City of Biddeford
Conservation Commission
March 16, 2023 6:00 PM City Hall
Council Chambers & Zoom
https://biddeford.zoom.us/j/95313354932?pwd=UG92dXhMZkV5OGFUdXJHcFE3cmFrdz09
Webinar ID#953 1335 4932; Passcode 280740

Status: Conservation Commission-March 16, 2023-Council Chambers-6:00 PM

1. **Secretary Report**
   - 1.1. Approval of Meeting Minutes from January 26 & February 16, 2023
     BCC_Meeting Notes 1.26.23 (1).pdf
     BCC_Meeting Notes 2.16.23.pdf
2. **Adjustments to the Agenda**
3. **Finance Report**
   - 3.1. Conservation CommissionFY2024 Fund Request Status

4. **Old Business-None**
5. **New Business**
   - 5.1. Christine Ohman to give a presentation on the Agricultural & Forestry Chapter of the Comp Plan
     COMP PLAN PB Memo_Revised_03.08.2023.pdf
     11_AG_FOREST_RESOURCES_March 9 2023 Comprehensive Plan Draft.pdf
   - 5.2. BCC Meeting Archives: On the City Website under archives, if the meeting is televised the meeting is under Conservation Commission, if it is not televised the meeting is under Non-Televised Meetings.

   - 5.3. LD 2003
     DECD Rule-making
     Local Impact/pre-emption/Cost-shifting
     Comments of the Maine Municipal Association on Rulemaking.pdf
   - 5.4.
     MS4-Stormwater
     MS4 POWERPOINT BiddSWOrdchangesPB2023_03_15.pptx
     PBLetterMS4OrdChangesBidd2023_03_08.pdf
   - 5.5. Erik Heumiller updates:
     video of Climate Event at Dyer Library
     Water Quality
     Content for City Website
     BCC - 2023 Website Content.pdf
     BCC and the Biddeford Beat Newsletter.pdf
     BCC Brochure - Updates for Web.pdf
   - 5.6. Joint Climate Event with S.V.L.T.

6. **Adjourn-Next Meeting 4-27-23 Second Floor Conference Room 6:00PM**

Biddeford Conservation Commission

Thursday, January 26, 2023

6:03 - 8:50 pm

Attendees: R. Rhames, D. Rioux, E. Heumiller, M. Lowell, M. Atlas
Guests: G. Mitchell

---

1. Meeting Called to order at 6:08pm
2. Consent Agenda
    a. Spelling correction on Tom Doaks name
    b. Motion to approve December minutes (12.15.22) with spelling correction– D. Rioux 6:10p
        - *Second – M. Lowell 6:11p*
            - *No discussion*
        - *Unanimous approval*
3. State of the Budget
    a. Currently untouched
    b. Pending invoices from Mark Ward that were submitted to the city today (1.26.23)
    c. Anticipated remaining budget after Mark Ward expenses: $1125.65
4. Comprehensive Plan
    a. The chapters that have been presented are still open for notes
        - Still receiving feedback
    b. The chapters that will be discussed at the 2.1.23 Planning Board meetings have been published
        - Now receiving feedback via Heart of Biddeford website/portal
    c. Two chapters remaining will be released on 2.15.23 (agricultural resources +)
    d. Ideal timeline:
        - Finalize chapters by end of february
        - March planning board meeting to present in its entirety for planning board review, final comment, and a vote to get to the Council
        - Ideally the Plan will be presented to the Council by April
    e. Richard would like Maine Farmland Trust (Thacher Carter) representative to come and give a presentation at the BCC 2.16.23 meeting on what Forestry and Agricultural recommendations they recommend for Comp Plans
    f. Future land use map
        - D. Rioux : in reference to the desire to expand suburban residential into urban areas
            - With the new information (West Street, Guinea Road, Pool Road has the most sightings of rare and endangered turtles, granite deposits, new england cottontail, vernal pools)
            - Requesting that that areas zoning be changed
        - G. Mitchel says that there have not been changes to rural farmland
        - M. Lowell would like to see more land into conservation, making sure the city is able to best utilize that land
        - Conservation Mapping – G. Mitchell stated that the city will begin an indexing process to identify what land in Biddeford is under conservation and identify areas that should be prioritized

DRAFT DRAFT DRAFT

        - G. Mitchell will ideally join our next meeting to provide an update on this process and where it is stated in the Comp Plan
    g. 5.2 LD 2003
        - E. Heumiller – are there programs to help educate and provide guidance for homeowners
            - Requesting that the city capture data on this transition so it can help inform future legislation
        - R. Rhames – Rule making question; it was made clear in public session that this was a bad idea and they were overruled
            - Noted the relationship between buildout and tax increases
            - Biddeford has never done a Cost of Community Services Report
            - Cost of Development and Economic Development study of Biddeford Crossing development
5. *Motion to modify the Divine Capital letter so it is temporally relevant and send the 81 Guinea Road as-is and sent to the Planning Board - E. Heumiller*
    a. Second D. Rioux- 7:11
        - *No discussion*
    b. Unanimous
6. Still waiting on Maine Woodland slides to put together the full video, but the audio and video recording of the meeting is ready once they have the slides.
    a. Website still in processes
7. Climate
    a. Staff in Biddeford is aware of the impending threat to the treatment plant but it hasn't been addressed yet
    b. Fiscal and societal issues that come with the issues
    c. There could be sponsor or co-sponsor opportunity for the BCC to present information for the public
    d. @ALL come to our next meeting with 2-3 suggestions for community engagement events that identify key areas of the content we'd like to highlight:
        - Rachel carson and climbing sea levels
        - River
8. Thatcher Brook impairment mitigation
    a. A thank you to Gervais Dube for the Clifford land donation
    b. Support of Peter Pettit for the work at the old Biddeford/Airport Industrial Park
        - No mow grass areas, landscaping, a lot of buffers
        - Sterling Rope, Barrett Outdoor, Correct Deck, etc have all been contributors
    c. Brook has been cleaned out behind Kohls, all county level projects are complete
9. Newtown Road Projects
    a. Coastal Oaks Development
        - Property formerly owned by Biddeford Housing Authority
        - Initially wanted to build affordable housing
            - Soils weren't supportive of the development they wanted to do
        - New owners want to build a large development
        - Citizen concerns are reportedly not ones that can be acted upon by the Planning Board
        - Third party wild life study is still pending
    b. First Substation
        - Planned meetings for the city to find a place to put in a Fire Substation (because of the slow reaction time to get to the coast)

DRAFT DRAFT DRAFT

        - Request an update from Jim Emerson (Location Committee) on the substation development
        - @E. Heumiller – reaching out to Councilor William Emhiser to get an update on the project so that the BCC may be able to provide input
10. Election of officers
    a. D. Rioux nominates M. Atlas as Secretary
        - Second M. Lowell
        - No discussion
        - Unanimous
    b. E. Heumiller nominated by M. Atlas
        - Second M. Lowell
        - No discussion
        - Unanimous
    c. R. Rhames nominated by D. Rioux
        - Second M. Lowel
        - No discussion
        - Unanimous
11. Other Business
    a. Updates on the clifford park land swap, deed restrictions, and Conservation
        - G. Mitchell will look into the updates of this
    b. New Member Requirts
        - Peter Roberts applied and is waiting
12. Next Meetings
    a. Make sure there is a zoom link so D. Rioux can join remotely
13. *Motion to adjourn E. Heumiller 7:56*
    a. *Second D. Rioux 7:56*
    b. *No discussion*
    c. *Unanimous*

DRAFT
DRAFT
DRAFT

Biddeford Conservation Commission

Thursday, February 16, 2023

6:05 -

Attendees: R. Rhames, D. Rioux, E. Heumiller, M. Lowell, M. Atlas, P. Robbins
Guests: G. Mitchell, E. Freeman, C. Ohman, T. Carter

DRAFT

1. Meeting Called to order at 6:05pm
2. Welcome Peter Robbins to the Commission
3. Consent Agenda
    a. No adjustments to the agenda
    b. 1.26 minutes will be approved at the next meeting
4. State of the Budget
    a. Mark Ward has been paid in full for all open invoices
    b. Fiscal Budget
        - E. Heumiller – if we want to have special research projects performed, they could be additionally funded as long as we apply by the time the budget is requested (the budget is currently being requested)
        - *D. Rioux – Motion to request a $5,000 budget 6:10p*
            - *Amendment – M. Atlas: The Biddeford Conservation Commissions requests a $5,000 budget to put towards community programs and research that supports, and informs the Biddeford Conservation Commission and supports the work to educate and provide consultation to the CIty Council and Planning Board on developments and decisions that relate to natural resources and Conservation."*
        - *Vote on amendment – 6:14p – unanimous*
        - *Vote on motion – 6:14p – unanimous*
5. New Business:
    a. Chapter Review
        - Chapter 10 Recreation & Open Space
            - The current acreage and percentage of conservation land are from 2021, so those will increase with the new changes to Clifford Park and Maine Water land
            - On percentages noting private and public lands would be helpful
            - There is a public boat launch listed on (page 10-4) that we are unclear about
            - Clifford Park Map shows developments that have not yet been reviewed by the Planning Board (page 10-9)
        - Chapter 14 – Marine Resources
            - With the Saco being a tidal river, we have a lot to consider
            - By September of this year there will be a Climate Action Plan that will feed heavily into this chapter
            - Including biodiversity would be helpful
            - Could we consider somehow referencing the bodies of water that feed our marine resources
        - Agriculture & Forestry
            - Christine is soliciting feedback on this section

        - How do we best do this and what timeline (ideally before the end of the first week of March)
    - New farmers market?
    - The city is doing an informal audit of agricultural businesses
    - City is considering a hierarchy of uses for our rural lands (inspired by Portland's Working Waterfront uses)
        - Working Landscape
        - COnservation
        - Low-Density Housing / Essential Services
        - Recreation
    - C. Ohman is looking for heavy input from the BCC on this chapter
    - Is the city open to setting a % goal for targeting working farmland, or supporting young farmers in finding land and keeping farmland active
    - Most important part is protecting the land base.
        - Land use and development are the biggest threat
        - We need to set policies and strategies that protect land use
    - Consider adding sugar maple industry
    - Project Canopy (public works dept has a tree inventory, 6 years old at this point)

b. Thatcher Carter; Municipal Policy Associate at Maine Farmland Trust
    - Updateign the 2011 "Cultivating Maine's Agricultural Future" Guide
    - Why Should Municipalities protect farmland
        - Climate resilience benefits
        - Local benefits
        - Economic benefits
        - Maine has lost 10% of its farmland is 7 years
        - Cost of Community Service Study
            - Farms generate less tax revenue, they require less for public infrastructure so they are financially beneficial for municipalities ($.37 vs $1.16 for every dollar of tax money collected cost for every tax dollar)
            - Scarborough has done a semi-recent Cost of Community Service Study
    - How can municipalities protect farmland
        - Inventory/information gathering
            - Helps inform policy
            - Local Farm Surveys
            - Farm & Farmland inventory
            - Helps facilitate access
        - Agricultural Commissions
            - Advisory role to council
            - Identify issues and concerns
            - Provide input to other committees
            - Hold local forums, if there's interest take it to the Council
    - Municipal Planning and Land Use
        - Comprehensive Plans
        - Integrate agriculture into multiple chapters
    - Land Use Ordinances
        - Flexible and good definitions

DRAFT DRAFT DRAFT

        - Leave room for income diversification
    - Set backs
    - Agricultural overlay districts with ordinance restrictions
        - Allow agricultural businesses
    - Right to Farm ordinance
        - Right to Farm Law
        - Letters required of farm adjacent projects that disclose limitations to use (?)
- Special Development Fees
    - Transfer fees
- Permanent Agricultural Conservation Easements
- Municipal Tax Programs
-

c. LD2003
- Moving quickly through the necessary channels
- City is monitoring state level discussions
- Hoping to prepare and be consistent with the law on July 1, but can be slowed if need be

d. Newtown Road
- Fire Substation Commission
    - Waiting on a soil study
    - Emhiser update: put the station at a 1-mile radius of the intersection of Pool St and Newtown Road (logistically based suggestion)
    - Considering 79 newtown road, but still waiting on an environmental review
    - Another location on Pool Street, privately owned
- Coastal Oaks – waiting on wildlife study and road record
- Mobile Home Park Overlays

e. Clifford Park Order –
- BCC represented their opinions

6. Old Business –
    a. Website updates
        - Video is in progress
        - Add resources like “what to look for in a development in your area”
        - Thatcher Brook
            - Is there a summary of the project?
            - Do we have an idea of the cost to repair? Helpful education tool to see the cost of undoing damage
7. Other Business –
    a. Cumberland County Soil & Water Conservation District “From Lawns to Landscapes”
    b. Community Engagement events – R. Rhames has a Saco Valley Land Trust
8. *Motion to Adjourn – 8:22p R. Rhames*
    a. Second – 8:22p M. Atlas
        - *Unanimous*

DRAFT DRAFT DRAFT

CITY OF BIDDEFORD

Planning and Development Department

Eric Freeman
Assistant City Planner
205 Main Street
P.O. Box 586
Biddeford, ME 04005
eric.freeman@biddefordmaine.org

PLANNING BOARD MEMO

TO: Larry Patoine, Chair & Members of the Biddeford Planning Board

FROM: Eric Freeman, Assistant City Planner

DATE: March 9th, 2023

RE: Comprehensive Plan Draft

I. BACKGROUND:

The City of Biddeford has been engaged in an ongoing effort to create a new Comprehensive Plan for our community. The Comprehensive Plan is an important and influential long-term visioning document. It serves as the City's "blueprint" for the next 10 to 15 years, and provides policy guidance for a host of elements and goals from guiding growth and development to addressing ongoing local and regional challenges facing our community.

