



On-the-Water Safety: “Know Before You Row”

*A guide to using and respecting the waters of the
Occoquan Reservoir*

The Occoquan Boat Club is truly blessed to call the Occoquan Reservoir its “home water.” Nearly 20 miles of navigable water, relatively calm conditions, a world class 2000 meter race course and a large and supportive rowing community are just a few of the advantages of rowing on the Occoquan. Like any river or body of water, the Occoquan Reservoir has many of its own unique features and tendencies, and it can be fairly predictable in its nature. Knowing basic information about the river, as well as what we can expect once we launch for a row, is one of the first steps that we can take as members to insure that we stay safe and enjoy our time rowing on the Occoquan. To help our members, new and current, to better understand the Occoquan, the OBC Board of Directors presents the following information that will allow us to “know before we row.”

All of the following information can be further supplemented by the map of the Occoquan Reservoir displayed in the OBC boathouse.

Navigating the Occoquan

The Occoquan Reservoir offers some of the longest and most pristine rowing waters on the East Coast, and like any waterway, careful navigation is of utmost importance. The following is some basic information to safely navigate the Occoquan:

1. **TRAVELING UP/DOWN RIVER:** *Launching from the main dock, we have three directional options: up river (right), down river (left), or into Sandy Run (“The Cove”). Each direction has its own unique landmarks and stretches of water, which will be*

discussed later in this packet and become familiar to you after a short time on the Occoquan.

- **Upriver:** Traveling upriver offers the most water to row. To travel upriver, launch the boat and follow the river to the right.
- **Downriver:** Traveling down river offers a short, straight stretch of water that is used as a 2000-meter race course. The navigable Occoquan ends at the start of this racecourse, where there is an impassable, man-made dam. To travel down river, launch, cross to the opposite shoreline, and follow the river to the left.
- **Sandy Run (“The Cove”):** Traveling away from the main dock toward the smaller, shorter dock will lead you to a short stretch of water known as Sandy Run, or sometimes called, “The Cove.” More information on the cove will be covered later.

2. **TRAFFIC PATTERN:** *Just like a city street or a major highway, the Occoquan has a traffic pattern to direct shells up and down the river. On any given day, especially during peak use times, there can be a large amount of boat traffic. The following patterns should be used by all members:*

- **Traffic Flow:** All traffic moving up and down river travels on the right hand side of the river, staying about 50-100 feet away from shore at all times. This means, when traveling up river, all traffic stays on the Fairfax County Shore (Sandy Run shore), and when traveling down river, all traffic stays to the Prince William County shore (opposite shore to Sandy Run).
- **Launching/Docking:** Close to the main dock is a large, blue buoy floating in the water to guide launching or docking. Stay to the right hand side of the buoy at all times leaving or approaching the dock. The buoy will be floating off the port oar (right). When docking from upriver, stay on the Prince William (opposite) shore until directly across from the blue buoy. Then, checking for safety, cross the river, keeping to the right of the blue buoy.

REMEMBER: Obeying the traffic pattern will prevent the possibility of collisions and possible emergency situations. Stay aware of your position on the Occoquan.

1. **LANDMARKS ALONG THE RIVER:** *These landmarks aid rowers to determine location and communicate that information to others. The following is a list of landmarks , starting with the furthest downriver and ending with the furthest upriver:*

- **The Dam:** At the furthest rowable point downriver is a large, man-made dam. This structure is highly visible, and has a long string of orange safety buoys to keep boaters from getting too close. *Never attempt to row beyond the safety buoy line.*
- **The Racecourse:** Between the dam and Sandy Run Park, lies a short, straight stretch of water that is used as a 2000-meter racecourse in the spring season. Between the months of March and July, buoyed lane lines are installed.
- **The Painted Rocks:** About ¼ mile upriver from Sandy Run Park is a rocky shoreline on the Prince William shore that has been painted in vibrant, high school team colors.

