



# WAITSFIELD PLANNING COMMISSION AGENDA

December 17, 2024 at 7:00 p.m.

## Planning Commission

Beth Cook  
Robert Cook  
Emma Hanson  
AnnMarie Harmon, Vice-  
Chair  
Becca Newhall  
Alice Peal  
Jonathan Ursprung, Chair

**THE PLANNING COMMISSION WILL BE HOLDING A HYBRID MEETING. THE PUBLIC MAY ATTEND IN PERSON AT WAITSFIELD TOWN HALL OR REMOTE VIA ZOOM WITH TELEPHONE AND/OR VIDEO ACCESS. THOSE PARTICIPATING MAY SPEAK DURING THE DESIGNATED PERIODS.**

To join the meeting remotely, use this link:

<https://us02web.zoom.us/j/9190265312>

**Meeting ID:** 919 026 5312

**Or call:** 1 929 205 6099

## Planning & Zoning Administrator

J. B. Weir

**Town Administrator**  
Vacant

**Town Clerk**  
Jennifer Peterson

**Town Treasurer**  
Steve Lewis

**Waitsfield Town Office**  
4144 Main Street  
Waitsfield, VT 05673  
(802) 496-2218  
[www.waitsfieldvt.us](http://www.waitsfieldvt.us)

1. **CALL TO ORDER / ROLL CALL**
2. **REVISIONS TO AGENDA, IF ANY (5 +/- min)**
3. **PUBLIC FORUM (10 +/- min)**
4. **APPROVAL OF MINUTES – DECEMBER 3 (10 +/- min)**
5. **CVRPC/FMR WORKSHOP ON AGING MRV SEPTICS (20 +/- min) Brian V.**
6. **GROUNDWATER PROTECTION OVERLAY (20 +/- min) JB**
7. **VILLAGE MASTER PLANNING (25 +/- min) Jonathan/JB**
8. **ALICE UPDATE (10 +/- min)**
9. **WASTEWATER PLANNING PROJECT UPDATE (10 +/- min) JB/Bob**
10. **OTHER BUSINESS (10+/-min)**
11. **ADJOURNMENT**

**Waitsfield Planning and Zoning Administrators Report  
Planning Commission December 17, 2024 meeting**

**5. CVRPC/FMR Workshop on Aging Septic Systems in the Mad River Valley**

Brian Voigt from the Central Vermont Regional Planning Commission (CVRPC) will be present to discuss a workshop CVRPC is planning with Friends of the Mad River related to wastewater in the Mad River Valley. The workshop will address aging septic systems (throughout the Valley) and potential solutions to the issues those old systems present.

**6. Groundwater Protection Overlay District**

The proposed final draft of the new Table 2.12 for the Groundwater Protection Overlay District (GPOD) is included in the packet along with the corresponding definitions and map. The map was adjusted per recommendation of the Town attorney. At last meeting, the Board had two remaining queries.

The first concerned forestry, or incidental activities thereto such as the spill of oil or gasoline. The Town attorney does not recommend attempting to regulate forestry in any capacity, even something ancillary to logging. Under statute, overlay districts are subject to the same exemptions as other zoning districts. Per 24 V.S.A. §4413, a municipality may not regulate “accepted silvicultural practices, as defined by the Commissioner of Forests, Parks and Recreation, including practices that are in compliance with the Acceptable Management Practices for Maintaining Water Quality on Logging Jobs in Vermont, as adopted by the Commissioner of Forests, Parks and Recreation.” In addition, the State’s Acceptable Management Practices aim to prevent logging from contaminating Vermont’s waters with sediment, petroleum products, and woody debris. AMPs include removing temporary structures and bridges from streams after logging, and restoring the channel to a stable condition.

The second question raised at last meeting involved the use and operation of all-terrain vehicles (ATV) and off-highway vehicles (PHV) such as snowmobiles, with similar concerns over the potential of oil or gasoline finding way into the water source. Our attorney also cautions against attempting to regulate these recreational uses given the remote chances of any sort of spilled contaminate making its way into the water source. The PZA has included in the packet a memorandum concerning “The Impact of ATV and OHV use on Water Quality”, which Ms. Peal found at the last meeting.

The PZA has also included a relevant portion of the VAST trail map. The VAST trail appears to not go through any of the protection Zones, as it runs to the west and north of the overlay district, and is well removed from Zone 1 and the aquifer.

*The PZA recommends that the Board approve the GPOD, pertinent definitions and map for adoption.*

The PZA has included an adoption timeline for the GPOD in the packet. The proposed Planning Commission public hearing date is February 4, 2025.

## **6. Village Master Planning**

The meeting of the VMPSA for December 17<sup>th</sup> has been pushed out until January so that SE Group can continue work on draft design concepts. There will be a core team meeting on Friday 12/13 at 10:00am. Any information gleaned from that core team meeting will be shared with the full PC on 12/17.

The project website has been updated to include an overview of the community event along with the dot board photos, as well as a comment/survey form. The website can be found [here](#). And is linked off the Town webpage [here](#).

## **9. Wastewater Planning Project Update**

The Engineering Technical Team (ETT) met last week with Jon Ashley to review updated pump station locations. Geotechnical drilling/boring at the school and Fiddlers Green will commence between 12/21 and 1/1.

The Town should receive notice of our grant award and loan eligibility from USDA RD in early January. The Town will also be applying for a grant from the Northern Borders Regional Commission in March/April. In addition, the team will be putting in a grant with Vermont Community Development Program (VCDP). VCDP administers U.S. Housing and Urban Development (HUD) Community Development Block Grant (CDBG) funding. Vermont's CDBG funding assists communities on a competitive basis by providing financial and technical assistance to identify and address local needs in areas of: housing, economic development, public facilities, public services, and handicapped accessibility modifications. 70% of CDBG funds must primarily benefit persons of low and moderate income.

As of 12/11/24, the Town website page for the project has been updated and can be found [here](#).

## **10. Other Business**

MRVPD update from Jonathan after 12/13/2024 meeting on 2025 work plan and budget.

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Upcoming trainings/webinars:

### **Flood Insurance and Housing**

Date & Time: Dec 17, 2024 12:00 PM in

Description: This is the second session of the Building Resilience in Rural Communities Speaker Series.

Topics include:

- Flood Insurance 101
- Housing Affordability & Home Protections
- Best Practices for Housing Buyouts / Moving Communities out of Harms Way

Rebuild by Design is a non-partisan group working with local Vermont organizations to co-host a virtual multi-part educational series targeted at educating current and incoming legislators, and building local capacity and knowledge to equitably adapt to extreme weather events in Vermont. Panels will feature local leaders, national experts, and legislators to educate, respond to the questions we have heard, and give opportunities to local organizations to showcase their work.

Register [here](#).

### **Understanding Vermont Conservation Design: The data behind BioFinder**

Vermont Conservation Design is the data and the vision that powers the BioFinder website. It is a prioritization tool that identifies the lands and waters most important for maintaining Vermont's ecologically functional landscape – one that conserves current biological diversity and allows species to move and shift in response to climate and land-use changes. Vermont Conservation Design allows users to see patterns in Vermont's forests and waterways, and identify the places that connect both into a functional network. The Design was just updated with new landscape scale components and Wildlife Road Crossings. It now features more accurate edges of the habitat blocks, that allow for a better understanding of the pattern and network of connected forests. Join us to learn more about this important conservation science.

Presenters:

Jens Hilke, Conservation Planner, VT Fish and Wildlife Department

David Moroney, Conservation Planning Specialist, VT Fish and Wildlife Department

Repeat sessions of this webinar will be offered on the following three dates:

Session 3: Thursday, December 12, 2024 1:00pm-2:00pm. [Register](#)

**Gray and Green Infrastructure: How Vermont's bridges and culverts add to our network of connected lands and waters.**

Roads can act as barriers to wildlife movement, and yet our bridges and stream culverts are potential passage for Vermont's fish and wildlife to move underneath without danger. In addition to giving fish and other aquatic species plenty of space to swim through, many of these structures are designed to accommodate large floods and move debris during extreme rainfall. This means that at normal flow levels, wildlife can walk through the structure alongside the stream. However, some of our older structures are undersized and present a constriction for floodwaters as well as for fish and wildlife movement. A team of researchers has created the Terrestrial Passage Screen Tool that is now available on BioFinder to assess the "passability" of bridges and culverts on the state road system and help in prioritizing which structures might be best replaced to facilitate wildlife movement. Join Conservation Planner Jens Hilke from Vermont Fish & Wildlife to learn the science behind this new tool and learn how it may be used to help prioritize structures for replacement to facilitate wildlife movement.

