

2013 PLAISTOW WATER SYMPOSIUM

Plaistow Water—our history, resources, challenges & opportunities.



Wednesday, September 11th 2013
9:15 AM Plaistow Town Hall



Plaistow, New Hampshire

Incorporated 1749

TOWN OF PLAISTOW: OVERVIEW



- Plaistow ranks 40th in population (7,800) but would rank 7th or 8th if the Route 125 service population (25,000) were included
- Plaistow is the regional employment center
- Plaistow is also home to the regional middle & high schools
- As one of the gateway communities to and from New Hampshire, and key economic center in the region, the Town of Plaistow, has worked for over 20 years to improve strategies for transit oriented development and re-development.
- We are on the move...



FACING OUR FUTURE:

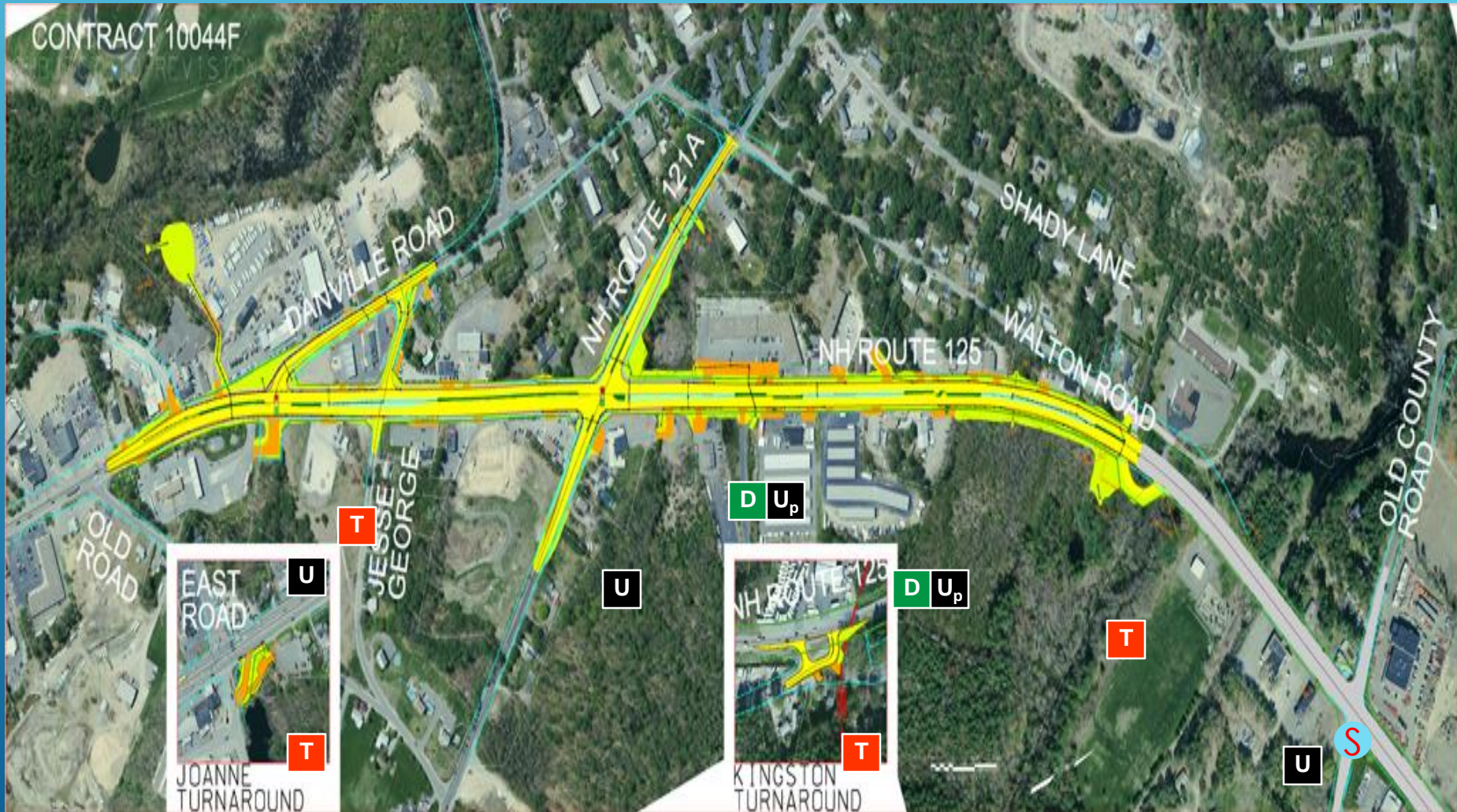
2012/13 TOWN PROJECTS/INITIATIVES



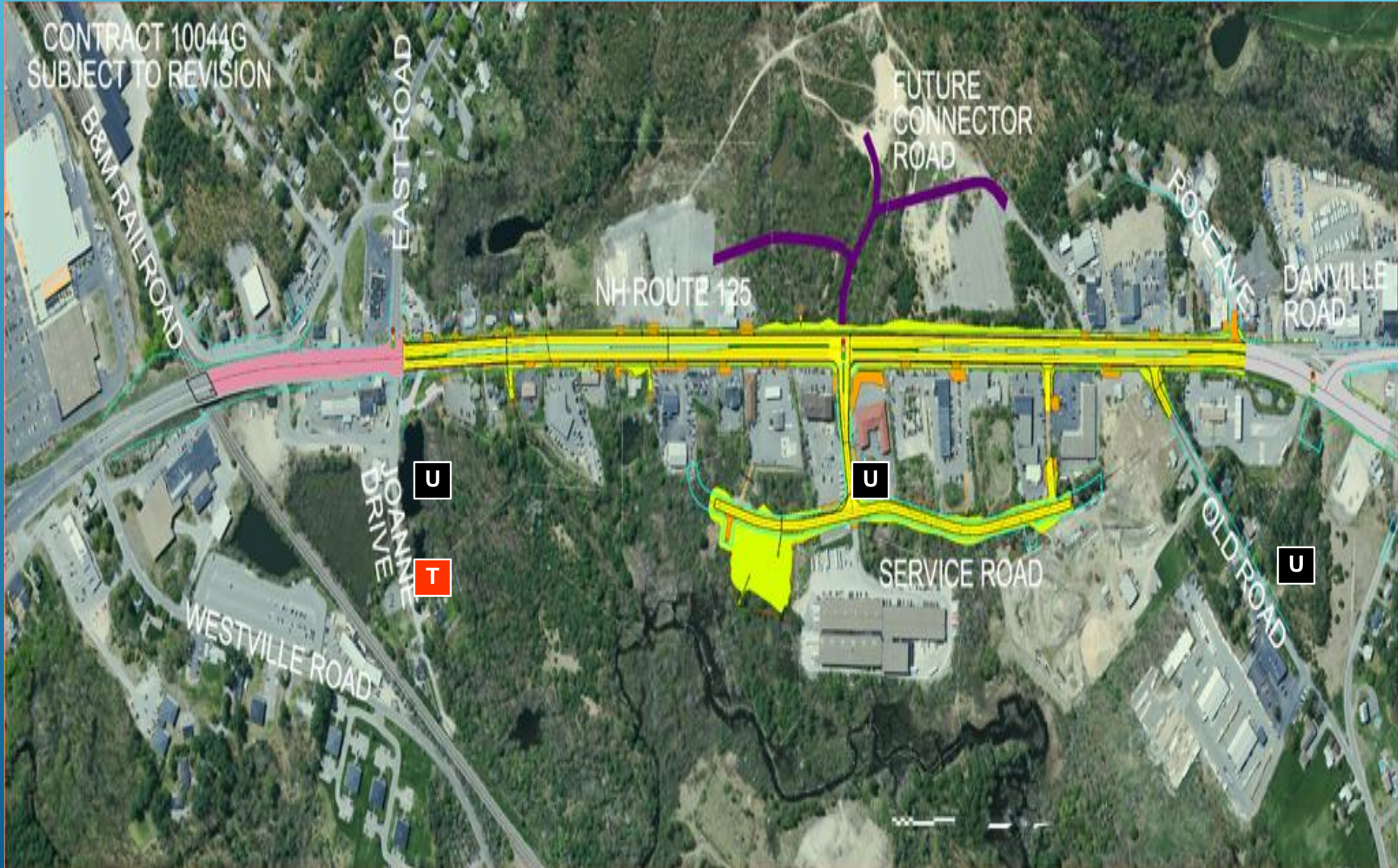
- MBTA Feasibility Study (\$695,000 Study/\$10.4M Grant)
- Safe Routes to School Grant (Pending \$200K Application)
- Aquatic Resource Mitigation Grant (\$100,000 Award)
- Plaistow First Committee (Land Use Evaluation for New Highway Garage)
- Palmer Land Swap (3.5 acres for expansion of Plaistow Cemetery and 30 Acres "Right of First Refusal".)
- 2013 Land Use Board Summit
- 2013 Water Resource Symposium