- **Oxford House:** Upriver from the painted rocks is a small inlet on the Prince Williams shore that leads to a boathouse known as Oxford house used by Prince William County schools and clubs.
- **Jacob's Rock/Monitoring Buoy:** About 2 miles upriver from Sandy Run is a large rocky outcropping on the Fairfax shore, with "Jacob's Rock" prominently displayed in white paint. Mid-river is a large, yellow environmental monitoring buoy with a bright, flashing beacon. Stay to the right hand side of this buoy.
- **Fountainhead Regional Park:** About 3 miles upriver from Sandy Run is a boat launching area on the Fairfax shore that is part of the NVRPA's park system.
- **Ryan's Dam:** About 4 miles upriver from Sandy Run, the remains of a destroyed dam are visible on the Prince William shore. This dam is passable by all boats. *Be careful around this structure, as there are still submerged remains that may become exposed when water levels are low. There is a bright red metal stake on top of this portion that will become exposed as the water level drops, warning when the hazard is closer to the surface.*
- **The Red House/Monitoring Buoy:** A short distance past Ryan's Dam, a small red, cottage can be seen on a narrow peninsula on the Fairfax shore. Opposite of this house is another environmental monitoring buoy, which can also be used to direct the flow of traffic on this section of the river.
- **The Picket Fence:** About 7 miles upriver from Sandy Run is a large house on the Prince William shore with a long, white picket fence that is highly visible.
- **Bull Run Marina:** About 9 miles upriver from Sandy Run, the docks and boat launching area of Bull Run Marina mark the end of the navigable waters of the Occoquan. *It is recommended that no rowing be done beyond this point.*

2. **OTHER TRAFFIC ON THE WATER:** *Although the majority of the traffic on the Occoquan is rowing and sculling shells, the reservoir is a public waterway and is used by a multitude of different boaters.*

- **Fishermen:** The Occoquan has an active fishing community using its waters. Fishermen generally stay close to the shorelines and, at times, can be hard to spot. Stay alert and keep a watch for these boaters.
- **Kayakers:** Kayaking is a popular activity on the Occoquan, and, like fishing boats, are quiet and sometimes hard to spot.
- **Pleasure boaters:** An assortment of powered and unpowered pleasure craft can be found on the Occoquan as well.

REMEMBER: Don't assume that other boaters can see you or that you automatically have the right of way. It is your job to always be diligent in staying alert, sharing the waterway and respecting other boaters' rights to using the Occoquan.

Conditions on the Occoquan

The conditions on the Occoquan are dynamic, and rowers must anticipate weather conditions:

1.) PREDICTING WEATHER CONDITIONS: *Before any outing on the Occoquan, it is critical to understand the current and future weather conditions. Here are a few examples:*

1.) High Winds: The Occoquan is a relatively sheltered body of water, but it is not uncommon for high winds to sweep the waters. These winds can be anywhere from a stiff breeze of 5-10 mph to gusting winds as high as 30-40 mph. Rowers should know their limitations when dealing with high winds situations and make an informed judgment call on whether to row.

A. Expect rough, difficult water: The strong winds will cause the water to become very choppy, possibly even white capping, and rowing will be difficult.

B. Avoid the Racecourse and Fountainhead: During windy days, you can expect that rowing on all parts of the Occoquan will be difficult and possibly dangerous. **The Racecourse and straight stretch between Fountainhead and Ryan's dam will be significantly more windy and choppy than other parts of the river.** Avoid these waters on difficult days.

C. Consider alternate locations to row: There are locations on the Occoquan that are much more sheltered during rougher weather. Consider altering your row to include these locations, specifically, the Sandy Run "Cove."

2.) Incoming Weather: If the weather forecast calls for incoming foul weather, it is a good idea to stay off the water. Consider rowing in reasonable proximity of the boathouse if inclement weather is approaching. At first signs of threatening weather, either return to the boathouse as quickly as possible or find a safe spot on the shoreline to pull over and wait until better conditions return.

3.) Lightning Detection System: The NVRPA has installed lightning detection systems at both Sandy Run Park and Fountainhead Park. This system is located on the top of boathouse #2 and can detect electrical storm activity within a 5 mile (or 20 minute) radius of the park. If the system detects an approaching or threatening lightning storm, a single 15-second horn blast will sound and a strobe light will flash from atop the boathouse. When the system detects no more lightning activity, three 5-second blasts will sound, signaling the "all clear."

REMEMBER: If you are on the water and hear the long warning blast from the lightning detection system, clear the water immediately. If it is reasonable to return to the docks, do so as quickly as possible. If not, find a spot on the shoreline to pull over and wait until the weather passes or you hear the "all clear" signal. While on shore, avoid tall trees and stay clear of the water.

2.) **ENVIRONMENTAL CONDITIONS:** Many times the weather and environmental conditions can affect rowing on the Occoquan. Use the following guidelines to make good decisions when conditions may be altered on the water:

1.) **Low Water Level:** The Northern Virginia region has been known to go through periods of low precipitation or drought from time to time. During these times, the Occoquan's water levels can lower anywhere from 1-6 feet, to several dozen feet. Use the following tips to stay safe during times of low water:

A. **Watch for Changing Shorelines:** The shorelines of the river will be changing during these times. Don't assume the normal distance from the shore is a safe distance. Stay alert and monitor the shoreline. Make adjustments when necessary.

