



ACEC Fall 2022

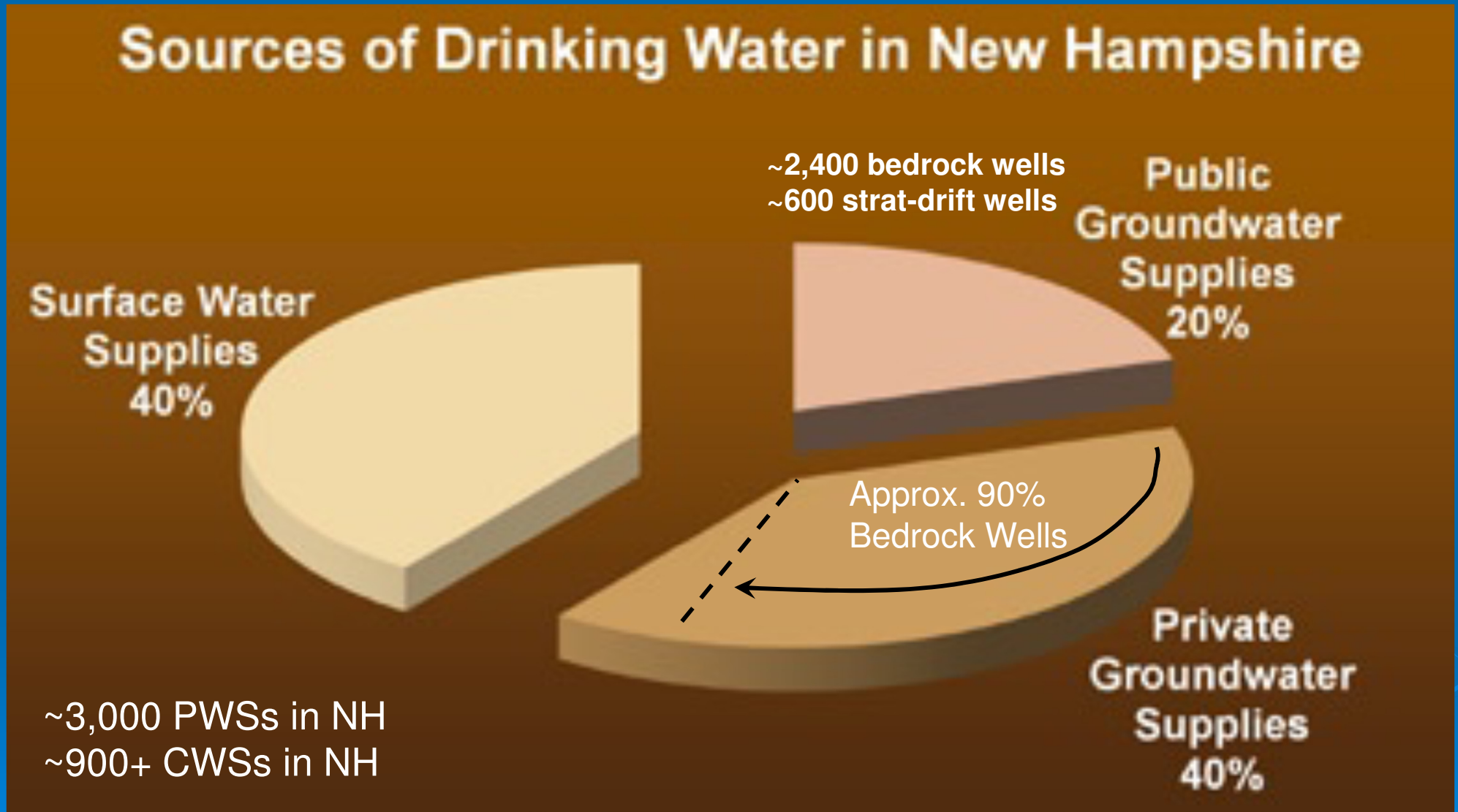
DWGB – Hydrology and Conservation Section

Stephen Roy, P.G.

NHDES, Drinking Water and Groundwater Bureau

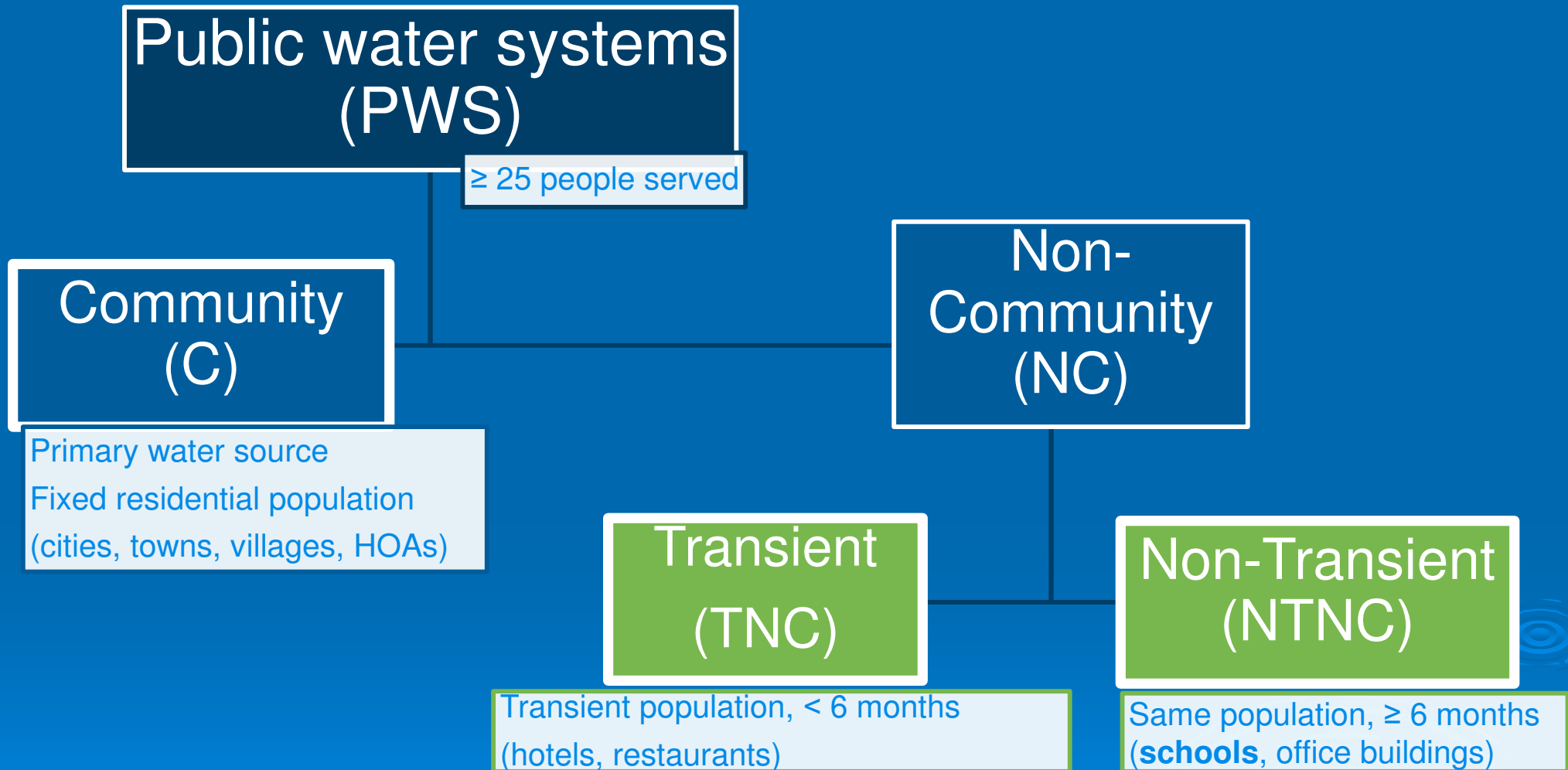
Stephen.Roy@des.nh.gov

Where Does NH get its Drinking Water?



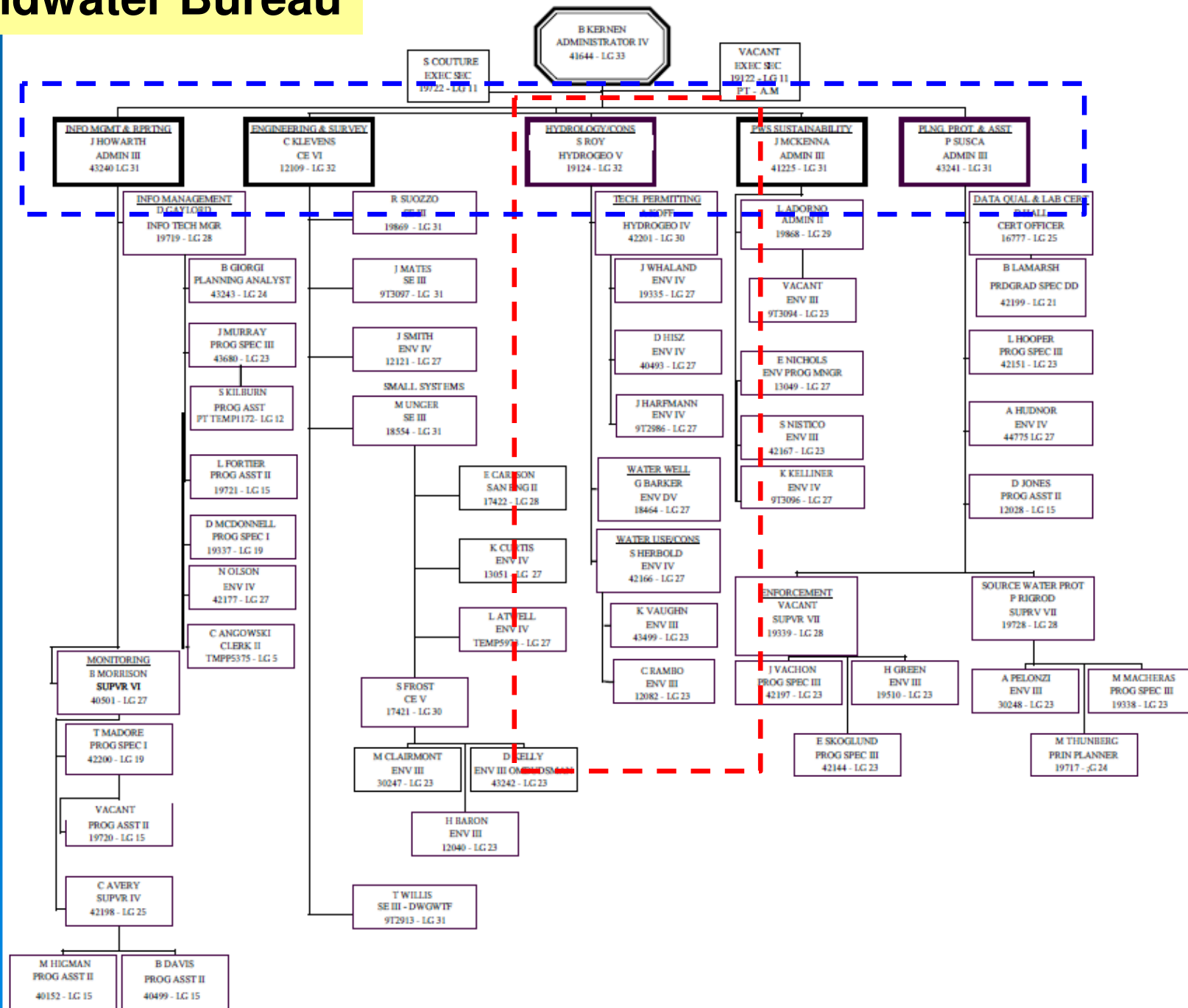
**** Project currently underway to revise this count.**

What is a Public Water System?



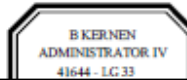
Drinking Water & Groundwater Bureau

DEPARTMENT OF ENVIRONMENTAL SERVICES WATER DIVISION DRINKING WATER AND GROUNDWATER BUREAU AUGUST 2022



Drinking Water & Groundwater Bureau

DEPARTMENT OF ENVIRONMENTAL SERVICES
WATER DIVISION
DRINKING WATER AND GROUNDWATER BUREAU
AUGUST 2022



VACANT

MISSION:

Primacy package in-place with federal government to implement the federal Safe Drinking Water Act (SDWA) within the State to regulate all Public Water Systems (PWS).

- Review, Test, Approve, Monitor all Sources of Supply
- Protection of Source Areas : Planning, Educ, Outreach, Funding etc.
- Eng. Design Review and Const Approval of all water system infrastructure : Water Mains, Water Tanks, Pumphouses, Treatment Facilities, etc.
- Ongoing PWS inspections and surveys
- Collecting, recording and reporting all chemical compliance data for all PWS to federal SDWIS program
- Enforcement of all design, operation, reporting, chem. compliance criteria for regulated PWS
- Multi-program Loan/Grant Funding awarding, distribution and tracking
- Implement the Underground Injection Control (UIC) for groundwater discharges to USDW (underground source of drinking water)
- *Administer the statewide Water Use Registration reporting program
- *Administer the statewide Water Conservation program
- *Administer the state's Water Well Board and programs
- *Administer the NH Lab Accreditation program

Drinking Water & Groundwater Bureau

SECTIONS:

- **Information Management and Reporting** – *Jackie Howarth*
 - Chemical monitoring data receipt-review-response, compliance tracking, database management, PWS ops and PTO mgt, Consumer-Conf reporting
- **Engineering & Survey** – *Cynthia Klevens*
 - PWS engineering design reviews, water system surveys, water system operator training/licensing, capacity tracking, treatment ops tracking
- **PWS Sustainability** – *Johnna McKenna*
 - Capacity development, asset management and assistance, FUNDING [SRF, Homeland Sec, Stimulus, ARPA, BIL, WIN, LSL,....]
- **Planning, Protection and Assistance** – *Vacant*
 - HAB tracking, Source water protection area educ/outreach, BMP inspection training, land conservation grants, compliance enforcement, admin rules, NELAP lab accreditation, private well coordinator/HHS, WET (Water Education for Teachers) program
- **Hydrology and Conservation** – *yours truly*
 - next page

Drinking Water & Groundwater Bureau

Hydrology and Conservation Section

- **Well Siting Group :** *Andrew Koff, Dave Hisz*
 - Large/Small Community well siting
 - Large groundwater withdrawal permitting
 - Bottled water source permitting
- **Groundwater Discharge Program:** *Jon Whaland, Jennifer Harfmann*
 - Federal UIC program implementation, regulation, tracking, reporting
 - Groundwater discharge permit program - ASR
 - PFAS discharge tracking and reduction program
- **Water Use Registration and Reporting –** *Stacey Herbold, Christina Rambo*
 - Statewide water use reg. and reporting tracking
 - Drought response plan team
 - Leak detection grant program admin
- **Water Conservation (Efficiency) Program –** *Stacey Herbold, Kelsey Vaughn*
 - Water conservation plan program
 - Drought response plan team
 - Water audit grant program admin
- **NH Water Well Board / Water Well Program –** *Greg Barker*
 - NH Water Well Board administration
 - State driller and pump installer licensing program
 - Well construction record database management

Well Siting Group

- Large and Small Community Well Siting
- Large Groundwater Withdrawal Permitting
- Bottled Water Source Permitting

Andrew Koff

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Dave Hisz

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What Type of Groundwater Withdrawals Are Regulated By NH State Law?

Large production wells for community water systems (>40 gpm)

Small production wells for community water systems (<40 gpm)

Wells that are sources of water for use by the public, but are not community wells.

Bottled water source wells

- 5) All withdrawals from wells installed after July 1998 that exceed 57,600 gallons over any 24-hour period (40 gpm) - *Large Groundwater Withdrawal*

What Type of Groundwater Withdrawals Are Not Regulated By NH State Law?

