

Town of Burke, Vermont 2026 Natural Resource Inventory Wetlands and Water Resources

[Link to full NRI report](#)

Wetlands and Water Resources in Burke

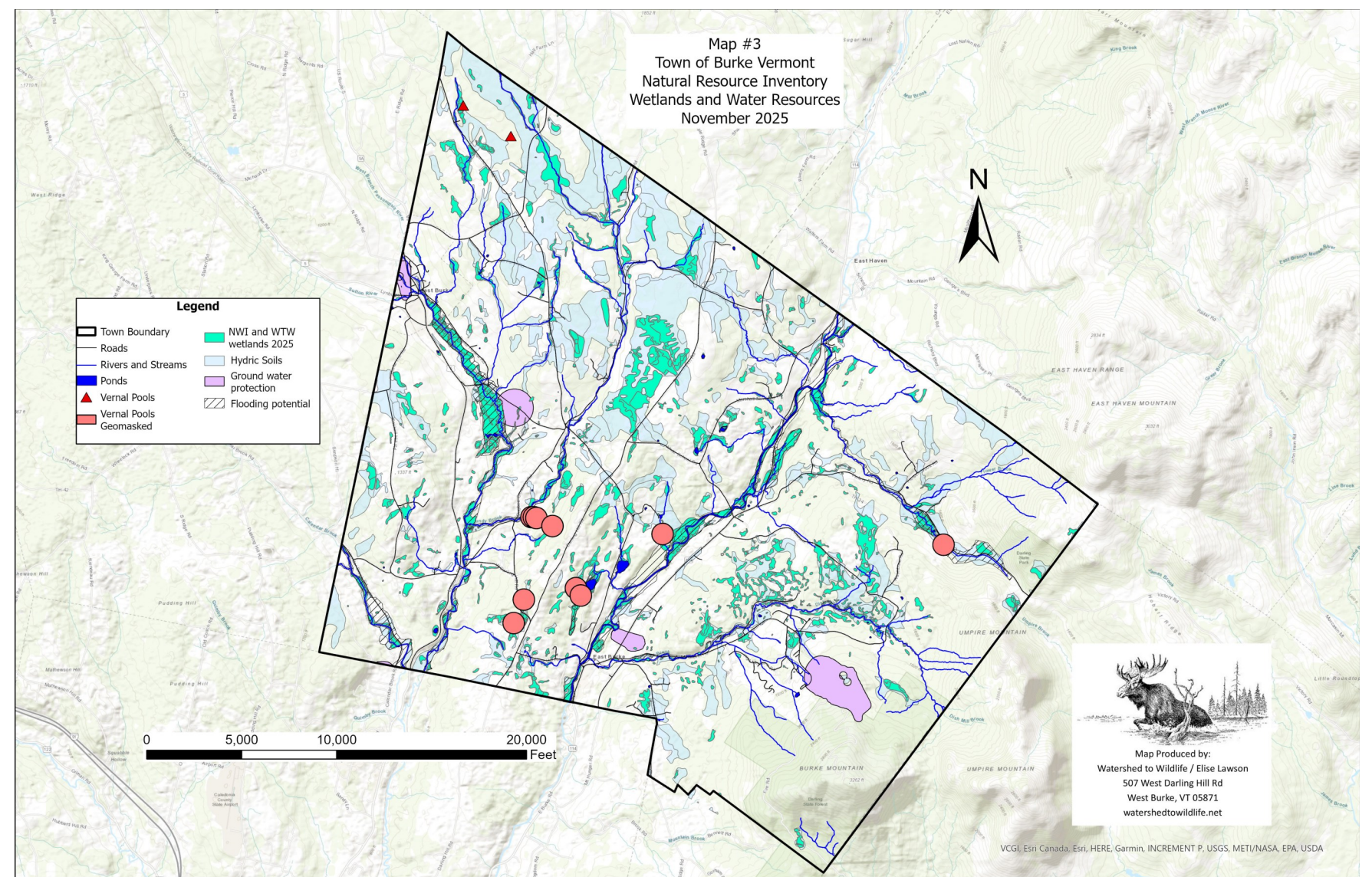
1,836 acres = 8.5% wetlands mapped by US Fish and Wildlife National Wetland Inventory data

5,038 acres = 23.4% hydric soils mapped by USDA Natural Resources Conservation Service

78 miles of perennial streams and rivers

26 acres of open water

12 Vernal pools documented



Wetland complex along the West Branch Passumpsic River. This wetland is one of the largest and most diverse wetlands in town containing a rich diversity of wildlife habitat.