Presenters:

Jens Hilke, Conservation Planner, VT Fish and Wildlife Department

Repeat sessions of this webinar will be offered on the following two dates:

Session 2: Monday, December 16, 2024 3:00pm-4:00pm. [Register](#)

**Land Use Reform – Municipal Training**

Recently, Vermont has had major changes in land use law. Interested in learning more?

See the attached flyer in the packet.

Central Vermont Regional Planning Commission is offering a training on land use reform and how it affects your town. All are welcome: municipal officials, volunteers, and anyone who wants to find out how they can get involved!

Topics will include: Act 250 reform, flood safety, housing, conservation, and more.

Please join us online or in person on Thursday, December 19 at 6PM - see attached flyer for details - and forward this invitation to anyone who might be interested. We hope to see you soon!

<https://centralvtplanning.org/>

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Respectfully submitted,

J.B. Weir

**TOWN OF WAITSFIELD, VERMONT**  
**Planning Commission Meeting Minutes**  
**Tuesday, December 3, 2024**  
Draft

**Members Present:** Beth Cook, Bob Cook, Emma Hanson, AnnMarie Harmon, Becca Newhall, Alice Peal, Jonathan Ursprung

**Members Absent:** None

**Staff Present:** JB Weir, Planning and Zoning Administrator

**Others Present:** None

## **II. Regular Business.**

### **1. Call to Order**

The meeting was called to order at 7:02 pm by Jonathan Ursprung. The meeting was held in person at the Town Offices and remotely via Zoom.

### **2. Review agenda for addition, removal, or adjustment of any items.**

No adjustments to the agenda were proposed.

### **3. Public Forum.**

No members of the public were present.

### **4. Approval of Minutes**

The minutes of October 15, 2024 were approved.

### **5. Groundwater Protection Overlay**

Several concerns were raised by the group, including the use of logging equipment, snowmobiles, and ATVs in the various zones. Considerations such as forestry BMPs, educational signage, and the existing deed covenants on a large portion of the overlay area were discussed. JB indicated that most of his research led to overlays developed for areas with greater development and so did not include restrictions related to these types of concerns. He confirmed that he will consult with Robin Morris and Peter Lazorchak, and obtain further legal advice regarding the overlay language. Once these matters have been addressed, the PC will review the document again in preparation for warning the adoption process.

### **6. Village Master Planning**

There has been no meeting since the public input session a couple of weeks ago; SE Group will be providing a summary of the meeting's results for the group at the next meeting.

AnnMarie reported that the dot boards which were filled out during the public meeting are available on the project web site, and shared some insights she gleaned from perusing the results. These included her noting that there was not full support for mixed income rentals aimed at first-time homebuyers, and the same was true for some related topics addressed.

There was some related discussion about matters such as keeping the area compatible with New England style architecture, and it was agreed that the affordability of construction as well as how

much design review should be provided for are considerations when developing any related regulations.

There was consensus among the group that the questions posed at the recent session were quite general in nature and that future requests for feedback should drill down a little more into the issues being addressed. However, the results of the first public meeting served to indicate that the project is generally on a track that people agree with. PC members noted that they hope to get a broader cross-section of the population responding to requests for input, including reaching out to teenagers.

Alice spoke of the Waterbury revitalization efforts, including a growth in events and venues, and the benefits for both local residents and tourists.

AnnMarie noted that another key point made in the comments received was the importance of keeping the farmers' market active, even when the current location is no longer needed as a septic area. It was agreed that this needs to be part of the discussion, with it first being determined if the current location is the most appropriate.

Bob spoke of the importance of addressing the entire area, and not working to simply present a welcoming Main Street façade.

## **7. Alice Update**

Alice reported that she is on the Act 250 Review committee, and that the group has been actively reviewing applications.

Climate Action Plan – the current work is focused on putting together actions and strategies based upon the work of the various task forces; equity and justice considerations are critical to this work, and Alice suggested that these should apply to Waitsfield's planning as well. Housing requirements will include that the underserved population is considered heavily, as well as the structures themselves being resilient to excess heat and other climate-related impacts if developers hope to qualify for funding.

Regional plan – Alice reported that new FEMA maps will be available for her to present at an upcoming meeting, noting that there are changes to the zones included, and that the new maps have more a more refined definition of the topography. She explained that the Energy chapter is taking a bit of effort due to changing regulations, and that there have been discussions focusing on flood mitigation and public health issues. She confirmed that the Act 248 training for which a link was included in the meeting packet will be recorded, and stressed the importance of this material for PC members.

## **8. Wastewater Planning Project Update**

JB noted that information should be received soon regarding the USDA Rural Development grant application outcome. He also reported that Waitsfield's project is ranked the highest fund-seeking project on CDEDC's priority list. This ranking, in turn, will assure higher scoring on the Northern Borders Regional Commission Catalyst Program grant application due to be completed in early spring.

Bob indicated that engineering meetings continue, with more material to develop and refine.



## **9. Other Business**

Jonathan reported that there was positive input regarding both the recent Irasville and Route 100 Multi-Use Path community input sessions. He also noted that FEMA paperwork is underway for both Waitsfield and Fayston, covering the July 2024 flooding event.

JB reviewed the upcoming topics to be covered in January PC meetings, particularly review of the Limited Business District uses.

## **10. Adjournment**

The meeting adjourned at 9:02 pm.

Respectfully submitted,  
Carol Chamberlin, Recording Secretary

**Table 2.12**  
**Groundwater Protection Overlay (GPO) District**

A. **Purpose:** The Town of Waitsfield recognizes that many residents rely on groundwater for their safe drinking water supply, and that certain land uses have the potential to contaminate groundwater, particularly in shallow/surficial aquifers, or when contaminants can get into a bedrock aquifer. To ensure the protection of these drinking water supplies, this bylaw establishes a zoning overlay district to be known as the Groundwater Protection Overlay District (“GPOD”).

The purpose of the GPOD is to protect public health, safety and welfare by minimizing the potential for contamination of vulnerable aquifers and source protection areas as authorized under 24 V.S.A. §4414(2), as well as preserving and protecting existing and potential sources of drinking water supplies. It is the intent of the Town of Waitsfield to accomplish this through the adoption of this GPOD, which provides standards to regulate particular uses of land and land development with the foregoing purpose in mind, in addition to those standards currently imposed by existing provisions in the Zoning Bylaws for the applicable zoning districts or other state and federal regulations. It is intended that public education and cooperation will complement this effort.

The GPOD is superimposed on the Agricultural-Residential District, the Forest Reserve District, and other zoning districts within the area of the mapped GPOD and shall apply to all land development within the GPOD.

Land development authorized or allowed in a portion of one of the underlying zoning districts that falls within the GPOD must additionally comply with the requirements of the GPOD. Uses or structures prohibited in the underlying zoning districts shall not be allowed in the GPOD.

**B. ZONES WITHIN THE GROUNDWATER PROTECTION OVERLAY DISTRICT**

**1. Establishment of District Boundaries**

The Groundwater Protection Overlay District (“GPOD”) is defined as being the areas shown on the Waitsfield Water Supply SPA Map as within wellhead/aquifer protection areas. The Groundwater Protection Overlay District consists of the wellhead/aquifer protection locations from the Vermont Agency of Natural Resources Water Supply Division digital data. The Groundwater Protection Overlay District is an overlay district, which imposes additional requirements and restrictions to those in the underlying zoning district. In all cases, the more restrictive requirement(s) shall apply.

