2020 Recreational Boating Incident Summary
Boating In Virginia

- River Miles – 52,225 miles (source VDEQ)
- Coastline – 132 miles (source VIMS)
- Tidal Shore – 7,213 (source VIMS)
- Inland Lakes – 116,364 acres (source VDEQ)
Reportable Incidents

Incidents that are required to be reported to the Virginia Department of Wildlife Resources

- Damage over $2,000 by or to the vessel or its equipment
- Injury requiring medical assistance beyond first aid
- Loss of life
- Disappearance of any person from a vessel
Factors Associated with Boating Fatalities
2020 Virginia Boating Incident Summary *

- Number of Incidents = 110
- Number of Vessels Involved = 137
- Number of Injuries = 51
- Number of Fatalities = 21
  - Alcohol was a known factor in 10% of fatal incidents.
  - Paddlecraft (canoes and kayaks) were involved in 52% of fatal incidents.
  - In 95% of fatal incidents no life jacket was worn
- Property Damage = $641,143

* reported to DGIF
# 10 Year Boat Incident Summary

<table>
<thead>
<tr>
<th>Year</th>
<th>Incidents</th>
<th>Injuries</th>
<th>Fatalities</th>
<th>Property Damage</th>
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<td>2017</td>
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<tr>
<td>2020</td>
<td>110</td>
<td>51</td>
<td>21</td>
<td>$641,143</td>
</tr>
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</table>
10 Year Boat Incident Statistics

Incidents and Fatalities from 2011 to 2020.
Recreational Vessels Registered in Virginia by Year 2001 - 2020
Annual Recreational Boating Incident Rate*
2001 - 2020 (per 100,000 Registered Boats)

- These rates include paddlecraft incidents/fatalities although paddlecraft are not registered in Virginia.
- These rates include incidents/fatalities involving boats registered in another state that were involved in incidents on Virginia’s waters.
Fatalities, Injuries, and Incidents
By Year 2001 - 2020

Tougher PWC Laws in 1998

2009 Mandatory Boating Education Phase-In Begins

2016 Mandatory Boating Education Fully Phased-In
Fatalities – Paddlecraft and Powered Vessels

* Non-paddlecraft includes motorized vessels, sailboats, jon boats
2020 Boating Incidents and Fatalities - By Month

- Fatality
- Injury
- Damage
2020 Percentage of Incidents Each Month that were Fatal
2020 Boating Incidents and Fatalities by Day of Week

<table>
<thead>
<tr>
<th>Day</th>
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<th>Total Incidents</th>
</tr>
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<tr>
<td>Sunday</td>
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<td>Friday</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Saturday</td>
<td>32</td>
<td>32</td>
</tr>
</tbody>
</table>
2020 Boating Incidents and Fatalities By Vessel Type

- Open motorboat
- Personal watercraft
- Pontoon boat
- Jon Boat
- Canoe
- Auxiliary sail
- Kayak
- Cabin motorboat
- Standup Paddleboard
- Unknown

[Bar chart showing incidents and fatalities for each vessel type]
2020 Boating Incidents and Fatalities By Water Body Type

- **River**: Highest number of incidents and fatalities.
- **Lake**: Significant number of incidents and fatalities.
- **Bay**: Moderate number of incidents and fatalities.
- **Reservoir**: Low number of incidents and fatalities.
- **Private Pond**: Lowest number of incidents and fatalities.
- **Ocean**: Very low number of incidents and fatalities.
2020 Boating Incidents and Fatalities
Top Locations of Incidents

- Willoughby Bay
- Bugg Island Lake
- Appomattox River
- York River
- Elizabeth River
- Chesapeake Bay
- Old Meherrin Creek
- Little River Reservoir
- Diascund Reservoir
- Dan River
- Chickahominy River
- Beaverdam Reservoir
- Poquoson River
- Aquia Creek
- Lake Gaston
- Shenandoah River
- Rappahannock River
- Lake Anna
- Smith Mountain Lake
- Private Pond
- James River

