



Water Division Update
Rene Pelletier, P.G.
Director, Water Division

September 21, 2022

Water Division Organization

Director: Rene Pelletier, P.G.

Assistant Director: Ted Diers

Eight Bureaus & Programs

Land
Resources
Management

- ❑ **Alteration of Terrain**
- ❑ **Wetlands Bureau**
- ❑ **Subsurface Systems Bureau**
- ❑ **Drinking Water & Groundwater Bureau**
- ❑ **Dam Bureau**
- ❑ **Wastewater Engineering Bureau**
- ❑ **Watershed Management Bureau**
- ❑ **Winnepesaukee River Basin Program**

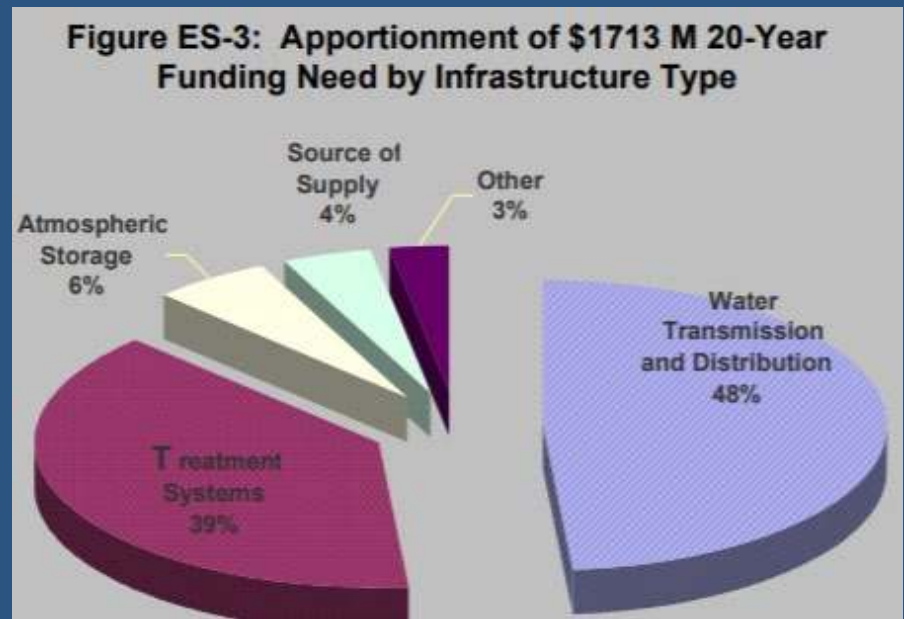


Drinking Water Program Challenges

- 1) Aging work force & lack of qualified workers
- 2) Aging infrastructure
- 3) Lead service line replacement / New lead and copper rule
- 4) PFAS
- 5) Arsenic and manganese
- 6) Road salt
- 7) Water distribution system/building pathogens
- 8) Climate change
- 9) Security (physical and cyber)
- 10) Construction sector/workers/availability of materials
- 11) Water treatment chemical supply chain
- 12) Private wells
- 13) COVID

Aging Infrastructure - Challenge

- Prior to adopting new standards for PFAS, Mn and arsenic
- Prior to the lead and copper rule
- Does not consider climate change impacts
- Does not include all other infrastructure issues



Federal Lead & Copper Rule

- Lead Service Line Inventory
- Notify by 24 hrs Lead action level and to each home >15 ppb
- New Trigger Level of 10 ppb
- Replace service lines starting at 10 ppb
- 100% sampling at lead service lines (or highest non-LSLs)
- Sampling at Schools and Daycares



PFAS Public Water Systems

SOURCES SAMPLED	SOURCES WITH PFAS DETECTIONS	SOURCES EXCEEDING NH PFAS MCL
1500	450	141
	30%	9%

NHDES MCLs for PFAS

PFOA – 12 ppt; PFOS – 15 ppt; PFNA – 11 ppt; PFHxS – 18 ppt

PFAS in Private Wells

- Half of NH's population uses a private well
- SE NH Study shows that approx. 50% of private wells exceed an MCL for naturally occurring contaminants
- PFAS – Over 2000 private wells sampled exceed a PFAS MCL. Much more sampling is ongoing. NHDES is establishing financial assistance programs for treatment
- Private well owners are tax payers but do not benefit from federal funding programs