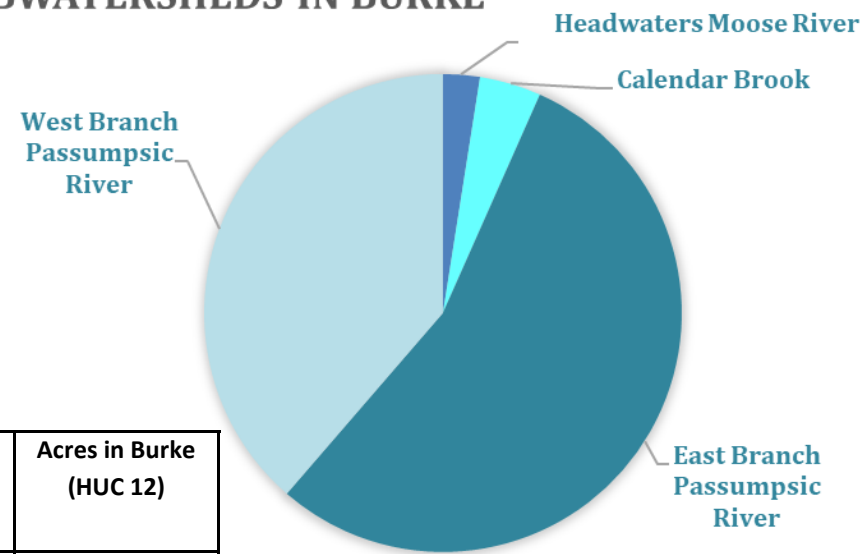
Recommendations related to wetlands and streams

- * **Conduct a town-wide wetland assessment** - Identify, map, assess and functionally rank wetlands to guide conservation priorities and land use decisions.
- * **Strengthen local regulations** - Improve zoning and subdivision standards related to wetlands through coordination between Conservation and Planning Commissions.
- * **Engage the Community** - Pair regulatory updates with public outreach and education to build understanding and support.
- * **Monitor stormwater impacts** - Continue to track runoff and drainage patterns, particularly after major storm events.
- * **Install and maintain stormwater treatment practices** - Require appropriate stormwater treatment within 150 feet of rivers and wetlands and ensure long-term maintenance.
- * **Avoid wetland fragmentation** - Limit road crossings and infrastructure that divide or isolate wetland systems.
- * **Plan for climate resilience** - Recognize wetlands as natural flood storage areas as well as water retention areas during droughts. Protect their ability to absorb heavier rainfall events as well as store water during droughts.