Incidents
Fatalities
2020 Boating Incidents and Fatalities
Top Primary Incident Types

- Capsizing
- Falls Overboard
- Struck by Propeller or Propulsion Unit
- Collision with Fixed Object
- Sinking
- Struck submerged object
- Collisions with Vessel
- Flooding
- Fire or Explosion (Fuel)
- Skier Mishap
- Grounding
- Miscellaneous
- Falls in Boat
- Collisions with Floating Object
- Fire or Explosion (unknown)
- Collisions with a Vessel

Incidents vs. Fatalities
2020 Boating Incidents and Fatalities – Contributing Factor (by Category)

- **Operation of Vessel**: Large number of incidents and fatalities.
- **Environmental**: Moderate number of incidents and fatalities.
- **Other**: Lower number of incidents and fatalities.
- **Failure of Vessel**: Lower number of incidents and fatalities.
- **Loading Passenger/Gear**: Minimum number of incidents and fatalities.
2020 Boating Incidents and Fatalities – Top Primary Contributing Factor

- Loading Passenger/Gear
  - Overloading

- Failure of Vessel
  - Equipment/Machinery Failure
  - Weather
  - Other Boat's Wake
  - Water Hazard
  - OTHER-Dam

- Environmental
  - Hazardous Waters

Incidents and Fatalities
2020 Boating Incidents and Fatalities – Top Primary Contributing Factor

- Passenger or Skiier Behavior
- Unknown
- OTHER-Fail to maintain safe distance
- Alcohol Use
- OTHER-Fail to take evasive action
- Operator Inattention
- Navigation Rules Violation
- Operator Inexperience
- No Proper Lookout
- Excessive Speed
- OTHER-Sharp Turn

Incidents | Fatalities
--- | ---

Graph showing the distribution of incidents and fatalities for each contributing factor.
2020 Boating Incidents and Fatalities By Vessel Size

- Under 16':
  - Fatalities: 10
  - Incidents: 40

- 16' - <26':
  - Fatalities: 0
  - Incidents: 50

- 26' - <40:
  - Fatalities: 0
  - Incidents: 5

- 40 and greater:
  - Fatalities: 0
  - Incidents: 5
2020 Boat Incidents Age of Operators
2020 Boating Incidents
Top Vessel Activity at Time of Incident

- Commercial Fishing
- Crabbing
- Fishing, Tournament
- Fishing
- Racing, Recreational
- Hunting
- Fueling, Recreational
- Fishing, Tournament
- Water Skiing / Tubing / Etc
- Water Skiing / Tubing
- Recreational
- Commercial Fishing
- Incidents
- Fatalities
2020 Boating Fatalities

By Vessel Type

- Open motorboat: 4
- Personal watercraft: 1
- Jon Boat: 1
- Kayak: 5
- Canoe: 4
- Standup Paddleboard: 6

By Waterbody Type

- River: 11
- Lake: 3
- Reservoir: 3
- Private Pond: 4
2020 Boating Fatalities

**Alcohol Use**

- No
- Yes

**Life Jacket Use**

- No
- Yes
2020 Boating Fatalities

Type of Incident

- Capsizing
- Falls Overboard
- Collision with Fixed Object
- Skier Mishap
- Grounding
- Falls in Boat
### 2020 Boating Fatalities

#### Cause of Incident

<table>
<thead>
<tr>
<th>Incident Type</th>
<th>Count</th>
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<tbody>
<tr>
<td>Excessive Speed</td>
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<tr>
<td>Water Hazard</td>
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<tr>
<td>Passenger or Skiier Behavior</td>
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<tr>
<td>Hazadrous Waters</td>
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</tr>
<tr>
<td>OTHER-Dam</td>
<td>2</td>
</tr>
<tr>
<td>OTHER-Sharp Turn</td>
<td>1</td>
</tr>
<tr>
<td>Overloading</td>
<td>0</td>
</tr>
<tr>
<td>Unknown</td>
<td>6</td>
</tr>
</tbody>
</table>
2020 Boating Fatalities

