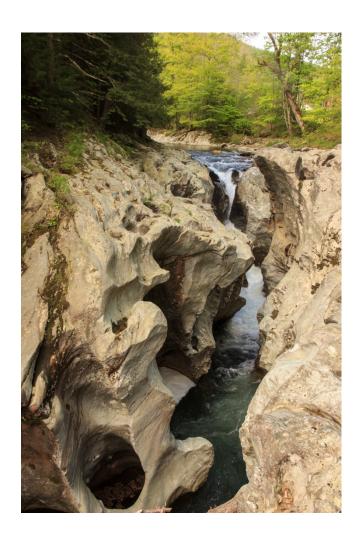
# Management Plan For Huntington Gorge



Prepared by the

Vermont River Conservancy

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# I. Introduction

Huntington Gorge (the Gorge) is a well-known scenic and historic river gorge on the Huntington River in the Town of Richmond. The Gorge is a popular recreation area and swimming hole which receives extensive public use, particularly in warmer months. The 3.3 acre Gorge property is currently owned by a private individual who intends to sell the property and has contacted Vermont River Conservancy (VRC). VRC is partnering with Richmond Land Trust (RLT), a local land trust, to conserve the property and maintain public access under RLT ownership.

The Gorge has been a popular swimming destination for generations of Richmond area residents and out of state visitors. On a typical summer weekend, the Gorge and several swimming holes downstream are used by hundreds of residents of Richmond and surrounding communities, tourists, and students from nearby colleges.

Tragically, the Gorge has also been the site of more than 25 drowning deaths since 1950. Most of these deaths have occurred because visitors were unfamiliar or unprepared for the dangers of the Gorge, including submerged rocks and debris, unpredictable water levels, and deceptively strong currents in the deep potholes that have been carved by flowing water over the centuries. Many of the deaths occurred in the decades prior to 2000 when there was no oversight or management of the Gorge provided by the out of state owner or the Town.

Working with the Town of Richmond, the current owner has improved the management and safety of the Gorge by constructing a parking area, installing warning signs, and restricting roadside parking. Most swimmers use the swimming hole located downstream of the narrow part of the Gorge or shallow pools on the Huntington River well upstream of the Gorge. Many visitors now avoid the Gorge altogether, preferring to swim at the Lower Gorge downstream, which offers a variety of safer swimming locations and more roadside parking.

# II. Site Location and Description

## A. Geography

Huntington Gorge is located on the lower reach of the Huntington River, two miles from the confluence with the Winooski River. The main stem of the Huntington River flows northerly for approximately 21 miles, from its headwaters in Camels Hump State Forest in Buels Gore and Starksboro, to its confluence with the Winooski River in Jonesville. The River drains a watershed of 66 square miles, including land located in the towns of Buels Gore, Duxbury, Fayston, Starksboro, Huntington, Richmond, Bolton and Hinesburg. Land use in the upper watershed is predominantly forest and scattered residential while there is a significant agricultural presence in the broader areas of the lower watershed with increasing residential development in the surrounding woodlands.

# B. Geology

The greenish gray bedrock of the Gorge is part of the Underhill Formation, which is made up primarily of schist, a metamorphic rock formed from sediments deposited at the bottom of an ancient ocean during the Cambrian Period more than 400 million years ago. Later, the collision of tectonic plates pushed and folded the mudstones formed from these sediments up into the Green Mountains and Taconic Mountains. The intense heat and pressure of this mountain building event, called the Taconic Orogeny, metamorphosed some of the mudstones into the rocks of the Underhill Formation and the other schists of the Green Mountains. Over the millions of years since their formation, the Green Mountains have eroded to only a fraction of their original height.

In more recent geologic time, the Huntington and Winooski River valleys, and all of Vermont, were covered by ice sheets during the Pleistocene glaciation. As the glaciers receded, more than 10,000 years ago, the flowing meltwaters filled the old Huntington River Valley with layers of sand, silt, and gravel. Eventually the river cut all the way down through these sediments to the original bedrock channel, but at the location of the Gorge it started cutting a new channel, a process that continues today. The potholes and sculpted sidewalls of the Gorge today have been created over the centuries by powerful swirling eddies of water flowing through the narrow chasm.

# C. Hydrology

Historical records indicate major floods occurred in the Huntington River basin in 1804, 1858, 1927, 1938 and 1976. These floods are on record as doing major damage to bridges, mills or other infrastructure. Although there was substantial flooding along the Winooski River both up and downstream from the mouth of the Huntington with devastating damage done to roads, bridges and homes, there is not a great deal on record concerning flooding of the Huntington River in 1927.

## D. Natural History

Huntington Gorge is a scenic river gorge and waterfall formed by a narrow gap in the bedrock schist underlying the Huntington River as it flows toward its confluence with the Winooski River. Over the centuries, flowing water has sculpted the side walls into dramatic chutes and bowls which create dramatic cascades, particularly during periods of high water. The Gorge has been a popular swimming destination for generations of Richmond residents.

The Vermont Swimming Hole Study (Jerry Jenkins et al., March 15, 2002, Division of Water Quality, ANR) surveyed over 200 swimming holes in the state and created a "Significance" rating system. Huntington Gorge was described



Huntington Gorge was rated "Highest Significance" as a natural area by the Vermont Swimming Hole Study in 2002.

as "Rated Highest Significance as a natural area and for use, state significant for jumping into a deep pool, ..." (page 322). The designation of "Highest Significance" is awarded only to those places that are essentially unique within the state, either as a natural feature or as a recreational site, or it is one of the best natural features of its type in the state, or it makes an irreplaceable contribution to either the natural resource or recreational opportunities within the state, so that its loss, degradation, or closure to the public will have a major impact on the resource base of the state (page 26).