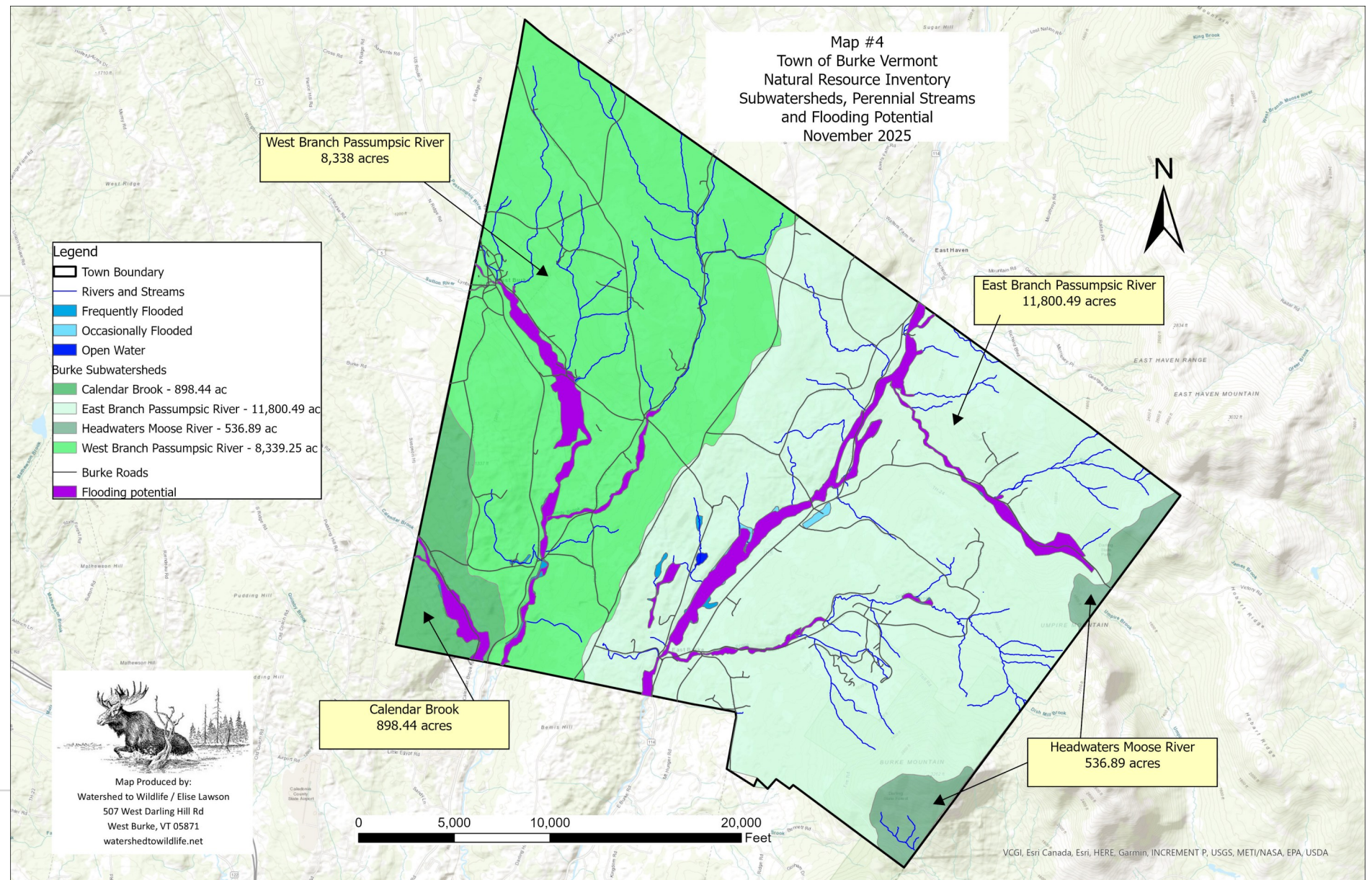
Town of Burke, Vermont 2026 Natural Resource Inventory Subwatersheds

[Link to full NRI report](#)

SUBWATERSHEDS IN BURKE



HUC 12 Name Subwatershed	Acres in Burke (HUC 12)
East Branch Passumpsic	11,800
West Branch Passumpsic	8,338
Calendar Brook	898
Headwaters Moose River	537



Recommendations related to Subwatersheds

- * **Protect headwater streams** - Maintain and enhance naturally vegetated riparian buffers along perennial streams.
- * **Apply consistent wetland setbacks** - Extend setback protections to all riverine wetlands and streams.
- * **Collaborate regionally** - Work with neighboring towns and watershed partners on coordinated conservation and water quality initiatives.
- * **Conserve forest cover in upper subwatersheds** - Maintain large, unfragmented forest blocks to promote infiltration and reduce runoff.
- * **Promote landowner stewardship** - Continue to support voluntary riparian buffers and best management practices in forestry and agriculture.
- * **Use data to guide action** - Support water quality monitoring and prioritize restoration where impacts are greatest.
- * **Plan for stronger storms** - Design infrastructure and conservation strategies with climate resilience in mind.

