaminants   | 3               | \$50,000  |
| 18-19 | 5  | Leveraging local lessons / Development of a crowd sourced database as part of the Chesapeake Network to promote shared outreach and marketing case studies, results, and materials | 4/5             | \$35,000  |
| 20    | 16 | Stream Health Outcome Baseline/Defining new metric   | 2               | \$20,000  |
|       |    |  | Total           | \$852,000 |

| Project ID              | 13   |
|-------------------------|--|
| Goal Team               | GIT 1  |
| Project Title           | Forage Fish Indicator/Metric Development                                       |
| Goal/Outcome            | Sustainable Fisheries Goal, Forage Fish Outcome                                |
| Cost Estimate           | Grant or cooperative agreement with academic institution (UMD, UMCES, etc.) to |
| Range and               | analyze data to develop metrics  |
| recommended             | \$50,000   |
| funding vehicle         |  |
| <b>Project Duration</b> | January 2015-June 2015   |
| <b>Priority Area</b>    | Metric Development and Tracking  |
| Addressed               |  |
| Activity                | Use available data on forage species in the Chesapeake Bay to develop          |
| Description             | indicators/metrics that quantify some aspect of the forage base.               |
|                         | Recommendations of how to proceed with developing such metrics will emerge     |
|                         | from the STAC Forage Base Workshop planned for November 2014.                  |
| Outputs                 | Forage species indicators/metrics  |
| Justification for       | This project specifically addresses the forage fish outcome and will apply     |
| FY 14 funding           | recommendations from the November 2014 STAC workshop to move forward           |
|                         | with quantifying the Chesapeake Bay forage base.                               |

| Project ID              | 17  |
|-------------------------|---|
| <b>Goal Team</b>        | GIT 2   |
| Project Title           | Brook Trout Monitoring Support to EBTJV   |
| Goal/Outcome            | Vital Habitats Goal, Brook Trout Outcome  |
| Cost Estimate           | FWS pass through funding to EBTJV (Science and Data Committee) possibly via     |
| Range and               | USGS Non-tidal network?   |
| recommended             | \$40,000  |
| funding vehicle         |   |
| <b>Project Duration</b> | Fall 2014-Spring 2015   |
| <b>Priority Area</b>    | Tracking and Accountability in support of Management Strategy implementation    |
| Addressed               |   |
| Activity                | Data management system analyst: dedicated staff time to design and pilot test   |
| Description             | consolidated multi-state system for reporting to CBP                            |
| Outputs                 | Agreed-upon method of tracking/reporting annual progress                        |
| Justification for       | A baseline is necessary to develop the management strategy to support the Brook |
| FY 14 funding           | Trout Outcome in the new Watershed Agreement and to measure and track           |
|                         | progress toward the 2025 goal.  |

| Project ID                      | 20   |
|---------------------------------|--|
| <b>Goal Team</b>                | Joint GIT 3 and GIT 4  |
| Project Title                   | Citizen Monitoring of Land Conversion to Development, Tree Cover, and Riparian Buffers   |
| Goal/Outcome                    | Land Conservation Goal, Land Use Options Evaluation Outcome  |
| Cost Estimate                   | \$60,000; Existing IAG and GDA contract; USGS  |
| Range and                       |  |
| recommended                     |  |
| funding vehicle                 |  |
| <b>Project Duration</b>         | 1 year   |
| Priority Area Addressed         | Management Strategy Development, Metric Development and Tracking, & Implementation Projects  |
| Activity<br>Description         | Pilot a distributed citizen monitoring effort to develop precise and accurate county-level estimates of impervious surface change from 2001 – 2010 and characterize the nature of that change (i.e., conversion of forest vs. farmland) using newly developed free image classification software (Land Image Analyst 1.1) developed by the USFS, USGS, and GDA Corporation. The USGS will develop a sampling framework sufficient for monitoring impervious surface change at the county level. Citizens will be able to download multi-date imagery for sample areas from the web, classify impervious surfaces for those areas, characterize pre-development land use on a web-form, and then upload their results for QA/QC by CBP Partners.  |
| Outputs                         | Sampling design, free Land Image Analyst 1.2 software, estimates of impervious surface change for select counties within each Bay state, and an implementation plan for impervious surface change assessments for all counties within the Chesapeake Bay Watershed   |
| Justification for FY 14 funding | This project will help inform the management strategy for addressing multiple facets of the Land Use Methods and Metrics Development Outcome in the 2014 Bay Agreement. This Outcome states: "Continually improve the knowledge of land conversion and the associated impacts throughout the watershed. By 2016, develop a Chesapeake Bay watershed-wide methodology and local-level metrics for characterizing the rate of farmland, forest and wetland conversion, measuring the extent and rate of change in impervious surface coverage and quantifying the potential impacts of land conversion to water quality, healthy watersheds and communities. Launch a public awareness campaign to share this information with citizens, local governments, elected officials and stakeholders." |

