



Personal Watercraft Training Manual



*Charleston County Park & Recreation Commission
Approved: January 31, 2020
Next Review: January 2021*

<i>REVIEWERS</i>	<i>DUE DATE</i>	<i>APPROVED</i>
<i>Asst. Safety Program Manager</i>	<i>January 2020</i>	<i>1/31/2020</i>
<i>Safety Program Manager</i>	<i>January 2020</i>	<i>1/31/2020</i>
<i>Folly Beach Assistant Park Manager</i>	<i>January 2020</i>	<i>1/31/2020</i>



UPDATES AND REVIEWS

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CAPRA 8.6.1

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REVIEWER	CHANGES	CHAPTER	DATE
Nikki Bowie	Deleted "There will be an additional training at the beginning of the season for those eligible. Please refer to the current Ocean Rescue Aquatics Manual for dates, times and locations of trainings."	Page 5	1/31/19
Nikki Bowie	Deleted "you must meet the following..."	Page 5	1/31/19
Nikki Bowie	Replaced "Ocean Access Assistant Managers" with "other qualified Ocean Rescue Supervisors."	Page 5	1/31/19
Nikki Bowie	Deleted "Ocean Access Assistant Manager"	Page 5	1/31/19
Nikki Bowie	Replaced "will be operating a" with "operate" and added "Personal Watercraft"	Page 6	1/31/20
Nikki Bowie	Replaced "our High Surf Accessories Rescue Sled" with "a rescue sled".	Page 6	1/31/20
Nikki Bowie	Replaced picture of sled	Page 6	1/31/20
Nikki Bowie	Replaced "Ocean Access Assistant" with "Folly Beach".	Page 6	1/31/20
Nikki Bowie	Replaced "one mobile radio, waterproof radio bag, and an ear piece" with "one waterproof radio and a microphone attached to the radio".	Page 9	1/31/20
Nikki Bowie	Replaced "bag will be clipped" with "radio will be secured".	Page 9	1/31/20
Nikki Bowie	Corrected "warm" to "warn"	Page 20	1/31/20
Nikki Bowie	Replaced "right" with "left"	Page 24 & 25	1/31/20
Nikki Bowie	Replaced "2018" with "2019"	Page 28	1/31/20
Nikki Bowie	Replaced "Assistant Manager" with "Coordinator"	Page 5	1/31/20
Nikki Bowie	Replaced "2019" with "2020"	Page 28	1/31/20



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PWC TRAINING STANDARDS

Requirements:

Be at least 18 years of age.

Have completed one full season of ocean lifeguarding with a USLA certified agency or have equal applicable experience determined by instructors.

Successful completion of PWC Training Course administered by CCPRC.

Demonstrate the ability to operate the PWC in various ocean conditions while maintaining professional standards as set forth by CCPRC.

A mandatory monthly PWC training will be conducted outside operating hours by the Safety Program Manager or Coordinator and/or other qualified Ocean Rescue supervisors.

CCPRC can revoke eligibility of any lifeguard to operate PWC at any point during training or operating hours for failure to meet the outlined standards above.

ANY ACTIONS CONSIDERED UNPROFESSIONAL, DANGEROUS, AND/OR A DEMONSTRATION OF LACK OF CONTROL WILL RESULT IN IMMEDIATE TERMINATION OF EMPLOYEE(S) INVOLVED.

TRAINING DURING OPERATING HOURS

Training during operating hours will **ONLY** be conducted in the presence of a Full-Time supervisor (i.e. Park Manager, Safety Manager, or Assistant Safety Manager).

The Full-Time supervisor is required to stay on the beach and maintain radio and visual contact with personnel operating the PWC. If the Full-Time supervisor is required to leave the beach, the PWC must be returned to the beach to a rescue ready position.

APPROPRIATE RESCUE SITUATIONS

The PWC does not take the place of other appropriate rescue equipment or change the nature of an emergency response of a Lifeguard.

Example of rescue situations that would initiate the launch of the PWC would be a multiple victim rescue, rescue response outside of designated lifeguarded areas, deep water missing person search, or any other situation deemed appropriate by a supervisor.



BECOMING FAMILIAR WITH THE PWC

We operate YAMAHA VX Deluxe Personal Watercrafts. This ski carries up to three riders and is powered by a 4-Stroke engine allowing for enough power to handle a diverse amount of ocean conditions. Currently we have two skis in our fleet, call sign Ocean 1 and Ocean 2.