NHDOT 10044-F CONSTRUCTION PLAN (2011/12)



10044-G CONSTRUCTION PLAN (2014/15)



PLAISTOW'S LIMITED WATER RESOURCES:

- ▶ As one of only two communities in New Hampshire that does not have a pond or water body sufficient for a municipal reservoir, the Town of Plaistow faces significant water resource challenges.
- ▶ Plaistow has a significant “stratified-drift” aquifer
- ▶ This Aquifer is large in size, but most of the aquifer is low-volume.
- ▶ Aquifer polluted by Beede site, Town landfill, salt shed, Lido gas station (underground storage tank leaks), and various junk yards.
- ▶ Plaistow's aquifer is now protected by
- ▶ Source Water Protection Plan;
- ▶ Aquifer District Overlay Zone
- ▶ Best Practice Stormwater Management Ordinance



WATER AS A CRITICAL RESOURCE:

- ▶ Stateline Plaza in Plaistow is connected to the City of Haverhill's municipal water and wastewater system.
- ▶ Remainder of Plaistow on private septic systems and private artesian water wells.
- ▶ The lack of public water and wastewater systems significantly limits economic development and job creation.
- ▶ Lack of water and sewer has resulted in:
 - ▶ Limited commercial use of properties along Route 125 (uniformity)
 - ▶ Lack of diversity in commercial, retail, and economic investments
 - ▶ Staggering additional costs and risks associated with failed commercial septic systems
 - ▶ Investing in water/wastewater infrastructure is an important public health responsibility and economic development tool.

FACING OUR FUTURE:

PLAISTOW'S 1973 WATER/WASTE WATER RESOURCES ENGINEERING AND NEEDS ASSESSMENT



The Town funded a comprehensive feasibility study to establishing a municipal water system in 1973.

Purpose: To determine the feasibility of providing Plaistow with a municipal water system.

Conclusion: Municipal system technically and economically feasible with capacity to meets needs through 2030 (including demand for fire fighting).

Preliminary Engineering Survey and Report

on the

Feasibility of Establishing
a Municipal Water System

for the Town of

Plaistow

New Hampshire

June 1973

Fenton G. Keyes Associates

Architects - Engineers

321 South Main St., Providence, R. I.



FENTON KEYES STUDY - 1973

Implementation:

A series of stratified-drift wells and storage tanks along with a distribution system.

Required Capacity:

Plaistow's 1973 population: 4400;
Projected 2030 population: 17,000+
(Plaistow's 2004/2005 build out analysis caps population at 13,000 with current zoning)

June 14, 1973
"Our Twenty Second Year"

Board of Selectmen
Town of Plaistow
Selectmen's Office
Town Hall
Plaistow, New Hampshire 03865

Subject: Preliminary Engineering Study
& Report on the Feasibility of
Establishing a Municipal Water
System for the Town of
Plaistow, New Hampshire

HENRY E. BLOODEAU, P.E.
KENNETH G. KEIFER, P.E.
WALTER I. KEYES, P.E.

ASSOCIATE PARTNERS
RAYMOND C. MURPHY, P.E.
ERNEST E. KIRWAN, A.I.A.
LEONARD N. BUCKLER, P.E.

ASSOCIATES
LEWIS J. BAUN, P.E.
ABRAHAM I. ISRAEL, P.E.
JAMES L. BELL, P.E.
PASQUALE C. CODOLA, P.E.
DAVID I. CRIST, A.I.A.

Gentlemen:

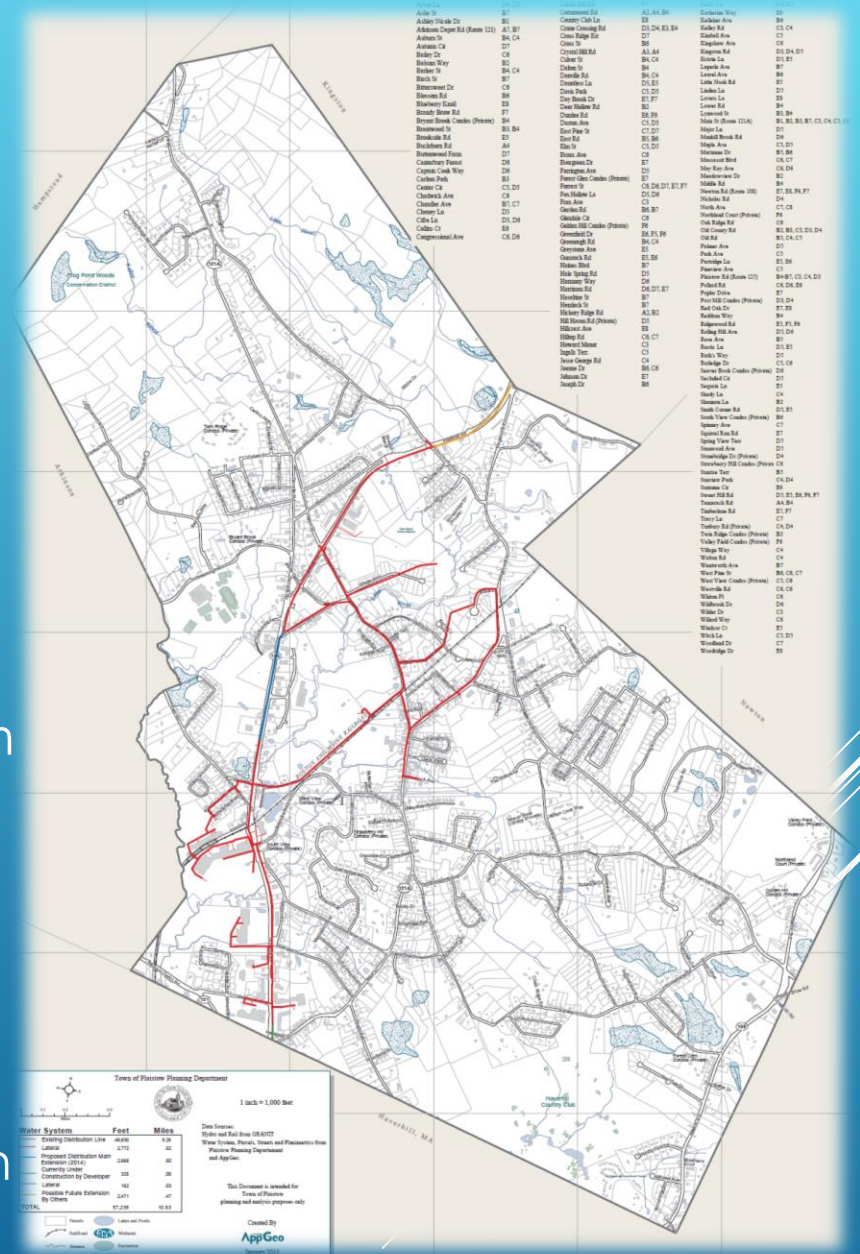
In accordance with our contract we are pleased to present the following Preliminary Engineering Study and Report dealing with the Feasibility of Establishing a Municipal Water System in the Town of Plaistow.

Our studies find that a municipal water system in Plaistow is feasible both from an engineering and an economic standpoint; however, due to termination of federal construction grant programs for water systems, the cost to the individual customer will be somewhat higher than normally expected for water systems in this general size category which have been federally-aided. The recommended water supply system is gravel-packed wells. It is anticipated the capacity of each of these wells will range between 700 and 1000 gallons per minute. The geophysical survey performed as a part of these studies located several areas within the town which give strong indication of being able to support relatively high-capacity wells. These several areas are presently being explored and tested.

The recommended scope of the initial distribution system is shown on Sheets Nos. 2, 3 and 4 bound in Appendix A. With reasonable participation in the system by abutting landowners this general scope of distribution system is financially feasible. We have anticipated that 75 percent of all possible users of the system will connect in the beginning.

PLAISTOW'S FIRE SUPPRESSION SYSTEM

- ▶ Current system started in late 60's to protect 3 large industries who employed 70% of the people working in Plaistow:
 - ▶ Westville Homes
 - ▶ Process Engineering
 - ▶ Pennsylvania Box and Lumber Company
- ▶ Expanded throughout 70's, 80's, and 90's to meet the needs of the commercial growth on Rt. 125 as well as the beginning of plans for "loops" which prevent single failure points from disabling the entire system.
- ▶ Expansion in the 2000's have all of Rt. 125 covered by the system.
- ▶ Coordinated in phases to match the Rt. 125 widening efforts.
- ▶ Present day value of this system is estimated to range from \$10-\$15Million in infrastructure.