| Project ID              | 21  |
|-------------------------|---|
| Goal Team               | GIT 4   |
| Project Title           | Identification of additional healthy waters   |
| Goal/Outcome            | Healthy Watersheds Goal, Healthy Watersheds Outcome   |
| Cost Estimate           | \$50,000  |
| Range and               |   |
| recommended             | Consultancy   |
| funding vehicle         |   |
| <b>Project Duration</b> | 1 year?   |
| <b>Priority Area</b>    | Metric Development and Tracking   |
| Addressed               |   |
| Activity<br>Description | Hire consultants to make use of the USGS NAWQA methodology to identify additional high quality waters (reference sites) in the watershed. This methodology was used in the following NAWQA publication: <a href="http://water.usgs.gov/nawqa/ecology/pubs/cir-1391/index.html">http://water.usgs.gov/nawqa/ecology/pubs/cir-1391/index.html</a> . This is a cross-GIT project because part of the methodology depends on finding unaltered fish, algae and benthic invertebrate communities in streams and rivers. Activity would include up meetings between USGS NAWQA and states to consider identifying additional high quality waters based on NAWQA reference sites (this is not saying that everybody must identify such waters based on the NAWQA methodology). Use funds for presentations from NAWQA with state elected officials as a way to gain leverage for protection of the reference sites.  Since NAWQA looks at a variety of factors that could impact biological communities in streams, use funds to have them work together with STAC to identify the most important factors (biophysical, land use, etc.) for ensuring healthy watersheds remain healthy and for ensuring maintenance of brook trout populations (e.g., not all urbanized or agriculture-dominated watersheds have impaired waters - why? what factors allow for this to happen?), which can then be shared as guidance (using funds to develop the guidance document) with local government planners through LGAC and environmental groups through CAC. |
| Outputs                 | Identification of new healthy watersheds  |
| Justification for       | Parts of the Chesapeake watershed are unassessed for healthy waters. In order to  |
| FY 14 funding           | effectively develop management strategies for healthy waters protection, we need to know where they are.  |

| Project ID                     | 24  |
|--------------------------------|---|
| Goal Team                      | GIT 5   |
| Project Title                  | Development of Baseline Indicator of Citizen Stewardship                      |
| Goal/Outcome                   | Stewardship Goal, Citizen Stewardship Outcome                                 |
| <b>Cost Estimate Range and</b> | \$75K; MOU with University partner, potentially UMCES who has developed       |
| recommended funding vehicle    | a tool to assist with this project.   |
| <b>Project Duration</b>        | Aug 2014-Nov 2015   |
| <b>Priority Area Addressed</b> | Metrics Development and Tracking  |
| <b>Activity Description</b>    | A comprehensive index or indicator(s) that measure the extent of citizen      |
|                                | and community participation and engagement in watershed protection and        |
|                                | restoration actions would be defined and additional data gathered to          |
|                                | inform baseline metrics for this new goal and outcomes.                       |
| Outputs                        | New Stewardship action baseline for the watershed. Regional, local and        |
|                                | social metrics will be identified and collected which could be used for a     |
|                                | variety of purposes to assist in the design of local programs and strategies. |
| Justification for FY 14        | The intent of this project would be to develop an index that would provide    |
| funding                        | a much needed base line metric(s) for the citizen stewardship, local          |
|                                | leadership, and diversity outcomes of the stewardship goal. This would        |
|                                | build upon existing efforts to measure the penetration rate of homeowner      |
|                                | best management practices (e.g. rain gardens, rain barrels, etc.), assess     |
|                                | local NGO capacity and volunteer activity and local government leadership     |
|                                | and capacity by identifying key data gaps and filling them as needed. All     |
|                                | relevant data would contribute to an analysis that would generate an initial  |
|                                | index of behavior and social capital to advance local restoration goals and   |
|                                | serve as a much needed baseline from which to measure future progress.        |

