Drinking Water Source Protection Program (DWSP2)

November 7, 2026

Presented at the Woodstock Artist Association and Museum (WAAM)

In collaboration with Jennifer Zackin and the Woodstock Land Conservancy

Town of Woodstock

Why are we doing this?

"to improve and protect our public water sources and the surrounding environment for current and future residents."

SO…

What is the value of water?

Audience Response to "What is the Value of Water to you?"

- Past definitions for Woodstock Residents included: getting rid of waste, washing animals, industrial/manufacturing uses
- Current definitions:
  - Drinking water
  - Bathing/cleaning
  - Life force/life itself
  - Beauty and spirituality
  - Recreational values (canoeing, fishing, hiking, swimming, etc.)
  - Supports local tourism
  - Use for hydropower
  - Use for agriculture

We are focusing on Drinking Water

We talk about water use

We pay for water, what does that buy?

How much do we use?

Audience Response to “How much water do you use in your home per day per person?”

Town Averages for Well Pumping:
About 150,000 gpd for 2,500 persons
About 60 gpd per person

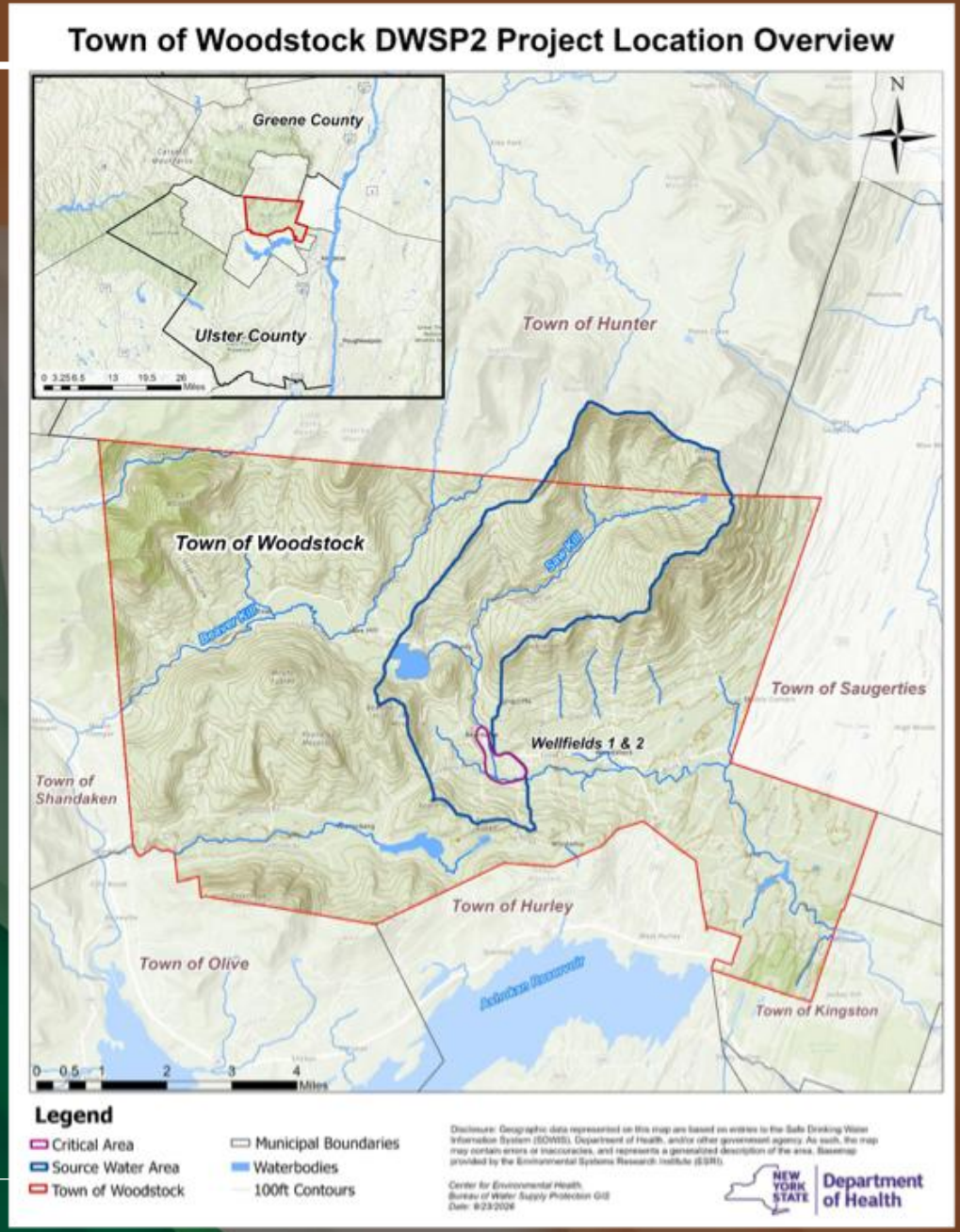
Peak Town Use:
About 230,00 gpd
About 90 gpd per person in the summer

- Drinking
- Washing Dishes (3 gallons per day per person (gpd))
- Cooking/Other Kitchen Uses (10 gpd)
- Laundry (6 gpd)
- Toilet (10 gpd)
- Showers/Bathing (15 gpd)
- Leaks (17% is local water loss) (9 gpd)
- Other (pets/indoor plants/bathroom uses) (6 gpd)
- **Comes to about 60 gpd per person**

DWSP2 focuses on:

The seven groundwater wells operated by the Woodstock Water District in the hamlet of Bearsville, which draw water from an unconsolidated sand and gravel aquifer, and

the contributing source water area, which extends up through Town hamlets of Shady, Lake Hill, and Willow.