The development of the city's new Comprehensive Plan has been informed by a robust, year-long community engagement process as well as direct input from the Planning Board, City Council, City established groups (Climate Action Task Force, Historic Preservation Commission, Conservation Commission, Citizen Advisory Committee), local stakeholders and city staff. Additionally, the Southern Maine Planning and Development Commission planning staff reviewed and provide input on the City Comprehensive Plan Chapters to ensure compliance with State of Maine Growth Management law. Lastly, all Comprehensive Plan Chapters were posted on the *Our Biddeford* website providing opportunity for public input which has been incorporated throughout the drafting process

The Planning Board, with staff support, developed and approved the "Goals, Policies and Strategies" framework as well as the city's core values statement.

The Planning Board was presented with the new Future Land Use Plan in late September of 2022. The Future Land Use Plan was revised based on Planning Board feedback and presented to a joint session of the City Council and Planning Board on October 11th, 2022. Following that, another Planning Board workshop was held on November 16th, 2022 to discuss the Vision Statement and core values of the Comprehensive Plan.

The first section of draft chapters were presented to the Planning Board at a workshop on December 14th, 2022. This workshop included:

- Vision Statement
- Regional Coordination
- Housing
- Future Land Use
- Economy
- Climate Change

Following a period of revision and drafting, an additional selection of chapters were presented to the Planning Board at a workshop on February 1st, 2023. This workshop covered:

- Public Engagement
- Population & Demographics
- Transportation
- Historic, Cultural & Archaeological Resources
- Marine Resources
- Recreation & Open Space

An additional workshop was held with the Planning Board on February 15th, 2023. This workshop covered

- Public Facilities
- Capital Improvement Plan
- Fiscal Capacity

In addition to Planning Board workshops, chapters of the Comprehensive Plan were presented to the Biddeford Conservation Commission on December 15th, and February 16th. The February 16th workshop focused on the Agriculture & Forestry chapter, which will be presented to the Planning Board for an additional workshop on March 15th.
Feedback received from the Conservation Commission was incorporated into the final draft of the Comprehensive Plan

II. COMPREHENSIVE PLAN REVISIONS AND CHANGES

Planning staff has worked to revise, expand and reformat each chapter of the Comprehensive Plan based on feedback and recommendations received from the Planning Board, City established groups, stakeholders and the community. These changes will be reflected in the final draft Comprehensive Plan that will be presented to the Planning Board and the public at the April 5th, 2023 Comprehensive Plan public hearing.

Changes made to each chapter of the Comprehensive Plan are summarized below:

DEMOGRAPICS:

- Added census estimates for language and English proficiency
- Added data for local public school enrollment
- Minor reformatting

REGIONAL COORDINATION:

- Minor reformatting

FUTURE LAND USE:

- Added new language on coastal development and climate change preparedness
- Added LD-2003 under the “challenges and opportunities” section
- Expanded description and reasoning for Coastal Residential zoning changes related to climate change and sea level rise

ECONOMY:

- Added information about usage and square footage in the Mill District
- Minor reformatting

HOUSING:

- Added information and data about Biddeford Housing Authority
- Updated language around ADU's and the potential for a "backlots" ordinance
- Added information about seasonal homes and short-term rentals
- Minor reformatting

TRANSPORTATION:

- Expanded chapter appendix with information about bridge conditions
- Identified high-crash locations and other areas of concern (May Street and 5 Points)
- Changed "five corners" to "five points"
- New visuals and maps
- Added more information about Eastern Trail connectivity
- Minor reformatting

RECREATION AND OPEN SPACE:

- Included language about accessibility for physically and mentally handicapped children at public parks and facilities
- Updated and strengthened language regarding public access to water and beaches
- Added language about transient moorings and boat launches

PUBLIC FACILITIES:

- Added language in multiple sections about climate change preparedness and resilience
- Added information about snow clearing
- Identified areas of concern that are vulnerable to climate change and sea level rise.
- Added language about transient moorings and boat launches
- Minor reformatting

MARINE & WATER RESOURCES:

- Added information about freshwater watersheds including the Saco River and Thatcher Brook
- New infographics and images
- Added information about beach and shoreland public access
- Added information about water recreation and public boat launches
- Minor reformatting

III. STAKEHOLDER AND COMMUNITY ENGAGEMENT

As part of the development of the Comprehensive Plan draft, Planning staff has sought to engage with stakeholders and the community throughout the drafting process.
The first section of draft chapters were released for public comment via the "OurBiddeford" portal in early January. The OurBiddeford portal allows for members of the public to read and provide comment on each individual chapter. As of March 8th,2023 a total of 25 comments have been received on all chapters.

IV. NEXT STEPS

Following the March 15th Planning Board workshop, a workshop will be held with the Conservation Commission at their March 16th meeting to discuss the Agriculture and Forestry chapter.

Further community and stakeholder engagement will continue until through March 29th. The public engagement process will conclude with a final planning board hearing on April 5th

If the City Comprehensive Plan is recommended for adoption at the April 5th public hearing, it will be forwarded to the City Council for a public hearing for review and adoption. After City Council adoption, the City Comprehensive Plan will be sent to the State of Maine for compliance review with State of Maine Growth Management law.

11 Agricultural & Forest Resources (01/23 Draft)

Working Draft

1. What's happening?

When one thinks of Biddeford, they generally think of the Downtown and Mill District, or the coastal region. However, Biddeford has a rich and diverse agricultural sector made up of rich farmlands and forestlands that are home to various types of small agricultural producers. Approximately fifty-three percent (53%) of the City is zoned as Rural-Farm (RF) suitable for agricultural and residential uses. Much of this area is forest that projects off roadways along private and public roads in the RF zone. These operations contribute to our sense of place, which is defined by our history and our culture, by our downtown, and by our open spaces and scenic landscapes. Agriculture is essential to our quality of life in Biddeford. Local farms mean local foods. Ensuring that Biddeford remains a "farming-friendly" community is critical to ensuring long term sustainability.

The common perception is that agriculture in the state of Maine and our community is dying. However, this is not true. In 2016, the USDA reported 8,200 farms in Maine, an increase of almost 14%. Maine also leads the nation in growth of organic farms, adding over 100 new organic farms from 2008-2014. In Biddeford, we've seen growth of small-scale subsistence farming as people have become more interested in growing their own food, bartering with their neighbors, selling their products via direct-to-consumer sales and farmers markets, and sharing their excess with the community.

This growth isn't a guarantee. Agricultural land use has economic and operational challenges, along with an aging population that often has limited options for what to do with their land, which can lead to the loss of agricultural land to development. So what are the benefits of agriculture? And why should the City focus on supporting agriculture in the future?

- Agriculture ensures a diversified economy
- Farms support and serve a broad base of local businesses with equipment, supplies, mechanics, and more
- Creates opportunities for agritourism and farmers markets
- Retains the environmental benefits of farmlands and forests
- Supports biodiversity and creates opportunities for pollinators

A strong, healthy agricultural economy comes from supporting farms of ALL types – traditional dairy and crop farms, and smaller-scale farms growing produce, herbs, flowers, seedlings, meats or other specialty products.

2. What the Community is Saying

"Everyone thinks of Biddeford as a city. Very few understand that more than half of our city consists of beautiful, productive farmland and forests. "

"Our community is capable of producing a tremendous amount of local, healthy food. Food doesn't just miraculously come from the store – it originates from farmland and the efforts of a farmer. No farms – no food. Its that simple."

"Folks don't seem to realize the value rural farmlands provide to our environment. Their ability to filter carbon and runoff from roads can't be replaced.

"Our farm and forest land should be preserved through conservation easements and programs that keep the land as it is. Once its developed – its gone forever. We can't make more land.

"

"We have to do a better job educating the public about the importance of our agricultural lands in Biddeford. "

Working Draft

11-2

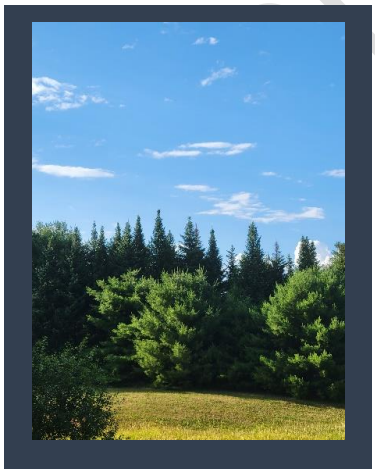
3. Agricultural & Forest Resources in Biddeford Today

53%
Of Biddeford
Is zoned Rural Farm (RF)

1,892
Acres
Of tree growth parcels (2016)

1,446
Acres
Of Farmland (2016)

53.6
Acres
Average farm size



Did you know??

Farms in Biddeford produce a wide variety of products including beef, chicken, pork, milk and dairy products, corn, honey, maple syrup and a wide variety of fruits and vegitables

11-3

Working Draft

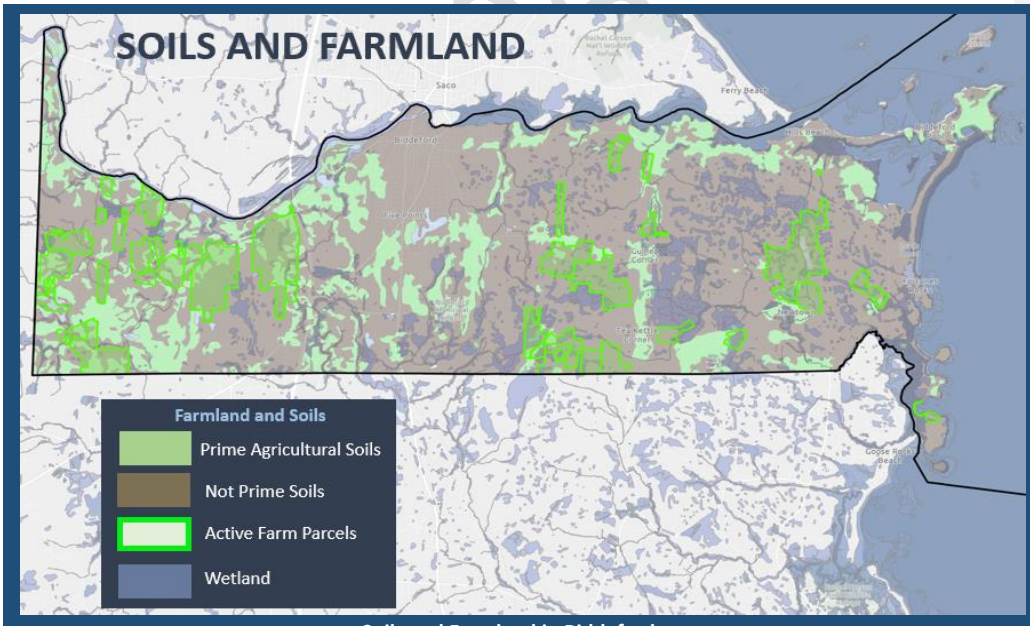
Farmland in Biddeford

Farms in Biddeford once provided many of the foods that were consumed by local markets. However, that all changed with the introduction of new transportation methods and the expansion of grocery supply chains. As the world modernized and our economy grew, the economics of farming weakened over time, causing these operations to transition to other forms of production to remain viable, or sell off parcels of land to help pay the bills.

Biddeford is still home to several large multigenerational family farms where the older generation is retiring from farming. The next generation often must balance working a fulltime job off the farm while maintaining a smaller farming operation and raising their families. These once large multipurpose farming operations have scaled back from large dairy or beef production to only a few head of animals to sell locally and feed their families. Several farms have transitioned to equestrian stables and hay production.

Because these farms are considered agriculturally important soils to the state of Maine, it is critical to for them to remain available as open land in case they are ever needed again for the purposed of producing locally available foods for our community and our state.

Commented [O1]: Need to add the big Map of agricultural lands – the one with all the green in it.



Soils and Farmland in Biddeford

11-4

Current State of Farming in Biddeford.

The 27 parcels of farmland registered in Biddeford include the following properties with current uses. This table clearly demonstrates that, while these properties remain farms, they are not as active in agricultural production as they once were in their hayday. The pressure to sell land to developers for residential housing is significant because farming offers a very low return on investment. This puts Biddeford's rural farmlands and forests at great risk of being sold for large scale development.

