


## Canoe and Kayak Workshop – Moving and White Water Participant Handout (V4.1)

<p style="text-align: center;"><b>BANK BRIEF / SAFETY BRIEF CONSIDERATIONS</b></p> <ul style="list-style-type: none"> <li>• Intros (Roles and responsibilities - Who &amp; What)</li> <li>• PFD and gear fitting</li> <li>• Aim / Purpose of activity (Why doing)</li> <li>• Activity Concept (What doing)</li> <li>• Where: <ul style="list-style-type: none"> <li>○ Put-in / take-out / Route / Boundaries / Waterway area description)</li> <li>○ Emergency Safe Havens / Emergence Services RV locations / Escape Routes</li> </ul> </li> <li>• Transport arrangements, vehicle support/safety vehicle placement, vehicle/walking access on route and key location</li> <li>• Timings and durations / Emergency call time</li> <li>• Expected weather (temp, weather, etc) / water levels / waterway conditions and difficulty</li> <li>• Participant experience and abilities / Buddy Pairing / Anxiety or confidence issue / Expectations of Participant</li> <li>• Paddle / Boat / Sled Description</li> <li>• Getting in / Out of Boat / Position on Sled</li> <li>• Getting back into a Boat / Onto Sled Paddle Hold &amp; Stroke Technique (Fwd, Back / Stop, Sweep/Rudder, Draw &amp; Low Brace)</li> </ul>	<p style="text-align: center;"><b>Page 2</b></p> <ul style="list-style-type: none"> <li>• Contact with Boat / Lean &amp; Edge / Position &amp; Posture (Upright and Fwd) / Paddles Box (Shoulder Safe) / Active Blade (Keep paddling)</li> <li>• Participant Responsibilities – Roles / Navigation / Communications / crew (side paddling, etc)</li> <li>• What to do: <ul style="list-style-type: none"> <li>○ Rapids - Eddie brief [WORMS] / keep straight</li> <li>○ Eddie (Get across Eddie line &amp; posn boat) / Raft - Hook Hands, direction &amp; hang on</li> <li>○ Rocks / Strainers / Bank impact- Head fwd, Lean downstream and if hung up push-along / push-away into clear water</li> <li>○ Capsize / Separated from craft <ul style="list-style-type: none"> <li>– Tuck, Head Fwd &amp; Paddle control</li> <li>– Wet Exit / T-Rescue / Self Recovery / Assistance of others</li> <li>– WW Swimming technique (Def/Agg)</li> <li>– Entrapment / Feet Up</li> <li>– Rope Throw (Rope, Catch, Hold on Chest)</li> <li>– Red / Blue or Downstream of Boat (Kick away &amp; get upstream)</li> <li>– Listen for instructions</li> <li>– Avoid separation from craft and paddle</li> </ul> </li> </ul> </li> </ul>
<p style="text-align: center;"><b>Page 3</b></p> <ul style="list-style-type: none"> <li>• On water signals / whistles <b>(No answering whistle calls, but answer hand/paddle signals)</b> <ul style="list-style-type: none"> <li>○ Look at me</li> <li>○ “All Clear” / “Go”</li> <li>○ Stop</li> <li>○ Are you OK? / I’m Ok</li> <li>○ Help / Emergency Eddies or Raft Up</li> <li>○ Go Left / Go Right / Quickly / Come to me</li> <li>○ Eddie out &amp; where</li> <li>○ Feet Up</li> <li>○ Danger (Point positive - safe route / location)</li> <li>○ Scout Ahead</li> <li>○ Portage</li> </ul> </li> <li>• Equipment, food, water, sunscreen, medication, admin prep required and toilet/facilities access.</li> <li>• Questions / Test of Understanding</li> </ul> <p style="text-align: center;"><b>PRE-ACTIVITY CHECKS</b></p> <ul style="list-style-type: none"> <li>• Canoe/kayak/sled and Paddle checks (floatation, appropriateness/serviceability and stowage. <ul style="list-style-type: none"> <li>○ Head to Toe Check (“No have-no paddle!”), appropriate for activity / serviceable / fitted and done up correctly / Secured to avoid loss).</li> </ul> </li> </ul>	<p style="text-align: center;"><b>Page 4</b></p> <p style="text-align: center;"><b>GUIDE / LEADER / STAFF POINTS</b></p> <ul style="list-style-type: none"> <li>• Environmental issues and conditions (river levels, water quality, weather conditions)</li> <li>• Go/no Go criteria and Abort Criteria applicable to this activity (weather, level, etc)</li> <li>• On water group management, controls, safety and support, including order of movement / formations, spacing, capsize/rescue responsibilities and scouting/portage likelihood.</li> <li>• Boat outfitting, stowage and set-up required</li> <li>• Communication plan, equipment (where carried and by who),</li> <li>• Actions on sickness, injury or emergency, including rescue &amp; first-aid responsibilities, including spinal and shoulder injury</li> <li>• Safety Equipment whereabouts and familiarity</li> <li>• Medical conditions / physical impairments and medicine carriage</li> <li>• Who holds the float plans / Emergency Contact?</li> <li>• Foreseeable risks / management requirements</li> <li>• <b>Pre-activity Risk Assessment and Safety Plan review and agreement</b></li> </ul>

