

Delving Deeper into the Issues of Land Use: Its Effects on Water Quality, Habitats, and Fisheries

Proposal submitted by:

Sustainable Fisheries Goal Implementation Team (Fisheries GIT)

Workshop Steering Committee:

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Description of Workshop:

The Sustainable Fisheries Goal Implementation Team (Fisheries GIT) is working toward better integrating habitat into fisheries management. Fisheries managers in the Chesapeake Bay are concerned about how population growth and development are leading to increased nutrient input, habitat loss and the resulting declines in fisheries. As a result, the Fisheries GIT is proposing either a one day workshop or two separate one day workshops to identify and quantify the impacts of land use and development on fish habitat, health, and sustainability. The workshop(s) would:

- Compile and synthesize existing science to better explain/demonstrate the linkage between land use and fisheries production; and
- Identify science based tools to link water quality to fisheries production and target critical areas for restoration and/or protection that can be used by managers and local citizens to influence land development decisions. Examples might include habitat suitability models or reference points and thresholds related to fisheries production due to poor water quality conditions or habitat loss.

Justification for Proposed Topics and Management Implications:

The Chesapeake Bay watershed is home to more than 17 million people, and about 150,000 new people move into the 64,000 mi² Bay watershed each year (Facts & Figures, 2012). The high concentration of people living within the of the Chesapeake Bay has led to significant changes in land use patterns, habitat degradation and declining water quality. Land based planning and activities are largely detached from their direct implications on Bay water and living resources such as fisheries. This disconnect poses significant challenges to sustainably managing commercial and ecologically important fish and shellfish species and their habitats.

At its biannual meeting in December, 2011 the Fisheries GIT held a workshop to investigate the issues surrounding land use practices and their impacts on water quality, habitats, and fisheries. This was a very successful full day event with a wide range of participation from land based organizations, stakeholders, scientists, and fisheries managers with the goal of better understanding the connections between land based policies and the sustainability of Chesapeake Bay fisheries. A primary outcome of this meeting was the recognized need for improved science based tools describing the linkages between land-use, habitats and fish health and sustainability especially for shallow water habitats and tidal creeks that support productive spawning, nursery and foraging habitats throughout the Chesapeake Bay, which are particularly sensitive to upstream watershed conditions.

Detailed Description of Workshop Products:

Workshop discussions will be documented in a workshop report and submitted to the Chesapeake Bay Program and interested parties. This report will summarize the state-of-the-science regarding environmental impacts of land use decision practices and will identify and prioritize decision support tools for use by managers and local citizens to influence land development planning activities. The timing of the final report is contingent upon when the workshop would take place.

Logistics:

When: two options

1. Workshop just prior to our June, 2012 full GIT meeting (preferred option)
 - a. Location: Wherever our full GIT meeting is held (TBD)
 - b. The workshop would be an extension of our meeting, thus drawing greater participation
 - c. Allows for an immediate summary presentation to our full GIT for input and feedback
2. Late Summer or early Fall, 2012 workshop
 - a. Location: Chesapeake Bay Program Office – Joe Macknis Memorial Conference Room (Fish Shack)
 - b. Initial report presented to the Fisheries GIT Executive Committee at their following monthly meeting.
 - i. This allows for their comments to be compiled and incorporated into the final report.
 - c. Final report finalized and presented to the full Fisheries GIT in December, 2012.

Who: 15-20 participants consisting of technical/science specialists (with expertise in habitats, fisheries, water quality, environmental planning, and legislation)

Estimated Budget:

Venue: \$1,000

Catering: \$1,000

Facilitation: \$4,000 - We propose the workshop(s) would be facilitated by the Institute for Environmental Negotiation who facilitated our December Fisheries GIT meeting where land use and fisheries were discussed.

Travel for invited speakers/participants: \$4,000

Total requested from STAC: \$10,000

Literature Cited

“Facts & Figures.” <http://www.chesapeakebay.net/discover/bay101/facts>. *Chesapeake Bay Program*. Accessed: 2/9/2012.