| Project ID  | 10   |
|---|--|
| Goal Team   | GIT 6  |
| Project Title                                       | Facilitation and Technical Content Development Support for GIT Development of Management Strategies  |
| Goal/Outcome  | All Outcomes   |
| Cost Estimate Range and recommended funding vehicle | \$50,000 (approximately 500 hours of contracted support)   |
| Project Duration                                    | September 2014 – June 2015   |
| Priority Area<br>Addressed                          | Development of Management Strategies   |
| Activity<br>Description                             | <ul> <li>Meeting coordination and facilitation</li> <li>Outreach to stakeholders for input and/or participation in management strategy development</li> <li>Review and editing of strategy documents including work plans</li> <li>Estimate required resources for potential activities</li> <li>Forecasting outputs and environmental response from specific activities or across a range of activities</li> <li>Development of options for metrics</li> <li>Estimating cost benefit for activities/outputs</li> <li>Assessing programs and actions undertaken by other watershed restoration programs</li> <li>Analysis of alternative GIT governance structures for implementing strategies that ensures engagement of key stakeholders at the GIT level</li> </ul> |
| Outputs  Justification for FY 14 funding            | Creating management strategies with work plans is a sizeable undertaking that will need to take place under an accelerated timeline. The proposed project will establish capacity for support that will directly benefit the GITs.   |

| Project ID        | 1   |
|-------------------|---|
| Goal Team         | GIT 1   |
| Project Title     | CBSAC Research Needs  |
|                   |   |
| Goal/Outcome      | Sustainable Fisheries Goal, Blue Crab Management Outcome  |
| Cost Estimate     | Grant to jurisdictions (CBIGs) or academic institutions/CBSAC members to  |
| Range and         | complete identified research or data analyses   |
| recommended       | \$ 85,000   |
| funding vehicle   |   |
| Project Duration  | Fall-Winter 2014  |
| Priority Area     | Management Strategy Development   |
| Addressed         |   |
| Activity          | Each year, CBSAC identifies specific research and data needs in their Blue Crab   |
| Description       | Advisory Report. This project would support one or multiple CBSAC research needs that would significantly contribute to our understanding of both the blue                            |
|                   | crab population and the fishing industry. Specific projects may include analysis of overwintering mortality, survey of the peeler pot industry, and analysis of juvenile recruitment. |
|                   |   |
| Outputs           | Improved knowledge of blue crab population dynamics and/or industry operation and effect on the population  |
| Justification for | The research projects CBSAC identified would contribute significantly as the  |
| FY 14 funding     | Fisheries GIT and jurisdictional managers begin to develop the Management   |
|                   | Strategy for the blue crab management outcome. Information on the population,   |
|                   | especially the juveniles, and industry operation would better inform management   |
|                   | decisions and allow for increased accountability. In order to evaluate an   |
|                   | allocation-based management system, managers need more data on the fishery.   |

| Project ID              | 3  |
|-------------------------|--|
| Goal Team               | GIT 2  |
| Project Title           | Black Duck Prioritization  |
| Goal/Outcome            | Vital Habitats Goal, Black Duck Outcome  |
| Cost Estimate           | FWS pass through to ACJV to offset dedicated GIS staff support or Interagency      |
| Range and               | Agreement with USGS for GIS staff on-site at the CBP                               |
| recommended             | \$40,000   |
| funding vehicle         |  |
| <b>Project Duration</b> | Fall 2014-Fall 2015  |
| Priority Area           | Management Strategy Development  |
| Addressed               |  |
| Activity                | Data Analysis and Targeting Efforts: Based on the results of the USGS energetic    |
| Description             | study, determine the priority habitat to protect/restore/enhance in order to       |
|                         | support black duck populations.  |
| Outputs                 | Targeted areas of priority black duck habitat                                      |
| Justification for       | Black ducks are a priority species and addressed in the EO, new agreement, and     |
| FY 14 funding           | will be a CBP indicator. Once the results of the energetics study are released, it |
|                         | will be imperative to determine the priority habitat (how much of what and         |
|                         | where) in order to support a wintering population of 100,000 black ducks.          |
|                         | ,  |
|                         |  |