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<p style="text-align: center;"><b>PRE-ACTIVITY CHECKS</b></p> <ul style="list-style-type: none"> <li>• <b>Boat Checks</b> (Serviceability / condition, type and appropriateness for the activity and paddler - fitted with floatation and secure hand loops)</li> <li>• <b>Head to Toe Paddler Check</b> (“No have no paddle!”, appropriate for the activity &amp; fitted correctly):             <ul style="list-style-type: none"> <li>○ White-water helmet and head cosy / hat</li> <li>○ PFD and pea-less whistle (fitted, serviceable &amp; done up - WW appropriate / &gt; type 50),</li> <li>○ Weather appropriate clothing, including thermals, Cag (waterproof/wind proof top) and/or wetsuit/dry suit</li> <li>○ Spray deck (Kayak)</li> <li>○ Water shoes (Secured to avoid loss in flow)</li> <li>○ White-water canoe/kayak Paddle</li> </ul> </li> </ul> 	<p style="text-align: center;"><b>PRE-ACTIVITY CHECKS CONT/N</b></p> <ul style="list-style-type: none"> <li>• <b>Personal Gear (Based on need):</b> <ul style="list-style-type: none"> <li>○ Rescue Gear (If trained to use):                 <ul style="list-style-type: none"> <li>– Throw Bag</li> <li>– Flip line</li> <li>– Cow Tail</li> <li>– Z-drag / Python Rig</li> <li>– Rescue knife / Safety Knife (Optional)</li> <li>– Personal first aid-kit with emergency blanket</li> </ul> </li> <li>○ Camera / Go-Pro (Optional)</li> <li>○ Water / hydration</li> <li>○ Sunglasses and ear / nose plug (Optional)</li> <li>○ Torch</li> <li>○ Meals &amp; Snacks / cooking gear and fire lighting kit,</li> <li>○ Take-out and/or overnight personal gear (warm/dry change of pers clothing/shoes, towel, etc secured in a dry bag)</li> <li>○ Emergency Shelter or Sleep system for o/night activities (tent/hammock, hutchie, sleeping gear, mat, etc)</li> <li>○ Waterproof stowable dry bag with medicines, Insect Repellent &amp; sunscreen</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• <b>Boat kit Check:</b> <ul style="list-style-type: none"> <li>○ Water pump, Bailor and/or sponge</li> <li>○ Throw bag/s &amp; Bow line (as applicable),</li> <li>○ Spray deck fitted (Canoe)</li> <li>○ Improvised sail (As applicable)</li> <li>○ Personal items / cold &amp; wet weather gear.</li> <li>○ Straps and stowage bags</li> </ul> </li> <li>• <b>Boat Outfitting</b> <ul style="list-style-type: none"> <li>○ Boats setup and floatation fitted, inflated &amp; secured</li> <li>○ All kit fitted, waterproofed, stowed and secured (Where possible below gunnel line)</li> <li>○ Boat Trimmed and balanced</li> </ul> </li> <li>• <b>Group Equipment Check:</b> <ul style="list-style-type: none"> <li>○ Emergency Communications (V Sheet, Mirror, Radio/s, Phone and/or PLB)</li> <li>○ Rescue / Pin-kit</li> <li>○ Group first aid-kit</li> <li>○ Repair kit (Tape, Epoxy / Tar tape, plastic (Plugs &amp; patches), knife, lighter, zip ties, etc)</li> <li>○ Spares (Bung plug, paddle/s - At least one for paddle party)</li> </ul> </li> </ul>	<p style="text-align: center;"><b>PHYSICAL AND MENTAL WARM UP FOR WHITE-WATER PADDLING</b></p> <ul style="list-style-type: none"> <li>• Dynamic movement of arms, shoulders and torso:             <ul style="list-style-type: none"> <li>○ Torso rotation, J-lean and pelvic tilt</li> <li>○ Edge Transitions</li> <li>○ Low Brace / Hip Flick recoveries</li> <li>○ Back Deck Draw / Sculling</li> <li>○ Sweeps/C-stroke/Hanging Draw</li> </ul> </li> <li>• Roll practiced / T-Rescue &amp; wet exit refresher &amp;/or practice</li> <li>• White-water swimming and throw bagging refresher / reminder</li> <li>• Picture the paddle and make mental markers for skills focus / personal goals for the paddle</li> <li>• Regulate breathing and heart rate (Box Breathing)</li> <li>• Power of positive thinking / Mind over matter / Get control of your lizard brain - Splash of water in your face to “Bring yourself into the now”, “transform into beast mode” and “Get control any fear or nerves”</li> </ul>

