

Water & Sewer System Development Charge

Workshop Presentation

May 2022

Sean Greig, Director of Environmental Services
Michael Curry, Wright-Pierce



Introduction & Background
System Development Charge Calculations
Water & Wastewater System Development Charge
Summary

Introduction & Background

- **Methodologies for Impact Fee Assessment (BCM Planning, October 2000)**
 - Defined the term “Impact Fee” – New Hampshire RSA 674 (Local Land Use and Planning)
 - Impact Fee use limited to use for capital improvements relating to the demand of new development
 - “Upgrading” of existing facilities excluded from impact fee use
 - Described water and sewer impact fee methodologies
 - Developed basis for impact fee schedule

NEWMARKET IMPACT FEE ASSESSMENT SCHEDULE					
RESIDENTIAL IMPACT FEES PER DWELLING UNIT					
Units In Structure	Public Schools	Recreation Facilities	Wastewater Treatment*	Water Supply & Treatment*	Maximum Residential Impact Fees
Single Family Detached	\$3,418	\$226	\$1,226	\$737	\$5,657
Single Family Att.or Townhouse	\$2,197	\$325	\$1,019	\$612	\$4,153
2 - Unit Structures	\$2,963	\$333	\$905	\$544	\$4,765
Multifamily 3-4 Units	\$1,489	\$323	\$791	\$475	\$3,077
Multifamily 5+ Units	\$743	\$229	\$791	\$475	\$2,287
Manufactured Housing	\$1,770	\$220	\$724	\$435	\$3,208
Notes on fee derivation and application to new development	Enrollment per unit x capital cost per pupil, less state building aid and property tax credits. Fee not applicable to housing for elderly.	Implementation will require significant investment of Town funds to rectify existing deficiencies. Fee schedule reflect credit for existing deficiencies.	(\$ 6.70 per gpd expected water usage - cost of central treatment facilities only). Assessed only on new or upgraded connections to public wastewater disposal system.	(\$ 4.03 per gpd expected water usage - cost of water treatment facilities only). Assessed only on new or upgraded connections to public water system.	Fees for each facility type must be segregated in separate accounts. Fees cannot be pooled.
NON -RESIDENTIAL IMPACT FEES					
	Public Schools	Recreation Facilities	Wastewater Treatment	Water Supply & Treatment	
Basis for Assessment	Not Applicable	Not Applicable	\$ 6.70 per gpd expected water usage. Factors provided in methodology to allow estimates of fee per sq. foot or by other measures, by type of use.	\$ 4.03 per gpd expected water usage. Factors provided in methodology to allow estimates of fee per sq. foot or by other measures, by type of use.	Fees for business and industry will vary by type of business and/or size of structure and estimated demand on utility systems.
*Assessed only to developments connecting to the utility system(s)					

Introduction & Background

- ***Newmarket Impact Fee Update Report***

(BCM Planning, September 2011)

- Review of impact fees and policy
- Described updates to RSA 674 amendment (Local Land Use and Planning) and limitations
- Recommended restructuring to a utility-based capital fee (water and wastewater) to be covered under RSA 149 (wastewater) and RSA 38 (water)
- **“System Development charges” (SDCs) more flexible to suit the Town’s needs**
- **Excerpt from 2011 Report:**

For both water and sewer utilities, the goals of an impact fee assessment can be better realized by using system development charges (SDCs). The advantages of this approach include:

- Cost basis can center solely on recovery of existing system equity
- The SDC can include allowances for anticipated capital costs
- The 6-year holding period limitation of impact fees is not applicable
- Funds can flow directly to pay for the general capital needs of the system
- Documented SDCs allow the Town to have a system that can be updated based on a specific methodology rather than use the current “permit fee” amount that is not based on a capacity formula

Introduction & Background

Current Water and Sewer Fee Structures

Fees assessed in two forms:

- Impact fee based on demand and impact fee rate (\$/gpd)
- Hookup or “tap” fee

Water Impact Fee + Water Connection “Hookup” Fee + Sewer Impact Fee + Sewer Connection “Hookup” Fee

Example current fee calculation for a Single Family, detached unit (183 gpd use)

= (\$4.03/gpd x 183 gpd) + \$1,000 + (\$6.70/gpd x 183 gpd) + \$1,000

= \$1,737 + \$2,226

TOTAL WATER AND SEWER FEE (Single Family, detached unit) = \$3,963

Introduction & Background
System Development Charge Calculations
Water & Wastewater System Development Charge
Summary

System Development Charge Calculations

Goal: Develop water and sewer utility-fees (termed “System Development Charges”) that are proportionate to the new connection impact to the system.