Non-potable uses <57,600 gallons/day

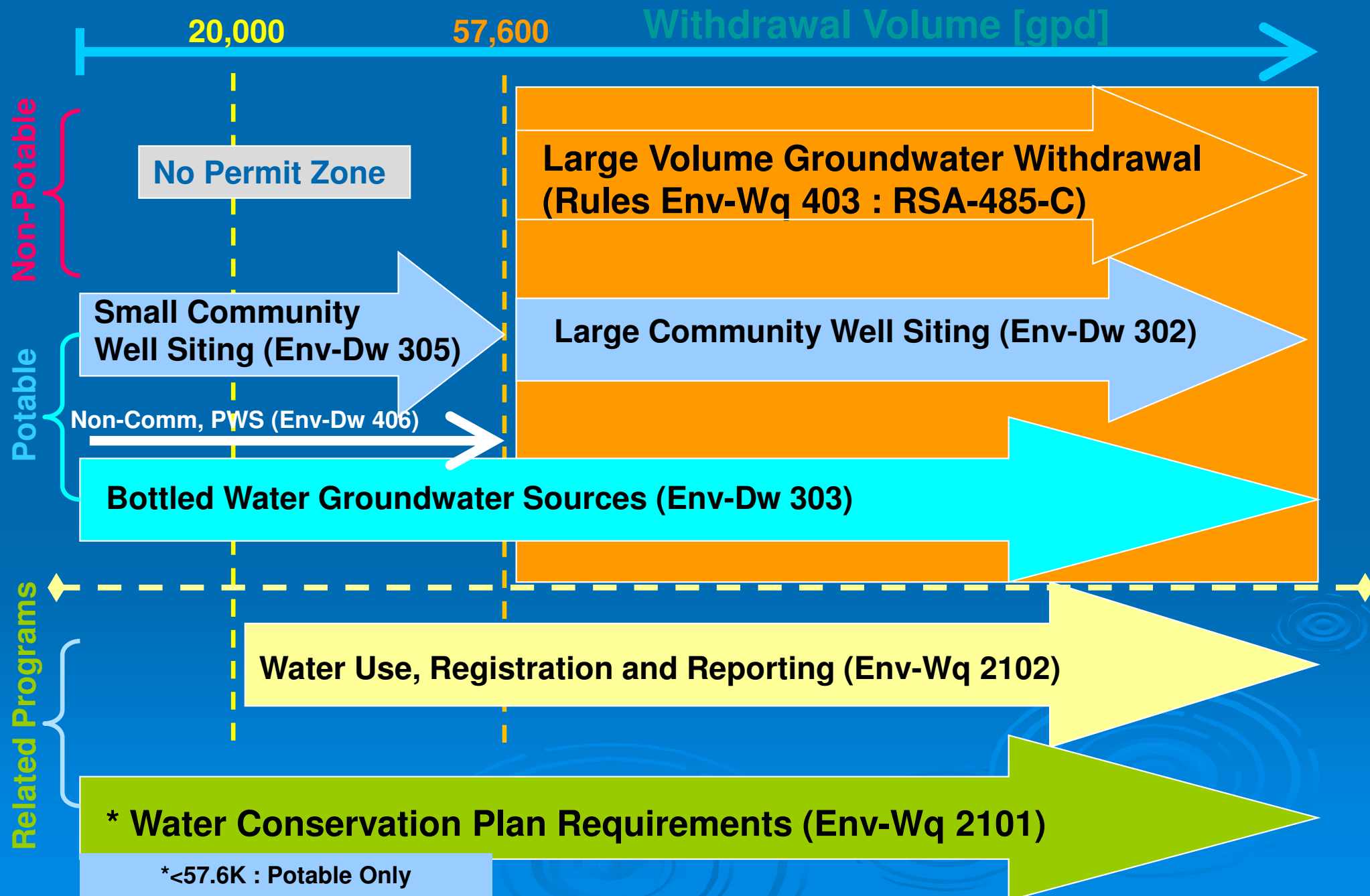
All withdrawals established prior to August 1998 for non-potable uses (large & small)

Domestic wells <57,600 gallons/day
(virtually all domestic wells)

Groundwater Withdrawal Permitting Programs

- Large/Small Community Well Siting and testing Program (Env-Dw 302/305)
- Non-Community Public Water Supply program (Env-Dw 406)
- Groundwater Source of Bottled Water program (Env-Dw 303)
- Large Groundwater Withdrawal Permitting program (Env-Wq 403/RSA 485-C:21)

NH Well Approval Regulations



Groundwater Withdrawal Program

Community Well Siting Rules

➤ Large Community Well Siting (Env-Dw 302)

- CWS wells **> 40 gpm**
- Primarily sources for municipal CWS
- Target Production Volume based on:
 - Large System Design Rules (10 States Stds) [Env-Dw 404]
 - Planned system expansions/infrastructure “hardening”
 - 20-year(+) growth model

➤ Small Community Well Siting (Env-Dw 305)

- CWS wells **< 40 gpm**
- Primarily sources for HOA/PUC-owned CWS
- Target Production Volume based on:
 - Small System Design Rules [Env-Dw 405]
 - SFH:150 gpd / bedroom; EC Fac:100 gpd / bedroom

Large Community Well Siting and Large Groundwater Withdrawal testing - PROCESS

Preliminary Application (report):

- a) Site History, Ownership, protective radius;
- b) Hydrogeologic Conceptual Model (HCM) development;
- c) Assess likely capture zone/influence area;
- d) Inventory contaminant sources;
- d) Develop WHPA, identify water users/resources;
- e) Design/propose a pumping test / monitoring network.

Pumping test with monitoring as approved

Final Report:

- a) Presents all data collected and assess impacts;
- b) Revises HCM based on pumping test observations;
- c) Revises WHPA and proposes WHPP;

****All reports are required to be stamped by PG/PE.
Local hearing opportunity after Prelim App and Final Report**

Large Community Well / Groundwater Withdrawal - PUMPING TEST

➤ Includes 3 phases

- Ambient period (pre-test) : 7-days
- Constant rate pumping period (<5% variability)
 - Gravel Well : 5-days pumping
 - Bedrock well : 7-days pumping
- Recovery period : return to 90% pre-test water levels

➤ Monitoring Network

- On/offsite production, monitoring wells and piezometers
- Staff gauges (as necessary)
- All private wells within 1,000 feet and representative private wells within 1,000 feet of projected influence area.

➤ Multiple Water Quality Rounds

Large Groundwater Withdrawals (RSA 485-C:21)

Statutory requirements relating to adverse impacts

V-c. In order to preserve the public trust, no large groundwater withdrawal shall cause an unmitigated impact as determined by the following:

- a) Private well impacts**
- b) Public well impacts**
- c) Commercial well impacts**
- d) Surface water (stream/river) impacts**
- e) Wetland impacts**
- f) Impacts caused by spreading groundwater contamination**
- g) Surface/groundwater discharge permit compliance impacts**
- h) Groundwater availability impacts**

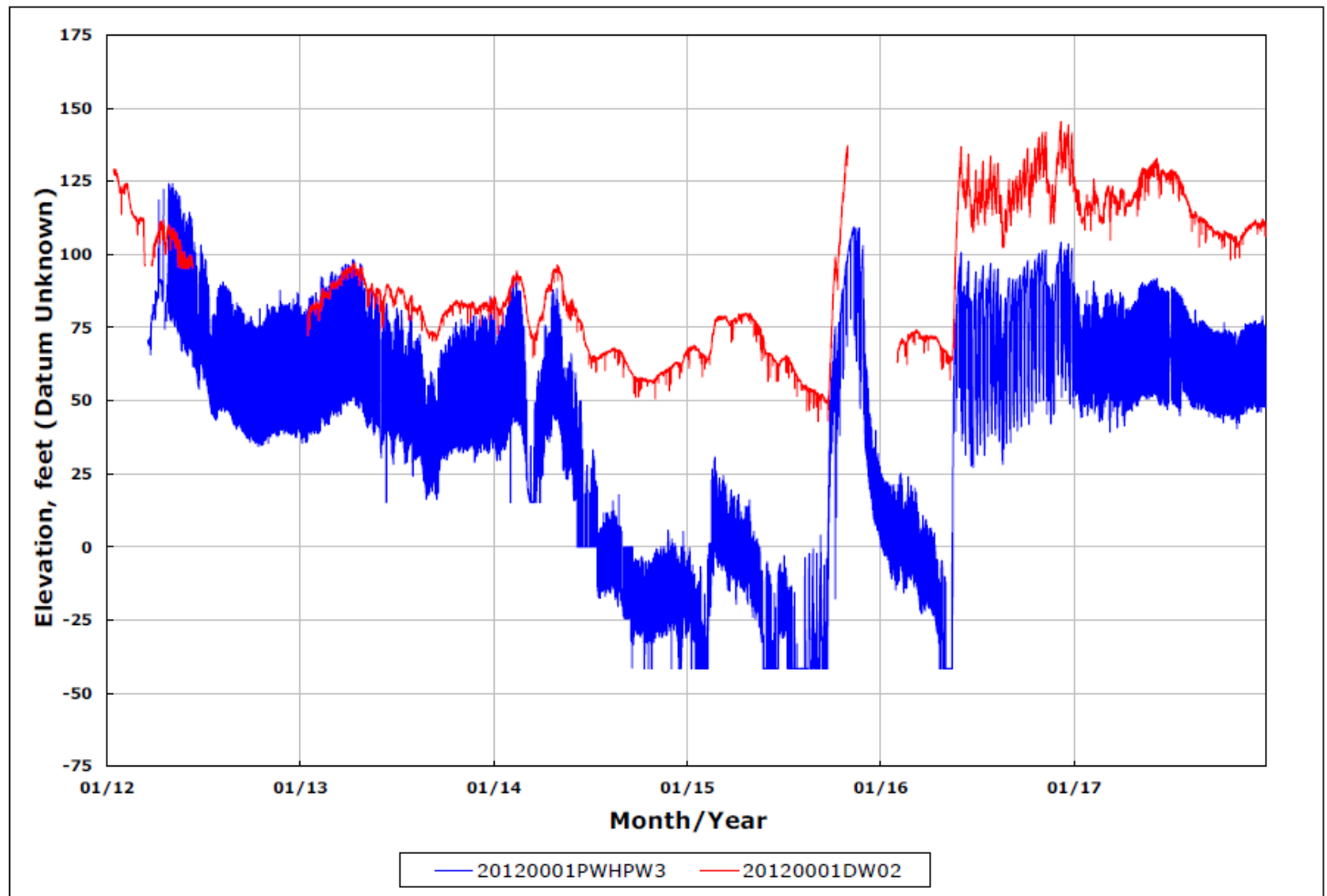
Large Groundwater Withdrawals Permits

- a) Issued for 10 years
- b) Contains Project Narrative describing activities and observations
- c) Contains NHDES' Decision Statement
- d) Contains monitoring conditions related to impacts:
 - a) Private well water levels
 - b) Surface water flows
 - c) Wetland plot conditions
 - d) Private well and/or monitoring well water quality sampling
- e) Contains drought status use restrictions

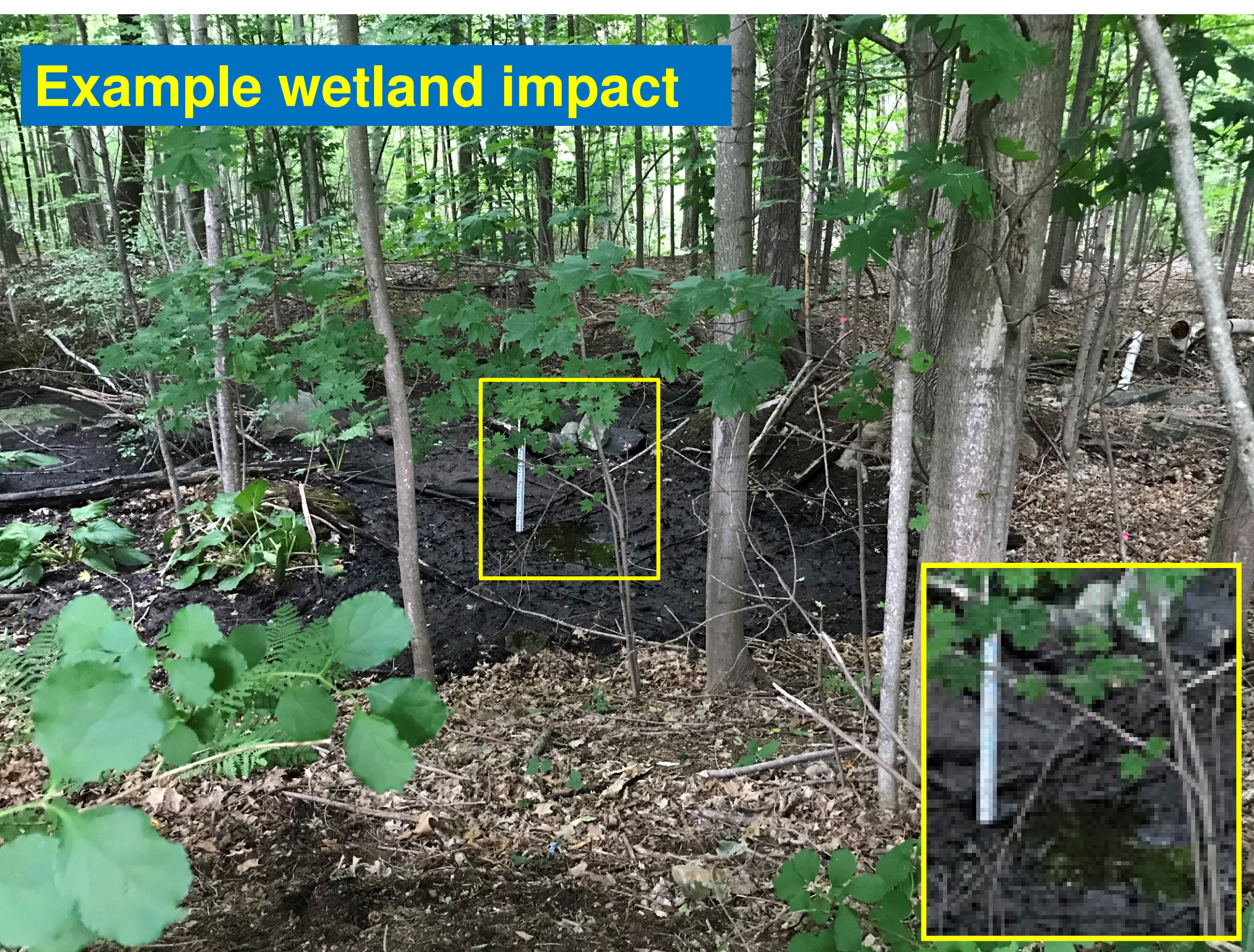
Example Private Well impact

Large Groundwater Withdrawal Permit - Groundwater Level Monitoring

Town	Epping
Permittee	Town of Epping Water and Sewer Department
Permit Number	LGWP-2012-0001
Station ID	20120001DW02
Station Name	DRINKING WELL HOUSE #2
Approximate Distance from Permitted LGW Well(s)	670 feet
Local Aquifer	Bedrock
Well Depth	180 feet
Top of Casing Elevation	195 feet (Elevation Datum Unknown)