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<p><b>RAPID READING / NEGOTIATION CONSIDERATIONS</b></p> <ul style="list-style-type: none"> <li>• <b>W</b> hat the water is doing</li> <li>• <b>O</b> bstacles identified</li> <li>• <b>R</b> oute to be paddled</li> <li>• <b>M</b> ust make moves / <b>M</b> arkers</li> <li>• <b>S</b> afety required</li> </ul> <p style="text-align: center;"><b>RAPID BRIEF</b></p> <ul style="list-style-type: none"> <li>• Rapid roles</li> <li>• Rapid Management / Group Approach</li> <li>• Rapid description (Eddie From/To description, rapid difficulty/grade and rapid distance)</li> <li>• RAPID BETA and risks (using <b>W O R M S</b>), including Consequence in and below rapid</li> <li>• Suggested strokes / paddle placement / boat direction / edge change required</li> <li>• Scouting Required / Safety Placement &amp; Type</li> <li>• Actions on Swimmer / Entrapment / Wrap / Wrong Route</li> <li>• Communications in the Rapid (Signal relay / Conditions for each step)</li> <li>• Portage or abort or diversion options</li> </ul>	<p><b>PADDLER INDIVIDUAL SAFETY REPSONSIBILITIES</b></p> <ul style="list-style-type: none"> <li>• Don't become part of the rescue</li> <li>• Maintain the paddlers box / Avoid high bracing &amp; extended arm strokes</li> <li>• Respect the force of the water / "Do not stand up in Rapids" / avoid entrapment.</li> <li>• If in doubt get out and scout (Take paddle and throw bag with you to scout)</li> <li>• The 3 m Rule – a helmet and PFD must be worn at all times when on or within 3 m of white-water</li> <li>• Upstream has right of way</li> <li>• Personal safety comes first and then Group Safety and then Boat safety</li> <li>• Never dive into water – Use shallow surface skim technique</li> <li>• Timeliness</li> </ul> <p style="text-align: center;"><b>POST PADDLE DEBRIEF / REVIEW</b></p> <ul style="list-style-type: none"> <li>• Were the water &amp; weather conditions safe the participant skill / experience? Why or why not?</li> <li>• Was the Float Plan, Bank Brief and Rapid Brief/BETA adequate? Why or why not?</li> <li>• What parts of the activity was useful / beneficial / most enjoyable? What should kept for next time?</li> <li>• What could be done better or differently next Time?</li> </ul>
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**GUIDING / RUNNING A PADDLING ACTIVITY**

- **Plan**
  - Plan / Brainstorm activity area and activity goals
  - Develop activity concept
  - Develop Risk Assessment
  - Book water access / camp site
  - Source required equipment and confirmed participants have required equipment and personal kit
  - Finalise route plan, activity goals and confirm transport arrangement, including put-in & take-out access
  - Organisational activity permissions / parental informed consent for youth participation
  - Confirm participants and establish skill / experience levels (Ensure adequate activity qualified leaders & safety ratios relevant for the activity scope [G2 WW Rivers, Moving Water Rivers, lakes or sheltered estuaries with no moving water (<1 knot)])
  - Confirm weather and water conditions
  - Develop Float Plan and Emergency Action Plan
- **Do**
  - Review risk assessment / safety arrangement (Ongoing throughout activity)
  - Deliver an Activity and Safety brief to:
    - the Emergency Contact / safety ashore / beach safety
    - Other activity leaders / safety / competent paddlers
    - All participants prior to on water activities
  - Boat, equipment, and personal kit check
  - Rehearse / refresh rescue skills and emergency actions on
  - Guide / supervise Group (Control, judgement, use of beta, etc)
  - Responding to and management on water incidents / emergencies
  - Share and develop paddling skills and knowledge
  - Monitor Group condition / confidence
  - Monitor water conditions and weather
  - Make good decisions / Use good Judgement and demonstrate confidence
- **Review**
  - Review participant skill, knowledge and ability progression
  - Record, report and/or facilitate boat/equipment/kit maintenance or repairs
  - Record issue and points for consideration next time on that river/waterway or similar future activities

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**WHITE-WATER DEFINITIONS AND GRADING**

White-water is formed in a stretch of river where the gradient increases and disturbs the original flow to create turbulence and rapids. There are four main factors, separately or in combination, that can create rapids: gradient, constriction, obstruction, and flow rate. The first three are caused by the river topography and are relatively consistent, however flow rate is dependent upon rain, snowmelt and from release rates of upstream dams.

**EDDIES.** Obstacles in the main flow of water cause eddies, and they are best described as areas outside of downstream flow, quiet water and/or upstream flow. Eddies are often used by white-water paddlers as an advantage point: a pause, turn or rest before heading out into the faster flowing water again.

**RIVER GRADING.** The Scale of River Difficulty is the standardized rating scale of Grade I to VI, used to determine the technical difficulty and safety of a stretch of river, or singular rapid. The rating scale is defined based on the identified hazards and skill level required to safely negotiate a rapid / section of river:

**GRADE I RIVER** (Moving Water Qualification required) – Easy moving water with a few ripples or small regular waves. Easy clear route, occasional sand banks & bends. May include very small pebble / rock races and simple obstructions, but care may be needed with obstacles / strainers.

**GRADE II RIVER** (Grade 2 WW Qualification required) – Moderately difficult rapids have many medium sized waves (less than 1m), low ledges or drops, easy eddies and gradual bends. The route is easy to recognise and is generally unobstructed.

**GRADE III RIVER** (Grade 3 WW Qualification required) – Difficult rapids have fairly high waves (1-2m tall), broken water, strong currents and eddies, large holes, exposed rocks and small drops. The route may be difficult to recognise (Some rapids may require observation from shore) and manoeuvring around obstacles is required.

Grades IV, V & VI are not permitted on Scouting activities, due to insurance limitations:

**GRADE IV RIVER** – Very difficult rapids that have high, powerful, irregular waves, broken water, often boiling or strongly recirculating eddies, strong powerful hydraulics, ledges, drops and dangerous exposed rocks. Long and powerful rapids, route not always recognisable. Large standing waves, stoppers, holes, whirlpools, pressure areas and boiling eddies. Big drops, violent current, technical turns, many obstructions. The route is often difficult to recognize and precise sequential manoeuvring is required. A definite risk of injury or long swims exists. Inspection of difficult sections essential and some portages often necessary. Conditions make rescue difficult.