The "Waterfalls, Cascades, and Gorges of Vermont" (Jerry Jenkins & Peter Zika, September 1988, Department of Forests, Parks, and Recreation, ANR) described Huntington Gorge as "A unique place: no other gorge we have seen is so narrow and deep ... an important place in any case." (page 144).

The Vermont Conservation Design, a joint publication of the Vermont Department of Fish and Wildlife and the Vermont Land Trust identifying lands and waters of the state of high priority for maintaining ecological integrity, designates the area around Huntington Gorge as a high priority Surface Water and Riparian Area and a Riparian Corridor. The lower Huntington River, from just above the Gorge to the River's confluence with the Winooski River, has also been designated by the ANR Watershed Management Division as a prospective Outstanding Resource Water. The Huntington River in this area is also within a FEMA Flood Hazard Area and is listed on the Wetlands Advisory Layer maintained by the Department of Environmental Conservation Wetlands Program.

In August 2017, Chelsea Clarke, a graduate student in the Field Naturalist Program at the University of Vermont spent four days conducting research and fieldwork at Huntington Gorge for her graduate course work. Her report, *A Rapid Ecological Assessment of the Huntington Gorge, Richmond, Vermont, August 2017*, includes a description of the natural history and ecological features of the property. The list of Observed Plant Species Clarke developed as part of her study is included as Appendix B. Clarke's report is available on request.

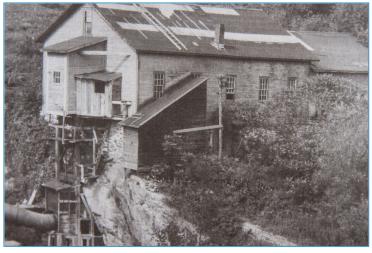
# E. Land Use History

Huntington Gorge has played a significant role in the history of the Town of Richmond, a municipality of 4,000 residents in the western foothills of the Green Mountain. Since the Town of Richmond was founded in 1794, the Gorge has served as the site of several grist mills, a spoke factory and cider mill, and the first hydroelectric plant serving the village of Richmond.

The first grist mill on the site was built in 1806 by John Preston. In 1867, the mill was

sold to the Robinson family, which used the mill to grind limited quantities of wheat, but also to produce apple cider and wheel spokes. In 1902, the mill site was sold to the Richmond Light and Power Company, which constructed a hydroelectric station to produce power for the village of Richmond. It had a working head of 44' and had almost completely diverted the flow of the Huntington River. When additional water was needed

the operator of the power



The Richmond Power and Light hydroelectric facility at the Gorge constructed in 1902 provided electricity to the village of Richmond.

plant walked uphill to remove stop logs from the small dam located on Gillett Pond, allowing additional water to flow into the Huntington River through a small tributary, Johns Brook.

After the failure of the hydroelectric facility in 1910, the Gorge was owned by Green Mountain Power Corporation, the Mount Mansfield Girl Scout Council, and finally by several individuals. The foundation of the original power plant is still visible on the site, just below the falls.

After the mill and waterworks were removed from the site the area became a scenic recreation area, attracting swimmers and other visitors. As the area became more popular, the number of drowning deaths began to rise, peaking in the 1970s when hundreds of visitors could be found enjoying the Gorge on a hot summer day.



Portions of mill foundations are still visible at the Gorge.

In 1976, after 4 drownings in the gorge, an entrapping rock ledge was dynamited, lowering the depth of the pool by one to two feet and altering the falls at the outlet of the upper gorge. At the time the Gorge was owned by an out of state property owner. The Gorge was sold in 2005 to the current owner, Gary Bressor, who formed the Huntington River Gorge, LLC to hold the property.

## F. Surrounding Land Ownership

The 3.3 acre Huntington Gorge property is divided by the Huntington River, with the majority of the property located on the west side of the River, between Dugway Road

and the River. The River splits near the southern boundary of the property, forming a small island at the head of the Gorge. (See Appendix A - Site Map)

Small residential properties are located along Dugway Road across from the Gorge parcel, with the closest home approximately 300 feet away. New Moon Ranch, a horse farm offering boarding and riding instruction, abuts the Gorge property to the north. Horses graze in a meadow within 50 yards of the walls of the Gorge.

On the east side of the Huntington River the terrain is steep and wooded and characterized by larger residential properties. The closest houses on this side of the River are located more than ¼ mile away from the Gorge along Wes White Hill Road.

## III. Current Site Use

#### A. Access

Huntington Gorge is located directly adjacent to Dugway Road and much of the Gorge is visible from the road right-of-way. Visitors can park in a small parking lot on the southern end of the property. From the parking a lot a short trail leads to the riverbank 150 feet upstream of the head of the Gorge. Visitors can also walk from the parking lot north along the shoulder of the road 250 feet to the Gorge overlook, which provides a partial view of the waterfalls and cascades within the Gorge. Continuing along the road just beyond the overlook, visitors can access a trail which extends 400 feet to a gravel beach at a sharp bend in the Huntington River. The gravel beach is on the adjacent property whose owners allow public use of the beach.

## B. Parking

Parking is limited in the immediate vicinity of the Gorge. A parking lot accommodating 8 cars is located adjacent to Dugway Road near the southern property line. This lot is often full on warm summer days. Cars can also park along portions of Dugway Road south of the parking lot where the road shoulder is wide enough to enable cars to pull entirely off of the travelled portion of the road. North of the parking lot the shoulder narrows and there is little to no parking along the road. In addition, the Town of Richmond has installed guard rails in the vicinity of the Gorge overlook, further restricting the parking in this area.