**2. Lots Divided by the Overlay District**

Where the boundary of the Groundwater Protection Overlay District divides a lot of record such that part of the lot falls within the Groundwater Protection Overlay District and part of the lot is outside of it, the provisions of this Article shall only apply to that portion of the lot within the boundary of the Groundwater Protection Overlay District.

**3. Zones 1 and 2: Drinking Water Critical Impact Zones**

Zone 1 is the protective isolation zone, a 200 feet radius circle centered on the public water source. Zone 2 is the primary recharge area contributing water to the source.

- a. **Permitted Uses:** Zone 1 is restricted to the following permitted uses alone (there are no conditional uses). Permitted land uses in Zone 1 will be restricted to:
- i. source operation and maintenance
  - ii. outdoor recreation facilities, except no structures, including accessory structures, constructed for or associated with such regulation may be located within Zone 1.
  - iii. agricultural and forestry uses, provided that fertilizers, pesticides, manure and other leachable wastes are used according to the Accepted Agricultural Practices as prescribed by Vermont Agency of Agriculture, Food and Markets as applicable and are not applied within 200 feet of the water source. All said leachable wastes must be stored under shelter away from precipitation and should be designed and used with secondary containment measures, as applicable.
- b. **Conditional Uses:** All proposed development in Zone 2 of the GPOD is subject to Conditional Use review by the Development Review Board. Development is restricted to the Permitted or Conditional uses as allowed in the underlying Zoning District except for prohibited uses in subsection (B)(3)(c), below. All uses must:
- i. Meet the Performance Standards as outlined for the GPOD in subsection (B)(5)
  - ii. If new wastewater is required, satisfy the standards of subsection (B)(3)(d), below, with regard to Two-Year Time-of-Travel Distance
- c. **Prohibited Uses:** Uses prohibited in the underlying zoning districts shall not be allowed in the GPOD. To the extent allowed in the underlying districts, the following uses are prohibited in the GPOD:
- i. On-site disposal, bulk storage, processing or recycling of toxic or hazardous materials or wastes
  - ii. Underground storage tanks, except septic tanks as regulated and approved by the Vermont Department of Environmental Conservation, Wastewater Management Division that meet the standards of subsection (B)(3)(d) (Two-Year Time-of-Travel)
  - iii. Industrial uses which discharge contact-type process waters on-site
  - iv. Unenclosed storage of road salt
  - v. Dumping of snow carried from off-site
  - vi. Automotive-related uses: Automobile Repair, Automobile Repair Service, automobile service stations, repair garages, carwashes, junkyards, and truck stops
  - vii. The siting or operation of a wastewater lagoon
  - viii. Automobile Sales, and storage, lease or rental of used and new cars, all-terrain vehicles or other motorized vehicles, including but not limited to

- lawnmowers, snowmobiles or sidewalk plow vehicles, motorcycles, and dirt bikes
- ix. Laundry and dry-cleaning establishments
- x. Salvage yards, landfills, recycling depots
- xi. Cemetery
- xii. Commercial Water Extraction for purposes other than supplying the public water system associated with the protection area, including geothermal systems.
- xiii. Extraction of Earth Resources
- xiv. Battery storage systems

- d. **Two-Year Time-of-Travel:** Approval of land development proposing use of in-ground wastewater disposal system within the two-year time-of-travel boundary is prohibited unless it can be certified by a licensed hydrologist with experience in wastewater system design that the discharge from the wastewater disposal site is not hydraulically connected to the drinking water aquifer below the GPOD, or that additional information is presented to document that a two-year time-of-travel is met or exceeded to the existing or potential water supply source within the GPOD.

**4. Zone 3: Drinking Water Potential Impact Zone**

Zone 3 is established as the remainder of the GPOD not included in Zones 1 and 2 as identified in the Waitsfield Water Supply SPA as mapped by the Vermont Agency of Natural Resources Department of Environmental Conservation, but deemed necessary to ensure adequate protection of public drinking water supplies.

- a. **Permitted Uses:** All uses allowed in the underlying zoning districts provided that they can meet the Performance Standards as outlined in subsection (B)(5), below, for the GPOD.
- b. **Conditional uses:** All conditional uses permitted in underlying districts provided they can meet performance standards outlined in subsection (B)(5), below, for the GPOD.

**5. Performance Standards**

The following permitting standards shall apply to all uses and land development in Zones 1, 2 and 3 of the GPOD:

- a. Any conditionally permitted facility involving the collection, handling, manufacture, use, storage, transfer or disposal of hazardous material or hazardous wastes must have a secondary containment system that is easily inspected and maintained, whose purpose is to intercept any leak or release from the primary containment vessel or structure. At a minimum, the secondary containment system must be designed and constructed so it is capable of handling at least 110% of the primary containment vessel or structure. Underground tanks or buried pipes carrying such materials must at a minimum have double walls, cathodic protection and inspectable sumps.

- b. Open liquid waste ponds containing hazardous material or hazardous wastes will not be allowed without a secondary containment system and shall not be located within Zone 1.
- c. Storage of petroleum products in quantities exceeding 300 gallons at one locality in one tank or series of tanks must be in elevated or above-ground tanks; such tanks must have a secondary containment system as noted in subsection (B)(5)(a), above. Storage of petroleum products in any quantity is prohibited within Zone 1.
- d. All permitted facilities must adhere to appropriate federal and state standards for storage, handling and disposal of any hazardous material or hazardous waste.
  - i. All conditionally permitted facilities must be designed to include, and operate pursuant to, an acceptable contingency plan for preventing hazardous materials and/or hazardous wastes from contaminating the shallow/surficial aquifer should floods, fire, or other natural catastrophes, equipment failure, or releases occur:
    - (a) All conditionally permitted underground facilities shall include, but not be limited to a monitoring system and secondary standpipe above the 100-year flood control level, for monitoring and recovery. For above-ground conditionally permitted facilities, an impervious dike, above the 100-year flood level and capable of containing 110 percent of the largest volume of storage, will be provided with an overflow recovery catchment area (sump).
    - (b) All conditionally permitted facilities shall include firefighting plans and procedures, a fire retarding system, and provide for dealing safely with any other health and technical hazards that may be encountered by disaster control personnel in combating fire. Hazards to be considered are pipes, hazardous materials, hazardous wastes, or open flames in the immediate vicinity.
    - (c) For equipment failures, plans for conditionally permitted facilities that use, maintain, store, process or produce hazardous materials and/or hazardous wastes shall include, but not be limited to, below-ground level, removal and replacement of leaking parts, a leak detection system with monitoring, and an overfill protection system; and above-ground level, liquid and leaching monitoring of primary containment systems, the replacement or repair and cleanup and/or repair of the impervious surface.
    - (d) For any other release occurring, the owner and/or operator shall report all incidents involving liquid or chemical material to the Waste Management Division of the Vermont Agency of Natural

Resources in accordance with applicable laws and shall simultaneously notify the Town of Waitsfield Zoning Administrator, Town Administrator, or Selectboard Chair immediately, and no later than two hours, after notice is given to the Vermont Agency of Natural Resources.

- ii. Since it is known that improperly abandoned water wells can become a direct conduit for contamination of groundwater by surface water, all abandoned wells within the GPOD shall be properly plugged according to State regulations.

## **Section 7.04 Groundwater Protection Area Regulation Definitions**

**AQUIFER.** A geological formation, group of formations or part of a formation either composed of unconsolidated rock, sand, gravel, or other unconsolidated soils, or composed of bedrock, with an interconnected series of crevasses, fractures, joints, faults, cleavages, bedding planes, porosity, or other geologic features that allows groundwater to move in the subsurface environment and is capable of storing and yielding groundwater to wells and springs.

**CONTAMINATION.** An impairment of water quality by chemicals, biologic organisms, or other impurity or extraneous matter regardless of whether it affects the potential or intended beneficial use of drinking water.

**FACILITY.** All contiguous land, structures, other appurtenances, and improvements on the land that is built, installed, or established for a particular purpose. A Facility may consist of several operational units.

