

# Stormwater Utility Implementation

Town of Hudson Stormwater Utility Implementation  
Rate Structure and Credit Discussion  
September 19th and 21st, 2023

# Overview



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- ▶ Status of Stormwater Utility Implementation
- ▶ Stormwater Utility Fundamental Approach
- ▶ Rate Methodology – How Fees are Calculated
- ▶ Initial Stormwater Fees
- ▶ Stormwater Fee Credits
- ▶ Next Steps



# Status of Stormwater Utility Implementation



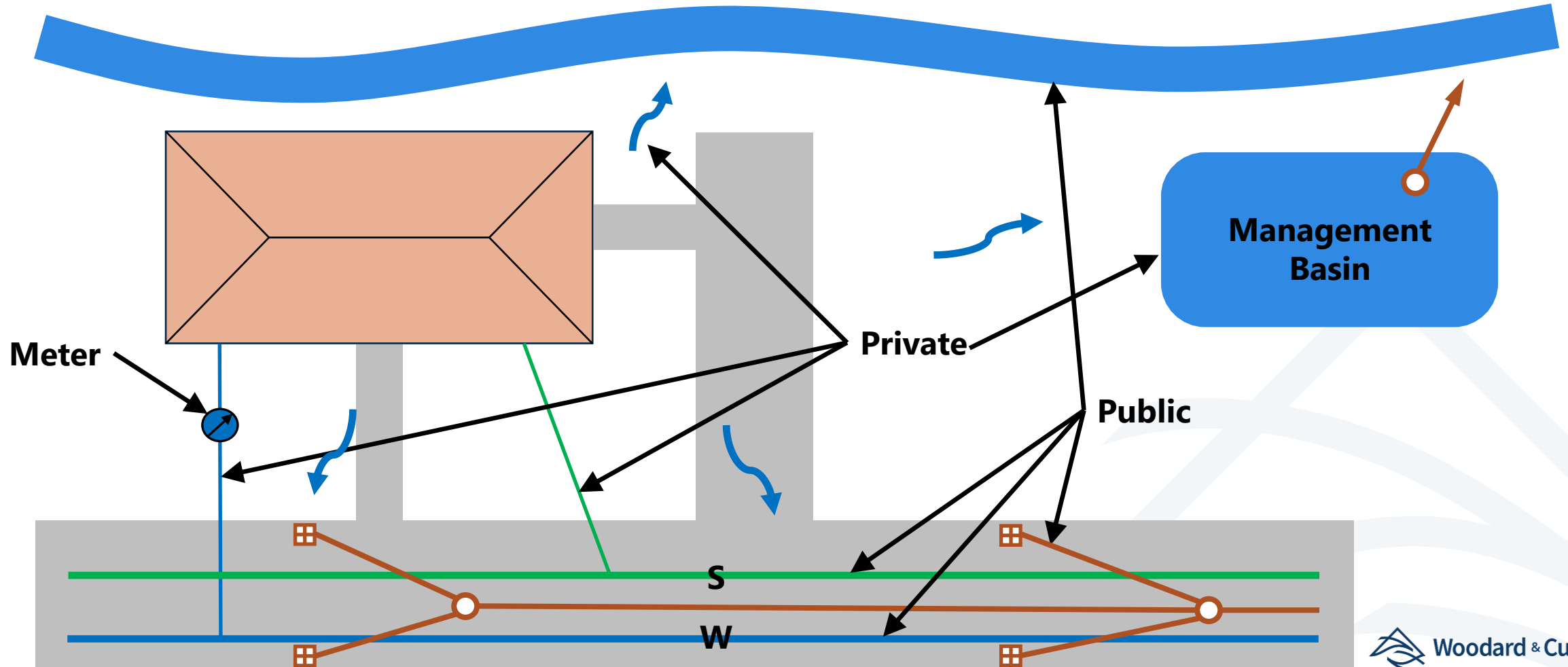
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- ▶ Town Meeting – May 1<sup>st</sup>
  - Established consensus to advance concept for a financially sustainable program
  - Bylaw approved to proceed with implementation of a stormwater utility
- ▶ Stormwater Utility Implementation Activities
  - Stormwater Utility web page [www.townofhudson.org/stormwater](http://www.townofhudson.org/stormwater)
  - Impervious surface data updates (completed)
  - Policies and credits (initial discussions)
  - Final rate study in October 2023
  - Stormwater Utility Rules and Regulations (October - November 2023)
  - First bill in November 2023

