



Known for excellence. Built on trust.



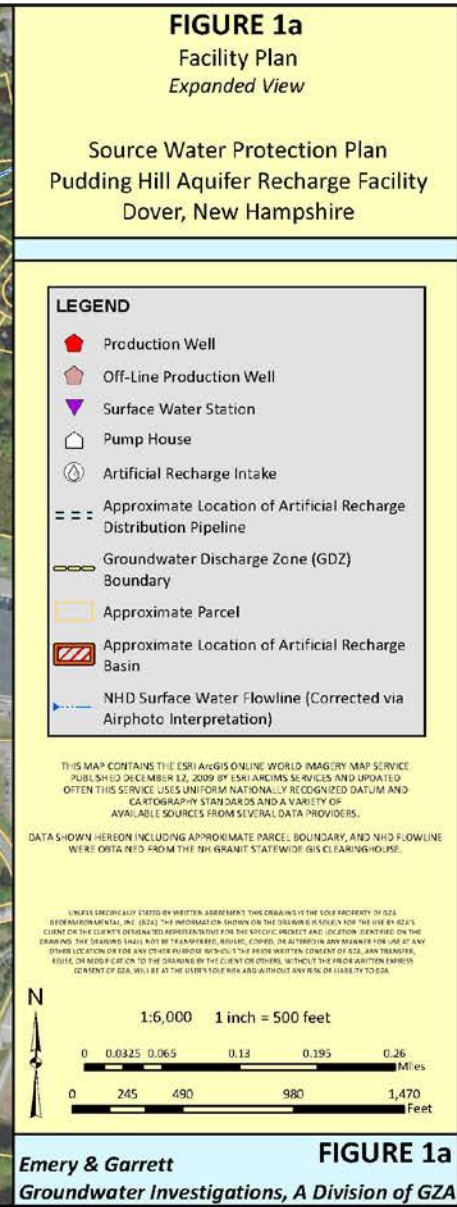
Source Water Protection Plan Summary Pudding Hill Artificial Aquifer Recharge Facility

City of Dover, New Hampshire

Dover Utilities Commission
Meeting

September 20, 2021







Source Water Protection Plan
Pudding Hill Aquifer Recharge Facility
Dover, New Hampshire

- Existing Monitoring Well
- Boring Location
- Pump House
- Artificial Recharge Intake Structure
- Approximate Location of Artificial Recharge Distribution Pipeline
- Groundwater Discharge Zone (GDZ) Boundary
- Approximate Parcel Boundary
- Approximate Location of Artificial Recharge Basin
- NHD Surface Water Flowline (Corrected via Airphoto Interpretation)

DATA SHOWN HEREON INCLUDING APPROXIMATE PARCEL BOUNDARY, AND NHD FLOWLINE WERE OBTAINED FROM THE NH GRANIT STATEWIDE GIS CLEARINGHOUSE.

N

1:2,400 1 inch = 200 feet

0 0.0125 0.025 0.05 0.075 0.1 Miles

0 95 190 380 570 Feet

FIGURE 1

Groundwater Investigations, A Division of GZA

Background

- The Pudding Hill Aquifer is an essential part of the City's water supply infrastructure, supplying up to 1,123,300 GPD
 - The City historically has used the Griffin Well, Ireland Well, and Well DPH#1
 - Griffin Well no longer used due to water quality impacts from NEMR
 - EGGI/GZA determined
 - The combined groundwater withdrawals from the Ireland Well and Well DPH#1 needed to meet the City's water demands is greater than the available natural recharge; and
 - The potential exists for groundwater contaminants from NEMR to migrate to the Ireland Well and Well DPH#1.
 - Artificial Recharge is needed to improve the sustainability of the yield from the Ireland Well and Well DPH #1 water supply Production Wells and to help manage groundwater quality within the Aquifer
-

Background

- The withdrawal of surface water from the Bellamy River is authorized under the 401 Water Quality Certification (401 WQC) issued for the AARF (WQC #2019-404P-001), provides the source of water used to artificially recharge the Aquifer
 - Surface water withdrawn from the Bellamy River as authorized in the 401 WQC is discharged to the AR Basins under a Groundwater Discharge Permit (GDP) issued by NHDES (GWP-198401044-D-001)
 - The GDP requires that the permittee shall not violate NH AGQS in groundwater at the boundary of the Groundwater Discharge Zone (GDZ)
 - The objective of the Source Water Protection Plan (SWPP) is to limit the potential for the presence of regulated contaminants at concentrations exceeding the NH AGQS that would then potentially violate the GDP and contaminate the Aquifer
-

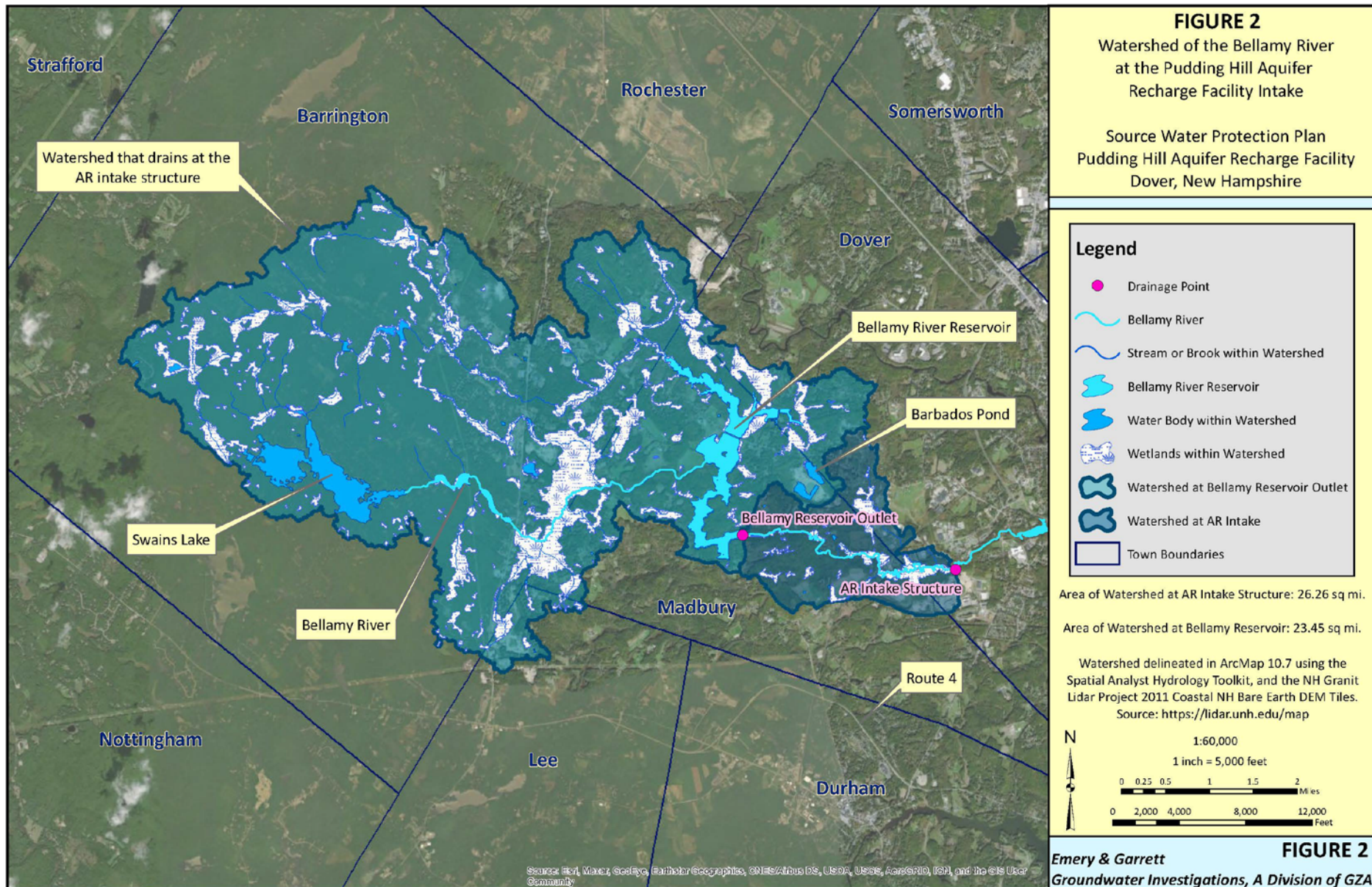
Watershed Description

- Physiography and land use
- Surficial geology
- Watershed water quality
- Water availability and use
- Inventory of potential contaminant sources