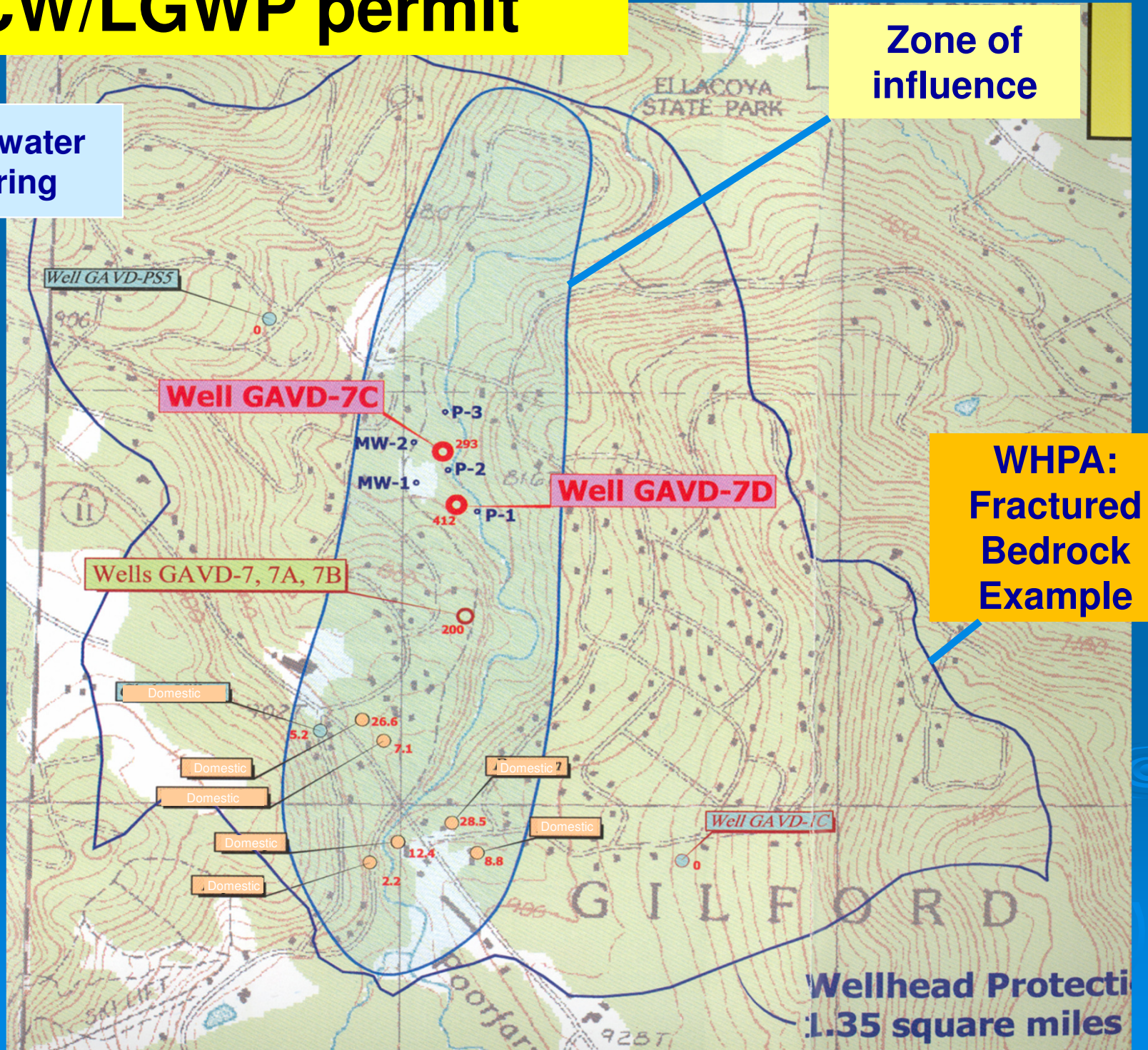


Example wetland impact



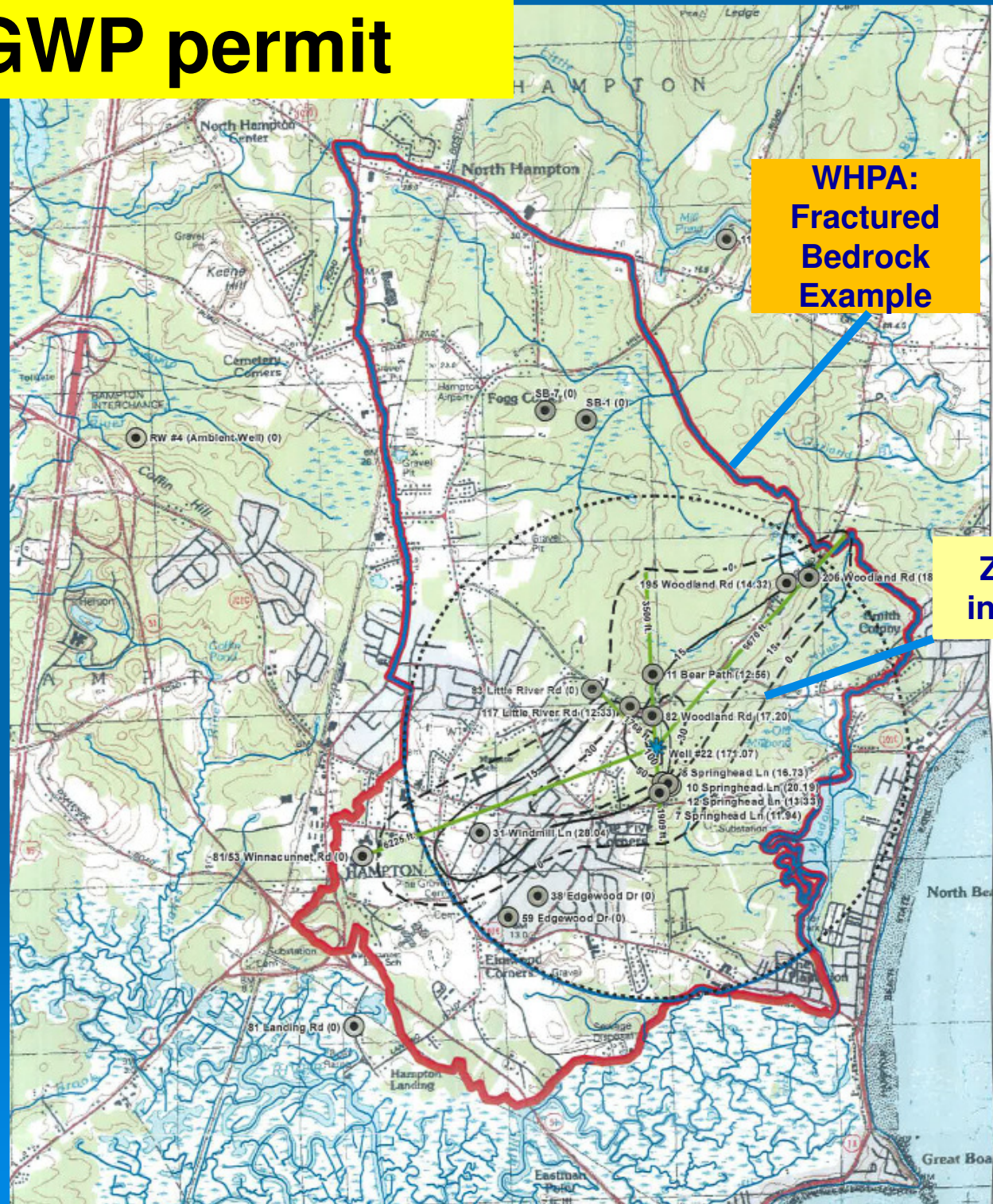
Final LCW/LGWP permit

- **Private Well water level monitoring**



Final LCW/LGWP permit

- Private Well water level monitoring
- Private well water quality monitoring
- Wetland plot monitoring
- Seawater intrusion monitoring



Small Community Well Siting - PROCESS

Preliminary Application (report):

- a) Site History, Ownership, protective radius;
- b) Inventory contaminant sources;
- c) Develop WHPA;
- d) Design a pumping test / monitoring network.

Pumping test with monitoring as approved

Final Report:

- a) Presents all data collected;
- b) Projects drawdown in production well

**** All work to be completed by PG/PE, certified WSO, licensed driller/pump installer, experienced professional**

Small Community Well Siting - PUMPING TEST

➤ Testing parameters

- Constant rate pumping period (<5% variability)
- Pumping Test duration: 72-hours
- Recovery period : return to 90% pre-test water levels

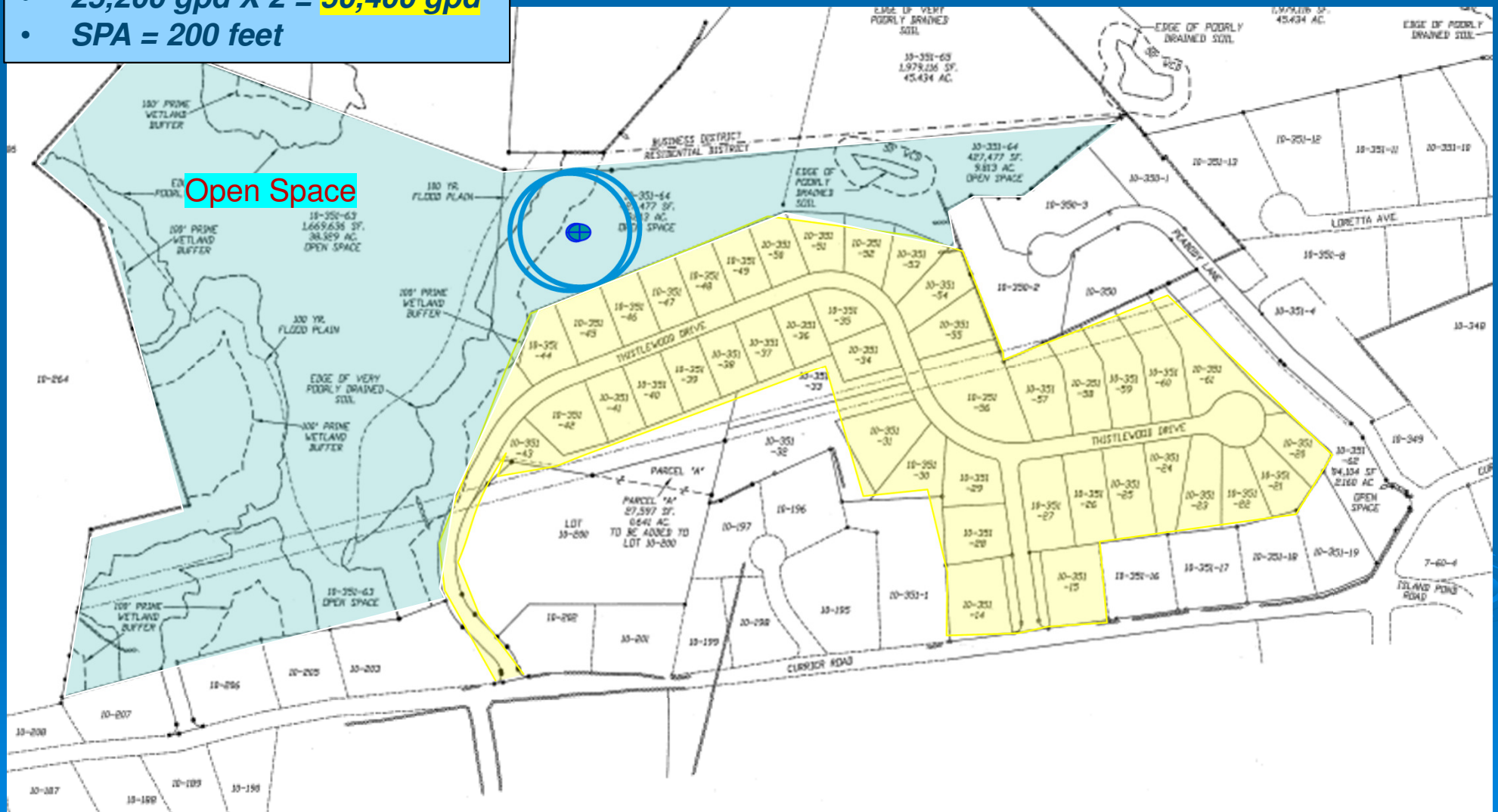
➤ Monitoring Network

- Production well
- All private wells within 1,000 feet

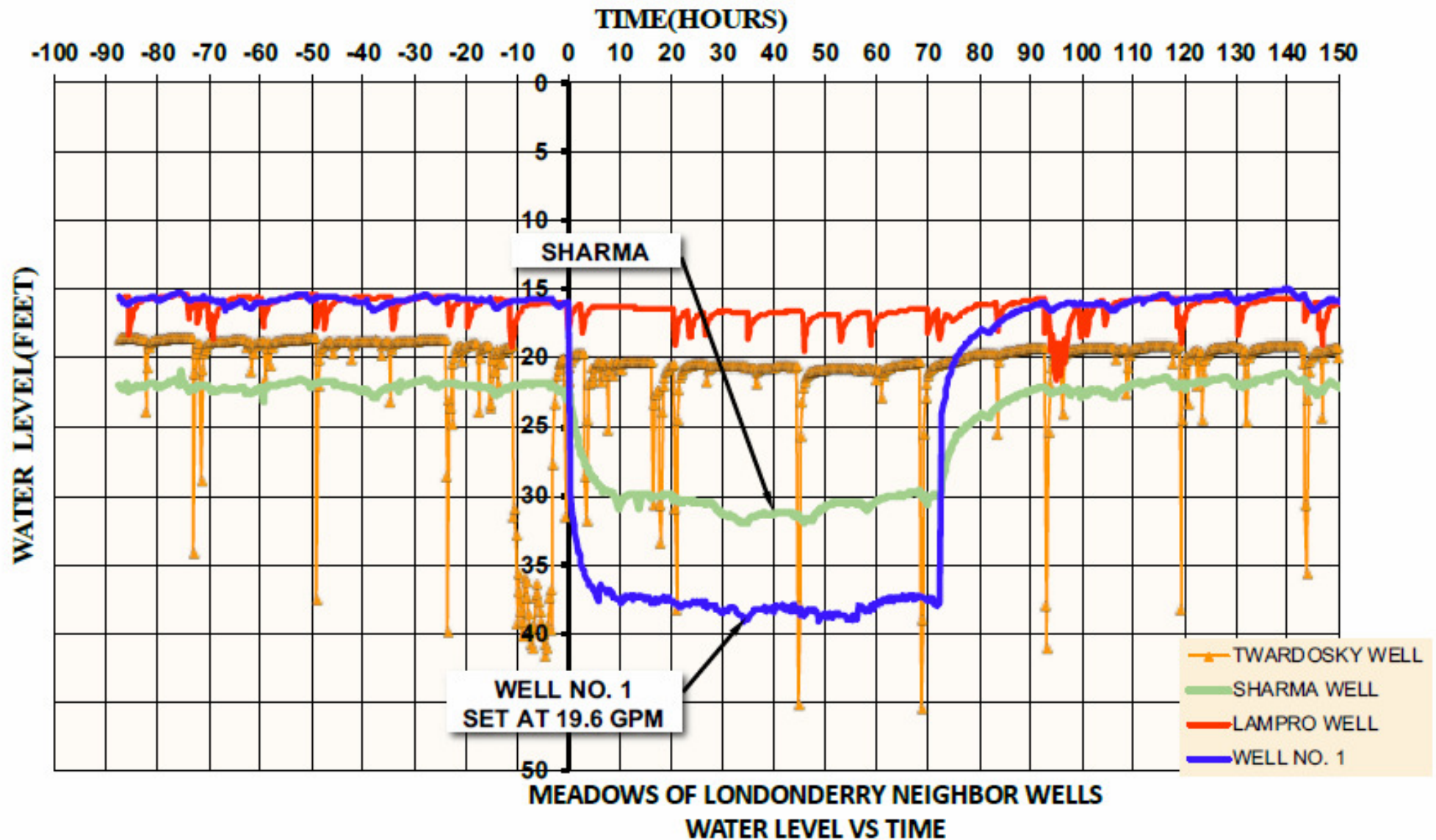
➤ Water Quality Round at end of test

- 42 X 4 BR units = 168 BR
- 150 gpd per BR = 25,200 gpd
- 25,200 gpd X 2 = 50,400 gpd
- SPA = 200 feet

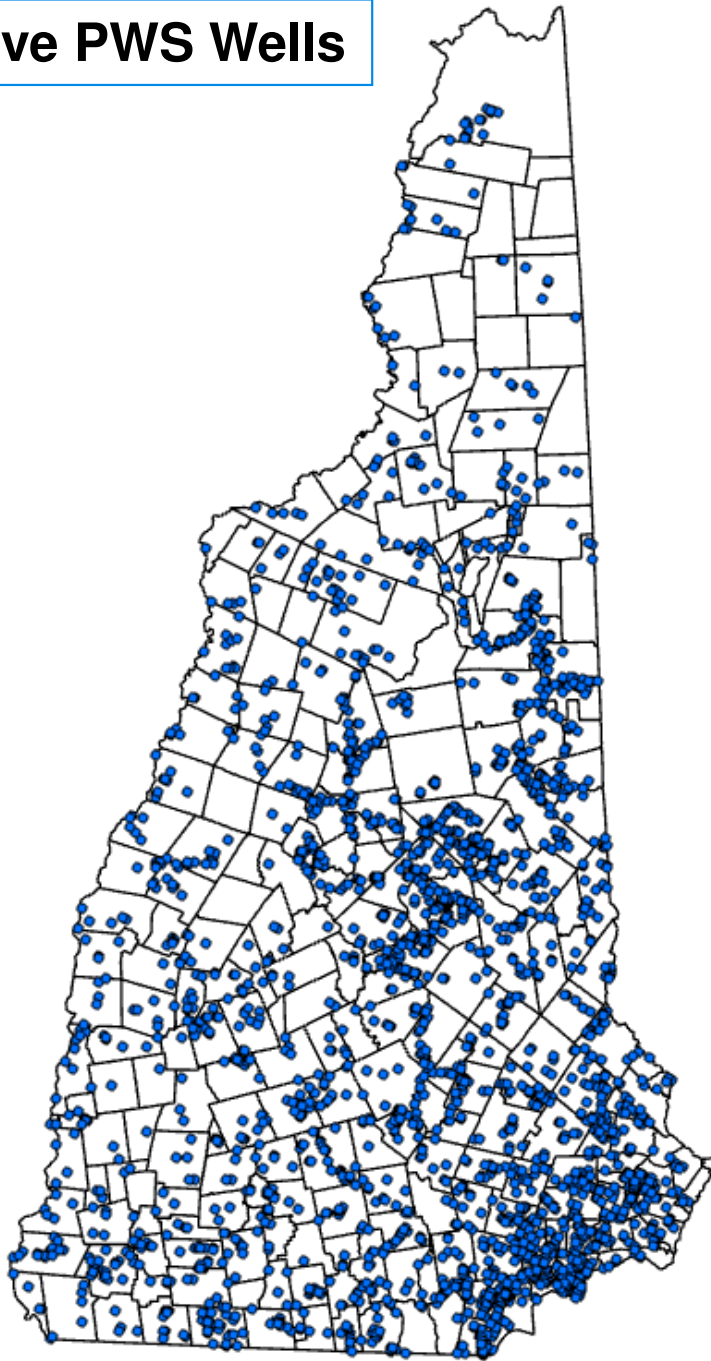
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Water Level Monitoring During a Small CWS Well Pumping Test



