

CHAPTER 500 STAKEHOLDER ENGAGEMENT | STEERING COMMITTEE MEETING #5 AGENDA

RE: Chapter 500 Stakeholder Engagement, Steering Committee Meeting #5
DATE: Monday, September 23rd, 2024
TIME: 9:30am – 1:00pm
LOCATION: Hybrid: in-person (Deering Conference Room 101 – 90 Blossom Ln, Augusta, ME) & remotely via Microsoft Teams
INVITEES: Cody Obropta, Jeff Dennis, David Waddell, Naomi Kirk-Lawlor, and Rob Wood (Maine DEP) Bina Skordas (FB Environmental Associates) Chapter 500 Steering Committee Chapter 500 Stakeholders

MEETING OVERVIEW:

The Steering Committee will be run by the Facilitator, Bina Skordas (FBE).

TOPIC	WHO	ESTIMATED DURATION
1. Topics & Considerations Review	Bina Skordas (FBE) & Kerem Gungor (DEP)	10 mins
2. Summarize Technical Committee Progress	Cody Obropta (DEP)	15 mins
3. Consensus Item: Rainfall Data Update	Cody Obropta (DEP) & Bina Skordas (FBE)	20 mins
4. Consensus Item: Sensitive/Threatened Watersheds	Jeff Dennis (DEP) & Bina Skordas (FBE)	40 mins
Break (15 min)		
5. Steering Committee Discussion Topic: Redevelopment	Bina Skordas (FBE) & Cody Obropta (DEP)	80 mins
6. Stakeholder Input	Stakeholders Not Represented in the Steering Committee	20 mins
7. Action Items & Next Steps	Bina Skordas (FBE) & Steering Committee Members	10 mins

DISCUSSION TOPICS:

Meeting Topic 1: Precipitation Data Source

Flooding Technical Committee task:

- i. Decide on which source to use for precipitation data.

Background: Designers and engineers currently use a static data table located in Appendix H to model flooding standards. This data table uses information extracted from the Northeast Regional Climate Center Extreme Precipitation Tables back in June of 2014. The average design life for stormwater infrastructure is between 50 and 100 years. The Maine Climate Council released a scientific and technical assessment for the State of Maine which found precipitation intensity and storm event frequency are changing due to climate change. Using data from 2014 to model infrastructure that will potentially still be in use in the year 2100 is out of alignment with Maine's climate resiliency goals. Further, needing to engage in major substantive rulemaking to update the precipitation table when new data sets are released is a hinderance to using best available science and data.

Result from Technical Committee:

The Technical Committee is actively voting on a proposal to utilize NOAA Atlas 14 data + a flat 18% multiplier for all design storm events until NOAA Atlas 15 is released, reviewed, and approved for use by the Department.

This proposal was crafted after careful consideration of the work the Maine Department of Transportation has already done on this topic. The Maine DOT analyzed the impact of CMIP5 climate model data through the lens of the RCP 4.5 intermediate climate scenario on precipitation across the state. On average, infrastructure designed to last 50 years (assumed install date of 2025) will experience approximately 18% higher rainfall. Given NOAA Atlas 15 has a target release date in 2026 with supplemental info targeted for release in 2027, the Technical Committee feels that the 18% multiplier sufficiently captures rainfall projections and can be used in the interim until better projections are available.

Meeting Topic 2: Sensitive & Threatened Watersheds

Low-Impact Development Technical Committee tasks:

- i. Decipher between threatened and sensitive watersheds.
- ii. Specify requirements based on different applications. Potential examples include:
 1. Development vs redevelopment;
 2. Stream class;
 3. Sensitive vs threatened;
 4. Pollutants of concern;
 5. Rural vs urban (and how this is defined);
 6. Population type/resource access (i.e., EJ community, different regions of state).

Background: With the exception of lake watersheds, compliance with the current Chapter 500 General Standards is required for projects meeting the post construction thresholds in all organized municipalities throughout the State. This is overprotective in many portions of the in lightly developed areas where the density and frequency of such projects is very low. To remedy this situation the Department has proposed implementation of the mandate in the Stormwater Management Law to create a list of Sensitive and Threatened Regions and Watersheds. The standards applied to these watersheds would be aimed at preventing future impairments of the aquatic biota and the habitat they require in watersheds that are currently not impaired and elevation of impairments in watersheds that are already impaired.