Attached to the ski is a rescue sled. The sled is connected to the ski at three points allowing minimal lateral movement.



MAINTENANCE

Annual and daily maintenance of the ski and sled must be conducted properly to ensure we always have it available as a rescue tool.

Annual maintenance includes oil changes, tune up, waxing, and winterization for the off season. These items will be coordinated through the Folly Beach Managers and the Safety team.

Daily maintenance will be the responsibility of the Lifeguard Supervisors and selected lifeguards. A supervisor must sign off each day on an opening/closing maintenance checklist (Appendix X1). Failure to complete this checklist will result in disciplinary action. The supervisor does not necessarily need to solely complete these tasks, but they are responsible for the completion. All personnel completing PWC training will be instructed on how to complete the daily maintenance of the ski.

SAFETY CONSIDERATIONS

LAND SAFETY

Before launch of craft a thorough pre-launch inspection should always be completed by the operator to ensure the craft's hull is intact and all water-tight compartments are properly secured. A common error is failure to screw drain plugs into place prior to launching the craft. Any hull breach, open compartment, or open drain plug will lead to engine compartment flooding and eventual engine shutdown.

A launching area needs to be established before staff begins launching procedures. This area needs to be completely clear of all by-standers and non-rescue personnel as well as all debris. This area includes not only the beach area, but the water into which the craft will be launched.

All personnel responding on the PWC must have the following equipment:

- USCG – approved personal flotation device
- Helmet
- Fins and Fin Belt
- Whistle
- Engine Kill Switch
- Radio, Radio Bag (affixed to PWC operator only)

The PWC must contain the following equipment at all times:

- Throw Bag/Tow rope
- Safety Knife*
- Mask and Snorkel
- Fire Extinguisher
- Flares*
- Spare Engine Kill Switch
- Rescue Sled
- Registration Documents*

*To be kept in Dry Bag at all times

The PWC is merely an extension of the skill and ability of the operator, not a substitute for such skill and ability. All operators must accept responsibility for their craft, crew, patients, and other ocean users at all times.



WATER SAFETY

Operators must abide by all laws, ordinances, rules and regulations in the area of operation, except as allowed during actual or simulated rescue situations.

Once the PWC has entered the water it becomes only controllable by the operator and the power of the ocean. **Personnel should never find themselves between the PWC and the beach.** The power and wave action of the ocean can push the craft toward the beach with enough power to inflict serious injury and/or death. The correct call to remind fellow rescuers of their position is to call out “SEASIDE!” meaning rescuers should stay on the seaside of the craft. This is especially important when launching into large surf.

INCORRECT
Notice how rescuer
is behind craft



CORRECT
Notice how
rescuer is
seaside of the
craft

Injury can also result from the force of the thrust out of the stern of the craft.

- **PWC should be operated at safe speeds and keep a safe distance away from people, objects, and other watercraft**
- **Do not follow directly behind other watercraft**
- **Never operate PWC in less than 2ft of water; this can result in damage to the intake**
- **Operator should scan constantly for people, objects, and other watercraft**

When responding to a rescue, the PWC is to be operated at safe, controllable speeds. We DO NOT respond or operate at high speeds even in emergency situations. The highest priority is the safety of the rescuers, do not become a rescue yourself.

Operators and rescuers must understand the limitations of themselves and the ocean conditions. If at any time a situation becomes unsafe, the rescue or training scenario must be aborted.

There may also be times when launching the PWC is determined to be unsafe due to ocean and weather conditions.

COMMUNICATIONS

No craft should ever leave the beach without a communications system in place.

Radio communication is the preferred method of communication between PWC operator and land resources. If radio communication fails or is unavailable, hand signals must be used to signal information between craft and land.

The use of hand/device signals will follow the same guidelines as set by USLA and CCPRC for ocean rescue lifeguards.

PWC operator radio communication system will be comprised of one waterproof mobile radio and a microphone attached to the radio. Once the operator launches the PWC, their call sign will become Ocean1. If a second PWC is launched, their call sign becomes Ocean 2. If speaking to an outside resource further identification may be necessary.

The waterproof radio will be secured to the PFD of operator. If at any time radio equipment becomes wet, it should be reported to a supervisor immediately.



LAUNCHING AND RETRIEVING PWC

LAUNCHING

Objectives:

1. Properly move craft from land to water using ATV (or similar), Big Foot Trailer, and staff members.
2. Safely launch craft into water using correct positioning and communication.
3. Demonstrate correct positions of both operator and crew.