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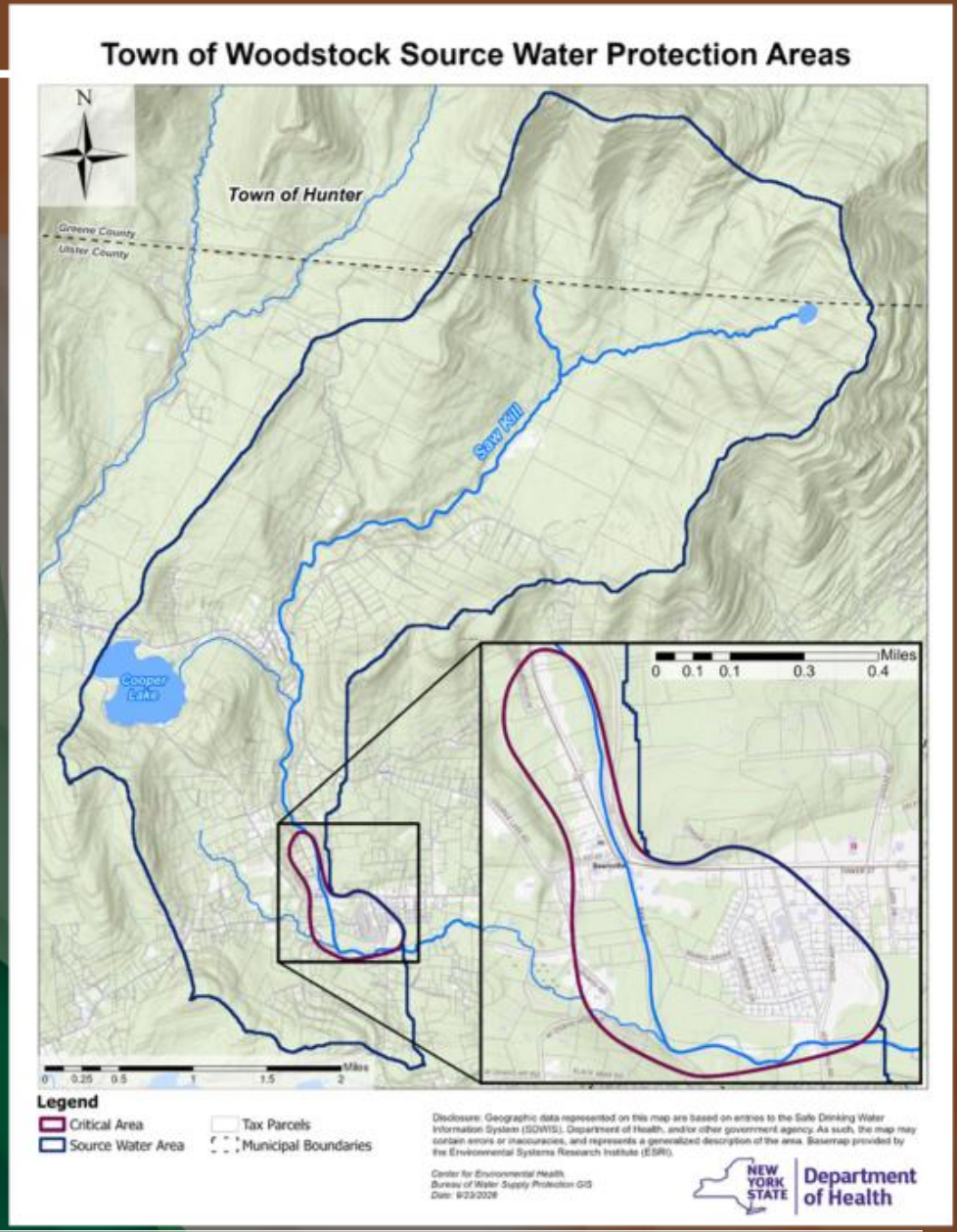
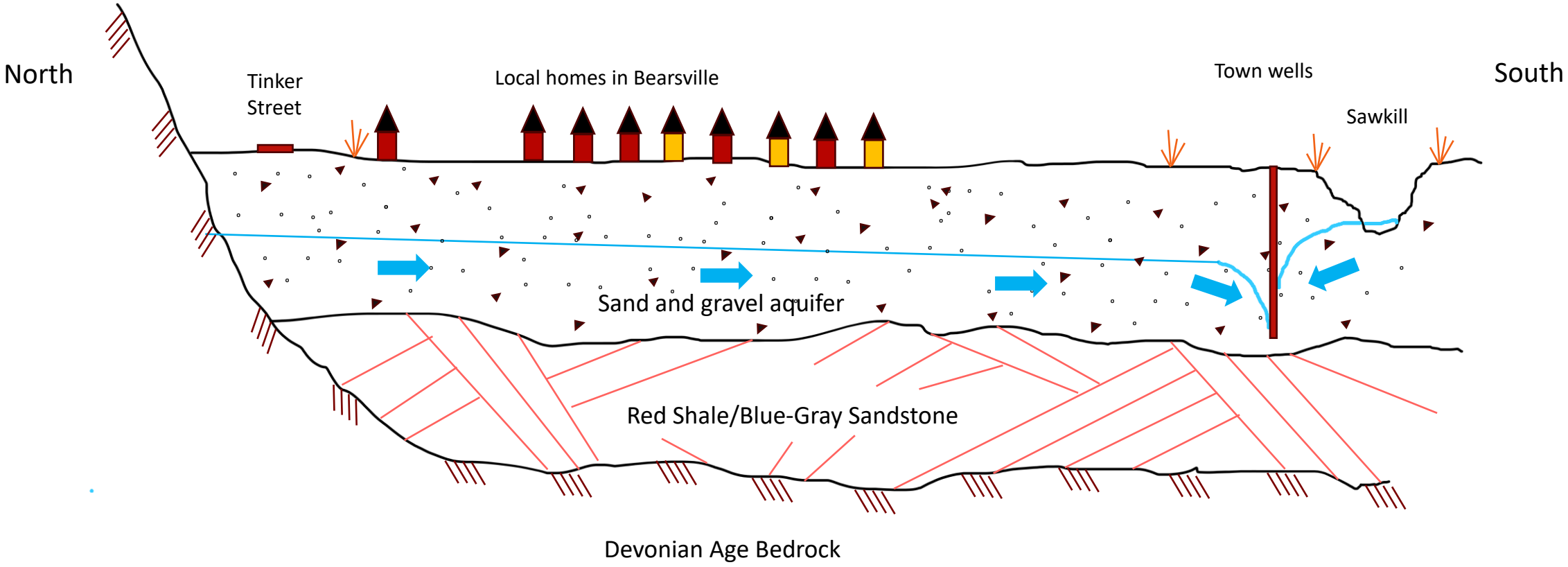


Conceptual Model of Bearsville Flats Groundwater Flow System
(cross section north to south)
Current settlement (1950s to present)



SO…

What are you curious about regarding your drinking water?

Audience response to “What are you curious about regarding your drinking water?”

- Percent of Woodstockers that use Town Water
- Town well safety – quality (including testing wells and the Sawkill) and future demands (do we have enough with changing/increasing demand and impacts of climate change on Sawkill flows)
- Testing of private wells (how and when)
- Aquifer plugging and well plugging (and remedies)
- Town storage tanks for supply and system pressure
- Effect of chlorination/does the chlorine stay around long enough in the system
- Impact of septic systems, especially in Bearsville (and how about older systems)
- Town infrastructure limits and needs
- Water system maintenance needs (e.g., water line flushing)

Implementing the Town's Drinking Water Source Protection Program intends to help the Town:

Promote public health and safety

Avoid preventable drinking water treatment costs

Increase community confidence in our shared drinking water

Strengthen community partnerships

What is the Town Doing?