Table 10-1. Current Farmland Parcels in Biddeford (2016)

Owner's Last Name	Owner's First Name	Address	Current Use	Acreage
Jerome	Mona & Bradford	463 West St.	Horse farm	60.00
Labonte	Richard D. & Roger E.	697 South St.	Hay	22.50
Girard	Ryan R.	558 South St.	Beef/Hay	13.00
Girard	Ryan R.	570 South St.	Beef/Hay	57.00
Girard	Ryan R.	39 Wadlin Rd.	Beef/Hay	39.00
Sherman	Charles A. IV	36 Wadlin Rd.	Wood/Hay	94.47
Cote	Roger G. & Claire C.	16 Meetinghouse Rd.	Produce	45.50
Rioux	Denis E. & Daphne	677 South St.	Beef/Hay/Wood	96.00
Labonte	Richard D. & Jean E.	731 South St.	Hay	17.50
Boisvert	Norman R., Heirs Of	6 Wadlin Rd.	Hay	33.00
Hussey	Betty J.	50 Buzzell Rd.	Hay/Produce/Wood	4.50
Hussey	Betty J.	43 Buzzell Rd.	Hay/Produce/Wood	85.50
Girard	Raymond N.	575 South St.	Hay	24.00
Rhames	Richard E.	10 West Loop Rd.	Produce/Wood	88.40
Dutton	Jeffrey C. and Lois M.	95 River Rd.		5.40
Baker	David L. & Lisa C.	23 Oak Ridge Rd.	Hay / Wood	36.00
Clair	Michael S.	South St.		12.00
Ewing	Esther & Timber Point Trust	1-2 Timber Point Rd.		13.16
Curro	Andrea	65 Proctor Rd.	Wood	192.07
Lowell	Michael J. & Susan L.	538 South St.	Hay/Wood	7.01
Lowell	Michael J. & Susan L.	521 South St.	Hay/Wood	37.34
Lowell	Michael J. & Susan L.	501 South St.	Hay/Wood	5.40
Hussey	Kenneth A. & Sandra M.	134 River Rd.	Hay	16.14
Paquette	Stephen A. & Lynn M.	551 South St.	Hay	66.00
Brown	Alan C.	83 Oak Ridge Rd.	Hay/Wood	26.70

Working Draft

York	Miles S.	439 West St.	Hay / Wood	330.00
Wing	Lisa M.	1 Moxie Ln.		21.00
TOTAL				**1,446.17**

4. Forestry and Tree Growth

Forestry is a crucial sector of the green industry and continues to grow as a popular solution to both ecological and social issues in rapidly evolving urban landscapes.

As shown in the forest cover map, Biddeford is has a significant amount of tree growth area that provides a wide range of economic, environmental and social benefits for our community including air pollution removal, stormwater reduction and carbon sequestration. Half of the dry weight of wood is carbon that has been removed from the atmosphere. Maine's forests currently sequester an amount of carbon equal to at least 60% of the state's annual carbon emissions. Encouraging new growth and limiting soil disturbance keeps carbon in forests and out of our atmosphere.

Forested area in Biddeford

11-6

5. Challenges and Opportunities

Current Use Programs

Maine has four (4) “current use” programs that offer landowners a reduction in their assessed value: Farm Land, Open Space, Tree Growth, and Working Waterfront. These programs create value for agricultural land beyond it’s development value to make farming and forestry more economically viable. Many agricultural producers already take advantage of these programs, but the City can increase awareness and support landowners in the application process.

Local Agriculture

Biddeford is home to small scale agricultural producers who are involved in vegetable production, flowers, herbs, honey, beef, Christmas trees and maple syrup production. Local farms also support equestrian stables and lesson programs and small scale goat and sheep farming.

The challenge with local agriculture is that farming is an expensive endeavor and nevermoreso than in today’s economy when the price of feed, fertilizer, equipment, fuel and labor is at an alltime high.

With an average median age in Maine of 57, our farmers are rapidly aging out of the workforce and looking for ways to retire. To combat the aging out of farmers and attempt to attract a younger demongraphic to farming, the USDA has made changes to their grant and loan programs make it easier for small and mid-sized producers to access capital, manage risk, manage land, achieve Good Agricultural Practice (GAP) certification and access educational resources that help inform planning efforts to improve the long term sustainability of their farms.

Climate Change

Farmers are especially affected by changing weather patterns caused by climate change and are constantly looking at climate trends to adapt to changing weather conditions. One of the most challenging parts of climate change is that it looks different almost every season. Most recently, Maine is experiencing periods of drought then periods of heavy precipitation, along with significant temperature shifts. Changing temperatures is bringing more extreme weather to Maine, threatening the viability of crops and farming practices. Plants can grow faster up to a certain temperature, but

growth declines with additional warming. Different crops have different ideal temperatures. USDA is warning Mainers that projected warming from climate change may reduce some crop yields by 25-35% in coming years.

Warmer temperatures also bring new pests that damage crops. Many of the plant diseases that used to be confined to southern states are making their way into Maine. Viruses that are transported by southern bugs that would normally be killed off by frost are gaining ground moving north. Warming temperatures and humidity also stress livestock, undermining their health, impacting their productivity and growth.

Climate change is also bringing more extreme weather with more intense, sporadic rainfall. During the growing season, intense rains wash out newly planted fields, damage growing crops, bring more soil erosion and nutrient run-off, and leave soil less fertile by washing away nutrients. This, in turn, causes significant challenges in our streams, rivers and the ocean as nutrients are washed into estuaries, negatively impacting fish and shellfish habitat. Intense rain also floods fields throughout the growing season, making it a challenge to get crops out of the ground at the optimum harvest time. Farmers are required to constantly adjust their agricultural practices based on changing weather patterns.

In order to help agricultural producers to adapt to the changing climate and plan for the future, the State of Maine has developed the Healthy Soils Program to connect farmers with key resources and equip them with the tools and knowledge they need to begin voluntarily using healthy soils practices – an important climate adaptation strategy. Information includes: healthy soils land management practices; technical assistance services offered by agricultural support proviers to help them use these pratices; connections to other farmers already using these practices successfully; and funding opportunities to support the use of these practices. Socializing the availability of new climate adaptation programs and services will be key to helping Biddeford's agricultural community adapt with our constantly changing climate.

Conservation Easements

Allowing landowners to limit the type or amount of development on agricultural or forestry land while retaining private ownership through easements placed on the property deed. There are multiple approaches to protecting agricultural land from development that include:

- Donated easements
- Purchased easements (through non-profit partnerships)
- Buy/Protect/Sell (through non-profit partnerships)
- Sale of Development Rights (landowner payouts)

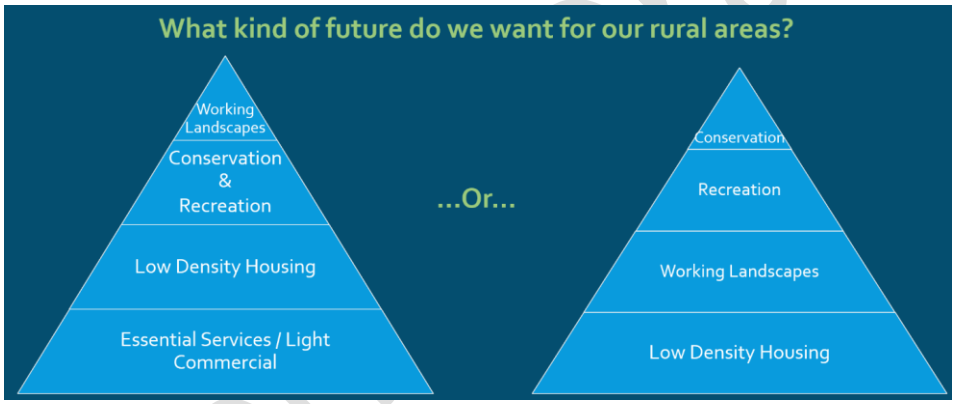
11-8

Rural Farm Zoning Changes

The city is exploring zoning and ordinance changes within the Rural Farm (RF) zone which would preserve farm and forest land and promote working landscapes. Although no specific reccomendations have been developed, the city may choose to explore the possibility of creating a “hierarchy of uses” within the RF zone to promote working landscapes and conservation while limiting low-density residential or commercial development. Additionally, new open space and setback requirements may be created to minimize the impacts of low-density residential development on surrounding farmland, forests or open areas.

Developing a hierarchy of useses within the RF zone could be a tool to effectively manage competing and sometimes conflicting land uses and balance working landscapes, conservation, recreation and housing.

What could a Heirachy of Uses in Biddeford’s Rural Farm areas look like??



Protecting Forest and Farmland

Ensuring forest and farmland continue to be available within our city goes beyond cataloging the available land. There are pressures and threats on agriculture lands from environmental conditions (drought), invasive species (Japanese Knotweed, Hemlock Woolly Adelgid), housing development, and the overall economic viability of operations for landowners.

Acknowledging the multitude of challenges landowners face and keeping these considerations top of mind when evaluating development proposals and efforts to conserve agricultural land will ensure better outcomes for Biddeford long into the future.

11-9

Working Draft

Agricultural & Forest Resources -

What Comes Next?

Key Goals

1. **Safeguard** lands identified as prime farmland or lands capable of supporting commercial forestry from development which threatens those resources.
2. **Support** agricultural land, farmland, and forests with economic incentives to reduce pressure on landowners to sell land into development.
3. **Promote** farming and working forests through amendments to RF zoning ordinances.
4. **Develop** resources to support local agrotourism and farmland or forest economies.

Goals, Policies and Strategies

Goal 1:

Safeguard lands identified as prime farmland or lands capable of supporting commercial forestry from development which threatens those resources.

1. **Consult with the Maine Forest Service district forester when developing any land use regulations pertaining to forest management practices as required by 12 M.R.S.A. §8869**
2. **Consult with Soil and Water Conservation District staff when developing any land use regulations pertaining to agricultural management practices.**
3. **Consider conducting a city-wide agricultural and forestry resources inventory and creating a farm and forestry overlay map to identify prime agricultural soils, active farmland and other active land uses**
4. **Consider conduciting a Cost of Community Services (COCS) study to evaluate costs versus revenues for different land uses in Biddeford, and amend the Zoning Ordinance to require a fiscal impact analysis for any subdivision larger than 5 acres.**
5. **Regularly assess at-risk or important parcels deemed worth conserving**

11-10

Working Draft

6. Collect annual data to evaluate what percentage of development is built in designated growth areas in Biddeford, per the Future Land Use Plan, to enable continual assessment of the effectiveness of policies and strategies toward protecting working and natural landscapes.

7. Promote the holding of conserved lands, either in fee or through easement, by land trusts in Maine who work with willing land owners to conserve land for public use and enjoyment.

8. Develop a Recreation and Open Space Master Plan that includes the preservation of prime agricultural lands and c-value commercial forest lands.

9. Ensure prime agricultural and high-value commercial forest lands are included in design considerations for development projects located throughout the City of Biddeford.

10. Consider a local Transfer of Development Rights and/or a Purchase of Development Rights program to direct development toward designated growth areas and away from prime agricultural and high-value commercial forestry operations.

Goal 2:

Support agricultural land, farmland, and forests with incentives to improve economic viability and reduce pressures to sell land into development.

1. Encourage and support landowner enrollment in the current use taxation programs.

2. Leverage city staff to help with education and assistance in filing for conservation easements - creating fast-track programs to help landowners move land into conservation or other programs more easily.

3. Explore the development of new impact fees for development in RF zones to support funding for incentive programs or the purchase of land by the City for select parcels of vital importance.

4. Develop program(s) or tax incentives to encourage local restaurants or businesses to purchase local agricultural or forest products sourced in Biddeford.

Working Draft

Goal 3:

Support and promote farming and working forests through amendments to RF zoning ordinances.

1. **Revise the cluster subdivision requirements in rural areas to increase protections for prime agricultural soils and high-value forests.**

2. **Revise land use ordinance to discourage development of non-growth areas to help preserve forests, farmland, and other natural resources**

3. **Remove burdensome ordinance language and permitting processes for farm operations including changes to provisions relating to: setbacks, signs, commercial sale of products grown, and required parking for farm stores / stands.**

4. **Prioritize and actively encourage and incentivize agriculture, commercial forestry operations, and land conservation that supports them in local or regional economic development plans (Planning and Development Department; On-going).**

5. **Amend the Zoning Ordinance to allow additional permitted and conditional uses in the Rural Farm Zone on active farm properties to allow for supplemental incomes for farm operators. Ensure, at a minimum, that land use activities such as roadside stands, greenhouses, firewood operations, sawmills, log buying yards, and pick-your-own operations are permitted.**

Goal 4:

Develop resources to support local agrotourism and farmland or forest economies.

1. **Promote resources to educate farmers and working forest owners on opportunities for agrotourism.**

2. **Create a fast-track program for City evaluation and any permitting required for agrotourism.**

3. **Promote agrotourism operations within Biddeford through City-owned channels and outside partnerships to increase awareness within Biddeford and tourist communities.**

11-12

Working Draft

Maine Municipal Association

60 COMMUNITY DRIVE
AUGUSTA, MAINE 04330-9486
(207) 623-8428
www.memun.org

Comments of the Maine Municipal Association

On Rule Making

19-100 Chapter 5 Housing Opportunity Program: Municipal Land Use and Zoning Ordinance Rule

And

19-100 C.M.R. ch. 4, The Housing Opportunity Program Grants

March 8, 2023

To: Benjamin Averill, Housing Opportunity Program Coordinator, DECD

Fr: Rebecca Graham, Senior Legislative Advocate, Maine Municipal Association

Thank you for your incredible effort to make a confusing statute more understandable for Maine's towns and cities. The Maine Municipal Association appreciates your engagement and attempts to rectify a problematic statute and understands how hard staff have worked to correct a poorly written statute via rule. However, the rules and grant program as drafted seem to extend the scope of "routine and technical" rulemaking beyond the department's authority and should require a legislative review at a minimum, or department direction to correct the statute.