# Stormwater Utility Fundamental Approach



- ▶ Individual properties and “use” of the public system

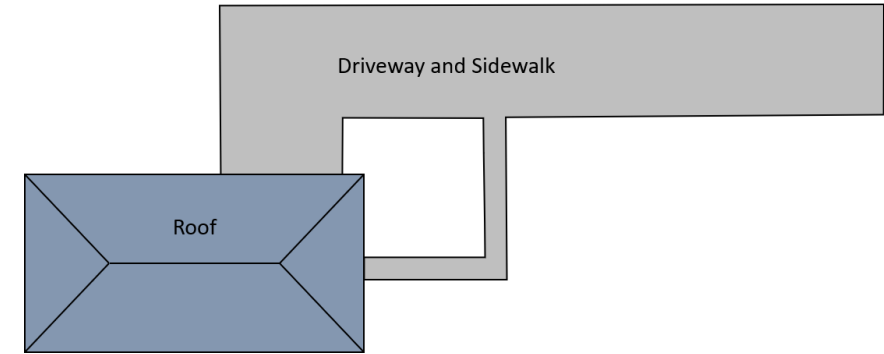


# Stormwater Utility Fundamental Approach

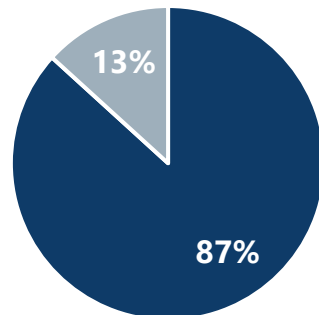


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- ▶ Stormwater Utility Funding Approach
  - Fees are based on a measure of impervious area. More impervious area =
    - More stormwater runoff
    - Larger burden on the stormwater system
    - Larger user fee

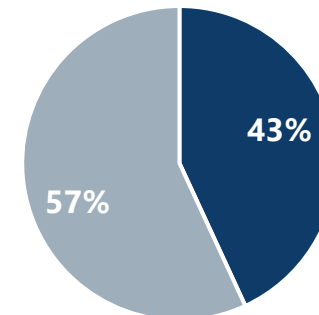


Total Developed Parcels



- Single-Family Residential
- All Others

Total IA on Developed Parcels



- Single-Family Residential
- All Others

# Rate Methodology – How Fees are Calculated



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1. Impervious Area (sq ft): primary basis for measuring “use” of the public system and a proportionate fee
2. Billing Units: calculated per property based on measured impervious area for a common unit (e.g., typical single-family home)
3. Cost per Billing Unit: calculated based on total revenue need (program costs) divided by total billing units
4. Fee per Parcel: calculated fee based on billing units and \$/billing unit
5. Credit: percent fee reduction for program costs avoided by private investments and maintenance to manage stormwater

*Note: credits are adjustments to the property's fee to recognize that a level of investment was made and continues to be maintained that reduces a portion of the property's burden upon or “use” of the public system*

# Initial Stormwater Fees



► Data and Rate Structure

	Single-Family Residential (SFR)	All Others	Total
Parcels	4,815	735	5,550
Total IA (SF)	20,384,496	26,893,528	47,278,024

IA Range	SFR Parcels	SFR Rate Structure	All Other Parcels	All Other Parcels Rate Structure
500 to 5,000 SF	3,867 (80%)	1 billing unit	735	Total IA ÷ 3,400 SF = billing units
5,001 to 10,000 SF	865 (18%)	1.5 billing units		
> 10,000 SF	89 (2%)			



# Initial Stormwater Fees

- ▶ Revenue need = costs + operating expenses
- ▶ Estimates for credits and bad debt
- ▶ Typical reserve of 5-10% for unanticipated costs

<b>Program Cost</b>	<b>\$1,107,000</b>
Credits (5%)	\$55,350
Bad Debt (3%)	\$33,210
Reserve (8%)	\$88,560
Total Revenue Need	\$1,284,120





# Initial Stormwater Fees

## ► Stormwater Utility Rates and Revenue

Property Type	Square Feet of Impervious Area	Quarterly Fee	Annual Fee
Any Property	0 – 499	\$0	\$0
Single-Family Residential	500 – 5,000	\$24.75	\$99
Single-Family Residential <sup>1</sup>	5,001 – 10,000	\$34.75	\$139
All Other Properties <sup>3</sup>	500 or greater	Calculate <sup>2</sup>	Calculate <sup>2</sup>

1. Billing units for single-family residential properties with >10,000 sf of impervious area are calculated as non-single-family residential properties.
2. All other properties = one billing unit per 3,400 sf multiplied by \$24.75 (minimum of one billing unit) for quarterly fee and then multiplied by 4 for annual fee.
3. Includes large residential (>10,000 sf), condominiums, duplexes, commercial, and industrial properties.

