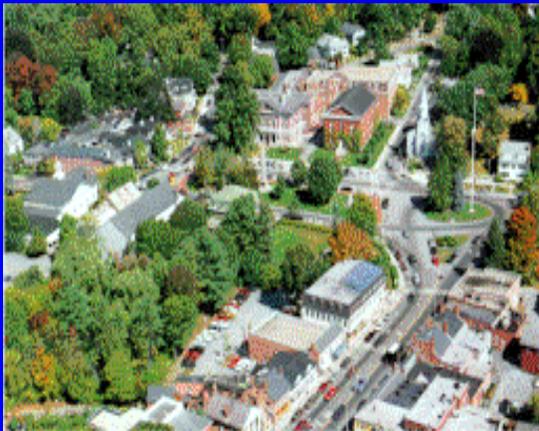


# Concord, Massachusetts

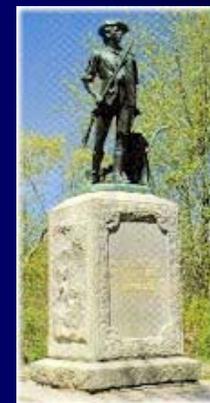


## *Wastewater Planning Services: Phase II and Growth Management*



**January 28, 2003**

**Elm Brook Area  
Neighborhood  
Meeting**



# ***Concord Wastewater Planning***

## ***Opening Comments***

- ✓ What we covered at Previous Neighborhood Meetings:
  - Recapped wastewater planning process
  - Discussed Needs results (934 parcels with on-site disposal issues)
  - Presented the menu of wastewater management options and choices for the different areas of town
  - Obtained neighborhood feedback
- ✓ What we covered at the Town-wide Meeting in Nov.:
  - Presented the Preliminary Recommended Plan and Phasing
  - Presented costs and cost-impacts
- What we will cover tonight :
  - Present information on the growth management program
  - Continue to obtain public feedback

# Concord Wastewater Planning

## Work Completed and Remaining in the CWMP

- ✓ Needs Analysis
- ✓ Preliminary Alternatives Analysis

Work  
performed  
1999-2000

- Final Alternatives Analysis/CWMP
  - Growth Management Plan
  - On-site Systems Management Program
- ↓
- Community & Regulatory Approval

Work  
currently  
being  
finalized

# Concord Wastewater Planning

*How much of the CWMP has been completed and  
How much work remains?*

## ✓ Needs Analysis Results

### Neighborhood Area

	# Parcels Where			
	Solutions <u>Off-site</u>	Solutions <u>On-site</u>	No <u>Problems</u>	Developed <u>Unsewered</u>
1. Spencer Brook	31	122	326	479
2. Estabrook	11	76	190	277
3. Elm Brook	106	134	618	858
4. Concord Center	42	47	337	426
5. West Concord	140	45	863	1,048
6. White Pond	75	0	40	115
7. Fairhaven	32	73	541	646
<i>Total Problem Parcels</i>	437	497		
<b><i>Town Wide Parcels</i></b>	<b>934</b>		<b>2,915</b>	<b>3,849</b>

# ***Concord Wastewater Planning***

## ***Final Alternatives Analysis***

### **Summary of Parcels Served in the Preliminary Recommended Plan:**

#### ➤ Town-wide

- ✓ 979 Total parcels served under the Plan. (+/-)
- ✓ 51% of parcels with identified need for off-site wastewater management served under the Plan.

#### ➤ In the Elm Brook Neighborhood

- ✓ 445 Total parcels in Elm Brook served under the Plan. (+/-)
- ✓ 81% of parcels with identified need for off-site wastewater management in Elm Brook served under the Plan.

# ***Concord Wastewater Planning***

## ***Final Alternatives Analysis***

### **The Preliminary Recommended Plan includes:**

- Sewer connection for several neighborhoods in Elm Brook, Concord Center and West Concord.
- Localized clusters for immediate White Pond Area and for Conantum (Kalmia Woods Association) Area.
- Shared Title 5 Systems.
- Enhanced on-site management plan for remaining septic systems.