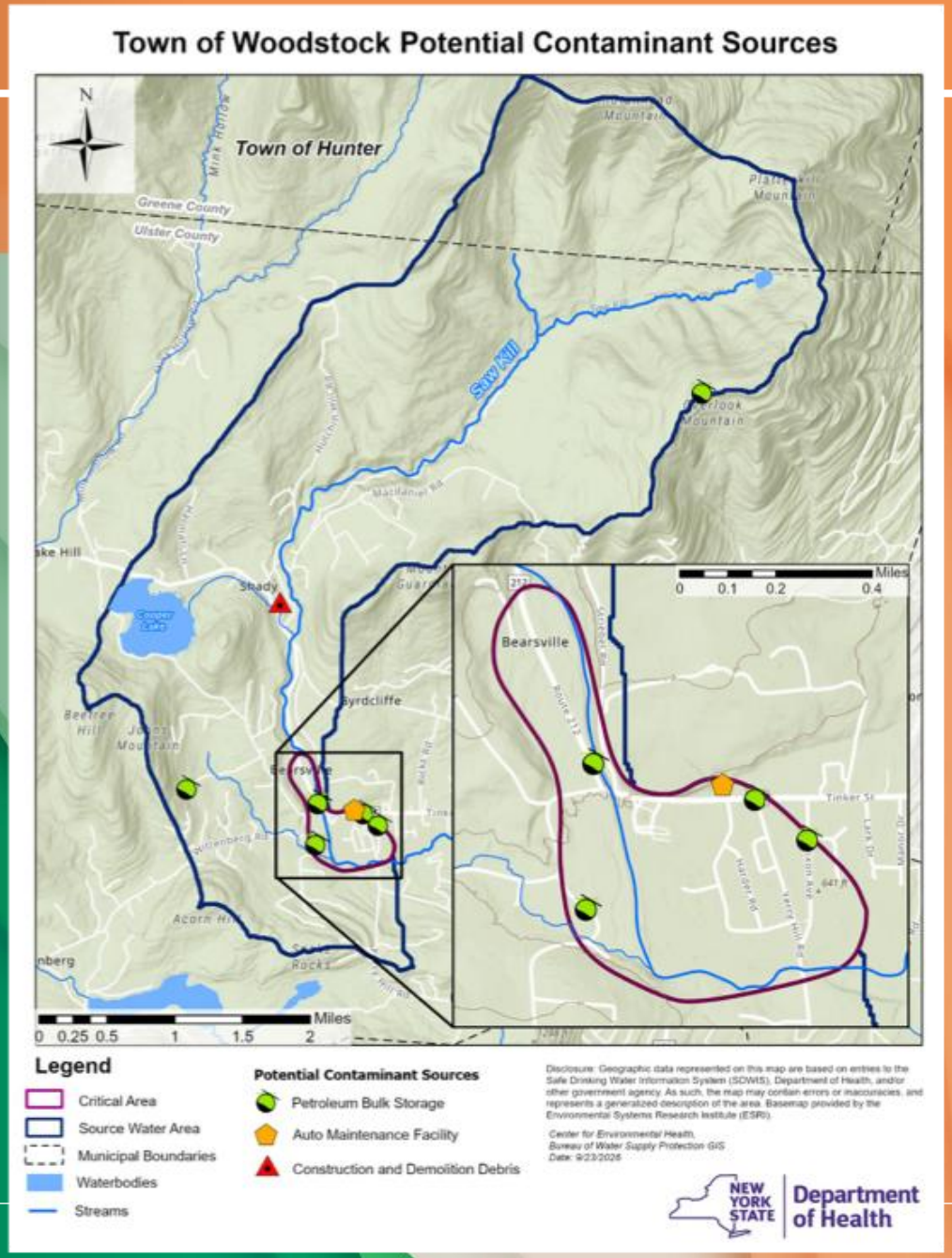
- Monitoring Town Wells
- Operating and Maintaining Well Water Treatment System
- Assessing and Addressing Potential Sources
  - Transportation System Impacts
  - Residential Impacts
  - Other Potential Sources
- Planning for Responsible Future Development
- Supporting Community Awareness and Engagement

SO…

Let’s Talk Pollutant Sources—Potential and Otherwise

Potential Sources

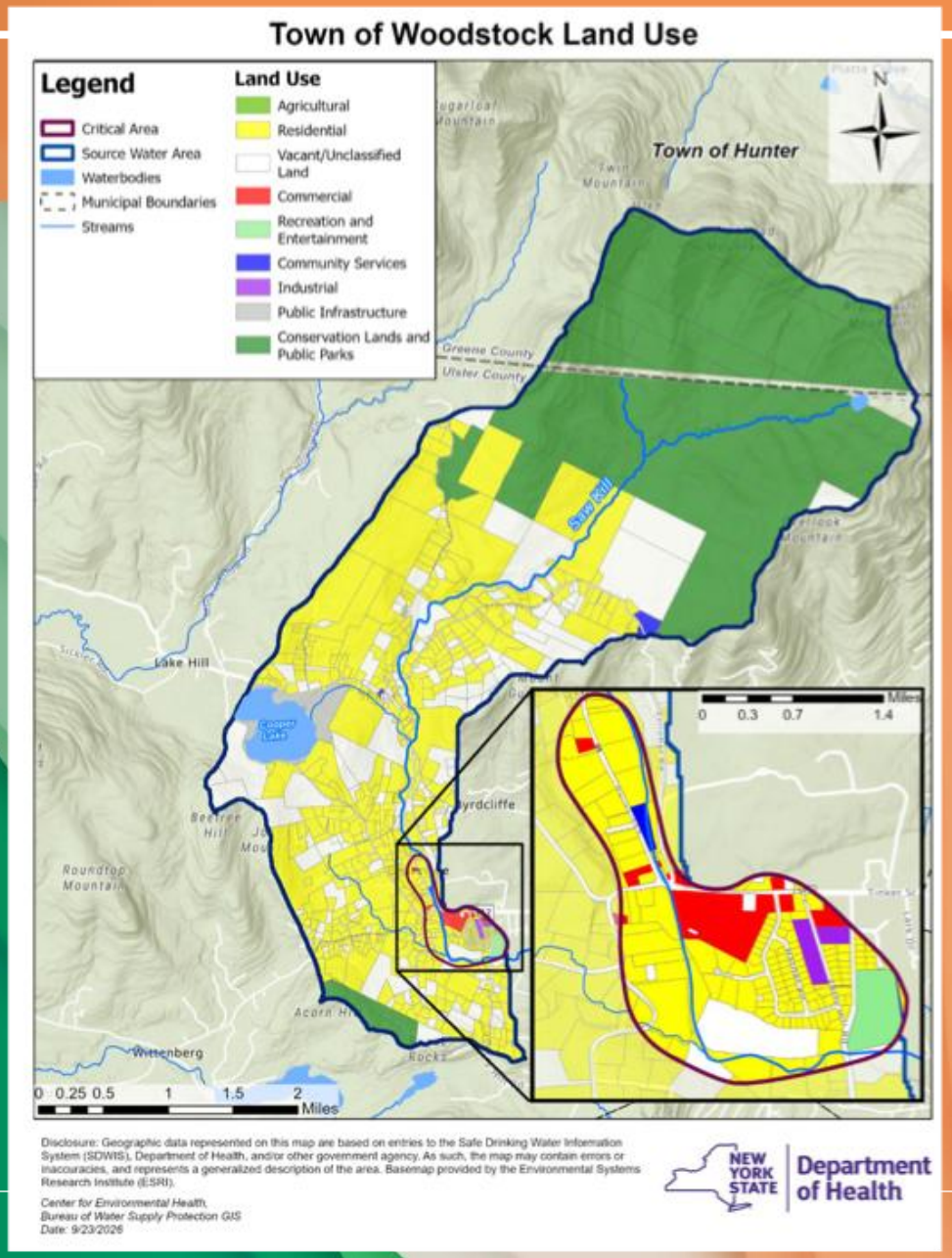
- Transportation
- Petroleum Storage
- Auto Maintenance
- Church Road C&D