| Project ID        | 11   |
|-------------------|--|
| Goal Team         | GIT 3 (Outcome GITs are GITs 1-5)  |
| Project Title     | Climate Change, Marsh Erosion and the Chesapeake Bay TMDL  |
| Goal/Outcome      | Climate Resiliency Goal, Monitoring and Assessment Outcome   |
|                   | The work provides key support for the CBP 2017 Midpoint Assessment decisions on  |
|                   | climate change.  |
| Cost Estimate     | The cost of this project is \$82,000, and the vehicle would be an existing IA with the   |
| Range and         | CoE. Collaborative work with USGS and CBP research institutions would be   |
| recommended       | supported by this effort.  |
| funding vehicle   |  |
| Project Duration: | 2 years  |
| Priority Area     | 1) Climate resiliency, 2) addressing uncertainties and gaps to strengthen  |
| Addressed         | management strategies 3) Metric development and tracking in climate  |
|                   | change (modeling support)  |
| Activity          | Rising sea level in Chesapeake Bay is inexorable. One environmental effect   |
| Description       | associated with sea level rise is marsh erosion. Secondary effects of sea level rise   |
|                   | on marshes may include transition in marsh type due to change in elevation or  |
|                   | predominant salinity regime. Marsh erosion can impact water quality in two   |
|                   | fashions. The first is the effect on light attenuation and biogeochemistry associated  |
|                   | with eroded materials released to the water column. The second, often  |
|                   | overlooked, effect is the loss of marsh function. Beneficial functions include   |
|                   | retention and burial of suspended solids, nutrient uptake and sequestration, and   |
|                   | nitrogen removal through denitrification. Loss of these functions has the potential  |
|                   | to affect water quality standards enforced through enactment of the recent total   |
|                   | maximum daily load (TMDL). We propose to examine the potential impact of marsh   |
|                   | loss through a three-phase program including:  |
|                   | Phase I – Estimate marsh loss and transition due to sea level rise   |
|                   | Phase II – Investigate the reactivity of material eroded from marshes and  |
|                   | released to Chesapeake Bay waters  |
|                   | Phase III – Quantify effects of marsh loss on water quality and examine  |
|                   | implications for TMDL  |
|                   |  |
|                   | Phase I – Estimate Marsh Loss and Transition   |
|                   | Sea level rise can enhance marsh loss through multiple processes. The  |
|                   | fundamental process is inundation when the rate of sea level rise exceeds the rate   |
|                   | at which marshes accrete particulate material. Loss also occurs through physical   |
|                   | processes when wave energy dissipated on the shore is enhanced by higher mean  |
|                   | sea level. Another potential for loss occurs when increased salinity, associated with  |
|                   | higher sea level, impacts vegetation adapted to a different salinity regime.   |
|                   | The projected and level size will be taken for an element of the control of the c |
|                   | The projected sea level rise will be taken from climate change scenarios currently   |
|                   | being run by the Chesapeake Bay Program (CBP). Based on the multiple approaches  |
|                   | including collaboration with USGS and university work in this area, a projection of  |
|                   | marsh loss due to sea level rise will be completed. Volumes and rates of material  |

