

Eastham Water System: System Design and Installation

March 19 and 23, 2013



Agenda

- Water system overview and water supply demand needs
- Water supply sources and demands
- System development
- Construction approach
- Homeowner responsibilities
- System operations

Town-wide Water System

6646 Lots Served

Demands

Annual average day:
1.00 MGD

Summer average day:
1.88 MGD

Peak Day: 2.65 MGD



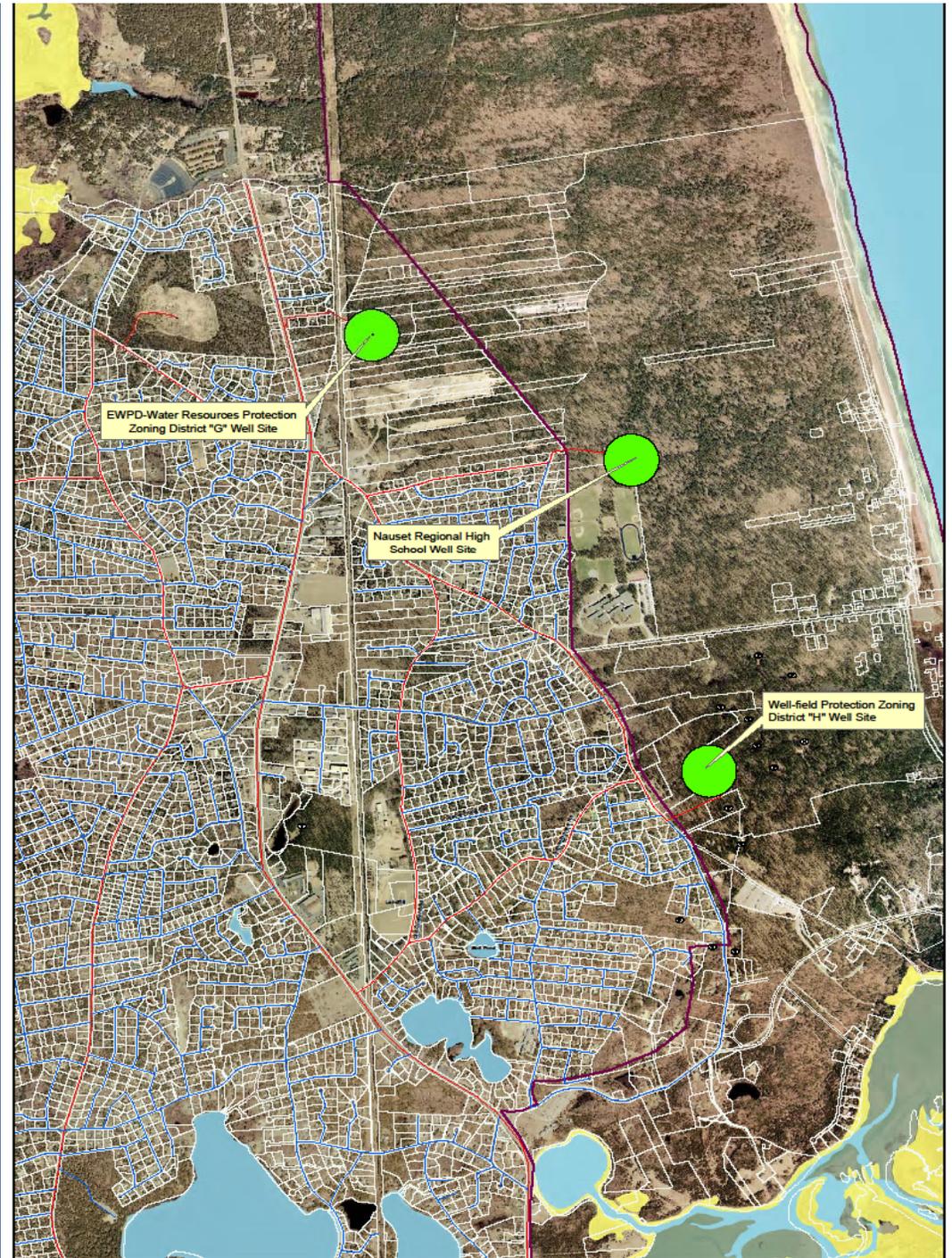
Supply Sources

More than we need
to be self-sufficient

NRHS – 0.882 MGD