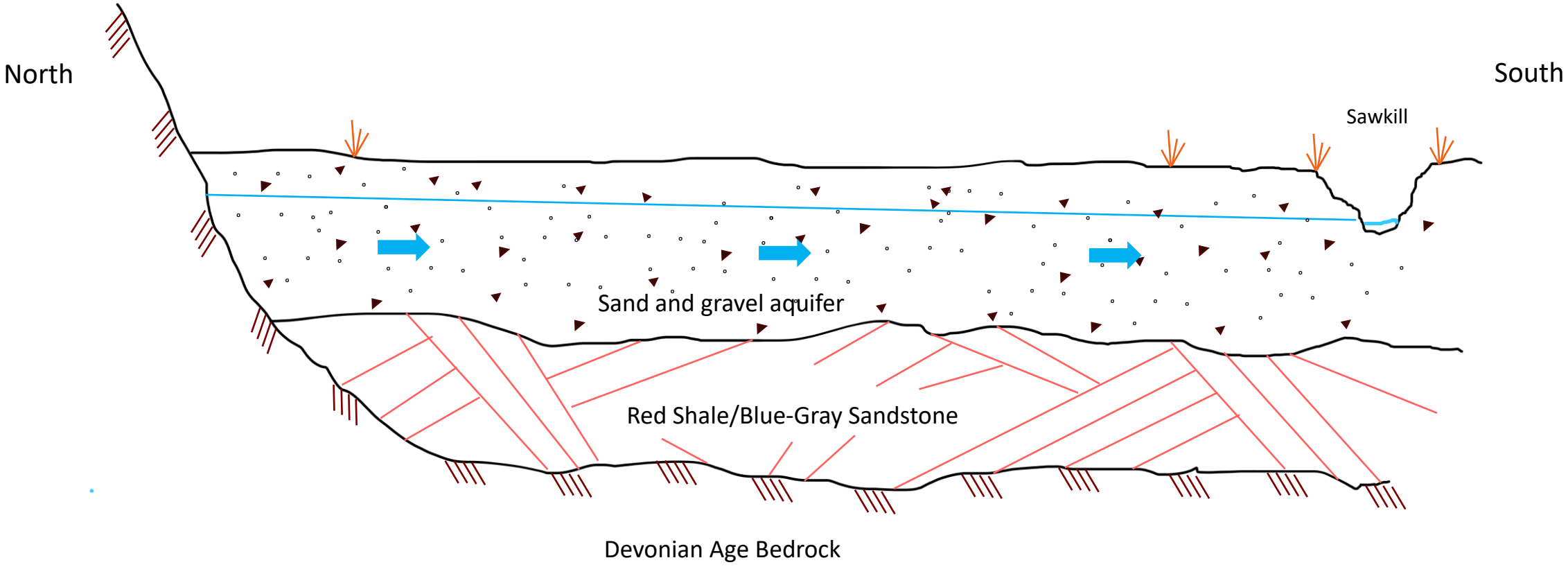
Potential Sources

Residential From Outdoor Sources

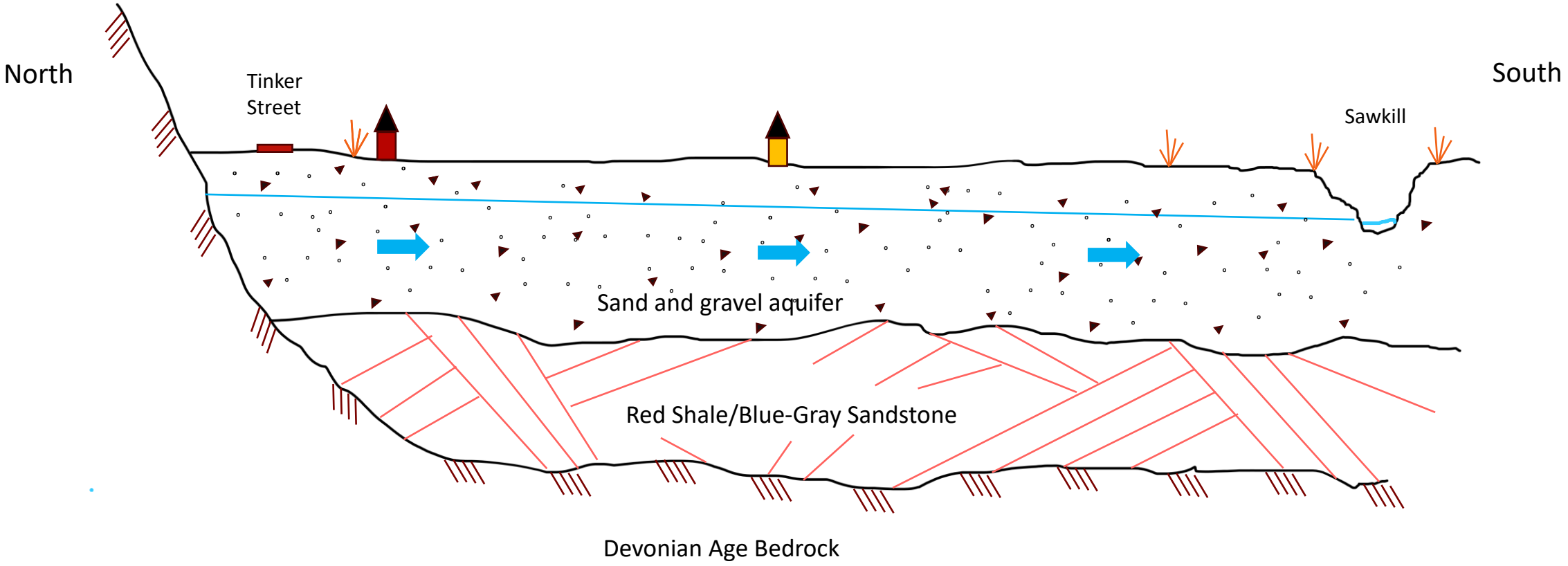
- Deicing
- Fertilizer/Pesticides/Herbicides
- Pooch Poop
- Oil and Grease