1/26/2020 - Poquoson River, York County
Three people were on board a 16’ canoe on the Poquoson River. At approximately 11:40 pm, after being underway for about 45 minutes, one of the occupants made a “bad stroke” which caused the canoe to become unstable and capsize. Two individuals stayed with the canoe and the other swam to shore, but immediately collapsed on the ground and was unconscious for several hours due to hypothermia. At approximately 4:00 am, the occupant who swam to shore awoke and walked to a home to contact 911. The two occupants who stayed with the canoe succumbed to hypothermia and drown. The primary contributing factor was passenger behavior. The secondary contributing factor was alcohol use. The two fatalities were males ages 24 and 26. No life jackets or survival gear were worn or on the canoe.

4/12/2020 - Little River Reservoir, James City County
Three people were on board a canoe on Little Creek Reservoir in James City County. As the individuals departed one shoreline, they began to lose balance and rolled the canoe over in the water. This occurred around 3:15 pm. The three individuals hung onto the side of the canoe until it appeared to be sinking. One of the individuals swam to shore before looking back at the other two individuals. He observed both of the other two individuals struggling to swim. The first individual returned to the water and was able to assist one of the others back to shore. The third individual was still struggling to swim and went underwater and never resurfaced. The 22-year-old male drown. No life jackets were used.

4/19/2020 - Private Pond, Pittsylvania County
Two men went fishing in a small jon boat on a private pond. One stood up and the boat capsized. The two males, ages 55 and 72 drown. No life jackets were used.
2020 Boating Fatalities

04/27/2020 - Lake Anna, Spotsylvania County
An open motorboat was underway traveling north on Lake Anna on 4/27/2020. The boat struck a shoal and came to a stop. As the boat began to capsize, the occupants abandoned the boat in a shallow area of the lake. All four occupants began to swim to shore without utilizing safety equipment. One subject was transported to the hospital, and treated for hypothermia. Another victim, a 17-year-old male, drown. No life jackets were used.

5/24/2020 - Diascund Reservoir, James City County
On 5/24/2020 a concerned citizen notified the agency of an unmanned jon boat on Diascund Reservoir. A search and rescue operation was initiated. Family members said the owner of the boat had gone fishing. The victim, a 70-year-old male, drown. It is unknown how he fell overboard. No life jackets were used.

5/31/2020 - James River, Amherst County
On 5/31/2020, the victim was kayaking on the James River in the Balcony Falls area in Amherst County. The victim's kayak overturned in the turbulent waters in some rapids. Although she started off her trip with a life jacket, she took it off prior to the incident. She attempted to stay with the kayak as it headed downstream through the larger Balcony Falls rapids, which are Class III rapids. The 29-year-old female drown. No life jackets were used.

7/24/2020 - Private Pond, Hanover County
The two victims were fishing on a private pond on 07/24/2020 at approximately 12:00 p.m. They were last observed on the bank of the pond at 4:00 p.m. At an unknown time in the afternoon, the decedents retrieved and utilized a 1984 Coleman Canoe and began fishing the waters of the pond from the canoe. Both decedents were later found in the water. One decedent was entangled in a fishing line of a fishing pole that was still located inside the canoe. Upon inspecting the body of the canoe, it was observed that the canoe was unusually heavy as a result of metal-type frame tubing inside the canoe. It is unknown how the victims ended up in the water. The 77-year-old and 65-year-old males drown. Neither of the decedents was utilizing a life jacket and upon inspecting the area no life jackets were located.
2020 Boating Fatalities

6/2/2020 - James River, City of Richmond
On June 2, the deceased decided to paddle his kayak near the Z-dam on the James River despite being warned of the high flow conditions. An observer on the river said that he saw the kayaker paddle up into the dam and flip over. The kayaker was struggling in the water. The observer went to assist the kayaker, but he was lifeless when we arrived. Before putting the kayak on the water, the decedent had consumed alcohol and marijuana. High water levels contributed to the incident. The 45-year-old male drowned. No life jackets were used.