# ***Concord Wastewater Planning***

## ***Final Alternatives Analysis***

### **Phasing the Recommended Plan - \$26.3 million:**

#### **Phase 1 (Years 1-4):**

- Sewer for **Bedford St Area** and Prairie St Area.

#### **Phase 2: (Years 4-6)**

- Sewer for Walden St Area, Great Meadows Rd Area and Magnolia St Area.
- Clusters for White Pond and Kalmia Woods Areas

#### **Phase 3: (Years 6-8)**

- Sewer for **Lexington Rd Area**, Sunnyside Ln Area, Meadow Ridge Rd Area, MacArthur St Area, Hayward Rd Area and Main St Area.

#### **Phase 4: (Years 8-10)**

- Sewer for Harrington Ave Area, Coolidge Rd Area, Fairhaven Rd Area and North Branch Rd Area.

# Concord Wastewater Planning

## Recommended Plan Projected Costs

### Cost Allocation: Costs to Individual Homeowners

	New Sewer User	Current Sewer User	Non-Sewer User
<b>One-time Cost</b>			
Sewer Improvement Fee (3 bedroom home)	\$5,200	-	-
<b>Average Annual Cost</b>			
Betterment Cost (\$16,000-one time)	\$1,650 - \$850 *	-	-
Local Tax Impact (\$500,000 home)	\$20	\$20	\$20
User Charge Impact	\$650	\$30 increase	-
<b>Total Annual Cost</b>	<b>\$1,920</b>	<b>\$50</b>	<b>\$20</b>

\* Range of annual cost if financed over 20 years at 5% interest

# ***Concord Wastewater Planning Questions and Answers on the Wastewater Plan***

**Following the Meeting, residents are invited to review:**

- **Needs Map**- Was your lot identified as having a potential need for an off-site alternative?
- **Preliminary Recommended Plan Map**- Is your lot currently proposed to be served by an off-site solution?
- **Preliminary Construction Phasing Map**- If you are considered in the Preliminary Recommended Plan, what phase are you in?

# ***Concord Wastewater Planning Growth Management Plan***

- Wastewater planning solutions solve health, environmental and aesthetic problems, but do not limit growth.
- The Planning Board is designated the Growth Management Committee and is working with a consultant, Horsley & Witten, to evaluate available tools to help manage potential growth.