Result from the Technical Committee:

The technical committee is actively voting on the proposed criteria for inclusion into Sensitive/Threatened Watershed list (identified below):

- % impervious cover (%IC) in the watershed is the best available tool for identifying S&T stream watersheds and, specifically, that current %IC (2021 CCAP) and the 2001 to 2019 change in %IC (NLCD) were the best currently available means of assessing threat.
- Impervious cover thresholds for inclusion in the list:
 - Current watershed %IC > 10%
 - Current watershed %IC 7 to 10%, Change in %IC > 1%
 - Current watershed %IC 4 to 7%, Change in %IC > 2%
- 1st, 2nd and 3rd order streams should be evaluated and that only streams with watershed area greater than 0.8 sq km (200 acres) should be considered for inclusion on the list.
- Municipalities with the following conditions may be included in the Sensitive/Threatened watershed list:
 - high current townwide %IC (>5%) and high change in townwide %IC (>0.5%) or
 - high densities (>6) of catchments that exceed the individual watershed thresholds or
 - at least part of the municipality within a designated Municipal Separated Storm Sewer System (MS4)(Note: this is subject to subjective confirmation of appropriateness for inclusion.)

The Technical Committee also supported future work on the following:

- Assessment of the feasibility of and methodology for identifying Sensitive and Threatened Coastal Regions
- Identification of the likely current and future stressors for the listed stream watersheds
- Evaluation of options to insure timely updates of the S&T lists.

Meeting Topic 3: Redevelopment

How redevelopment currently is addressed under Chapter 500:

Redevelopment project. This subparagraph describes how much treatment is required for a redevelopment project.

- (i) The requirement for treatment is scaled based on the pollutant discharge that, if the stormwater was untreated, would result from the redevelopment project. The Department will assign a pollutant ranking based on Table 2, and may, on a case-by-case evaluation of individual projects, modify the ranking by up to 2 points in light of project-specific features.

Table 2
Pollutant Impact Rankings of Various Redevelopment Land Uses

Land Use	Pollutant Ranking
Roads where idling may occur periodically due to traffic volume and intersections; High use parking lots	5
Other roads; Medium use parking lots	4
Other parking lots and driveways; Flat asphalt rooftops; Roofs on an industrial facility	3
Other rooftops; Bikeways; Grassed areas mowed more than twice per year; Walkways/foot traffic-only pavement	2
Non-grass landscaped areas; Stormwater treatment/storage systems (except buffers)	1
Forest; Meadow mowed no more than twice per year;	0

The method for determining the treatment requirement for redevelopment projects includes:

- a. For the existing condition, calculating a weighted average of impact by multiplying the land area (in acres) of each type of existing land use by its pollutant ranking. Add these values together to get an existing impact rating.
- b. For the proposed condition, calculating a weighted average of impact by multiplying the land area (in acres) of each type of proposed redevelopment land use by its pollutant ranking. Add these values together to get a proposed impact rating.
- c. Divide the existing impact rating by the number of total redevelopment acres.
- d. Divide the proposed impact rating by the number of total redevelopment acres.
- e. Subtract the value in Item c from the value in Item d. Note: this value can be a negative number. Use this value in the left column of Table 3 (below) to determine the applicable treatment level required for the redevelopment project.

Table 3
Treatment Levels for Redevelopment Projects

Ranked Impact Change Due to Redevelopment	Percentage of Developed Area that Must be Treated
0.0 or less	0% (Stormwater projects) 50% (Site projects)
≥ 0.0 to ≤ 1.0	60%
> 1.0 to ≤ 2.0	70%
> 2.0 to ≤ 3.0	80%
> 3.0	Same treatment level as for new development

- (ii) Priority for treatment must be given to areas with the highest pollutant ranking to the maximum extent practicable.

- (iii) The developed area of the redevelopment project must be treated to the level required based on the pollutant impact ranking in accordance with Table 3. If the Department determines that it is not practicable to meet the general standards for redevelopment on site, the Department may allow equivalent treatment or mitigation on an off-site parcel within the same watershed as an alternative for stormwater treatment.
- (iv) If a redevelopment project is located in geographically separate watersheds, treatment requirements must be calculated for each separate watershed.

Discussion Questions:

1. Does the Steering Committee agree with the general goal of redevelopment standards as they exist currently (to incentivize redevelopment over new development in greenfield sites)?
 - a. If yes, should the Technical Committee be tasked with incorporating redevelopment into the standards being developed (Core LID, Sensitive/Threatened Watersheds, etc.)?
 - b. If no, what should the goal of redevelopment standards be? How should the technical committee be directed to incorporate these goals?