6/2/2020 - James River, Charles City County
On June 2, DWR was notified of an abandoned kayak on the James River. There were several items of clothing inside the kayak and a life jacket was strapped down to the kayak. The owner was identified but unable to be located and there was no answer on his cell phone, although it was still located in the Richmond area. A shoreline search commenced and the next day the search was undertaken on water. The deceased was found the next day 5 miles up the river from where the kayak had been located. The 30-year-old male drowned. No life jackets were used.

6/19/2020 - Shenandoah River, Clarke County
While drifting in the Shenandoah River in Clarke County, the victim stood in the bow of the boat with one foot on the starboard gunwale. The victim had consumed alcohol, however, the boat operator had not consumed alcohol. The boat struck an obstruction and the victim fell overboard. The operator threw the decedent a wearable life jacket. The victim swam with the life jacket under his arms towards the boat. He then placed the life jacket into the boat and held onto the starboard gunwale toward the stern area of the boat. He subsequently then let go and went underwater. He floated away from the boat and appeared to attempt to get to shallow water. The 64-year-old male drowned.

06/26/2020 - Lake Gaston, Mecklenburg
On June 26, a vessel was attempting to navigate underneath a railroad bridge on Lake Gaston. The port side of the vessel struck a bridge pillar causing the operator to be ejected from the vessel. The 49-year-old male passenger onboard suffered fatally as a result of blunt force trauma.
2020 Boating Fatalities

7/27/2020 - Old Meherrin Creek, Southampton
On July 27, the victim stood up to pull the anchor rope from the front of the jon boat and lost his footing which caused him to fall overboard. The 64-year-old male did not know how to swim and drowned. No life jackets were used.

8/1/2021 - Smith Mountain Lake, Bedford
On August 1, the victim was wakeboarding behind a Personal Watercraft (PWC) on Smith Mountain Lake. During an attempt to surf he fell face first in the water. The operator of the PWC did not have boating safety education. The 23-year-old male water skier was wearing a life jacket, however, he drowned.

8/3/2020 - Rappahannock River, Fredericksburg
On August 3, the victim was operating a kayak on the Rappahannock River. The vessel overturned and he fell out of the kayak. The river had a swift current and the winds were moderate that day. The 40-year-old male drown. No life jackets were used.

8/16/2020 - Dan River, Danville City
On August 16th, a canoe was launched above a low head dam. The canoe went over the dam before it could be anchored. The 76-year-old male drown. No life jackets were used.

10/15/2020 - Beavardam Reservoir, Loudoun
On October 15, the victim launched her paddleboard on Beavardam Reservoir in Loudoun County. There was a moderate wind that day. The paddler fell from the paddleboard and was separated from her board; it appears she had the leash attached incorrectly. The 38-year-old female drown. No life jackets were used.
2020 Boating Fatalities

10/23/2020 - Chickahominy River, James City County
On October 23, an open motorboat boat was operating on plane with the bow of the boat out of the water when it came to an area where other boat wakes converged. The operator was ejected from the boat on the starboard side, breaking the side panel of the windshield. The passenger was thrown into the floor of the boat. As the boat turned in circles, the propeller struck the operator in the foot. The passenger was able to turn off the boat motor. The operator was assisted back into the boat by a passerby and he drove the boat to the boat ramp. When paramedics arrived at the scene, the passenger collapsed and went into respiratory arrest, and later died at the hospital. The 72-year-old female died from blunt force trauma. No life jackets were used.

11/9/2020
Aquia Creek, Stafford
On November 9th, a jon boat was underway on Aquia Creek when one of the occupants of the boat began to lean to the port side of the boat. The occupant went overboard which caused the boat to capsize. The 55-year-old male drown. No life jackets were worn.
2020 Selected Boating Injury Summaries

• On January 19, three duck hunters ended up in the water. Hazardous weather and water conditions caused the boat to become unstable and flip in the wind and water. All three subjects were in the water for about an hour and suffered from hypothermia.

• Victims were being towed behind the vessel on an inflatable tube. The tube encountered a wake and the victims’ heads collided with the victim's sustaining head and facial injuries.

• Boat 1 was towing a ski tube with two riders. Boat 1 turned right too close to the anchored Boat 2 and caused the tube and riders to be slung into the bow of Boat 2.

• The PWC operator gassed the jet ski without warning and threw the two passengers off the back of the vessel. One of the passengers received a concussion and the other sustained internal injuries from the jet wash.

• The operator of a bass-type motorboat was pulling someone on a tube. When the operator looked behind him, a young passenger sitting in the front fell off the boat on one side and the propeller struck that passenger leaving multiple lacerations.

• Vessel one turned into Vessel two and struck it at the bow. Vessel one’s operator sustained an injury to his face/eye area.

• Boat 1 was towing 3 passengers on a tube, one of the passengers fell off. While turning around to get the passenger, the operator’s vision was obscured by sun glare and he did not see Boat 2. The tube being pulled by Boat 1 was put directly in front of Boat 2. One passenger on the tube was hit by vessel 2 resulting in serious injury. Boat 1 was operating between 25-30 MPH and Boat 2 was traveling at no wake speed.
2020 Selected Boating Injury Summaries

- Individual was operating PWC at approximately 30-40 mph within several feet of private rip rap seawall. While next to the wall, the wake from other vessels operating nearby pushed PWC onto the rocks. The individual was ejected off the PWC onto the rocks. The individual sustained a serious injury to his head, right hand, and both feet.

- Three juveniles were operating a pedal boat in a main channel on Smith Mountain Lake at night with no navigation lights. Another vessel struck the pedal boat causing the rear passenger to be ejected from the pedal boat and hit by the propeller of the striking vessel.

- The victim was being towed behind a PWC. The operator of the PWC towed the victim into a piling causing a concussion and several lacerations.

- The injured party was holding on to the rear of the vessel while hanging in the water. The vessel was being operated at an idle speed. The injured party sustained carbon monoxide inhalation and was transported to a hospital for treatment.

- The victim was being towed on a tube. The vessel’s motor was in gear as the victim attempted to enter the vessel causing a laceration to the leg from the boat’s propeller.

- An occupant of a vessel became entangled in a ski rope that was being sucked into the jet-pump mechanism. The operator turned off the engine, but the victim suffered near amputation of 2 toes.

- The victim was in the boat holding onto the tube and tow rope when the force of the wind blew the tube off the vessel. The rope was wrapped around the victim’s toes and caused his toes to be amputated.
2020 Selected Boating Injury Summaries

• The victim was standing in 2.5 feet of water preparing to climb the ladder to enter the vessel. The engine was running and put into gear which caused multiple lacerations on the leg of the victim.

• The victim was fishing from a jon boat during the winter when he leaned over the gunwale of the boat to reel in a fish and the boat began taking on water. The victim fell out of the boat into the water and was in the water for over an hour and suffered from hypothermia.

• A 4-year-old looked over the front gate of a pontoon and fell head-first onto the front platform and then he fell into the water off the bow. He sustained a large laceration from the boat’s propeller.

• In March, a kayaker with no experience with a sit-inside kayak, went kayaking on the New River in an area with class II rapids. The kayak took on water which limited its maneuverability and then overturned. The kayaker was wearing a life jacket. He ended up in the water for some time, attempted to stand several times, but was knocked over by the swift current. He suffered from minor cuts and hypothermia.
Remember these boating safety tips:

• Wear your life jacket
• Carry all required safety gear
• Know your boat and its limitations
• Follow the boating “rules of the road”
• Be aware of weather and water conditions
• Boat sober and be considerate of other boaters