

**Maine Dept. of Environmental  
Protection and LID**

# SITE and Stormwater Law

## Site Location and Development Law

- 3 acres impervious and 20 acres developed

## Stormwater Law

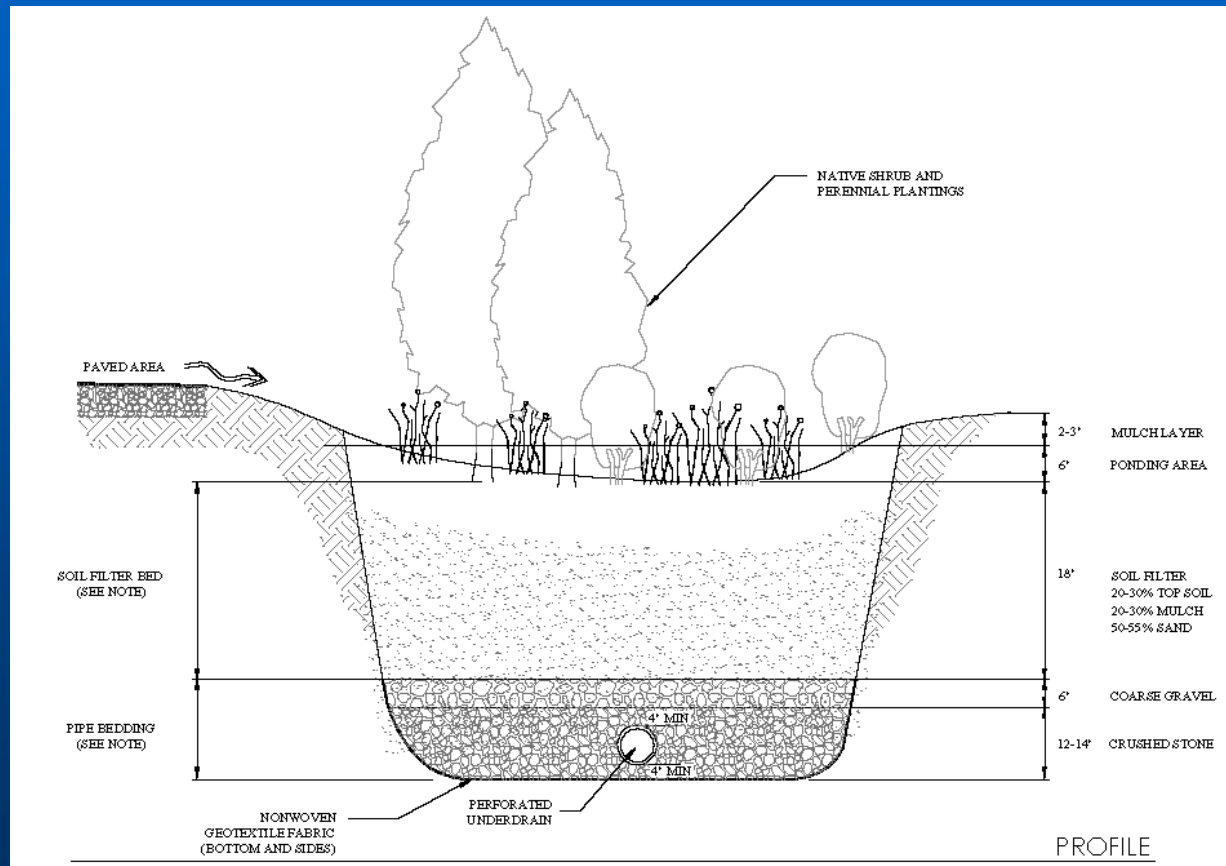
- 1 acre developed
- defines the “stormwater” portion of both laws.
- Basic, General, and Flooding standards

# LID in the Stormwater Law

Encouraged through the use of BMPs dispersed throughout the site.

- Buffers
- Filters
  - Bioretention Cells / Rain Gardens
  - Grassed Underdrained Soil Filters
- “The department strongly encourages applicants....”

# Bioretention Cell Schematic



# Bioretention Cell



# **Long Term Objectives in LID**

- **Protects the Parcel's Natural Drainage**
- **Minimizes Land Clearing**
- **Minimizes Impervious Area**
- **Limits Development to Suitable Areas**
- **Maximizes Natural Treatment**

# Protects the Parcel's Natural Drainage

- **Resource crossing limits, limit number of crossings**
- **Channel filling limits, limited to 75'**
- **Resource setbacks for:**
  - **Lake and tidal waters, 150' buffer**
  - **River and perennial stream, 100' buffer**
  - **Intermittent stream, 75' buffer**
  - **Wetland Swale, 25'**
- **Crossing Standards for:**
  - **River and perennial stream crossing designs, considers impacts to flood plains**
  - **Intermittent stream crossing designs, no smaller than the natural banks**
  - **Wetland swale crossing designs, utilizes blanket drains of crushed stone**

# Minimizes Land Clearing

- **Roadway clearings**
  - ROW clearing limited to road specifics, i.e. no ditches, 40'
- **Driveway clearings**
  - driveway openings serving one lot does not exceed 20 feet
- **Lot clearings**
  - not to exceed 15,000 square feet

# Minimizes Impervious Area

- **Roadway surface width**
  - roadway and shoulders not to exceed 24 feet.
- **Driveway surface width**
  - unvegetated width of any driveway serving a single lot does not exceed 12 feet.
- **Driveway lengths**
  - length of any driveway serving one residential lot does not exceed 75 feet
- **Cul-de-sac radii**
  - radius cul-de-sac with a veg. island does not exceed 40 feet

# Limits Development to Suitable Areas

- **Road grades**
  - no more than 15% for more than 100 feet
- **Driveway grades**
  - no more than 15% for more than 25 feet
- **Building envelope grades**
  - existing grade limited to 15%.
- **Unsuitable soils**
  - mountain soils
  - wetlands

# Maximizes Natural Treatment

- **Prohibited stormwater collection systems**
  - curb-and gutter systems are not used
- **Ditch design**
  - require trapezoidal ditches
- **Direct discharges**
  - no direct discharges by pipe or ditch to any resource
- **Ditch turnouts**
  - require properly spaced and sized ditch turnouts
- **Lot buffers**
  - All lots preserve a 50 foot vegetated buffer abutting each downhill edge of the building envelope.

# Web Resources

- Stormwater Management for Maine
  - <http://www.state.me.us/dep/blwq/docstand/stormwater/stormwaterbmps/index.html>
- Stormwater List Serve
  - <http://mailman.informe.org/mailman/listinfo/stormwaterengineering>