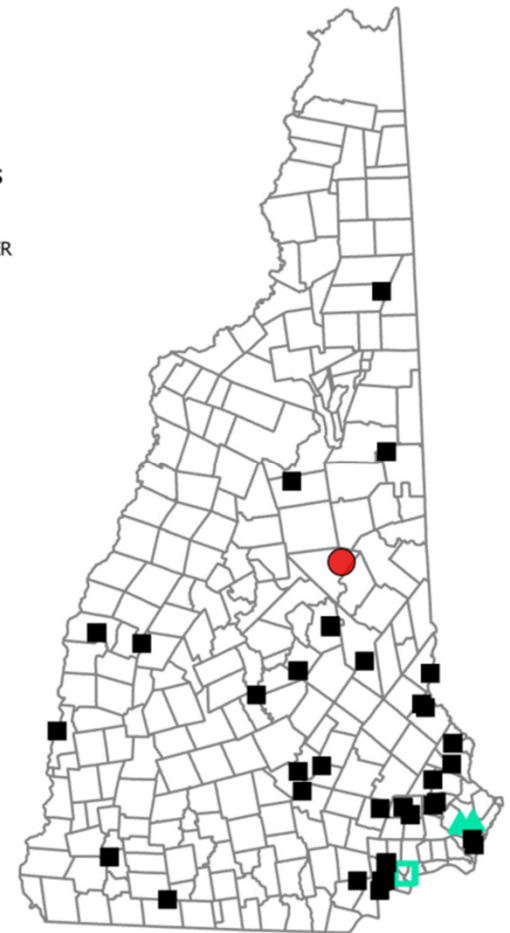
Active PWS Wells



~3,000 Wells
~900 CWS wells
~600 CWS wells DES approved

Active LGWP Sites in NH

- BOTTLED/BULK WATER
- COMMUNITY WATER SUPPLY
- ▲ GOLF COURSE IRRIGATION
- GOLF COURSE IRRIGATION/COMMUNITY WATER



Groundwater Discharge Group

- Underground Injection Control (UIC) Program
- Groundwater Discharge Permitting Program
- PFAS Discharge Reduction Program

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Federal UIC Program

- **Review, registration, tracking and reporting of injection wells that fall under federal UIC defin. to protect USDW** (underground source of drinking water)

Class I – Wells injecting haz and non-haz waste into deep rock formations

Class II – Wells injecting fluids for oil and NG production

Class III – Wells injecting fluids for dissolution extraction mining ops

Class IV – Wells injecting haz or radioactive fluids in shallow subsurface

Class V – Wells injecting non-haz fluids in shallow subsurface

Class VI – Wells injecting CO₂ for carbon sequestration in deep rock formations

Federal UIC Program

➤ Only have Class V wells in NH

- Definition includes the injection of fluids into the subsurface via an underground system of piping, not just a vertical drilled well

- Subgrade stormwater infiltration systems
- Dry wells associated with WS or WW treatment plants
- Geothermal wells
- Septic systems related to small businesses that do not discharge regulated contaminants (e.g. salons, vet clinics)

- 160 to 240 Class V wells inventoried and reported each year to EPA UIC program
- Annual funding for the program closely tied to reporting and inventory

NH Groundwater Discharge Permit Rules

- Discharge to the ground or groundwater of *non-domestic wastewater* or *domestic wastewater at volumes >20,000 GPD (that receives some sort of treatment)*
- Distribution, discharge and (re)use of reclaimed wastewater
- Siting, testing, operation and monitoring of Aquifer Storage and Recovery (ASR) projects

Groundwater Discharge Permit Standards

Permit Requirements

- Hydraulic Study
 - Infiltration + loading tests across proposed site = mounding model
- Hydrogeologic Study – Site investigation
 - Hydrogeologic conceptual model
 - Groundwater Flow model
 - Bench/column studies
 - Chemical transport (nitrate) study
- Studies assist in setting effluent quality standards
- Establishes long term monitoring program

AGQS must be met at the discharge zone boundary

Groundwater Discharge Permit Sites

Discharge Methods

- Rapid Infiltration Basins
- Slow Rate Spray irrigation
- E-Snow Spray
- Overland Flow/Drip Irrigation
- Subsurface Weep Line
- Large Septic Systems

Groundwater Discharge Permits

Permit Conditions include:

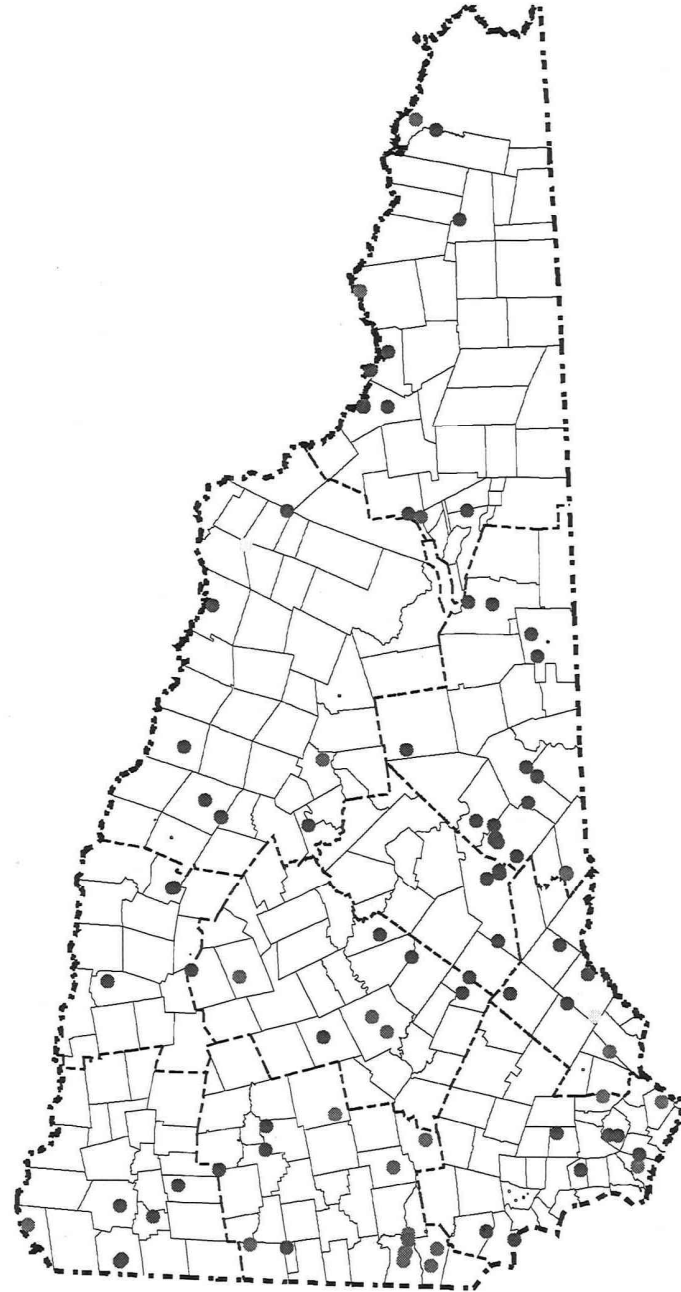
- ☐ Groundwater Monitoring Network
- ☐ Groundwater quality monitoring parameters, frequency and reporting
- ☐ Effluent treatment requirements and standards
- ☐ Effluent sampling requirements
- ☐ WW operator training requirements
- ☐ Reporting requirements
- ☐ Exceedance response plans
- ☐

Groundwater Permit Sites

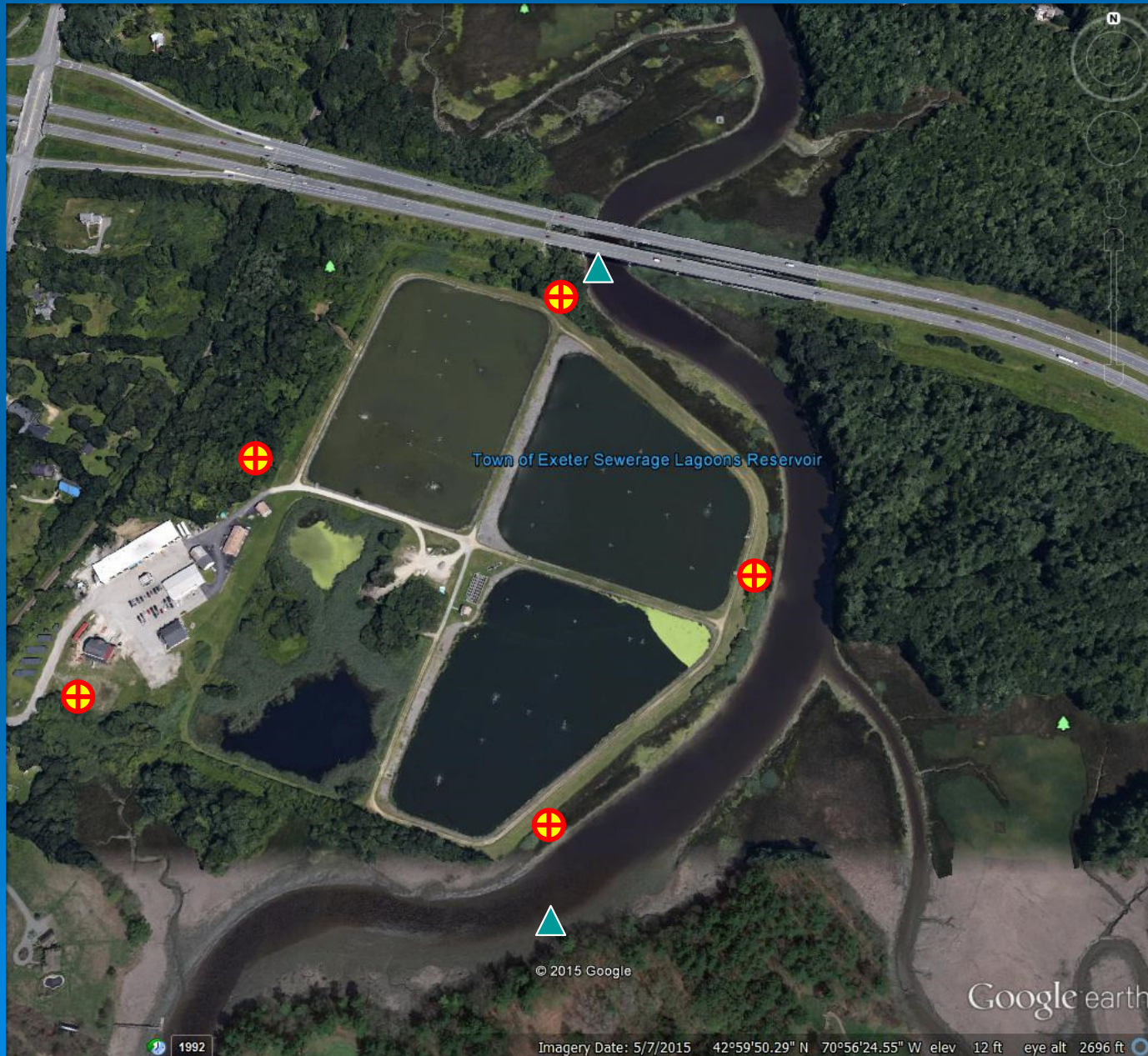
111 sites

- 39 Unlined Lagoon(s) sites
- 20 Rapid Infiltration Sites
- 9 Spray Irrigation sites
- 8 Septage Lagoons
- 3 Overland Flow / Drip Irr
- 2 Sludge Monofills
- 2 Aquifer Recharge

- 28 Large Septic & Industrial Septic Systems



Unlined Wastewater Lagoons



Rapid Infiltration Basins



Large Septic Systems

Primarily Associated with Industrial or Long-Term Health Care Facilities



GeoFlo –
Weep Line



E-Snow



Rapid Infil Basins (RIBs)



Spray
Irrigation





Current Wastewater Reuse Sites.

- Four Golf Courses
- Two Power Plants
- One Quarry: Crushed Aggregate Wash
- One Commercial Agriculture Crop
- One Coastal Island Community
- Two Ski Resorts (inactive)

**** Currently, none are for indirect potable reuse**

New Hampshire Department of Environmental Services

Land Treatment and Disposal of Reclaimed Wastewater: Guidance for Groundwater Discharge Permitting

More stringent standards
as Human Exposure
potential increases.

Table 4.5: Reclaimed Wastewater Treatment Requirements and Target Effluent Standards

Disposal Methods ⁽¹⁾	Minimum Treatment Required	Biological Oxygen Demand (BOD₅)	Total Suspended Solids (TSS)	Nitrate (NO₃) ⁽²⁾	Disinfection ⁽³⁾ (Fecal Coliform)	Turbidity
Rapid Infiltration Basing (RIB)	Secondary	≤30 mg/L	≤ 30 mg/L	Site Specific	Not Required	No Limit Set
Slow Rate Spray Irrigation (SR)	Secondary	≤30 mg/L	≤ 30 mg/L	Site Specific	Not Required	No Limit Set
Drip Irrigation (SR)	Primary with Filtration ⁽⁴⁾	≤ 30 mg/L	≤ 30 mg/L	Site Specific	Not Required ⁽⁵⁾	No Limit Set
Golf Course & Landscape Application (SR)	Secondary with Settling or Filtration	≤ 10 mg/L	≤ 5 mg/L	Site Specific	No detect - 7 day median (1 day max 14 cts/100)	5 NTU (or meet TSS Limit of 5 mg/L)
E-Snow for storage and disposal (SR)	Secondary	≤ 30 mg/L	≤ 30 mg/L	Site specific	Not required	No limit Set
E-Snow for Ski Slopes and Recreational Areas (SR)	Tertiary with Filtration	≤ 10 mg/L	≤ 5 mg/L	Surface Water Quality Dependant ⁽⁶⁾	No detect -7 day median (1 day max 14 cts/100) 4 log viral removal	2 NTU (or meet TSS Limit of 5 mg/L)

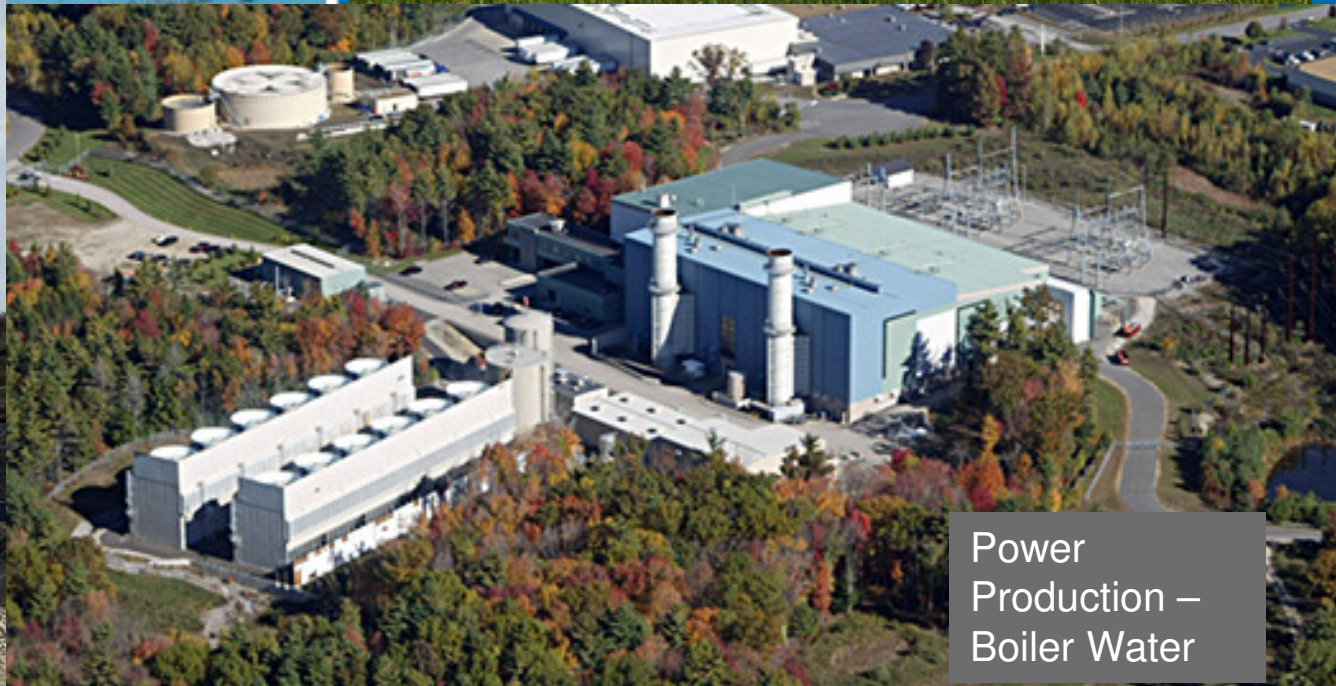
E-Snow



Agric - Irrigation



Crushed
Aggregate Wash



Power
Production –
Boiler Water



Atkinson Country Club

- Multi condo complexes and club
- Golf Course WW Reuse

1. Per-condo settling with trickle filter units
2. Common settling with CC
3. Constructed Wetland
4. Redistributed unlined/lined lagoon