The Town of Richmond Traffic Ordinance prohibits cars from parking on the traveled portion of Dugway Road. All parking on the road is prohibited between 12:00 midnight and 6:00 am. The Town actively enforces this ordinance, ticketing and towing cars along Dugway Road in the vicinity of the Gorge and the Lower Gorge if the cars are not parked off the roadway. Richmond Police Chief Alan Buck reports that 38 parking tickets were issued and three cars were towed during a weekend in August 2017.

#### C. Visitor Use

Visitors come to the Gorge to see its striking geologic features, to witness the power of the water flowing through the narrow, constricted walls of the Gorge, and to cool off in the waters of the Huntington River. Use is concentrated primarily in three areas: the River upstream of the Gorge, the Gorge overlook, and the gravel beach below the Gorge.

The Huntington River is generally shallow upstream of the Gorge, but there are small pools and riffles along the river, easily accessible from the parking lot or from the edge of Dugway Road south of the lot in locations where it is possible to park legally. Neighbors report that more visitors are taking advantage of these opportunities on warm summer days, parking along the road near and well upstream of the Gorge.

Visitors are also attracted to the Gorge overlook where it is possible to view the river flowing through the chasm, which can be dramatic in the spring during snowmelt and at other times after heavy rains in the watershed. The state Historic Marker describing the role of the Gorge as a mill site during the settlement of the Town of Richmond is located in this area. The other side of this sign also lists the 18 deaths that occurred at the Gorge during the period 1950 – 1994.

The Gorge overlook is relatively narrow and walking on the compacted soils and uneven ledges in this area can be difficult, particularly in wet or icy conditions. For this reason caution is advised when approaching the edge of the Gorge. This area has historically been a popular cliff jumping location, but this activity is much less common today, with more awareness of the dangers of jumping into the swift waters of the Gorge and with the availability of safer swimming and jumping locations downstream at the Lower Gorge Preserve.

Below the Gorge a trail leads from the edge of Dugway Road to a wide gravel beach at a sharp bend in the river. A deep swimming hole is located upstream at the point where the steep walls of the Gorge open up. The beach is owned by the adjacent landowner who generously allows public use.



A gravel beach below the Gorge provides a safe place to enjoy the river and swimming hole upstream.

# IV. Management Goals and Objectives: The Vision for Huntington Gorge

#### A. Land Conservation

VRC will acquire the 3.3 acre Huntington Gorge property and convey a Public Access and Conservation Easement (conservation easement) to be held by the Vermont Housing Conservation Board and the Vermont River Conservancy. The property will then be transferred to Richmond Land Trust subject to the terms of the conservation easement.

A summary of the conservation easement description of Holders' Rights, Landowner Restrictions, Landowner Retained Uses and Public Access rights is listed below:

# Holders' Rights

The rights and uses hereby conveyed to the Holders are as follows:

- 1. To provide for non-commercial, non-motorized public recreational use, including swimming, fishing, and pedestrian use, provided such uses are conducted in a manner that minimizes negative impacts on the natural resource values of the Protected Property.
- 2. To conserve and protect wildlife habitat, natural communities, native flora and fauna, and ecological processes on the Protected Property as these values exist on the date of this instrument and as they may evolve in the future, as well as, to contribute to the implementation of those policies of the State of Vermont that are designed to foster conservation of the state's forest resources, water resources, open spaces, scenic character, and other natural resources associated with the Protected Property, so that present and future generations may enjoy them.
- 3. To insure that the Protected Property will be owned in perpetuity by a qualified nonprofit, public or other entity approved by Grantees.

## Landowner Restrictions

The following are limitations on the landowner's use of the property:

- 1. The Protected Property shall be used for public outdoor recreation, scenic, cultural, open space and educational purposes in perpetuity. No residential, commercial, industrial or mining activities shall be permitted on the Protected Property and no building or structure associated with such activities shall be constructed, created, erected or moved onto the Protected Property. The term structure as used in the preceding sentence shall include, but not be limited to, any telecommunications, broadcasting or transmission facility. No other building or structure shall be constructed, created, erected or moved onto the Protected Property, except as specifically permitted by the Management Plan and by this Grant.
- 2. Except as permitted by Section III of this Grant, no rights-of-way, easements of ingress or egress, driveways, roads, utility lines, other easements or use restrictions shall be constructed, developed, granted or maintained into, on, over, under, or across the Protected Property without the prior written permission of Grantees, which permission shall not be unreasonably withheld or conditioned if the proposed right-of-way, easement of ingress or egress, driveway, road, utility line, other easement or use restriction is consistent with the Purposes of this Grant.

- 3. There shall be no signs, billboards, or outdoor advertising of any kind erected or displayed on the Protected Property; provided, however, that Grantor may erect and maintain reasonable signs including, but not limited to, signs indicating the name of the Protected Property and its ownership by Grantor, boundary markers, directional signs, memorial plaques, informational and interpretive signs, and signs limiting access or use (subject to the limitations of Section V, below). With prior written permission of Grantor, Grantees may erect and maintain signs designating the Protected Property as land under easement protection by Grantees.
- 4. The placement, collection or storage of trash, human waste, or any other unsightly or offensive material on the Protected Property shall not be permitted except at locations, if any, and in a manner that is consistent with this Grant and permitted by the Management Plan. The temporary storage of trash in receptacles for periodic off-site disposal shall be permitted.
- 5. There shall be no disturbance of the surface of the Protected Property including, but not limited to, filling, excavation, removal of topsoil, sand, gravel, rocks or minerals, or change of the topography of the land in any manner, except as may be reasonably necessary to carry out the uses permitted on the Protected Property under the terms of this Grant and provided for in the Management Plan. In no case shall surface mining of subsurface oil, gas or other minerals be permitted.
- 6. Grantor shall not give, grant, sell, convey, transfer, lease, mortgage, pledge or otherwise encumber the Protected Property without the prior written approval of Grantees, which approval may be granted, denied or conditioned including the condition that the Protected Property be sold for only nominal consideration in Grantees' sole discretion.