As highlighted by multiple communities, it is currently impossible for many towns and cities to meet the July 2023 deadline in statute. While the lack of finalized rules alone makes that deadline a challenge, there are new requirements established under these proposed rules that further make that deadline unattainable and expand the already challenging work with no actual reimbursement for that activity, only a competitive application process shifting additional administrative burdens to race against other communities in the same situation, with the same level of burden and time constraints because the Maine State Legislature felt it was of statewide significance.

LD 2003 was not enacted with a mandate preamble and did not receive a 2/3 override of the obligation the statute created on municipal government which means the activity must be funded for all municipalities at the 90% rate of costs on those towns and cities as enshrined by Maine's Constitution.

> ***Article 9 Section 21. State mandates***. *For the purpose of more fairly apportioning the cost of government and providing local property tax relief, the State may not require a local unit of government to* ***expand or modify that unit's activities so as to necessitate additional expenditures from local revenues unless the State provides annually 90% of the funding for these expenditures from State funds not previously appropriated to that local unit of government.*** *Legislation implementing this section or requiring a specific expenditure as an*

exception to this requirement may be enacted upon the vote of 2/3 of all members elected to each House. ***This section must be liberally construed. [emphasis added]***

The use of a grant program to provide technical support and reimbursement for municipalities as established by proposed rule 19-100 C.M.R. ch. 4, The Housing Opportunity Program Grants, doesn't meet the constitutional requirements for the enactment of LD 2003. This is important because on top of not funding the costs of implementation required at the 90% rate for the expansion of municipal duties, the rules as drafted in 19-100 Chapter 5 expand further on the statute authority and require a significant modification of municipal activity well beyond the intent of the legislation. Absent the funding mechanism required by the constitution, the state and rules are voluntary, not mandated and this is not what was envisioned by the statute. MMA suggests that DECD find an appropriation to reimburse municipalities, in addition to the grant program, given the scope of the impacts outlined below.

A number of the rules create an entirely new obligation on all municipalities such as establish statewide definitions for terms commonly used in municipal ordinances that may not be consistent or appropriate based on their application in other ordinance sections in all municipalities. As such, this will require an extensive amount of work, not directed by the statute, to review all of the terms as they occur in municipal ordinances for compliance to the state definitions which are intended to establish the regulatory framework that exceeds the parameters of the ordinances that are required to be adopted as a result of LD 2003.

All other similar definitions in state land and water regulatory activities establish a minimum description and enforcement and allow municipalities to adopt more restrictive rules. Many of those regulatory activities have definition needs that may or may not align with a statewide definition.

In Section A-1 of the proposed rule, the department establishes a mandate to require that municipalities create or amend local ordinances for P.L. 2021, ch. 627 goals that are consistent and no more restrictive than the requirements proposed in the rule. The law is not clear if it requires municipalities to adopt ordinances or replace ordinances with the law, meaning planning boards and code enforcement officers (CEO)are unable to know whether to apply ordinance requirements or statutory requirements.

In Section A-2, the law states that it does not exempt a subdivider from the subdivision law but also appears to provide that dwelling unit subdivisions are not exempt under the rules. This changes lot size requirements, setbacks, and road development requirements. It is unclear whether development restricted areas based on non-conforming road standards would apply or not, opening communities to challenges for ADU denials.

In Section B, the rules create statewide standards for commonly used municipal definitions found in all municipal ordinances and places a new requirement for those definitions to be no more restrictive than what is defined. The subsequent definitions therefore effect a number of unrelated municipal ordinances and remove the ability for municipalities to use them in more restrictive ways in other ordinances. To mitigate this, municipalities would have to create specialized definitions for those common terms as they exist outside of the ordinance adoption around LD 2003, confusing not only planning boards and CEOs but also those trying to read and understand the ordinances and how they may apply to the specifically proposed project.

In some cases, the definitions conflict with the statute itself as in the definition for "Attached" which is described in statute as; "attached to or sharing a wall with a single-family dwelling unit" while the rule defines "Attached" as connected by "a shared wall to the principal structure." Structures attached

by external hallways or separated by another attached building such as a garage seem to not be allowable under this definition.

Principal Structure as defined in the rules conflicts with statute under 38 MRS§ 436 A(10) by defining a building as the "main or primary use of the structure is conducted." It's unclear for CEOs and planning boards if this applies to commercial buildings or what conducted refers to as the statute's use of the premise and the definition says the primary use of the structure.

Single family non-conforming housing on non-conforming lots is grandfathered as it exists under current law and additions to these lots are permissible only if it does not make the building or lot more non-conforming. The rules seem to prohibit the more restrictive setback and conforming status in Section 3- B(a).

Under Section 2A. Affordable Housing Density, the statute requires affordable housing bonuses if a municipality as adopted a density requirement. The rules conflict with the statute and create an obligation on municipalities that have not adopted density requirements to establish a review for long term affordability of development and require a certificate of occupancy or other final approval. The statute only applies to municipalities who have adopted a density requirement.

There is no statutory requirement for an approval process or certificate of occupancy based on affordability in communities that have not identified density bonuses, and this would be a challenge for many municipalities to adopt particularly when they do not have full time staff or occupancy review processes currently. Additionally, there is no clarity of what "other final approval" means for those communities and is an additional expansion of a mandate to develop a process not envisioned in the statute or funded by the Legislature.

Under section 3, Dwelling Unit Allowance, 1-c, the rules conflict with the statute again creating confusion on which applies. 4364-B (2) states one within and one detached. The rules state one within or attached, one detached, and one of each. Code enforcement officers and planning boards will be challenged to apply the rule allowance when it directly conflicts with the statute prescription.

Under section 4, Accessory Dwelling Units, B-2 conflicts with 4364-B Sec. 3 of the law that says the law only applies to municipalities with zoning and the inclusion in the rulemaking section under zoning expands to those without zoning. Again, this conflicts with statute and expands the impact on a local unit of government with no additional funding clearly muddying the waters for how to meet expectations.

To be clear, MMA understand why these rules attempt to be more robust, as the primary legislation was drafted poorly. It's clear that department staff are trying very hard to provide clarity for what should have been in statute. As admirable as that effort is, the Association asks the department to consider returning to the Legislature with amended the language to better support the intent and help staff craft rules in better line with the goals of the intended language in the area of municipal activities where it makes sense and to fully fund the expansion of the government impacts as required.

Upcoming Ordinance Changes
(Required by the Stormwater General Permit – for 6/30/2023 Adoption)

Erosion/Sediment Control Standards,

Minor Changes to Post Construction Stormwater Management, and

Minor Changes to Illicit Discharges

Kristie Rabasca,
Integrated Environmental Engineering, Inc.
Environmental Engineer

For Biddeford Planning Board
3/15/2023

Upcoming Ordinance Changes

Ordinance changes are required by:

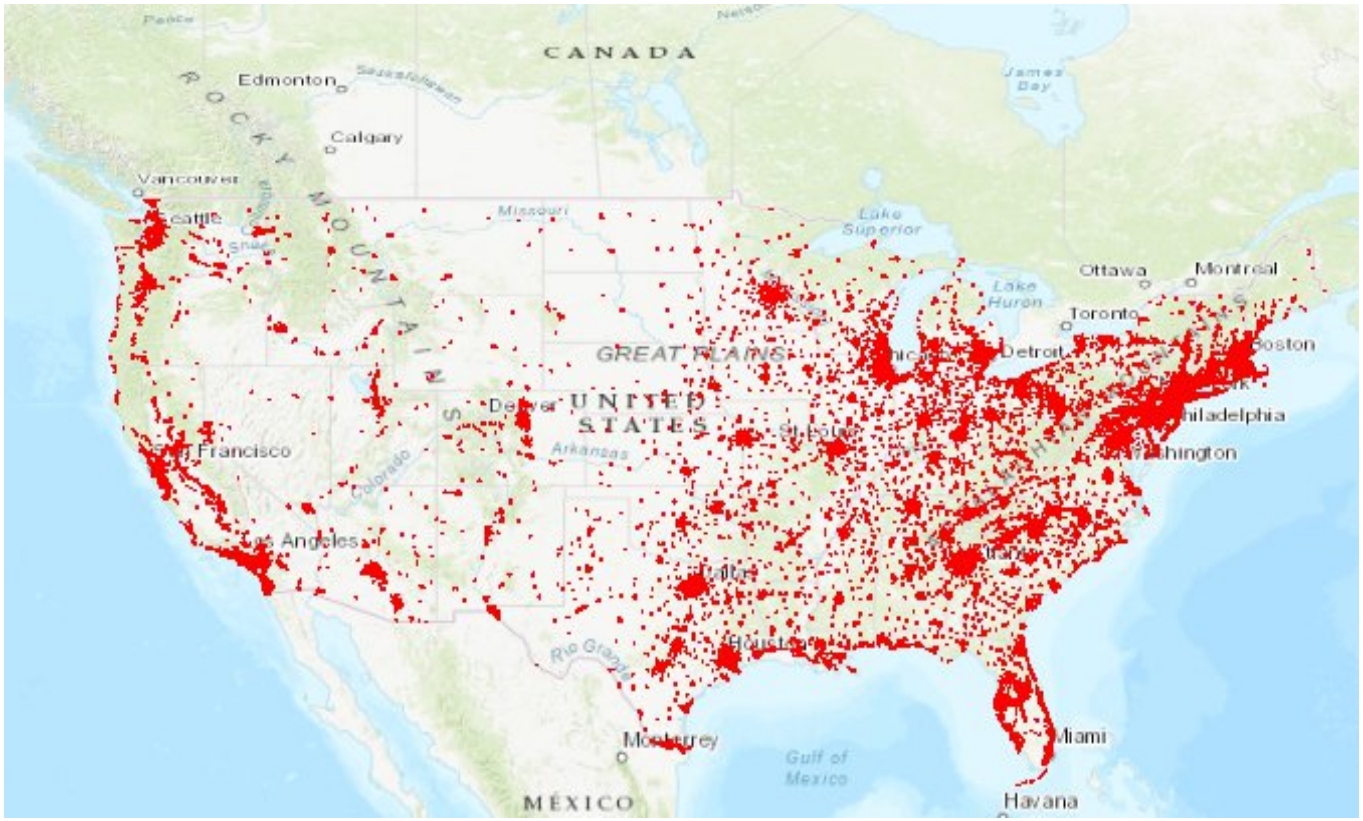
General Permit for Stormwater Discharges from the Municipal Separate Storm Sewer System (MS4 General permit)

City has been regulated by this since 2003.

Upcoming Ordinance Changes

The City is not alone – there are 30 Municipalities regulated in Maine.

6,695 municipalities regulated across the US.

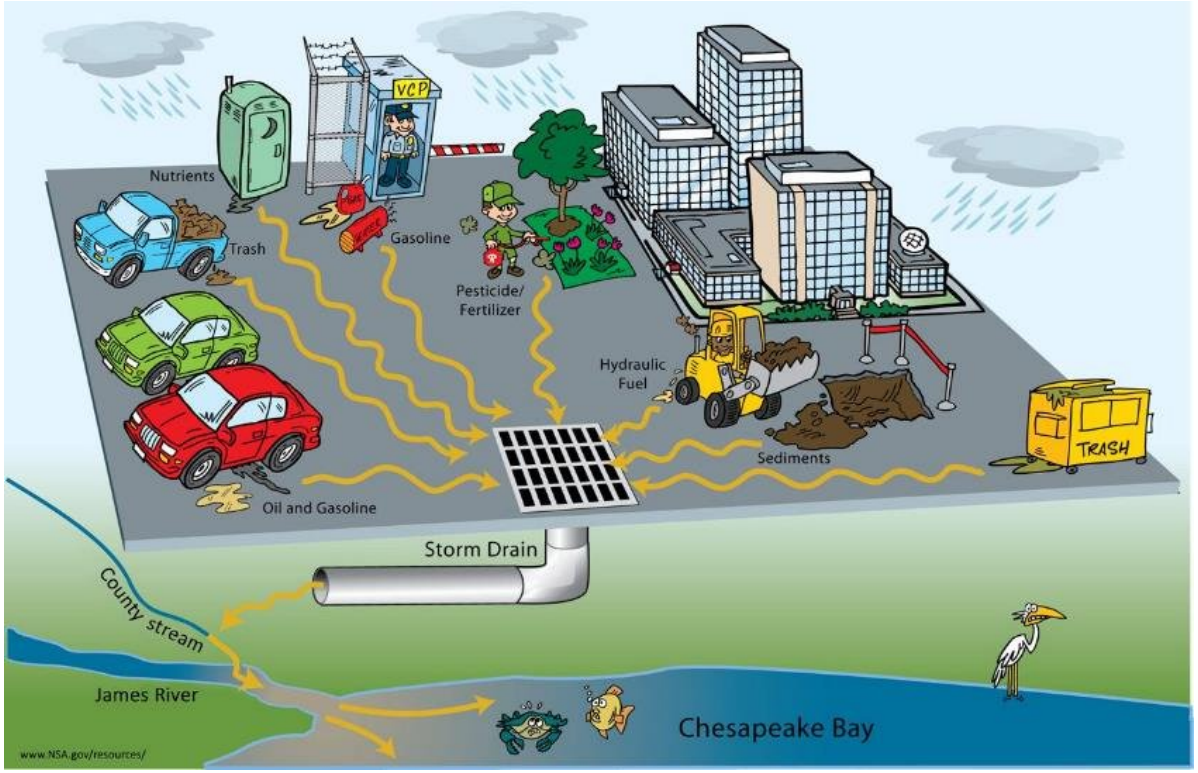


Upcoming Ordinance Changes

High impervious cover (paved and roofed areas)

Allows pollutants to build up

Which are released to waters when it rains though the separated storm drain system.