# ***Concord Wastewater Planning***

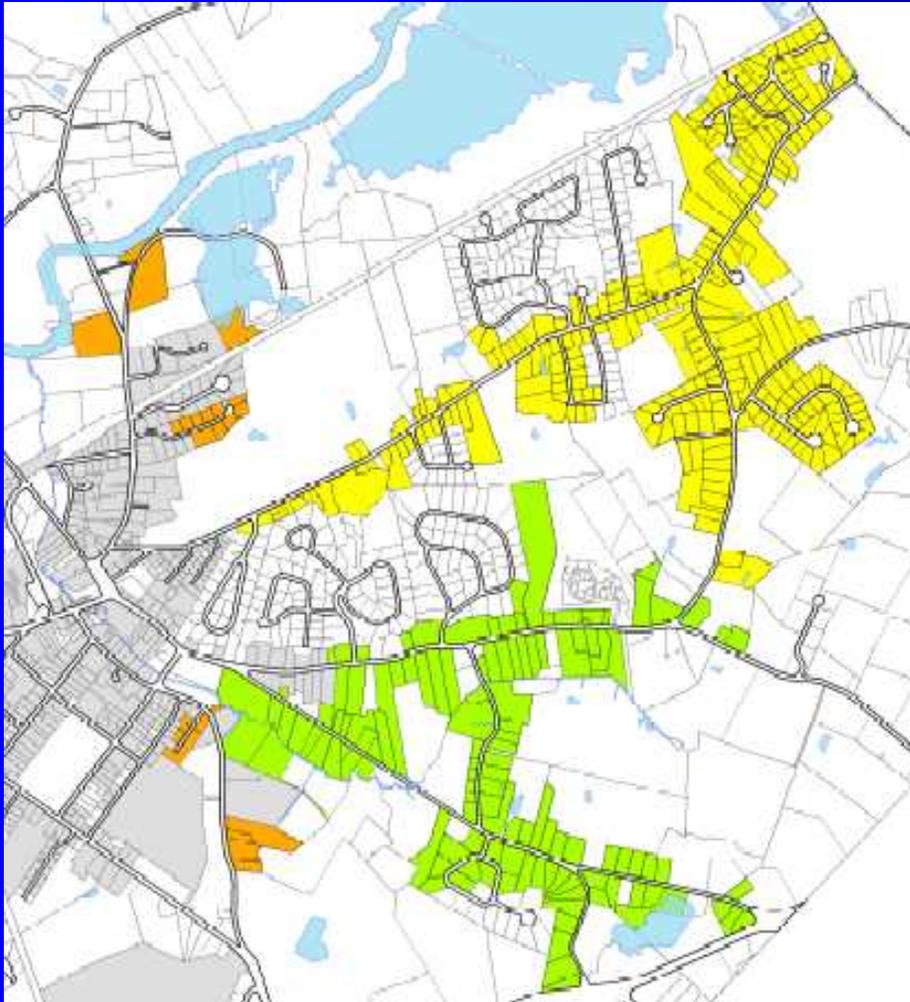
## ***The Elm Brook Neighborhood***

- **Growth Management**

- Is growth / development in the Elm Brook area a concern for its residents?
- What are the characteristics of the Elm Brook neighborhood that we would like to preserve? Can we create a list to quantify the ‘essence’ of what we appreciate about our homes and neighbors?
- Neighborhood feedback on some recent examples of development in the neighborhood – test them against our list of values.