B. **Watch for Sunken/Submerged Debris:** As the water lowers, submerged debris (fallen trees, logs, garbage, etc) that was once safely below water level will appear on the surface. Stay alert and keep watch for obstacles such as this.

C. **Maintain the Traffic Pattern:** The river will most likely be narrower, but rowers must adhere to the traffic pattern at all times to insure safe navigation.

2.) **High Water Levels:** After a heavy rain or long, wet period of precipitation, the waters of the Occoquan will rise quickly and significantly. During these times, use the following tips to stay safe:

A. **Watch for Increased Debris:** When water levels rise, loose debris (sticks, logs, trees, garbage, etc.) is lifted and released from the shoreline. This debris usually finds its way to the middle of the river and begins to float down river towards the dam. After periods of rain, stay alert for any large debris that could damage or capsize your shell.

REMEMBER: If you are unable to take 5-10 full strokes without having to stop and adjust your course to avoid debris, the river may be too cluttered with debris to make rowing worthwhile or safe.

Using the Occoquan's Features to Our Advantage

As stated before, the Occoquan Reservoir has many conditions and features that are solely unique to its waters. Some of these features can create difficulties, such as the rough weather spots on the river and frequently changing environmental conditions. However, there are some features on the river, both man-made and natural, to use to stay safe when navigating the Occoquan.

UNDERSTANDING THE GPS MARKERS: Along the entire length of the navigable river, there are large, highly visible number signs placed at intervals along the Fairfax shore (Sandy Run side). Painted yellow, orange or red, these signs are known as *GPS Markers* and are used to

give very precise information about locations along the river. It is important to become aware of these signs and know where each numbered GPS marker is along the river. In an emergency situation, the GPS marker numbers are the best option for giving this information to get help. Here are some examples of how to give good location information using the GPS markers:

“I am located at GPS marker #11 on the Fairfax shore”

“I am located between GPS marker #4 and 5# on the Prince William shore”

“I am located a quarter mile upriver from GPS marker #9 on the Prince William shore”

REMEMBER: *Becoming familiar with these markers will insure that, in an emergency situation, you are able to communicate clearly where you are to club members, park staff and emergency personnel.*

****A map with the locations of all GPS markers is located in the OBC boathouse****

UNDERSTANDING THE SHORELINE: There may be times when it is necessary to use the shoreline of the Occoquan to help during potential emergencies, such as paddling to the shoreline after a flip or pulling over to the shore to seek shelter from incoming weather. It is important to be familiar with the shoreline and topography of the Occoquan during these situations and to have a personal plan of action prepared. The following describes the shoreline of the Occoquan:

- 1.) **Topography:** The topography of the shoreline is constantly changing; shallow, sandy landings can become deep, rocky crags very quickly. However, there is a pattern to the nature of the shoreline and there are very few spots on the Occoquan that do not have stretches of shoreline that are easy and safe to use. Follow these guidelines:
 - A. **Good shore, Bad shore:** Along the Occoquan, stretches of deep/rocky shore and shallow/sandy shore alternate between sides of the river (Fairfax/Prince William). For example, on the straight-away by Oxford House, the Prince William shore is extremely steep with deep water, while the Fairfax shore is shallow with low-lying areas. However, continuing up river around the next turn, these conditions switch, with the Fairfax shore becoming rocky and steep, and Prince William becoming relatively easy shore line.

REMEMBER: *Use this pattern to guide you in pre-determining spots on the river shoreline to use in the event of an emergency. For every stretch of the river, have a place in mind in case of capsizing or foul weather.*