Mount Washington Hotel-Golf Course WW Reuse

- Augmented SAT with groundwater mound 'harvesting'





PFAS Discharge Reduction Program

--- Ongoing Study Sites -----

- Commercial surface cleaners
- Floor stripping – Carpet Cleaning
- Salons
- Vet Clinics
- Healthcare Clinics
- Boat Wash - Marinas

Water Use and Conservation Group

- Water Use Registration and Reporting Program
- Water Conservation Program
- Leak Detection Grant Program
- Water Audit Grant Program
- Drought Response plan implementation

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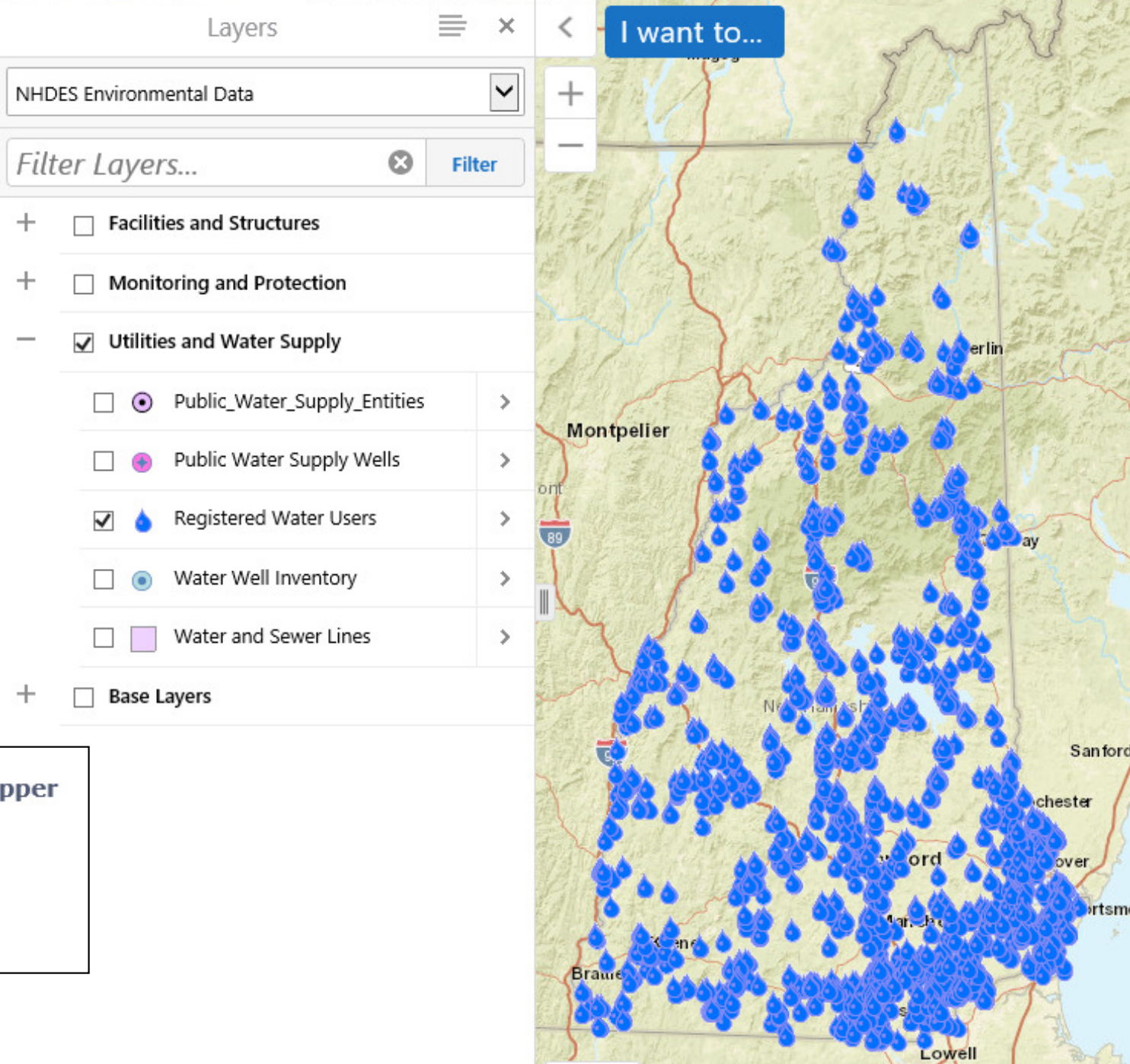
Christina Rambo

Christina.M.Rambo@des.nh.gov

Water Use Registration and Reporting Requirements

- Any entity that withdraws, discharges or transfers >140,000 gallons per week or >600,000 gallon per month (20,000 gpd for 7 days)
- Measurement method has to be at least 10% accurate
- Quarterly or yearly reporting of monthly withdrawals, transfers, and discharges
- Report on DES OneStop
- Potential bad data flagged for staff review
- Compliance

New Hampshire Department of Environmental Services



All data Water Use data entered and accessible through OneStop

- >800 WU data providers at over 2,810 WU points
- Quarterly Reporting for most
- Metered reporting for most
- Agriculture irrigators and some aggregate wash ops can record with different methods and on a different schedule

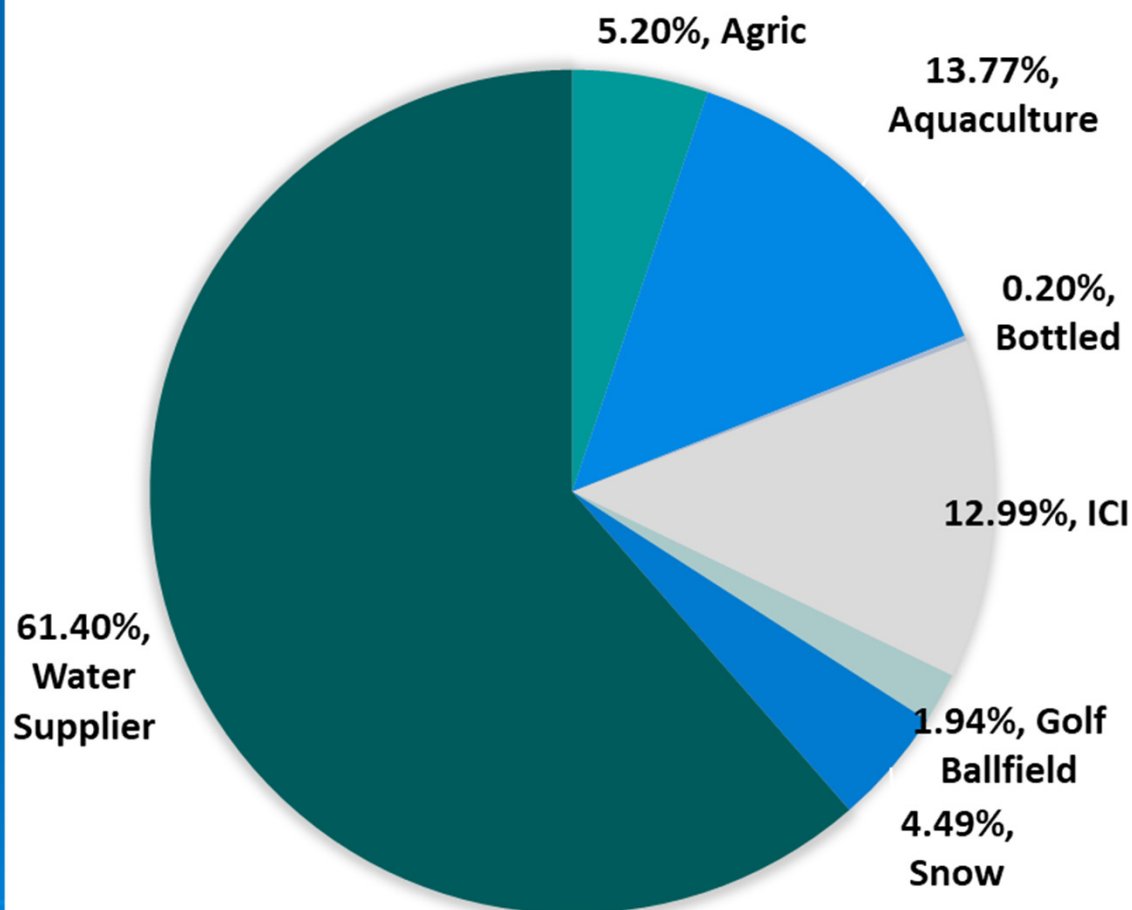
Start NHDES OneStop Data Mapper



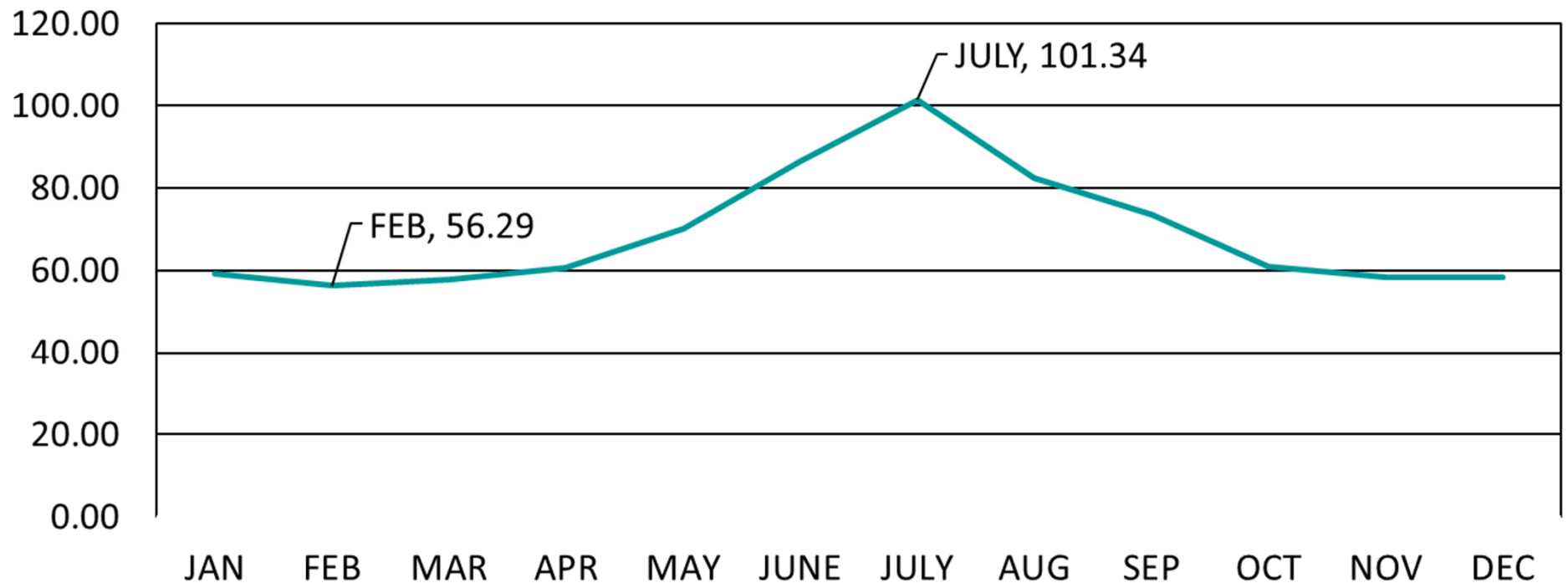
User Type	# of Users	Volume Mgal
Hydropower	88	15,223,540.37
Power Nuclear	1	222,486.29
Power Fossil	6	55,798.19
Public Supplier	296	32,272.23
Aquaculture	13	7,238.84
Industrial	70	3,681.98
Ag Field	20	2,702.77
Snowmaking	22	2,358.39
Mining	28	1,636.85
Institutional	48	1,134.13
Irrigator	93	1,017.26
Power Biomass	8	780.16
Power Geo	8	631.30
Commercial	21	375.42
Bottled Water	6	107.69
Forestry/Lumber	5	41.23
Ag Greenhouse	4	32.01
Bulk Hauler	2	9.54
Ag Livestock	1	1.06