**GRAY WATER.** All domestic wastewater except water discharged from a toilet or similar facility for excrement of human waste.

**GROUNDWATER.** Water below the land surface in a zone of saturation.

**GROUNDWATER PROTECTION OVERLAY DISTRICT.** A zoning district that is superimposed on all underlying zoning districts in the Town of Waitsfield. It includes all lands that are included in the definitions of Zones 1, 2 and 3 of the GPOD, and is included in the Official Map of the Town of Waitsfield. This district may include specifically designated recharge areas that collect precipitation or surface water and carry it to aquifers.

**HAZARDOUS MATERIAL** means all petroleum and toxic, corrosive or other chemicals and related sludge included in any of the following:

- (A) any substance defined in section 101(14) of the federal Comprehensive Environmental Response, Compensation and Liability Act of 1980;
- (B) petroleum, including crude oil or any fraction thereof; or
- (C) "Hazardous Waste," as defined below, by 10 V.S.A. § 6602(4) or any Vermont Agency of Natural Resources regulation governing the use of hazardous wastes, and including but not limited to nuclear, source, or by-product material as defined by the Atomic Energy Act of 1954 as subsequently amended and codified in 42 U.S.C. § 2014;
- (D) "Hazardous material" does not include herbicides and pesticides when applied consistent with good practice and conducted in conformity with federal, state and local laws and regulations and according to manufacturer's instructions.
- (E) "Hazardous material" does not include livestock wastes.

**HAZARDOUS WASTE.** Any waste or combination of wastes of a solid, liquid, contained gaseous, or semi-solid form, including, but not limited to those which are toxic, corrosive, ignitable, reactive, strong sensitizers, or which generate pressure through decomposition, heat or other means, which in the judgment of the Secretary of the Vermont Agency of Natural Resources may cause, or contribute to, an increase in mortality or an increase in serious irreversible or incapacitating reversible illness, taking into account the toxicity of such waste, its persistence and degradability in nature, and its potential for assimilation, or concentration in tissue, and other factors that may otherwise cause or contribute to adverse acute or chronic effects on the health of persons or other living organisms, or any matter which

may have an unusually destructive effect on water quality if discharged to ground or surface waters of the state. The storage and handling of livestock wastes and by-products are specifically excluded from this definition. Propane and/or heating fuel/oil for residential heating purposes are also specifically excluded from this definition.

**LAND DEVELOPMENT.** The construction, reconstruction, expansion, conversion, structural alteration, relocation or enlargement of any building or other structure, or of any mining, excavation or landfill, and any change in the use of any building or other structure, or land, or extension of use of land. The subdivision of land, including the division of a parcel into two or more parcels, is included in the definition of “Land Development” for the purposes of these Zoning Bylaws, although the subdivision of land is regulated under the Town of Waitsfield Subdivision Regulations, as most recently amended.

**PRIMARY CONTAINMENT FACILITY.** A tank, pit, container, pipe or vessel of first containment of a liquid or chemical, excluding the storage and handling of livestock wastes and by-products.

**PUBLIC WATER SUPPLY.** Any system(s) or combination of systems owned or controlled by a person, that provides drinking water through pipes or other constructed conveyances to the public and that has at least 15 service connections or serves an average of at least 25 individuals daily for at least 60 days out of the year. Such term includes all collection, treatment, storage and distribution facilities under the control of the water supplier and used primarily in connection with such system, and any collection or pretreatment storage facilities not under such control that are used primarily in connection with such system. In addition, this includes any water supply system with ten or more residential connections. Public Water System shall also mean any part of a system which does not provide drinking water, if use of such part could affect the quality or quantity of the drinking water supplied by such system.

**RELEASE.** Any intentional or unintentional action or omission resulting in the discharge, leak, pumping, pouring, emitting, emptying, dumping, disposal or spill of a potential contaminant including a hazardous material and/or hazardous waste, excluding the storage and handling of livestock wastes and by-products, onto the lands of the Town or into waters within the boundaries of the Town.

**SECONDARY CONTAINMENT FACILITY.** A second tank, catchment pit, pipe, or vessel that limits and contains a hazardous material or hazardous waste leaking or leaching from a primary containment area; monitoring and recovery are required excluding the storage and handling of livestock wastes and by-products.

**SPILL RESPONSE PLANS.** Detailed plans for control, re-containment, recovery and clean up of hazardous material and/or hazardous waste releases, such as during fires or equipment failures.

**STORMWATER TREATMENT PRACTICE (STP).** A man-made drainage structure, conveyance, catch basin, and any other appurtenant device or structure where stormwater is collected, transported, pumped, treated, or disposed of.

**STORMWATER RUNOFF.** Excess water from rainfall and snow melt that does not evaporate or penetrate into the ground, which flows overland and is collected and transported to the waters of the State of Vermont or the United States, including material dissolved or suspended in it, but does not include discharges from undisturbed natural terrain or wastes from combined sewer overflows.

**TIME-OF-TRAVEL DISTANCE.** The distance that groundwater will travel in a specified time. This distance is generally a function of the permeability and/or slope of the aquifer.



# Waitsfield Water Supply SPA

**Legend**

- Road
- Town Boundary
- 100 FT Contour
- 20 FT Contour
- Zone 1
- Zone 2
- Zone 3