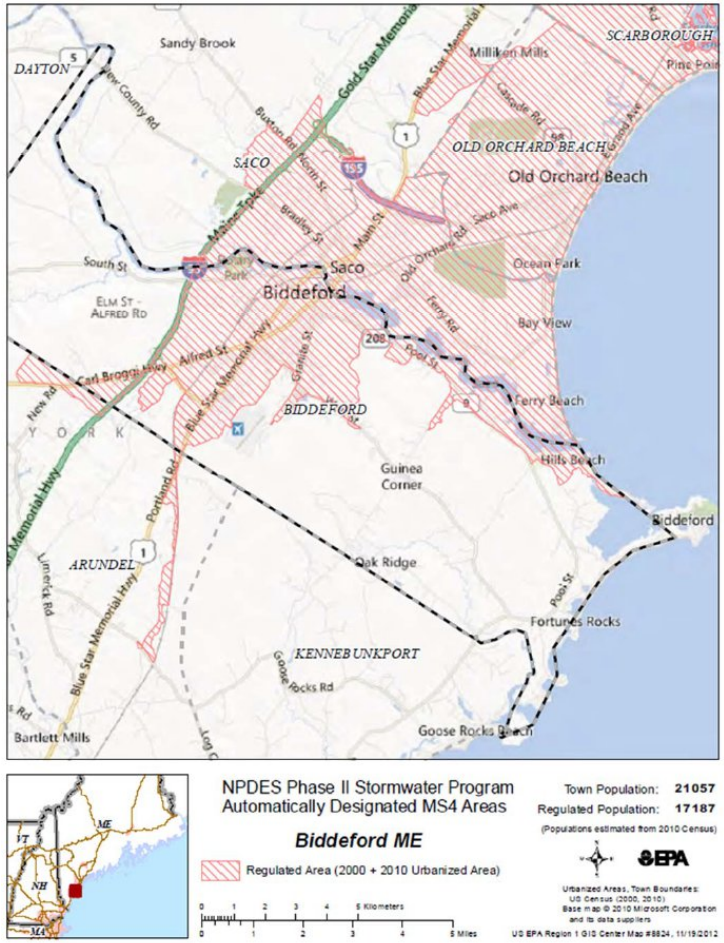


Graphic credit: www.NSA.gov

Upcoming Ordinance Changes

General Permit only required in Regulated/Urbanized Area

- US census high population density areas with lots of impervious surface
- Shown here in pink hashing (2000 and 2010 only, 2020 does not apply)



Upcoming Ordinance Changes

Maine DEP MS4 General Permits

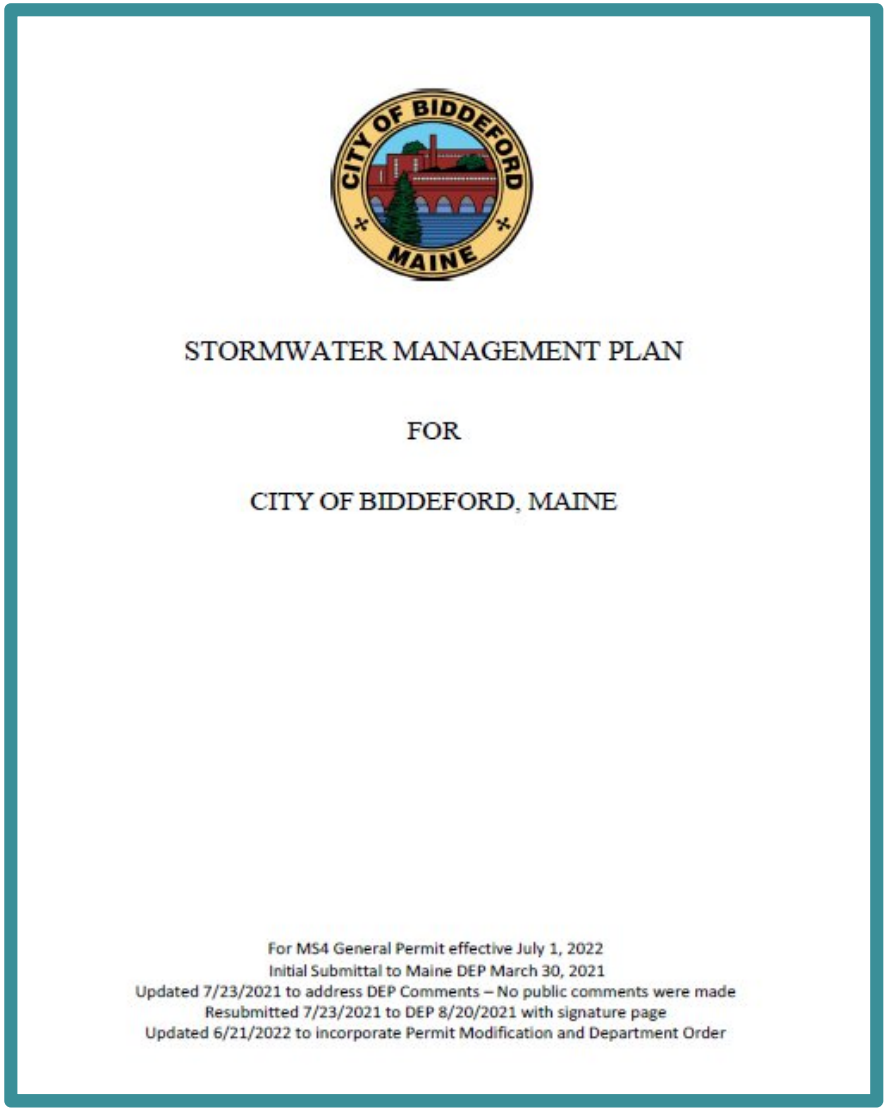
2003 – 2008

2008 – 2013

2013 – 2022

New Permit Began 7/1/2022

Stormwater Management Plan provides more detail - Ordinance Changes are required by this new permit.



STORMWATER MANAGEMENT PLAN

FOR

CITY OF BIDDEFORD, MAINE

For MS4 General Permit effective July 1, 2022
Initial Submittal to Maine DEP March 30, 2021
Updated 7/23/2021 to address DEP Comments – No public comments were made
Resubmitted 7/23/2021 to DEP 8/20/2021 with signature page
Updated 6/21/2022 to incorporate Permit Modification and Department Order

Upcoming Ordinance Changes

Stormwater Permit addresses many potential sources of stormwater pollution:

1. Public Education/Outreach
2. Public Participation
3. Illicit Discharge Detection and Elimination – (discharges into the storm drain system
4. Construction Runoff Control – Erosion/Sed.
5. Post Construction Runoff Control – Developments and maintenance after Construction
6. Pollution Prevention/Good Housekeeping

Construction Runoff Control: Erosion and Sediment Control Performance Standards

Stormwater General Permit requires stronger, municipally enforceable erosion and sedimentation control performance standards consistent with state standards (Maine DEP Chapter 500).

At the same threshold as the state standards (one or more acres of disturbed soil).

Sampling of Erosion and Sediment Control Performance Standards

State Standards include details such as:

Installation of sediment barriers (like bark mulch berms or silt fences)

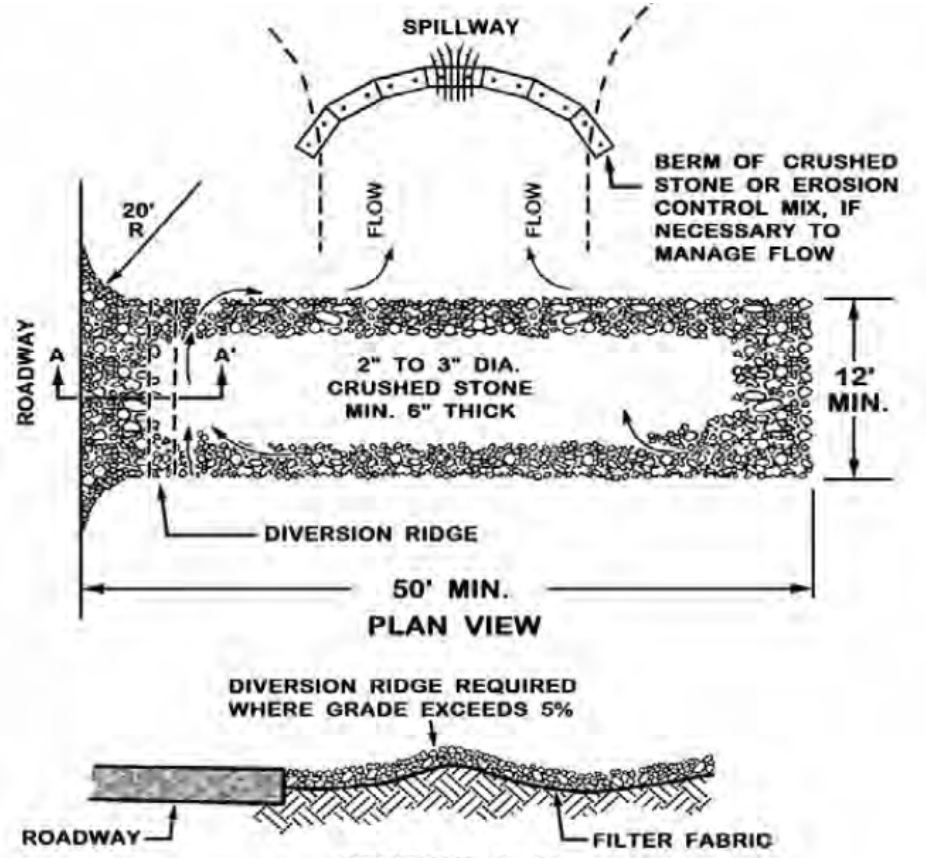
before any soil is disturbed.

MAINE EROSION AND SEDIMENT CONTROL BMPs – 10/2016

Sampling of Erosion and Sediment Control Performance Standards

Stabilized Construction Entrances

- ✓ Aggregate and filter fabric
- ✓ Protects public right of way
- ✓ Maintenance required until all areas are stabilized.



MAINE EROSION AND SEDIMENT CONTROL BMPs – 10/2016

Sampling of Erosion and Sediment Control Performance Standards

Require Inspections During Construction – By Contractor/Developer

- ✓Weekly,
- ✓Before a rain event, and
- ✓After a rain event (w/in 24 hours).
- ✓Keep a log (for DEP and city to inspect)

- ✓When needed repair ESC BMPs as follows:
  - Initiate upon discovery
  - Complete before end of next workday
  - Allows completion within 7 days if longer needed, and
  - Prior to any rain event.

Construction Runoff Control: Erosion and Sediment Control Performance Standards

Information in your packet summarizes current Biddeford ESC requirements.

The current standards are listed in Part III Land Development Regulations Article VI Performance Standards Sect. 26 Erosion Control.

ESC performance standards apply to Major and Minor Site Plan Review, and Subdivisions

Construction Runoff Control: Erosion and Sediment Control Performance Standards

Proposed Redline changes in your packet:

- Incorporate State Chapter 500 regulations by reference,
- Would apply to all sites triggering Site Plan or Subdivision review (even if smaller than one acre of disturbance, and even those outside the regulated Urbanized Area).
- Updates Campgrounds ESC requirements(Section 13)

(Facilitates design by developers, review by city staff and contractors, and provides good protection of natural resources).

Post Construction SW Management Ordinance

Stormwater treatment systems are more complex than previously installed, and

They require proper maintenance to ensure they do their job of pollutant removal.