**GRADE V & VI RIVER** - Exceptionally difficult, extremely dangerous, very powerful rapids, with very confused, exploding, folding and broken water, massive waves, large drops, violent and fast currents, abrupt turns, difficult powerful stopper hydraulics. Many dangerous exposed rocks and fast boiling terminal eddies. There are numerous obstacles in the main current, including life-threatening hazards. So difficult that controlled navigation is virtually impossible. Swimming this grade of rapid is considered suicidal. Constant threat of death, rapids extremely dangerous and nearly impossible to master and require extreme luck or skill to finish.

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**GROUP MANAGEMENT, CONTROLS, SAFETY AND SUPPORT**

- Activity Guiding:
  - Competent to plan, conduct and lead the activity (Skills, Knowledge & abilities)
  - Capable (Confidence and experience to supervise/lead and trusted/respected by participants)
  - Safe (Sound decision making / Judgement)
  - Lead by service not ego & domination
- Rapid Management / Group Approaches
  - Read and Run (Paddlers do their own thing)
  - Mother duck (Ordered movement, with Lead/follow &/or pocket support)
  - Leap frog (Interdependent Groups)
  - Deliberate packeted / Buddy paired
  - Deliberate single paddler at a time,
- Rapid Safety Support Types
  - Floating / shadowed or in-eddie cover (At point of support or below rapid – push/pull safety)
  - Shore cover / overwatch (At point of rescue or below rapid)
  - Live bait / anchored safety (At point of rescue / fend)
- Rapid Roles (Can Include):
  - Controller (Can be in or out of canoe/kayak)
  - Lead / “Probe” (First person - line example)
  - Paddler/s
  - Sweeper (last person)
  - Catchers / Clean-up (Support below rapid)
  - Safety
  - Signal relay / “Move” marker
- Rescue Responsibilities (Can include):
  - Lead (Senior/experienced rescuer - Takes control of rescue – not always active in rescue)
  - Rescuer (The person/s who conduct the rescue)
  - Gofer (The person who goes and gets gear required – extra throw ropes, pin kits, etc)
  - Rigger (The knot person / person who sets up the rescue rig)
  - Upstream Sentry (Observer upstream - warns paddlers coming downstream of rescue and warns rescue party to release rig if upstream paddler doesn't stop)
  - Down Stream Sentry / Catcher (Observer downstream catching anything / anyone coming down stream)

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**WHITE-WATER ACTIVITY GO/NO-GO AND ABORT CRITERIA CONSIDERATIONS**

- Adverse Weather (Lightning, Thunder, Water / Ambient temperature, Wind >20km, adverse water conditions, etc)
- Water Conditions (Algae, flow, height, flooding etc)
- Activity Area Access (Put-in & Take-out access and parking)
- Facilitates access (eg, Hot showers in winter for Joey or Cub activity)
- Personal and rescue gear (Loss, damaged or forgotten)
- Boat and/or Gear loss and/or serviceability / damage
- Emergency road access / Emergency Service response capacity
- Safe Haven availability / accessibility
- Activity outside of qualifications, skill, conditions and/or experience level of the participants and leaders involved for the conditions / activity area and type
- Communications deficiencies
- Number ratios (Adults / Competent paddlers to Youth)
- Participant condition / injury or illness / accumulative fatigue levels
- Water and food supply

**RESPONSIBILITIES OF ACTIVITY LEADER / GUIDES:**

- Group Management at all times (including pre and post activity)
- Modifying the activities to match the skill, fitness and fatigue levels of participants
- Ensure correct leader to participant ratio
- Be familiar with the area
- Adhere to NSW Water Activities regulations and guidelines
- Monitoring and management of cancellation, modification or postponement triggers and procedure
- Assess all factors and their significance
- If deemed unsafe make necessary changes to the activity plan
- Identify and inform all participants of any new hazards and manage associated risk as required
- Thoroughly brief participants and check understanding. Topics to cover in briefing:
  - Let participants know what the plan of the activity is and how they will participate
  - Instruct on how to appropriately fit and wear PFD, helmet, skirt, etc
  - Inform on safety measures and emergency procedures, e.g. signals and safe conduct (Safe WW Swim position, catching thrown rope, actions on strainer/rock impact, safe rapid negotiation, wet exit, basic self-rescue, Shoulder safety, safe use of equipment and proper paddling technique paddle techniques, etc)
  - Cover any incidents that could occur during the activity and identified risks, including actions on for safe control or management
  - Conduct an appropriate warm-up and cool-down
  - Answer any questions participants might have

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- Inspect kayaks/canoe, equipment and clothing for suitability and serviceability
- Ensuring that if spectacles need to be worn during activity, a band should hold the spectacles on securely
- Continuously monitor students, for fear and /or hesitancy, or loss of balance.
- Monitor Group for signs of fatigue and exhaustion
- Ensure that participants are actively supervised during the activity, with appropriate duty of care afforded
- Inspect and monitor conditions in the activity area/environment and ensure ongoing soundness for the conduct of a safe activity
- Before commencing the activity implement necessary risk controls
- Identification of environmental or culturally sensitive areas to be avoided
- Ensure compliance with Land manager requirements (access restrictions, group sizes, permit requirements, booking requirements)
- Weather:
  - Assessing weather conditions before and during activity (e.g. temperature, rainfall, winds, tides, swell, UV rating)
  - Consider seasonal factors (e.g. rain, fire, availability of drinking water, tides, other users)
  - Expected weather conditions and implications (e.g. hyperthermia, hypothermia)
- Communication:
  - Be familiar with the communication plan
  - Ensure suitable communication equipment, with adequate battery/power source, are carried by each leader and check its coverage
- Emergency:
  - Apply First Aid As required
  - Carry out deep water rescues as required
- Use clear perspective in decision making:
  - Use eddies to make decisions
  - Identify point of no return and make decisions based on the situation at the time
  - If in doubt and where necessary, use a bank perspective for big picture, fine detail, navigation and rapid scouting
  - Consider beneath the surface
  - Consider likelihood and consequences of decision and/or making a mistake
  - Be realistic, work within your limits