PLAISTOW'S SOURCE WATER PROTECTION PLAN - 2000

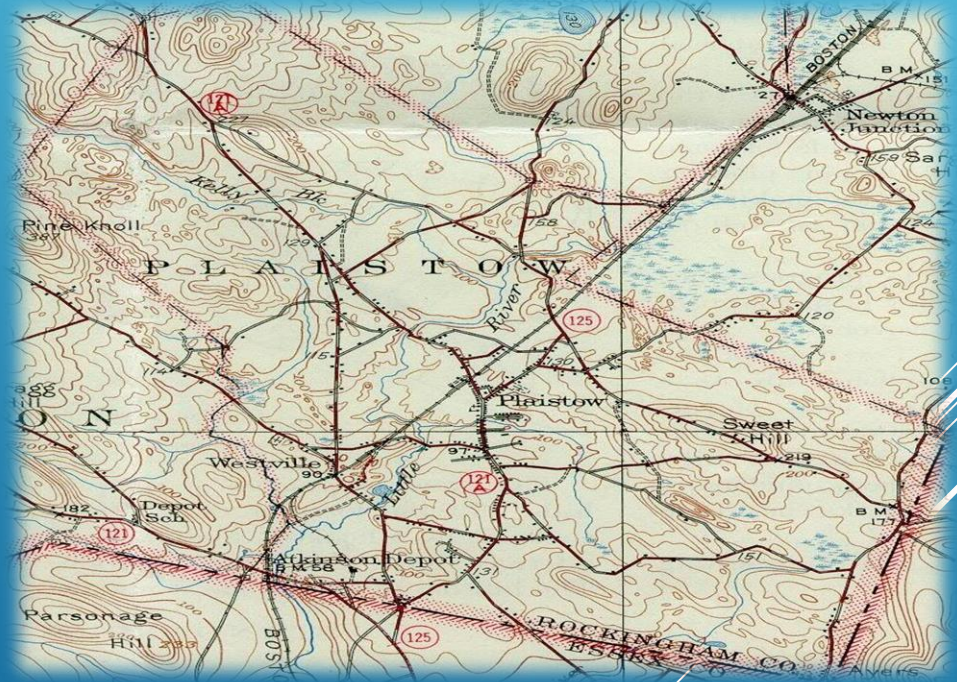
- ▶ Plaistow Conservation Commission worked with Northeast Rural Water Association (NERWA) and Department of Environmental Services (DES) to form a Water Committee and to develop a source water protection plan.

WATER COMMITTEE:

- ▶ Local, State, NEWRA officials
- ▶ Plaistow residents.

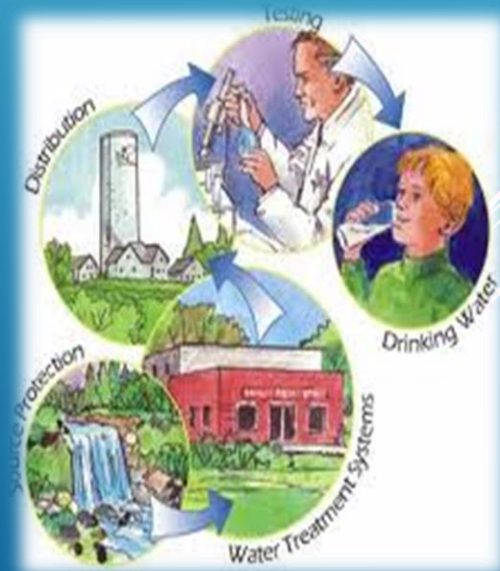
PLAN IDENTIFIED:

- ▶ Sources of water
- ▶ Sources of contamination
- ▶ All public wells
- ▶ Need to develop an aquifer protection ordinance



PLAISTOW'S AQUIFER ORDINANCE REVIEW - 2004

- ▶ Conservation Commission and Planning Board amended zoning ordinance to include an aquifer protection overlay district in 2000.
- ▶ Conservation Commission hired the Conservation Law Foundation (CLF) to review the ordinance and make recommendations for improvements in 2004.
- ▶ Recommendations became effective at Town Meeting, March 2005.
- ▶ Recommendations fell into 3 categories:
 - ▶ Protect groundwater quality by preventing contamination.
 - ▶ Protect groundwater quantity by insuring adequate recharge.
 - ▶ Protect groundwater quantity by limiting lawn irrigation.