  7. There shall be no operation of motorized vehicles on the Protected Property except for uses specifically reserved, such as property management and for emergency purposes. There shall be no all-terrain vehicle use permitted on the Protected Property except for emergency or management purposes. However, Grantor may permit motorized personal assistive mobility devices for use by persons with mobility disabilities on the Protected Property if consistent with the Purposes of this Grant, and as may be required by the Americans with Disabilities Act regulations. For purposes of this Grant, all-terrain vehicles include, but are not limited to, motorized four-wheeled, three-wheeled and twowheeled or tracked vehicles, not including snowmobiles.
- 8. There shall be no manipulation or alteration of natural watercourses, lakeshores, wetlands, water levels and/or flow or other waterbodies except as may be provided for in the Management Plan.
- 9. No use shall be made of the Protected Property, and no activity thereon shall be permitted which, in the reasonable opinion of Grantees, is not or is likely to not be consistent with the Purposes of this Grant.

## Landowner Retained Uses

The following are permitted activities on, and uses of, the conserved property:

1. The right to use the Protected Property for all types of non-commercial, non-motorized, low-impact dispersed outdoor recreational purposes (including, but not limited to, birdwatching, cross-country skiing, fishing, hiking, snowshoeing, swimming, walking and wildlife observation) consistent with the terms and Purposes of this Grant and the Management Plan.

- 2. The right to maintain, repair, improve and replace existing recreational trails, together with the right to clear, construct, repair, improve, maintain and replace new trails, provided that the location, use and construction of such new trails are consistent with the terms and Purposes of this Grant, and are provided for in the Management Plan.
- 3. The right to issue permits or licenses authorizing the non-commercial use of the Protected Property for recreational, educational, or research purposes, and for professional guides for small groups of people, provided that any such permit or license is for uses consistent with the terms and Purposes of this Grant, and provided that such permit or license does not authorize any use of or action on the Protected Property otherwise prohibited by this Grant.
- 4. The right to conduct all activities allowed by the Management Plan provided such activities are reasonably necessary to carry out the Purposes of this Grant and are consistent with the terms of this Grant. Such activities may include, but are not necessarily limited to, the non-commercial management of vegetation, wildlife and recreation.

#### Public Access

The Protected Property shall be available to the general public for all low-impact types of noncommercial,

non-motorized, non-mechanized, dispersed recreational purposes (including, but not limited to, birdwatching, cross-country skiing, fishing, hiking, snowshoeing, swimming, walking and wildlife observation) consistent with the Purposes of this Grant and the Management Plan. Notwithstanding the foregoing, the landowner may limit or restrict public access to the Protected Property to assure compliance with the requirements of this Grant, to protect natural habitats, or

to protect the public health or safety (including, but not limited to, the right to permit, regulate or

prohibit hunting or trapping). If Grantees approve a conveyance of the Protected Property, then Grantees may also require that a separate Grant of Public Access Easement also be conveyed to Grantees in a form approved by Grantees.

Richmond Land Trust will own and manage the Huntington Gorge with the assistance of a seasonal Swimming Hole Steward (hired by the Vermont River Conservancy) who will provide on-site management of the property, along with several other nearby popular swimming holes, including the Lower Huntington Gorge located ½ mile downstream.

**Overall Management Goals** 

The following goals will guide the future use and management of Huntington Gorge:

- 1. To promote a culture of safety and responsible use at the Gorge and the Lower Gorge by providing site improvements, appropriate informational signage, and coordinated messaging, reinforced by on-site management during active summer months.
- 2. To ensure respectful relations with landowners and neighbors.
- 3. To cooperate with the Town of Richmond to provide safe, controlled access to the Gorge and to enforce parking and speed limit restrictions.
- 4. To permanently protect public access to the Gorge and to ensure that the site is well-managed.
- 5. To protect the ecological integrity of the Gorge by implementing site improvements such as signage, trails, steps, and seasonal bathroom facilities.

# V. Management Issues

## A. Parking

Parking at the Gorge has been a significant issue in the past, with cars blocking the roadway and neighboring driveways during the peak summer season. One long-time neighbor reports that in the late 1970s it was not unusual to see more than 100 cars lining both sides of Dugway Road in the vicinity of the Gorge on a summer day, reducing the width of the roadway to one lane and sometimes blocking the road altogether. This corresponds to the decade when the largest number of deaths occurred at the Gorge.

Parking in recent years has become more controlled. In 2005 when the Gorge was acquired by a Richmond resident, the small parking lot was developed along Dugway Road. This parking lot is often full on summer days and additional parking is available along Dugway Road in locations where it is possible to park off the road. Cars parked in the travelled way are ticketed or towed by the Richmond Police Department, which has aggressively enforced parking restrictions along Dugway Road in recent years, providing detailed signage about how to comply with parking regulations. Another factor that has alleviated parking issues is that the use of the Gorge for swimming has declined, with many visitors now taking advantage of the more available parking and better swimming opportunities offered by the nearby Lower Gorge Preserve.



Parking rules along Dugway Road are enforced using detailed signage.

Several neighbors report that speeding is a problem on Dugway Road in the vicinity of the Gorge, particularly on busy summer days. Richmond Land Trust will work with the Richmond Police Department to monitor and control speeding, as the Police Department has done successfully in other parts of town.