# Concord Wastewater Planning

## The Elm Brook Neighborhood



### TOWN OF CONCORD, MASSACHUSETTS WASTEWATER PLANNING - PHASE 2 PRELIMINARY RECOMMENDED PLAN PHASING

#### LEGEND:

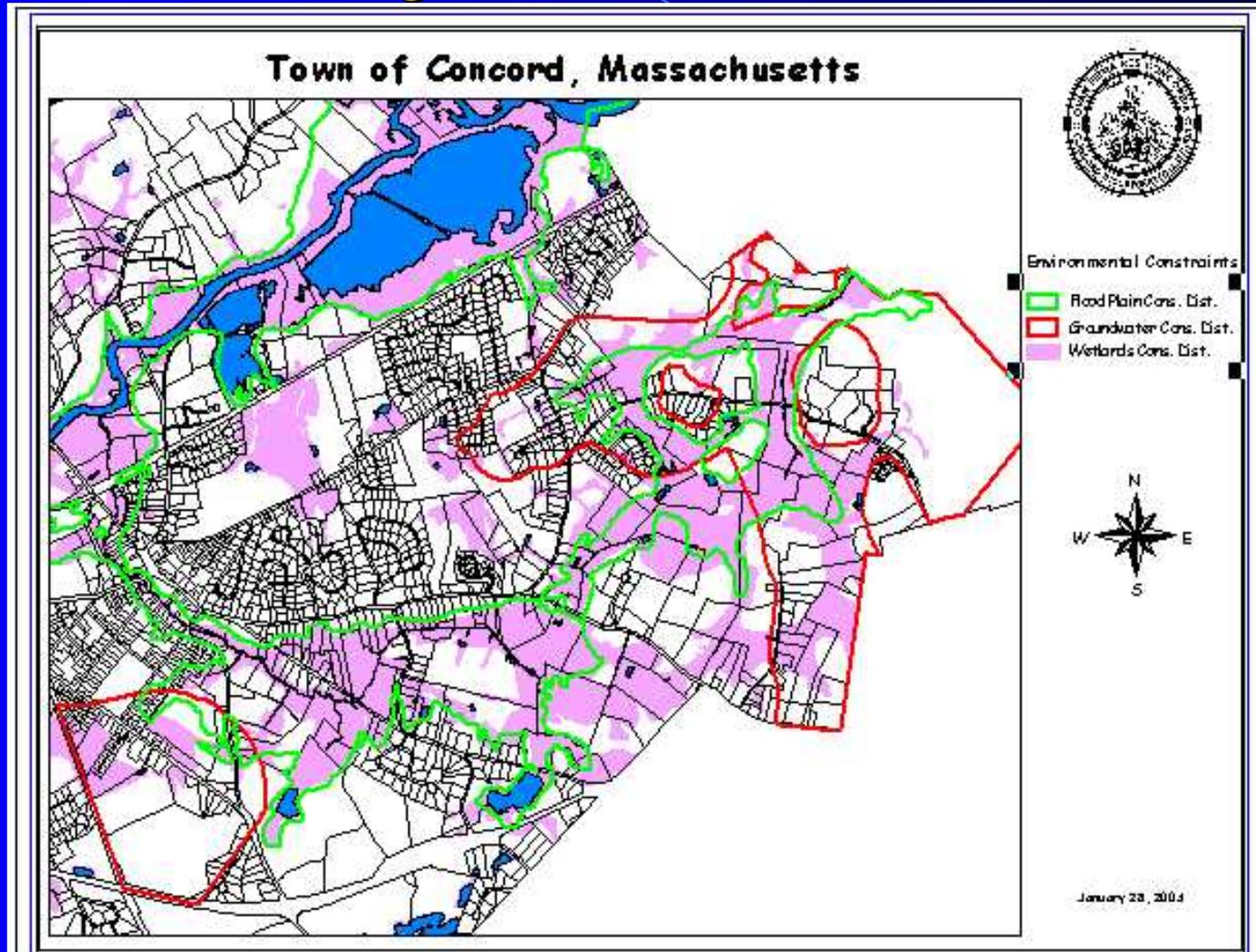
- Grey square: Sewered Parcels
- White square: Unsewered Parcels
- Yellow square: Parcels To Be Sewered in Phase 1
- Orange square: Parcels To Be Sewered in Phase 2
- Light green square: Parcels To Be Sewered in Phase 3
- Blue square: Parcels To Be Sewered in Phase 4
- Black outline: Town Boundary