When the PWC is located long distances from the water it will be necessary to tow it using an ATV (i.e. Gator) and a Big Foot (or similar) trailer created to roll through sand. Crew and staff need to make sure to properly attach the trailer to the ATV. While towing the craft it is essential to drive slowly and under control while avoiding sharp turns and rough terrain. These elements could cause damage to the trailer's balloon style wheels.

Once the PWC is located near the water, staff and crew can release the trailer from the ATV. If it is necessary to move the craft closer to the water, it should be done by manually rolling the trailer. When the craft is in an appropriate depth of water, release any connecting rigging from the craft or trailer and tip the trailer back sliding the PWC off the trailer. Move craft so the bow is facing the waves.

Note: REMEMBER to always stay seaside and do not attempt to push the craft from the rear. Another tip to remember is, the craft will move much easier when it is buoyant; wait for a wave to approach and when water is under the hull, slide the craft. This will require communication among the team.

As the craft is launched into the water it is necessary to wait until it is in at least two feet of water before starting. Starting in less than two feet of water could cause damage to the craft. When it has reached two feet of water, the operator should position himself/herself on the craft (you will learn about the correct riding positions in the coming section) insert the kill switch, and start the PWC. Once the craft is running, the crew person should climb onto the sled and assume the prone position, holding on tightly to the handles.

It is the responsibility of the operator to safely proceed to the rescue. Once the operator knows his/her crew person is ready he should clearly shout "CLEAR" to announce the launch. Upon hearing CLEAR, all non-responding personnel should step or swim away for the craft to avoid contact with the hull and the potentially dangerous propulsion at the rear of the PWC. It is now safe to advance in the water using the correct surf riding skills.



LANDING

Objectives:

1. Safely beach the craft, crew, and patients with minimal impact on public using the beach.
2. Recognize potential landing zones by examining the properties of the beach, crowd, break of the surf, and the location of sandbars and tidal pools.
3. Understand proper communication between operator, crew, and staff on beach. Using hand signals to determine landing zone.

Communication with person(s) on land is essential to safely and properly land the craft. Before returning to shore the operator needs to signal to staff on the beach, they are ready to land. This is done by placing a hand on the top of your head signaling that you are ok and ready to beach the craft. You wait for a response from shore. They should respond with the same signal, hand on top of the head.



The staff member(s) on shore will clear a landing area on the beach and signal where you should land the craft. They will do this by holding one hand straight up in the air and the other out to the side on which they want you to land the craft.



When landing the craft always be aware of your surroundings. There may be patrons near your landing zone. Also be aware of where the waves are breaking in relation to the shore, and the depth of the water close to shore. Things to look out for are tidal pools and shallow sandbars, the operator and staff on land will need to avoid these.

Timing is very important when landing the craft. Following a wave all the way into the shore will be the best route. This will provide the most water for landing the craft.



The operator needs to remember when approaching shore to keep the craft balanced and under control. As the craft is approaching the beach where the water is receding, the engine needs to be turned off.



PRECISION DRIVING

RIDER POSITION

Objectives:

1. To operate the PWC in a safe manner at all times.
2. Keeping the craft balanced and upright when in use.
3. Keeping the craft and sled with rescuer/victim stable.

Proper riding position depends on circumstances. Sitting is permissible at slower speeds and on flat water; however, you should stand with knees and elbows flexed at higher speeds and rough conditions.

When standing you should always ride with your right foot forward and left foot back with both knees bent. Bending the knees helps to absorb shock to the legs and rest of the body. Dragging a foot or leg in the water to create drag in order to enhance turning is dangerous and should not be attempted.

Keep elbows bent and right hand near or on the throttle at all times. Bending the elbows helps to absorb shock and prevent injury. The throttle is the way to accelerate and helps to control the craft.

Keep eyes and head level, looking several seconds ahead in the attended path of travel; through a turn and when changing directions. Use peripheral vision to maintain awareness of other craft, people, and obstacles in the area.



Practice Skills:

Practice proper stance on land before launching into water. Remember proper hand and foot placement and to keep knees and elbows bent at all times. Secure an area in water to practice launching craft and driving into surf, in proper stance.