Waitsfield

Northfield

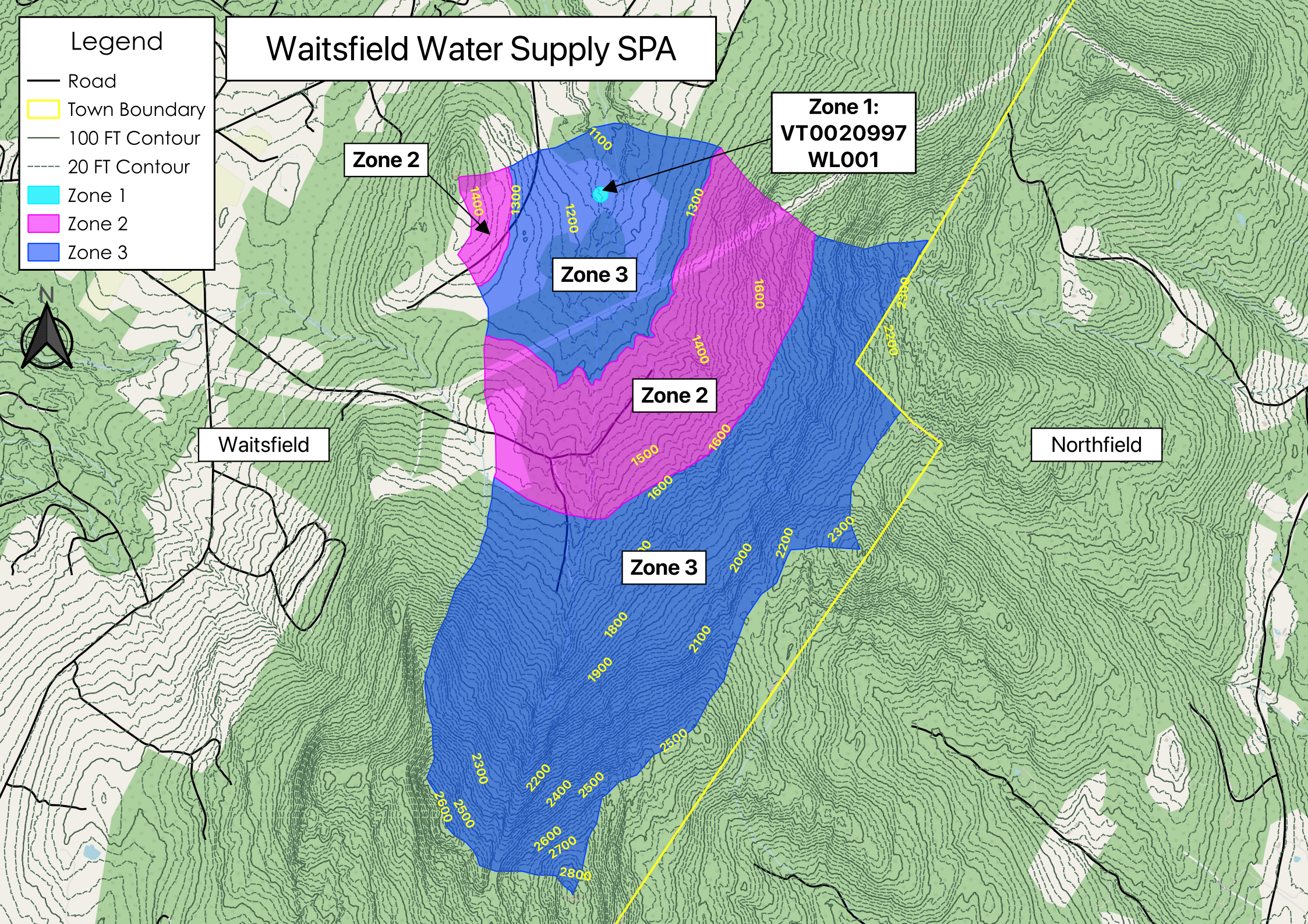
**Zone 1:  
VT0020997  
WL001**

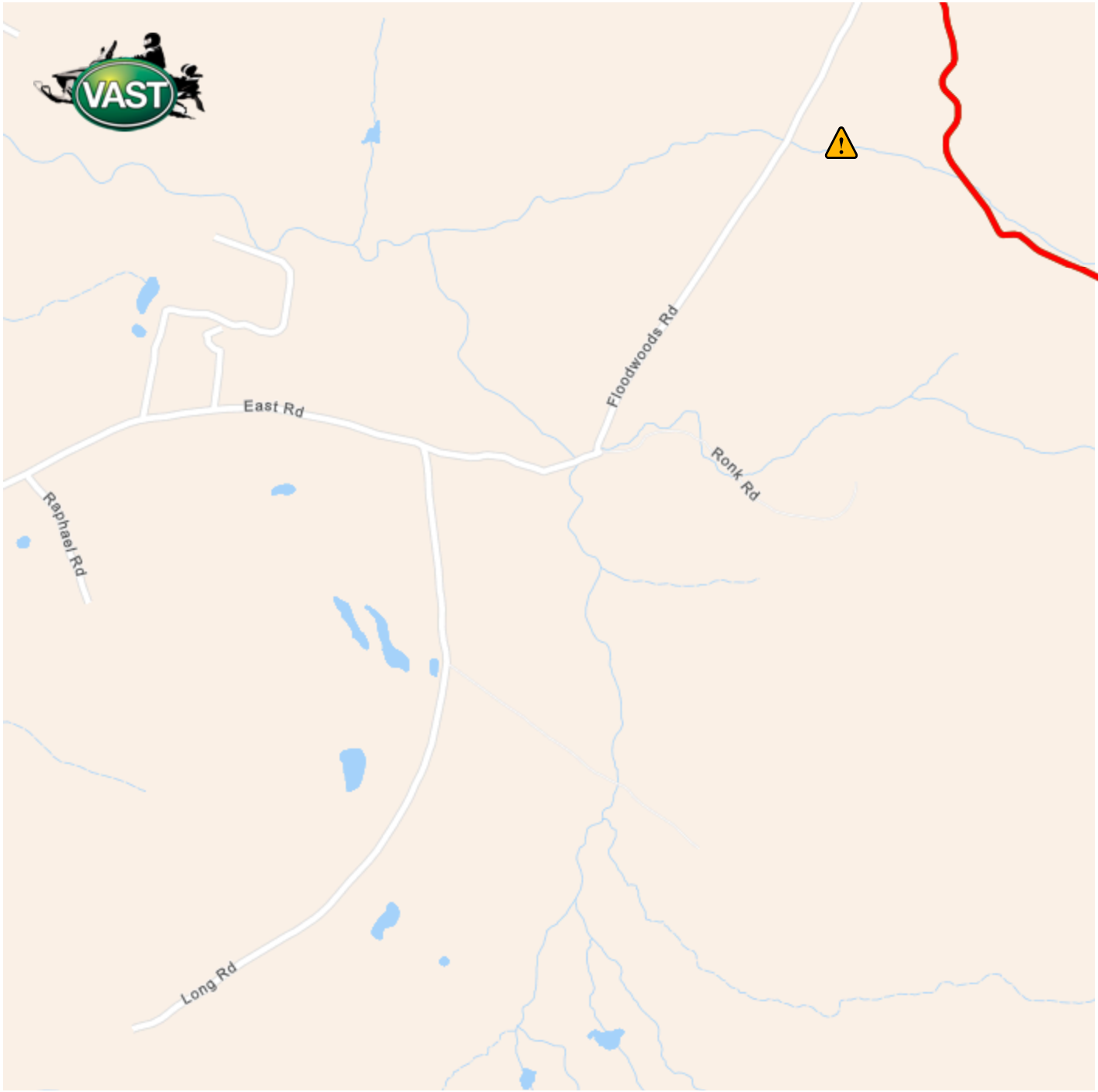
**Zone 2**

**Zone 3**

**Zone 2**

**Zone 3**







## *Vermont Legislative Research Service*

<https://www.uvm.edu/cas/polisci/vermont-legislative-research-service-vlrs>



### **The Impact of ATV and OHV use on Water Quality**

All-terrain vehicles (ATVs) and off-highway vehicles (OHVs) are common in the state of Vermont due to the large expanses of undeveloped land and the agriculture industry. In this report, we outline the impact of all-terrain vehicles and off-highway vehicles on water quality in Vermont. We give an overview of ATVs and OHVs the the impacts that they have on water quality. Also included is an overview of laws that regulate ATV use around the country as well as in the state of Vermont.

### **General Overview of ATVs/OHVs**

#### **Definitions**

- **ATV:** All-Terrain Vehicles are any nonhighway recreational vehicles, excluding snowmobiles. All-terrain vehicles have at least two low pressure tires, are not wider than 64 inches, have a dry weight of less than 2,500 pounds and are used for cross-country trails or on a combination of “land, water, snow, ice, marsh, swampland, and natural terrain.” ATVs do not include any “electric personal assistive mobility device” or electric bicycles.<sup>1</sup>
- **OHV:** Off-Highway Vehicles are recreational vehicles that are often used on cross-country trails or on a combination of “land, water, snow, ice, marsh, swampland, and natural terrain.” These vehicles are specifically operating off-highway. Includes light trucks, motorcycles, and snowmobiles, etc.<sup>2</sup>

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<sup>1</sup> Vermont General Assembly, “Title 23: Motor Vehicles Chapter 032: All-Terrain Vehicles,” accessed November 2023, <https://legislature.vermont.gov/statutes/section/23/031/03501>.

<sup>2</sup> The State of Vermont, Agency of Transportation, Department of Motor Vehicles, “Vermont All-Terrain Manual,” accessed December 27, 2023, [https://dmv.vermont.gov/sites/dmv/files/documents/VN-023-ATV\\_Driver\\_Manual.pdf](https://dmv.vermont.gov/sites/dmv/files/documents/VN-023-ATV_Driver_Manual.pdf); United States Department of Agriculture Forest Service, “OHV Riding and Camping,” accessed November 2023, <https://www.fs.usda.gov/activity/superior/recreation/ohv>.