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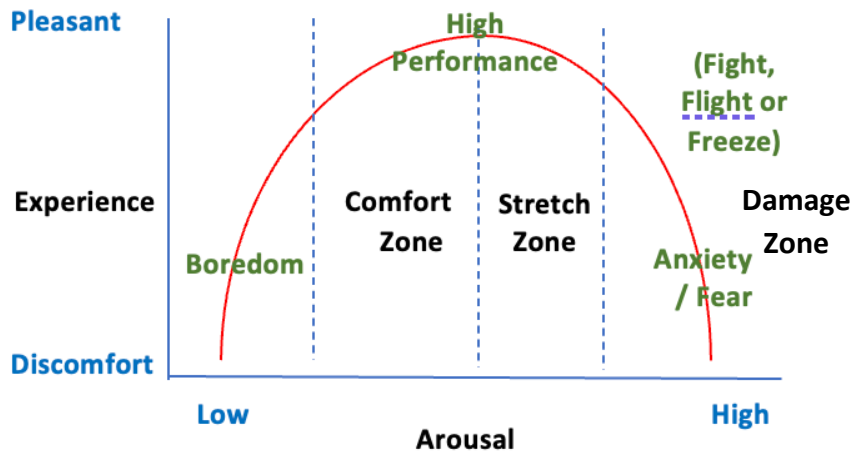
**GUIDE EQUIPMENT**

In addition to personal gear as defined above, Guides should also have the following contingency kit:

- Rescue Kit, including throw rope, tow line, Pin Kit (pulleys, carabiners, tape slings, prussic loops, 50cm of 25mm breathing tube (Snorkel), paddle clamp and prussic loops)
- Lighter/matches/flint and dry tinder
- Boat Repairs Kit (Gorilla / T-Rex tape, plastic patches, and spare drain plug)
- Hot-water thermos and spare high energy snacks (Fredos)
- Remote first aid kit & Emergency bivvy
- Wire cutters / multitool (optional)
- Spare snack food, water and dry layer of clothing
- Torch, signal mirror & V-sheet
- Folding saw (one between two),
- Spare breakdown paddle (one between two)
- Map and case (maps will be provided)
- Emergency communications (PLB / InReach / SPOT tracker, etc)
- Waterproof UHF radio (If owned).

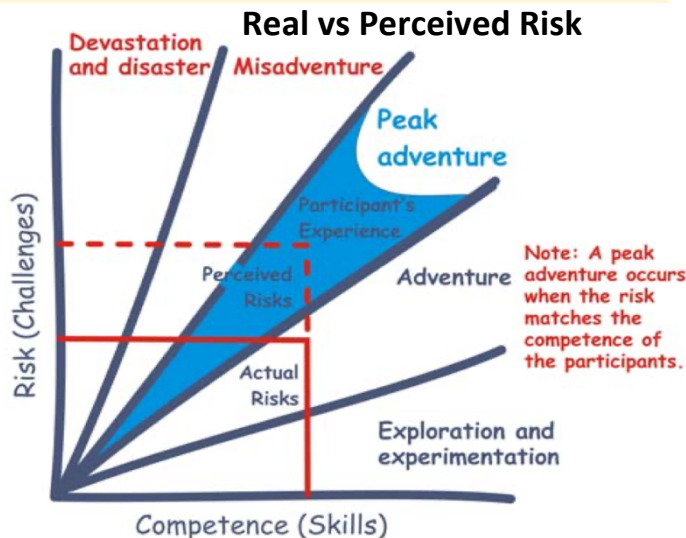
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On-Water Fun-O-Meter (Hebbs Optimal Arousal Rule):



**THE FUN SCALE**  
NOT ALL OUTDOOR FUN IS CREATED EQUAL

TYPE I FUN	TYPE II FUN	TYPE III FUN
FUN TO DO FUN TO REMEMBER	HURTS A BIT TO DO BUT FUN IN RETROSPECT	NOT FUN TO DO NOT FUN IN RETROSPECT
WANT TO KEEP GOING BACK FOR MORE	MOST FULFILLING IN THE LONG RUN	...BUT MAKES A GREAT STORY



**Dealing with the Mental Game.** White-water kayaking/canoeing is as much about confidence as it is about skill. Fear, anxiety and nerves are part of paddling, due to perceived risk, awareness of consequences and based on how Guides prepare, support and inform paddlers. Paddling can be a mind game at all levels (Fostering courage and confidence to confront fear, believing in yourself, trust in the guide and awareness are how to make informed judgements). If a paddler isn't feeling it, then it's their choice to portage / opt out, but that shouldn't be an excuse for not giving things a go.

