



# Proposed New Stormwater Ordinance\*

September 25, 2018



\* All numbers are estimated

# Why Are We Doing This?

## Water Quality



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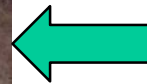
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# Issues with Stormwater runoff?

## *Stormwater Pollution*

- Stormwater can pick up pollutants such as oil and grease, chemicals, nutrients, metals and bacteria and flow into stormwater systems or directly to the lake, streams, rivers or wetlands.



## *Excessive Flow*

- Additional runoff from impervious surfaces increases stream flow, which can lead to erosion and destabilization of stream banks.



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# Stormwater is Regulated



- Local Regulations
- State Regulations
- Federal Regulations (NPDES)



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# Local Stormwater Requirements

- Shelburne's Subdivision Regulations

*Currently State and Federal Regulations are the driving force behind many stormwater improvements*



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# State Requirements

- Shelburne currently maintains 14 stormwater systems associated with State stormwater permits (MS4 not included):
  - Mowing, tree removal, etc
  - Sediment removal when needed
  - Compliance paperwork, renewals, inspections, etc.



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# Federal Requirements

## MS4 Permit Overview

The Municipal Separate Storm Sewer System (MS4) Permit Contains Six Minimum Measures:

1. Public Education and Outreach
2. Public Participation / Involvement
3. Illicit Discharge Detection and Elimination
4. Construction Site Runoff Control
5. Post-Construction Runoff Control
6. Pollution Prevention / Good Housekeeping

The MS4 permit also contains other requirements related to impaired watersheds. This includes stormwater impaired streams and phosphorus pollution in Lake Champlain.



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# Federal Requirements MS4 Permit Overview



## The Munroe Brook Flow Restoration Plan

**(FRP)**

**Includes Capital Projects**



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# What is a Flow Restoration Plan?

- The MS4 permit requires a Flow Restoration Plan (FRP) in all stormwater impaired watersheds.
- Munroe Brook is listed as stormwater impaired by VT DEC, so an FRP is required.
- Must identify and implement best management practices to reduce flow in the stream



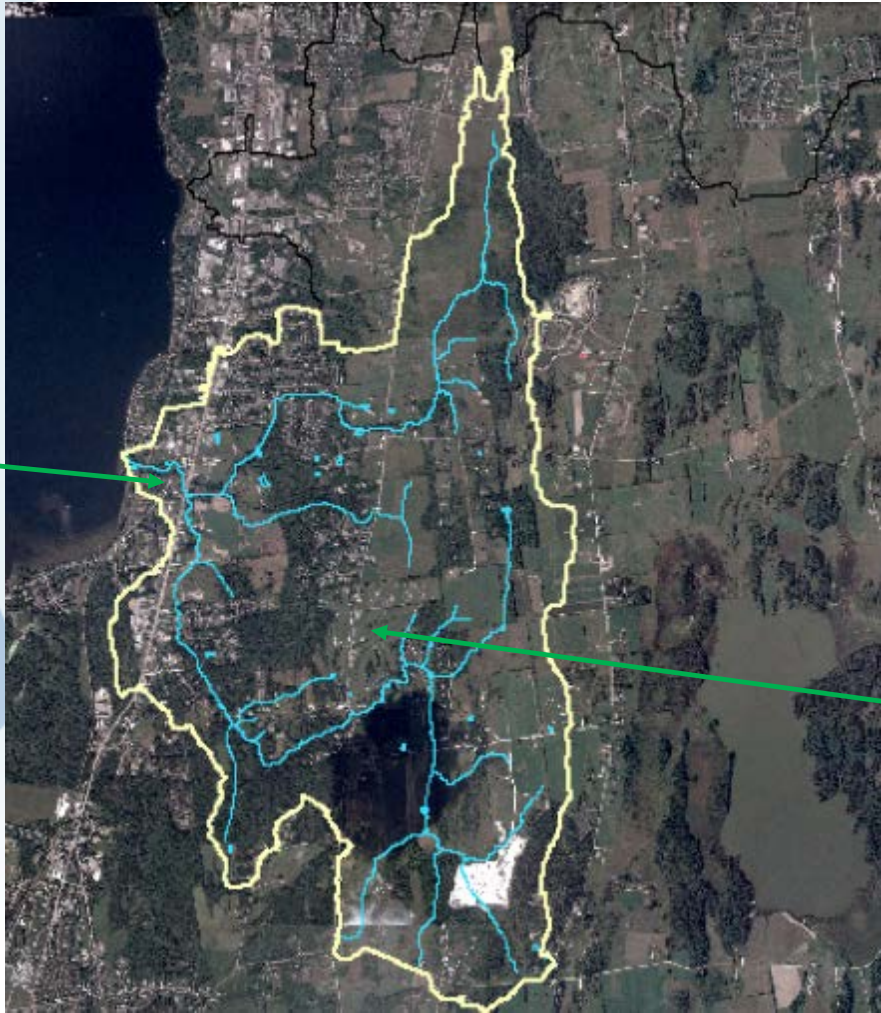
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# The Munroe Brook Watershed