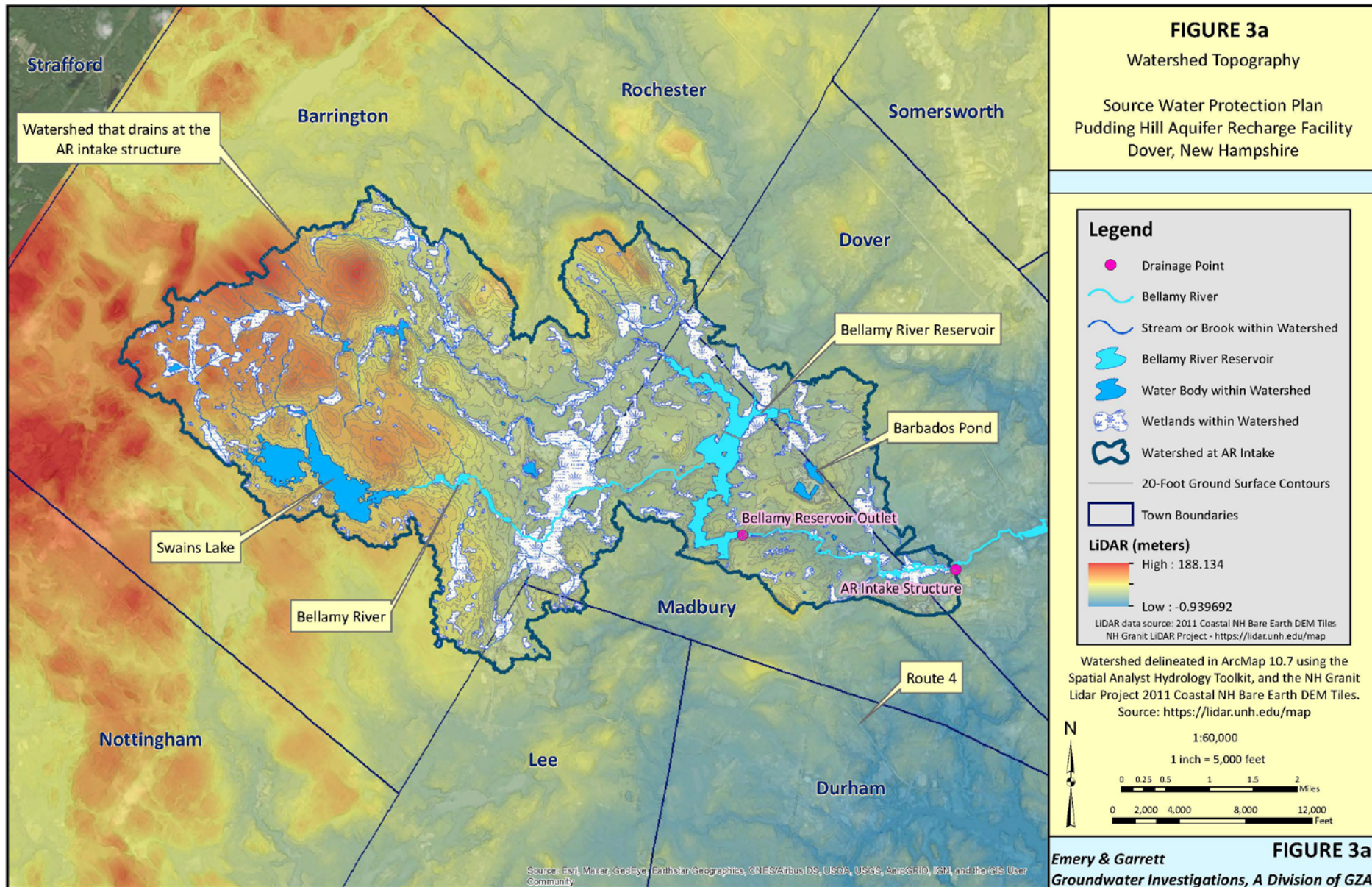
Existing and historical threats

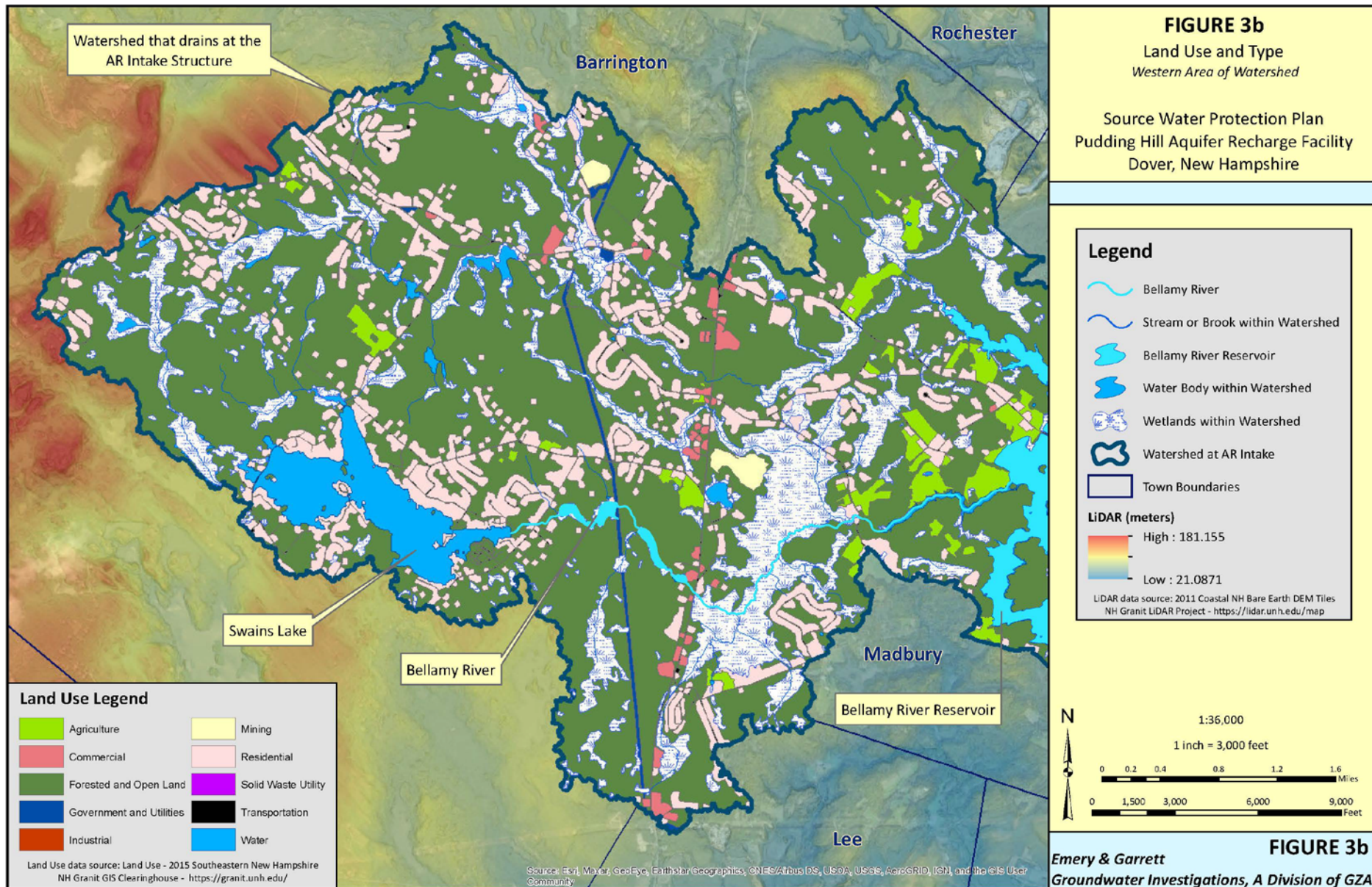
Potential threats

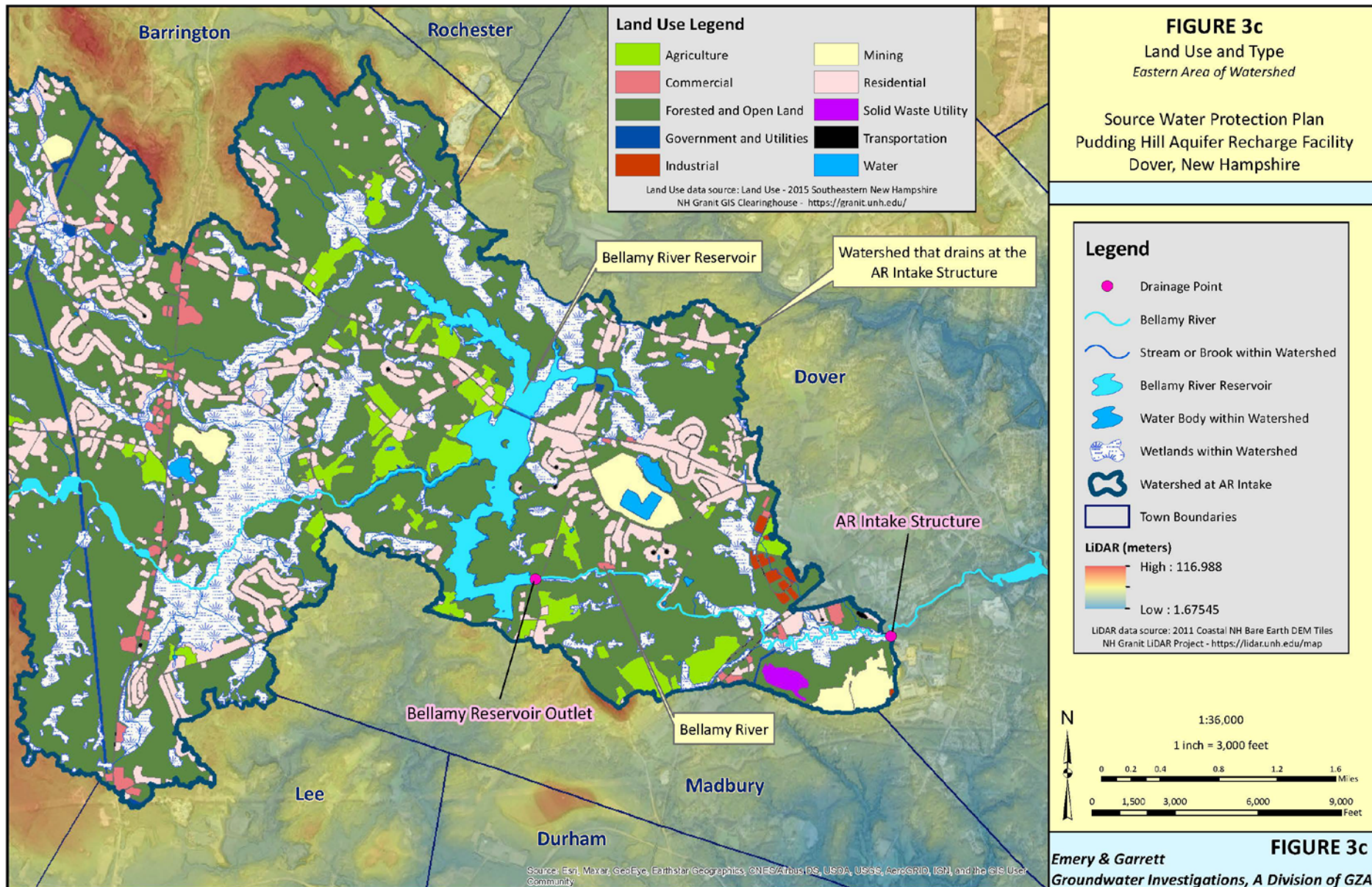
Land use

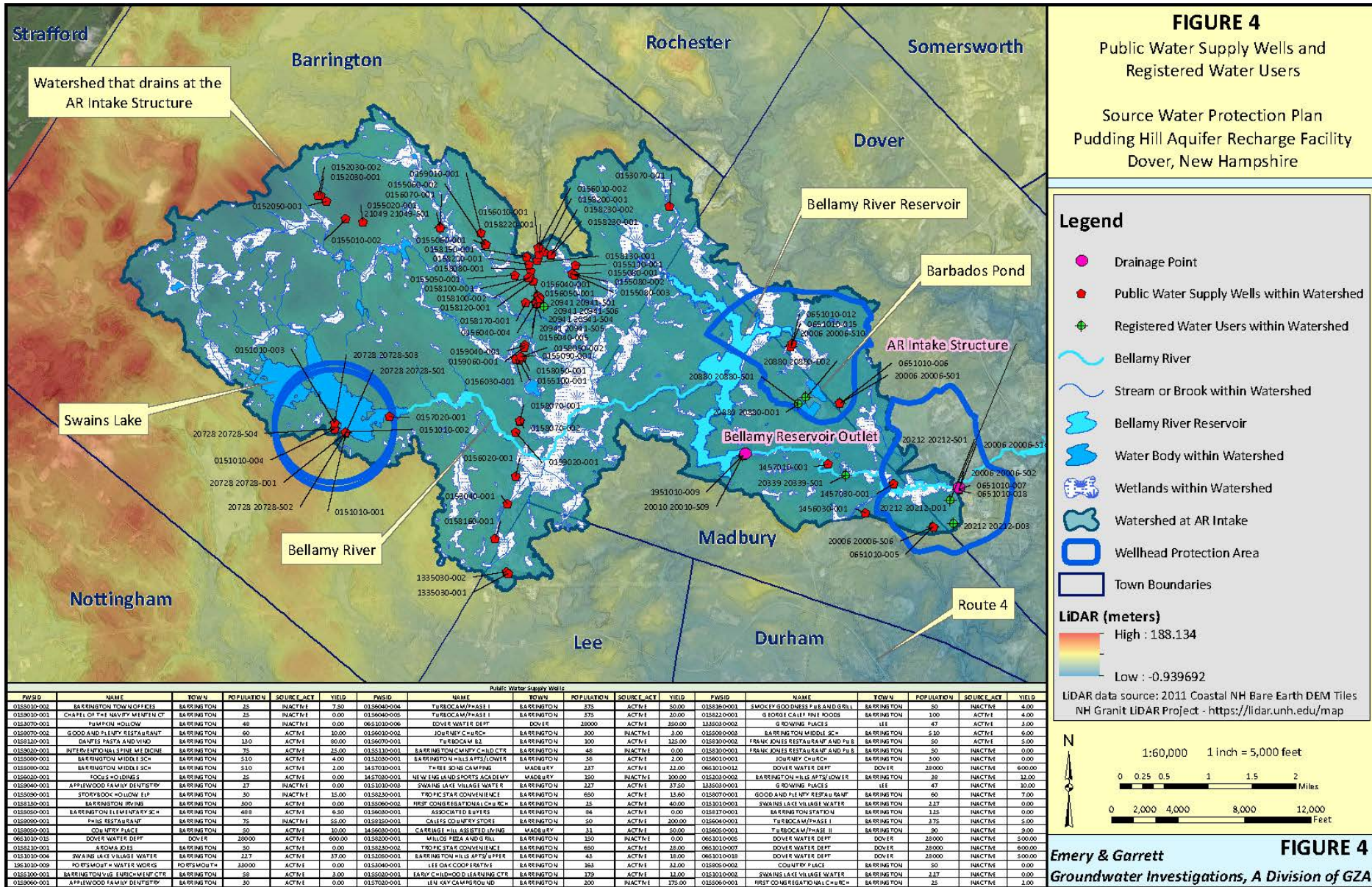


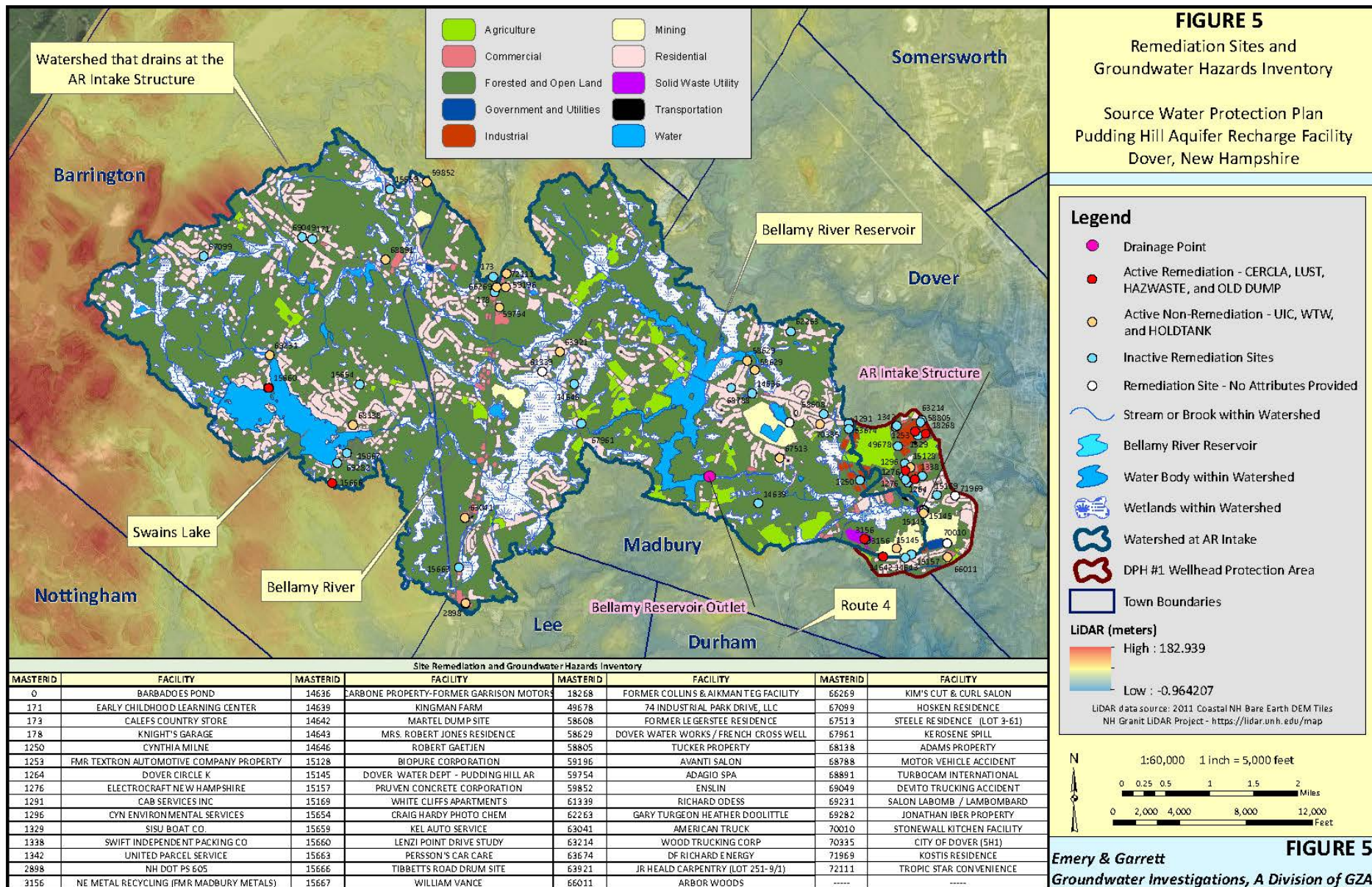
Source: Esri, Mapbox, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community











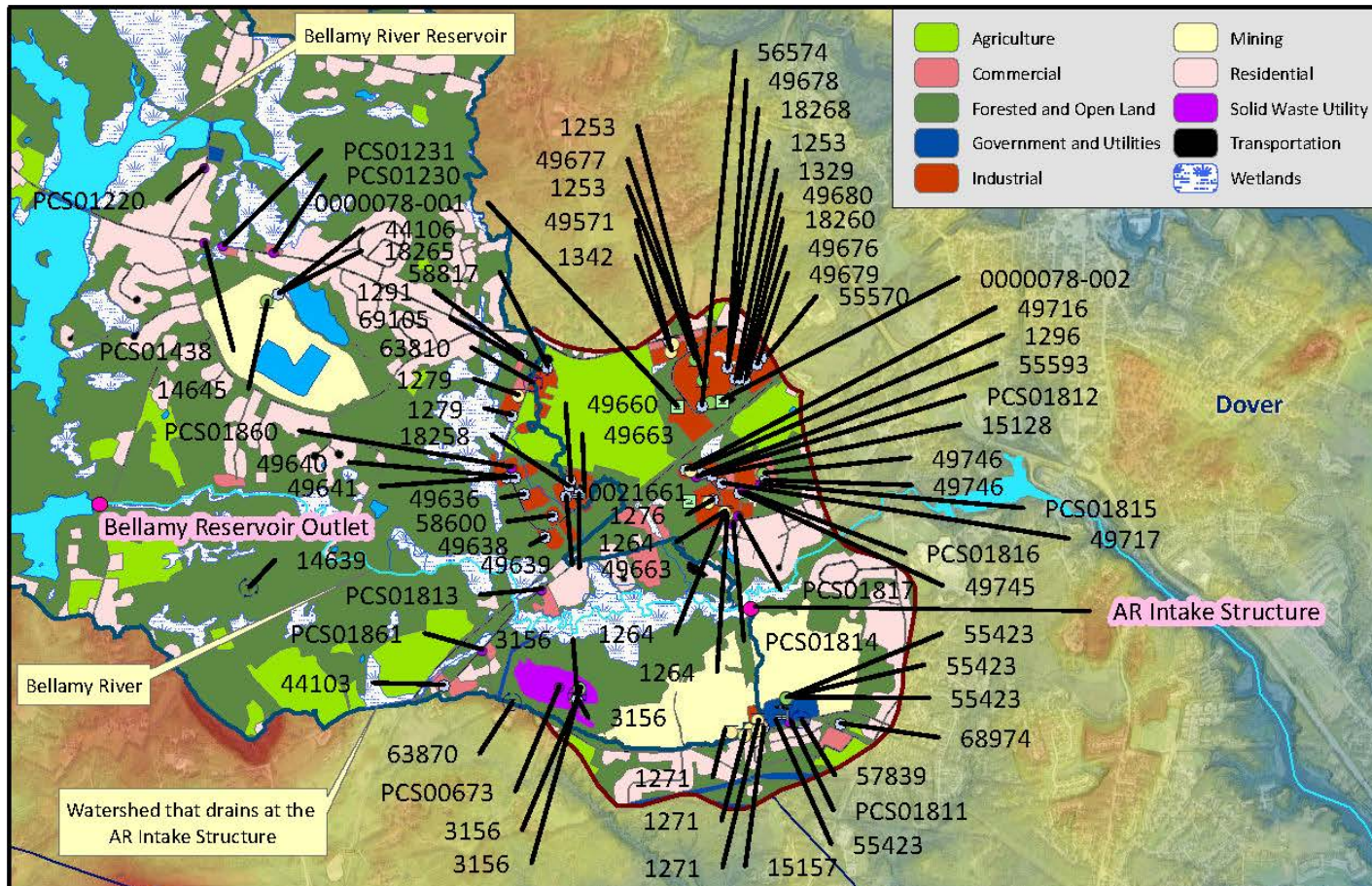


FIGURE 6b
Potential Contaminant Threats
(NHDES Databases)

Source Water Protection Plan
Pudding Hill Aquifer Recharge Facility
Dover, New Hampshire

Legend

-
- | | |
|---|----------------------------------|
|  | Bellamy River |
|  | Stream or Brook within Watershed |
|  | Bellamy River Reservoir |
|  | Water Body within Watershed |
|  | Watershed at AR Intake |
|  | DPH #1 Wellhead Protection Area |

Potential Contaminant Threats

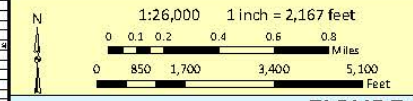
-  NHDES - Above Ground Storage Tank (astsite)
-  NHDES - Automobile Salvage Yard
-  NHDES - RCRA Hazardous Waste Generator (rsite)
-  NHDES - Local Potential Contamination Sources (localinv)
-  Air Facility System
-  NHDES - NPDES Outfall
-  NHDES - Solid Waste Facility
-  NHDES - Underground Storage Tank (ustsite)

LiDAR (meters)

High : 95.8513

Low : -0.93539

LIDAR data source: 2011 Coastal NH Bare Earth DEM Tiles
NH Granit LIDAR Project - <https://lidar.unh.edu/map>