The following skills should be performed with crew person on the sled:

- **Ovals:**
Approach a pair of buoys and circle them in a clockwise direction, creating an oval path of travel. Start at a slower speed and increase speed gradually. Stop and perform same skill in a counter clockwise direction.
- **Circles:**
Approach a single buoy and ride tight circles around it. Start at a slower speed and increase speed gradually. Skill to be performed in both clockwise and counter clockwise directions.
- **Figure-8 Turns:**
Begin riding in a figure-8 pattern using two buoys to center your turns. Start at a slower speed and increase speed gradually while maintaining directional control. Remember when performing these skills to coordinate throttle and shifting of body weight. As you become more comfortable with the skills shrink the size of the figure-8, if buoys are too far apart then ignore them and continue to tighten your form.
- **Quick Turns:**
Approach a line of five or more buoys and weave in and out of the buoys, or slalom through the line. Start at a decent speed and continue practicing while increasing speeds.

WAVE JUDGEMENT

Objectives:

1. Recognize potential problems associated with types of waves in the path of travel.
2. Choosing the best techniques to avoid potential hazards as they are presented.

Before entering an area with significant surf or wave activity, remember to secure all equipment to craft and to self.

In high surf, cavitation is likely to occur (see cavitation on page 19 for more information).

Observe and evaluate the surf conditions of the area you are entering. Be aware of waves, timing of sets, intervals between waves, and any lulls. Other conditions to consider are rip currents, longshore currents, and wind direction. Avoid hazards such as tidal pools, sandbars, groins, whitewater turbulence, debris in the water, people, or other possible obstacles.

When operating the craft in surf, it is important to know where the safety zone is for maneuvering between waves. All breaking waves have an interval between them. The halfway mark between waves that have already crested and broken is the safety zone. Operations in this area allow the operator time to maneuver and execute rescues before the next wave washes over the craft. If you are behind the halfway mark, you will have limited time to successfully complete the rescue, and have enough speed to punch through or out run the next wave. If you are in front of the halfway mark, this should allow the operator adequate time to perform the



SURF RIDING

Objectives:

1. Observe and safely enter/exit the surf zone.
2. Safely maneuver over and/or through broken waves.
3. Hold position in surf while waiting to retrieve crew and victim.

When entering/exiting surf zones, avoid breaking waves whenever possible. Entering surf zones between sets will give you more time to accomplish the task.

Know when to go and when not to go. Observe the surf zone before entering. Look for obstacles, debris, and possible areas you may encounter cavitation.

If there is insufficient, time to complete the rescue, drop off crew and continue to a safe zone. When time permits re-enter the area and retrieve crew and patient.

When available, use radios to communicate with personnel on land to get their vantage point on the safest place to enter the surf zone.

When exiting the surf zone by following a wave into shore, be aware of person(s) in the water (swimmers, surfers, etc.). They can be very difficult to see in broken waves or large surf zones.

Body position is very important when maneuvering through broken waves in the surf zone. Remember to keep knees/elbows bent and shift your weight back. Stay low on the craft in a crouched position.

When approaching a wave, slow craft to match speed to provide sufficient momentum to counter the force of the oncoming wave. Excessive speed or acceleration will tend to “launch” the craft high into the air. This can cause injury to you and passengers.

Correct
Momentum



Incorrect
Momentum



Try to keep craft perpendicular to wave and whitewater, this will allow for the best penetration through it. This will also help to avoid capsizing the craft.

When holding position in the surf, you need to identify to the “safe zone.” Observe the surf for potential problems and best route to retrieve crew person and patient.

Be aware of the current, winds, surf size, strength, and direction. You want to place the craft in the area of the surf that is most manageable. Not every surf area will have a safe zone, so you will need to be “rider-active” at all times. Use the most effective throttle control, remember reverse can also be used to hold position.

Overpowering the craft can result in “catching air” which can cause the craft to land on the sled and damage the craft or injure person(s). Under powering the craft can result in capsizing or losing control.

Practice Skills:

Approaching from outside the surf line:

Enter the surf zone by following a wave using judgment to determine where 1/3 the wave length is and enter at that point. Another way is to dart in from the side, timing your arrival at contact point to occur just after the wave has passed.

Approaching from inside the surf line:

From the beach determine safest route out or around the surf zone. If surf is small enough you can enter it directly. Remember when confronting a wave to keep the craft perpendicular to the wave.



Exiting the surf zone

Follow a wave in, staying in front of the wave and whitewater behind you. Avoid excessive whitewater. You can also run the craft parallel to the waves in order to exit on a shoulder.