*Wastewater  
Treatment  
Plant off of  
Bay Road*



- 3,484 Acres
  - 29% Developed
  - 38% Agricultural or Open Land
  - 33% Forest

*Kwiniaska  
Golf  
Course*



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# Flow Restoration Plan Capital Projects Identified

18 Shelburne projects in Munroe Brook FRP \*

Current estimate **\$4.7M**

- \$3.0M Town responsible
- \$1.3M private owners responsible
- \$400K *potential shared responsibility*

**\*FRP projects must be completed between 2019 and 2031.**



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# Shelburne Stormwater Obligations

- Greater than \$368,000 per year. Significant costs include:
  - Compliance with State Issued Permits: ~\$23,000/yr
  - Compliance with MS4 permit: ~\$75,000/yr
  - Town share of FRP: \$3.0M over 12 years. ~\$250,000/yr
  - Maintenance of existing stormwater infrastructure: ~\$20,000/yr
  - Development and implementation of Phosphorus control Plan - \$ ???



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# Paying for Stormwater Requirements



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# Stormwater Advisory Committee

- Appointed July 21, 2017
- Mission to learn, educate, and advise on the development of a stormwater funding mechanism
- Members:

*Marty Illick*

*Chris Davis*

*John DuBrul*

*Chip Stulen*

*Susan Moegenburg*

*Mike Schramm*

*Dick Elkins*



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# Funding Methods Discussed

- **Property Tax/General Fund** – determined less equitable and less reliable source of funding
- **Parcel Assessment within Assessing Department** – determined unfeasible
- **Service Fees/Utility** – determined most equitable option



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# Tax vs. User Fee



## ➤ Tax

### ➤ Pros

- Easy to collect
- Little added administrative cost
- Invisible to residents

### ➤ Cons

- More Expensive
- Not Equitable
- No incentive to reduce impervious area

## ➤ User Fee

### ➤ Pros

- More Equitable:
  - Based on amount of runoff
  - Collects from tax exempt parcels
- Dedicated funds
- Credits and fees to enhance equity and tailor program
- Incentive to reduce impervious area
- Others uses of databases/mapping