Drought



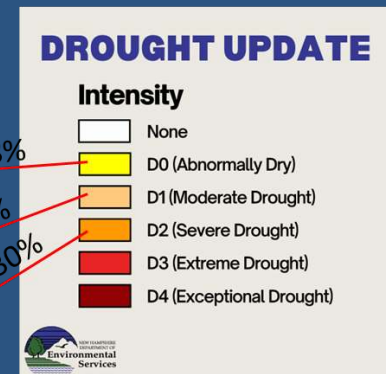
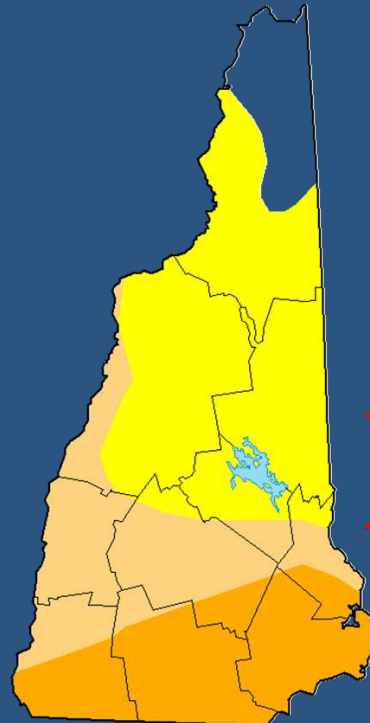
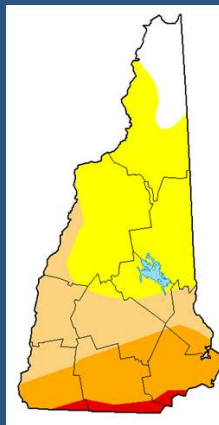
US National Drought Monitor

September 13, 2022

July 19, 2022



August 30, 2022



43.88%

23.75%

24.30%

droughtmonitor.unl.edu



ALERT

Abnormally dry and drought conditions persist across the state and there is no strong indication that enough precipitation will be received over the next few months to relieve existing drought conditions. Learn more on the [Drought Management webpage](#).

Climate Change

- Warmer temperatures, increased/extreme precipitation increase the risk for spreading bacteria in both in drinking water systems & sources of water
- Extreme storms (ice storms, wind & tropical storms) cause electrical outages – impact water system reliability
- Extreme storms, increased heat & drought lead to increased harmful algal blooms in surface water sources.
- Water availability is impacted by changes in precip:
 - Increased water use, changes recharge patterns, changes in the growing season
- Water systems have many other issues to address

Security (physical & cyber)

- Physical security continues to be a priority
- Cyber – Utilities/labs in NE have been targeted
- Phishing attacks on utilities are not obvious and are using established business relationships
- Cyber hygiene is the number one issue
- Many cyber security resources for utilities
 - Training
 - Cyber Assessments
 - Cyber Grants for implementation

Cybersecurity Implementation Grants (ARPA)



- \$2mil available for Cybersecurity Improvements
- \$50,000 per Drinking Water or Wastewater system
- Goal: Develop & implement programs to mitigate or eliminate risk of cyberattacks
- Implement cybersecurity measures identified in a cybersecurity assessment such as EPA Cybersecurity Assessment, Cybersecurity and Infrastructure Security Agency (CISA) Assessment, CSET, AWWA Cybersecurity Tool.
- Who's Eligible?
 - Community Public Drinking Water Systems serving (min 500 people), excluding privately owned redistribution systems
 - Municipal Wastewater Systems regulated w/NPDES permit or GW discharge permit