Going over broken waves

Proceed seaward, out through broken waves safely until you are outside the farthest broken surf. When practicing, start with smaller swells then progress to larger waves/surf. It is important to learn how to judge waves. Practice waiting for waves to break and expend some energy before riding over it. Practice turning back towards shore, riding safely ahead of incoming whitewater, until you can turn seaward and continue.

Holding position in surf

Practice identifying the “safe zone” and holding the craft perpendicular to oncoming waves. Always be “rider-active” and practice matching oncoming waves with equal power keeping craft, yourself, and crew safe. Always take the safest path out through surf as each opportunity to progress presents itself. If you reach a point where you are no longer safe, retreat to previous safe zone.

CAVITATION

Objectives:

1. Recognize areas that may cause cavitation issues.
2. Dealing with cavitation when it occurs.

Cavitation is caused by air bubbles in the water. The larger the surf the more air bubbles are introduced into the whitewater area of the surf zone. Cavitation will cause the craft to lose momentum due to the air entering the intake/impeller. This will cause acceleration problems.

If you encounter cavitation you should immediately let off the throttle, pump the throttle quickly to regain momentum. If quickly pumping the throttle does not work, the operator needs to let completely off the throttle and accelerate slow and steady feeling for a “bite” on the water.



engine will not start. In order to put the craft in unlock mode you must use the remote control transmitter, holding the unlock button. See table below:

Number of Beeps	Security System Mode	Engine can be started
1 beep	Lock	NO
2 beeps	Unlock (normal mode)	YES
3 beeps	Unlock (low-RPM mode)	YES

Troubleshooting Chart

Trouble	Possible Cause		Remedy
Engine does not start (starter motor does not turn over)	Security System	Lock mode selected	Select unlock mode using remote control transmitter
	Engine shut off switch	Clip not in place	Install clip, make sure it is inserted securely under the switch
	Fuse	Burned out	Check fuse and replace if needed. Do not have replacements on ski, will have to swim craft to shore.
	Battery	Run down	Recharge, will have to swim craft to shore
		Terminal Corroded	Tighten as required, will have to swim craft to shore
Starter Motor	Faulty	Have serviced by Yamaha dealer	
Engine does not start (starter motor turns over) or Runs irregularly and stalls	Throttle lever	Squeezed	Release when starting
	Fuel	Empty	Refill as soon as possible
		Stale or contaminated	Have serviced by Yamaha dealer
	Fuel Tank	Water or dirt present	Have serviced by Yamaha dealer
	Spark plug	Fouled or defective	Clean or replace, will have to swim craft to shore
Fuel injection system	Fuel pump faulty	Have serviced by Yamaha dealer	
Warning light or indicator blinks	Fuel Tank	Empty	Refill
	Engine overheated	Jet intake clogged	Clean, using tools available in waterproof bag in front compartment on craft
	Check engine warning	Faulty sensors	Have serviced by Yamaha dealer
Watercraft slows or loses power	Cavitation	Jet intake clogged	Clean, using tools available in waterproof bag in front compartment on craft
		Impeller damaged or worn	Have serviced by Yamaha dealer
	Engine overheat warning	Engine speed reducer control activated	Clean jet intake and let engine cool, when returning to shore reduce speed considerably
	Oil pressure warning	Engine speed reducer control activated	Return to shore at a slow speed, add oil once on land
	Air filter	Clogged or oil buildup	Have serviced by Yamaha dealer



CAPSIZED PWC

Objectives:

1. To safely right the craft as quickly as possible with least amount of damage and injury to craft and crew.

If the craft capsizes, approach from the rear or side depending on surf conditions. Do not put yourself in a position where the craft can pin you between it and another hazard.

If the engine is still running when you approach, keep hands and other objects away from intake grill and shut down engine.

If the craft is in the surf, point it towards the shore or into the surf, so it is perpendicular to the waves. To determine the proper way to right the craft, go the back and look at the sticker. The sticker will indicate which direction to roll the craft.

Climb on top of the craft from the right side, reach over the craft and grab the gunnel on the opposite side with both hands. Pull the craft towards you using your feet or knee for leverage. The craft must be rotated clockwise (from the rear) to reduce chances of flooding the engine. This method of “righting” the craft is specific to PRC’s rescue craft; not all skis’ will need to be rotated the same way.

The longer it takes to right the craft, the more likely you will experience engine failure.