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<b>RISK MANAGEMENT</b>	
<p><b>HAZARDS FOR CONSIDERATION (CAUSES)</b></p> <ul style="list-style-type: none"> <li>• Currents / chop / surf / swell / rapids / tides</li> <li>• Man-made objects – low head weirs, piers</li> <li>• Steep, slippery or unstable banks or shore</li> <li>• Strainers (Trees, branches and logs in flow)</li> <li>• Sieves / Siphon (diverted underwater flow under rocks and logs)</li> <li>• Impact with submerged logs, rocks and vegetation</li> <li>• Temperature extremes, including prolonged periods of emersion cold water</li> <li>• Other boating traffic and general public</li> <li>• Exposure to lightning, storms, strong wind</li> <li>• Sun exposure</li> <li>• Water intake</li> <li>• Food and cooking safety / hygiene</li> <li>• Dangerous animals</li> <li>• Stinging insects</li> <li>• Stinging trees and plants</li> <li>• Overhanging trees &amp; dense vegetation</li> <li>• Group management hazards (fatigue, Inappropriate behaviours or poor group control)</li> <li>• Poor posture, poor technique and inexperience / poor judgement</li> <li>• Loose or insecure craft when being transported</li> <li>• Canoe loading / unloading</li> <li>• Rope/boat equipment foaling or failure</li> <li>• Others (Dependant on area, participants, environmental conditions and equipment/craft)</li> </ul>	<p><b>CONSEQUENCES TO BE MITIGATED (EFFECT)</b></p> <ul style="list-style-type: none"> <li>• Drowning</li> <li>• Hypothermia</li> <li>• Hyperthermia (heat illness / injury)</li> <li>• Sunburn</li> <li>• Lacerations, grazes and/or muscular skeletal injuries</li> <li>• Illness</li> <li>• Exhaustion / fatigue</li> <li>• Lost, separated or overdue party or individuals</li> <li>• Equipment failure, damaged and/or loss</li> <li>• Loss of Confidence / psychological trauma</li> </ul> <p align="center"><b>HIERARCHY OF RISK CONTROLS</b></p> <p>The diagram is a downward-pointing pyramid divided into five horizontal sections. From top to bottom, the sections are:         <ul style="list-style-type: none"> <li><b>Elimination</b> (blue): Physically remove the hazard</li> <li><b>Substitution</b> (green): Replace the hazard</li> <li><b>Engineering Controls</b> (orange): Isolate workers from the hazard</li> <li><b>Administrative Controls</b> (red-orange): Change the way work is performed</li> <li><b>PPE</b> (red): Protect the worker with personal protective equipment</li> </ul>         An arrow on the left side of the pyramid points downwards, with 'More effective' at the top and 'Less effective' at the bottom.       </p>

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**CANOE AND KAYAK ACTIONS ON**

- **Person-overboard / Swimmer Rescue:**
  - Call out “Swimmer”
  - Swimmer keep control of paddle if safe and assume Defensive Swimming posture (Feet and bum Up)
  - Person Overboard lets everyone know they are ok
  - All not involved in rescue to eddie-out or raft up (Situation Dependant).
  - All not paddling to point at the swimmer
  - Swimmer self-rescue if able (Swim to eddie / bank or another canoe/kayak)
  - *Unconscious and Spinal compromised paddler actions on*
  - *Paddler Retrieval with Dislocation / Fracture (Scoop method)*
- **Unconscious / Spinal Compromised Paddler:**
  - Recover Paddler (assume spinal compromised paddler - role and support)
  - Provide First Aid
  - Float paddler ashore
  - Activate Emergency Action Plan
- **Paddler Retrieval with Dislocation / Fracture:**
  - Recover Paddler (Scoop method and support)
  - Get paddler ashore
  - Provide immediate First Aid (Strap/splint limb immediately)
  - Activate Emergency Action Plan
- **Throw Bag Rescue**
  - Victim
    - Call and look for rope
    - Grab rope, not bag, to stop drift
    - Float on back, rope held centre chest by both hands
  - Rescuer
    - Establish visual contact with the victim
    - Be well braced to take the weight of the swimmer
    - Be upstream of an eddy so that the swimmer can be swung safely to shore
    - Only pay out the shortest length of rope necessary
    - Remove any carabiner that may injure the swimmer
    - Add water to bag for re-throw
    - Butterfly rope through fingers for a coiled rope re-throw.

Note: Chain and hang dry the rope when not in use
- **Swimming**
  - **Defensive / Whitewater Swimming** – Keep feet pointing downstream and on the surface to avoid obstructions under the surface. Floating on back, with Bum and nose up to allow visibility and avoidance of hazards. Never attempt standing in moving water unless water is less than knee deep.

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- **Aggressive Swimming** = aggressively swim (FS) away from downstream hazards. Look up to retain vision & orientation. Log roll as required.
- **Strainers** – such as logs at water level must be aggressively swum towards so that the body can be pushed over rather than be dragged underneath.

**CANOE ACTIONS ON**

- **Canoe Capsize:**
  - Keep control of paddle if safe & kick away from canoe in flow to “avoid being between a rock and a hard place” & if downstream swim clear
  - “Swimmer/s” lets everyone know they are ok and render assistance to trapped crew if required.
  - All not involved in rescue to eddie-out or raft up (Situation Dependant).
  - Right canoe and point into flow/wind/tide/swell
  - Swimmers self-Rescue if able
  - All directed by Guide / most experienced paddler to provide assistance / rescue support as directed.
  - Assisted Rescue:
    - Pri 1 - *Swimmer Rescue*
    - Pri 2 – Empty and right capsized canoe (using appropriate Rescue / Boat recovery technique) and retrieve paddle/s & equipment
  - Cross load gear and paddlers as required
  - Raft-up and “*deep water rescue*”
  - Check all gear recovered and cross-load as required
- **Raft Up**
  - Signalled
  - Set of canoe down river / down-wind (All pointing same direction into wind or down river)
  - Grips or Straps,
  - Outside Canoe Control directs (Steer raft into current/wind/tide/swell.
- **Canoe rescue / recovery techniques:**
  - *self-rescue*
    - *Self-right and bail / Capostrano Method*
    - *Bank Recovery and Empty* (Swim capsized boat to shore)
  - *deep water / assisted rescue*
    - X or T Rescue techniques
    - Curl rescue techniques and Curl variations (crew assisted and craft assisted)
    - *H Rescue (As a variation of X or T in cold water or adverse conditions)*