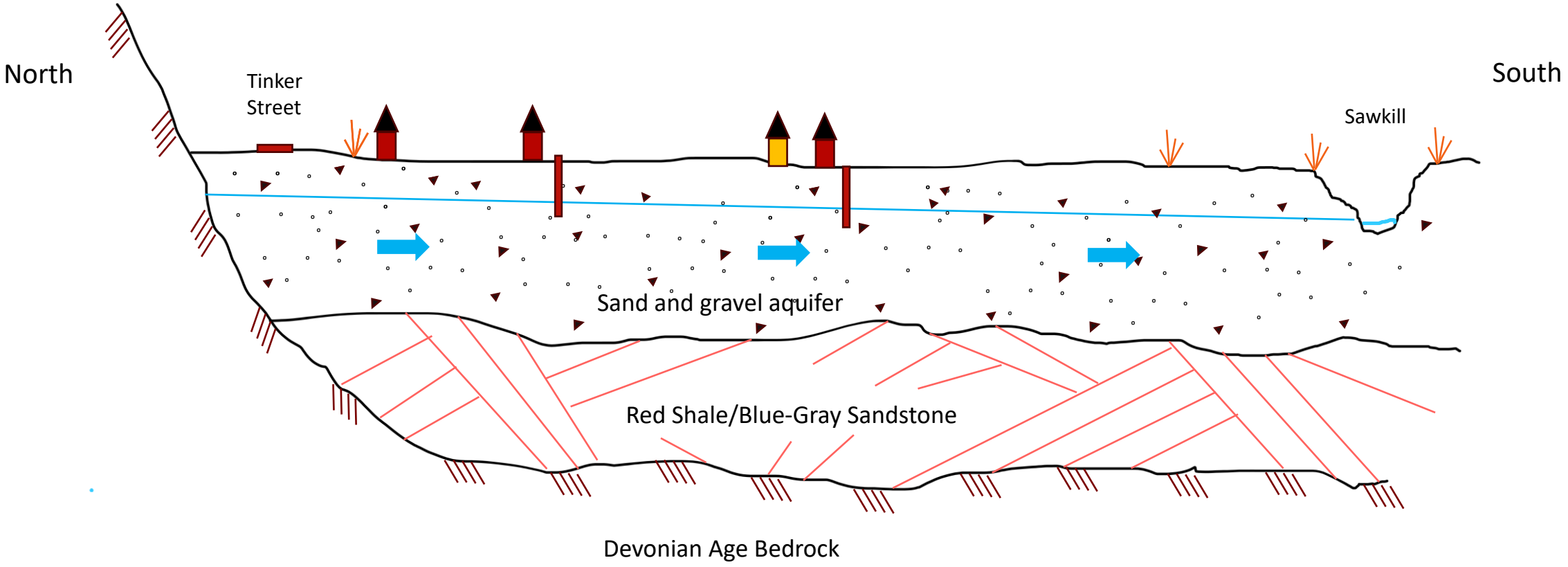
Conceptual Model of Bearsville Flats Groundwater Flow System
(cross section north to south)
Pre-Western European development (circa 1700)



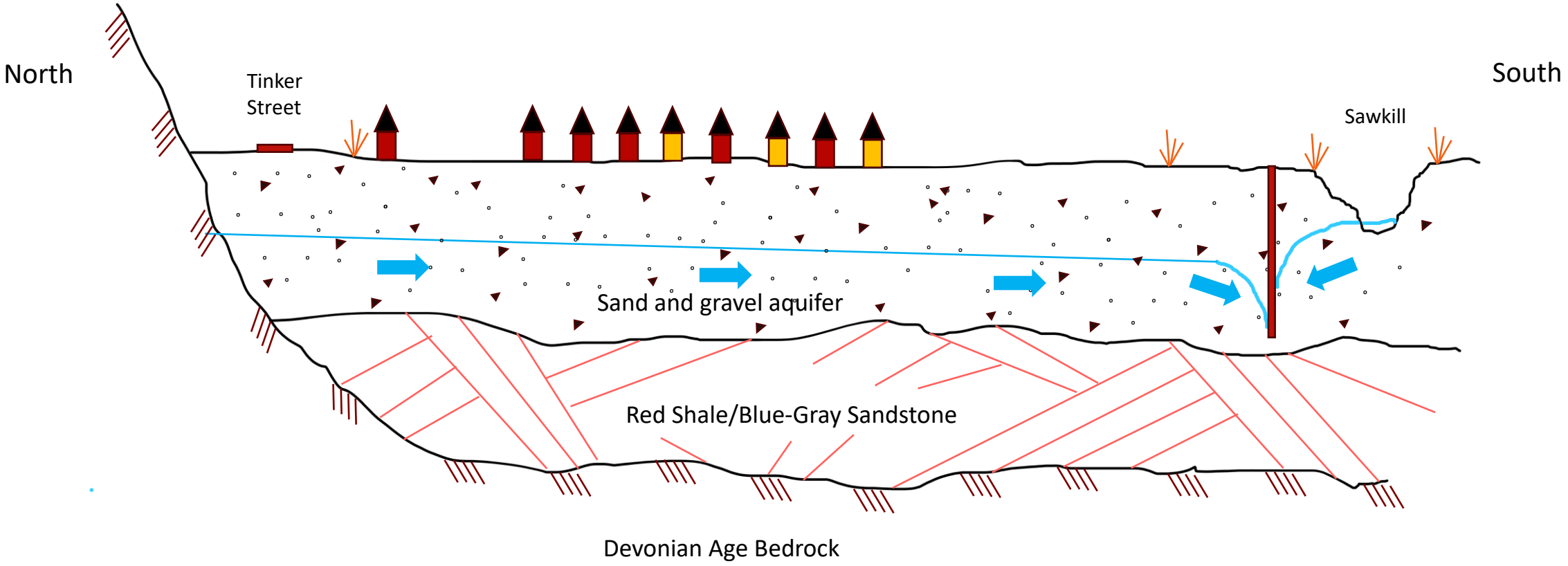
Conceptual Model of Bearsville Flats Groundwater Flow System
(cross section north to south)
Early Colonial settlement (circa 1830)