Up to \$100,000

Combined Drinking Water / Wastewater System

ARPA Grant Offers - \$185M Available

ARPA Grant Category	Estimated Assigned Funds	Remaining ARPA Allocation	Number of Projects
Drinking Water and Clean Water Infrastructure	\$51,852,777	\$15,185,972	85
Planning Grants	\$3,917,000	\$2,650,000	50
Long-Term Sustainability Grants + Contracts	\$5,431,675	\$1,458,100	52
Lead Service Lines	\$0	\$4,000,000	0
Disadvantaged System Infrastructure Projects	\$31,344,476	\$0	32
Cyber Security Measure Implementation Grants	\$186,366	\$1,813,634	2
Critical Flood-Risk Projects	\$5,782,076	\$217,924	13
PFAS Projects Grant Program	\$24,986,294	\$13,706	19
Strategically Important Water Supply Projects	\$1,160,000	\$0	4
State-owned Dam Projects	\$30,000,000	\$0	12
Municipal Dam Projects	\$0	\$5,000,000	0
TOTALS	\$154,660,664	30,339,336	269

CWSRF 2022 PPL Summary

Project Type	# Pre-Apps	Total \$
WW Infrastructure	108	\$451,912,739
*Sewer Extensions	10	\$80,123,027
SW Infrastructure	29	\$54,992,274
WW Planning	48	\$2,424,323
SW Planning	30	\$2,875,000
Asset Management	22	\$870,000
Energy Audit Measures	6	\$1,519,100
Emerging Contaminants	1	\$300,000
<i>Totals:</i>	<i>254</i>	<i>\$595,016,463</i>

Principal Forgiveness for Affordability Factors: 5%, 10%, 15%, 25% & 30%

2022 CWSRF Funding



“Earmarks”
\$6.5M

20% Match
Required

Base

\$11.6M Cap
Grant
\$2.3M State
Match (20%)

10-40% Subsidy

Repayment

\$60.5M
No State Match

0% Subsidy

BIL Supplemental

\$17.9M Cap
Grant
\$1.79M State
Match (10%)

49% Subsidy

BIL Emerging Contaminants

\$935,000

100% Subsidy

NEW!

CWSRF Incentive Programs

Asset

Management

100% Principal Forgiveness up to \$30,000; multiple phases available for WW, one phase available for SW

Energy Audits

Free! (Just ask!)

Energy Audit Measure Implementation

50% Principal Forgiveness up to \$250,000
(Affordability % for costs above \$500,000)

Planning

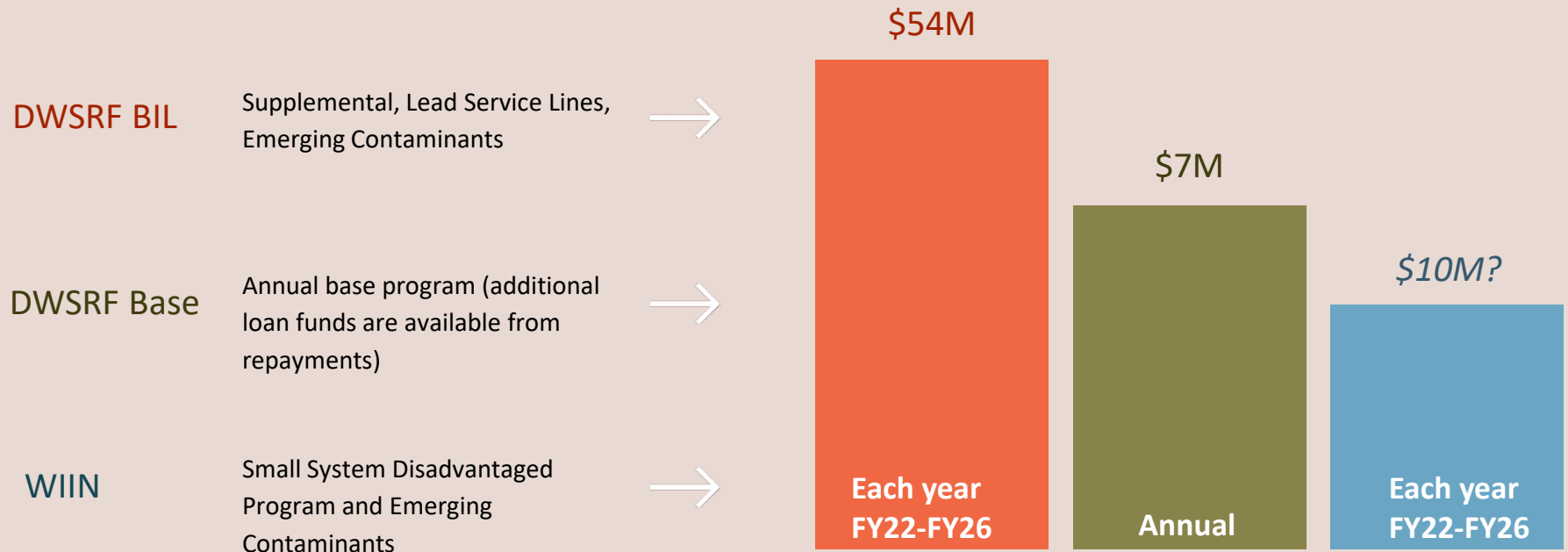
100% Principal Forgiveness up to \$100,000