**Canoe and Kayak Workshop – Moving and White Water  
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**KAYAK ACTIONS ON**

- **Kayak Capsize:**
  - If able to “Roll” then smile as you avoided a swim
  - If unable to roll, assume WW Tuck, hug kayak with face down in spraydeck to protect face and allow any object impact to be on helmet and tap 3 times on the hull to signal that you are ok (Paddle tucked under arm if able)
  - R2D2 - stroke sides of Kayak back and forth feeling for buddy’s kayak for “assisted rescue” (T-Rescue)
  - “wet exit” if no buddy arrived for assisted rescue (Remember you need to do this before running out of breath):
    - Feel for spray deck tab and pull (or kick/knee to release spray deck if unable to pull tab)
    - Pull self out of kayak like pulling of “Grampa’s trousers” and pushing off the back of the cockpit rim.
  - Keep control of paddle if safe and kicks away from kayak in flow to “avoid being between a rock and a hard place” & if downstream swim clear
  - “Swimmer/s” lets everyone know they are ok and self-rescue if able:
    - *Self-right and bail / Capostrano Method*
    - *Bank Recovery and Empty*
  - Supporters Assisted Swimmer Rescue (stern or bow tow into eddie or to raft) or assist trapped kayaker, if required (Ensure airway/stable, without becoming part of the rescue).
  - All directed by Guide / most experienced paddler for coord of assistance / rescue support.
  - Assisted boat recovery:
    - *Bull-dog kayak into eddie / to raft*
    - X-Rescue technique or bank empty and right capsized kayak
    - Retrieve paddle/s & equipment
    - Check all gear recovered

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**ESSENTIAL WHITE-WATER SKILL AND KNOWLEDGE**

1. How to select paddling equipment (safe, with required utility and weather appropriate) – stowage/securing, spares and preparation/maintenance
2. How to secure your canoe/kayak for transit
3. How to safely lift, carry, launch and land your canoe/kayak
4. How to identify all of the parts of your canoe/kayak and paddle by name
5. How to control your canoe/kayak on the river (forward/back, rudder/sweep, draw, etc)
6. How to safely swim in white-water, to be recovered by a thrown rope and self-rescue (Roll, T-rescue &/or wet exit)
7. How to be stable and upright:
  - Maintain loose hips (relax)
  - Sit-up straight with body weight forward
  - Maintain an active blade “doing something useful” / “When in doubt keep paddling”
  - Boat speed equal to or faster than flow
  - Edge up to the flow
  - Lean into obstacle (Hug the rock/log)
8. How to low brace (avoid capsize)
9. How to cross an eddie line:
  - Break-out (10/2 o'clock angle, speed to cross eddie line, lifting upstream knee/swivelling hips to edge and Hanging draw / sweep and brace)
  - Break-in (10/2 o'clock angle, downstream power stroke to cross eddie line, transition to a downstream edge as cross eddie line and Hanging draw / sweep and brace)
10. How to control your edge / lean / tilt:
  - Negotiate flow (Lift edge to flow)
  - Ferry-glide (Hold edge in flow)
  - “S-turn” (Transition edges in flow)
  - Surf (Adjust edge in flow)
11. How to control your boat (Feature negotiation and obstacle/hazard avoidance):
  - Lift your vision and “look where you want to go” to position your boat (direction/angle) and anticipate the required speed, angle and edge.
  - “Run the V” (Tongue)
  - “Cut the C” of a bend to avoid strainers / obstacles
  - “Use momentum and direction control”
  - Hit holes or reactionary waves straight on (at right angle)
12. How to rescue others (Throw bag usage, recovery of swimmer/boat/paddle, boat tow, paddler back-deck/bow tow and canoe/kayak empty & remount)

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13. How to read white water (flow, hydraulic features (eddies, waves and holes) and obstacles/hazards (rocks, logs, strainers & sieves). How to choose your route (WORMS)
14. How to escape a hydraulic (dynamic upstream edge/lean, downstream paddle placement/brace & stroke for water release point)
15. How to maintain your canoe/kayak (adjustment, maintenance and repairs, including cracks and holes)
16. How to behave on the river and towards other Groups (river etiquette / stewardship / custodianship / gain & maintain access)
17. How to be safe on the River:
  - Equipment required and necessary preparations,
  - Float plan / activity safety brief,
  - Judgement / decision making
  - On water group management, controls, safety and support.