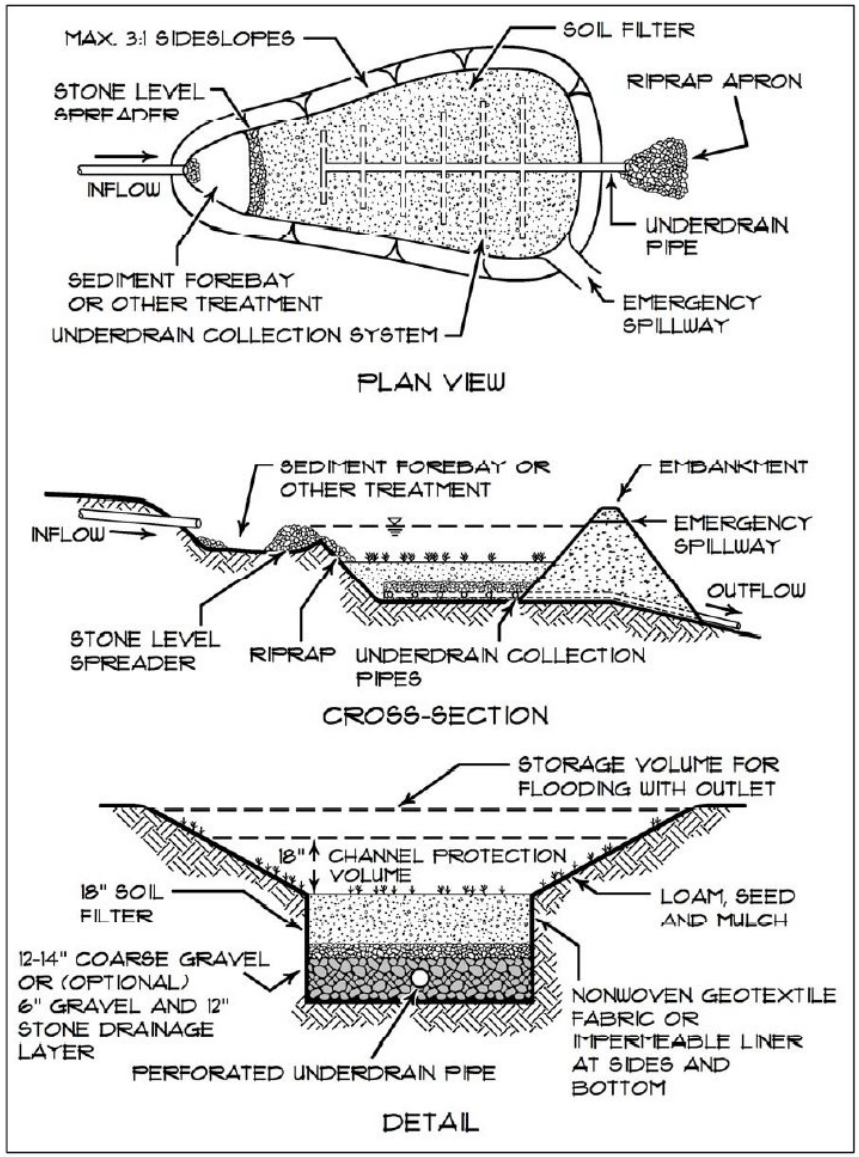
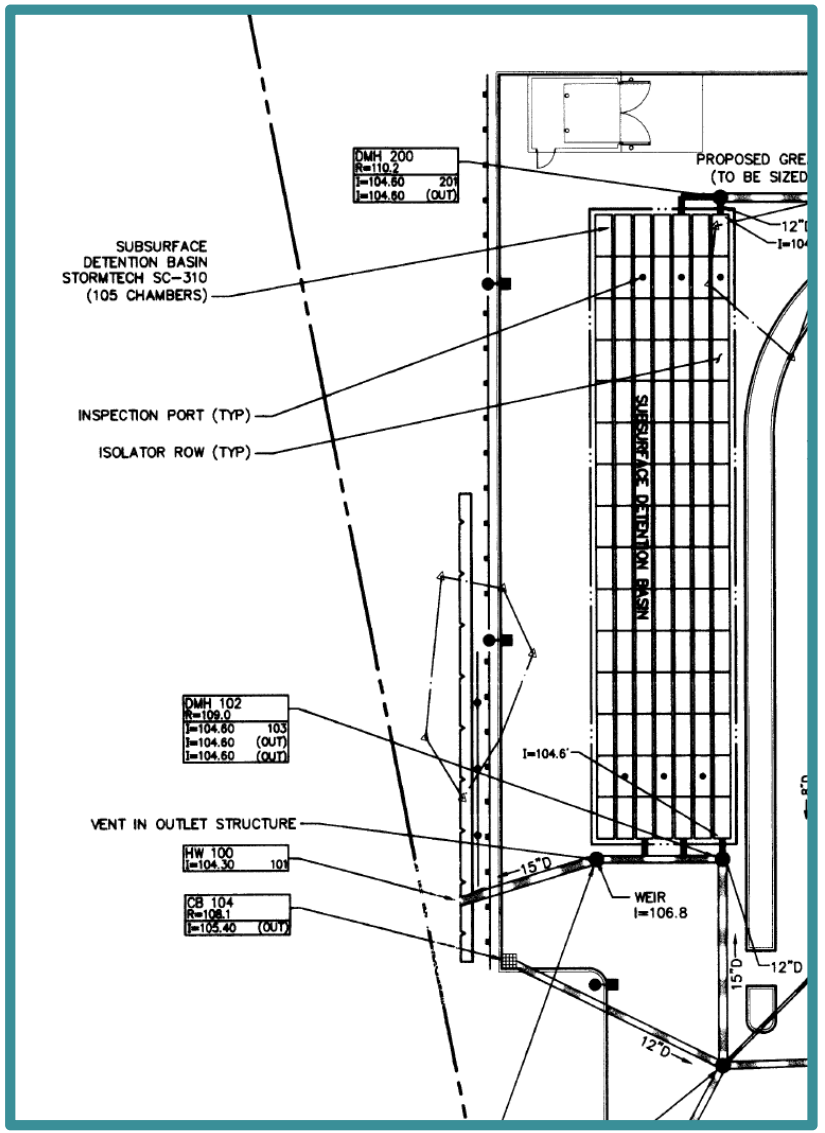


Figure 7.1.1 – Grassed Underdrained Soil Filter

Post Construction SW Management Ordinance

Part II Chapter 34 Environment, Article VI Post Construction has been in place since 2009 to ensure private stormwater systems are maintained after construction.

The ordinance currently requires that owners inspect and maintain their systems, and certify to the city annually they have done so.



Post Construction SW Management Ordinance

Changes Required by MS4 General Permit are:

1. Ensure the annual inspector be a Qualified Inspector (already defined in Biddeford Ordinance – a Professional Engineer or passing a Maine DEP certified course)
2. Require that a copy of the annual inspection report be provided with the annual certification.
3. Requiring that maintenance issues be corrected within 60 days (or in accordance with a schedule approved by the City's enforcement authority)

Post Construction SW Management Ordinance

Staff also recommend:

4. Correcting some definitions which are outdated
5. Removing the requirement to sign a maintenance agreement (which has not been enforced previously).
6. Removing the requirement to have the annual certification notarized (does not provide any value)

Your packets contain proposed redline changes for all of these.

Non-Stormwater Discharges

Part II Chapter 70 Utilities, Section 70-31 is used to prohibit dumping and improper connections (called non-stormwater discharges) to the city's storm drain system. (examples below show residue from dry wall dumped into a catch basin, and a sump pump discharging wastewater into the road/then into catch basin.

Non-Stormwater Discharges Ordinance

Change Required by MS4 General Permit is to

1. require that violations be corrected within 60 days (or in accordance with a schedule defined by the enforcement authority)

Your packets show proposed redline language.

Questions?

Review packet with proposed detailed changes?

Integrated Environmental
ENGINEERING

Mr. Craig Chekan, Biddeford City Engineer
And Mr. Dave Galbraith, Biddeford City Planner
PO Box 586
Biddeford, ME 04005

March 8, 2023

Subject: Ordinance Changes Required by the General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s) for Planning Board consideration.

Dear Mr. Chekan and Mr. Galbraith:

This letter provides an overview and proposed redline changes for consideration by the Planning Board at their 3/15/2023 workshop to address three ordinance changes required by the General Permit for Stormwater Discharges from the Municipal Separate Storm Sewer Systems (MS4s). The changes include:

1. Incorporation of state erosion and sedimentation control standards for proposed developments,
2. Updating the Post Construction stormwater maintenance inspection and certification system for private stormwater infrastructure, and
3. Updating requirements to correct illegal discharges into the City's separated storm drain system within 60 days of identification of the illegal discharge.

To address the MS4 General Permit Requirements, the changes will affect Part II Code of Ordinances, Chapter 34 Environment and Chapter 70 Utilities, and Part III Code of Ordinances, Land Development Regulations. The attachment to this letter provides an introductory overview of each of the three requirements as well as proposed redline/strike out changes to the City's Code.

The MS4 General Permit requires that the changes be codified by 6/30/2023. I plan to attend the 3/15/2023 Planning Board meeting to assist in their understanding of the changes and answer any questions they might have.

If you have any questions about this information or need changes in advance of the meetings, please let me know. I can be reached at 207-415-5830 or via email at krabasca@integratedenv.com.

Sincerely,

Integrated Environmental Engineering, Inc.

Kristie L. Rabasca

Kristie L. Rabasca, P.E.

cc. Jeff Demers, Public Works Director
Attachments: Redline Strikeout proposed changes to address MS4 General Permit requirements.

3/1/2023 Proposed Changes to Biddeford Ordinances to address MS4 Requirements by 6/30/2023

OVERVIEW OF EROSION AND SEDIMENTATION CONTROL CHANGES

Affected Sections: Part III Land Development Regulations Article II Definitions, and Article VI Performance Standards

The MS4 General Permit requires that specific Erosion and Sedimentation Control (ESC) standards be incorporated into the City's ordinances for any proposed development that disturbs one or more acres of land in the City's Urbanized Area (see attached map). The ESC standards required by the MS4 General Permit are the same as the Maine DEP Chapter 500 standards for ESC and both are triggered at the same 1-acre disturbance threshold. As such, developers have been conforming to these standards for many years in all areas of the state.

The impact of incorporating these into the Biddeford Code is that Biddeford Staff will now have enforcement authority over the standards.

The current Biddeford standards for ESC are as follows:

a. For projects triggering Site Plan Review, performance standards identified in Part III Land Development Regulations Article VI Performance Standards, Section 26 Erosion Control apply. The standards listed in this Section have not been updated since 1996. The standards in Section 26 Erosion Control are proposed to be updated, but no changes are needed to Article IX Site Plan Review Section 5 Site design and development criteria.
b. For subdivisions (Part II Code of Ordinances Chapter 66 Subdivisions), no specific standards are identified, rather there is a general statement that any subdivision must comply with the standards identified for the zone the subdivision is located in. Because subdivisions must comply with the Erosion Control Standards as for Site Plan Review (see item a. above), no changes to Chapter 66 are proposed.
c. Part III Land Development Regulations, Article VI Performance Standards lists several types of developments that require an erosion and sedimentation control plan. Most of these sections are not explicitly being updated because the Performance Standards of Section 26 erosion control, will automatically apply to these sites. However, upon review, one section has a reference to an obsolete guidance document which is proposed to be corrected.
    a. Section 13 Campgrounds and tenting grounds of Part III Land Development Regulations requires an erosion and sedimentation control plan "meeting the standards of the York County Soil and Water Conservation District and the Maine soil and Water Conservation Commission…". This reference is proposed to be updated.
    b. Section 30 Extractive Industry – no changes needed
    c. Section 51 Private ways and roads – no changes needed
    d. Section 64 Timber harvesting – no changes needed
    e. Section 73 Planned Unit Developments – no changes needed

To meet the MS4 General Permit requirements, Engineering Staff recommend incorporating the Chapter 500 standards by reference in Part III Land Development Regulations Article VI Performance

Standards, Section 26 Erosion Control. Incorporating the Chapter 500 standards by reference will facilitate design for developers and review by the City.

Planning Board should be aware that although the MS4 General Permit requires these standards only be applicable to projects that disturb one or more acres of land, Engineering Staff recommend that the standards apply to all sites that require a Subdivision or Site Plan Review even if it disturbs less than an acre of land.

In addition, staff also recommend that the City adopt the standards City-wide, rather than only within the Urbanized Area (which is all that is required by the MS4 General Permit).

Adoption of the standards by reference to Chapter 500, adoption City-wide, and applying this single set of standards to all sites that trigger Site Plan or Subdivision review by Planning Board will facilitate design for developers and review by the City, as well as providing good protection of the City's natural resources from the adverse impacts of sedimentation from construction sites.

Recommended changes to the City's Code are provided below as underline (for new text)-strikethrough (for deleted text):

Part III Land Development Regulations

Article VI Performance Standards

Section 13 Campgrounds and tenting grounds

1. A soil erosion and sedimentation control plan meeting the standards of Section 26 of this Article ~~the York County Soil and Water Conservation District and the Maine soil and Water Conservation Commission~~ shall be submitted. In addition to data on soils, slopes and drainage, a vegetation map showing the following items may be required:
   - **(a)** The major types of vegetation should be identified and described (as to age, height, openness or density, and pattern, either natural or re-forested).
   - **(b)** New planting should be selected to provide screening and shelter, to tolerate existing and proposed site conditions, and to blend compatibly with existing natural vegetation.
   - **(c)** All vegetative clearing should avoid creating straight line edges between open land and surviving stands.
   - **(d)** Areas of activity and/or traffic should be sited to avoid wildlife areas (such as thickets for birds and small mammals, or deer yards and trails).