#### B. Trails

Two short trails lead from the parking lot to the river's edge. This is an area approximately 150 feet upstream of the beginning of the Gorge, where swimming is discouraged due to the proximity of the first steep section of the Gorge. The location of these trails will be reviewed to determine whether they should be closed or relocated to bring visitors to safer locations farther from the beginning of the Gorge.

The main trail provides access to the gravel beach which is located below the Gorge on the property of the neighboring landowner, New Moon Ranch. The trail is generally in good condition, but will be evaluated to determine whether improvement such as steps or hardening of the surface in any wet areas would improve safety and the visitor experience. Signage will also be added to indicate the destination of the trail, the point at which it passes onto private



A short trail from Dugway Road provides access through a hemlock forest to the gravel beach and swimming hole at the bend in the river.

property, and guidelines that apply to use of the beach area. A spur trail will be developed to provide access for viewing the geologic features of the Gorge.

#### C. Litter

Most Gorge visitors respect the area by taking their trash with them when they leave. Litter can be a problem after busy summer weekends, especially in areas of concentrated use such as the gravel beach and the parking area.

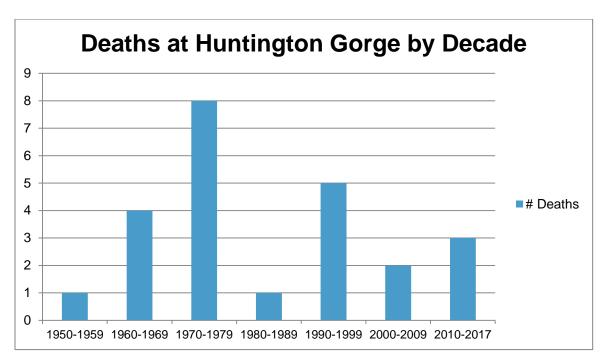
Future management policies will establish a carry-in/carry-out policy to address litter issues. On-site management can also reinforce a "leave no trace" stewardship culture. See recommendations below for a Swimming Hole Steward Program.

# D. Safety and Liability

Safety

Safety is a primary concern at Huntington Gorge, particularly given the history of drowning deaths there. More than 25 deaths have occurred since 1950, mostly as a result of swimmers becoming trapped by underwater ledges and debris or unable to

escape from whirlpools created by water cascading through the potholes in the Gorge. The graph below shows that deaths have been declining since the decade of the 1970s, when 8 deaths occurred. This is attributed to more awareness of the danger of swimming in the Gorge, more aggressive enforcement of parking restrictions, and the availability of other nearby swimming locations on the Huntington River, including Lower Huntington Gorge.



Vermont's swimming holes and waterfalls can be dangerous places to swim, due to the safety concerns mentioned above. The Vermont Department of Health reports that nearly 100 drowning deaths have occurred in natural settings in lakes and rivers since 1985 in Vermont. Despite these risks, however, these areas will continue to attract local and out of state visitors who come to experience the natural beauty and unique recreation opportunities they offer. Recognizing and managing these risks is a critical task for swimming hole owners.

This is clearly one of the most important management challenges for any future owner of the Gorge. While risks can never be entirely eliminated, VRC's goal is to reduce risks by implementing management strategies such as installing clear and informative signage about safety issues, making site improvements focused on safety and environmental protection, and reinforcing the trend toward safer and more respectful use of the Gorge which has developed in recent years. In addition, VRC proposes to initiate a Swimming Hole Steward Program in 2018 to provide on-site management of several swimming holes in Eastern Chittenden County, including Huntington Gorge.

## Liability

Liability is a concern of all landowners, however Vermont's Landowner Liability Statute, 12 V.S.A., Chapter 203, limits the liability of private landowners. Enacted in 1998, the purpose of this statute is:

"to encourage owners to make their land and water available to the public for no consideration for recreational uses by clearly establishing a rule that an owner shall have no greater duty of care to a person who, without consideration, enters or goes upon the owner's land for a recreational use than the owner would have to a trespasser." 12 V.S.A. § 5791.

The provisions of this statute limit the liability of private landowners if they make their land available to the public for recreational purposes without charging a fee. The law applies to private landowners, including non-profit organizations, but does not apply to municipalities or to the State of Vermont. An amendment to the law, introduced and adopted during the 2017 session of the Vermont General Assembly, added a provision clarifying that the posting of a warning sign at a swimming hole does not increase the liability of the landowner. This has been a concern of some landowners who want to post warning signs, but have been advised that this action alone could increase their liability exposure. The amendment to the Landowner Liability Law resolves this ambiguity and may significantly improve safety at many swimming holes in Vermont.

Liability is an important consideration which VRC addresses for all of its conservation projects along Vermont's rivers. VRC maintains liability insurance for the properties it owns, including swimming holes on the Missisquoi and White Rivers. Liability insurance in concert with Vermont's strong landowner liability statute has provided VRC with a level of liability protection it considers necessary and prudent. On-site management through the proposed Swimming Hole Steward Program during active summer months will also be an important component of improving safety and reducing liability.

# E. Public Health and Water Quality

#### Public Health

No bathroom facilities exist at the Gorge. Many visitors are not aware of the social and water quality impacts of their bathroom choices. Seasonal rental of an easily accessible Port-O-Potty would significantly reduce this threat to public health and the environment. See Management Recommendations below.

#### Water Quality

The Huntington River in the vicinity of the Gorge is designated as Class B waters by the State of Vermont. According to the Vermont Water Quality Standards (Vermont Department of Environmental Conservation, October 30, 2014) Class B waters are "suitable for swimming and other forms of water based recreation where sustained

direct contact with the water occurs and, where attainable, suitable for these uses at very low risk of illness based on Water Management Type designation." The Escherichia Coli (E.Coli) bacteria level in Class B waters is not to exceed 235 organisms/100ml.