## Fuel and Use

ATVs and OHVs use gasoline for most of their fuel. According to a report by the U.S. Department of Transportation, as of 2021, ATVs use 55.5 gallons per ATV per year for each state. Other OHVs can use anywhere from 59 to 100 gallons per OHV per year for each state.<sup>3</sup>

According to the U.S. Department of Transportation, Federal Highway Administration OHVs can be used for all different types of uses. According to this report, 74% of ATV drivers used ATVs for at least one non-recreational activity such as farming or hunting in 1997. Because this data is older this number could have changed by 2023.<sup>4</sup>

ATVs and OHVs can be used for working as well as recreational uses. Some working purposes are:

- Farming
- Ranching
- Hunting
- Small-scale forestry activities
- Border patrol and security
- Construction operations
- Emergency medical response
- Search and rescue
- Law enforcement
- Land management and surveying
- Military operations.<sup>5</sup>

Not all these uses are specific to Vermont, however many can be possible uses in Vermont. As a large agricultural state, ATV and OHV use in farming is prevalent in Vermont.<sup>6</sup>

## Vermont ATV trails

For recreation, ATVs are often ridden on trails on private land in Vermont. There are many local clubs with trails that ATV riders can ride on. The rider does not need to be part of the club to ride

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<sup>3</sup> United States Department of Transportation, Federal Highway Administration, *Methodology to Estimate Non-Highway Recreational Fuel Taxes CY 2016-2018*, July 2021, [https://www.fhwa.dot.gov/policyinformation/motorfuel/non-hwy\\_recreational\\_fuel\\_tax\\_estimate\\_report\\_2021.pdf](https://www.fhwa.dot.gov/policyinformation/motorfuel/non-hwy_recreational_fuel_tax_estimate_report_2021.pdf).

<sup>4</sup> United States Department of Transportation, Federal Highway Administration, *Off-Highway and Public-Use Gasoline Consumption Estimation Models used in The Federal Highway Administration*, June 2015, <https://www.fhwa.dot.gov/policyinformation/pubs/pl17012.pdf>

<sup>5</sup> Center for Disease Control and Prevention, "All-terrain Vehicles and Work," accessed November 2023, <https://blogs.cdc.gov/niosh-science-blog/2012/10/24/atv/>; United States Department of Transportation, Federal Highway Administration, *Off-Highway and Public-Use Gasoline Consumption Estimation Models used in The Federal Highway Administration*, June 2015, <https://www.fhwa.dot.gov/policyinformation/pubs/pl17012.pdf>.

<sup>6</sup> Center for Disease Control and Prevention, "All-terrain Vehicles and Work."

on their trails. Trails have seasonal restrictions that are determined by the landowners and weather conditions. Trails often close at the beginning of the winter months.<sup>7</sup>

Figure 1 below is a copy of a map produced by the Vermont ATV Sportsman’s Association, listing the ATV trail list where riders can ride their ATVs.<sup>8</sup>

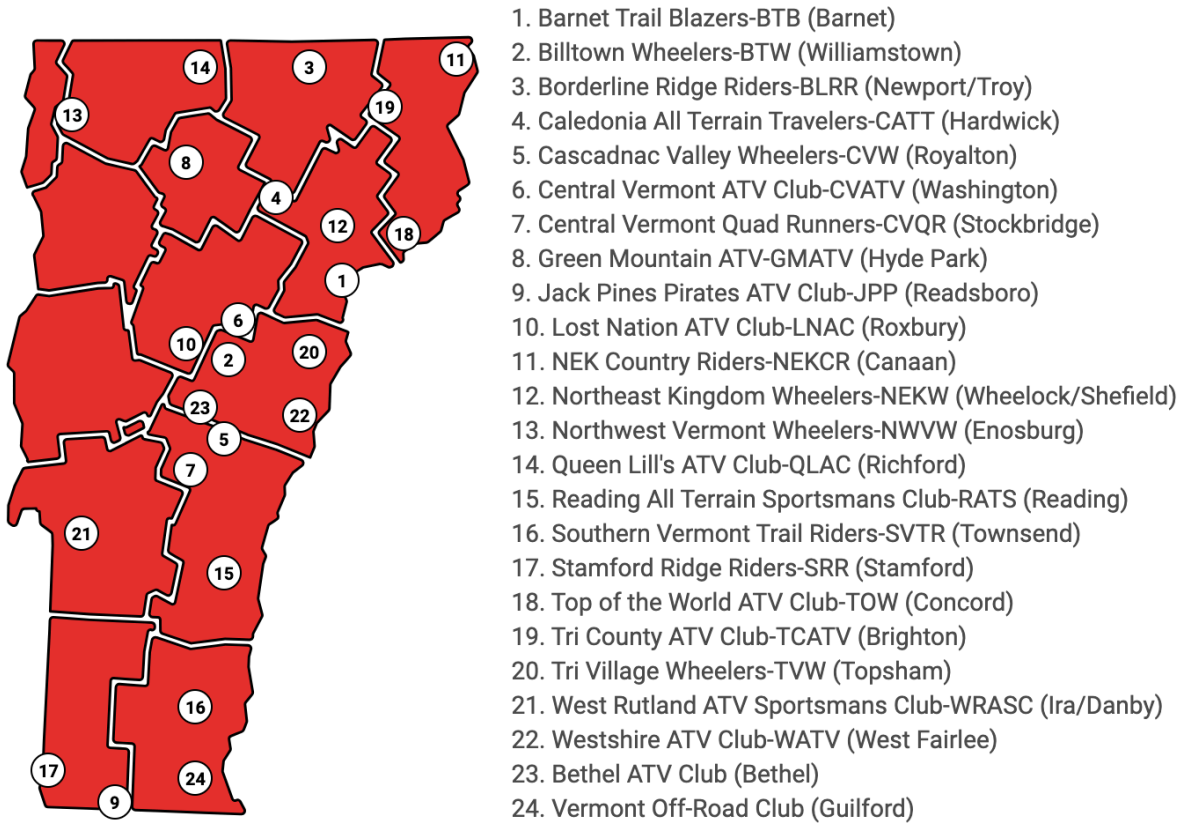


Figure 1: Vermont ATV Trail List<sup>9</sup>

Source: Vermont ATV Sportsman’s Association Inc., “Trails,” accessed November 2023, <https://vtvasa.org/trails.html>.

<sup>7</sup> Vermont ATV Sportsman’s Association Inc., “Clubs,” accessed November 2023, <https://vtvasa.org/clubs/>; The State of Vermont Agency of Natural Resources, “All-terrain Vehicles,” accessed November 2023, <https://fpr.vermont.gov/recreation/activities/all-terrain-vehicles>.

<sup>8</sup> Vermont ATV Sportsman’s Association Inc., “Trails,” accessed November 2023, <https://vtvasa.org/trails.html>.

<sup>9</sup> Vermont ATV Sportsman’s Association Inc., “Clubs,” accessed November 2023, <https://vtvasa.org/clubs/>.

## Impact on water quality

Natural areas are impacted by OHVs and ATVs in many ways, including damage to vegetation, wildlife habitats, soil quality, and air quality.<sup>10</sup> This report focuses on both direct and indirect OHV effects on water quality.

### OHV-Caused Runoff

OHVs can cause compacted soil, which leads to an increase in precipitation runoff. A study completed in the Mojave Desert shows that in locations where OHVs are present and move over soil, runoff was approximately 5 times greater than places where OHVs are absent.<sup>11</sup> Another study, completed by the US Department of Agriculture's Forest Service, found that disturbance by ATVs on ATV trails increased runoff and sedimentation rates by at least 56% and up to 625% of the rates of undisturbed forests.<sup>12</sup>

As runoff increases in both amount and velocity, soil content is more vulnerable to erosion. This leads to an increase in levels of turbidity, or contamination in water, and rates of sedimentation, or how materials settle in water, which can worsen the water quality within watersheds.<sup>13</sup> As OHVs are often used on trails and follow specific routes, they can create tracks that guide water flow directly to bodies of water.<sup>14</sup> This can alter preexisting natural drainage and further promote the contamination of aquatic ecosystems.<sup>15</sup>

### Water Contamination

OHVs and ATVs also introduce new contaminants to ecosystems, which then enter waterways and lead to a decrease in water quality. These contaminants are emitted from OHVs and enter waterways directly, enter soil through precipitation, or are deposited on snow, all of which can lead to the contamination of wetlands. Some contaminants typical in snowmobile emissions include benzene, ethylbenzene, m-, p-, and o-xylenes, and other OHVs may also release 1,3-butadiene and toluene.<sup>16</sup> These petroleum-based contaminants have been shown to cause negative impacts to human health—benzene, ethylbenzene, and 1,3-butadiene are designated

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<sup>10</sup> D.S. Ouren, Christopher Haas, C. P. Melcher, S. C. Stewart, P. D. Ponds, N. R. Sexton, Lucy Burris, Tammy Fancher, and Z. H. Bowen, "Environmental Effects of Off-Highway Vehicles on Bureau of Land Management Lands: A Literature Synthesis, Annotated Bibliographies, Extensive Bibliographies and Internet Resources," U.S. Department of the Interior, Open-File Report 2007-1353, 2007, accessed December 27, 2023, <https://pubs.usgs.gov/of/2007/1353/report.pdf>.