2022 DWSRF Funding

Base \$7.1M	Supplemental \$17.9M 49% Subsidy for Disadvantaged	Lead \$28.35M 49% Subsidy for Disadvantaged	Emerging Contaminants \$7.5M 100% Subsidy 25% for Disadvantaged
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DW State Revolving Loan Fund Bipartisan Infrastructure Law Water Infrastructure Improvements for the Nation



\$394M in DWSRF PreApps in 2022

Watershed Bureau Update

- New Administrator!

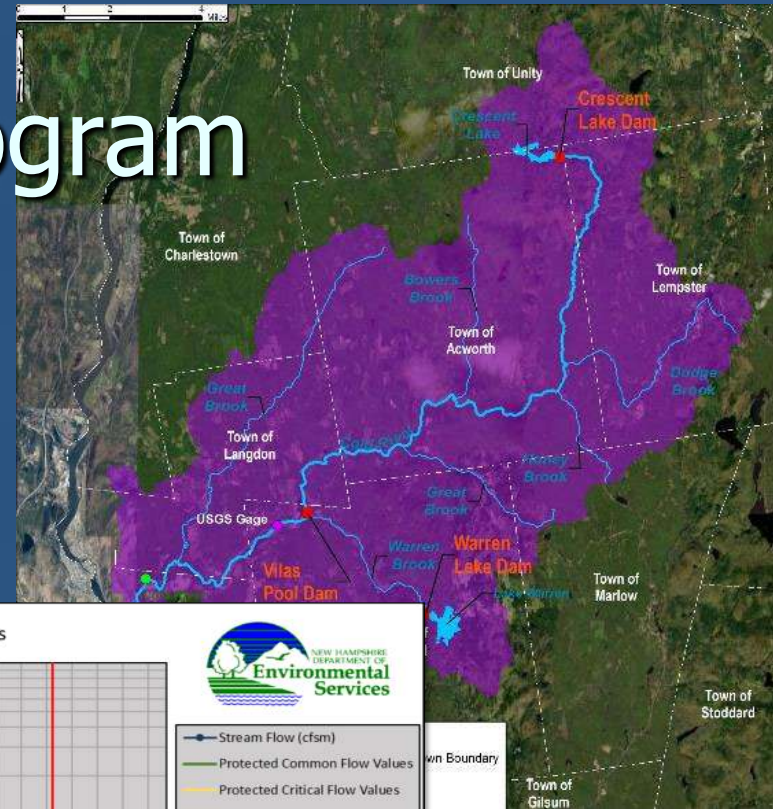
Welcome Erin Holmes, P.E.