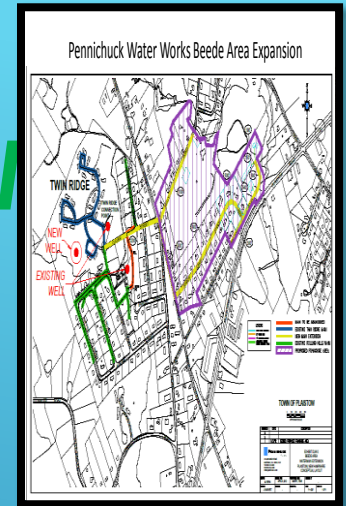
FACING OUR FUTURE:

2013 BEEDE SUPERFUND WATER LINE

- IN 2012 THE BEEDE GROUP CONTRACTED WITH PENNICHUCK WATER WORKS TO EXTEND AN EXISTING PUBLIC WATERLINE TO IMPACTED PROPERTIES AFFECTED BY THE BEEDE CONTAMINATION

WATERLINE WAS INSTALLED ON:

- CULVER STREET, MAIN STREET, KELLEY ROAD, SHADY LANE, WALTON ROAD
- A NEW CLEAN, PUBLIC WATER SYSTEM NOW IS OPERATIONAL FOR 22 AFFECTED PROPERTIES
- POSSIBLE EXPANSION OPPORTUNITIES



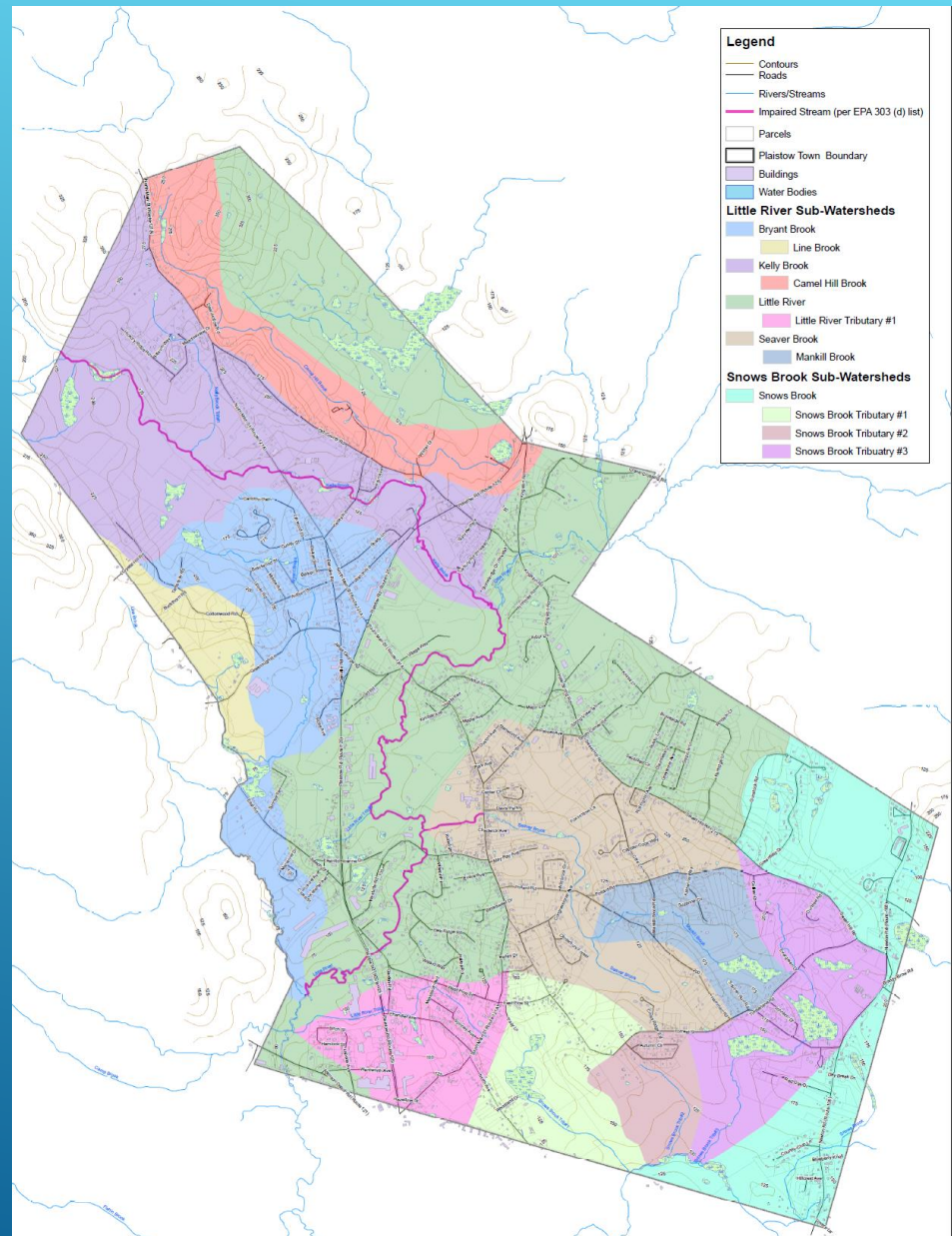
PLAISTOW'S 2013 WATER/WASTE WATER RESOURCES ENGINEERING AND NEEDS ASSESSMENT WARRANT