Town of Burke, Vermont

2026 Natural Resource Inventory

Conserved Land and Current Use Properties

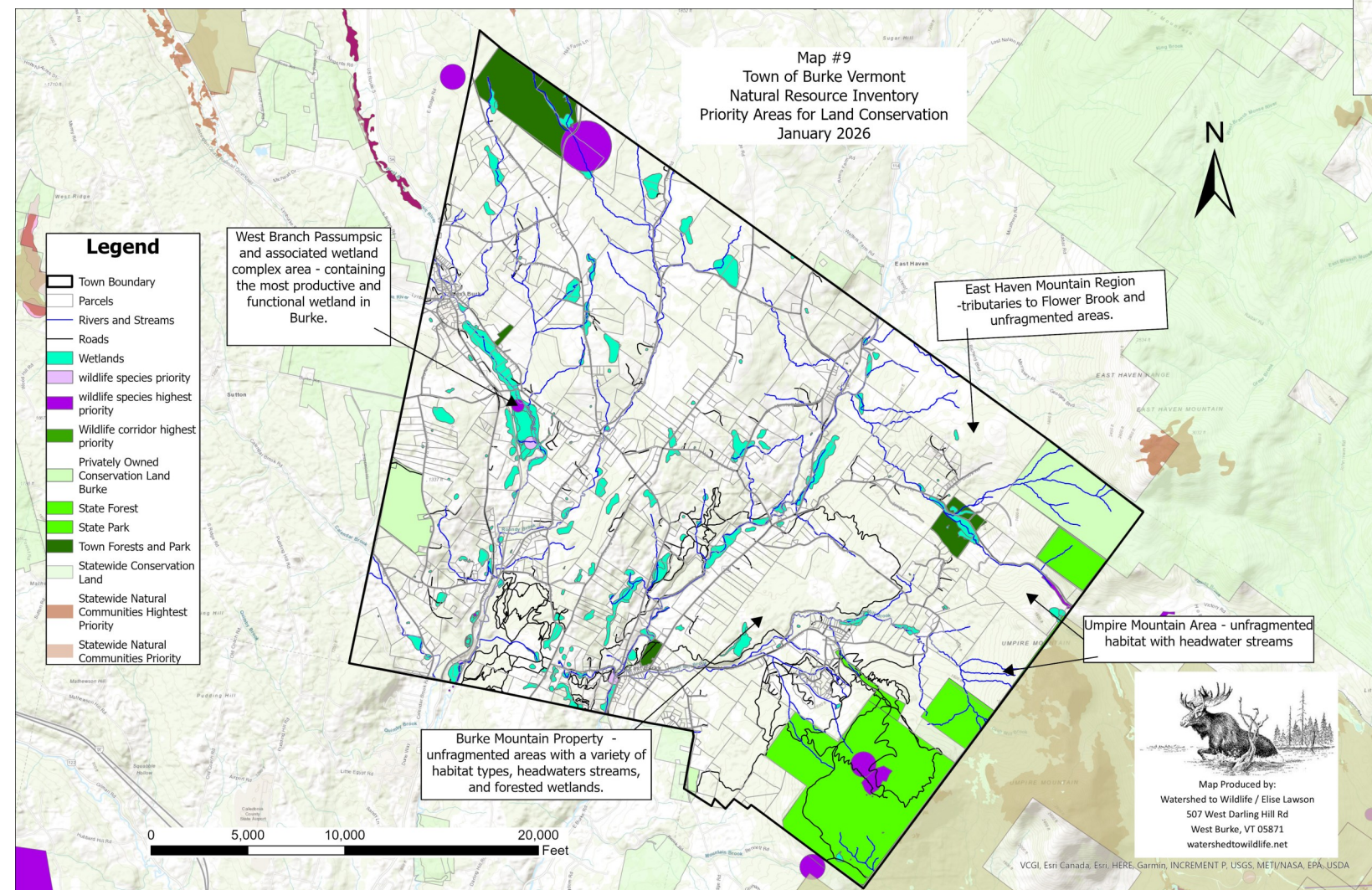
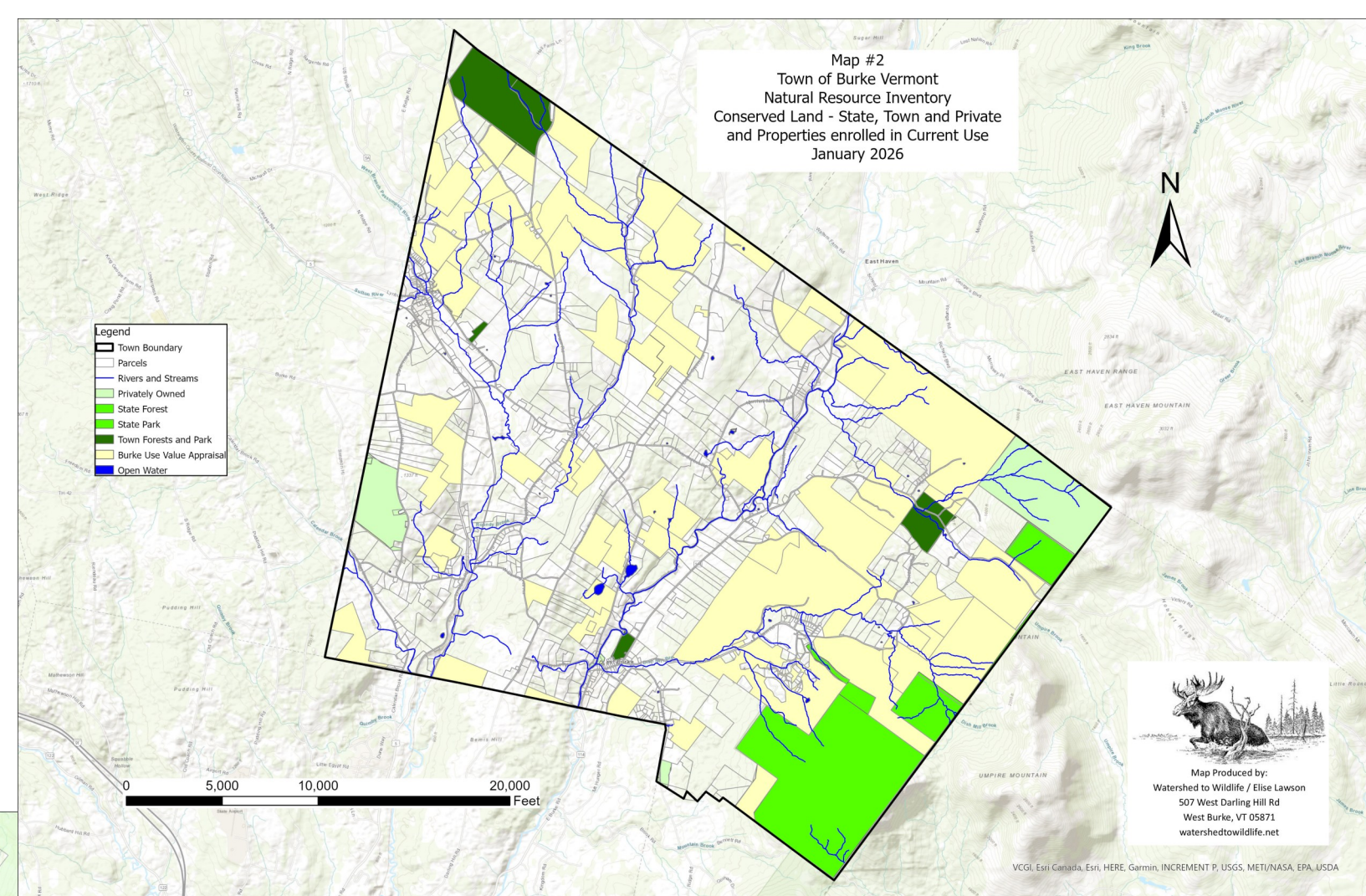
[Link to full NRI report](#)