|                                  | loss will be subsequently calculated.   |
|----------------------------------|---|
|                                  | Phase II - Investigate the Reactivity of Material Eroded from Marshes Particulate material eroded from marshes includes inorganic sediments, organic carbon, organic nitrogen, and organic and inorganic phosphorus. The carbon and nutrients have the potential to react in the bay water column and/or after settling to bottom sediments. Research and experiments will be conducted by a local research institute/university to examine this. |
|                                  | Phase III - Quantify Effects of Marsh Loss on Water Quality and the TMDL This phase will involve multiple model activities and will interface with key CBP activities of 1) estimating the impact of climate change, including but not limited to sea level rise, on the Bay, 2) examining strategies to mitigate climate change impacts, and 3) decide how the consideration of climate change would modify Chesapeake TMDL activities.          |
| Outputs                          | <ul> <li>Deliverables from this investigation will include:         <ul> <li>A CBP consensus projection of marsh loss due to sea level rise.</li> <li>Understanding of how marsh loss would influence Bay water quality</li> <li>Understanding of how loss of marshland effects watershed function</li> <li>Key management support for the CBP's 2017 year of decision on climate change</li> </ul> </li> </ul>                                   |
| Justification for FY '14 funding | This work needs to begin now in order to support decisions on climate change in the Chesapeake 2017 Midpoint assessment. The work will also provide valuable climate change mitigation information of immediate importance to the CBP States and jurisdictions.   |

## **Implementation Project Proposals**

| Project ID              | 26  |
|-------------------------|---|
| <b>Goal Team</b>        | GIT 4 (Outcome GIT is GIT 5)  |
| Project Title           | Landscape Level Demonstration Project Designed to Test Incentives for Forestland  |
|                         | Retention through the TMDL Model  |
| Goal/Outcome            | Land Conservation Goal, Protected Lands Outcome   |
| Cost Estimate           | This is a multi-year project requiring participation from multiple partners and will  |
| Range and               | require specialized expertise. Funding will be required from multiple sources.  |
| recommended             | \$50,000 is requested from EPA through the Healthy Waters Goal Implementation   |
| funding vehicle         | Team to support development of the management strategies component of the   |
|                         | project.  |
| <b>Project Duration</b> | 3+ years TBD – Longer duration provides more definitive data concerning impact of   |
|                         | forestland retention efforts for meeting TMDL objectives  |
| Priority Area           | 2014 Chesapeake Bay Partners Agreement:   |
| Addressed               | Healthy Waters outcome  |
|                         | <u>Protected Lands Outcome</u> , e.g. 695,000 acres of forest land of highest value for maintaining water quality;  |
|                         | Land Use Methods and Metrics Development Outcome, e.g. by 2016, develop a Chesapeake Bay watershed-wide methodology and local-level metrics for   |
|                         | characterizing the rate of forest conversion, measuring the extent and rate of change in impervious surface coverage and quantifying the potential impacts of land conversion to water quality, healthy watersheds, and communities; and Land Use Options Evaluation Outcome:, e.g. by the end of 2017, with the direct involvement of local governments or their representatives, evaluate policy options, incentives, and planning tools that could assist local governments in their efforts to continually improve their capacity to reduce the rate of conversion of agricultural lands, forests and wetlands as well as the rate of changing landscapes from more natural lands |

| Project ID              | 23   |
|-------------------------|--|
| Goal Team               | GIT 5  |
| Project Title           | Metrics Finalization and State Implementation Plans/Environmental Literacy     |
|                         | Planning   |
| Goal/Outcome            | Environmental Literacy Goal, Literacy Planning Outcome                         |
| Cost Estimate Range and | \$75,000; Contract with Measurement Incorporated or similar evaluation         |
| recommended funding     | firm   |
| vehicle                 |  |
| Project Duration        | Aug 2014-Nov 2015  |
| Priority Area Addressed | Metrics Development and Tracking   |
| Activity Description    | Professional review of first year of data to establish meaningful baselines.   |
|                         | Technical assistance to states to develop strategies to collect voluntary data |
|                         | from local education agencies to feed into the new Chesapeake Bay              |
|                         | Program environmental literacy metrics.  |
| Outputs                 | New MWEE baseline for the watershed. Local Education Agency data on            |
|                         | sustainable schools, student participation in MWEEs, and related data.         |
| Justification for FY 14 | Environmental Literacy Planning is an outcome of the new Bay Agreement,        |
| funding                 | which includes a commitment to develop and collect voluntary metrics. The      |
|                         | Education Workgroup is piloting a new tool this summer with a                  |
|                         | representative sample of local education agencies with the goal of full        |
|                         | implementation for the 2014-2015 school year. Because of the highly            |
|                         | localized nature of K-12 education and the fact that this is a voluntary data  |
|                         | collection, the development of state-specific strategies on outreach and       |
|                         | implementation will be essential to collect enough data to have a              |
|                         | statistically significant sample size. The review of baseline data by          |
|                         | professional evaluators will also be important to establish a solid baseline   |
|                         | and long-term monitoring strategy for the new environmental literacy           |
|                         | metrics.   |