Conceptual Model of Bearsville Flats Groundwater Flow System
(cross section north to south)
Early Twentieth Century Settlement (circa 1930)

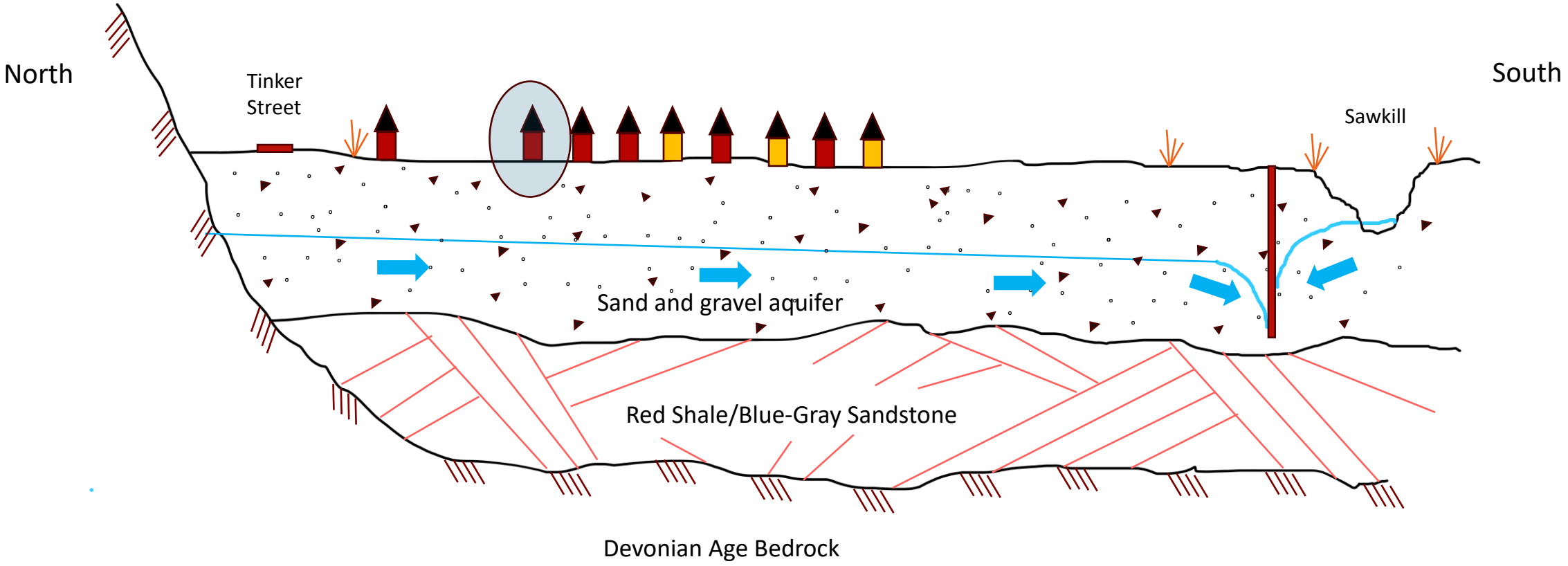


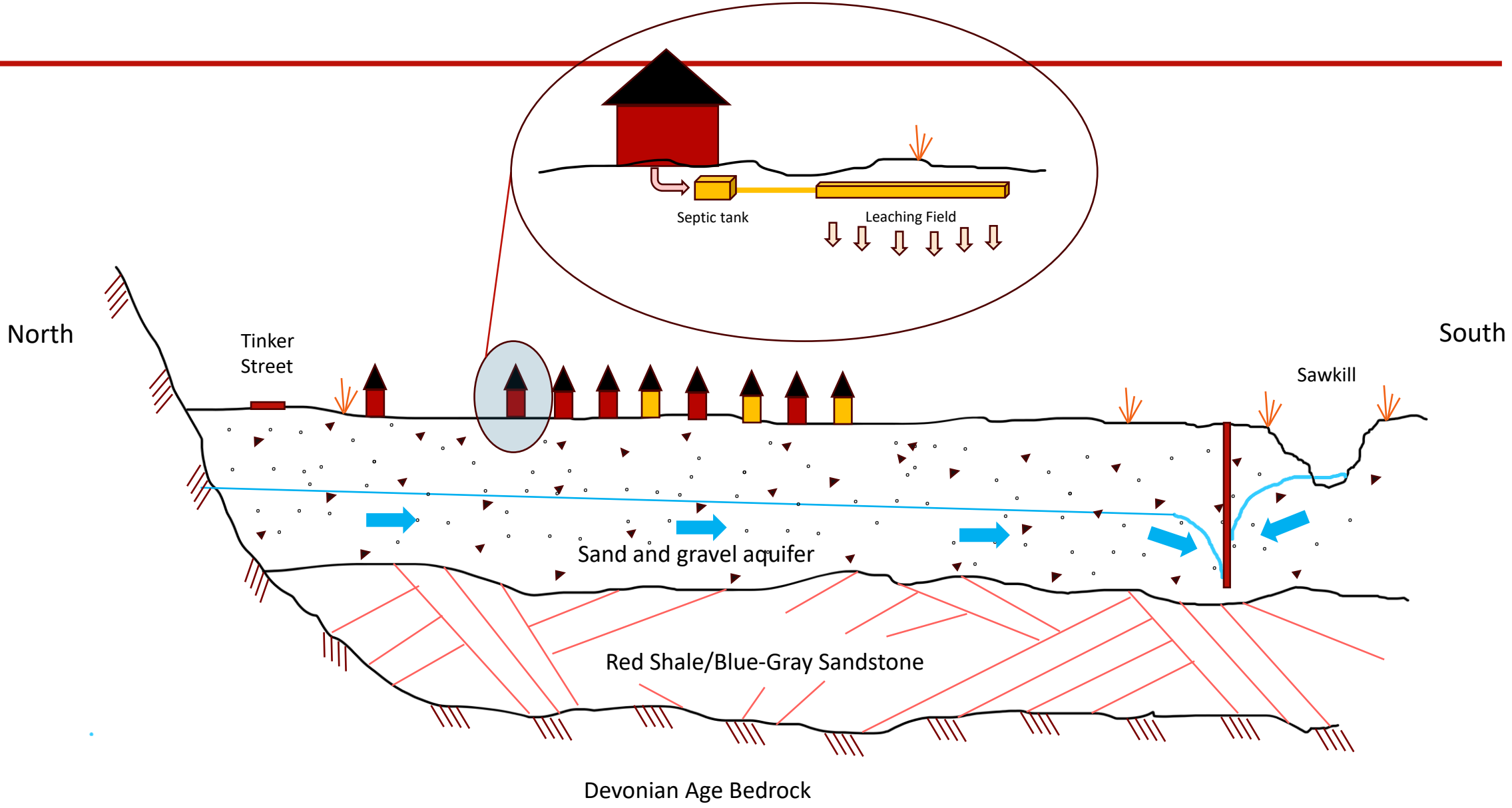
Conceptual Model of Bearsville Flats Groundwater Flow System
(cross section north to south)
Current settlement (1950s to present)