Emery & Garrett

Groundwater Investigations, A Division of GZA

TYPE	ID	FACILITY	Local Public Drinking Water Systems				Local Potential Contamination Sources				Underground Storage Tanks	
			MASTID	SITE NAME	TYPE	SITE ID	SITE NAME	SITE ID	SITE NAME	MASTID	FACILITY	
ASTN	150	AMERICAN AUTOMATIC CO. #1 WASTEWATER	150	CO. 11111111111111111111	PCMA001	150	CO. 11111111111111111111	PCMA001	150	CO. 11111111111111111111	PCMA001	
	1506	NY STATE RECORDING & REPAIR SHOP	1506	REPAIR SHOP	PCMA002	1506	REPAIR SHOP	PCMA002	1506	REPAIR SHOP	PCMA002	
	1515	NY STATE RECORDING & REPAIR SHOP	1515	REPAIR SHOP	PCMA003	1515	REPAIR SHOP	PCMA003	1515	REPAIR SHOP	PCMA003	
	1516	NY STATE RECORDING & REPAIR SHOP	1516	REPAIR SHOP	PCMA004	1516	REPAIR SHOP	PCMA004	1516	REPAIR SHOP	PCMA004	
	1517	NY STATE RECORDING & REPAIR SHOP	1517	REPAIR SHOP	PCMA005	1517	REPAIR SHOP	PCMA005	1517	REPAIR SHOP	PCMA005	
	1518	NY STATE RECORDING & REPAIR SHOP	1518	REPAIR SHOP	PCMA006	1518	REPAIR SHOP	PCMA006	1518	REPAIR SHOP	PCMA006	
	1519	NY STATE RECORDING & REPAIR SHOP	1519	REPAIR SHOP	PCMA007	1519	REPAIR SHOP	PCMA007	1519	REPAIR SHOP	PCMA007	
	1520	NY STATE RECORDING & REPAIR SHOP	1520	REPAIR SHOP	PCMA008	1520	REPAIR SHOP	PCMA008	1520	REPAIR SHOP	PCMA008	
	1521	NY STATE RECORDING & REPAIR SHOP	1521	REPAIR SHOP	PCMA009	1521	REPAIR SHOP	PCMA009	1521	REPAIR SHOP	PCMA009	
	1522	NY STATE RECORDING & REPAIR SHOP	1522	REPAIR SHOP	PCMA010	1522	REPAIR SHOP	PCMA010	1522	REPAIR SHOP	PCMA010	
ASTN	1523	NY STATE RECORDING & REPAIR SHOP	1523	REPAIR SHOP	PCMA011	1523	REPAIR SHOP	PCMA011	1523	REPAIR SHOP	PCMA011	
	1524	NY STATE RECORDING & REPAIR SHOP	1524	REPAIR SHOP	PCMA012	1524	REPAIR SHOP	PCMA012	1524	REPAIR SHOP	PCMA012	
	1525	NY STATE RECORDING & REPAIR SHOP	1525	REPAIR SHOP	PCMA013	1525	REPAIR SHOP	PCMA013	1525	REPAIR SHOP	PCMA013	
	1526	NY STATE RECORDING & REPAIR SHOP	1526	REPAIR SHOP	PCMA014	1526	REPAIR SHOP	PCMA014	1526	REPAIR SHOP	PCMA014	
	1527	NY STATE RECORDING & REPAIR SHOP	1527	REPAIR SHOP	PCMA015	1527	REPAIR SHOP	PCMA015	1527	REPAIR SHOP	PCMA015	
	1528	NY STATE RECORDING & REPAIR SHOP	1528	REPAIR SHOP	PCMA016	1528	REPAIR SHOP	PCMA016	1528	REPAIR SHOP	PCMA016	
	1529	NY STATE RECORDING & REPAIR SHOP	1529	REPAIR SHOP	PCMA017	1529	REPAIR SHOP	PCMA017	1529	REPAIR SHOP	PCMA017	
	1530	NY STATE RECORDING & REPAIR SHOP	1530	REPAIR SHOP	PCMA018	1530	REPAIR SHOP	PCMA018	1530	REPAIR SHOP	PCMA018	
	1531	NY STATE RECORDING & REPAIR SHOP	1531	REPAIR SHOP	PCMA019	1531	REPAIR SHOP	PCMA019	1531	REPAIR SHOP	PCMA019	
	1532	NY STATE RECORDING & REPAIR SHOP	1532	REPAIR SHOP	PCMA020	1532	REPAIR SHOP	PCMA020	1532	REPAIR SHOP	PCMA020	
ASTN	1533	NY STATE RECORDING & REPAIR SHOP	1533	REPAIR SHOP	PCMA021	1533	REPAIR SHOP	PCMA021	1533	REPAIR SHOP	PCMA021	
	1534	NY STATE RECORDING & REPAIR SHOP	1534	REPAIR SHOP	PCMA022	1534	REPAIR SHOP	PCMA022	1534	REPAIR SHOP	PCMA022	
	1535	NY STATE RECORDING & REPAIR SHOP	1535	REPAIR SHOP	PCMA023	1535	REPAIR SHOP	PCMA023	1535	REPAIR SHOP	PCMA023	
	1536	NY STATE RECORDING & REPAIR SHOP	1536	REPAIR SHOP	PCMA024	1536	REPAIR SHOP	PCMA024	1536	REPAIR SHOP	PCMA024	
	1537	NY STATE RECORDING & REPAIR SHOP	1537	REPAIR SHOP	PCMA025	1537	REPAIR SHOP	PCMA025	1537	REPAIR SHOP	PCMA025	
	1538	NY STATE RECORDING & REPAIR SHOP	1538	REPAIR SHOP	PCMA026	1538	REPAIR SHOP	PCMA026	1538	REPAIR SHOP	PCMA026	
	1539	NY STATE RECORDING & REPAIR SHOP	1539	REPAIR SHOP	PCMA027	1539	REPAIR SHOP	PCMA027	1539	REPAIR SHOP	PCMA027	
	1540	NY STATE RECORDING & REPAIR SHOP	1540	REPAIR SHOP	PCMA028	1540	REPAIR SHOP	PCMA028	1540	REPAIR SHOP	PCMA028	
	1541	NY STATE RECORDING & REPAIR SHOP	1541	REPAIR SHOP	PCMA029	1541	REPAIR SHOP	PCMA029	1541	REPAIR SHOP	PCMA029	
	1542	NY STATE RECORDING & REPAIR SHOP	1542	REPAIR SHOP	PCMA030	1542	REPAIR SHOP	PCMA030	1542	REPAIR SHOP	PCMA030	
ASTN	1543	NY STATE RECORDING & REPAIR SHOP	1543	REPAIR SHOP	PCMA031	1543	REPAIR SHOP	PCMA031	1543	REPAIR SHOP	PCMA031	
	1544	NY STATE RECORDING & REPAIR SHOP	1544	REPAIR SHOP	PCMA032	1544	REPAIR SHOP	PCMA032	1544	REPAIR SHOP	PCMA032	
	1545	NY STATE RECORDING & REPAIR SHOP	1545	REPAIR SHOP	PCMA033	1545	REPAIR SHOP	PCMA033	1545	REPAIR SHOP	PCMA033	
	1546	NY STATE RECORDING & REPAIR SHOP	1546	REPAIR SHOP	PCMA034	1546	REPAIR SHOP	PCMA034	1546	REPAIR SHOP	PCMA034	
	1547	NY STATE RECORDING & REPAIR SHOP	1547	REPAIR SHOP	PCMA035	1547	REPAIR SHOP	PCMA035	1547	REPAIR SHOP	PCMA035	
	1548	NY STATE RECORDING & REPAIR SHOP	1548	REPAIR SHOP	PCMA036	1548	REPAIR SHOP	PCMA036	1548	REPAIR SHOP	PCMA036	
	1549	NY STATE RECORDING & REPAIR SHOP	1549	REPAIR SHOP	PCMA037	1549	REPAIR SHOP	PCMA037	1549	REPAIR SHOP	PCMA037	
	1550	NY STATE RECORDING & REPAIR SHOP	1550	REPAIR SHOP	PCMA038	1550	REPAIR SHOP	PCMA038	1550	REPAIR SHOP	PCMA038	
	1551	NY STATE RECORDING & REPAIR SHOP	1551	REPAIR SHOP	PCMA039	1551	REPAIR SHOP	PCMA039	1551	REPAIR SHOP	PCMA039	
	1552	NY STATE RECORDING & REPAIR SHOP	1552	REPAIR SHOP	PCMA040	1552	REPAIR SHOP	PCMA040	1552	REPAIR SHOP	PCMA040	
ASTN	1553	NY STATE RECORDING & REPAIR SHOP	1553	REPAIR SHOP	PCMA041	1553	REPAIR SHOP	PCMA041	1553	REPAIR SHOP	PCMA041	
	1554	NY STATE RECORDING & REPAIR SHOP	1554	REPAIR SHOP	PCMA042	1554	REPAIR SHOP	PCMA042	1554	REPAIR SHOP	PCMA042	
	1555	NY STATE RECORDING & REPAIR SHOP	1555	REPAIR SHOP	PCMA043	1555	REPAIR SHOP	PCMA043	1555	REPAIR SHOP	PCMA043	
	1556	NY STATE RECORDING & REPAIR SHOP	1556	REPAIR SHOP	PCMA044	1556	REPAIR SHOP	PCMA044	1556	REPAIR SHOP	PCMA044	
	1557	NY STATE RECORDING & REPAIR SHOP	1557	REPAIR SHOP	PCMA045	1557	REPAIR SHOP	PCMA045	1557	REPAIR SHOP	PCMA045	
	1558	NY STATE RECORDING & REPAIR SHOP	1558	REPAIR SHOP	PCMA046	1558	REPAIR SHOP	PCMA046	1558	REPAIR SHOP	PCMA046	
	1559	NY STATE RECORDING & REPAIR SHOP	1559	REPAIR SHOP	PCMA047	1559	REPAIR SHOP	PCMA047	1559	REPAIR SHOP	PCMA047	
	1560	NY STATE RECORDING & REPAIR SHOP	1560	REPAIR SHOP	PCMA048	1560	REPAIR SHOP	PCMA048	1560	REPAIR SHOP	PCMA048	
	1561	NY STATE RECORDING & REPAIR SHOP	1561	REPAIR SHOP	PCMA049	1561	REPAIR SHOP	PCMA049	1561	REPAIR SHOP	PCMA049	
	1562	NY STATE RECORDING & REPAIR SHOP	1562	REPAIR SHOP	PCMA050	1562	REPAIR SHOP	PCMA050	1562	REPAIR SHOP	PCMA050	
ASTN	1563	NY STATE RECORDING & REPAIR SHOP	1563	REPAIR SHOP	PCMA051	1563	REPAIR SHOP	PCMA051	1563	REPAIR SHOP	PCMA051	
	1564	NY STATE RECORDING & REPAIR SHOP	1564	REPAIR SHOP	PCMA052	1564	REPAIR SHOP	PCMA052	1564	REPAIR SHOP	PCMA052	
	1565	NY STATE RECORDING & REPAIR SHOP	1565	REPAIR SHOP	PCMA053	1565	REPAIR SHOP	PCMA053	1565	REPAIR SHOP	PCMA053	
	1566	NY STATE RECORDING & REPAIR SHOP	1566	REPAIR SHOP	PCMA054	1566	REPAIR SHOP	PCMA054	1566	REPAIR SHOP	PCMA054	