Property Type	Annual Revenue
Single-Family Residential (500 – 5,000 sf)	\$383K
Single-Family Residential (5,001 – 10,000 sf)	\$120K
All Other Properties (500+ sf)	\$783K
<b>Total</b>	<b>\$1,286,000</b>

# Initial Stormwater Fees



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## Preliminary Stormwater Fees for Single-Family Residential Properties Using a Tiered Rate Approach

**TIER I HOME**  
**\$99.00** per year  
(\$24.75/quarter)  
Range: 500-5,000 sq. ft.



**TIER II HOME**  
**\$139.00** per year  
(\$34.75/quarter)  
Range: 5,001-10,000 sq. ft.



# Stormwater Fee Credits



- ▶ Credits require further discussion and will be developed
- ▶ A **credit** is an ongoing reduction in a property's calculated stormwater fee that is given for:
  - On-going activities that reduce the impacts on the stormwater system; and
  - On-going activities that reduce the Town's cost of service.
- ▶ Credits are earned and must be demonstrated annually
- ▶ Types of Credits (typical):
  - Retention or detention to reduce stormwater peak flows and volumes
  - Water quality treatment
  - Non-structural activities (e.g., public education)





# Stormwater Fee Credits

- ▶ Stormwater utilities in MA – 2 dozen in place

Municipality	Property Type	Rate Structure	Annual Fee	Credit Ranges
Bellingham	Single-family	Flat fee	\$96	SFR, 2-3 family parcels, and condominium units are not eligible for credits.
	Multi-family	Flat fee	\$192	
	Other residential/ commercial/ industrial/tax exempt	Every 3,025 sf	Varies	
Fall River	Single-family	Flat fee	\$176	Not to exceed 25% of the total charge.
	Other residential	Flat fee	\$176	
	Commercial/industrial/tax exempt	\$44 per 2,800 sf	Varies	
Millis	Any	200-1,499 sf	\$33	Up to 40%
		1,500-2,499 sf	\$66	
		2,500-3,499 sf	\$99	
		\$33 for each additional 1,000 sf	Varies	
Shrewsbury	Single-family	Tier 1: 0-5,000 sf	\$90	Up to 50%
		Tier 2: 5,001-10,000 sf	\$200	
		Tier 3: >10,000 sf	\$325	
	Other residential/ commercial/ industrial/ tax exempt	Tiers 1 through 10	Varies	

# Stormwater Fee Credits



- ▶ Stormwater utilities in MA – 2 dozen in place

Municipality	Property Type	Rate Structure	Annual Fee	Credit Ranges
Milton	SFR Tier 1	0 to 2,075 sf	\$41.00	Up to 25%
	SFR Tier 2	2,076 – 2,675 sf	\$57.00	
	SFR Tier 3	2,676 – 4,225 sf	\$78.00	
	SFR Tier 4.1	4,226 – 8,365 sf	\$139.00	
	SFR Tier 4.2	8,366 – 15,895 sf	\$260.00	
	SFR Tier 4.3	15,896 sf and greater	\$533.00	
	Condos, multi-family	N/A	\$238 x 100 ft <sup>2</sup>	5% - 25%
Chelmsford	SFR		\$62	Up to 20%
	Other Residential/ Nonresidential	IA <5,000 sf	\$163	
	Other Residential/ Nonresidential	IA >5,000 to 25,000 sf	\$326 - \$815 (varies based on 17 tiers)	

# Stormwater Fee Credits



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- ▶ Existing Stormwater Utilities and Typical Residential Rates:
  - Chelmsford (pop. 35,313): \$1.52M program, \$62/yr (flat rate approach)
  - Franklin (pop. 31,635): \$1.57M program, \$56/yr (flat rate approach)
  - Milton (pop. 27,003): \$1.07M program, \$78/yr (tiered rate approach)
  - Reading (pop. 24,747): \$1.1M program, \$60/yr (ERU approach)
  - Shrewsbury (pop. 37,973): \$1.75M program, \$90/yr (tiered rate approach)
  - Westford (pop. 24,296): \$1.25M program, \$75/yr (tiered rate approach)
- ▶ Stormwater Utility Implementation in Progress:
  - Westborough (pop. 21,506): \$1.54M program, \$57-115/yr (tiered rate approach)



# Stormwater Fee Credits

## ► Milton, MA:

### **Commercial, Large Residential (5 units or more), Institutional and Industrial**

Impervious Area Mitigated(see note) Discount / Credit

Impervious Area Mitigated	Discount / Credit
10% to 19%	5%
20% to 29%	10%
30% to 39%	15%
40% to 49%	20%
50% or more	25%

The maximum credit given to any property is 25% of the stormwater user fee.