Water Use by Sector

PERCENTAGE WATER USE PER YEAR

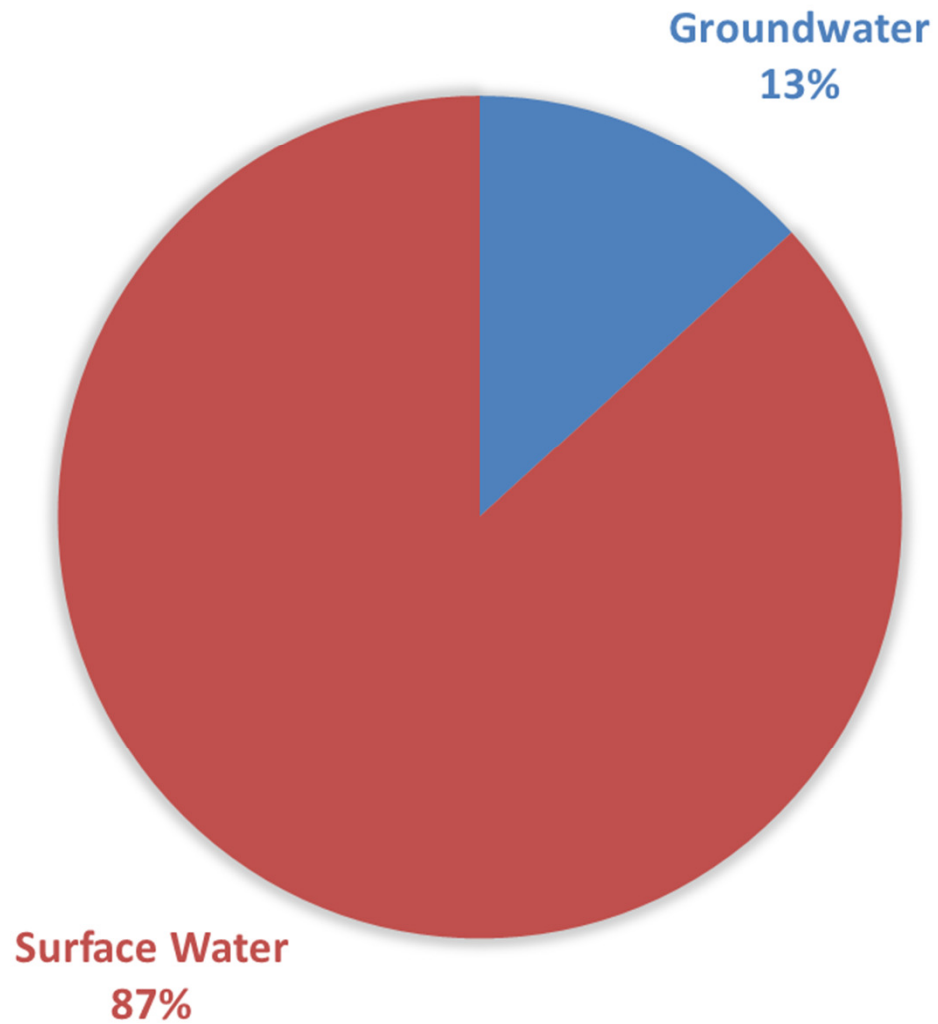


2018 Monthly Average Daily Pumped (MGAL) Top 10 Largest Water Systems in NH

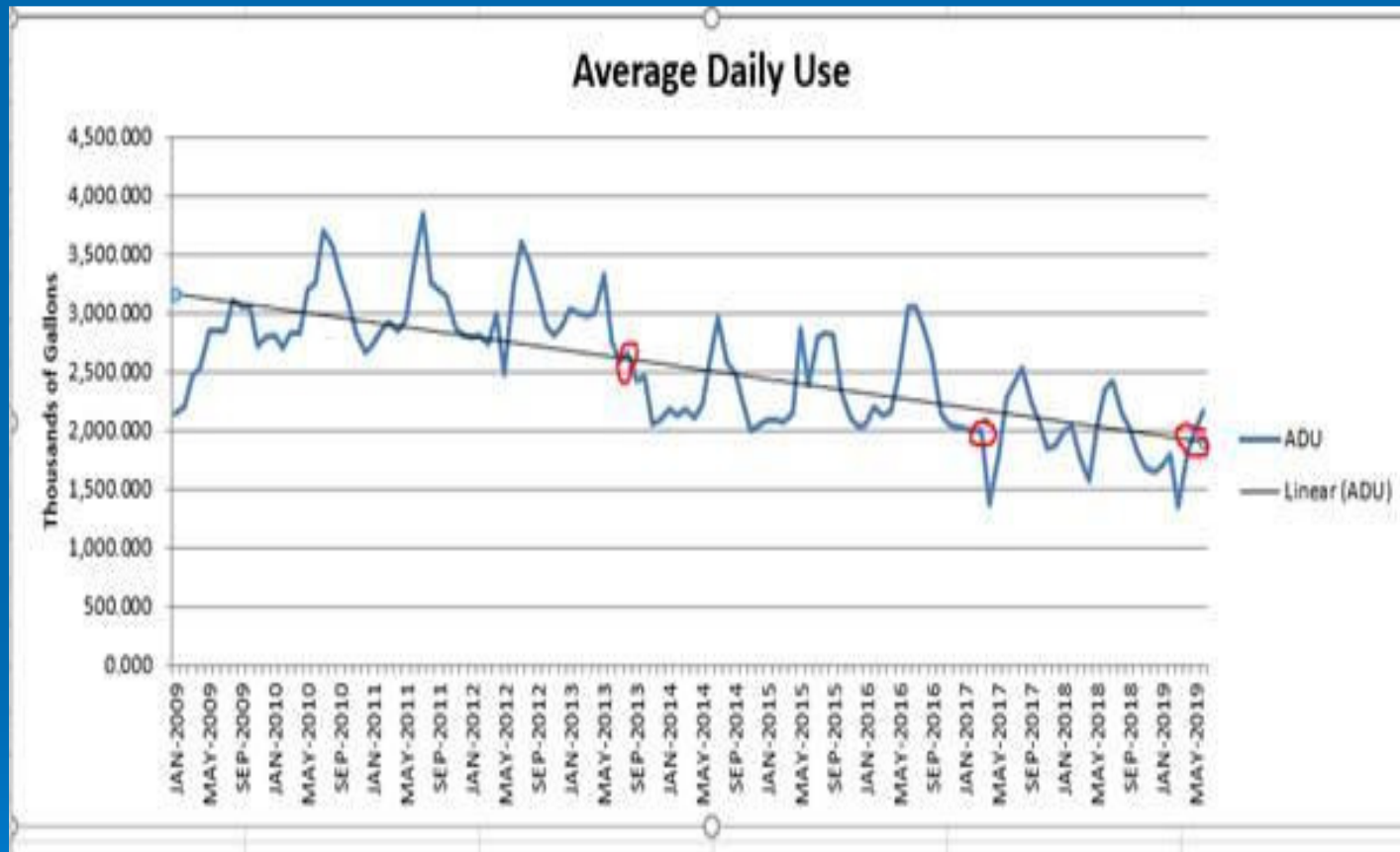


Winter to peak summer is 80% increase in usage (45.05 MGAL/Day)

**2018 SURFACE WATER VS GROUNDWATER PUMPED(KGAL)
TOP 10 LARGEST WATER SYSTEMS IN NH**



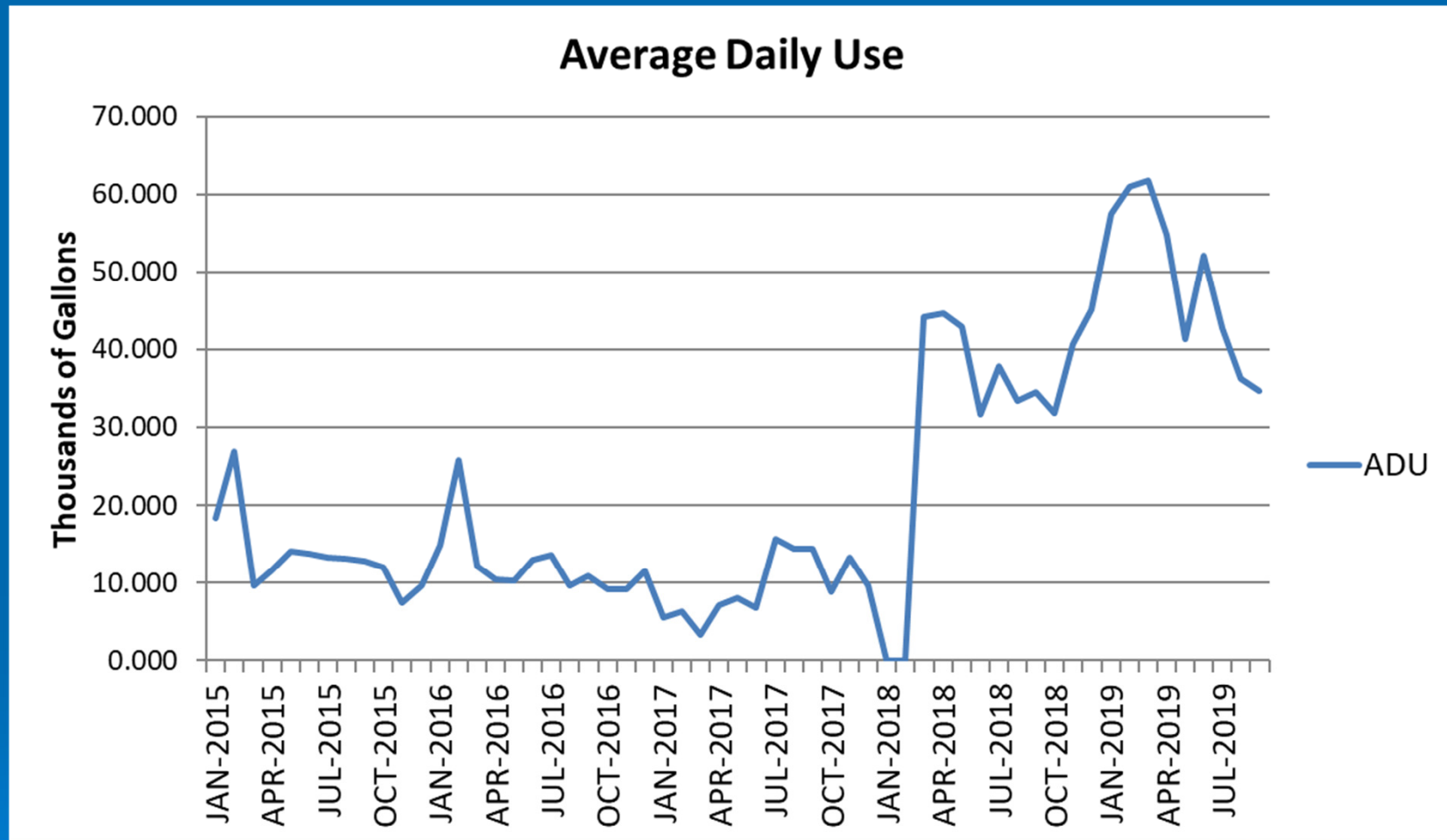
Unnamed Water Supplier



900 gpm leak discovered by leak detection consultant in spring 2013

Monthly ADU 2003-2019

Unnamed Mobile Home Park



Even monthly water use tracking can show a costly water main break

Water Conservation Plan Program

- RSA 485:1-a, XIX defines water conservation:
 - “any beneficial reduction in water losses, waste, or use”
- Water Conservation Plan submittal and implementation required by:
 - Applicants for new groundwater sources
 - Applicants for new surface water withdrawals >20,000 gpd, per water quality certification requirements
 - Affected water users under Instream Flow Program
 - Consecutive or privately owned redistribution water system that get water from a PWS subject to WC requirements
- Currently 148 active WC plans for CWS across the state from largest city to very small cooperative.

Water Conservation Plan Elements

- Meters (both source and service)
 - Adequately maintained
 - Recorded data used for source-supply comparison ('water balance')
 - Vital to completing water audits
- Water use trend analysis
 - Tracking use helps identify leaks
- Consumer awareness program to promote efficient use practices
- Annual reporting on water usage and tracking
- Response plan if loss appear substantial

WU and WC Grant Programs

Leak Detection Grant Program:

- Annual Program operating for more than 10 years.
- Between 40 and 100 PWS each year apply.
- Annual grant ranges from \$150,000 to \$250,000 to one or two contractors based on number of applicants.
- Length of main varies widely year to year

Water Audit Grant Program:

- First year of new grant .
- 28 large PWS applied.
- Annual grant of ~ \$200,000 to one consultant.
- Implementation requires lots of consultant and staff contact time with public works billing, water use, capital costs, etc.



Drought Response Plan

- Issue weekly drought status bulletin
- Track statewide water use restrictions, not only for PWS
- Elevate public awareness during abnormally dry periods
- Message efficient water use practices
- Closely coordinate with PWS, Watershed bureau, river councils

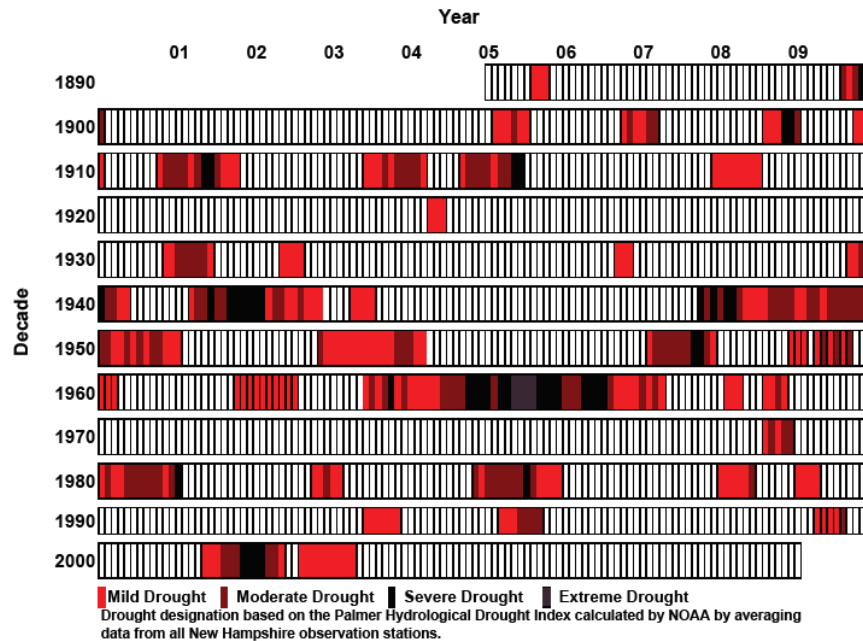
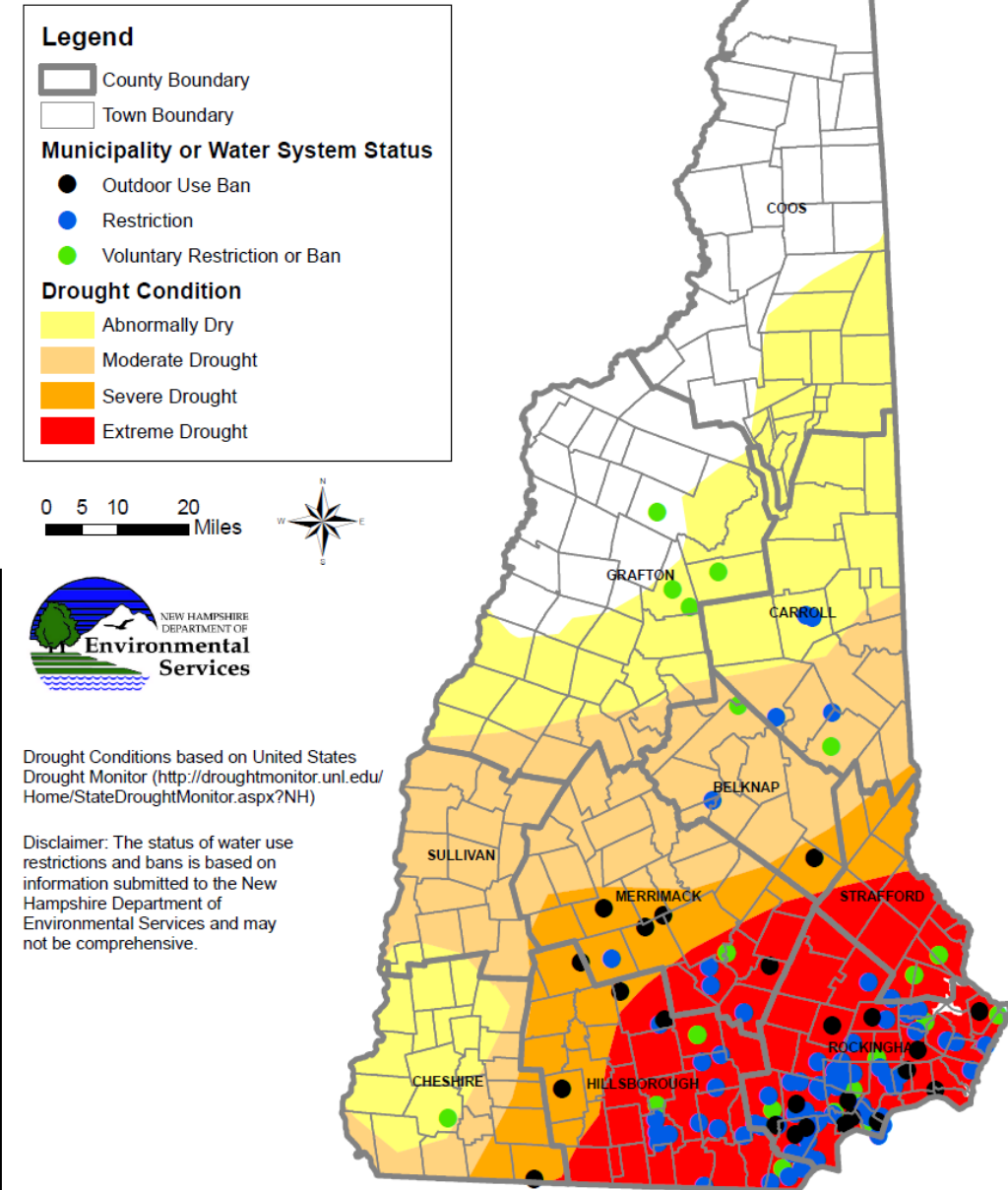


Figure 12-6. Occurrences of drought conditions for three or more months in New Hampshire, 1895 - 2008. Data Source: NOAA, 2008a.