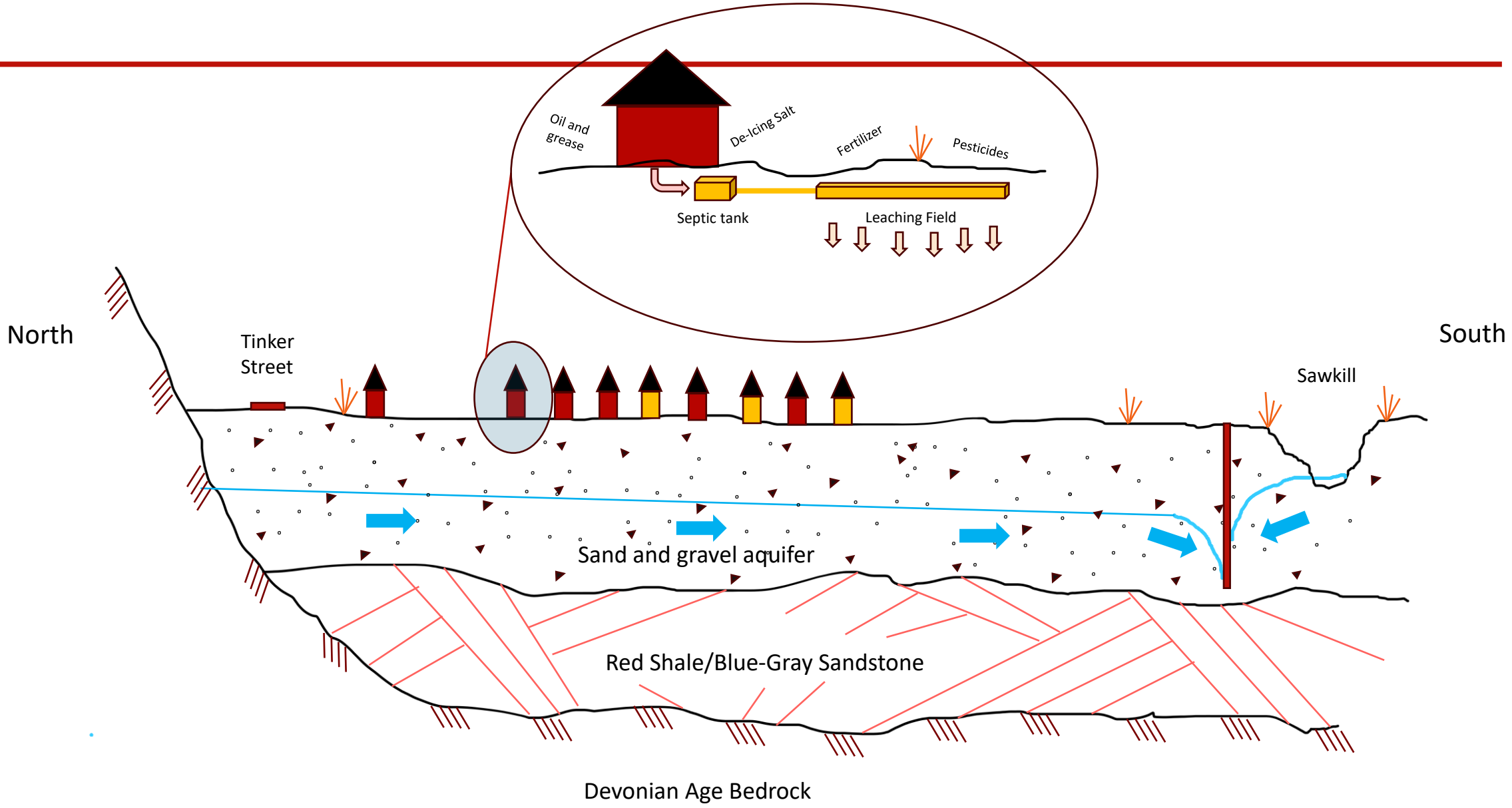


Conceptual Model of Bearsville Flats Groundwater Flow System

Potential Residential Impacts on Local Groundwater



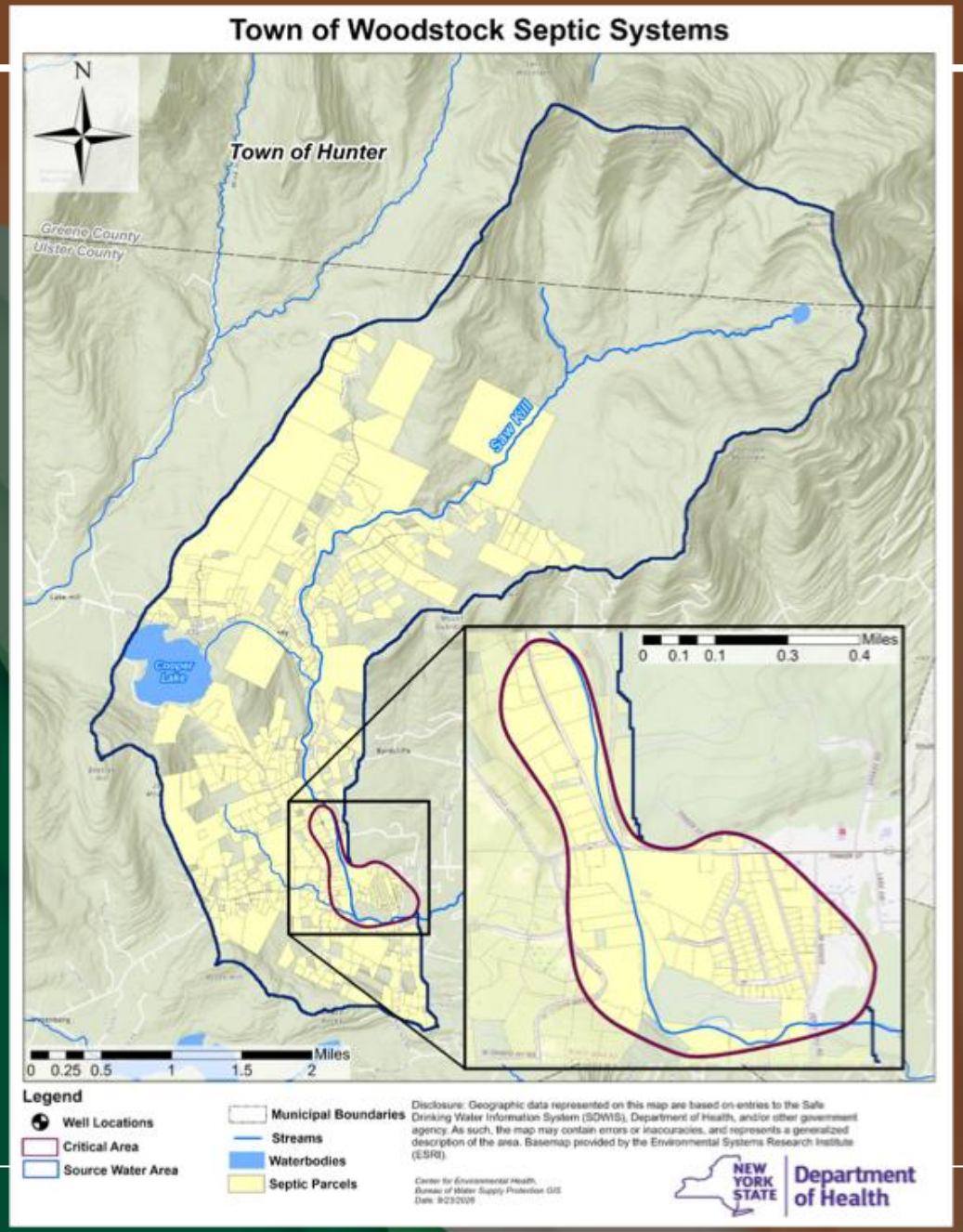

Septic tank
Leaching Field
North
South
Tinker
Street
Sawkill
Sand and gravel aquifer
Red Shale/Blue-Gray Sandstone
Devonian Age Bedrock


Oil and grease
De-Icing Salt
Fertilizer
Pesticides
Septic tank
Leaching Field
North
South
Tinker Street
Sawkill
Sand and gravel aquifer