### ➤ Cons

- Added administrative costs
- “Big Government” perception

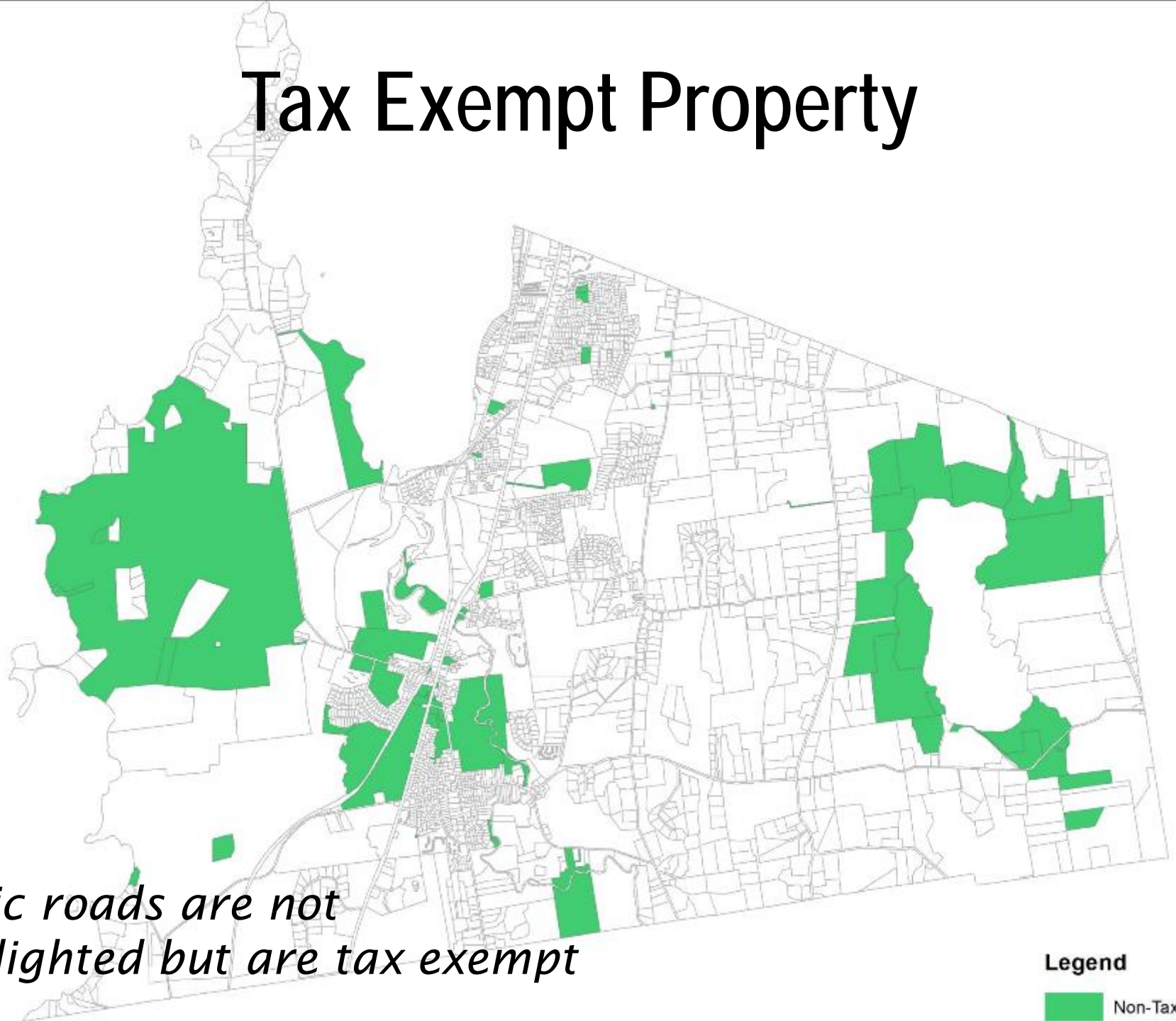


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# Tax Exempt Property

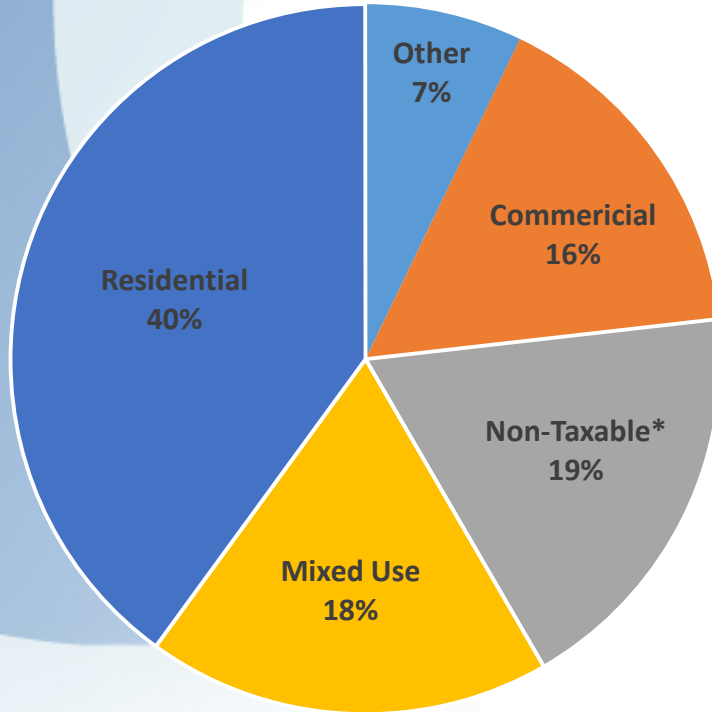


*Public roads are not highlighted but are tax exempt*

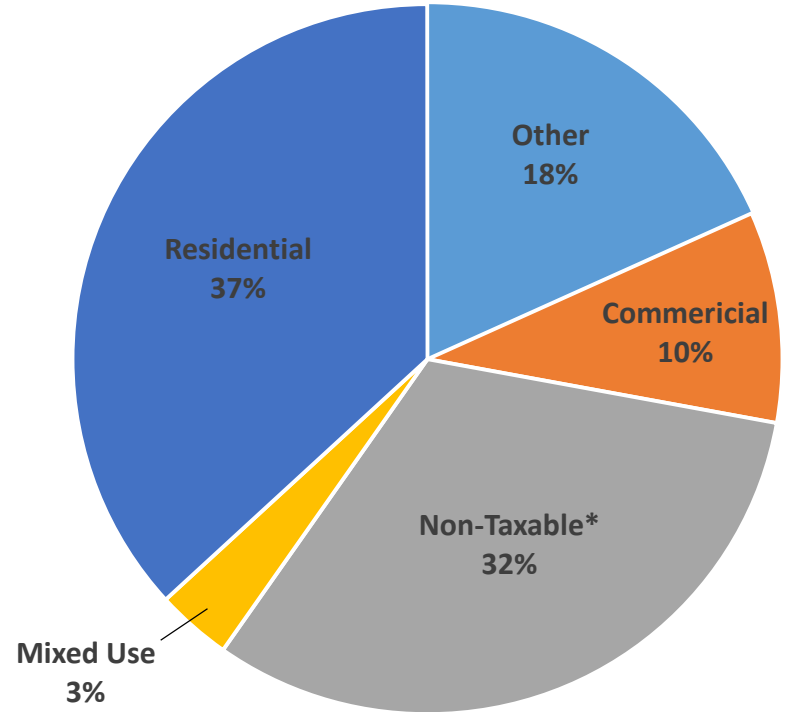
Legend

Non-Taxable Lands

Total Area by Existing Land Uses



Impervious Area by Existing Land Uses