<sup>11</sup> Richard M. Iverson, Bern S. Hinckley, Robert M. Webb, and Bernard Hallet, "Physical Effects of Vehicular Disturbances on Arid Landscapes," *Science* 212, no. 4497 (May 1981): 915-917, <https://www.science.org/doi/10.1126/science.212.4497.915>.

<sup>12</sup> Dexter Meadows, Randy Foltz, and Nancy Geehan, "Effects of All-Terrain Vehicles on Forested Lands and Grasslands," report prepared for the United States Department of Agriculture Forest Service, December 2008, accessed December 27, 2023, [https://www.fs.usda.gov/rm/pubs\\_other/rmrs\\_2008\\_meadows\\_d001.pdf](https://www.fs.usda.gov/rm/pubs_other/rmrs_2008_meadows_d001.pdf)

<sup>13</sup> Ouren et al., "Environmental Effects of Off-Highway Vehicles on Bureau of Land Management Lands."

<sup>14</sup> Ouren et al., "Environmental Effects of Off-Highway Vehicles on Bureau of Land Management Lands."

<sup>15</sup> Ouren et al., "Environmental Effects of Off-Highway Vehicles on Bureau of Land Management Lands."

<sup>16</sup> Ouren et al., "Environmental Effects of Off-Highway Vehicles on Bureau of Land Management Lands."

carcinogens by the United States National Toxicology Program.<sup>17</sup> OHV traffic can also produce airborne dust, which can then settle in wetlands and contaminate the water.<sup>18</sup> Lastly, OHVs can create direct contamination through leaking of fuels, particularly in older vehicles.<sup>19</sup>

## Impacts of mudding

If OHV/ATV use is taken off designated trails, it can lead to further harm of both forest and aquatic ecosystems, especially in wetland areas. The Forest Service states that wetlands can provide critical wildlife habitat, erosion and flood control, natural water purification, and special types of recreation.<sup>20</sup> If OHVs are used in wetland areas, these benefits are diminished.

Use of OHVs outside of designated trails is referred to as mudding. Mudding includes driving on lakeshores, streams, fields, and wet meadows. This can damage native plants, which increases runoff and sedimentation to nearby waterways. It can also harm fish because young fish live in gravel. If the gravel is shifted, then the fish get smothered. OHVs create hardened tracks in the mud, which creates channels allowing water to carry sediment and contaminants to waterways.<sup>21</sup>

## Water Quality Impact Specific to Vermont: OHV-Caused Runoff

Soils with moderate moisture experience more soil compaction; moisture allows soil particles to move but larger soil pores aren't overfilled with water, leading to maximized compaction.<sup>22</sup> While Vermont's annual precipitation varies by region, it is generally even throughout the year.<sup>23</sup> Vermont has a wet continental climate and does not typically experience sustained floods.<sup>24</sup> This means Vermont's soil is generally more likely to compact and therefore have more runoff. In addition, Vermont's average precipitation levels are predicted to increase over the next century, meaning an increase in the likelihood of compacted soil due to OHV use.<sup>25</sup>

According to the Vermont Department of Environmental Conservation, “[w]ater pollution limits our use and enjoyment of approximately 15% of Vermont’s lakes, and 20% of streams.” This pollution is mostly attributed to agricultural land, developed land, forest harvesting operations,

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<sup>17</sup> National Cancer Institute, “Cancer-Causing Substances in the Environment,” accessed December 2023, <https://www.cancer.gov/about-cancer/causes-prevention/risk/substances>.

<sup>18</sup> Ouren et al., “Environmental Effects of Off-Highway Vehicles on Bureau of Land Management Lands.”

<sup>19</sup> Ouren et al., “Environmental Effects of Off-Highway Vehicles on Bureau of Land Management Lands.”

<sup>20</sup> United States Department of Agriculture Forest Service, “OHV Use,” accessed November 2023, <https://www.fs.usda.gov/main/rtr/recreationists/ohv>.

<sup>21</sup> United States Department of Agriculture Forest Service, “OHV Use.”

<sup>22</sup> Jason Warren and Randy Taylor, “Managing Soil Compaction,” Oklahoma State University Extension Service, accessed December 2023, <https://extension.okstate.edu/fact-sheets/managing-soil-compaction.html#:~:text=Soil%20moisture%20is%20critically%20important,out%20before%20compaction%20can%20occur>.

<sup>23</sup> National Climate Data Center, *Climate of Vermont*, accessed November 2023.

[https://www.ncei.noaa.gov/data/climate-normals-deprecated/access/clim60/states/Clim\\_VT\\_01.pdf](https://www.ncei.noaa.gov/data/climate-normals-deprecated/access/clim60/states/Clim_VT_01.pdf)

<sup>24</sup> National Integrated Drought Information System, “Vermont,” accessed December 2023.

<https://www.drought.gov/states/vermont>

<sup>25</sup> NOAA National Centers for Environmental Information, “State Climate Summaries 2022: Vermont,” accessed November 2023. <https://statesummaries.ncics.org/chapter/vt/>

and streambank erosion. Pollution then ends up in Vermont's waters through stormwater runoff,<sup>26</sup> which is exacerbated by soil compaction due to OHV use.<sup>27</sup> The state of Vermont has four drainage basins, meaning pollutants from ATVs and OHVs that end up in waterways could contaminate Lake Champlain, Lake Memphremagog, the Connecticut River, or the Hudson River.<sup>28</sup> This poses threats to Vermont aquatic ecosystems, drinking water contamination, human health, and even economy.<sup>29</sup>

## Laws regulating ATVs

### Travel Management and Off-Highway Vehicle (OHV) Program

The US Department of Agriculture created a program to regulate OHV's, regarding national forests and classification of vehicles. Every national forest is required to designate their trails "open to motor vehicles."<sup>30</sup> When they designate these trails open, each national forest must include the class of the vehicle and the time the vehicle can be used. This program prohibits vehicles from operating outside of their designated areas. Designations will all be made by local governments and will include a motor vehicle use map.<sup>31</sup>

### Mudding Regulation

Mudding, that is tearing up forest roads and meadows, in US national forests is currently illegal.<sup>32</sup> The effect of mudding is also expensive to fix. "The repair work for recent mudding in a wet meadow near Ellensburg, Washington was estimated at \$4,000." If people are caught mudding, they can be fined up to \$5,000 and can be charged with a civil suit.<sup>33</sup>

### Vermont DMV

ATV drivers in Vermont can use their vehicles on all roads that are "not plowed or maintained during the snow season" and all other roads that have been deemed available to ATVs by the board of trustees or local governing body. This does not mean, however, that all roads open to snowmobiles are open to ATV drivers, only those roads approved by the local government.<sup>34</sup>

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<sup>26</sup> Vermont Department of Environmental Conservation, "Restoring Vermont's Waters," accessed November 2023. <https://dec.vermont.gov/watershed/restoring>.

<sup>27</sup> Ouren et al., "Environmental Effects of Off-Highway Vehicles on Bureau of Land Management Lands."

<sup>28</sup> Vermont Department of Environmental Conservation, "Restoring Vermont's Waters."

<sup>29</sup> Vermont Department of Environmental Conservation, "Restoring Vermont's Waters."

<sup>30</sup> US Department of Agriculture, "Travel Management and Off-Highway Vehicle(OHV) Program." accessed December, 2023. <https://www.fs.usda.gov/recreation/programs/ohv/>

<sup>31</sup> US Department of Agriculture, "Travel Management and Off-Highway Vehicle (OHV) Program."