- Developed to take the place of separate “impact fee” and “hookup” or “tie-in” fees which the Town currently utilizes
- Wide-range of calculation approaches across utilities/states
- Common methods for calculation
 - Recovering investments in existing infrastructure (“buy-in” approach)
 - Future improvements in existing infrastructure for capacity expansion costs
 - Combined approach based on Town-specific circumstances

System Development Charge Calculations

“Capacity Buy-In” Calculation Approach

- **New customers will be assessed a utility charge to “buy in” to the existing system facilities**
- **“Buy-in” rate reflects the prior investment of existing customers per unit of total water or wastewater capacity (\$/GPD charge)**
- **Water and Wastewater System Valuation**
 - **WWTFs, WTFs, Pump Stations, Storage Tanks, collection and distribution systems**
- **Total system asset valuation completed using estimates for:**
 - **Original asset construction cost (time of construction)**
 - **Net book value (original asset cost less depreciation)**
 - **Asset Replacement cost**
- **Other factors considered:**
 - **Outstanding long-term debt on existing infrastructure**
 - **Grants and contributions from funding agencies**

System Development Charge Calculations

Step 1: Define Standard Water & Sewer Usage Structure

- Current Town ordinance references *Methodologies for Impact Fee Assessment* (BCM Planning, October 2000) for typical water and sewer typical usage rates in Newmarket
- Recommendation: Retain ordinance references for water and sewer usage in the 2000 report.

TABLE III-6

RESIDENTIAL IMPACT FEE FOR SEWAGE TREATMENT CAPACITY		
Type Of Structure	Average GPD Water Usage Per Dwelling Unit	Impact Fee Per Dwelling Unit
Single Detached	183	
Single Attached (Townhouse)	152	
Duplex/Two-Unit Apt.	135	
3-4 Unit Apartment Structure	118	
5+ Unit Apartment Structure	118	
Manufactured Home	108	

Source: BCM Planning, October 2000

TABLE IV-4

RESIDENTIAL IMPACT FEE BY TYPE OF STRUCTURE WATER SUPPLY AND TREATMENT CAPACITY		
Type Of Unit	Average GPD Water Usage Per Dwelling Unit	Impact Fee Per Dwelling Unit
Single Detached	183	
Single Attached (Townhouse)	152	
Duplex/Two-Unit Apt.	135	
3-4 Unit Apartment Structure	118	
5+ Unit Apartment Structure	118	
Manufactured Home	108	

Source: BCM Planning, October 2000

System Development Charge Calculations

Step 2: Develop new SDC rate for new fee development

- Water/sewer usage rate used with “impact fee” rates for fee development .
- **Recommendation:** Retain ordinance references for water and sewer usage in the 2000 report, and update *unit price fee* to reference an updated System Development Charge (SDC) rate calculated in the following sections.

TABLE III-6

Update

RESIDENTIAL IMPACT FEE FOR SEWAGE TREATMENT CAPACITY		
Growth-Related System Cost Per GPD Capacity:		\$7.19
Less Credit/Gal/Day		(\$0.49)
Impact Fee/GPD Demand		\$6.70
Type Of Structure	Average GPD Water Usage Per Dwelling Unit	Impact Fee Per Dwelling Unit
Single Detached	183	\$1,226
Single Attached (Townhouse)	152	\$1,019
Duplex/Two-Unit Apt.	135	\$905
3-4 Unit Apartment Structure	118	\$791
5+ Unit Apartment Structure	118	\$791
Manufactured Home	108	\$724