### **Small Residential (Single-family and up to 4 units)**

Due to the small lot size of these properties, credit will only be given if the owner mitigates the stormwater runoff from at least half of your total impervious surfaces. If you mitigate 50% or more of your stormwater runoff for the 10-year storm event, you would be eligible for a 25% discount.

(see note)Mitigation means that you effectively manage the stormwater runoff within your property limits by infiltrating and recharging this water back into the ground or treating and slowing down the runoff prior to discharging into the Town's storm drains. You can mitigate all or a portion of the stormwater runoff coming from your impervious area.

**Note:** Maintenance records are required to be submitted annually in order to maintain the credit on your bill.



# Stormwater Fee Credits

► Newton, MA:

**Commercial, Large Residential (5 units or more), Institutional and Industrial**

Impervious Area Mitigated*	Discount / Credit
10 – 19%	5%
20 -29%	10%
30 -39 %	15%
40 -49%	20 %
50 % or more	25%

The maximum credit given to any property is **25%** of the stormwater user fee.

**Small Residential (Single-family and up to 4 units)**

Due to the small lot size of these properties, credit will only be given if the owner mitigates the stormwater runoff from at least half of your total impervious surfaces. If you mitigate 50% or more of your stormwater runoff for the 10-year storm event, you would be eligible for a 25% discount.

<https://www.townofmilton.org/880/Stormwater-Credit-Policy>



# Stormwater Fee Credits



## ► Chelmsford:

### **Credit Criteria**

To be eligible for a stormwater credit the following criteria must be met:

- Stormwater BMPs shall have been designed, constructed, and maintained in accordance with the BMP specifications included in the Massachusetts Stormwater Management Handbook and Chelmsford's Stormwater Management Bylaw.
- All properties with a valid Stormwater Management Permit issued by the Chelmsford Planning Board shall be in full compliance with the permit decision and conditions of approval.
- SW-Tier properties that do not have a Stormwater Management Permit issued by the Chelmsford Planning Board shall demonstrate compliance with the Massachusetts Stormwater Management Standards.
- Res properties that do not have a Stormwater Management Permit issued by the Chelmsford Planning Board shall meet the requirements of either Standard 2 (Peak Rate Attenuation), Standard 3 (Recharge), or Standard 4 (Water Quality) of the Massachusetts Stormwater Management Standards.
- At least 50% of the property's impervious area shall be directed to the BMP(s) used to meet the standards.

The maximum 20% fee reduction for SW-Tier properties will be approved for those properties that fully satisfy the above credit criteria for the entire property. Properties that satisfy the full criteria on only a portion of the property would be eligible for a reduced credit. For example, if one-half of a property's impervious surface area meets the full criteria then a 20% credit would be applied for that portion of the property only. This would result in a 10% reduction in the overall stormwater fee (i.e.  $0.5 \times 20\% = 10\%$ ). It is important to note that the calculation is based on impervious surface area and not overall land area.

# Stormwater Fee Credits



► Westford, MA:

## **Credit Criteria – Non-Single-Family Residential Properties**

### **NSFR Properties Required to Obtain a Stormwater Permit after 2008:**

- Credit Amount: Up to 50% Credit granted, provided they have a valid Stormwater Permit
  - Applicant required to submit engineering documentation to certify their system is functioning
  - Recommend that owners re-apply every 3 years
  - Administrative impacts - Engineering Dept. reviews documentation every 3 years per parcel

### **NSFR Properties constructed prior to 2008:**

- Credit Amount: Up to 50% Credit granted, provided they meet the requirements of the current Stormwater Management Bylaw and Regulations and obtain approval from Planning and Engineering
  - Applicant required to submit engineering documentation to certify their system is functioning
  - Recommend that owners re-apply every 3 years
  - Engineering Dept. reviews documentation every 3 years per parcel

<https://westfordma.gov/DocumentCenter/View/9426/Stormwater-Credit-Process-Approved-9-22-2020>