| Project ID               | 8   |
|--------------------------|---|
| Goal Team                | GIT 6   |
| Project Title            | Assessment of Local Leadership Development Programs   |
| Goal/Outcome             | Stewardship Goal, Local Leadership Outcome  |
| Cost Estimate Range and  | \$20,000  |
| recommended funding      | Grant or contract   |
| vehicle                  |   |
| Project Duration         | September 2014-October 2014   |
| Priority Area Addressed  | Management Strategy Implementation  |
| Activity Description     | Identify and assess existing local leadership development programs within the Chesapeake Bay watershed that have a focus on enhancing local water resource restoration and protection efforts. Provide a description and analysis of such programs to be used to inform strategies to increase the knowledge and capacity of local officials to lead local conservation actions.  The assessment would focus on aspects of existing and recently past programs with an emphasis on their overall learning models, strengths, weaknesses, extent of reach to target audience, ability to leverage learning to teach others (e.g., train the trainer), and provide sustainable funding. Primary focus would be current and recently past programs in the Chesapeake watershed; however, it is possible that valuable insight may come from leadership development programs in other regions of the country and world. Assessment activities should include but not be limited to review of online information, interviews, literature reviews, and summaries of published reports. This project would provide insight into the adequacy of current programs and would make recommendations for increasing the implementation capacity of local leadership in the Chesapeake Bay watershed, identify gaps in the current efforts |
| Outputs                  | A report assessing existing and recently past local leadership development  |
|                          | programs and recommending actions to be included in CBP Local   |
| lustification for EV 4.4 | Leadership Outcome management strategy.   |
| Justification for FY 14  | The project specifically addresses the local leadership outcome and   |
| funding                  | provides a means of increasing knowledge of local leadership development  |
|                          | programs in order to develop a cost-effective management strategy.  |

| Project ID                       | 15  |
|----------------------------------|---|
| Goal Team                        | GIT 1   |
| Project Title                    | Striped Bass Health Indicator Development   |
| Goal/Outcome                     | Sustainable Fisheries Goal, Fish Habitat Outcome  |
| Cost Estimate                    | Grant or cooperative agreement with jurisdictions (CBIGs) or academic institution   |
| Range and                        | (UMD, UMCES, etc.) to analyze data to develop metrics   |
| recommended                      | \$40,000  |
| funding vehicle                  |   |
| Project Duration:                | Fall-Winter 2014  |
| Priority Area                    | Metric Development and Tracking   |
| Addressed                        |   |
| Activity                         | Use findings from current research and surveys to develop a CBP indicator of  |
| Description                      | striped bass health. This indicator could incorporate information the diet/nutritional status of striped bass based on current research efforts. The indicator could also document disease prevalence and associated interactive effects from hypoxia on diseased fish.   |
| Outputs                          | Indicator/publically available information on the most recent data on striped bass health   |
| Justification for FY '14 funding | Striped bass are an iconic Bay species and very valuable fishery in the Bay. Tracking health of Chesapeake Bay striped bass would help inform coastwide management as the Bay serves as the spawning grounds for a majority of the coastwide stock. Tracking health factors such as the interactive effects of disease/hypoxia and nutritional status could help better understand fisheries response to climate change and forage availability respectively. |