SCALE IN FEET 0 600 1,200 2,400 3,600 4,800 6,000 7,200

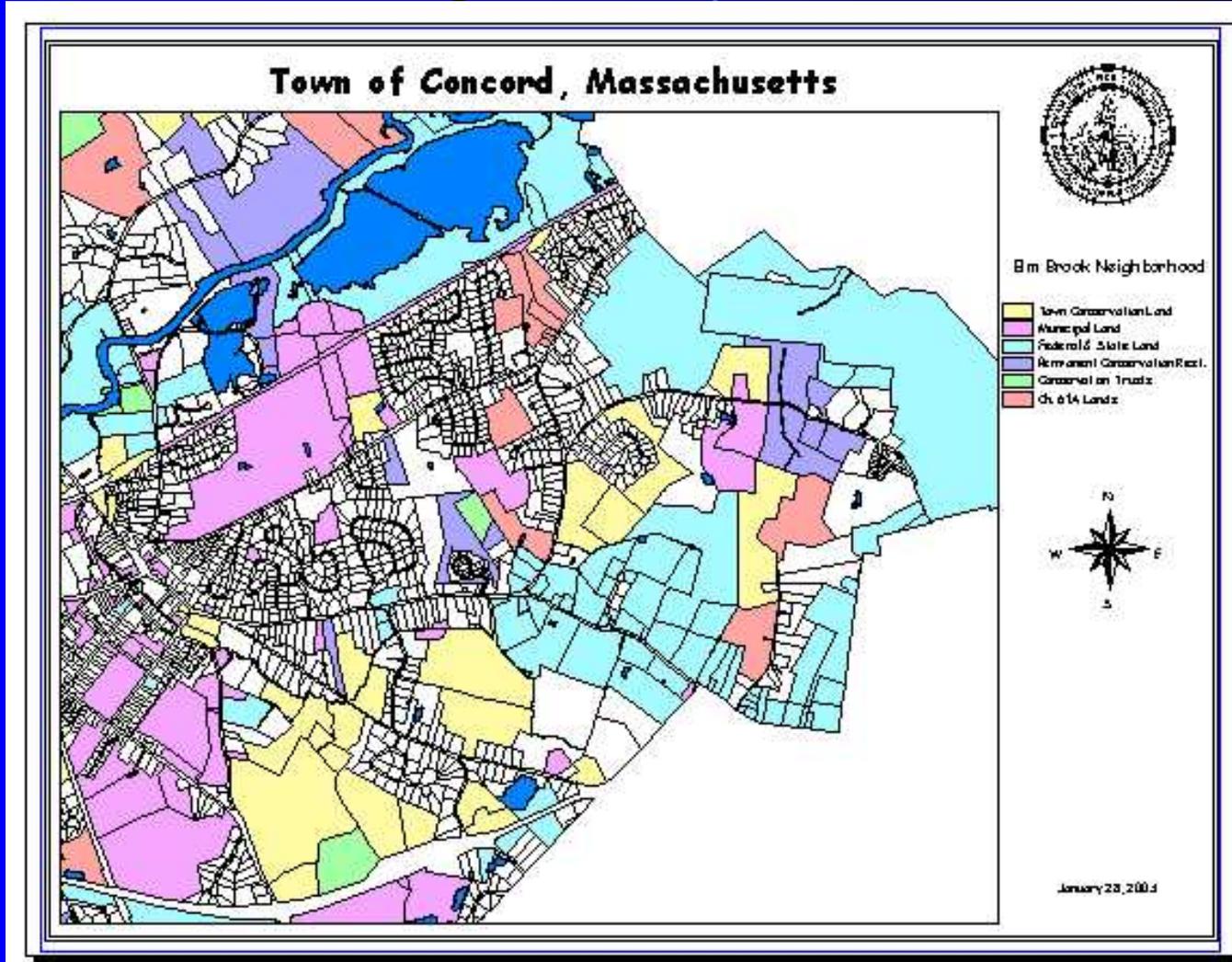
# Concord Wastewater Planning

## The Elm Brook Neighborhood



# Concord Wastewater Planning

## The Elm Brook Neighborhood



# ***Concord Wastewater Planning***

## ***The Elm Brook Neighborhood***

- Developed Boundaries:
  - Route 62, Virginia Road, Old Bedford Road
  - Commercial Properties – Virginia Road
  - Mass Port / Hanscom Airfield
  - Town Facilities – Ripley School, wastewater treatment plant
  
- Natural Boundaries:
  - The Great Meadow
  - Minuteman National Park
  - Agricultural fields

# ***Concord Wastewater Planning***

## ***Elm Brook Residential Context***

- Housing in Elm Brook located into 2 groups:
  - Along Main Roads-
    - Old Bedford, Bedford & Virginia Road
  - Within Secondary Street Groupings:
    - Dalton & Meriam Roads (1963 - 1972)
    - Phillip Farm Road / Kenney Lane (1968 - 1970)
    - Butternut Circle Area (1955 - 1959)
    - Powers Rd. & Birch Dr. (1953 - 1956)
    - Prescott Road / Monsen Rd. (1953 - 1959)

# ***Concord Wastewater Planning***

## ***Elm Brook Residential Context***

- Main Roads-
  - Older homes – historically first roads in town
  - Farm Housing stock built prior to zoning by-laws
- Secondary Street Groupings:
  - Developed as subdivisions within the past 50 years?

# ***Concord Wastewater Planning***

## ***Residential Characteristics***

- Massing
  - Subdivisions/secondary roads developed– repetitive use of house design and site layout
  - Main Road homes – More infill dwellings in between farm housing
  - Proximity of homes allow neighbors to establish relationships with each other, yet still maintain adequate private space.



Dalton Road



Kenney Lane



Ash St.

# ***Concord Wastewater Planning***

## ***Residential Characteristics***

- Lot Set Backs – Side Yard
  - Most homes in subdivisions have greater setbacks than zoning by law required – smaller lots that build out to side lot line – are 1 to 1 ½ stories
  - Few examples of housing going to edge of zoning by-law setbacks
  - With such uniform site layout of each neighborhood, alterations could affect the existing character.



Partridge Lane



Old Bedford Road



Kenney Lane/Phillip Farm Road

# ***Concord Wastewater Planning***

## ***Residential Characteristics***

- Set Backs – Front Setbacks
  - Pattern of front-yard setback defines the character of each subdivision.
  - Main Street Homes – setbacks minimal for much older homes, newer homes pull back from street to meet zoning ordinances.



