

Appendix: Technical Requirements for Entering the Saturated Buffers into Scenario Builder and the Watershed Model

Background: In June, 2013 the Water Quality Goal Implementation Team (WQGIT) agreed that each BMP expert panel would work with CBPO staff and the Watershed Technical Workgroup (WTWG) to develop a technical appendix for each expert panel report. The purpose of this technical appendix is to describe the Agriculture Workgroup's recommendation to provide an efficiency value for Saturated Buffers for jurisdictional planning purposes, in expectation of a full Expert Panel recommendation report on agricultural ditch management practices in 2018. The information below explains how Saturated Buffers will be integrated into the modeling tools including NEIEN, Scenario Builder and the Watershed Model.

Q1. What are the reductions a jurisdiction can claim for planning purposes under Saturated Buffers in the Phase 6 Watershed Model?

A1. Based on preliminary recommendations provided by the Expert Panel on agricultural ditch management practices, jurisdictions can claim an efficiency value of 20% for total nitrogen from 10 upslope acres for every one acre of cropland converted to saturated buffer. States will also receive credit for converting crop acres to ag open space to create the saturated buffer.

Q2. What types of projects are eligible to receive credit in the Phase 6.0 Watershed Model?

A2. This BMP represents the edge-of-field treatment for tile-drained cropland areas through practices that reduce nitrogen pollutant loads by diverting tile-line flow to a subsurface, perforated distribution pipe used to divert and spread drainage system discharge to a vegetated area to increase soil saturation.

Q3. What do jurisdictions need to submit to NEIEN in order to qualify for reductions?

A3. Below is a complete list of the parameters that should be submitted to NEIEN for each project. However, as an interim practice there is no credit available for progress purposes.

- BMP Name: Saturated Buffer
- Measurement Name and associated unit amount: acres of buffer or length of buffer in linear feet (if linear feet is chosen, then NEIEN will assume that each project is 30 feet wide in compliance with NRCS Practice Code 604)
- Land Use Group: CROP
- Location: Approved NEIEN geographies: Latitude/Longitude (preferred); County; County (CBWS Only); Hydrologic Unit Code (HUC12, HUC10, HUC8, HUC6, HUC4), State (CBWS Only)
- Date of Implementation: year the project was completed

Q4. How are states to enter saturated buffers to CAST?

A4. States may enter the acres of saturated buffers for planning purposes in CAST.

Q5. Should states report upland acres draining to the practice?

A5. No. Every acre of buffer reported will be assumed to treat 10 upslope acres.

Q6. Does this practice qualify for an upland efficiency treatment credit?

A6. Yes. Each acre of saturated buffers will reduce loads from 10 upslope acres by 20%.

Q7. Does this practice qualify for a land use change credit?

A7. Yes. An acre of saturated buffer will convert an acre of applicable land use, such as row crops, to agricultural open space.

Q8. Is this BMP an annual or cumulative practice?

A8. The BMP is a cumulative practice. Jurisdictions should report all measurement names only at the time of installation. The practice will continue to receive credit in the model in future years, based on a 10-year credit duration.

Q9. How will the existing Saturated Buffers be accommodated?

A9. To date, no jurisdiction has submitted Saturated Buffers in a progress or planning scenario.

Q10. Is this practice mutually exclusive with other practices?

A10. Yes. Because an acre of land may only be converted once, all land use change practices, including saturated buffers, are mutually exclusive with other land use change practices. Example: An acre of forest grass buffer cannot also receive credit as an acre of saturated buffer.

Q11. Is there a cap on the potential reductions from Saturated Buffers?

A11. Reductions from all cropland BMPs, including Saturated Buffers cannot exceed the existing load from cropland.

Q12. Where do projects need to be located to receive credit for this BMP?

A12. Jurisdictions can submit projects for newly constructed or existing Saturated Buffers that qualify under the cropland acres land use definition throughout the watershed. However, an interim BMP cannot be used for progress reporting purposes.

Q13. Can jurisdictions submit historic Saturated Buffers for credit?

A13. Yes. Jurisdictions may update their historical record of all approved BMPs in the Phase 6.0 Model at any time. However, an interim BMP cannot be used for progress reporting purposes.