Section 26 Erosion Control

[Ord. of 5-7-1996]

Erosion of soil and sedimentation of watercourses and water bodies shall be minimized by employing the ~~following best management practices as specified by the Soil Conservation Service~~ requirements of Maine Department of Environmental Protection Chapter 500 Stormwater Appendices A, B and C for sites that disturb one or more acres of land. An erosion and sedimentation control plan meeting the standards in this section shall be prepared by a qualified erosion and sedimentation control professional. In addition, the following items may be required for all sites:

A. Stripping of vegetation, soil removal, and regrading or other development shall be accomplished in such a way as to minimize erosion.

B. The duration of exposure of the disturbed area shall be kept to a practical minimum.

C. Temporary vegetation and/or mulching shall be used to protect exposed areas during development.

D. Permanent (final) vegetation and mechanical erosion control measures~~, in accordance with the standards of the York County Soil and Water Conservation District and the Maine Soil and Water Conservation Commission,~~ shall be installed as soon as possible after construction ends.

E. Until a disturbed area is stabilized, sediment in runoff water shall be trapped by the use of debris basins, sediment basins, silt traps, or other acceptable methods as determined by the Planning Board or Building Inspector, whichever has the authority to make such decisions on the project. ~~York County Soil Conservation Service may be consulted to review plans and actual installation of sediment control devices.~~

F. The top of a cut or the bottom of a fill section shall not be closer than 10 feet to an adjoining property, nor shall said cut or fill exceed the three-to-one slope unless the Planning Board waives either or both requirements upon the applicant's demonstration, certified by a Maine licensed professional engineer (P.E.), that a steeper slope, whether or not closer than 10 feet to the adjoining property, is stable, will not result in excessive downstream erosion or sedimentation, nor cause any additional adverse impact on the adjoining property.

G. During grading operations, methods of dust control shall be employed wherever practicable.

H. On slopes greater than 25% there shall be no grading or filling within 100 feet of the saltwater wetland except to protect the shoreline and prevent erosion.[1]

[1] Editor's Note: Former Subsection I, Erosion and sedimentation control in shoreland areas, which immediately followed, was repealed 2-2-2010 by Ord. No. 2009.98.

OVERVIEW OF POST CONSTRUCTION STORMWATER MANAGEMENT CHANGES
Affected Section: Part II Code of Ordinances – Chapter 34 Environment Article VI Post-Construction Stormwater Discharge

This Article has been part of the City's code since 2009 to ensure that stormwater infrastructure that is owned by private developments is inspected and maintained. This portion of the City's code requires maintenance in accordance with a Post Construction Stormwater Plan (submitted during development review), annual inspections on the stormwater infrastructure and certification annually to the City that the system has been maintained, inspected and is functioning as intended.

The 2022 MS4 General Permit requires that:

a. the annual inspector be a Qualified Inspector (already defined in the Biddeford Ordinances),
b. a copy of the inspection report be provided to the City, and
c. any maintenance identified by the owner or inspector is corrected within 60 days of identification or if that is not possible, in accordance with a schedule that is approved by the enforcement authority (the Code Enforcement Officer or other person(s) or department designated by the City).

In addition, Staff is also making the following recommendations:

- Definitions Update: corrected the definition of Urbanized Area (the MS4 regulated area) to reflect the definition in the MS4 general permit.
- Remove requirement to prepare and file a Maintenance Agreement with the Registry of Deeds – in application, this requirement to have a signed Maintenance Agreement (Sec. 34-481) has not been enforced. Instead, applicants are required by the Planning Board Findings of Fact and/or Notices of Decision to comply with the ordinance requirements after review by the Engineering Department.
- Update the Annual Stormwater Management Facilities Certification Form to reflect the changes made to the ordinance and remove the requirement to have the form notarized. No significant benefit comes from having this document notarized.

Changes proposed to address the MS4 General Permit requirements and to incorporate the recommendations from Staff are provided below:

Sec. 34-479 Definitions

URBANIZED AREA (UA)
The cumulative areas of the State of Maine so defined by the ~~latest~~ 2000 and 2010 decennial censuses by the United States Bureau of the Census.

Sec. 34-481 Performance Standards.

~~(c) Where the applicant proposes to retain ownership of the stormwater management facilities shown in its post-construction stormwater management plan, the applicant shall submit to the City documentation, approved as to legal sufficiency by the City's attorney, that the applicant, its successors, heirs and assigns shall have the legal obligation and the resources available to operate,~~

~~repair, maintain and replace the stormwater management facilities. Applications for new development or redevelopment requiring stormwater management facilities that will not be dedicated to the City shall enter into a maintenance agreement with the City. A sample of this maintenance agreement is attached as Appendix 1 to this article.1~~

Sec. 34-482 Demonstration of Compliance

Any person owning, operating, leasing or having control over stormwater management facilities required by a post-construction stormwater management plan approved under this article shall demonstrate compliance with that Plan as follows:

(1) That person or a Q~~q~~ualified P~~p~~ost-construction S~~s~~tormwater I~~i~~nspector hired by that person shall~~,~~ ~~at least annually,~~ inspect and maintain the stormwater management facilities, including but not limited to any parking areas, catch basins, drainage swales, detention basins and ponds, pipes and related structures, in accordance with all municipal and state inspection, cleaning and maintenance requirements of the approved post-construction stormwater management plan.

(2) If the stormwater management Facilities require maintenance to function as intended by the approved post-construction stormwater management plan, that person shall take corrective action(s) to address the deficiency or deficiencies within 60 days of identification of the deficiency. If it is not possible to correct the deficiency within 60 days, that person shall coordinate with the enforcement authority to establish a schedule to correct the deficiency.

(3) That person shall employ a Q~~q~~ualified P~~p~~ost-construction S~~s~~tormwater I~~i~~nspector to conduct an annual inspection and provide, on or by March 1 of each year, a copy of the inspection report and a completed and signed certification to the enforcement authority in a form identical to that attached as Appendix 1 to this article or in a similar form approved by the City Engineer, certifying that the stormwater management facilities have been inspected, and that they are adequately maintained and functioning as intended by the approved post-construction stormwater management plan, or that they require maintenance or repair, describing any required maintenance and any deficiencies found during inspection of the stormwater management facilities. If the stormwater management facilities require, maintenance or repair of deficiencies in order to function as intended by the approved post-construction stormwater management plan, the person shall provide a record of the required maintenance or deficiency and corrective action(s) taken with the annual report and certification.

~~**034b Appendix 1 Maintenance Agreement**~~

ENVIRONMENT

34 Attachment 2

City of Biddeford

Appendix 1
Maintenance Agreement for Stormwater Management Facilities

This Maintenance Agreement is made this day of _____ 20__ by and between _____ and the City of Biddeford, Maine.

The project name is _____.

The location is: _____, Biddeford, Maine.

The project's Tax Map and Lot Numbers are Tax Map Lot _____

The project is shown on a plan entitled" _____" dated _____ and most recently revised on _____, approved by the _____ [Municipal Permitting Board] on _____ and recorded in the _____ County Registry of Deeds in Plan Book _____ Page _____ (the "Project").

WHEREAS, the approval of the Project includes Stormwater Management Facilities which requires periodic maintenance; and

WHEREAS, in consideration of the approval of the Project the City of Biddeford requires that periodic maintenance be performed on the Stormwater Management Facilities;

NOW, THEREFORE, in consideration of the mutual benefits accruing from the approval of the Project by the City and the agreement of _____ to maintain the Stormwater Management Facilities, the parties hereby agree as follows:

1. _____, for itself, and its successors and assigns, agrees to the following:

   (a) To inspect, clean, maintain, and repair the Stormwater Management Facilities, which includes, to the extent they exist, parking areas, catch basins, detention basins or ponds, drainage swales, pipes and related structures, at least annually, to prevent the build up and storage of sediment and debris in the system;

   (b) To repair any deficiencies in the Stormwater Management Facilities noted during the annual inspection;

   (c) To provide a summary report on the inspection, maintenance, and repair activities performed annually on the Stormwater Management Facilities to the City Enforcement Authority;

   (d) To allow access by City personnel or the City's designee for inspecting the Stormwater Management Facilities for conformance with these requirements.

   (e) To create a homeowners' association for the purpose of maintaining the Stormwater Management Facilities.

2. Upon creation of the homeowners' association, the homeowners' association shall become responsible for compliance with the terms of this Agreement.

3. This Agreement shall constitute a covenant running with the land, and _____ shall reference this Agreement in all deeds to lots and/or units within the Project.

_____

_____ By: _____
Witness Its:

CITY OF BIDDEFORD

_____ By: _____
Witness Its:

STATE OF MAINE

_____, ss. _____, 20__

Personally appeared the above-named _____, the _____ of _____, and acknowledged the foregoing Agreement to be said person's free act and deed in said capacity.

Before me,

_____
Notary Public/Attorney at Law

Print Name: _____

STATE OF MAINE

_____, ss. _____, 20__

Personally appeared the above-named _____, the _____ of the City of Biddeford, and acknowledged the foregoing Agreement to be said his/her free act and deed in said capacity.

Before me,

_____
Notary Public/Attorney at Law

Print Name: _____

034c Appendix 2 Management Facility Certification to become Appendix 1, with the following changes:

City of Biddeford

Appendix ~~2~~ 1
Annual Stormwater Management Facilities Certification
(to be sent to City's Enforcement Authority)

I, _____ (print or type name), certify the following:

1. I am making this Annual Stormwater Management Facilities Certification for the following property: _____ (print or type name of subdivision, condominium or other development) located at _____ (print or type address), (the "Property");
2. The owner, operator, tenant, lessee or homeowners' association of the Property is: _____ (name(s) of owner, operator, tenant, lessee, homeowners' association or other party having control over the Property);

3. I am (check one)

a. ____the owner, operator, tenant, lessee or president of the homeowners' association, and have hired a Qualified Post Construction Stormwater Inspector, or

b. ____am a Qualified Post-Construction Stormwater Inspector hired by the person identified in item 2 of this form ~~same (circle one);~~

4. I have knowledge of erosion and stormwater control and have reviewed the approved Post-Construction Stormwater Management Plan for the Property;

5. On _____, 20__, I inspected or had inspected by a Qualified Post-Construction Stormwater Inspector, the Stormwater Management Facilities, including but not limited to parking areas, catch basins, drainage swales, detention basins and ponds, pipes and related structures required by the approved Post-Construction Stormwater Management Plan for the Property;

~~6. At the time of my inspection of the Stormwater Management Facilities on the Property, I or the Qualified Post-Construction Stormwater Inspector identified the following need(s) for routine maintenance or deficiencies in the Stormwater Management Facilities:~~

_____
_____
_____
_____
_____
_____
_____

6. I have attached a copy of the Annual Inspection Report. At the time of the inspection (check one and complete any required information):

a. ___ The Stormwater Management Facilities were adequately maintained and functioning as intended, or
b. ____ The Stormwater Management Facilities required maintenance, which was completed within the required 60-day time period, and were functioning as intended after maintenance was completed, or
c. ____ The Stormwater Management Facilities required maintenance which was not completed within the required 60-day time period. (Attach additional sheets as necessary to describe the maintenance required, proposed schedule for completion, and an appropriate contact person. The City will contact them to confirm or adjust the schedule to complete the maintenance and any needed further course of action. You will be required to show proof of final maintenance.)

~~7. On _____, 20__ I took or had taken the following routine maintenance or the following corrective action(s) to address the deficiencies in the Stormwater Management Facilities stated in 6. above: _____~~
~~_____~~
~~_____~~
~~_____~~

~~8. As of the date of this certification, the Stormwater Management Facilities are functioning as intended by the approved Post-Construction Stormwater Management Plan for the Property.~~

Date: _____, 20__. By: _____
Signature

_____
Print Name

~~STATE OF MAINE _____, ss. _____, 20__ Personally appeared the above-named _____, the _____ of _____, and acknowledged the foregoing Annual Certification to be said person's free act and deed in said capacity. Before me, _____ Notary Public/Attorney at Law Print Name: _____~~

Mail this certification to the City's Enforcement Authority at the following address [to be completed by the municipality]: _____
_____
_____
_____

OVERVIEW OF NONSTORMWATER DISCHARGE CHANGES

Affected Section: Part II Code of Ordinances – Chapter 70 Utilities Section 70-31 Enforcement of article; violations and penalties

Chapter 70 Utilities pertains primarily to discharges to the Wastewater System, requiring that all sanitary systems be connected to the sanitary sewer. A portion of this Chapter, Section 70-73, states that only stormwater be discharged into the separated storm drain system through a connection approved by the Director of Public Works.

The MS4 General Permit requires that if any illegal connection is identified into the storm drain system, or if any dumping or discharges into the storm drain system occur, the discharge or connection must be corrected within 60 days of identification of the source.