Virginia Road



Bedford Road



Bedford Road

# ***Concord Wastewater Planning***

## ***Residential Characteristics***

- **Set Backs – Front Setbacks**
  - Secondary Street Dwellings on small lots with +20' setbacks provide more than adequate buffer to street. In most cases – original septic field location is in this zone.
  - Most existing homes are set back further than required. A new home can potentially be built closer to the street, as long as they meet the 20' min setback. Can have impact on streetscape



Butternut Circle



Dalton Road



Nancy Road

# ***Concord Wastewater Planning***

## ***Residential Characteristics***

- Set Backs – Building Height
  - A few Older homes are 2 1/2 stories tall.
  - Majority of more recent housing stock (from last 50 years) – range from 1 to 2 stories
  - Consistency within each of the smaller areas of Elm Brook



Old Bedford Road  
2 1/2 Story Dwelling



Powers Road  
1 Story Dwelling



Minot Road  
2 Story Dwelling

# ***Concord Wastewater Planning***

## ***Residential / Neighborhood Characteristics***

### **What makes Elm Brook Special?**

- The connection of each home in Elm Brook to accessible open space.
- A pedestrian community – neighbor interaction, trails, farm land, parks.
- Direct proportionate relationship of massing/lot size in each of the areas, such as smaller house on a smaller lot.
- Most of the original housing stock in the area constructed to 2 stories with hip roof. Higher variation of this on main roads.
- Variations in housing styles between neighborhoods, but are consistent within each of the smaller areas of Elm Brook.
- Older home designs occupied much lower Percentage of lot – lower lot coverage.
- Many homes have no garage, or one car garage

# ***Concord Wastewater Planning***

## ***Residential Characteristics***

### **New Construction**

- Has incremental growth made an impact to the neighborhood?
- Additions – kitchens, garages & family rooms
- New residential construction –
  - Larger in massing/scale than vernacular
  - Larger garages – integrated into main dwelling mass
  - Pushing out to minimum set backs and maximum height.



Virginia Road



Phillip Farm Road



Powers Road

# ***Concord Wastewater Planning***

## ***Residential Characteristics***

### **New Construction/Additions**



Bedford Road



Garrison Road



Bedford Road



Mallard Drive



Old Bedford Road



Nancy Road

# ***Concord Wastewater Planning***

## ***Residential Characteristics***

### **Future Growth**

- The issue of growth affects Elm Brook regardless of introduction of sewers
- How should we plan for the future?
- Should we anticipate what could happen and implement a plan to be sure that the neighborhood dictates how a development is designed?
  - Agricultural Fields – which are privately owned / conservation land?
  - Commercial property on Virginia road – what lays ahead?
  - Expansion on privately owned lots

# ***Concord Wastewater Planning***

## ***Residential Characteristics***

**Potential Sites for concern?**



**Agricultural – Old Bedford Road**



**Agricultural – Bedford Road**



**Agricultural -Wayside Florist**



**Agricultural – Behind Dalton Rd.  
*Weston & Sampson Engineers***

# ***Concord Wastewater Planning***

## ***Growth Management – Elm Brook Neighborhood***

### **Summation:**

- Wastewater Master Plan provides an opportunity to address growth in targeted areas.
- Chance to create growth management tools specific to your area.
- Horsley & Witten Consultant – Has suggestions on various tools we can implement to preserve the characteristics of Elm Brook.

# ***Concord Wastewater Planning***

## ***Growth Management – Elm Brook Neighborhood***

### Growth Management Tools

- Sewer System Regulations
- Lot Coverage Limitations
- Increase Yard Setback Dimensions
- Special Permit Overlay District
- Change Height Limitation for Buildings
- Mandatory Cluster Development
- Define “Substantially More Detrimental”
- Other?

# ***Concord Wastewater Planning***

## ***Growth Management Plan***

Before we propose growth management tools we need your help:

- To recognize that we need to manage growth so we don't lose the benefits of wastewater planning solutions.
- To identify neighborhood values.
- To draft appropriate growth management tools .
- To support adoption of these tools at Town Meeting.