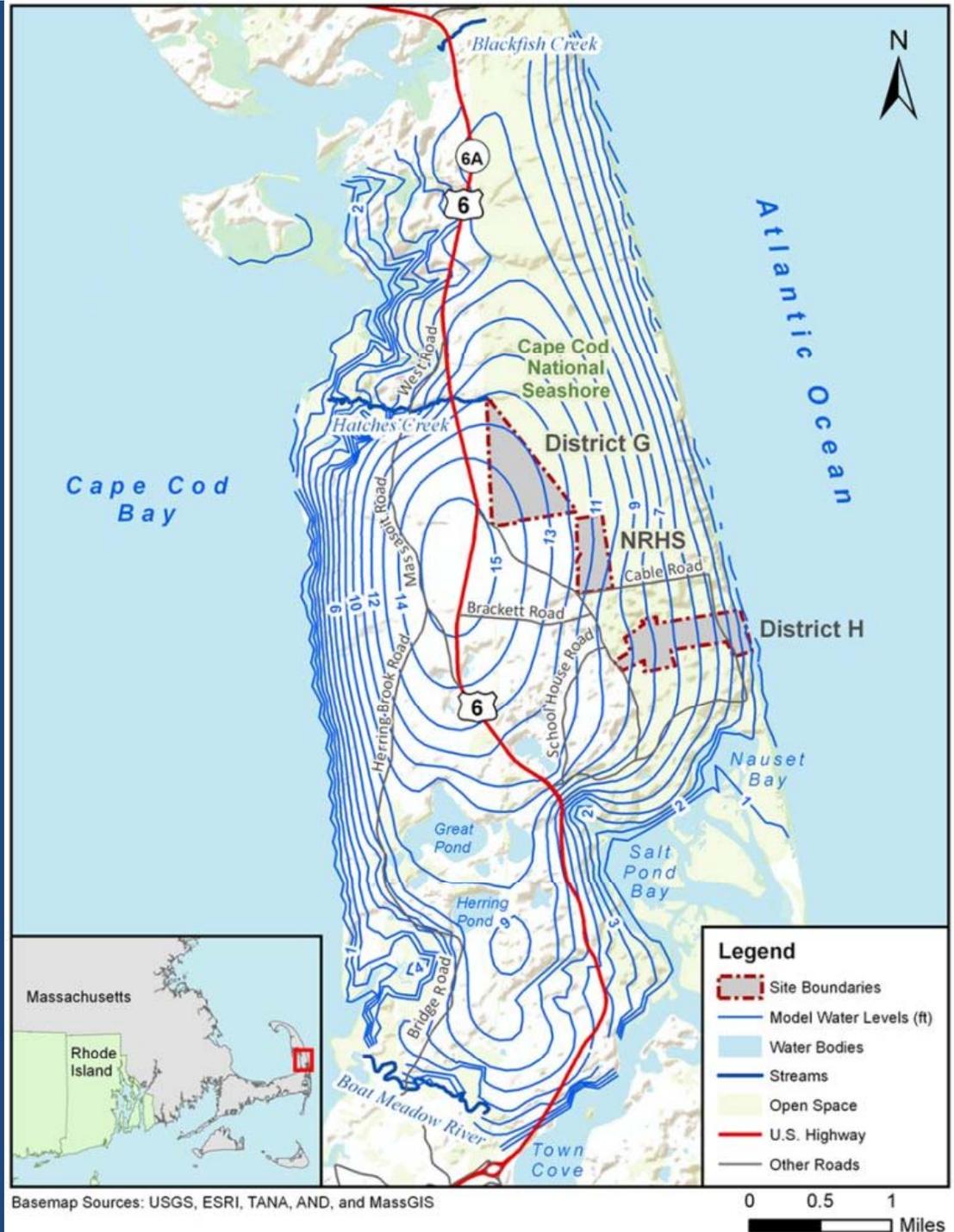
District G – 0.995 MGD

District H – 1.30 MGD



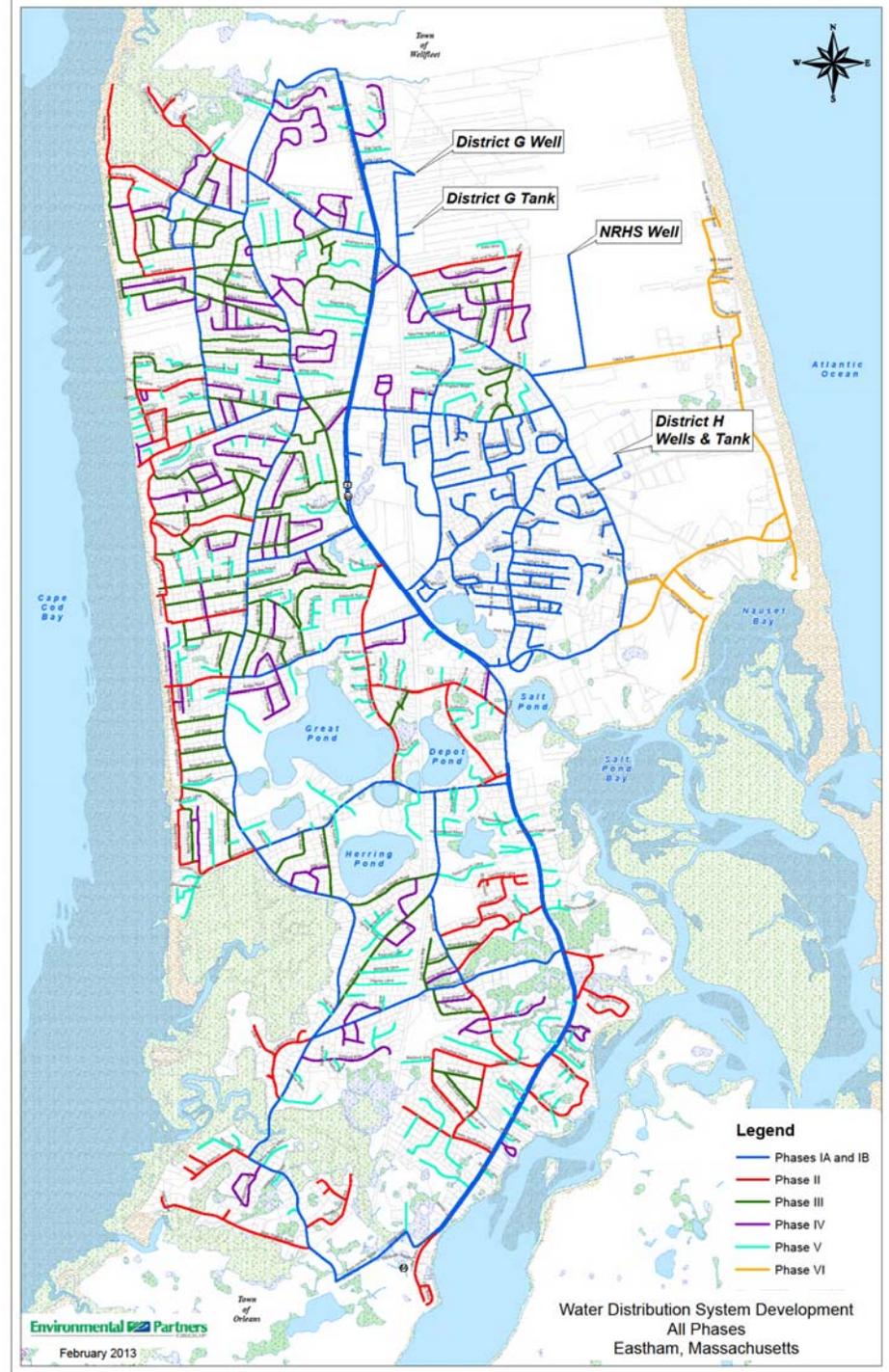
Nauset Lens Groundwater Model

- Aquifer is a bubble
- Supplies are on less developed side of Town
- Supplies are on undeveloped land within or next to CCNS