\*Non-taxable includes partially taxed parcels and roads



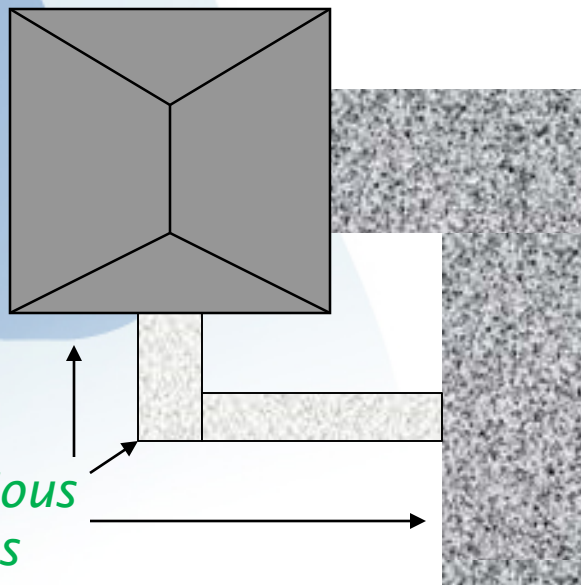
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# Stormwater User Fee Basics

- Based on impervious surface.
- A service fee similar to water and sewer fees. (not a tax)



=

*STORMWATER FEE*



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# How is Impervious Surface Data Created?



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# Stormwater Utility Fee Assessment Options Reviewed

- **Equivalent Residential Unit (ERU) billing** - Based on square footage of impervious surface on typical Single Family Residential (SFR) property. All other utilities in VT use this method. Determined to be best method.
- **Intensity of Development (ID)** - Based on both impervious and pervious surfaces. Determined to be more difficult to implement than the ERU method because parcel pervious areas and impervious areas need to be reviewed.



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# What is an ERU?

- Equivalent Residential Unit (ERU) is a base billing unit
- Based on square footage of impervious surface on typical Single Family Residential (SFR) property.
- In Shelburne:
  - Estimated median impervious SFR: ~4,476 s.f.



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# ERUs in Shelburne\*

- Using an ERU value of 4,476 s.f. we estimate that there are 7,410 billable ERUs in Shelburne.
  - 2,095 ERUs single family residential property.
  - 3,367 ERUs non-single family residential property.
  - 1,948 ERUs Town owned roads.

*\* Based on raw data analysis using 2016 impervious surface and parcel line data. Needs to be error checked.*



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# Expenditures



- IF stormwater program budget requires ~\$516,400\* annually:
  - 7,410 ERUs in Shelburne would require an ERU rate of ~\$5.81 / month to balance the budget.
  - Single Family Residential (SFR) properties would pay \$69.72/ yr.

*\*Includes administrative costs, contracted services, annual capital projects (input as \$170k/year), etc.*



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# Regional Rate Comparison\*

Town	ERU Square Footage	FY18 ERU Rate	FY18 Cost per 1,000 s.f.	Proposed FY19 ERU Rate	FY19 Cost per 1,000 s.f.
South Burlington	2700	\$ 6.69	\$ 2.48	\$ 6.84	\$ 2.53
Williston	4000	\$ 4.25	\$ 1.06	\$ 4.25	\$ 1.06
Burlington (SFR)	2500	\$ 6.60	\$ 2.64	\$ 6.60	\$ 2.64
Burlington (NSFR)	1000	\$ 2.47	\$ 2.47	\$ 2.47	\$ 2.47
Colchester	4356	\$ 4.36	\$ 1.00	\$ 4.36	\$ 1.00
Saint Albans	3000	NA	NA	\$ 2.50	\$ 0.83
Shelburne	4476	NA	NA	\$ 5.81	\$ 1.24

*\*Shelburne's numbers are estimated for FY20 and not final*



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# A Service Fee is not a Tax

*The stormwater fee is not a tax and must have a rational relationship to water quality:*

*Like a water or sewer bill, it is a fee for a municipal service. With town water, you turn on the tap and are charged for the costs of providing the water, including the costs of operation and maintenance of the water system.*

*Impervious surface area on property is similar in that its existence creates runoff that costs the Town money to manage.*

*A rate structure must have some nexus to water quality and to the costs of operation and maintenance of the public stormwater system to withstand legal challenges.*



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# Flat Rate vs. Tiers for SFRs

*A flat SFR rate seeks to balance land use/impervious surfaces with the cost of administering a town-wide program.*

*A second or third tier could be created for SFR properties with impervious surface areas much higher than the norm. Colchester is the only VT town with a second tier for SFR properties.*

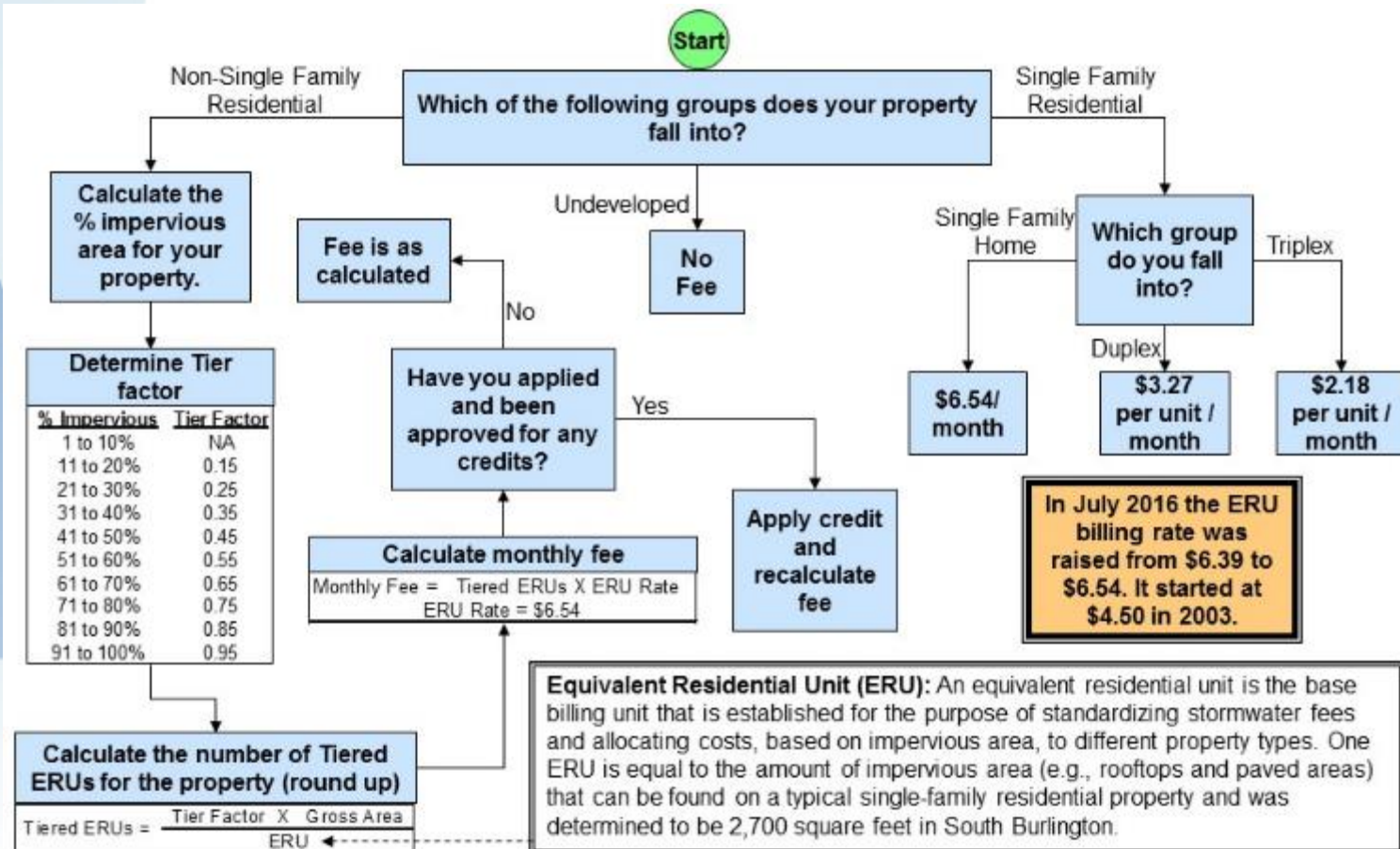


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# South Burlington Fee Calculation Flow Chart



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# Credits for Stormwater Treatment

- Credit manual for Non-Single Family Residential (NSFR) properties only\*
  - Up to 70% credit on monthly fee for stormwater treatment best practices
  - Credits must be applied for; not automatic

*\*Based on Colchester, Williston, and South Burlington's model*



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# Example NSFR Property



- Total Property Area: 892,210 s.f.
- Impervious Area: 240,395 s.f.
- % Impervious: 26.9%
- Tier Factor: 0.25
- ERU Square Footage: 4,476
- ERUs =  $(892,210 * 0.25) / 4,476$
- Stormwater Bill: 50 ERUs



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# Example NSFR (Multi Unit) Property



- Total Property Area: 131,199 s.f.
- Impervious Area: 37,963 s.f.
- % Impervious: 28.9%
- Tier Factor: 0.25
- ERU Square Footage: 4,476
- ERUs =  $(131,199 * 0.25) / 4,476$
- Stormwater Bill: 8 ERUs
- Number of Units: 16 Units
- Billable ERUs per Unit: 0.5



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# Set-up Costs Covered by Grant

Ecosystem Restoration Grant will pay for \$25K in Start-up Costs:

- Legal review of ordinance
- Billing software set-up
- Assistance from S. Burlington
- Outreach Materials



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