	1567	NY STATE RECORDING & REPAIR SHOP	1567	REPAIR SHOP	PCMA055	1567	REPAIR SHOP	PCMA055	1567	REPAIR SHOP	PCMA055	
	1568	NY STATE RECORDING & REPAIR SHOP	1568	REPAIR SHOP	PCMA056	1568	REPAIR SHOP	PCMA056	1568	REPAIR SHOP	PCMA056	
	1569	NY STATE RECORDING & REPAIR SHOP	1569	REPAIR SHOP	PCMA057	1569	REPAIR SHOP	PCMA057	1569	REPAIR SHOP	PCMA057	
	1570	NY STATE RECORDING & REPAIR SHOP	1570	REPAIR SHOP	PCMA058	1570	REPAIR SHOP	PCMA058	1570	REPAIR SHOP	PCMA058	
	1571	NY STATE RECORDING & REPAIR SHOP	1571	REPAIR SHOP	PCMA059	1571	REPAIR SHOP	PCMA059	1571	REPAIR SHOP	PCMA059	
	1572	NY STATE RECORDING & REPAIR SHOP	1572	REPAIR SHOP	PCMA060	1572	REPAIR SHOP	PCMA060	1572	REPAIR SHOP	PCMA060	
ASTN	1573	NY STATE RECORDING & REPAIR SHOP	1573	REPAIR SHOP	PCMA061	1573	REPAIR SHOP	PCMA061	1573	REPAIR SHOP	PCMA061	
	1574	NY STATE RECORDING & REPAIR SHOP	1574	REPAIR SHOP	PCMA062	1574	REPAIR SHOP	PCMA062	1574	REPAIR SHOP	PCMA062	
	1575	NY STATE RECORDING & REPAIR SHOP	1575	REPAIR SHOP	PCMA063	1575	REPAIR SHOP	PCMA063	1575	REPAIR SHOP	PCMA063	
	1576	NY STATE RECORDING & REPAIR SHOP	1576	REPAIR SHOP	PCMA064	1576	REPAIR SHOP	PCMA064	1576	REPAIR SHOP	PCMA064	
	1577	NY STATE RECORDING & REPAIR SHOP	1577	REPAIR SHOP	PCMA065	1577	REPAIR SHOP	PCMA065	1577	REPAIR SHOP	PCMA065	
	1578	NY STATE RECORDING & REPAIR SHOP	1578	REPAIR SHOP	PCMA066	1578	REPAIR SHOP	PCMA066	1578	REPAIR SHOP	PCMA066	
	1579	NY STATE RECORDING & REPAIR SHOP	1579	REPAIR SHOP	PCMA067	1579	REPAIR SHOP	PCMA067	1579	REPAIR SHOP	PCMA067	
	1580	NY STATE RECORDING & REPAIR SHOP	1580	REPAIR SHOP	PCMA068	1580	REPAIR SHOP	PCMA068	1580	REPAIR SHOP	PCMA068	
	1581	NY STATE RECORDING & REPAIR SHOP	1581	REPAIR SHOP	PCMA069	1581	REPAIR SHOP	PCMA069	1581	REPAIR SHOP	PCMA069	
	1582	NY STATE RECORDING & REPAIR SHOP	1582	REPAIR SHOP	PCMA070	1582	REPAIR SHOP	PCMA070	1582	REPAIR SHOP	PCMA070	
ASTN	1583	NY STATE RECORDING & REPAIR SHOP	1583	REPAIR SHOP	PCMA071	1583	REPAIR SHOP	PCMA071	1583	REPAIR SHOP	PCMA071	
	1584	NY STATE RECORDING & REPAIR SHOP	1584	REPAIR SHOP	PCMA072	1584	REPAIR SHOP	PCMA072	1584	REPAIR SHOP	PCMA072	
	1585	NY STATE RECORDING & REPAIR SHOP	1585	REPAIR SHOP	PCMA073	1585	REPAIR SHOP	PCMA073	1585	REPAIR SHOP	PCMA073	
	1586	NY STATE RECORDING & REPAIR SHOP	1586	REPAIR SHOP	PCMA074	1586	REPAIR SHOP	PCMA074	1586	REPAIR SHOP	PCMA074	
	1587	NY STATE RECORDING & REPAIR SHOP	1587	REPAIR SHOP	PCMA075	1587	REPAIR SHOP	PCMA075	1587	REPAIR SHOP	PCMA075	
	1588	NY STATE RECORDING & REPAIR SHOP	1588	REPAIR SHOP	PCMA076	1588	REPAIR SHOP	PCMA076	1588	REPAIR SHOP	PCMA076	
	1589	NY STATE RECORDING & REPAIR SHOP	1589	REPAIR SHOP	PCMA077	1589	REPAIR SHOP	PCMA077	1589	REPAIR SHOP	PCMA077	
	1590	NY STATE RECORDING & REPAIR SHOP	1590	REPAIR SHOP	PCMA078	1590	REPAIR SHOP	PCMA078	1590	REPAIR SHOP	PCMA078	
	1591	NY STATE RECORDING & REPAIR SHOP	1591	REPAIR SHOP	PCMA079	1591	REPAIR SHOP	PCMA079	1591	REPAIR SHOP	PCMA079	
	1592	NY STATE RECORDING & REPAIR SHOP	1592	REPAIR SHOP	PCMA080	1592	REPAIR SHOP	PCMA080	1592	REPAIR SHOP	PCMA080	
ASTN	1593	NY STATE RECORDING & REPAIR SHOP	1593	REPAIR SHOP	PCMA081	1593	REPAIR SHOP	PCMA081	1593	REPAIR SHOP	PCMA081	
	1594	NY STATE RECORDING & REPAIR SHOP	1594	REPAIR SHOP	PCMA082	1594	REPAIR SHOP	PCMA082	1594	REPAIR SHOP	PCMA082	
	1595	NY STATE RECORDING & REPAIR SHOP	1595	REPAIR SHOP	PCMA083	1595	REPAIR SHOP	PCMA083	1595	REPAIR SHOP	PCMA083	
	1596	NY STATE RECORDING & REPAIR SHOP	1596	REPAIR SHOP	PCMA084	1596	REPAIR SHOP	PCMA084	1596	REPAIR SHOP	PCMA084	
	1597	NY STATE RECORDING & REPAIR SHOP	1597	REPAIR SHOP	PCMA085	1597	REPAIR SHOP	PCMA085	1597	REPAIR SHOP	PCMA085	
	1598	NY STATE RECORDING & REPAIR SHOP	1598	REPAIR SHOP	PCMA086	1598	REPAIR SHOP	PCMA086	1598	REPAIR SHOP	PCMA086	
	1599	NY STATE RECORDING & REPAIR SHOP	1599	REPAIR SHOP	PCMA087	1599	REPAIR SHOP	PCMA087	1599	REPAIR SHOP	PCMA087	
	1600	NY STATE RECORDING & REPAIR SHOP	1600	REPAIR SHOP	PCMA088	1600	REPAIR SHOP	PCMA088	1600	REPAIR SHOP	PCMA088	
	1601	NY STATE RECORDING & REPAIR SHOP	1601	REPAIR SHOP	PCMA089	1601	REPAIR SHOP	PCMA089	1601	REPAIR SHOP	PCMA089	
	1602	NY STATE RECORDING & REPAIR SHOP	1602	REPAIR SHOP	PCMA090	1602	REPAIR SHOP	PCMA090	1602	REPAIR SHOP	PCMA090	
ASTN	1603	NY STATE RECORDING & REPAIR SHOP	1603	REPAIR SHOP	PCMA091	1603	REPAIR SHOP	PCMA091	1603	REPAIR SHOP	PCMA091	
	1604	NY STATE RECORDING & REPAIR SHOP	1604	REPAIR SHOP	PCMA092	1604	REPAIR SHOP	PCMA092	1604	REPAIR SHOP	PCMA092	
	1605	NY STATE RECORDING & REPAIR SHOP	1605	REPAIR SHOP	PCMA093	1605	REPAIR SHOP	PCMA093	1605	REPAIR SHOP	PCMA093	
	1606	NY STATE RECORDING & REPAIR SHOP	1606	REPAIR SHOP	PCMA094	1606	REPAIR SHOP	PCMA094	1606	REPAIR SHOP	PCMA094	
	1607	NY STATE RECORDING & REPAIR SHOP	1607	REPAIR SHOP	PCMA095	1607	REPAIR SHOP	PCMA095	1607	REPAIR SHOP	PCMA095	
	1608	NY STATE RECORDING & REPAIR SHOP	1608	REPAIR SHOP	PCMA096	1608	REPAIR SHOP	PCMA096	1608	REPAIR SHOP	PCMA096	
	1609	NY STATE RECORDING & REPAIR SHOP	1609	REPAIR SHOP	PCMA097	1609	REPAIR SHOP	PCMA097	1609	REPAIR SHOP	PCMA097	
	1610	NY STATE RECORDING & REPAIR SHOP	1610	REPAIR SHOP	PCMA098	1610	REPAIR SHOP	PCMA098	1610	REPAIR SHOP	PCMA098	
	1611	NY STATE RECORDING & REPAIR SHOP	1611	REPAIR SHOP	PCMA099	1611	REPAIR SHOP	PCMA099	1611	REPAIR SHOP	PCMA099	
	1612	NY STATE RECORDING & REPAIR SHOP	1612	REPAIR SHOP	PCMA100	1612	REPAIR SHOP	PCMA100	1612	REPAIR SHOP	PCMA100	
ASTN	1613	NY STATE RECORDING & REPAIR SHOP	1613	REPAIR SHOP	PCMA101	1613	REPAIR SHOP	PCMA101	1613	REPAIR SHOP	PCMA101	
	1614	NY STATE RECORDING & REPAIR SHOP	1614	REPAIR SHOP	PCMA102	1614	REPAIR SHOP	PCMA102	1614	REPAIR SHOP	PCMA102	
	1615	NY STATE RECORDING & REPAIR SHOP	1615	REPAIR SHOP	PCMA103	1615	REPAIR SHOP	PCMA103	1615	REPAIR SHOP	PCMA103	
	1616	NY STATE RECORDING & REPAIR SHOP	1616	REPAIR SHOP	PCMA104	1616	REPAIR SHOP	PCMA104	1616	REPAIR SHOP	PCMA104	
	1617	NY STATE RECORDING & REPAIR SHOP	1617	REPAIR SHOP	PCMA105	1617	REPAIR SHOP	PCMA105	1617	REPAIR SHOP	PCMA105	
	1618	NY STATE RECORDING & REPAIR SHOP	1618	REPAIR SHOP	PCMA106	1618	REPAIR SHOP	PCMA106	1618	REPAIR SHOP	PCMA106	
	1619	NY STATE RECORDING & REPAIR SHOP	1619	REPAIR SHOP	PCMA107	1619	REPAIR SHOP	PCMA107	1619	REPAIR SHOP	PCMA107	
	1620	NY STATE RECORDING & REPAIR SHOP	1620	REPAIR SHOP	PCMA108	1620	REPAIR SHOP	PCMA108	1620	REPAIR SHOP	PCMA108	
	1621	NY STATE RECORDING & REPAIR SHOP	1621	REPAIR SHOP	PCMA109	1621	REPAIR SHOP	PCMA109	1621	REPAIR SHOP	PCMA109	
	1622	NY STATE RECORDING & REPAIR SHOP	1622	REPAIR SHOP	PCMA110	1622	REPAIR SHOP	PCMA110	1622	REPAIR SHOP	PCMA110	
ASTN	1623	NY STATE RECORDING & REPAIR SHOP	1623	REPAIR SHOP	PCMA111	1623						