THE TOWN SOUGHT FUNDING TO UPDATE
THIS COMPREHENSIVE ENGINEERING AND
NEEDS ASSESSMENT REPORT TO ASSIST
IN ESTABLISHING A MUNICIPAL WATER
AND WASTE WATER TREATMENT SYSTEM
FOR THE TOWN OF PLAISTOW AS PART OF
THE 2013 TOWN MEETING—FAILED IN 2013
BY 12 VOTES!



PLAISTOW WATER SHEDS

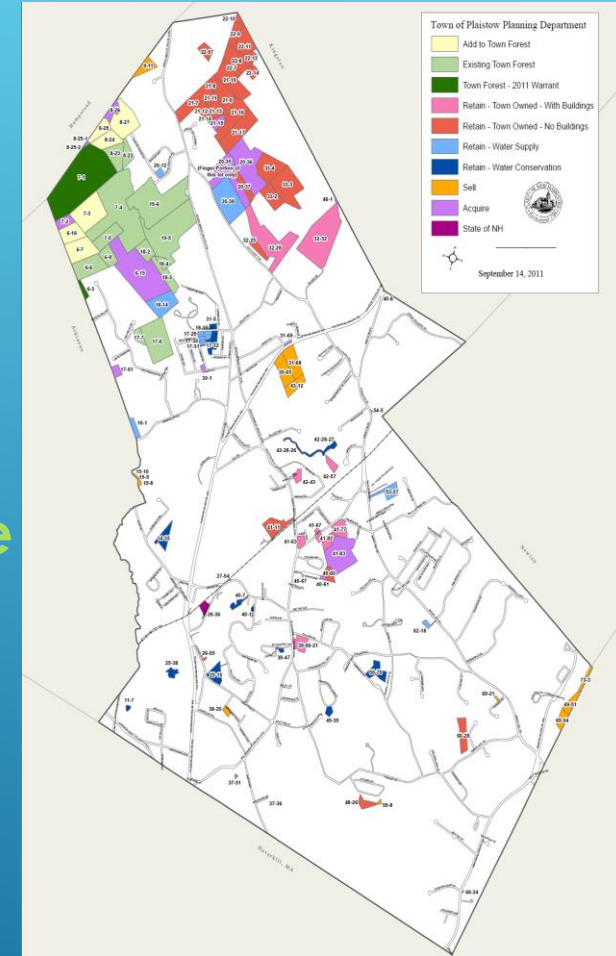
- ▶ Plaistow does have an abundance of streams.
- ▶ Much of Plaistow was once submerged beneath an ancient lake, formed about 11,000 years ago by receding glaciers.
- ▶ Rivers and Streams include: Little River (Pollard Brook), Kelley Brook, Seaver Brook, Bryant Brook, Mankill Brook, Snow's Brook, as well as several streams that dry up during the summer.