Town-Wide Water System

Six phases of construction



Phase 1

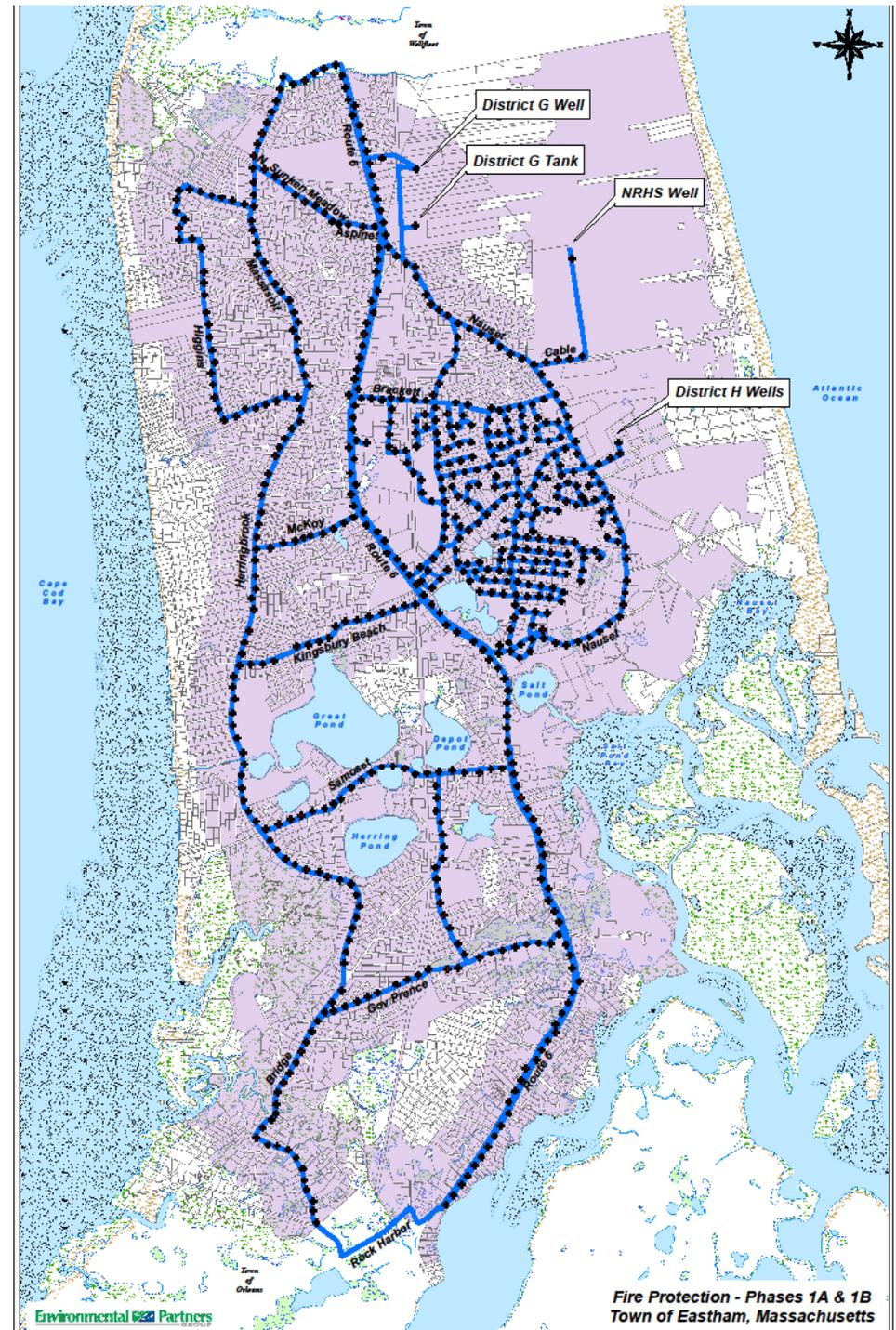
System backbone of transmission mains:

- Area southeast of landfill
- Wellfields (3)
- Storage Tank
- 2,056 Connections



Phase 1 Fire Protection

- Fire protection 1000' radius from mains
- Lower ISO rating
- Phase 1 gives fire protection to 79% of all lots in Town (within two years of construction start)
- By Phase 2 – 90% fire protection for Town



System Construction

- Construction in six phases
 - Starting 2014 - two years each
 - Multiple crews
 - No construction on Rt. 6 during summer
- Area southeast of landfill is priority
- \$114.8 M construction cost
 - (includes inflation through construction)