SWPP – Risk Management Approach

- Address potential threats to surface water quality throughout the watershed
 - Considers the limited watershed size,
 - Low density of existing development, and
 - Low number of identified existing and potential contaminant sources.
 - Including the entire Watershed within the SWPP, also considers the collective contaminant mass loading throughout the Watershed on water quality at the AARF Intake.
 - Primary SWPP components include:
 - Water quality monitoring
 - Review of threats to water quality
 - Communication to owners of threats
 - Outreach
 - Emergency response
-

Risk Management Methods

Risk management methods will be based on the nature of the threat to surface water quality:

Immediate Threats – managed using emergency communication and response plans focused on the identification and evaluation of immediate threats having the potential to cause a violation of the GDP. These threats are anticipated to primarily be related to spills of oil.

Short- to Long-Term Specific Threats – related to a property or activity will be managed, to the extent practicable, through monitoring, and targeted communication with site/property owners promoting use of best management practices (BMPs).

Long-Term General Threats – will be managed through monitoring, identification of general long-term threats and changes in land use, local land use regulations, and educational outreach.

Specific Risk Management Measures

Source water protection committee (SWPC)

- Composed of representatives of the City, local planning boards, local conservation commissions, City of Portsmouth, and a hydrogeologist.
- Tasked with:
 - Implementing the SWPP
 - Conducting meetings
 - Annual review of SWPP relative to objectives
 - Consideration of need for land use ordinances, and land conservation and funding potential
 - Annual review of the emergency response plan
 - Oversight of the annual update of the SWPP