Conserved Land

2,686 acres = 12.5% total conserved land in Burke

- * 1,525 acres is State owned
- * 680 acres privately owned conservation easements
- * 481 acres owned by Burke including two community forests

7,920 acres = 36.7% enrolled in Vermont Use Value Appraisal program (Current Use)

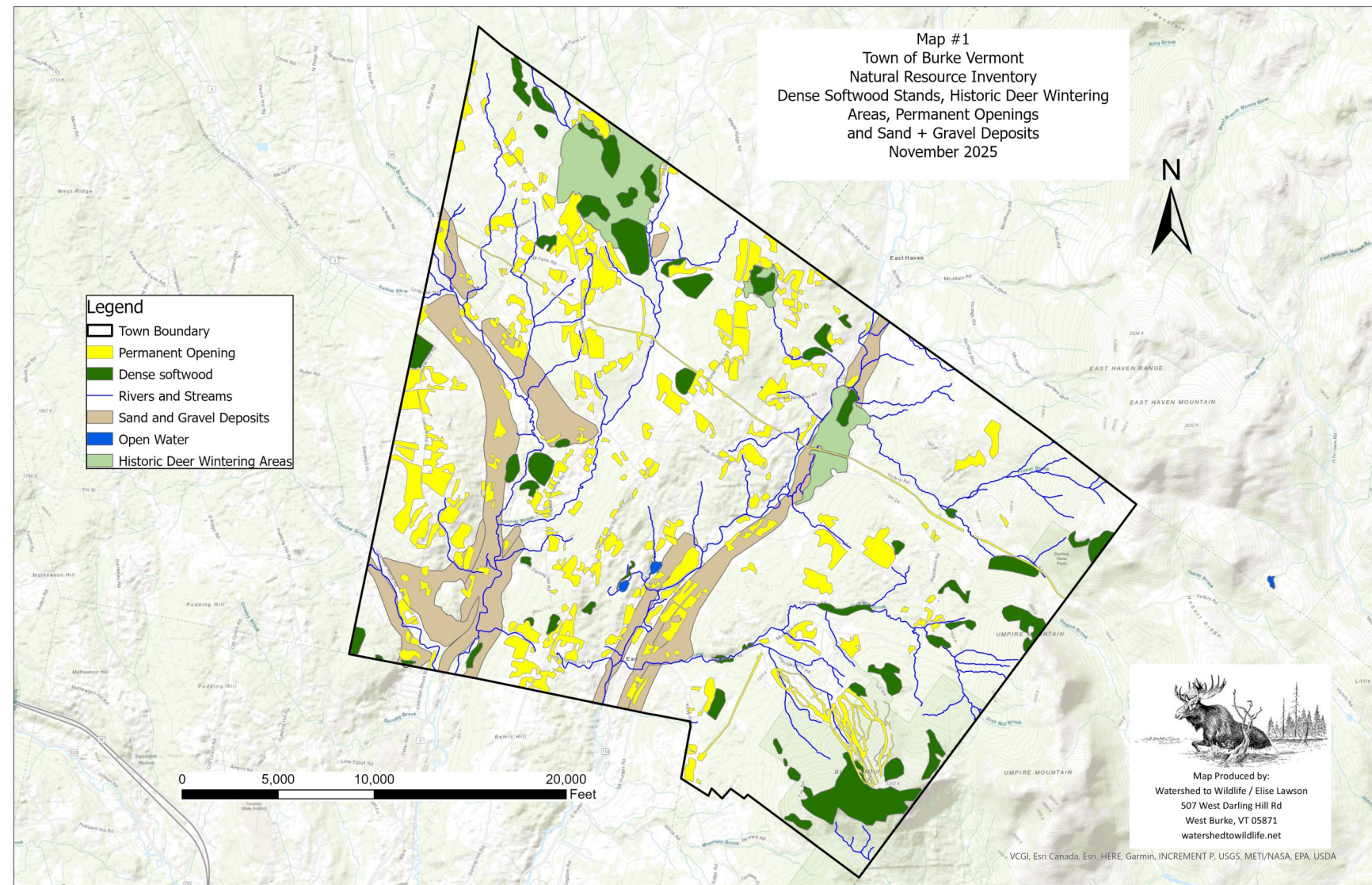


Conservation Priorities in Burke

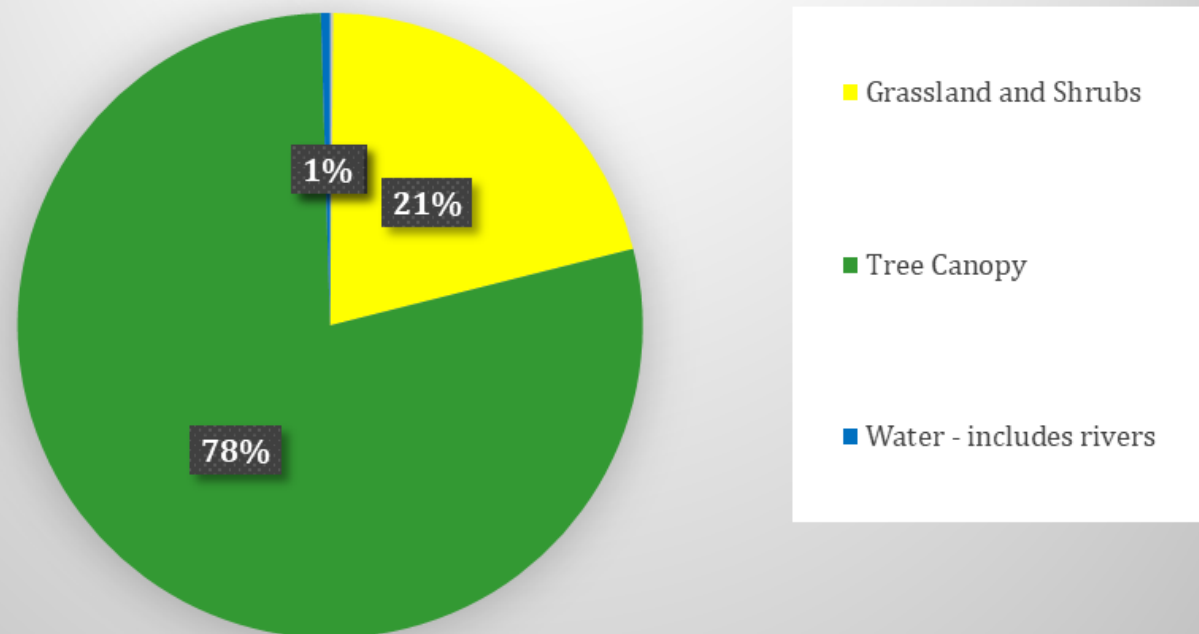
1. Umpire Mountain area identified for its headwater streams, unique higher elevation habitat, and unfragmented habitat
2. Burke Mountain property and surrounding area, identified for unfragmented habitat with a diversity of habitat types, headwater streams, forested wetlands and seeps.
3. East Haven Mountain Region identified for its headwater streams to Flower Brook, and unfragmented habitat.
4. West Branch Passumpsic River and Associated wetland—containing the most productive and functional wetland in Burke as well as an important aquifer recharge area.