Known Water Use Restrictions and Bans

Last Update: September 15, 2016



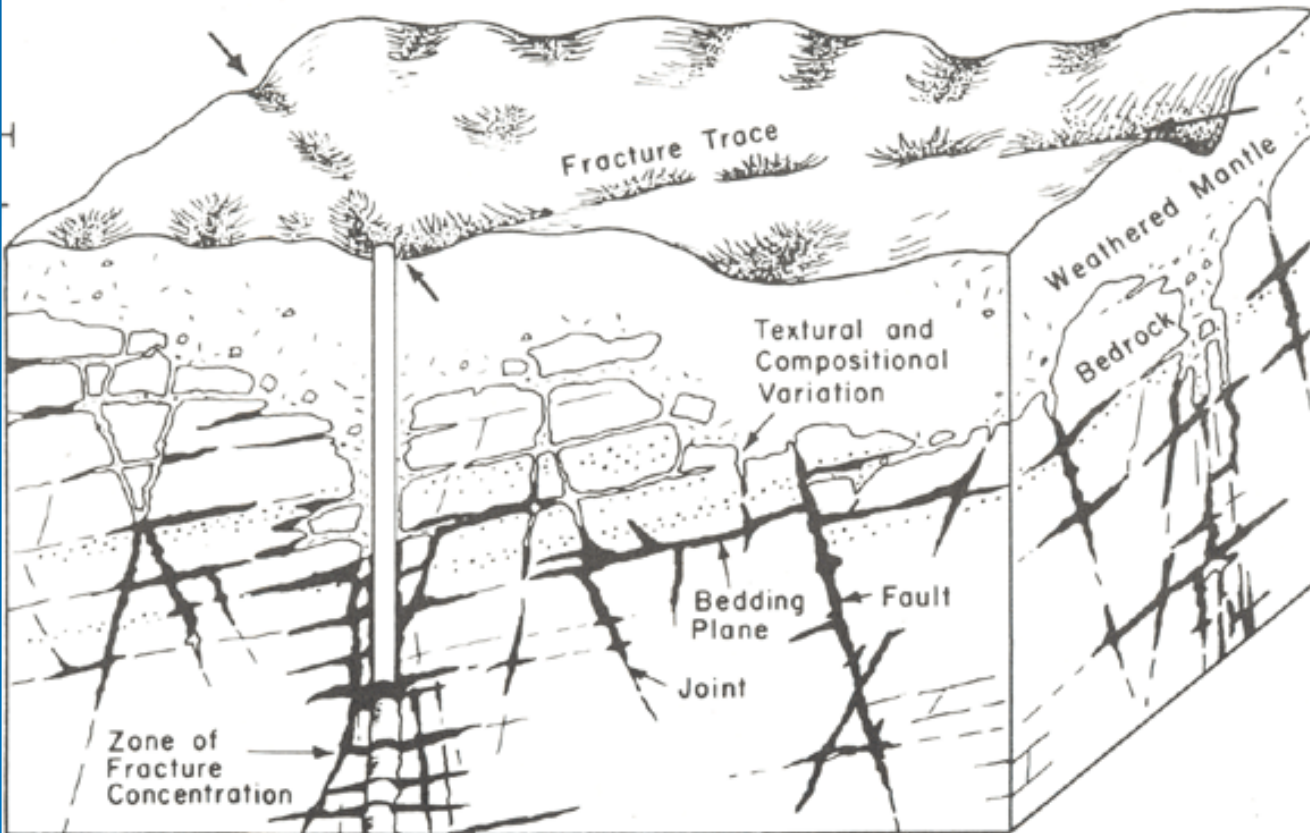
Water Well Program

- Administer NH Water Well Board
- Run licensing program for:
 - NH Licensed Drillers
 - NH Licensed Pump Installers
- Enforce Well Construction data reporting
- Manage well construction database with NHGS
- Implement drought assistance well replacement program
- POC for private well owner issues

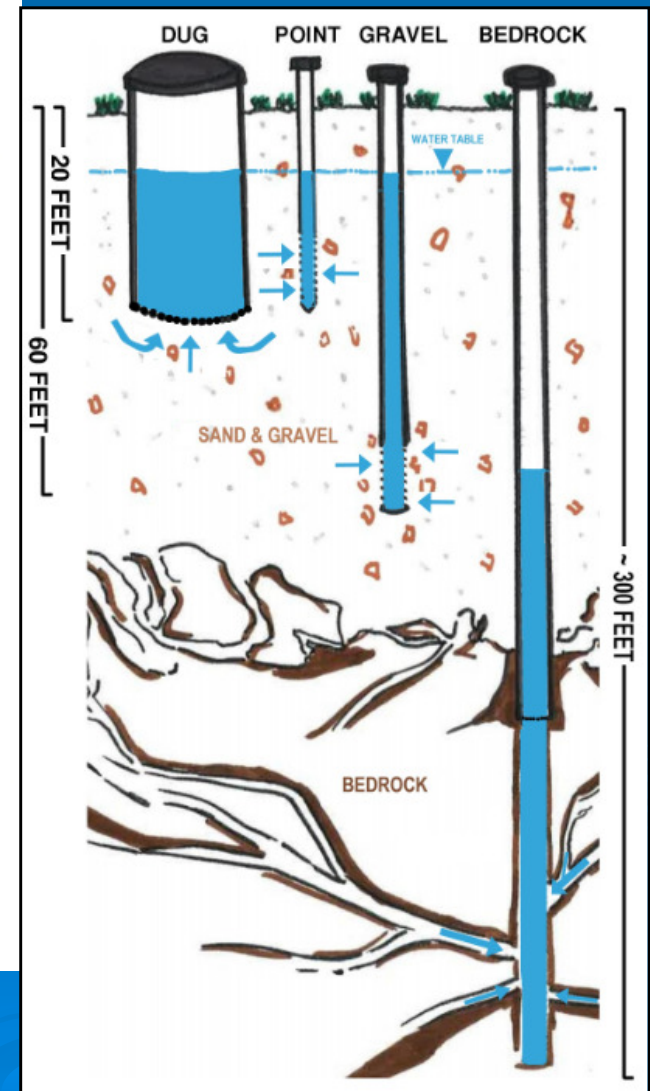
Greg Barker

Gregory.A.Barker@des.nh.gov

Private Wells in NH

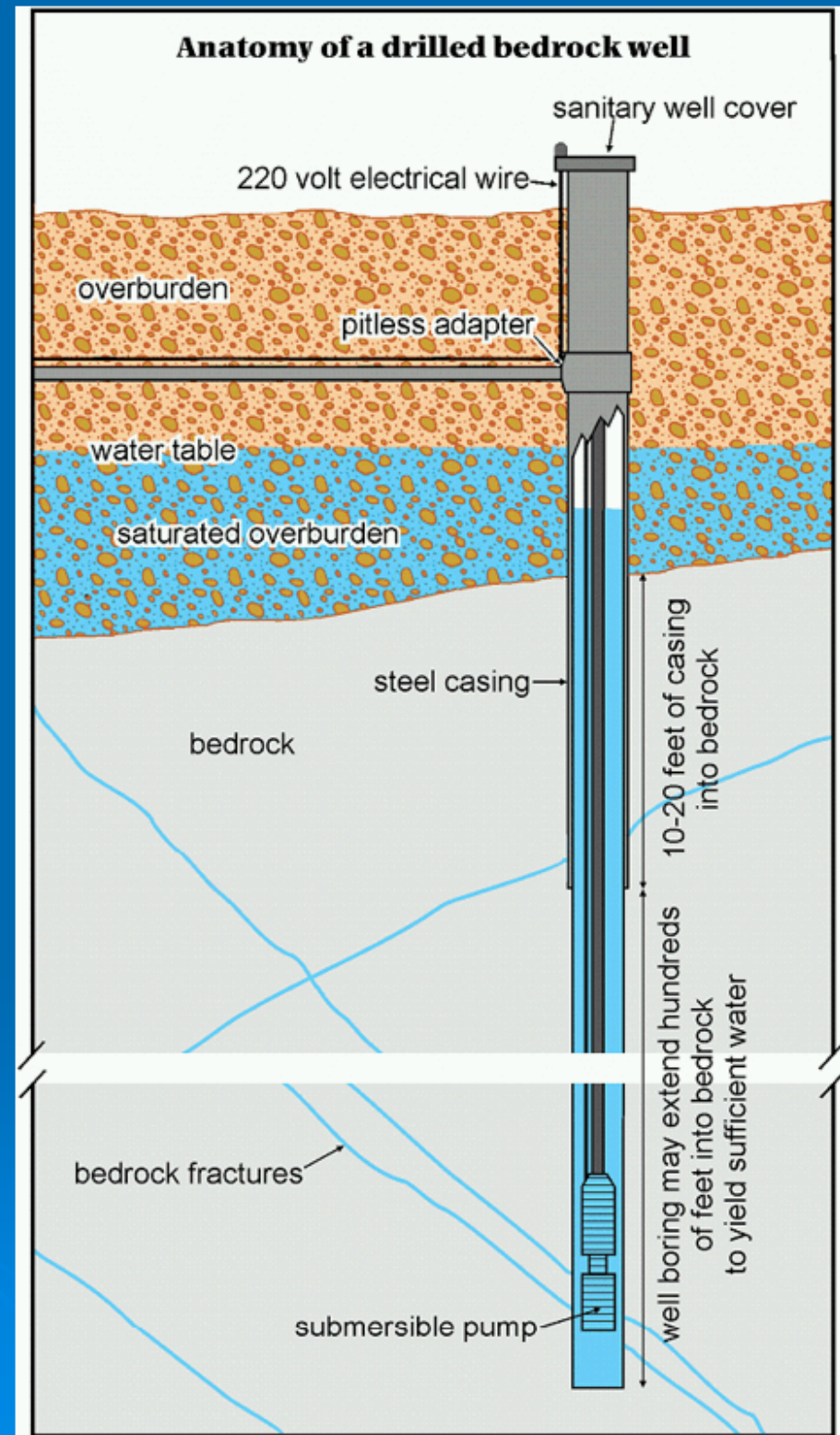


(After Lattman and Parizek 1964)



Bedrock Water Supply Well Basics:

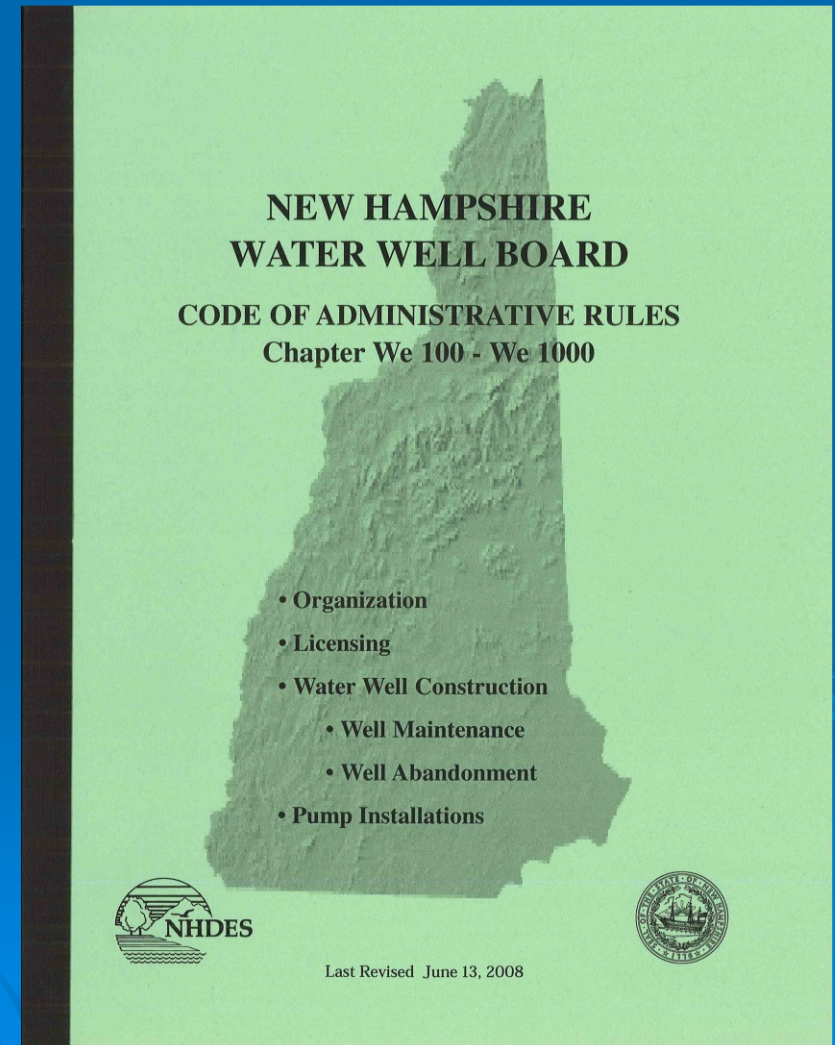
- Casing installed into competent rock
- Option to grout between casing and ground
- Water flow through fractures
- Submersible pumps



NH Water Well Construction Standards

NH State Water Well Board

- Driller and Pump Installer Licensing Authority
- Establishes well construction and pump installation and materials standards
- Establishes well siting standards
- Well Completion Reports
- Consumer Protection



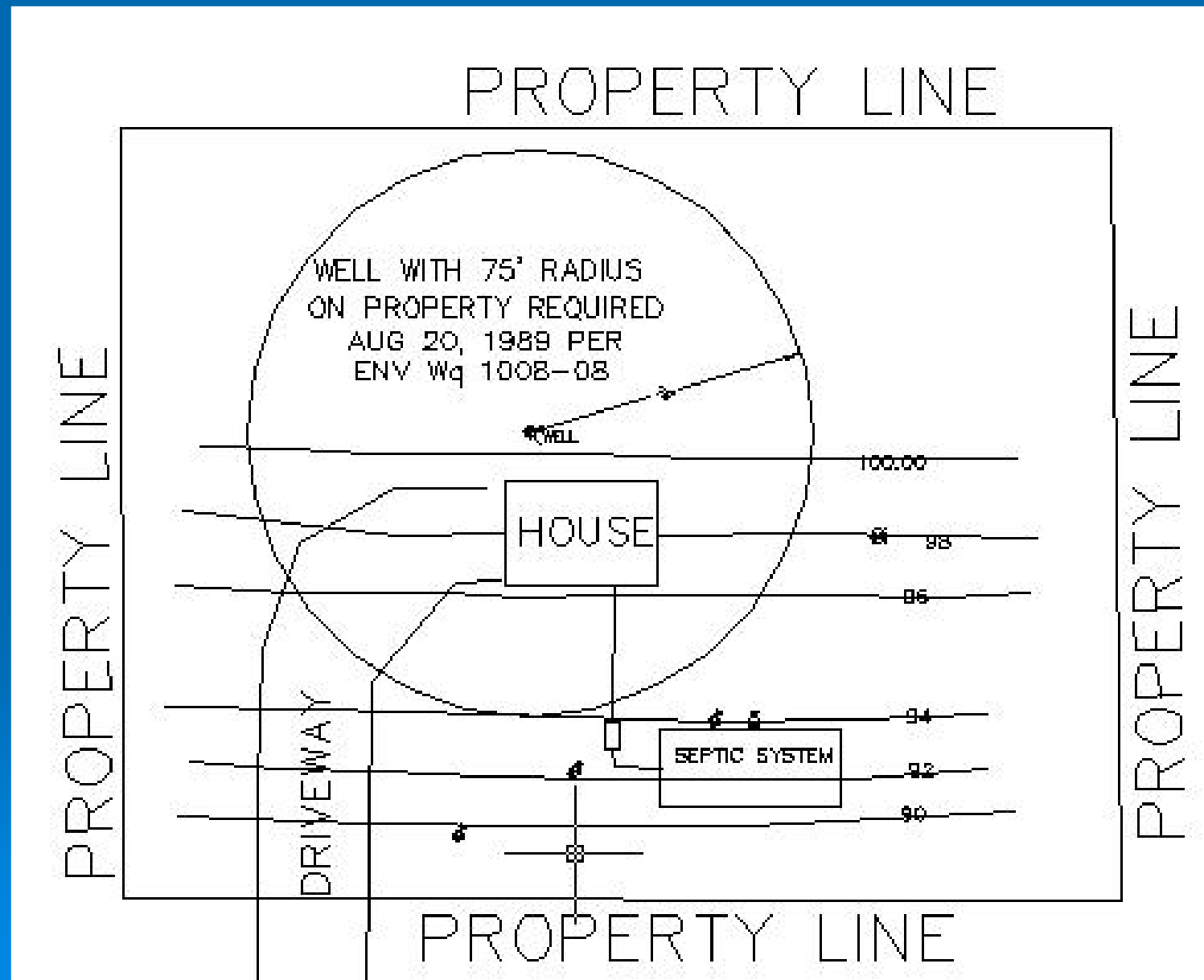
Private Well Setbacks

- Well Siting needs to align with SSB approval
- Frequent site feature conflicts
- Small lots, steep slopes, surface water, etc.
- Reductions are conditionally allowed

RESIDENTIAL DRINKING WATER WELL LOCATION SETBACKS	
Entity	Setback (feet)
Effluent Disposal Area (leach field/bed)	75 ¹
Septic Tank	75 ²
Property Boundary	75
Livestock Pen	75 (100 for dug wells)
Automobile Salvage Yard	75
Underground Storage Tanks (containing gasoline fuel)	250
Storage of Regulated Substance (except gasoline fuel)	75
Solid Waste Disposal Site	75
Bulk Storage of Material (ex. fertilizer, manure, salt)	75
Stump Dump	75 ³
State Highway Right-of-Way	50 ⁴
Sewer Component	50 ⁵
Surface Water / Swamp	50 ⁶
Public Road Surface	75 ⁷
Other Sources of Contamination	75