Data collection and water quality monitoring

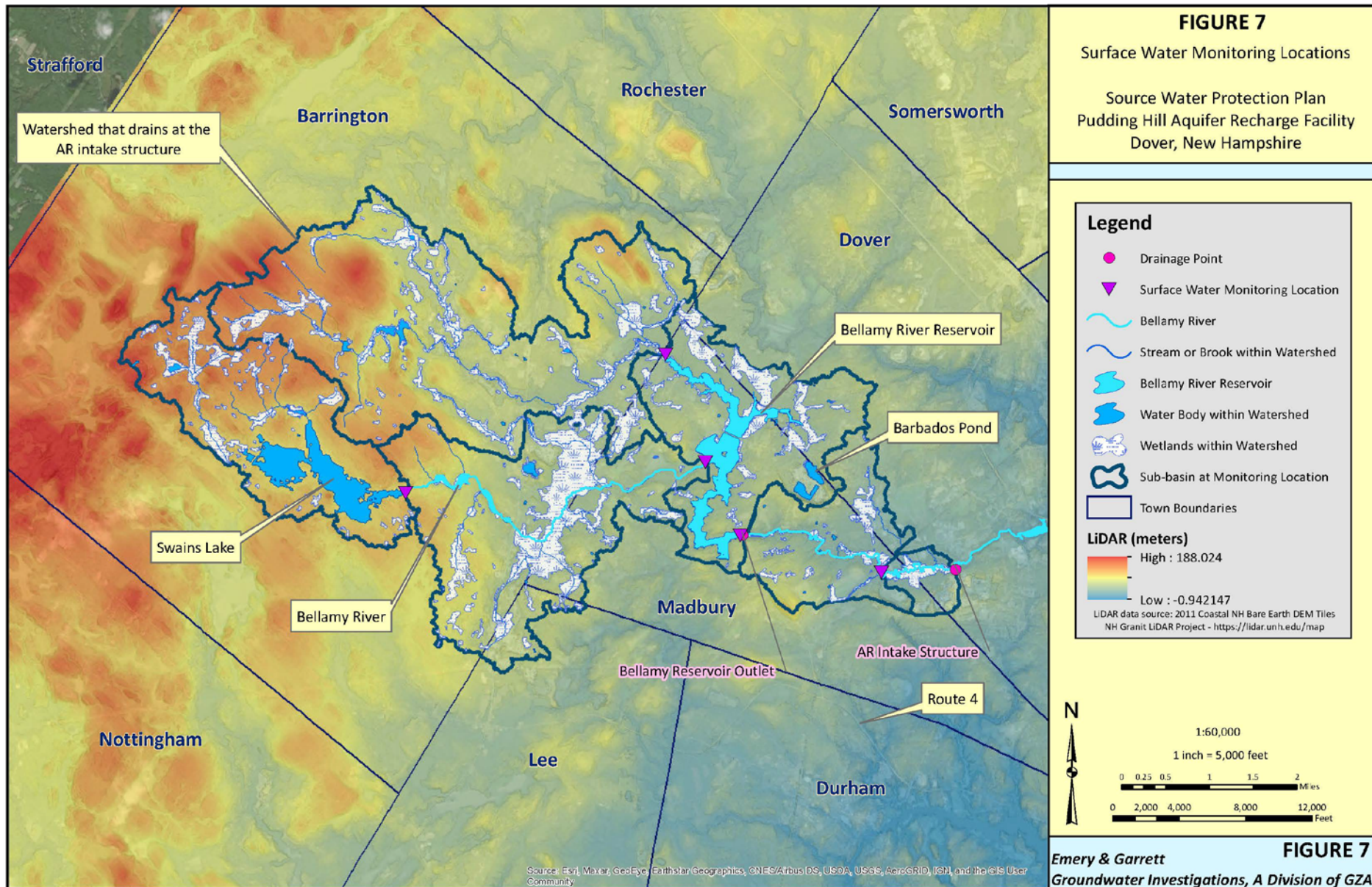
Communications plans

Emergency response planning

Security

SWPP – Monitoring

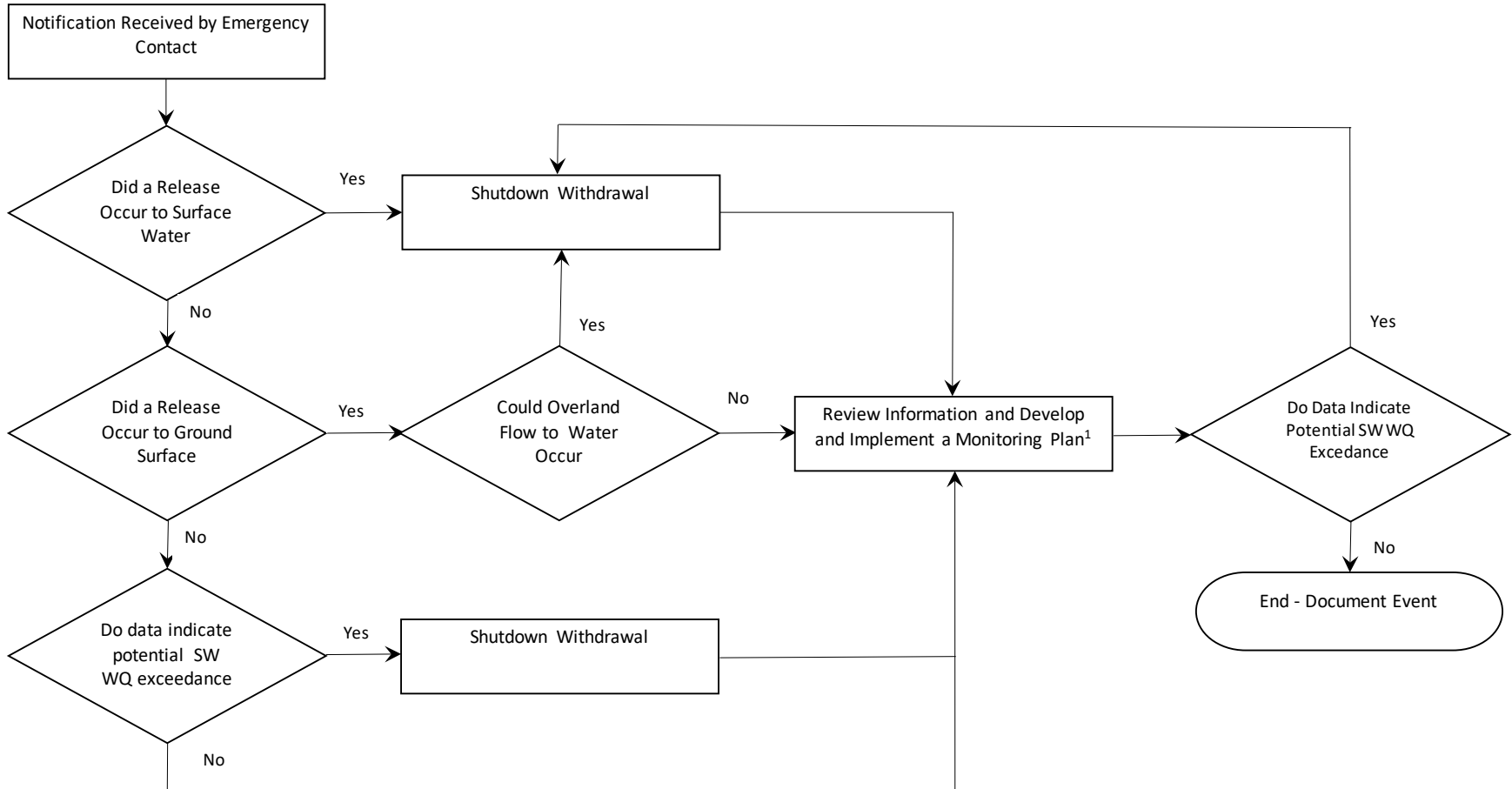
- Annual review of NHDES databases to update the existing and potential contaminant threat data the related land use information
 - Annual communication with the owners of existing and potential threats to water quality
 - Annual windshield surveys to field check the review of data and identify new potential threats.
 - Collection and analysis of surface water samples from five locations within the Watershed during April and September to, over time, provide water quality trend data that can be used to monitor changes in the water quality of the Bellamy River and, indirectly, the Watershed and identify changes within sub-watersheds which can be used to identify contaminant sources. VOCs, metals, PFAS, nitrate and nitrite, sodium, chloride, and field parameters (temperature, pH, specific conductance, DO, and ORP).
-



SWPP – Communications Plans

1. **Spill Notification and Adverse Water Quality Condition Communication** - communications necessary to notify the City of conditions that pose an immediate threat to water quality at the AARF Intake and may require shutdown of the withdrawal
 2. **Remedial Site and Potential Threat Owner/Operator Communication** - Targeted communications will be developed for selected specific threats to water quality that describe the AARF and importance of water quality throughout the Watershed and promote the use of BMPs
 3. **General Outreach**
 - Website
 - Signs
-

SWPP - Emergency Response Planning



Note:

1. Established monitoring under existing AARF permits may satisfy this requirement if risk is assessed to be limited.

SWPP – Security

Signs will be placed around the AR Basins indicating that only official access is permitted and that the basins are critical components of the City's municipal water system.