The Huntington River Conservation Partnership, a collaborative effort of the Huntington and Richmond Conservation Commissions and the ANR Watershed Management Division, has conducted water quality sampling at sites along the length of the Huntington River since 2002. The Partnership also sponsors a public outreach program to educate residents in the Huntington River Watershed of potential threats to the watershed and positive steps they could take to address these threats.

During the summer of 2017, water quality samples were taken weekly at twelve sites on the river and analyzed by the Agency of Agriculture's Larosa Laboratory. Water quality standards are met at all sites except when there has been a heavy rainfall (within 24 hours) in the watershed. VRC and RLT will continue to monitor this water quality sampling to insure that the river is safe for swimming and other recreation and that public use of the Gorge does not impact water quality.

## F. Neighboring Land Uses

Historically, use of the Gorge has had a significant impact on nearby residents. One long-time resident of Dugway Road, Meg Howard, whose home is located 100 yards from the Gorge, reports that in the late 1970s it was not unusual to see more than 100 cars lining both sides of Dugway Road, encroaching on private property, blocking driveways, and creating a nuisance for neighbors. She also remembers late night parties and dangerous behavior taking place at the Gorge on a routine basis.

According to several neighbors, the nature of public use at the Gorge has changed significantly in recent years, which they attribute to several factors, including more awareness of the danger of swimming in the Gorge. Neighbors also point to the conservation of the Lower Gorge Preserve ("triple buckets") by the Richmond Land Trust in 1995 and the enforcement of parking restrictions along Dugway Road by the Richmond Police Department in recent years as factors which have changed the character of activity at the Gorge.

In 1995 the Richmond Land Trust acquired an 18-acre property on the Huntington River, known as the Lower Gorge Preserve, with funding support from the Vermont Housing and Conservation Board. Located approximately ½ mile north of the Gorge, the Lower Gorge includes 3,000 feet of frontage on the river, a series of cascades and swimming holes known locally as "Triple Buckets," and several trails from Dugway Road to the shoreline of the river.

Because of its scenic beauty, its accessibility, and the number of safe locations for swimming, use of the Lower Gorge has steady increased since it was conserved by RLT

and opened to the public. Local residents and Richmond officials confirm that much of the swimming activity at the Gorge has shifted to the Lower Gorge. Richmond Police Chief Alan Buck reports that swimmers are not "congregating in the danger zone" at the Gorge, preferring to swim downstream at the Lower Gorge. This shift in use highlights the need to coordinate the management of the Gorge and Lower Gorge to improve safety, improve the visitor experience, and reduce impacts to the Dugway Road neighborhood. See Management Recommendations below.

# VI. Management Recommendations

## A. Management Supervision: Swimming Hole Steward Program

During the summer of 2019 the Vermont River Conservancy proposes to implement a Swimming Hole Steward Program to manage popular swimming holes in eastern Chittenden County, including Bolton Potholes on Joiner Brook and Huntington Gorge and Lower Huntington Gorge on the Huntington River. The Steward Program may also include other nearby swimming holes, such as Horseshoe Bend, a popular swimming hole on the Huntington River in the Town of Huntington. The program will be developed in cooperation with Richmond Land Trust (owner of Lower Huntington Gorge) and the Towns of Bolton and Richmond. The program may also include Audubon Vermont (owner of Horseshoe Bend) and the Town of Huntington

The goal of the Swimming Hole Steward Program is to provide on-site management and oversight of these swimming holes, all of which are used extensively by the public during the summer months. A swimming hole steward hired for the 12-week summer season will have the following responsibilities:

- Visit each assigned swimming hole on a regular basis
- Reinforce the regulations at each swimming hole
- Provide important information about safety issues such as the danger of swimming in swift waters with unpredictable currents, particularly after thunderstorms or major rain events
- Educate users about the natural history, geology, and river ecology of swimming holes, helping to develop place-based relationships
- Promote a Leave-No-Trace culture of responsible stewardship at swimming holes
- Perform stewardship tasks such as sign and trail maintenance and litter control
- Coordinate a public information program about safety and appropriate use of swimming holes, using local publications, Front Porch Forum, swimming hole websites, and social media

The Swimming Hole Steward Program will be modeled on the successful summit caretaker program sponsored by the Green Mountain Club in cooperation with the Department of Forests, Parks, and Recreation. This program places backcounty caretakers at overnight campsites associated with vulnerable natural areas such as the

summits of Mt. Mansfield and Camel's Hump. These caretakers employ hiker education and backcountry stewardship in order to minimize and counteract the effects of trail overuse. Caretakers utilize a low- key, one-to-one educational approach to educate visitors on how to minimize their impacts.

During the first year of the Swimming Hole Steward Program (2019) the steward will assist with the development of a trail network and the design and installation of signage. Local volunteer support and/or contracted assistance (e.g. VYCC) may also be necessary.

At the end of the summer season VRC will evaluate the success of the Swimming Hole Steward Progam by sponsoring a public meeting and gathering input using Front Porch Forum and other community media. Information and suggestions will be incorporated into the design of the program for the next year.

# B. Visitor Management

#### PARKING AND SPEEDING

Goal: Maintain designated parking lot; enforce parking and speed limit regulations on Dugway Road so that Gorge users park safely, do not block town roads and/or private drives, and observe the speed limit.

#### **Recommendations:**

- Maintain 8 car parking lot on Dugway Rd.
- Coordinate with Town of Richmond to reinforce existing parking restrictions along Dugway Road; develop public information strategy for spring/summer using Front Porch Forum, Times Ink! (local monthly newspaper); Richmond Land Trust website, other community bulletin boards to publicize parking restrictions.
- Work with the Richmond Police Department to monitor and control speeding along Dugway Road in the vicinity of Huntington Gorge and Lower Gorge.