Source: BCM Planning, October 2000

TABLE IV-4

Update

RESIDENTIAL IMPACT FEE BY TYPE OF STRUCTURE WATER SUPPLY AND TREATMENT CAPACITY		
Capital Value Per GPD Capacity:		\$4.95
Less Debt Service Credit/Gal/Day		(\$0.92)
Impact Fee/GPD Demand		\$4.03
Type Of Unit	Average GPD Water Usage Per Dwelling Unit	Impact Fee Per Dwelling Unit
Single Detached	183	\$737
Single Attached (Townhouse)	152	\$612
Duplex/Two-Unit Apt.	135	\$544
3-4 Unit Apartment Structure	118	\$475
5+ Unit Apartment Structure	118	\$475
Manufactured Home	108	\$435

Source: BCM Planning, October 2000

Introduction & Background
System Development Charge Calculations
Water & Wastewater System Development Charge
Summary

Water System Development Charge

- Average Water System Capacity: 815,000 gal/day
- Proposed total recoverable “equity” water value: \$17.29/gal per day
 - Versus \$4.03/gal per day current water value (BCM Report, 2000)

Water Fee Calculation example:

- Residence, single detached : 183 gpd
 - \$17.29 per gpd X 183 gpd
 - System Development Charge: \$3,165

Table 1:
Water Fee Comparison for new Single Residence

	Current Calculation	Proposed Calculation
Water Connection Fee	\$737	\$3,164
Water Hookup Fee	\$1,000	N/A
Total Fee	\$1,738	\$3,164

Wastewater System Development Charge

- Average Wastewater System Capacity: 680,000 gal/day
- Proposed total recoverable “equity” wastewater value: \$19.26/gal per day
 - Versus \$6.70/gal per day current wastewater value (BCM Report, 2000)

Wastewater Calculation example:

- Residence, single detached : 183 gpd
 - \$19.26 per gpd X 183 gpd
 - System Development Charge: \$3,526

Table 2:
Wastewater Fee Comparison for new Single Residence

	Current Calculation	Proposed Calculation
Wastewater Connection Fee	\$1,226	\$3,526
Wastewater Hookup Fee	\$1,000	N/A
Total Fee	\$2,226	\$3,526

Introduction & Background
System Development Charge Calculations
Water & Wastewater System Development Charge
Summary

Recommendation Summary

- I. Update Town ordinance to replace “tap” /“impact fees” with a single system development utility charge (SDC) for both **wastewater** and **water** per *Impact Fee Update Report* (BCM Planning, September 2011)

- II. Implement total recoverable SDC rates based on daily water/sewer use requirements:
 - Water = \$17.29/gpd “buy-in” fee
 - Wastewater = \$19.26/gpd “buy-in” fee

- III. **Wastewater** and **water** typical usage rates identified in *Methodologies for Impact Fee Assessment* (BCM Planning, October 2000) to remain in-use

Summary Fee Calculation (Current vs. Proposed)

**Table 3:
Wastewater & Water Fee Comparison for new Single Residence
(183 gpd water/sewer demand)**

	Current Fee Calculation	Proposed Fee Calculation
Water Connection Fee	\$737	\$3,164
Water Hookup Fee	\$1,000	N/A
Wastewater Connection Fee	\$1,226	\$3,526
Wastewater Hookup Fee	\$1,000	N/A
Total Fee	\$3,963	\$6,690

Fee Calculation Comparison

Table 4:
Estimated¹ Seacoast Community Waster & Water Fee
Comparison for new Single Detached Residence
(Assumed 3 Bedroom)

	Newmarket (Proposed)	Exeter¹	Somersworth¹	Dover¹
Water Fee	\$3,164	\$1,020	\$1,100	\$2,961
Wastewater Fee	\$3,526	\$2,046	\$5,400	\$2,907
Total Fee	\$6,690	\$3,066	\$6,500	\$5,868

Note 1: Water/sewer fee estimates include assumptions to normalize the total calculated fee structures to be representative of a single, detached residence with 3 bedrooms.

THANK YOU