Town of Burke, Vermont 2026 Natural Resource Inventory Dense Softwood Stands, Permanent Openings, and Sand/Gravel Deposits

[Link to full NRI report](#)



Burke Forests, Shrubs/grassland and bare land as defined by State of VT landcover data



1,142 acres = 5.3% dense softwood in Burke
2,341 acres = 10.9% permanent openings in Burke
2,237 acres = 10.8% sand and gravel deposits mostly along and adjacent
to the East and West Branch Passumpsic Rivers

Recommendations related to Dense Softwoods and Permanent Openings

- * **Protect dense softwood cover** - Maintain spruce-fir and other softwood stands that provide critical winter shelter for deer, moose and other wildlife.
- * **Expand and connect habitat** - Enlarge and link fragmented softwood patches, especially along wetlands and streams.
- * **Maintain permanent openings** - Retain fields and meadows to support habitat diversity and early successional species. Use periodic mowing or selective cutting to maintain structure and prevent conversion to forest.
- * **Remove old fencing** - Eliminate non-functioning barbed wire and woven wire fence to improve wildlife movement and safety.

Town of Burke, Vermont 2026 Natural Resource Inventory Farmland Soils and Steep Slopes

[Link to full NRI report](#)

1,659 acres = 7.7% is USDA Prime Farmland

3,554 acres = 16.5% farmland soils of statewide importance

7,062 acres = 32.7% slopes between 15% and 25%

3,471 acres = 16.1% slopes over 25%



Photo above: Steep slopes often offer excellent views. The view here is from near the top of Burke Mountain looking North.

Photo left: Prime farmland soil used as a productive hayfield in Burke



Recommendations related to Farmland soils and steep slopes

- * **Protect Steep Slopes** - Enforce regulations that restrict development and road construction on slopes over 25%, and carefully limit disturbance on slopes between 15% and 25%.
- * **Support working farms** - Encourage policies and partnerships that sustain Burke's agricultural economy and keep farmland in active use.
- * **Encourage conservation easements on farmland** - Partner with land trusts to permanently protect high-quality agricultural soils.
- * **Promote Best Management Practices (BMPs)** - Support soil health and stability for agricultural and forestry practices.
 - * Examples include cover crops, reduce tillage, buffer strips along streams and wetlands, site design, road maintenance and land management to reduce runoff and soil loss.
- * **Plan for climate resilience** - Encourage farming practice that improve soil structure and water retention during heavier rain events.