#### USER BEHAVIOR

Goal: The area will be managed so that Gorge users create a safe and enjoyable space for other users and neighbors, and preserve natural resources.

#### Recommendations:

- Uses Allowed
  - Carry-In/Carry-Out "Leave No Trace" Policy
  - Swimming, Picnicking, Sunbathing

- Watch every child
- o Be considerate of other users
- Pets under the control of owner

#### Restrictions

- No overnight camping
- No fires
- No littering
- No use or disposal of glass containers
- No discharge of fire arms
- No motorized vehicles
- No disturbing vegetation or wildlife
- No trespassing on neighboring property with exception of specifically designated trail and gravel beach; no disturbing neighbor
- No pet waste left behind
- Swimming Hole Steward reinforces allowed and prohibited uses.

## 3. SAFETY

Goal: The area will be managed so that Gorge users are informed of safety risks, and advised on how to minimize danger to themselves and others.

#### **Recommendations:**

- Review existing signage for content, consistency, and effectiveness.
- Develop unified signage plan for parking lot and vicinity, Gorge overlook, trail, and gravel beach.
- Signs should explain how swimming in the Gorge can lead to serious injury or death.
- Signs should explain how Huntington River is subject to sudden water level increases; thunderstorms in the watershed and large rain events can abruptly change the volume and the currents in the river; conditions are dangerous and have led to more than 20 deaths since 1950.
- Sign upstream of Gorge should indicate "swimming not recommended beyond this point."
- Evaluate site improvements to improve safety such as guardrail at overlook.
- Prohibit glass containers.

#### 4. LITTER

Goal: The area will be managed so that Gorge users pick up after themselves, leaving the area in the same or better condition as they found it.

#### **Recommendations:**

- Carry-In / Carry-Out, "Leave No Trace" Policy.
- Site steward pickups up litter at end of day to keep site clean, which discourages misuse of land and encourages individuals to remove trash. Steward can encourage visitors to take all trash out with them, can hand out small trash bags.
- Public information messaging reinforces responsible stewardship of Gorge.

# C. Site Management

## 1. SITE IMPROVEMENTS

Goal: The area will be managed so that Gorge users stay on approved trails.

#### **Recommendations:**

- Maintain established trail to beach, in cooperation with adjoining landowner; install signage indicating where visitors cross onto private property; monitor use of beach to insure that private property is respected.
- Evaluate short trails from parking lot to river; close or relocate as necessary to improve safety; provide warnings about poison ivy in this area.
- Evaluate additional site improvements to improve safety such as barrier or handrail at overlook.

## 2. PUBLIC HEALTH

Goal: The area will be managed so that Gorge users understand the social and water quality impacts of their bathroom choices, and have appropriate choices to reduce their impact.

#### **Recommendations:**

- Rent Port-O-Potty for June, July & August.
- Monitored by site steward to prevent vandalism.
- Located at parking lot and/or entrance to Lower Gorge.
- Signs encourage use of facilities provided to maintain water quality.

# D. Information Management

#### SIGNAGE

Goal: Provide educational and informative signage to guide visitor behavior and ensure safety.

#### **Recommendations:**

- Develop parking lot kiosk and unified signage plan for parking lot vicinity, Gorge overlook, trail, and gravel beach.
- Signs should be clear and easy to read, educational and informative, providing:
  - Guidelines for use (see User Behavior above)
  - Map and property description
  - Trail signs indicate when crossing onto private property and specific guidelines which apply
  - Safety: Swim at own risk; deaths have occurred at the Gorge
  - Emergency Contacts
  - Information about safe swimming areas at Lower Gorge;
     directions
- Signs should be consistent with existing State Historic Site Marker and signage at other swimming holes in the area.
  - Model after US Forest Service, Vermont Department of Forests, Parks, and Recreation
- Signs should be easily replaceable in case vandalized
  - Replacement costs (time & materials) budgeted for

# 2. PUBLIC INFORMATION STRATEGY

Goal: Communicate and reinforce management goals with clear public communications and strategic and direct outreach

#### **Recommendations:**

- Request that waterfall and swimming hole sites provide explicit language about risks of swimming at the Gorge to improve safety:
  - http://www.northeastwaterfalls.com/waterfall.php?num= 50&p=0
  - http://www.swimmingholes.org/vt.html
- Spring/summer messaging (local newspaper, Front Porch Forum, VRC and community websites) that articulates Gorge and Lower Gorge management policies, reasons the issues needed to be addressed, and what people visiting the Gorge and Lower Gorge

can do to follow the guidelines and help achieve the overall management goals.

## Additional Outreach:

- Vermont River Conservancy statewide "Swimming Hole User Education" to inform swimming hole users of proper etiquette at public and private swimming holes to promote respect for landowners, neighbors, municipalities and other users.
- A volunteer-run website, perhaps with the assistance of local Internet provider(s), could be used for both education and monitoring.
- Educate college students in region about proper swimming hole etiquette (article in campus papers, websites, etc., peer-based social media outreach).

# VII. Implementation Plan

#### A. 2018

 December: Acquire Gorge property, convey Conservation and Public Access Easement to Vermont Housing and Conservation Board and Vermont River Conservancy as co-holders.