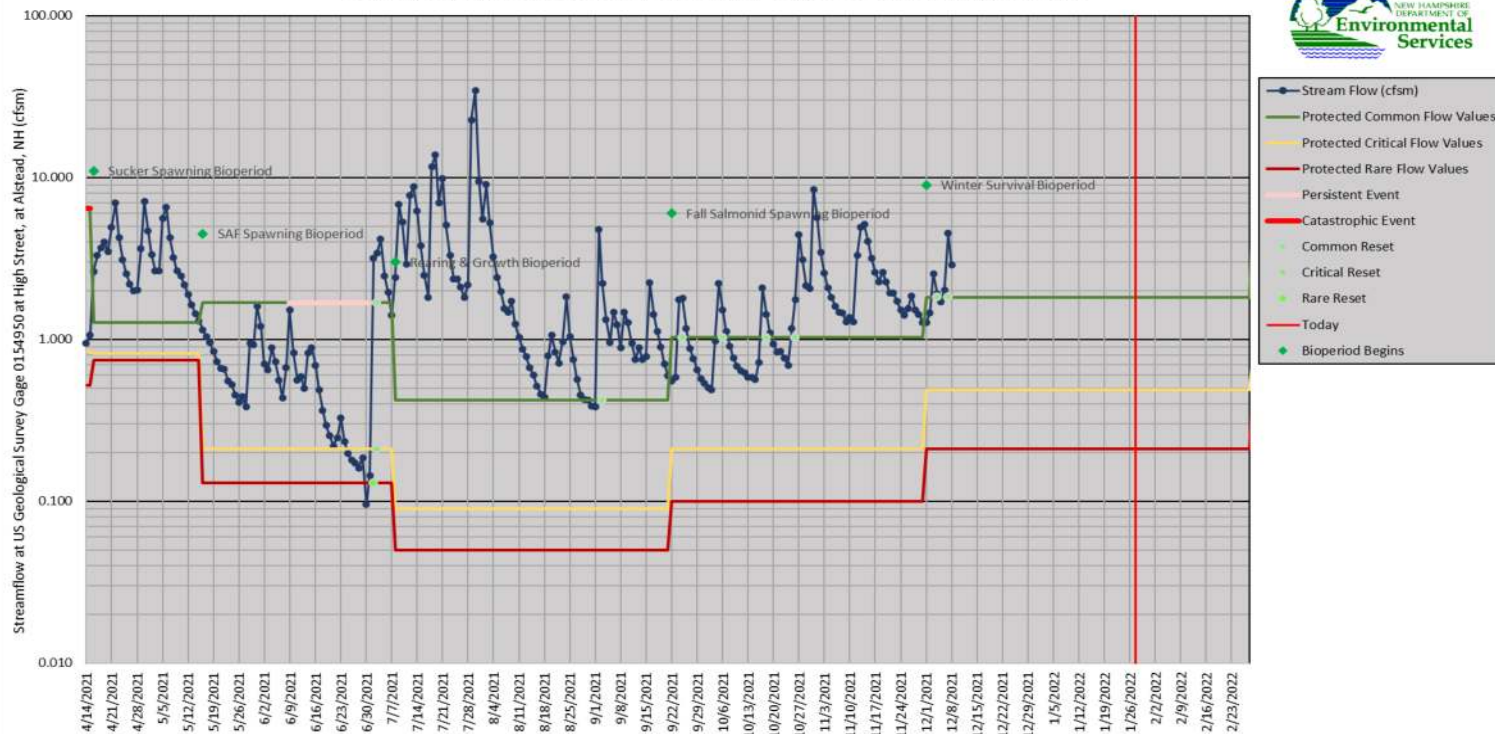
- Green Snow Program working on process and rules for certification for Municipalities (anticipated late 2023)
- In-Stream Flow Program - Flow Management Programs put into practice on the Lamprey and Souhegan Rivers in response to low flow conditions due to drought

Instream Flow Program

- Cold River protected instream flows have now been established.
- Working on Warner and Ashuelot Rivers
- Next writing management plans for water users and dam owners on those rivers.