Town of Burke, Vermont

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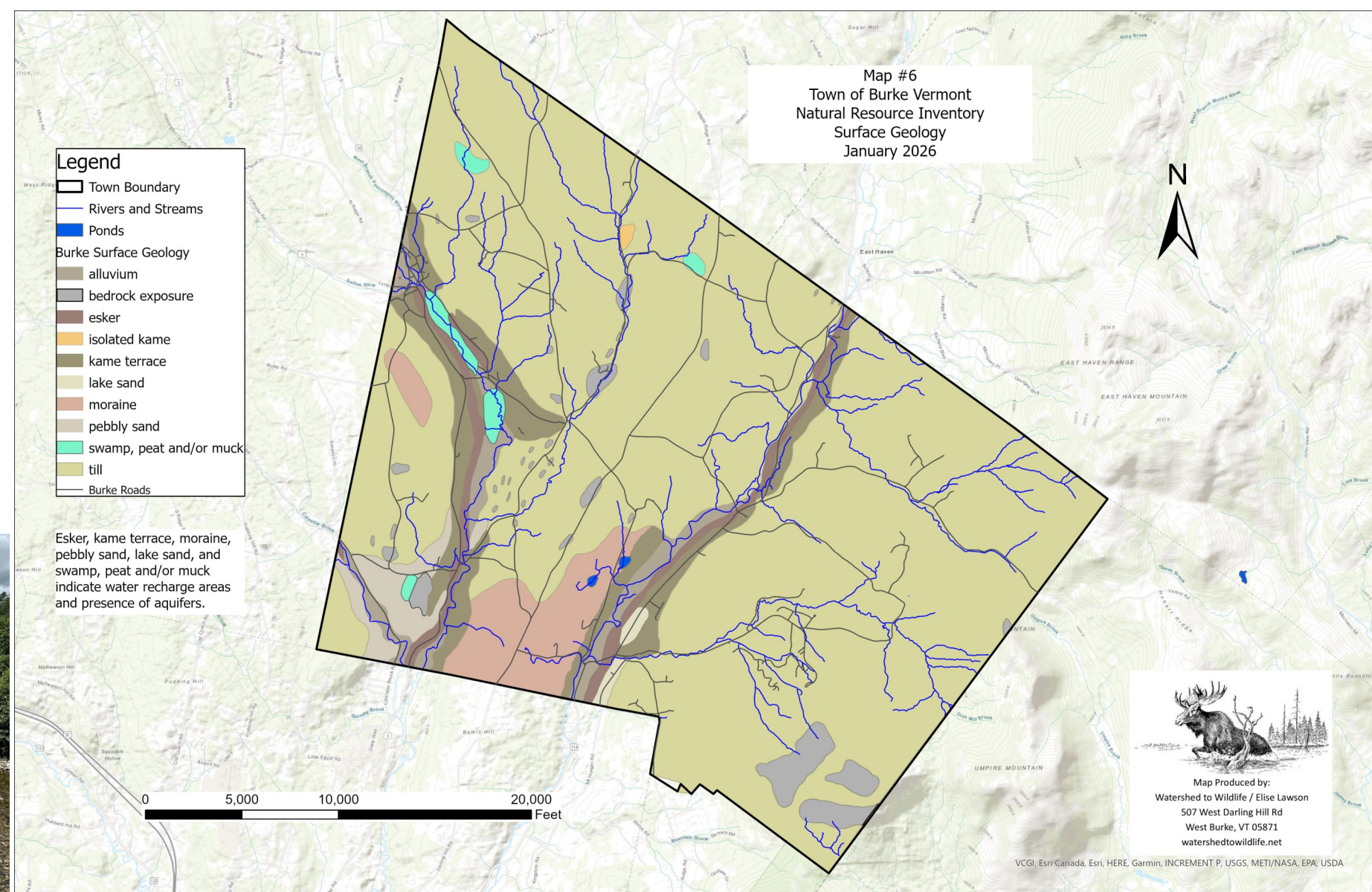
Surface Geology

[Link to full NRI report](#)

Why understanding surface geology matters

Burke's glacial features influence soil drainage, groundwater recharge, erosion risk, road stability, and development suitability. Understanding surface geology helps guide smart land use decisions.

Geologic Features	Acres in
Till	17,001
Kame / Kame Terrace	1,276
Bedrock Exposure	560
Alluvium	536
Esker	504
Swamp, peat and/or Muck	198



Main geologic features in Burke

Eskers

- * Long winding ridge of gravel and other sediment, deposited by meltwater from a retreating glacier or ice sheet (*Located along East and West Branch Passumpsic River*).

Kame

- * Steep-sided hills composed of sand and gravel, also deposited by meltwater washes (*Located along East and West Branch Passumpsic River*)

Moraine

- * A ridge or mound of rocks, sand, and soil that a glacier pushes along and leaves behind when the ice melts (*Southcentral portion of Burke along Darling Hill Road*).

Glacial Till

- * Unsorted mixture of rock, sand and gravel deposited directly by glacier ice without significant water transportation (*most widespread found throughout Burke*).

Recommendations related to Surface Geology

- * **Protect sand and gravel aquifers** - Eskers and kame deposits often store and transmit groundwater; avoid land uses that risk contamination.
- * **Limit excavation of significant glacial features** - Consider the ecological, hydrological, and scenic value of eskers, kames, and moraines before permitting removal. Balance future extraction needs with long-term conservation priorities.
- * **Match development to soil conditions** - Account for drainage limitations, erosion risk, and slope stability when reviewing building sites and road construction.
- * **Stabilize exposed soils** - Require erosion control measure during construction, particularly on sandy or steep glacial deposits.
- * **Protect scenic landforms** - Recognize prominent moraines and ridgelines as part of Burke's natural landscape character.
- * **Use geology in hazard planning** - geology, soil type and slope are important considerations for flood resilience and stormwater management planning.
- * **Educate residents** - Help landowners understand how local soils affect septic systems, wells and erosion potential.