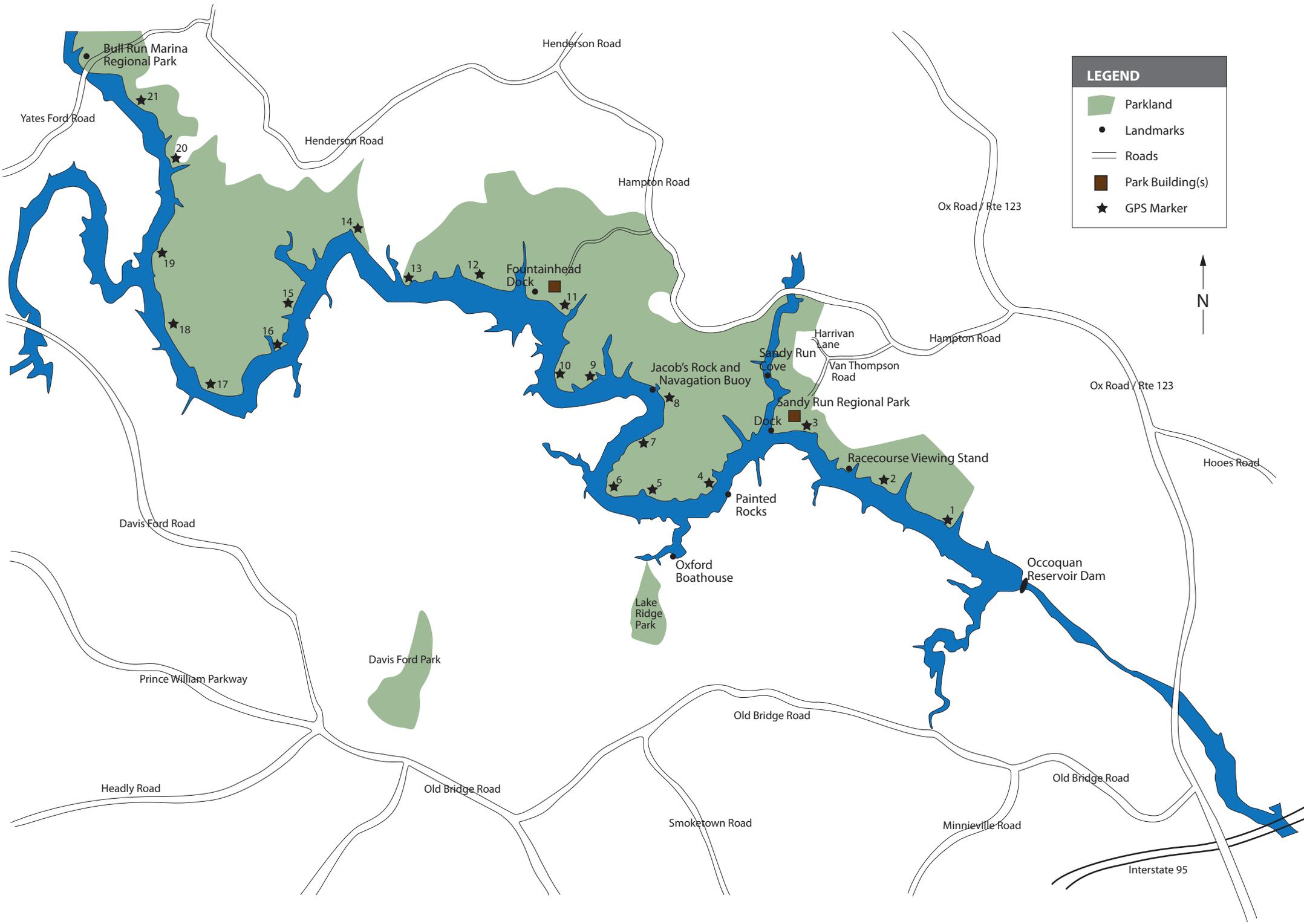
“WEATHER FRIENDLY” SPOTS ON THE OCCOQUAN: In windy conditions, there are spots on the river that can be sheltered and “weather friendly” alternatives. These spots will change from day to day depending on the direction of the winds. However, there is one spot on the reservoir that provides excellent shelter from high winds all the time, and is a great alternative to rowing on the open waters of the Occoquan.

- 1.) **Sandy Run (“The Cove”):** Sandy Run is a small, three-quarter of a mile stretch of water that runs along the western edge of Sandy Run Park. When standing on the main dock while facing the blue launching/docking buoy, Sandy Run begins directly

behind the rower and disappears around a long turn to the left. Sometimes referred to as “the cove,” Sandy Run is narrow, heavily wooded, and hilly on both sides, blocking much of the wind and weather conditions that would make open water very rough and choppy. At the end of Sandy Run is a small traffic bridge spanning the river. **It is not recommended to cross underneath this bridge.**

REMEMBER: Understand your limits on the water when dealing with high winds and rough water. If conditions look bad on the main Occoquan, consider rowing in Sandy Run. The narrow waters and many turns within Sandy Run provide just as challenging and worthwhile a rowing opportunity as upriver and downriver waters.

The more we know about our “home waters” the more fulfilling our time spent on them will be. Use this information to help you in understanding the Occoquan, rowing safely, knowing your limits - and getting the most out of some of the best rowing waters in the world.



LEGEND

-  Parkland
-  Landmarks
-  Roads
-  Park Building(s)
-  GPS Marker