### **Implementation Project Proposals**

| Project ID              | 25   |
|-------------------------|--|
| <b>Goal Team</b>        | GIT 2  |
| Project Title           | Accelerate Wetland Restoration in support of WIPs/GIT Integration                |
| Goal/Outcome            | Vital Habitats Goal, Wetlands Outcome  |
| Cost Estimate           | Cooperative agreements with TNC and DU; could be used as match for projects      |
| Range and               | deemed priority by local partners such as Upper Susquehanna Coalition (NY – Jim  |
| recommended             | Curatolo) and Trout Unlimited (WV – Gary Berti)                                  |
| funding vehicle         | \$50,000   |
| <b>Project Duration</b> | Fall 2014-Fall 2015  |
| <b>Priority Area</b>    | Demonstration wetland restoration/conservation Projects                          |
| Addressed               |  |
| Activity                | Implementation Project: A wetland initiative project is being led by TNC (with   |
| Description             | support from DU) under a NFWF grant to accelerate wetland restoration across     |
|                         | four states (VA, MD, DE, and PA). This project would fund complimentary projects |
|                         | in WV and NY.  |
|                         |  |
| Outputs                 | Targeted wetland restoration efforts in WV and NY                                |
| Justification for       | Wetland Restoration is an outcome in the new agreement, an indicator tracked by  |
| FY 14 funding           | CBP, and part of WIPs. The current 2025 WIP goal for wetland restoration in      |
|                         | agricultural landscapes within the watershed is 106,121 acres. These targeted    |
|                         | projects need to be funded and accelerated in order to meet the WIP targets, as  |
|                         | well as the goals set in the new agreement and CBP indicator. Implementation     |
|                         | phase of these projects will include targeted watersheds based on strategy maps  |
|                         | that show optimal locations for restoration.                                     |

| Project ID              | 4  |
|-------------------------|--|
| Goal Team               | GIT 3  |
| Project Title           | Summarizing potential benefits of nutrient and sediment practices to reduce toxic  |
|                         | contaminants   |
| Goal/Outcome            | Toxic Contaminants Goal, Research and Policy/Prevention Outcome  |
|                         |  |
|                         | Would also provide benefits to the Fisheries GIT (reduce effects of toxic  |
|                         | contaminants on fisheries) and enhance collaboration with Water Quality GIT  |
|                         | (nutrient and sediment reduction outcomes)   |
| Cost Estimate           | \$50,000. Grant to NGO or academic institution to use existing water-quality   |
| Range and               | contracts (such as to TetraTech).  |
| recommended             |  |
| funding vehicle         | C to O wo out to   |
| Project Duration        | 6 to 9 months  |
| Priority Area Addressed | Management Strategy Development: literature searches.  |
| Activity                | A literature search would summarize notantial banefits of nutrient and sediment  |
| Description             | A literature search would summarize potential benefits of nutrient and sediment practices to also reduce toxic contaminants. Toxic contaminants come from many |
| Description             | of the same sources as nutrients and sediments in the watershed. Some of the   |
|                         | major sources, and associated toxic contaminants, include wastewater treatment   |
|                         | plants (pharmaceuticals, personal care products, and industrial contaminants),   |
|                         | chemicals related to crop production (pesticides and insecticides), manure   |
|                         | (chemicals to promote animal growth and health), and urban areas (a variety of   |
|                         | chemicals in stormwater runoff and sediment). There is an opportunity to   |
|                         | identify which practices being implemented for the Bay TMDL (to reduce   |
|                         | nutrients and sediment) would also reduce toxic contaminants and the relative  |
|                         | amount of reduction that might occur across the range of BMPs (to the extent   |
|                         | such information exists).  |
| Outputs                 | Report with summaries of which nutrient and sediment practices provide   |
|                         | additional benefits to reduce toxic contaminants.  |
| Justification for       | Management strategies for toxic contaminant outcomes need to be developed by   |
| FY 14 funding           | June, 2015. The report from this proposed activity would provide valuable  |
|                         | information about current practices being used for nutrient and sediment   |
|                         | reduction could be used as the foundation for toxic contaminant strategies. The  |
|                         | findings could provide a significant cost savings to the CBP partnership by taking   |
|                         | advantage of efforts to meet the Bay TMDL to also reduce many toxic  |
|                         | contaminants.  |