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<b>WHITEWATER PADDLER DEVELOPMENT CONTINUUM</b>			
<b>Paddle Ability Transition</b>	<b>Manoeuvre Skills</b>	<b>Recovery Skills</b>	<b>Ways to improve</b>
Flat-water to Class I	Good flat-water skills and knowledge to build on when developing your white-water skills.	Ability to Self-Rescue	<ul style="list-style-type: none"> <li>• Develop an effective brace.</li> <li>• Develop boat control skills.</li> <li>• Learn white-water hand signals.</li> </ul>
Class I to Class II (Novice white-water paddler)	Recognition of eddies and eddylines.	Assume the safe white-water swimming position in the event of a boat capsize, swimming in current and getting to shore safely and expediently	<ul style="list-style-type: none"> <li>• Swiftwater rescue classes.</li> <li>• Skills lessons.</li> <li>• Time on the river.</li> <li>• Develop skills to avoid obstacles in moving water</li> <li>• Maintain a positive attitude / “can do approach”. If you’re not feeling it there is no shame in taking time out, just don’t make excuses to avoid trying things.</li> </ul>
Class II to Class III (Intermediate white-water paddler)	Able to negotiate the eddy line, break in and out, forward / backwards ferry glide to cross the river, Low brace. Confident edge control (staying upright, especially crossing eddy lines). Ability to manoeuvrable around obstacles and negotiate hydraulics.	Confident with assisted and self-rescue techniques (eg. A “bomb proof roll” - successful in 95% of the time in the most adverse conditions).	<ul style="list-style-type: none"> <li>• Practice Self Rescue and rescue of others in pool / every time you go out.</li> <li>• Playboat / downriver tricks.</li> <li>• Put yourself in situations to learn (try things / you’re your comfort zone to progress (develop skills / experience.</li> <li>• Practice, Practice, Practice (break in and out of increasingly difficult eddies).</li> <li>• Some fear is healthy / courage is overcoming that fear.</li> <li>• Be persistent in progressing your skills and patient in support of others in theirs.</li> <li>• Don’t paddle defensively / Don’t just paddle down the flow to stay upright and avoid obstacles / Don’t be satisfied with not progressing /</li> <li>• Don’t get frustrated.</li> </ul>
Class III to Class IV (Advanced white-water paddler)	Ability to slow down using cross-current speed, micro eddies and waves/holes	Confident and competent to look after yourself and nearby others, and can affect self-rescue, rescue of others and gear retrieval. Able to recover from being off-line or in sticky, non-ideal situations. Know how to manage safe boating and able to identify hazardous river features – sieves, strainers etc.	<ul style="list-style-type: none"> <li>• Try new/hard lines and moves on easy low consequence runs to practice (so skill confidence in harder runs)</li> <li>• Playboat.</li> <li>• Put yourself in holes on class III runs where you think you might swim.</li> <li>• Make up challenge eddies that you might mess up</li> <li>• Slalom training.</li> <li>• Use features as tools to moving around river not obstacles to avoid (harness their potential and don’t fight the river).</li> </ul>
Class IV to Class V (Expert white-water paddler)	Maintain speed through drops (boofing is part of this but not all)	Awareness (Accurate elevation of your skills in relation to your situation.	<ul style="list-style-type: none"> <li>• Slalom training.</li> <li>• Paddling a variety of runs and water levels with a variety of crews.</li> <li>• Teach people to kayak.</li> <li>• Run some new rapids blind.</li> <li>• Explore new runs within your ability without a lot of beta.</li> <li>• Explore, pick your own lines and try them before you see others paddle the rapid.</li> <li>• Paddle flatwater paying close attention to the stroke technique.</li> <li>• Re-take swift-water rescue classes.</li> <li>• Pay attention to outside factors external to you, such as the environment and the moods of your fellow paddlers.</li> </ul>

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Participant Handout (V4.1)**

**CANOE PADDLER SKILLS CONTINUUM**

● **Introduction / Novice Canoe skills:**

- Safely transporting a canoe,
- Loading / unloading and outfitting a canoe (trim, balance and stowage)
- Paddling in a Straight Line
- Turns and Pivoting (slap rudder/sweep)
- Sideways movement
- Bracing / Support strokes
- Wet Exit
- Canting / leaning / tilting
- Use of Kneeling vs sitting vs hybrid posture in boat
- Emptying a canoe full of water

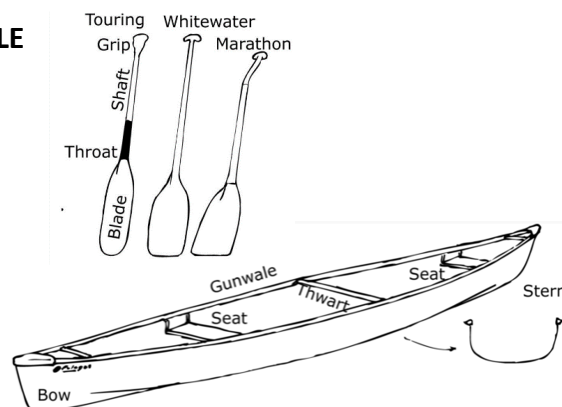
● **Transitional Canoe Skills:**

- Eddie entry and exit
- Ferry Glide & S-Turns
- Whitewater / rapid reading
- Rescue Self (Whitewater swimming techniques, etc)
- Rescue Others (X Rescue, throw bag skills (Throw and swimmer recovery)

● **Intermediate level Canoe skills:**

- Strong, confident, effective and efficient strokes, active blade usage and effective boat control, with reduced dependence on brace and increased use of active blade
- Effective hole negotiation
- Use of rapid characteristics to position boat and negotiate rapids (flow / tongues, eddie lines. etc)
- Complex white-water rescue and canoe recovery

**PARTS OF A CANOE /PADDLE**



**Canoe and Kayak Workshop – Moving and White Water  
Participant Handout (V4.1)**

**KAYAK PADDLER SKILLS CONTINUUM**

● **Introduction / Novice Kayak skills:**

- Safely transporting a kayak,
- Loading / unloading and outfitting a kayak (trim, balance, outfitting and stowage)
- Paddling in a straight line
- Turns and pivoting / direction change
- Sideways movement
- