



# Explore Shelburne Bay

an interpretive water trail

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Chittenden County, Vermont

# how to get to shelburne bay



- From US Route 7 (Points south): Proceed north through Shelburne Village 2 miles to Bay Road (left turn).
- From Burlington: Follow US Route 7 south 3 miles to Shelburne. Bay Road is on the right, 1 mile past the Small Boat Exchange.
- From Interstate 89: Take Exit 13 to Interstate 189 to US Route 7. Proceed south on US 7 as per above.

*Park at State Fishing Access (Boat Launch), roughly 1 mile from US 7, on the right just past LaPlatte River Bridge.*

## Outfitters

Canoe Imports - 370 Dorset Street, South Burlington, 802.651.8760

EMS - 100 Dorset Street, South Burlington, 802.864.0473

Ski Rack/Downhill Edge - 85 Main Street, Burlington 802.658.3313

Small Boat Exchange - 2649 Shelburne Road, Shelburne, 802.985.5222

Umiak Outfitters - North Beach, Burlington, 802.865.6777



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## shelburne bay

People have been living on the shores of Shelburne Bay for centuries. The long arm of Shelburne Point provides shelter from strong winds blowing from the south and west. The bay's calm surface was an important factor when the 120-mile Lake Champlain was used as a "water highway," before the advent of the railroad, automobile and airplane. Early European settlers found evidence of a Native settlement—a cleared field, flints and arrowheads—at the mouth of the LaPlatte River, across from the boat launch area. Today you can discover how natural and human processes have made Shelburne Bay one of the most unique environments in the Champlain Basin.



Red Rocks Park on Shelburne Bay. Credit Brad Rawson.

# at a glance



## Shelburne Bay

- Shelburne Bay located on east shore of Lake Champlain, oriented north-south, with maximum length of 3.5 miles (5.6 km), maximum width of 1.8 miles (2.8 km) and surface area of 3.5 square miles (9.1 km<sup>2</sup>).
- Publicly-owned shoreline at Shelburne Bay Park, Red Rocks Park (South Burlington).
- Launch only 1.5 miles from US Route 7, 7 miles from downtown Burlington/I-89.
- Two miles from the Small Boat Exchange for kayak and canoe sales.
- Shelburne Bay Park - 104 acres of trails, woodlands and beachfront.



## Lake Champlain

- Lake Champlain: 120 miles long, 12 miles wide, 587 miles of shoreline, one of the most historic water bodies in North America.
- Adirondack Mountains to west, Green Mountains to east, Taconic Mountains to south, Richelieu River to north.
- Three scenic ferry crossings and two bridges.

# water safety and etiquette

Canoes and kayaks are particularly vulnerable to winds and waves, even on a protected bay.

Please consider the following:

## 1. Personal Flotation Devices

All paddlers must have a Personal Flotation Device (PFD), preferably US Coast Guard-approved.

## 2. Winds and Waves

Shelburne Bay can have rough water when the wind is out of the north. Please be aware of wind direction and strength at all times, and remember that a tailwind on the way out can be a headwind on the way home.

## 3. Boat Traffic

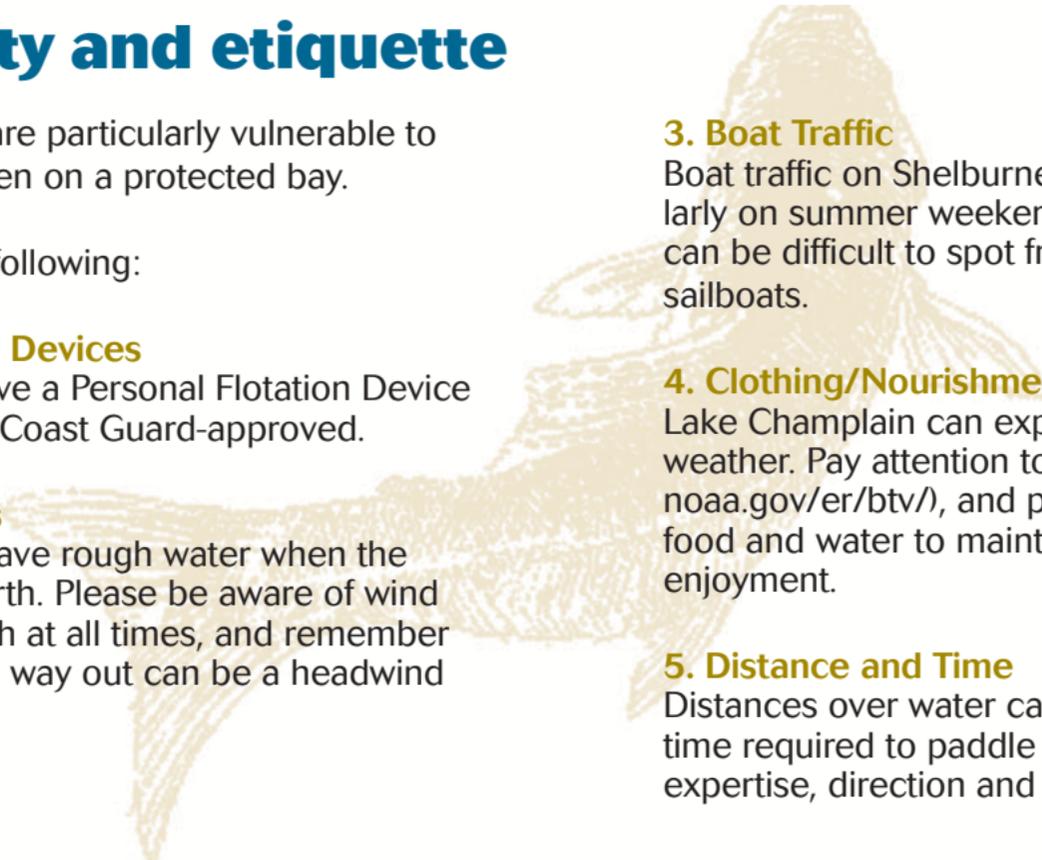
Boat traffic on Shelburne Bay can be heavy, particularly on summer weekends. Low-profile paddle craft can be difficult to spot from larger powerboats and sailboats.

## 4. Clothing/Nourishment

Lake Champlain can experience swift changes of weather. Pay attention to local forecasts ([www.erh.noaa.gov/er/btv/](http://www.erh.noaa.gov/er/btv/)), and pack enough spare clothing, food and water to maintain safety, comfort and enjoyment.

## 5. Distance and Time

Distances over water can be tricky to estimate, and time required to paddle them will depend on fitness, expertise, direction and weather conditions.



# environmental stewardship

Paddling is a low-impact and intimate way to explore a body of water. We hope that this Interpretive Water Trail will stimulate an awareness of and sensitivity to regional environmental issues among its users. Although Shelburne Bay is a developed area, please follow the “leave no trace” principles of outdoor recreation. A clean lake benefits everyone!

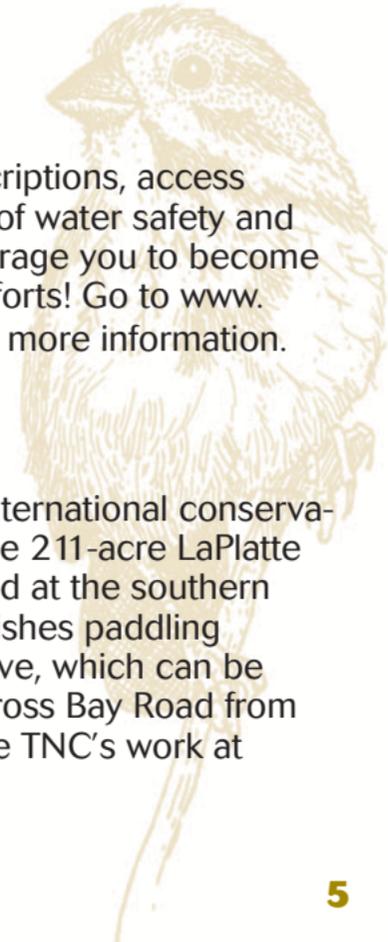
## Lake Champlain Committee (LCC)

The Lake Champlain Committee has spearheaded environmental stewardship efforts in the Lake Champlain Basin while advocating for low-impact recreational access since 1963. LCC has invested time and resources to develop its Lake Champlain Paddlers’ Trail, a network of campsites and day-use sites accessible to paddlers. The organization publishes an annual Guidebook and Stewardship

Manual, which features site descriptions, access characteristics, and discussions of water safety and environmental issues. We encourage you to become a member and support LCC’s efforts! Go to [www.lakechamplaincommittee.org](http://www.lakechamplaincommittee.org) for more information.

## The Nature Conservancy (TNC)

The Nature Conservancy is an international conservation organization that protects the 211-acre LaPlatte River Marsh Natural Area, located at the southern end of Shelburne Bay. TNC publishes paddling and hiking guides for this preserve, which can be obtained at the kiosk directly across Bay Road from the State Fishing Access. Explore TNC’s work at [www.nature.org](http://www.nature.org).



## site 1 - laplatte river mouth

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You don't have to go far after launching to find the first stop on the water trail! Immediately on your right, at the southern end of Shelburne Bay lies the LaPlatte River Marsh. Here, the 15-mile long LaPlatte River, which drains over 34,000 acres of land in the towns of Shelburne, Charlotte, Hinesburg, St. George and Williston, joins McCabes Brook and Lake Champlain. Beyond the Bay Road Bridge is a 211-acre wetland preserve protected by The Nature Conservancy. This rich complex of natural communities includes a flood-plain forest, a deep rush marsh, and upland forest.

If Shelburne Bay is too windy or rough, consider paddling south into the wind-sheltered marsh. Abundant wildlife can be seen along the sluggish meanders of the LaPlatte, including beaver and heron. Many species of birds, fish, reptiles and amphibians breed in or near the wetland. The riverbanks are lined with trees adapted to wet soils and seasonal flooding,

such as silver maple, black willow and green ash. The Nature Conservancy publishes a more detailed Paddle Guide for the LaPlatte River Marsh Natural Area, which can be obtained at TNC's information kiosk.



Looking east from the State Fishing Access. The mouth of the LaPlatte River is just to the right of the photo. Credit Brad Rawson.

## site 2 - quartzite outcrop

Is anybody admiring the view from the reddish rocks just north of the parking lot? This outcrop, a popular spot to relax in the sun, consists of rock referred to as Monkton Quartzite, formed more than 500 million years ago on the shores of the ancient Iapetus Ocean. The Champlain Valley was once a seaside area, with a climate much like the Bahamas today. If you take a closer look at the rock surface, you might see mud cracks, evidence that this rock formed from ancient sediments deposited in shallow water.



Red rocks of the Monkton Quartzite formation, looking south from Shelburne Bay. The Bay Road Bridge and the mouth of the LaPlatte River are at left. Credit Brad Rawson.

## site 3 - shelburne bay park mooring

It's a bit harder to transport and launch a sailboat or powerboat than a kayak or canoe! Thus many sailing enthusiasts and powerboaters leave their boats in the water all summer, at mooring sites like this, the Shelburne Bay Park Mooring Management Area. This site can serve 60 boats, and is overseen by the town Harbormaster. If you aren't sure which way the wind is blowing, use the moored boats as a weathervane. Their bow (front) will always point into the wind!

Part of Shelburne Bay's allure is the diversity of recreational uses it supports. Paddlers, sailors, anglers and swimmers all need a clean and accessible lake to pursue their hobbies. So please be courteous when paddling around the mooring sites, and pay attention to all boat traffic!



Looking north from the edge of the Shelburne Bay Park mooring area. Allen Hill is the height of land in the center. Credit Brad Rawson.

## site 4 - allen hill cedar bluff

Can you find Allen Hill, the highest spot on Shelburne Point? How tall do you think it is? Keep in mind that Lake Champlain averages about 97 feet above sea level. The elevation and geology of Allen Hill influence which plants and animals live here, resulting in a very unique natural community. These limestone cliffs and thin soils are home to the northern white cedar, a hardy tree adapted to the harsh lakeside environment. This woodland community, known as a limestone bluff cedar-pine forest, often grows on the rocky headlands of Lake Champlain. Cedars, usually found in a narrow band on top of these bluffs, grow very slowly and are rarely straight or tall. This is a rare forest community in Vermont, in part because it occurs on lake bluffs, often cleared for views and lake access. We can help protect this community by keeping the cutting of cedar to a minimum, leaving a forested buffer around its borders, and removing invasive exotic plants like common buckthorn and

honeysuckle. Can you see the difference between the cedars and the other evergreens at the water's edge, the white pine and eastern hemlock? Allen Hill's summit elevation is 220 feet above sea level. You can climb to the top via trails at Shelburne Bay Park.



Looking northwest at Allen Hill. Northern white cedar is prevalent on the ridgeline, with white pine and eastern hemlock dominating the shoreline. Credit Brad Rawson.

## site 5 - allen hill geology

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What might cause an older rock to overlie younger rock? Shelburne Bay offers wonderful evidence of one mechanism that can cause such a discontinuity: the Champlain Thrust Fault. For regional geologists, Allen Hill is a signpost that helps them study this feature.

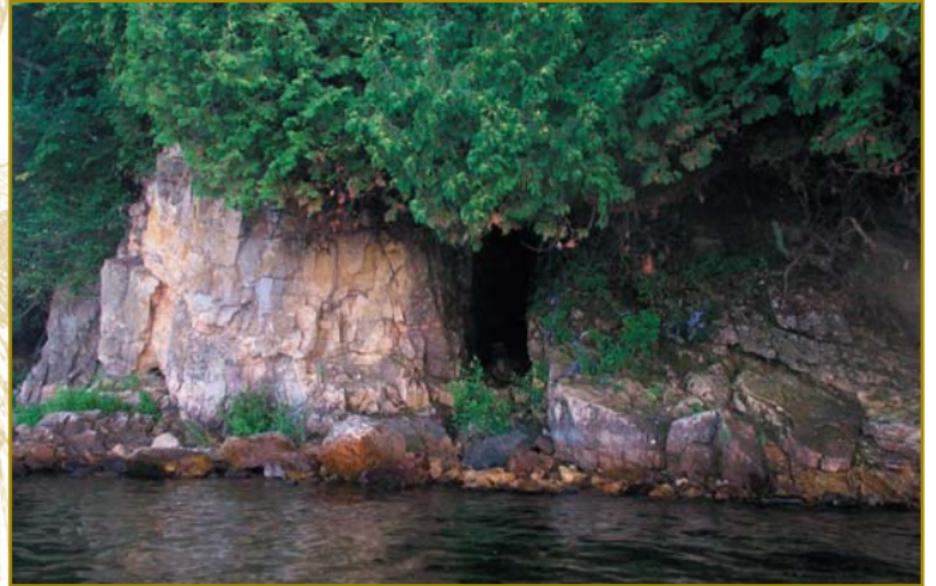
The Champlain Thrust runs for approximately 200 miles from Quebec to the Catskill Plateau of upstate New York. Here, the fault is represented by the boundary between the Dunham Dolostone and Iberville Shale formations. The dolostone is older (formed in the Cambrian period, roughly 540 million years ago) and is more resistant to erosion than the shale, which was formed in the Ordovician period (roughly 440 million years ago). Along the fault, look for rock that has been pulverized into a mixture of rock fragments known as breccia.



Rock outcrop showing the exposed Champlain Thrust, as seen from the east. Credit Brad Rawson.

## site 6 - magma dikes

If you navigate close to the shoreline as you round the northeast point of Allen Hill, you can view one of the area's most unique geologic features—a magma dike. Look closely to find the closet-like opening in the shoreline bedrock, roughly ten feet from the water. Shelburne Bay is home to roughly 250 visible dikes, which represent the locations where magma (molten, or melted rock) was injected from the earth's mantle up through existing layers of rock in the earth's crust. Rock types not generally visible in this part of the Champlain Valley, including ancient Precambrian "basement" rock can be viewed in the dikes. These rocks have been transported to the earth's surface by the ascending magma. Many dikes are better accessed by foot, and hikers can actually walk into some of them!



The magma dike at center, whose opening faces north, is located just a few feet west of the point. Land your boat and step inside to examine it in detail! Credit Brad Rawson.

## site 7 - lake champlain yacht club

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Did you know that Shelburne Bay is home to the 54th oldest registered Yacht Club in North America? Founded in 1887, the Lake Champlain Yacht Club is a nonprofit, “working” club, meaning that each member is responsible for a field of work. The club conducts junior sailing activities, formal regattas and leisure cruises during a season that runs from roughly early May to mid-October. Again, please respect the club’s mooring area and docks, and be aware of boat traffic!

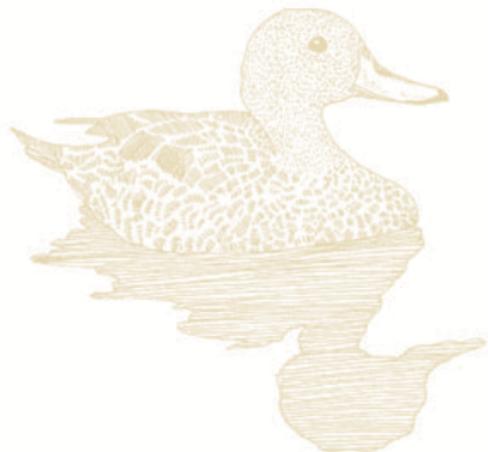
Look east, across the bay. If the weather permits, the high peaks of the Green Mountains are visible. Of particular note is Camel’s Hump, at 4,083 feet tied for third-highest peak in the state of Vermont. Would you believe that the rocks you just examined at Allen Hill originated in the vicinity of that mountain, nearly 25 miles away?



Sailing on Lake Champlain. Credit Gary Randorf.

## site 8 - sunken cultural treasure

Paddle to the southwest end of Collymer Island, which is just north of the yacht club. Below you lie the remains of the steamboat *Adirondack*. Built in 1867, the *Adirondack* was retired in 1875 due to competition with the railroad. Try to find the bow of the 222-foot long wreck in the shallows near the island. The vessel lies on its starboard (right) side.



Collymer Island, viewed from the southeast. The wreck of the *Adirondack* is just off end of the island at left of picture. Credit: Brad Rawson.

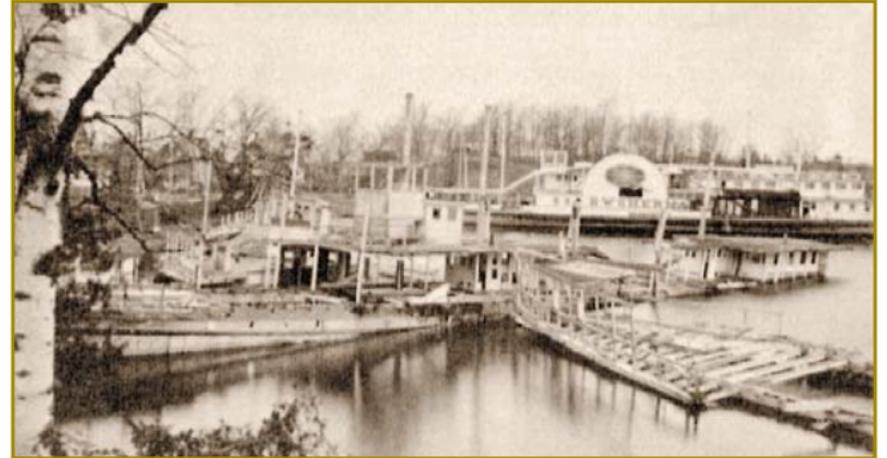
## site 9 - shelburne shipyard

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If Lake Champlain was a “water highway,” Shelburne Shipyard was its Detroit. More than 12 side-wheel passenger steamboats were built here between the 1829 launching of the *General Green* and when the *Ticonderoga* first floated in 1906. The shipyard was the home to the Champlain Transportation Company, the powerhouse of steamboat travel in the 1800s. If you were on these waters 150 years ago, you would probably be swamped by the wakes of large boats by now. Steamboats were the queens of the lake, and most of them called the shipyard their home. When vessels were retired, they were stripped of all valuable equipment and discarded. Employees simply sank the boats in Shelburne Bay or abandoned them and let the crushing winter ice dismantle them.

Today the Shipyard serves both private boaters and commercial operations such as the Lake Champlain Transportation Company, which operates three ferry

crossings on the lake ([www.ferries.com](http://www.ferries.com)). The Shelburne Shipyard is a full-service marina, offering structural and mechanical repairs, winter storage and cosmetic restoration. To learn more about the Shipyard, visit their website at [www.shelburneshipyard.com](http://www.shelburneshipyard.com).



The Shelburne Shipyard as seen in the 19th century. Courtesy of Special Collections, Feinberg Library, Plattsburgh State University.

## site 10 - red rocks park

If you are prepared (with food, water, clothing, time, energy, paddling experience and good judgement), and conditions are right, consider paddling east across the bay's mouth to the dramatic cliffs of Red Rocks Park. The distance can be tricky –it's almost a mile! Notice the bands of red and tan rock that seem to tilt up toward the west. Both the light tan dolomite rock and the red quartzite layers constitute the Monkton Quartzite formation at Red Rocks Park. The quartzite's reddish color is a result of oxidation that occurred over thousands of years of sea level fluctuation during the Cambrian period, over 500 million years ago. The ancient ocean was called Iapetus after the Greek father of Atlantis. The 100-acre park, owned by the City of South Burlington, features miles of hiking trails, 700 feet of sandy beach, and spectacular sunset views.



The cliffs of South Burlington's Red Rocks Park as seen from the southwest. Credit: Brad Rawson.

## site 11 - east shore land use and water quality

Did you know that over 60,000 people get their water from Shelburne Bay? Because so many people and businesses rely on this water supply, government, industry and private citizens have been working hard to preserve water quality in Shelburne Bay. Look for the small stream emptying into the bay just south of the Queen City Park neighborhood. Its name is Potash Brook, and it is one of five rivers or brooks draining into Shelburne Bay that the Vermont Department of Environmental Conservation (DEC) classifies as “stormwater-impaired”. When rainwater falls onto roads and other impervious surfaces, it absorbs chemicals and propels dirt and other particles. This polluted water then makes its way into the streams, and eventually, Lake Champlain. The Town of Shelburne and the City of South Burlington work with DEC, LCBP, LCC and the Chittenden County Regional



Planning Commission to reduce the impact of stormwater pollution on Shelburne Bay’s water quality through permitting, mapping of storm sewers, and public education and outreach.



South Burlington’s Queen City Park neighborhood, as seen from the southwest. At left is Red Rocks Park’s public swimming beach; the mouth of Potash Brook is to the right. Credit: Brad Rawson.

## respecting private property

Consideration for private landowners is imperative to successful, sustainable interpretive trails. Please note that the Town of Shelburne's Bay Park comprises the first mile of shoreline north from the Bay Road boat launch to Allen Hill. Please refrain from landing on private shoreline.

Although Lake Champlain is a publicly owned body of water, Interpretive Water Trail users should take care to respect the mooring area at the Lake Champlain Yacht Club and the waterfront at the Shelburne Shipyard.

Please treat the state owned boat launch and municipally owned Bay Park with respect and observe any posted rules to ensure continued access privileges for paddlers.



A rocky beach on the shores of Lake Champlain. Credit Gary Randorf.

# acknowledgements

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## Our project partners include:

- Lake Champlain Basin Program
- Vermont Department of Forests, Parks & Recreation
- Lake Champlain Committee
- Town of Shelburne
- University of Vermont
- Lake Champlain Regional Chamber of Commerce
- The Small Boat Exchange
- Lake Champlain Maritime Museum
- The Nature Conservancy