# Stormwater Fee Credits



## ► Westford, MA:

### **Credit Criteria – Single-Family Residential Properties**

#### **SFR Properties where Project Obtained a Stormwater Permit after 2008:**

- Credit Amount: No Credit for Tier 1 properties, Tier Reduction for Tier 2 to Tier 5 Properties, provided they have a valid Stormwater Permit
  - Applicant required to submit engineering documentation to certify their system is functioning
  - Recommend that owners re-apply every 3 years
  - Engineering Dept. reviews documentation every 3 years per parcel

#### **SFR Properties not required to have a Stormwater Permit:**

- Credit Amount: No Credit for Tier 1 properties, Tier Reduction for Tier 2 to Tier 5 Properties
  - Reduce runoff through the use of BMPs or remove impervious area
  - Applicant would be required to submit engineering certification
  - Engineering reviews documentation every 3 years
  - Initial review and site visits required by Engineering

<https://westfordma.gov/DocumentCenter/View/9426/Stormwater-Credit-Process-Approved-9-22-2020>

# Stormwater Fee Credits



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- ▶ Most of Hudson's Stormwater Program Costs are Relatively Fixed
- ▶ \$875,000 of \$1,107,000 or 80% fixed costs overall
  - Program administration (\$172K)
  - Regulatory compliance and enforcement (\$133K)
  - Operations and maintenance (\$125K)
  - Engineering and planning (\$130K)
  - Capital improvement projects and equipment (\$315K)
  - 20% credit is reasonable for a private property investment reduces the Town's program needs and costs
  - 40% credit is generous and could be considered a maximum

# Stormwater Fee Credits



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- ▶ Types of Credits Under Consideration:
  - ▶ Reduction of stormwater peak flows and volumes; and water quality treatment
  - ▶ Tied to current design standard: 2008 MA Stormwater Handbook
- ▶ Amount of Credit Under Consideration:
  - ▶ 20% credit consideration if it meets a historic design standard (nearly automatic for a built system that has been maintained)
  - ▶ Up to 40% credit consideration if it meets current design standards
- ▶ How Credits are Obtained (proposed):
  - ▶ Simple application for 20% credit
  - ▶ Comprehensive application with engineering calculations for 40% credit
    - ▶ Typically, a "Stormwater Management Report or Compliance with the Checklist" under the 2008 MA Stormwater Handbook Guidelines

# Stormwater Fee Credits



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- ▶ Additional Considerations:
  - ▶ Equity across all rate payers – the more credit given the higher the rate needs to be for all rate payers to provide the same program revenue
  - ▶ Benefit to all rate payers regardless of their direct “use” of the public stormwater system
- ▶ Discussion and Questions

# Next Steps



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- ▶ Public Meeting September 21, 2023
- ▶ Final Rate Analysis in October 2023
- ▶ Select Board Meetings in October and November 2023
  - October - Review and discussion of Stormwater Utility Rules and Regulations
  - Late Oct -Early Nov Approval of Stormwater Utility Rules and Regulations
- ▶ Billing System Integration in October-November 2023
- ▶ Bills sent in November 2023

# Project Team



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Eric Ryder  
Director of Public Works  
[eryder@townofhudson.org](mailto:eryder@townofhudson.org)

Rajitha Purimetla, PE  
Assistant Director of Public Works  
[rpurimetla@townofhudson.org](mailto:rpurimetla@townofhudson.org)

Maeghan Dos Anjos  
Stormwater Manager  
[mdosanjos@townofhudson.org](mailto:mdosanjos@townofhudson.org)

Rich Niles  
Senior Technical Manager  
Woodard & Curran  
[rniles@woodardcurran.com](mailto:rniles@woodardcurran.com)

Janelle Bonn  
Technical Manager  
Woodard & Curran  
[jbonn@woodardcurran.com](mailto:jbonn@woodardcurran.com)

Leyna Tobey, PE  
Project Engineer  
Woodard & Curran  
[ltobey@woodardcurran.com](mailto:ltobey@woodardcurran.com)

Christina Conchilla  
Senior Consultant  
Raftelis Financial Consultants  
[cconchilla@raftelis.com](mailto:cconchilla@raftelis.com)

Mary Tchamkina  
Project Manager  
Raftelis Financial Consultants  
[mtchamkina@raftelis.com](mailto:mtchamkina@raftelis.com)

Henrietta Locklear  
Vice President  
Raftelis Financial Consultants  
[hlocklear@raftelis.com](mailto:hlocklear@raftelis.com)