| Project ID              | 5   |
|-------------------------|---|
| Goal Team               | Joint GIT 4 and GIT 5   |
| Project Title           | Leveraging local lessons / Development of a crowd sourced database as part of the Chesapeake Network to promote shared outreach and marketing case studies, |
|                         | results, and materials  |
| Goal/Outcome            | Stewardship Goal, Citizen Stewardship Outcome   |
| Cost Estimate           | \$35,000 Work through the Chesapeake Network and collaborate with other   |
| Range and               | partners to build a web-based mechanism for data and management. Potential  |
| recommended             | engagement of a database management group.  |
| funding vehicle         | Consultancy?  |
| <b>Project Duration</b> | Aug 2014-Nov 2015   |
| Priority Area           | Management strategy development   |
| Addressed               |   |
| Activity                | Develop a white paper summarizing local lessons learned from healthy waters   |
| Description             | protection, where approaches and ideas that have been successful could be   |
|                         | highlighted in some way and understood, systemized and replicated. Make   |
|                         | recommendations on best ways to disseminate. (Cacapon, WV could be a starting place.)   |
|                         | piace.)   |
|                         | A draft frame has been created in order to collect and share outreach program data  |
|                         | and resources. The frame would be translated into an online database linked   |
|                         | through the Chesapeake Network that would be crowd sourced and query-able in  |
|                         | order to allow for resource sharing and longitudinal tracking of outreach program   |
|                         | elements.   |
| Outputs                 | Recommendations to local governments and partners on what it takes to achieve   |
|                         | successful healthy water protection.  |
|                         | The first standardized environmental outrooch and marketing program database  |
|                         | The first standardized environmental outreach and marketing program database  |
|                         | allowing for improvement of management strategies, sharing of resources, and tracking of social science case studies across the region.                     |
|                         | נומבאוווא טו סטנומו סנופוונפ נמספ סנוטופס מנוטסס נוופ ופצוטוו.  |

#### Justification for FY 14 funding

Healthy water protection depends on locally-based action (government, citizens, NGOs, etc.). Understanding and communicating key factors that drive success is essential to meet this Bay agreement outcome, especially given the broad, dispersed nature of localities throughout the Bay watershed.

This was the highest rated priority recommendation by the Chesapeake Bay Trust's 2014 Stormwater Outreach Forum participants. The intent of this initiative would be to develop a database built on an existing frame already developed by Erin Ling at Virginia Tech. The database would provide a much needed space for organizations to share outreach program information and resources. Data would be provided in a standardized format that would allow for longitudinal tracking of programs by BMP, program strategies employed, and demographic information, as well as relative rate of success of program elements. The database would also allow for organizations to develop or modify existing outreach programs based on shared success, and would provide the ability to conduct program analysis by BMP, resulting in improved outreach program design, increased citizen stewardship, increased partnerships, and improved proficiency in diversity and inclusion efforts. Chesapeake Bay Funding agencies could require grantees to share project outcomes and resources as transferrable tool kits within the database, resulting in less duplication of effort and lower cost of outreach program development and implementation over time.

| D ID                    | 4.0  |
|-------------------------|--|
| Project ID              | 16   |
| Goal Team               | GIT 2  |
| Project Title           | Stream Health Outcome Baseline/Defining new metric                               |
| Goal/Outcome            | Vital Habitats Goal, Stream Health Outcome                                       |
| Cost Estimate           | EPA contract with Vistronix to dedicate portion of Jackie Johnson's time/staff   |
| Range and               | capacity to analysis of multi-state data; ICPRB oversight?                       |
| recommended             | \$20,000   |
| funding vehicle         |  |
| <b>Project Duration</b> | EO Action Plan milestone commits to be done by end of FY2015                     |
| Priority Area           | Metric Development and Tracking  |
| Addressed               |  |
| Activity                | Data Analysis and Metric Development: Determine a new metric to measure          |
| Description             | stream health and determine the overall health of streams in the watershed.      |
| Outputs                 | Re-assessed baseline for stream health and recommendations for how to adapt      |
|                         | the stream health outcome to be multi-dimensional                                |
| Justification for       | A reassessed baseline is committed to in the new Agreement. A revised outcome    |
| FY 14 funding           | that expands beyond the Chessie BIBI would more accurately and effectively       |
|                         | measure the health of streams, which will be critical with implementation of the |
|                         | Regional General Permit.   |
|                         |  |
|                         |  |