Service Connections Program

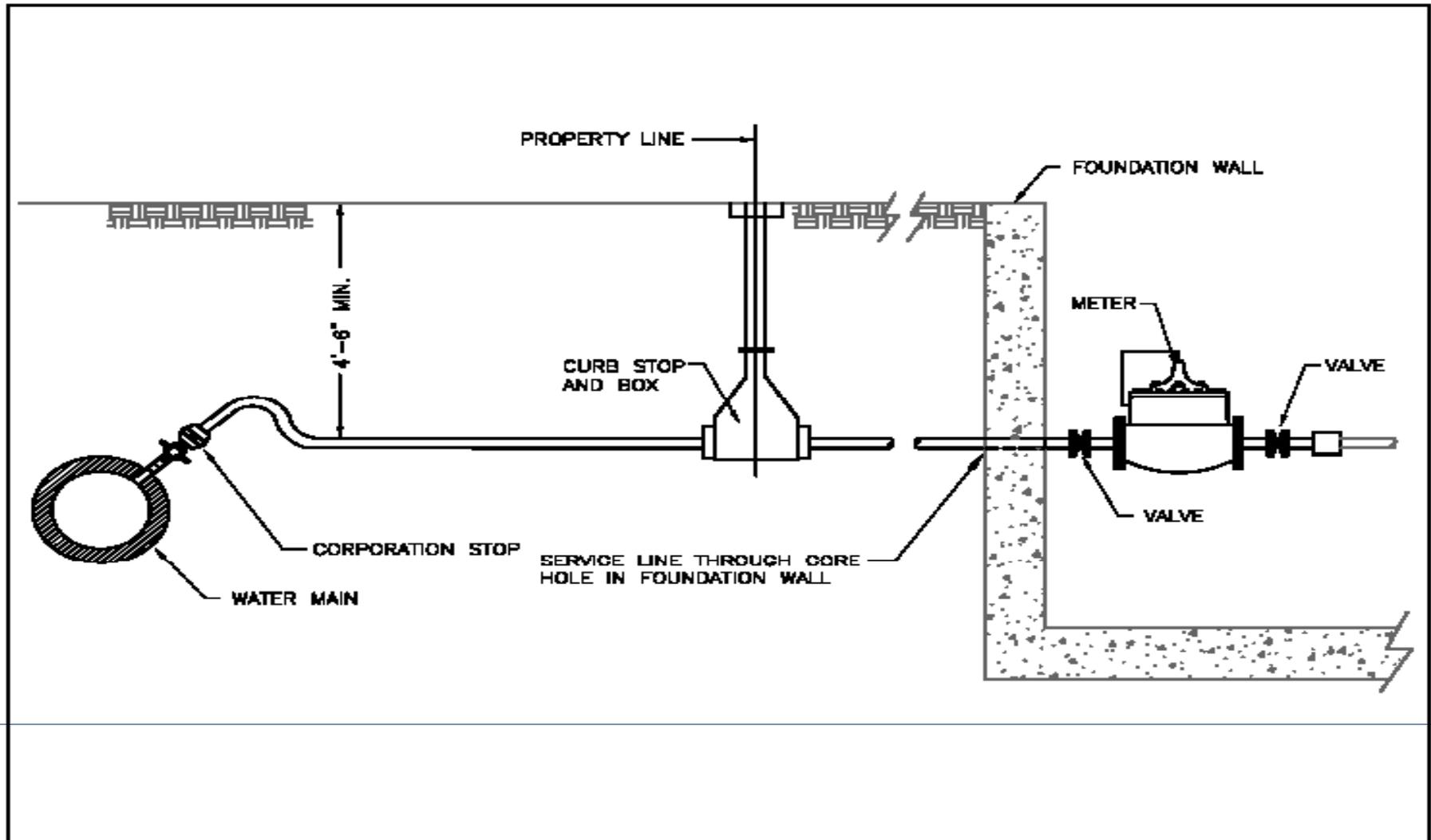
Phase	Year Connected	Connections	Cumulative	% of total
1	2016	2056	2056	31%
2	2018	1036	3092	47%
3	2020	1049	4141	62%
4	2022	915	5056	76%
5	2024	1316	6372	96%
6	2026	274	6646	100%

Water Main Installation



Homeowner Responsibilities

The Service Connection



Service Connections

Corporation Stop



Water Meter



System Operations

- Privatized operation
- Company responsible for:
 - Operations
 - Administration
 - Billing
 - System repairs

Next Public Information Program

System Design and Installation
March 23 @ 10:00 am

Financing/Operations
March 26 and March 30, 2013

Full Story
April 13 and 27, 2013

Questions