

Urban Tree Canopy Expert Panel Urban Tree Planting BMP for Phase 6

Forestry Workgroup

June 23, 2016

Neely Law, Center for Watershed Protection, Panel
Chair

Jeremy Hanson, Virginia Tech, Panel Coordinator

Recap

- **May 3:** Report released for review/comment
- **May 4:** Introductory briefing to FWG for panel's methods/recommendations.
- **May 20:** Webinar
- **June 1:** FWG call, discussed proposal for 2nd-tier “urban forest planting” BMP to supplement Urban Tree Planting as recommended by panel for Phase 6
- **June 2:** Briefed WTWG of FWG proposal
- **June 9:** Initial 30-day comment period closed
- **June 10 – June 22:** Neely and Jeremy compile and respond to comments
- **June 17 and 20:** Neely discussed FWG proposal with the panel
- **June 21:** Briefed USWG of FWG proposal and panel’s response
- **TODAY, June 23:** FWG

Overview of comments received

- Comments from nine individuals or entities received during initial 30-day comment period, including:
 - MDE
 - MD DNR (2)
 - VA DEQ
 - WV DEP
 - Baltimore County
 - Arlington County (2)
 - USFS (Ken Belt)

No objections raised to panel's recommendations as a technical method to credit trees planted over managed (turf) or impervious understories. However, there is significant support for an alternate BMP to credit planting projects that create forest-like conditions with unmanaged understory.

Overview of comments: general topics

- Comments covered a range of topics, some were on overall or overarching issues and some on specific statements or parts of the report. The comments fall into the following categories:
 - Comments calling for an option to credit plantings that create forest-like conditions, distinct from tree plantings over turf or impervious areas. This relates to the FWG proposal for an “urban forest planting” BMP
 - Tracking and reporting
 - Modeling
 - Land use loading rate
 - Future research and management needs
 - Editorial

Overview of responses

- Tracking and reporting (MD, Arlington Co, Baltimore Co, VA DEQ)
 - Will clarify how the revised BMP is tracked towards milestones and used as model input between imagery updates.
- Modeling (MD, Arlington Co, Baltimore Co, VA DEQ)
 - Clarifying definitions and some text to reflect current modeling and land use definitions and procedures.
- Land use loading rate (VA DEQ, Ken Belt)
 - Loading rates were reviewed and approved by the partnership, finding no fatal flaws. If fatal flaws are identified and supporting data is provided then partnership can consider next steps.
- Editorial
 - Typos, grammatical or other miscellaneous edits will continue to be made.

See memo and table posted for today for more information.

Overview of responses

- FWG proposal for a 2nd-tier BMP: “Urban Forest Planting”
- 6 of the 9 panel members participated in conference calls
- Requested recommendation on proposal
 - “As-is”
 - Accept with modifications
 - Do not accept
- Majority did not accept the proposal
 - 1 accepted “As-is”
 - 1 accept with modifications on programmatic grounds
 - 4 did not accept

Expert Panel Response to Proposal

In Support of Proposal

- Provides additional incentive to strive recreate forest-like conditions
- Programmatic gains more significant than gain in water quality
- Differs “from status quo” with additional eligibility requirements

Not In Support

- Lack of technical documentation and rationale for conversion to forest and qualifying conditions (0.25 ac and 50 ft min.)
- Reflects ‘status quo’ of current Phase 5.3.2 tree planting credit (~100 trees per acre based on 15 yr tree growth)
- Current land use loading rates represent ‘best available science’ to inform water quality benefits
- BMP provides implementation credit due to long interval between land use imagery to assess tree canopy land uses
- Introduces inconsistencies with definition of forest land uses; 0.25 ac min decouples BMP from 1-ac forest land use definition

Options for Proposed Path Forward

- **Option 1:**
 - Modify land use conversion to “Mixed Open” in place of “Forest”. This land use provides a lower loading rate than “Tree Canopy Over Turfgrass” but higher loading rate than “Forest”
- **Option 2:**
 - Use existing approved modeling approach to derive the Relative Tree Canopy Land Use Loading Rates and modify the ‘understory’ land cover to be more representative of forests
- **Option 3:**
 - Use i-Tree Forecast to run specific tree planting scenarios that may provide higher canopy area credit; the land use loading rate would remain unchanged

Options 2 and 3 present issues moving forward that we believe would preclude adoption of a 2nd-Tier approach given timeframe to incorporate into Phase 6. Recommend as part of future review of land use loadings and BMP.

Path Forward For Option 1

- **Mixed Open (MO)** – All scrub-shrub and herbaceous and barren lands that have been minimally disturbed (e.g., periodically bush hogged, meadows, etc.), reclaimed, or that have internal and/or regulated drainage. These include active, abandoned and reclaimed mines, landfills, beaches, waterbody margins, natural grasslands, utility right-of-ways and a portion of herbaceous lands within industrial, transitional (early stages of construction), and warehousing land uses. Also included are potential agricultural lands that were not mapped as either cropland or pasture in the NASS Cropland Data Layers (2008 through 2015).

Note: These are draft preliminary loading rates from second beta Phase 6 calibration (April 2016) and will change in future beta calibrations and the final calibration. Changes to the ratio are not anticipated. FOR DISCUSSION PURPOSES ONLY.

Phase 6 land use	Average TN export rate lbs/ac-year (export rate ratio)	Average TP export rate lbs/ac-year (export rate ratio)
Mixed Open (Natural)	4.52 (1.46)	0.82 (5.69)
True Forest (Natural)	3.1 (1.0)	0.14 (1.0)
Tree Canopy over Turfgrass (Developed)	16.79 (0.38)	1.32 (0.79)
Tree Canopy over Impervious (Developed)	40.36 (0.91)	1.51 (0.91)

Possible Timeline

- Thurs. July 7: WTWG
- Tues. July 19: USWG
- Thurs. August 4: Seek WTWG approval
- Mon. August 8 or Mon. August 22: Potential dates for seeking WQGIT approval, depending on FWG and WTWG approval status and schedule.