Once the craft is upright, mount it from the rear (using the sled can sometimes be easiest), then move to rider position. Reinsert kill switch and start engine. After craft is running, continue rescue or task.

If the engine will not start, you can swim craft to a safe area. Use your fins for added assistance swimming. Clip the rescue tube to the bow strap and swim craft to the safe area. You can also surf the craft into shore by lying down on sled, holding handles, and letting surf push the craft to the beach. Keep the craft as straight as possible by dragging your legs and maneuvering the sled.



RESCUE SKILLS

CREW DROP-OFF AND PICK-UP

Objectives:

1. Safely and effectively drop off crew member under different operating conditions.
2. Safely and effectively pick up crew member under different operating conditions.

Dropping off a crew member looks fairly easy but it is important for the operator to think smart not strong. This means to think through aspects such as the speed of the craft and size of the crewperson. As you approach the drop off area, the operator should use precision skills to place the crewperson in a safe location.

Crew members can be deployed off either side of the sled; however, the direction will be determined by the operator, who **MUST** communicate this to the crew member. As the operator approaches drop zone, they should determine which side the crew will deploy to, announce this to the crew (who will actively acknowledge direction), and slowly make a slight turn in the direction of deployment. The crew always deploys to this “inside” position to avoid being struck by the sled. It is important for the operator to make the slight turn so that the sled will be moving away from the crew as they deploy.

To deploy, the crew will check to be certain that no part of their equipment will hang up on any part of the sled or ski, and simply roll off the inside position into the water. The operator will then look back to ensure it was a clean drop, and proceed with the rescue.

All situations requiring pick up of crew, with or without a patient, will occur on the left side of the craft. This helps to reduce any confusion between the operator and crewperson as well as utilizes the correct positioning of operator to avoid being pulled off the ski by a larger crew person or patient.

At appropriate speed, the operator waits for fully extended left arm of crew, then extends his left arm and applies wrist-to-wrist grip. Note: *Once wrist grip is applied, momentum of ski and acceleration can cause injury to operator if his body does not rotate properly. Let arms describe a straight line from throttle to crew. Be careful not to lose grip on handlebar and get pulled off the craft.* Operator uses momentum of craft to level off crew, applying throttle as necessary. Crew uses right hand to grab a sled handle, and rolls onto sled from level-off position. With crew centered on sled, operator can now release grip, and crew should grab handle with left hand.



CONSCIOUS PATIENT PICK UP

Objectives:

1. Recognize and respond to a distressed patient with a safe approach.
2. Stabilize patient on sled safely and effectively under various conditions.
3. Transport to beach for further assistance.

When conducting a conscious patient pick-up there are many factors to be considered that will be unknown until in the vicinity of the patient. It is important to be prepared for anything because the patient may be under stress and not respond rationally. Panic can cause the patient to grab at the kill switch, craft, operator or whatever he can get his hands on.

The operator must be aware of the immediate environment of the patient; take notice of loose debris and debris attached to the patient. The focus must be on the saving of the patient and not the personal property.

The conscious patient pick is performed much like the crew member pick. As you approach your patient, circle once to access environment and to position the ski to face into the prevailing current/wave action. This circle should be close enough to communicate with the patient that you will be coming around to pick them up but not close enough to throw the wake of the ski into their area.

If the operator assesses that the patient is fully conscious and alert, he should use verbal directions as well as hand signals to direct the patient to raise their left hand in the air; begin slowly approaching patient (slower than a crew pick up) and use wrist-to-wrist grip to level off patient and hand off to crew member on the sled (much like crew member pick up). Once patient is on sled (preferable face down) adjust patient on sled to put them in the center, equal distance from side to side and front to rear. Crew secures patient by locking knees around patient's waist, gripping side handles, and locking patient's upper body with elbows.

If the operator assesses that the patient has altered consciousness or may be need of extra assistance, he should proceed to execute a crewmember drop off to assist with the patient pick up. After deployment of the crewmember, operator will circle back around, lining up with the patient/crew member to the left of the ski and approach slowly. The crewmember in the water will position themselves behind the patient using his right arm to hold the patient and his left arm to hold the patients left arm in the air. The key signal for the operator to begin his approach is when the crewmember raises the left hand of the patient. As the operator slowly approaches the crew in the water, he will use the wrist-to-wrist grip to level off the patient toward the sled. The crewmember will slide down the patient and reach under the body to grip a side handle of the sled with his right hand; use his left hand to roll the patient on to the sled. *Note: Using fins to get a powerful kick will assist in getting this patient on to the sled. Also, it may be helpful for the operator to use the reverse controls to slow the forward momentum of the craft.* Once patient is on sled, use the same technique to position the patient correctly on sled.