Red Shale/Blue-Gray Sandstone
Devonian Age Bedrock

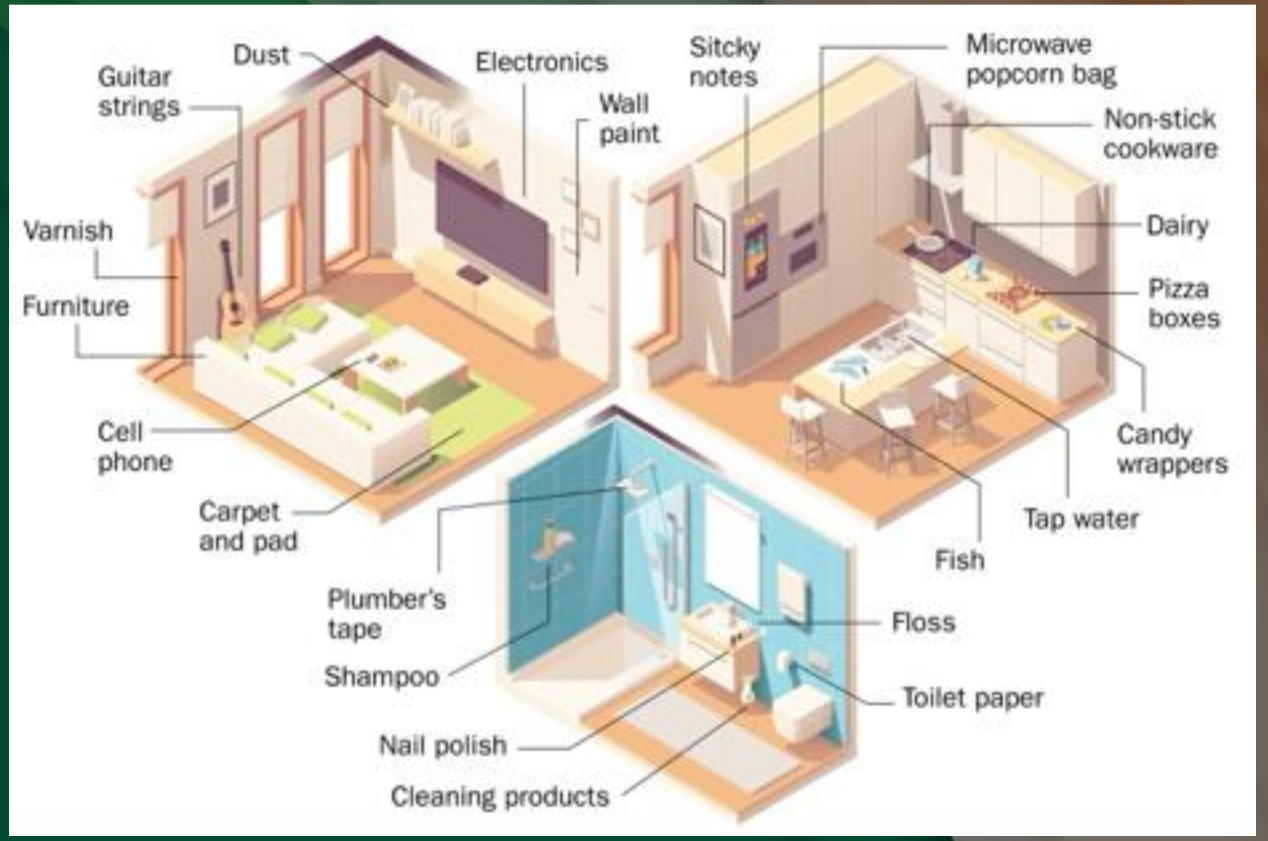
Potential Sources

Residential From Septic Tanks

- Medicines
- Toxic Chemicals
- PFAS
- Septic Tank Overflow



Potential Sources of PFAS in Homes



SO…

What can you do to help?

SO…

What can you do to help?

- Salt Use
- Septic Management and Maintenance
- Household Chemicals
- PFAS
- PFAS Private Well Testing Through Ulster County
- Stay Informed

We are all in this together!