#### B. 2019

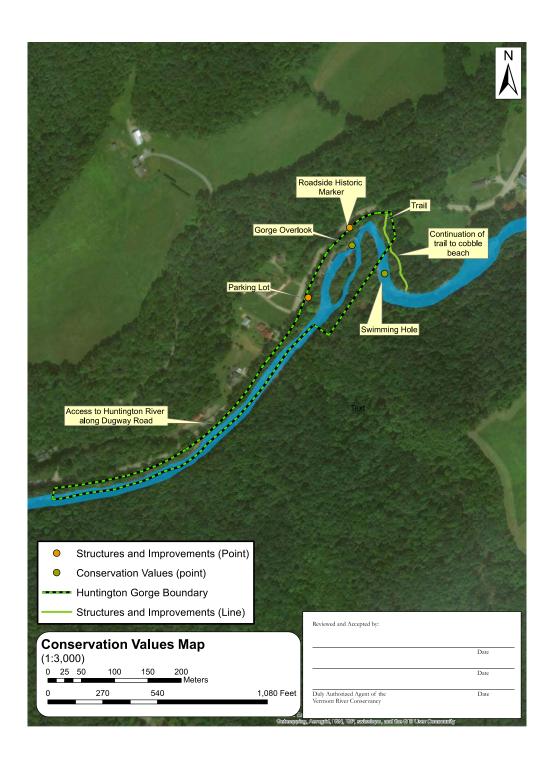
- January March:
  - Establish Swimming Hole Steward Program, in cooperation with Richmond Land Trust, Town of Bolton, Town of Richmond, Town of Huntington, Audubon Vermont
  - Meet with Town of Richmond staff to review Traffic Ordinance
- April 1: Advertise for Swimming Hole Steward (UVM Recreation Management Program and other local colleges, national internship websites, VRC website, Front Porch Forum, jobsinvt.com, etc.)
- May 1: Contract for Port-O-Potty to be installed by June 1
- June 1: Swimming Hole Steward hired and develops work plan for swimming hole monitoring visits
- June July: Signage plan developed and signs installed by RLT, with assistance of Swimming Hole Steward, local volunteers, VYCC
- June August:
  - Public Information Program developed and implemented by Swimming Hole Steward
  - Trail plan developed by RLT and Swimming Hole Steward (with assistance from trail organization such as VYCC; identify grants and other funding to implement trail plan in 2019

- September October: Evaluate Swimming Hole Steward Program; gather community input; make adjustments to Program for 2019
- Implement trail plan: install trail signage, improve designated trails, remove unauthorized trails
- Install fencing or signs along southern boundary
- Hire Swimming Hole Steward for summer season

# **VIII. Appendices**

- A. Site Map
- **B.** Species List

# Appendix A – Site Map



# **Appendix B - Species List**

#### Mixed Hardwood Forest

White and/or Green Ash (Fraxinus americana/F. pennsylvanica)

Sugar Maple (*Acer saccharum*)

Red Maple (Acer rubrum)

American Beech (Fagus grandifolia)

Basswood (Tilia americana)

Eastern Hemlock (Tsuga canadensis)

Red Oak (Quercus rubra)

Balsam Poplar (*Populus balsamifera*)

Staghorn Sumac (Rhus hirta)

Alternate Leaved Dogwood (Swida alternifolia)

Purple Flowered Raspberry (Rubus odoratus)

Poison Ivy (Toxicodendron radicans)

False Solomon's Seal (Maianthemum racemosum)

Hog Peanut (Amphicarpaea bracteata)

Goldenrod (Solidago spp.)

Jumpseed (Persicaria virginiana)

Wild Strawberry (Frageria virginiana)

Tall Meadow Rue (*Thalictrum pubescens*)

Red Baneberry (Actaea rubra)

Wood Ferns (*Dryopteris spp.*)

Interrupted Fern (Osmunda claytoniana)

Sensitive Fern (Onoclea sensibilis)

Possible Saint John's Wort (Hypericum spp., possibly H. ascyron)

#### Wet Hemlock Forest/Swamp

Eastern Hemlock (Tsuga canadensis)

Yellow Birch (Betula alleghaniensis)

Paper Birch (Betula papyrifera)

White Pine (Pinus strobus)

Striped Maple (Acer pennsylvanicum)

Canada Mayflower (Maianthemum canadense)

Jewelweed (Impatiens capensis)

Long-bracted Green Orchid (Coeloglossum viride)

Creeping Yellow Loosestrife (Lysimachia nummularia)

Tall Meadow Rue (Thalictrum pubescens)

Red Baneberry (Actaea rubra)

Jumpseed (*Persicaria virginiana*)

Goldenrod (Solidago spp.)

Cow Parsnip (Heracleum maximum)

Indian Pipes (Monotropa uniflora)

Polypody Ferns (*Polypodium spp.*)

Wood Ferns (Dryopteris spp.)

Sensitive Fern (Onoclea sensibilis)

Northern Maidenhair Fern (Adiantum pedatum)

# Ostrich Fern (Matteuceia struthiopteris)

## **Dry Hemlock Forest**

Eastern Hemlock (Tsuga canadensis)

Yellow Birch (Betula alleghaniensis)

Paper Birch (Betula papyrifera)

White Pine (Pinus strobus)

Balsam Poplar (Populus balsamifera)

Striped Maple (Acer pennsylvanicum)

Sugar Maple (Acer saccharum)

Red Oak (Quercus rubra, seedlings only)

Lowbush Blueberry (Vaccinium angustifolium)

Canada Mayflower (Maianthemum canadense)

Wintergreen (Gaultheria procumbens)

Partridge Berry (Mitchella repens)

Downy Rattlesnake Plantain Orchid (Goodyera pubescens)

False Solomon's Seal (Maianthemum racemosum)

Indian Pipes (Monotropa uniflora)

Polypody Ferns (Polypodium spp.)

Wood Ferns (Dryopteris spp.)

Ground Pine (Dendrolycopodium obscurum)

Ground Cedar (Lycopodium digitatum)

Source: A Rapid Ecological Assessment of the Huntington Gorge, Chelsea Clarke, Field Naturalist Program, University of Vermont, August 2017