Protective Well Radius

RSA 485-A:30-b



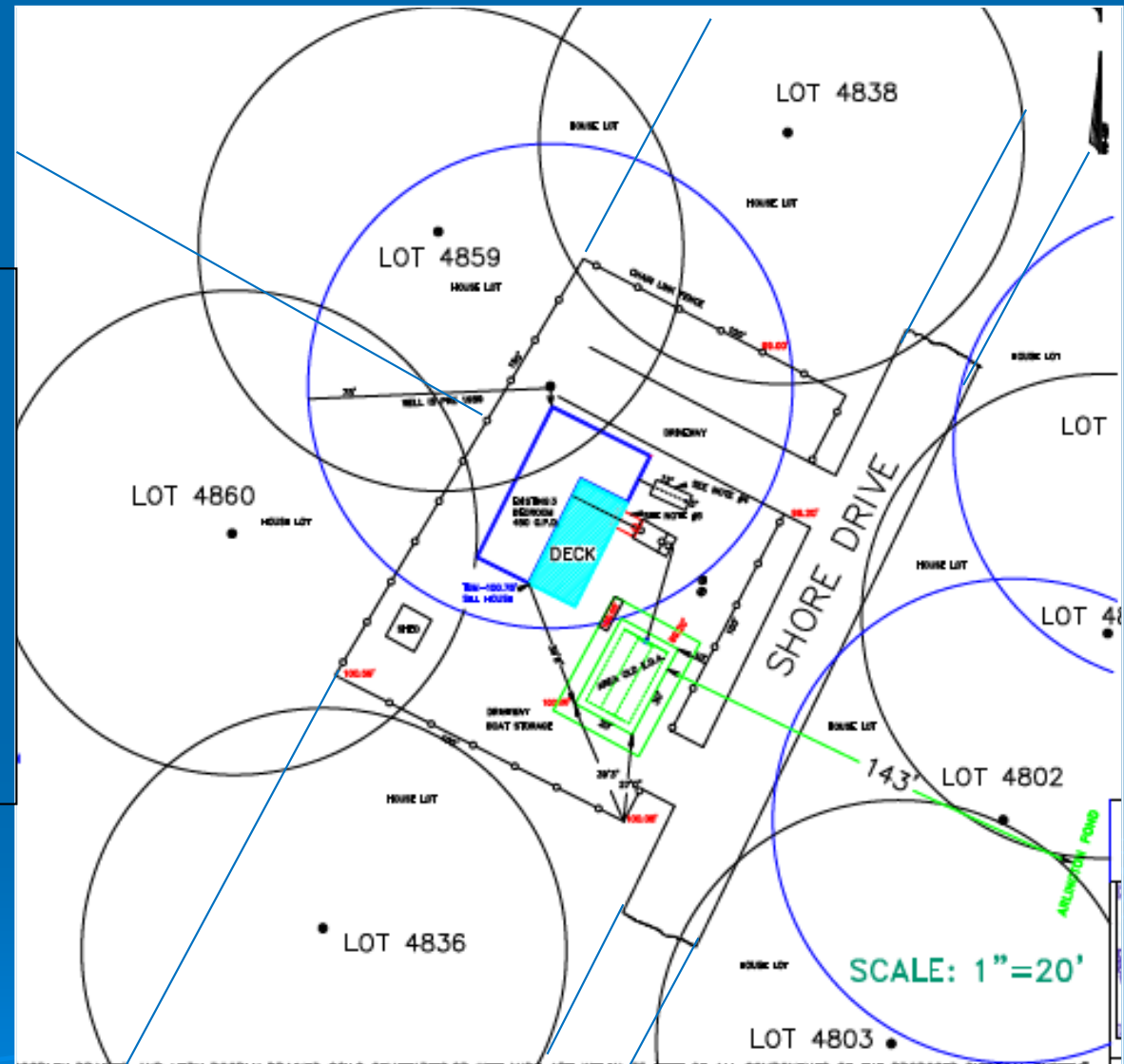
Non-conforming locations

- Driller, SSB designer and owner consult when well cannot be located per site plan to choose alternate location
- Approved plan requires amendment
- Special methods of construction required
- Requires setback reduction form

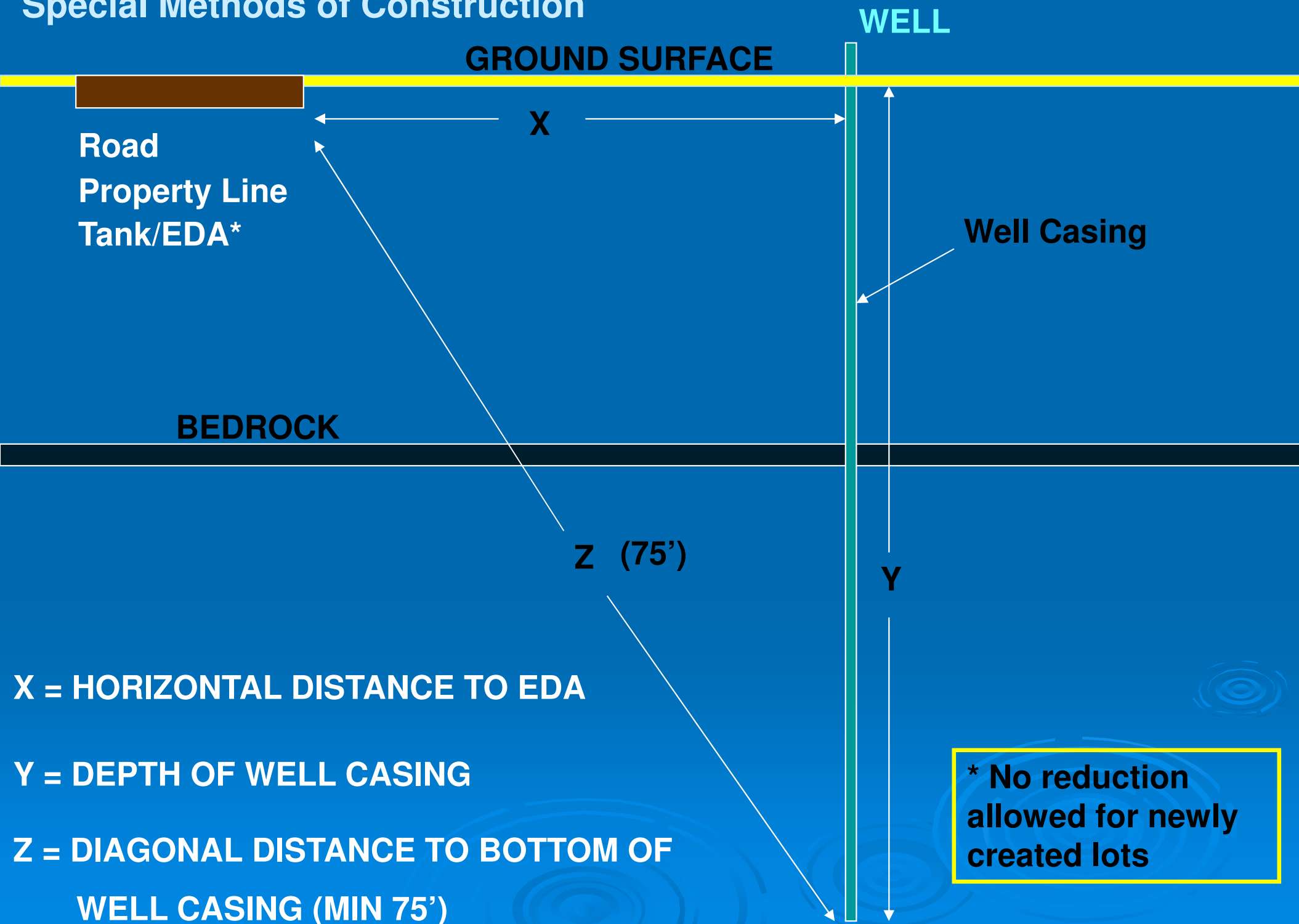


Overlapping Well Radii

- Allowed but not encouraged
- Identified on SSB application
- Requires standard release form




Special Methods of Construction



Licensing (and annual re-licensing) of drillers and pump installers


NHDES-W-03-016



NEW HAMPSHIRE
DEPARTMENT OF
Environmental
Services

STATE OF NEW HAMPSHIRE
WATER WELL BOARD

PO Box 95
Concord, NH 03302-0095
603-271-1974



APPLICATION FOR WATER WELL CONTRACTOR LICENSE

▲ INSTRUCTIONS: Type or print in ink. Answer all questions. Incomplete application

1. APPLICANT INFORMATION

Name of Qualified Applicant:

Street:

Apt. #:

City/State/ZIP:

Tel. #:


License required for:

- Drilling Rotary, Technical, Cable tool, Dug and point wells
- Commercial and residential pump installation

Licensees require:


- Minimum years of experience
- In-person exam
- Annual continuing ed and renewal

NHDES-W-03-082



NEW HAMPSHIRE
DEPARTMENT OF
Environmental
Services

**License Renewal Form
2022-2023
Water Well Board**



Required under We 401

New Hampshire Water Well Contractor and Pump Installer licenses expire each year on June 30 in accordance with RSA 482-B. **License renewals are due before June 30, 2022 for the 2022-2023 license period.** License Renewal Forms received **after** July 31, 2022 must include an additional **\$20.00 late fee** for Water Well Contractor license and **\$20.00 late fee** for Pump Installer license. Please pay only the **highest** fee for the Water Well Contractor license category held and/or the \$100.00 fee for Pump Installer license, if applicable. Do not add fees for multiple Water Well Contractor license categories.

License Renewal: ☐ Yes, renew my license. ☐ No, do not renew my license.


License Renewal Fees (Check all that apply):

Water Well Contractor License (Do not add fees):	Pump Installer License:
<input type="checkbox"/> \$225 - Rotary Drilling	<input type="checkbox"/> \$100 - Pump Installer License
<input type="checkbox"/> \$225 - Technical Drilling	<input type="checkbox"/> \$20 late fee (after 7/31/2022)

**Currently about
256 licensed
contractors**


Water Well Construction Record Database

NHDES-W-03-173P



NEW HAMPSHIRE
DEPARTMENT OF
Environmental
Services

Well Completion Report
State of New Hampshire
Water Well Board



Required under We 800. This report must be submitted within **90 days** after the completion of the well.

Well Number _____ (for contractor use) WRB# _____ (for WWB use)

1. **Well Owner/Home Owner:** _____
and/or Name Permanent Mailing Address

Building Contractor: _____
Name Permanent Mailing Address

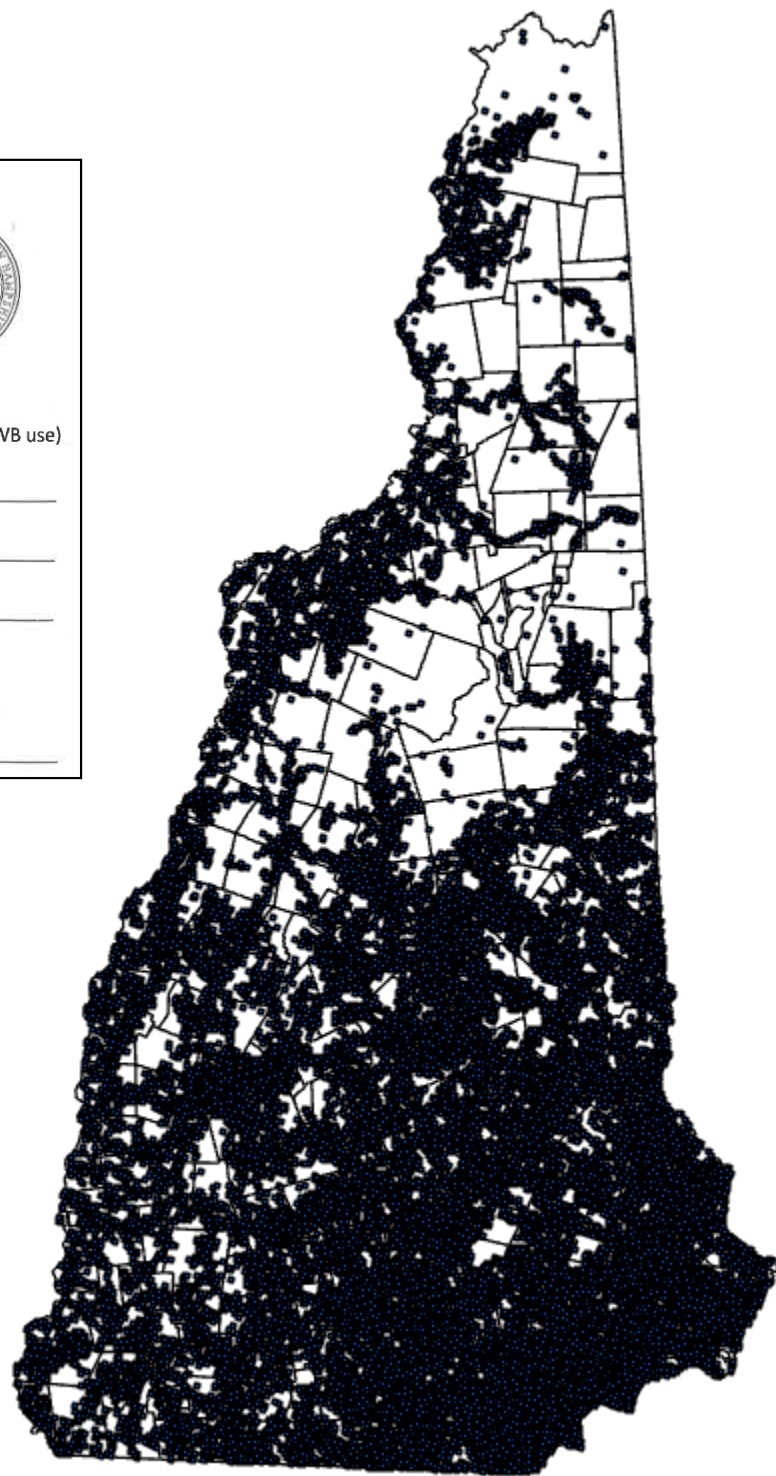
2. **Location of Well:** Town _____ Address _____
Street No. Road Name

Parcel Information: Tax Map No. _____ Lot No. _____

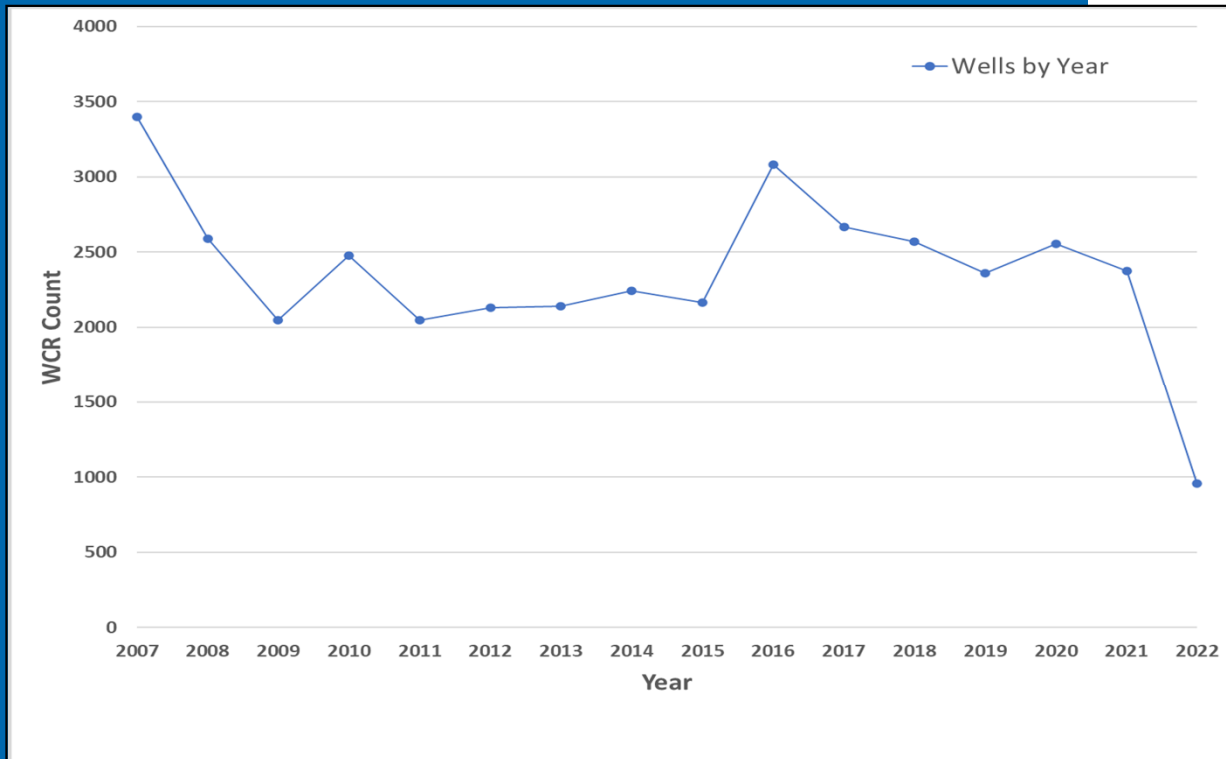
Latitude: N _____ degrees _____ decimal minutes **GPS Manufacturer:** ☐ Garmin ☐ Magellan

Longitude: W _____ degrees _____ decimal minutes ☐ Other _____

- Well construction report required to be filed with NHGS by licensed driller since 1984
- Compliance was low for first 20+/- years
- Enforcement increased post-2000
- Records used by many stakeholders
- WCR database is currently under full rebuild



Water Well Construction Record Database



- About 2,500 WCRs submitted per year
- Paper records are still submitted for about half of WCRs
- Backlog routinely runs between 500 – 1,000 WCRs
- Current database has 150,000+ WCRs
- Approx. 102,000+ WCRs are geolocated