As such, the following proposed change to Section 70-31 Enforcement of article; violations and penalties is proposed:

§ 70-31 Enforcement of article; violations and penalties

In addition to any other enforcement methods provided for in this article, the provisions of this article may be enforced as follows:

(1) The Director or his designee may issue a written administrative complaint if there are reasonable grounds to believe that the person to whom the complaint is directed has violated:

[Amended 10-5-2010 by Ord. No. 2010.100]

a. This article;

b. Any rule or regulation adopted under this article; or

c. Any order or permit issued under this article.

(2) The administrative complaint shall specify the provision that allegedly was violated, and state the alleged facts that constitute the violation.

(3) After or concurrently with service of a complaint issued under Subsection **(1)** of this section, the Director or his designee may:

[Amended 10-5-2010 by Ord. No. 2010.100]

a. Issue an order that requires the person to whom the order is directed to take corrective action within a time set in the order, including 60 days to correct any pollutant discharge to the storm drain system unless the Director determines an alternate schedule for correction is needed;

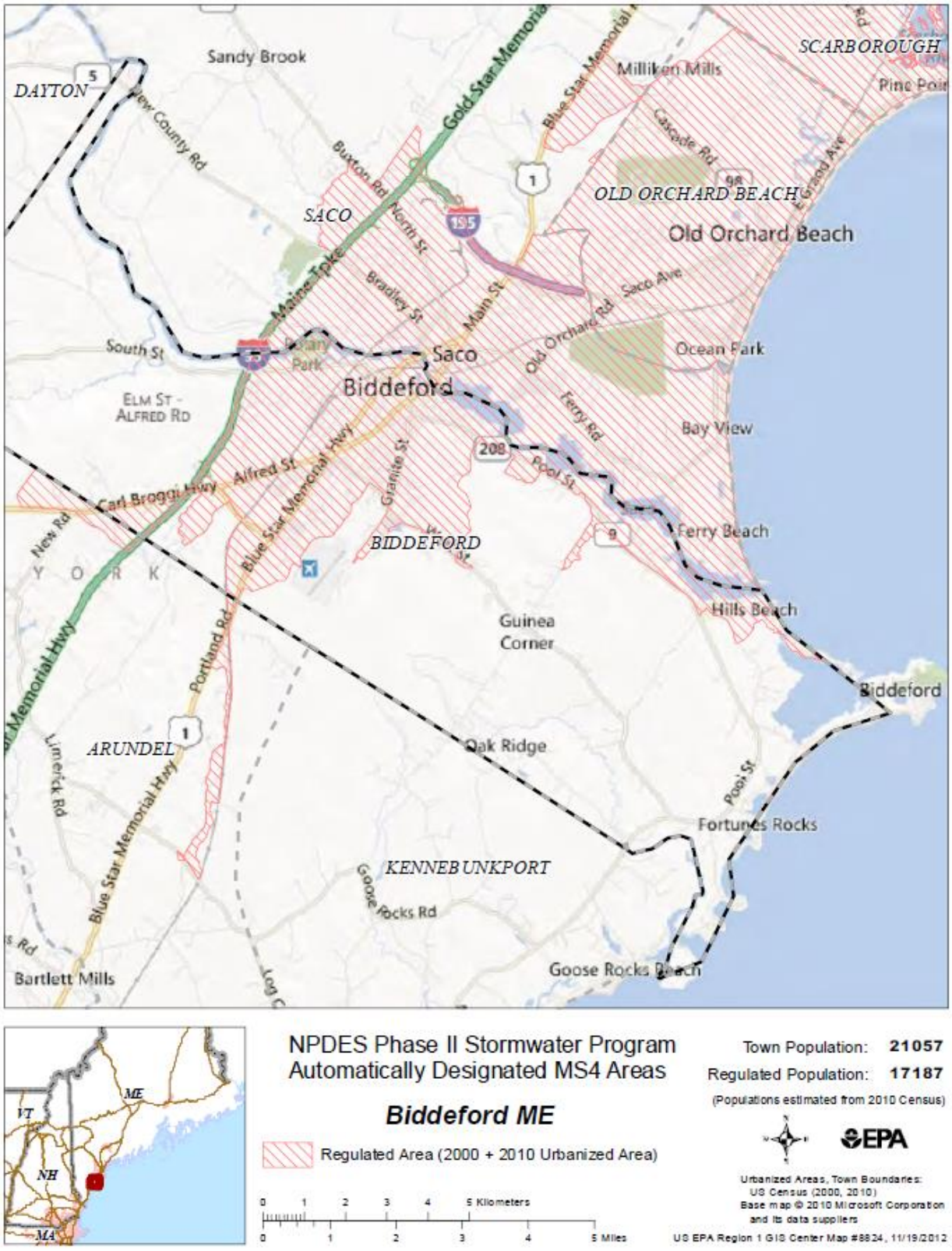
b. Send a written notice that requires the person to whom the notice is directed to file a written report about the alleged violation; or

c. Send a written notice that requires the person to whom the notice is directed to:

1. Appear at a hearing, at a time and place scheduled, in order to answer the charges in the complaint.

2. File a written report and also appear at a hearing at a time and place set to answer to charges in the complaint.

Biddeford Urbanized Area Map (Areas regulated by the MS4 General Permit are shown in pink hashing)



Biddeford Conservation Commission

Proposed Website Updates - March 2023
Prepared by Erik Heumiller

Conservation Commission

The Conservation Commission works in research and advisory roles with city planners on both environmental and conservation needs — helping to maintain healthy ecosystems and public access to land for future generations in the City of Biddeford.

The Conservation Commission consists of seven commissioners, each appointed for a five-year term. Annually, at its first meeting, the commission elects a chairperson, a vice-chairperson, and a secretary.

Contact the Commission: conservationcommission@biddefordmaine.org

Agendas & Minutes

The Conservation Commission meets monthly, and agendas are available prior to meetings. Minutes are available following approval.
View Archived Meeting Minutes

Commission Members

Richard Rhames
Chair
Phone: (207) 282-2119
10 West Loop Road
Term Expires: 12/2026

Erik Heumiller
Vice Chair
Phone: (207) 494-5556
2 Main Street, Unit 15-202
Term Expires: 12/2026

Denis Rioux
Phone: (207) 286-7967
677 South Street
Term Expires 12/2024

Maya Atlas
Phone: (303) 918-2341
92 Granite Street, #2
Term Expires:12/2024

Michael Lowell
Phone: (207) 283-3056
521 South Street
Term Expires: 12/2026

Peter Robbins
Phone: 207-590-7058
38 Newtown Road

Staff Liason

Gregory Mitchell
Planning and Development Director
Contact by email

Conservation Resources
If you're interested in learning about conservation easements, or other options for your land that don't involve development — explore these organizations:

- Saco Valley Land Trust (sacovalleylandtrust.org)
- Maine Farmland Trust (mainefarmlandtrust.org)
- Maine Woodland Owners (mainewoodlandowners.org)
- York County Soil and Water Conservation District (yorkswcd.org)
    - Call Melissa Brandt at 207-324-8888

How Can You Help?

Our city is more than the boundaries between our neighborhoods and the undeveloped spaces around them. Every resident contributes to the health of our ecosystem and benefits from access to these wild spaces.

Conscious (but simple) efforts you can take today impact:

- The quality of our waters
- Local fishing and shellfish harvesting
- The health of children and pets

Explore the resources below to see how you can do your part to ensure Biddeford's connected ecosystems can thrive.

Reside Resources

- Guide to Environmentally-Friendly Home Care (new PDF document - added once completed)
- Best Management Practices for the Application of Turf Pesticides and Fertilizers (PDF)
- 10 Simple Steps to a Safe and Healthy Lawn
- 7 Questions You Should Ask Your Lawn Care Company
- The Biddeford YardSmart Pledge
- Board of Pesticides Control (BPC)
- Maine Yardscaping Partnership (phone: 207-287-2731)

Community Newsletters & Content Opportunities

To build awareness of conservation and environmental impacts, the BCC can identify seasonal opportunities to educate residents on common or critical issues.

To connect with and educate residents — any email, PDF, or video content should be created around topics of interest, community needs, or timely events to ensure there is always something of value for them.

Spring:

1. Watershed education tied to fishing season (April)
2. Stormwater education and impact on waterways (April/May)
3. Pre-season lawncare awareness - CTA to sign up for the Yard Smart Pledge (April/May)
4. Tips for finding a lawn-care service & questions to ask (May)
5. Yardscaping education (May or June)
6. Grass seed mixes and organic resources - list out local nurseries (May)
7. Invasive species listing as things bloom, encourage knotweed recipes (May)

Summer:

1. Watershed quality and protection - tied to Shellfish licensing, local foods (June)
2. Spotlight working land (farm/forest) in Biddeford - promote local farms (July)

Fall:

1. Raking leaves and starting a compost setup (September)
2. Share foliage photos from trails on conservation land - focusing on the perks of local public lands (October)

Winter:

1. Spotlight on wildlife wintering areas and any efforts to preserve these lands

Evergreen Content:

1. “I have old farmland - what are my options besides development?”
    - Educate landowners about the paths to conservation
    - Needs to include financial incentives to counter the appeal of development
2. Mini video documentaries on each watershed in Biddeford — bringing often overlooked waters and ecosystems into the spotlight to show the greater impact they can have.
    - Thatcher Brook
    - West Brook
3. Video documentaries about conservation land in Biddeford — focused on the importance of protecting land and showing the wildlife, flora, etc., throughout the seasons to bring the unseen ecosystem to life for residents who may not otherwise experience it.
    - Connect this ecosystem to the broader community in Biddeford to show the impact it has on biodiversity even though they may not think it has any impact on their day-to-day life.

Biddeford's Connected Community

A guide to environmentally-friendly home care

[aerial image of Biddeford or map w/ brooks highlighted]

Information to help protect the waters that flow through Biddeford.

- Thatcher Brook
- West Brook
- Moors Brook
- The Saco River
- Biddeford Pool

Your efforts have an impact downstream.
Chemicals poured down drains or runoff from lawns/driveways flow first to local streams and brooks, and ultimately, to the Saco River — impacting biodiversity and changing the chemical makeup of our ecosystem along the way.

Once in the ocean, some elements or nutrients can cause harmful algae blooms and contaminate shellfish populations and swimming waters.

The Gulf of Maine is the fastest-warming body of water in the world, so the less stress we add to that environment, the better off our ocean (and our community) will be.

Spotlight: Thatcher Brook Watershed
TBD details about the history, current status, and work being done.
Combining details from the current BCC Brochure with new updates from Mike Lowell about current work/efforts.
Looking to position this as education that supports consideration of development along our remaining streams/brooks to avoid this fate for the rest of Biddeford.

What can you do?

Healthy Septic Systems
Regular maintenance of your septic system prevents unwanted nutrients and bacteria from seeping into groundwater, streams, and rivers — contaminating shellfish and swimming waters.

Know the Lawncare Best Practices
Avoid using pesticides. Use compost or phosphorus-free/nitrogen-free fertilizers, and avoid fertilizing if rain is predicted. Let grass grow to 3” or more before mowing.
More info and the YardSmart Pledge can be found here.

Maintain Natural Buffers Along Waters
Natural vegetation buffers are not only attractive, but they prevent runoff and protect property from erosion — helping to keep waters clean.

Maintain & Properly Dispose of Chemicals
Repairing oil leaks and properly disposing of motor vehicle fluids keeps waters and aquatic life safe. This also applies to paints, solvents, and other harsh chemicals. Residents can dispose of chemicals at no cost during Biddeford, Saco, and Scarborough hazardous waste events throughout the year. Contact Public Works for more information.

Composting
Compost is an easy way to provide nutrients to your lawn or garden while reducing waste in landfills. You can start composting in your yard for free and reduce the amount of trash you produce or drop compost off at the City’s Recycling Center - more information here.

How and where does water drain?

[image of water flowing into storm drains]
[image of brooks / streams]
[image of waters emptying into the Saco River]

Water collected through your home's drain pipes flows to the water reclamation plant where it is treated before being released into the Saco River.

Water flowing across pavement and impervious surfaces is collected through storm drains along the street, and runs directly into streams, brooks, and ultimately to the Saco River.

It's important to ensure chemicals, oils, fertilizers, and other contaminants are handled properly to ensure these don't wash from your property into the river.

Ways to Replace Harmful Chemicals

[image of vinegar, water, baking soda]

Vinegar
This can replace many household cleaners, but make sure to research whether these solutions work with your home's materials.

- 1c white vinegar + 2 gal water = Floor Cleaner
- 1/2c white vinegar + 1/4c baking soda + warm water = Tub & Tile Cleaner

There are many other options for pet odor remover, toilet and oven cleaners, and more that can be made from combinations of vinegar, water, lemon juice, and other natural components.

[image of citronella plant]

Plants Instead of Pesticides
Many plants can help deter pests in your yard or garden. Look into natural options before applying pesticides or insecticides can that drain into our watersheds.

Citronella grass, Marigolds, Chrysanthemums, Basil, Lavender, and more.

[image of someone doing yard work]

Compost Options
You can replace fertilizers with compost and/or seaweed in your yard or garden or ask your lawn care company about natural alternatives to chemical fertilizers.