Comparison of Recent Cold River Streamflow to Protected Instream Flow Values



401 Water Quality Certifications

- 2020 Federal rule was rescinded back to old rules.
- 29 hydropower FERC relicensing at some point of the 5-year process, more to come.
- 401 certifications applies for now for Army Corps or water withdrawals
- New 401 Cert person – James Tilley

Clean Water Needs Survey - 2022

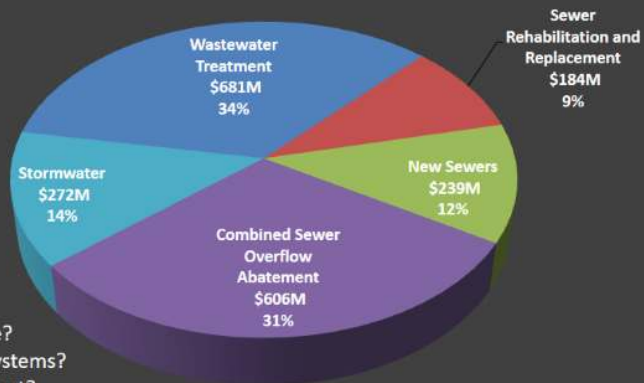
- Wastewater
- Drinking water
- Stormwater



Clean Watersheds Needs Survey 2012 Report to Congress

What is New Hampshire's 20-Year Funding Need for Clean Water?

\$1.98 Billion demonstrated in the 2012 Clean Watersheds Needs Survey



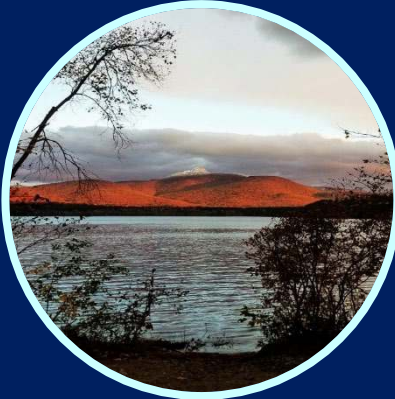
Nonpoint Source?
On-Site Septic Systems?
Asset Management?
Energy Efficiency?

EPA-830-R-15005 | January 2016

Land Resources Management Who We Are



**Alteration
of Terrain
Bureau**



**Shoreland
Program**



**Subsurface
Systems
Bureau**



**Wetlands
Bureau**

Land Resources Management Program (LRM)

LRM Staffing

**25%
vacancy rate
across all
programs**

**Several
new hires
and more
to come**

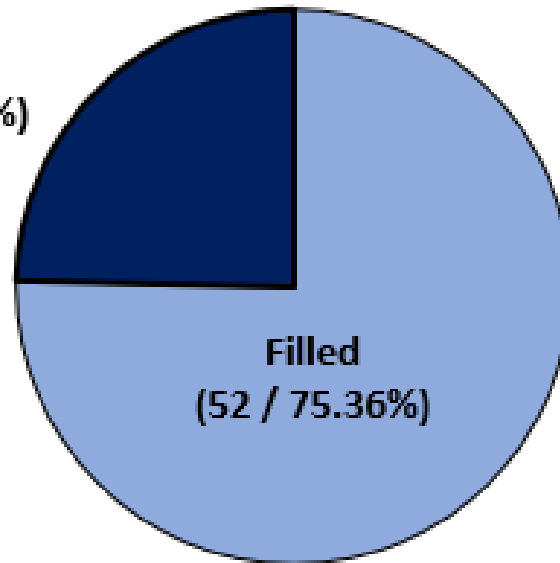
**Increasing
staff to
increase
outreach in
2022**

**Land Resources Management Program
(AoT, SSB, Wet)**

**Vacant
(17 / 24.64%)**

**Filled
(52 / 75.36%)**

Positions = 69



Advancing e-Permitting

Phase 1A – Completed

- ❑ Culvert Maintainer Quarterly Report.
- ❑ Construction Start / Completion Notices .

Phase 1B – Underway

Dock Registration

- ❑ Online and hard-copy processes available.
- ❑ Online payment available summer 2022.
- ❑ Public-facing, map-based user interface for information sharing and public inquiries.





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