<sup>32</sup> US Department of Agriculture, "Mudding on National Forests is Illegal and Destructive," accessed December 2023. <https://www.usda.gov/media/blog/2013/07/17/mudding-national-forests-illegal-and-destructive>

<sup>33</sup> US Department of Agriculture, "OHV Use," accessed December 18, 2023.

<https://www.fs.usda.gov/main/rtr/recreationists/ohv>

<sup>34</sup> Vermont Department of Motor Vehicles, *ATV Driver Manuel*, "2023, [https://dmv.vermont.gov/sites/dmv/files/documents/VN-023-ATV\\_Driver\\_Manual.pdf](https://dmv.vermont.gov/sites/dmv/files/documents/VN-023-ATV_Driver_Manual.pdf)



ATV drivers are not allowed to drive on public land or water that is not declared usable for them by the Secretary of Natural Resources and any area that harasses wildlife. The Secretary of Natural Resources declared all frozen bodies of water are available for ATV use, except: Amity Pond in Windsor County, Marsh Pond in Rutland County, Bear Pond in Lamoille County, Sterling Pond in Lamoille County, and Lake of the Clouds in Lamoille County. The Fishing and Wildlife Department fishing areas are available for ATV that follows the department's regulations.<sup>35</sup>

### **Vermont Statute 23 V.S.A. Section 3510**

Local governments are permitted to regulate the operation of ATV's as long as they do not contradict Vermont State Statutes.<sup>36</sup>

### **Minnesota's regulations regarding ATV use**

Minnesota is included in this report as it was the only other state with clear state-mandated guidelines on ATV and OHV usage. Minnesota uses age restrictions for ATV use for people under 18 for Class I ATVs. Children are allowed to operate ATVs under the age of 10 on private property with a parent available for ATV safety training. At ages 10-11, children can operate an ATV on public lands or frozen waters up to 170cc if a guardian is present and has side-by-side seating and a steering wheel. Children ages 12-15 can operate an ATV if they have a valid safety certificate and an adult with a license is present or if they are with a parent on another ATV. Children ages 16-17 can operate an ATV with a Safety Certificate and a valid driver's license. Class 2 ATVs are more restricted with no allowance of operation for children under 15. Minnesota prohibits any rider under 18 from riding without a helmet or a seatbelt.<sup>37</sup>

Minnesota has a series of environmental protections regarding ATV and OHV use. To protect against invasive species, Minnesota requires ATV and OHV drivers to clean all gear before and after riding a vehicle and stay on the allotted trails. Riders are also prohibited from driving in wildlife management areas, unfrozen waters, or unauthorized trails. Minnesota also restricts OHV use in wetlands to not change "the natural and ecological balance of a wetland." This includes riding in low water of unfrozen public water. If these regulations are not followed, drivers convicted may face misdemeanors. Minnesotans can ride OHVs in a managed forest, limited forest, and closed forest. Managed forests are open to riding unless they are marked as "closed." Limited forests allow riders if the specific trail is labeled for a vehicle type. Closed forests allow riders if there is a frozen body of water to ride on.<sup>38</sup>

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<sup>35</sup> Vermont Department of Motor Vehicles, [https://dmv.vermont.gov/sites/dmv/files/documents/VN-023-ATV\\_Driver\\_Manual.pdf](https://dmv.vermont.gov/sites/dmv/files/documents/VN-023-ATV_Driver_Manual.pdf)

<sup>36</sup> Vermont General Assembly, "Motor Vehicles," accessed December, 2023, <https://legislature.vermont.gov/statutes/section/23/031/03510>

<sup>37</sup> Minnesota Department of Natural Resources, "Off-Highway Vehicle Regulations," accessed December, 2023, <https://www.dnr.state.mn.us/regulations/ohv/index.html#:~:text=Age%2010%20%26%2011-,May%20operate%20an%20ATV%20only%20on%20private%20property%20with%20permission,by%20parent%20or%20legal%20guardian>

<sup>38</sup> Minnesota Department of Natural Resources, *OHV Regulations*, 2023. [https://files.dnr.state.mn.us/rlp/regulations/ohv/ohv\\_reg.pdf?v=2023.10.02-11.14.15](https://files.dnr.state.mn.us/rlp/regulations/ohv/ohv_reg.pdf?v=2023.10.02-11.14.15)

## **The Bureau of Land Management suggested regulations**

The Bureau of Land Management suggests OHV riders wear helmets, follow signs, register your vehicle, have tall flags, and respect private property.<sup>39</sup>

## **Town of Swanton, Vermont**

The Town of Swanton, Vermont has their own ATV law in conjunction with 23 V.S.A. 3510 rules. The Town of Swanton emphasizes ATV owners' health, safety, and welfare as well as residents of the town's health, safety, and welfare. Some of the new rules laid out are speed limits, times of operation, racing rules and where one can and cannot ride. This is done to reduce noise pollution in the town as well injury.<sup>40</sup>

## **Town of Glover, Vermont**

The Town of Glover, Vermont also has an ATV law regulating the "time, manner and location of operation" of ATVs within the town. The purpose of this ordinance is to protect the health and safety of the residents and ATV operators as well as protect property, environment, and animals of the town. ATV in this ordinance is defined as any off-highway vehicle except for snowmobiles.<sup>41</sup>

## **H. 942: Transportation Program Adopted as Amended**

The legislature passed ATV regulations as a part of "Vermont Transportation Bill H.942" in 2020. The ATV portion starts on page 35 of the H. 942 documentation. The main outcomes were the requirements of helmets for operators, required insurance and Trail Access Decals for those riding ATVs on public roads or trails on public land.<sup>42</sup>

## **Conclusion**

In this report, we outlined the impact of ATVs and OHVs on water quality in Vermont. ATVs and OHVs increase runoff and sedimentation rates leading to decreasing water quality. Because of Vermont's moist climate, continued OHV and ATV use leads to more water contamination. As of 2023, Vermont has very limited ATV and OHV regulations, unlike Minnesota who created regulations not only for safety of the operator, but to protect the environment. With the absence of major legislation, some small towns in Vermont have created their own regulations for ATV use.

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<sup>39</sup> US Bureau of Land Management, "Off-Highway Vehicles on Public Lands," accessed December 2023.

<https://www.blm.gov/programs/recreation/OHV>

<sup>40</sup> Government of the Town of Swanton, *Ordinance Regulating All Terrain Vehicles(ATVs)*, June 2022.

[https://www.swantonvt.gov/fileadmin/files/town/Ordinances/ATV\\_Ordinance.pdf?7405d02b4b570c44900f15698bd0e606b785096](https://www.swantonvt.gov/fileadmin/files/town/Ordinances/ATV_Ordinance.pdf?7405d02b4b570c44900f15698bd0e606b785096)

<sup>41</sup> Government of the Town of Glover, *Ordinance Regulating All Terrain Vehicles*, August 2008.

<https://townofglover.com/wp-content/uploads/Regulating-All-Terrain-Vehicles-Town-of-Glover.pdf>

<sup>42</sup> Vermont General Assembly, *H.942*, 2020, <https://legislature.vermont.gov/Documents/2020/Docs/BILLS/H-0942/H-0942%20As%20Passed%20by%20Both%20House%20and%20Senate%20Unofficial.pdf>

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This report was completed on December 27, 2023, by Cassie Beeler, Erin Ahearn, and McKenna Halvorson under the supervision of VLRS Director, Professor Anthony “Jack” Gierzynski and Dr. Jonathan “Doc” Bradley in response to a request from Representative Charles Demrow.

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Disclaimer: The material contained in the report does not reflect the official policy of the University of Vermont.

## Groundwater Protection Overlay District

### Adoption Timeline

- 1) 12/17/2024: Approve Table 2.12, corresponding definitions and Map
- 2) 1/4/2025 (no later than): Warn meeting and notice required State agencies
- 3) 2/4/2025: PC public hearing for adoption
- 4) 2/5/2025: Send PC approved GPOD to Selectboard
- 5) March/April: Select Board public hearing for adoption