Once patient and crew are secure, a safe and precise return to the beach should begin, alerting resources on beach to the patient's condition, if possible. Once it has been signaled that a landing zone has been cleared and it is ok to land, operator should proceed to land craft on the beach.

UNCONSCIOUS PATIENT PICK UP

Objectives:

1. Recognize and respond to an unconscious patient with a safe approach.
2. Contact, control, and stabilize patient on sled
3. Transport to beach for further assistance.

The same considerations need to be given to an unconscious patient pick up as were given to a conscious patient. It is essential to keep in mind that some mechanism of injury or illness caused the patient to lose conscious and rescuers need to assess the area and patient for potential hazards and risks and proceed using standard lifeguarding knowledge.

The unconscious patient pick up is the same technique as the altered/extra needs conscious patient pick up but the rescuer needs to be aware that a completely unconscious patient will be more difficult to load due to the inability of the patient to help in anyway.

If the operator assesses that the patient is unconscious, he should proceed to execute a crewmember drop off to assist with the patient pick up. After deployment of the crewmember, operator will circle back around, lining up with the patient/crew member to the left of the ski and approach slowly. The crewmember in the water will position themselves behind the patient using his right arm to hold the patient and his left arm to hold the patients left arm in the air. The key signal for the operator to begin his approach is when the crewmember raises the left hand of the patient. As the operator slowly approaches, the crew in the water will use the wrist-to-wrist grip to level off the patient toward the sled. The crewmember will slide down the patient and reach under the body to grip a side handle of the sled with his right hand; use his left hand to roll the patient on to the sled. *Note: Using fins to get a powerful kick will assist in getting this patient on to the sled. Also, it may be helpful for the operator to use the reverse controls to slow the forward momentum of the craft.*

Once patient is on sled, use the same technique to position the patient correctly on sled. If the roll was done correctly, the patient should be on their back; this would allow the crewmember to possibly implement airway management and C-spine precautions if the environment of the rescue allow. However, priority should be given to securing both patient and crew to the sled first.

Once patient and crew are secure, a safe and precise return to the beach should begin, alerting resources on beach to the patient's condition, if possible. Once it has been signaled that a landing zone has been cleared and it is ok to land, operator should proceed to land craft on the beach.



EQUIPMENT CHECK LIST

ITEM	Check Out AM	Check In PM	NOTES
Radio/waterproof bag/harness			
Mask/Snorkel			
Throw bag/tow rope			
Safety Knife			
Fire Extinguisher			
Flares			
Kill switch/spare			
Rescue Sled			
Bigfoot Trailer			
Bow line			
Fuel Can/Spare			
Registration Documents			
MECHANICAL STATUS SUMMARY			
MOTOR/HULL, comments			
MAINTENANCE, performed, needed, etc.			
PARTS, SUPPLIES, FUEL, etc., needed			



SAFETY AND MAINTENANCE CHECKLIST

TASK	CHECK OUT AM(DATE)	NOTES
Hull inspection		
Fuel tank full		
Flush Cover on		
Seat latched		
Drain plugs in		
Craft secured to trailer		
Motor test run		
Sled handles/rigging		
Spare gas can (Status)		

TASK	CHECK IN PM(DATE)	NOTES
Craft washed/sand out		
Hull inspection		
Inspect intake		
Motor run/flush*		
Fuel Refill		
Equipment dried and secured		
Storage area clean and tidy		

Additional Comments:

*To flush: Remove flush cap, insert flush kit, start engine, turn on water – flush for 3 – 5 minutes. Turn off water, turn off engine, remove flush kit, replace flush cap.



AGREEMENT

I, _____ have read and understand the Personal Watercraft Training Manual for the 2020 season, as outlined by Charleston County Park and Recreation Commission.

I understand all of the policies and procedures, rules of conduct and responsibilities written therein.

I agree to abide by said policies and procedures, rules of conduct and responsibilities and realize that my failure to do so may result in disciplinary action or dismissal.

I also understand that I will be periodically tested on any or all of the information contained in this manual, and that failure to pass these periodic tests are grounds for disciplinary action.

Employee's Signature

Date

Employee's Name (print)