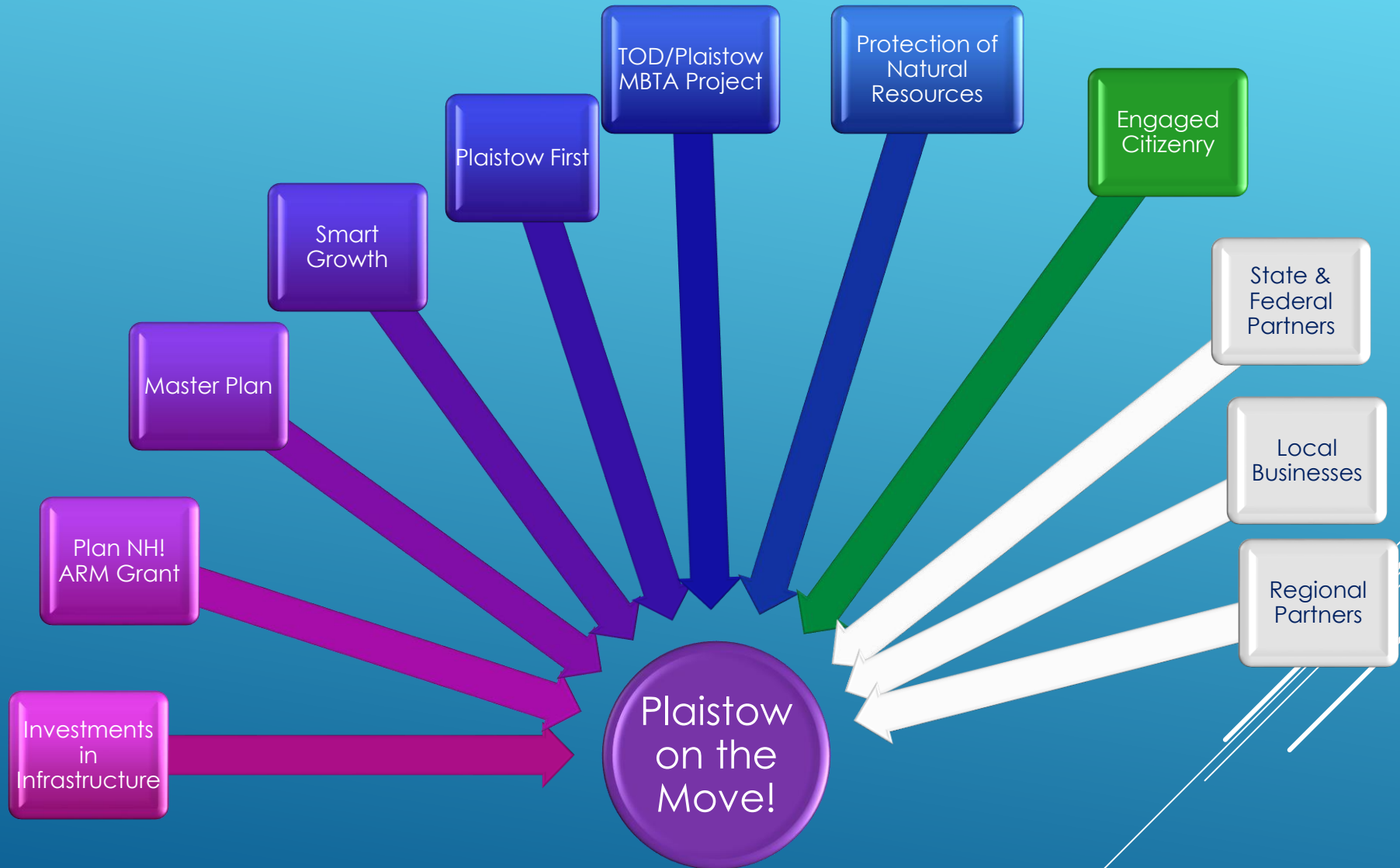
COLLECTIVELY WORKING TO ENHANCE PLAISTOW'S QUALITY OF LIFE

- ❖ Active Board of Selectmen
- ❖ Active Planning Board
- ❖ Active Conservation Commission
- ❖ Active Recreation Commission
- ❖ Active Plaistow First Committee
 - ❖ Water Committee (Subcommittee of Plaistow First Committee)
- ❖ Active Public Safety Complex Committee
- ❖ Active Highway Safety Committee
- ❖ Active Elderly Affairs Committee
- ❖ Active Old Home Day Committee
- ❖ Supportive and involved Local, State, and Federal legislative Delegation:

Senator Jean Shaheen, Senator Kelly Ayotte; Congresswoman Carol Shea Porter; NH Senator Chuck Morse; NH Representative Norm Major



PLAISTOW ON THE MOVE...



“VISION”



Plaistow, New Hampshire

Incorporated 1749

“LEADERSHIP”



“SAMENESS”

What if we do nothing?



PLAISTOW ON THE MOVE...AND FACING OUR FUTURE!

"Individual commitment to a group effort - that is what makes a team work, a company work, a society work, a civilization work." ~Vince Lombardi

HOW ABOUT A TOWN WORK...

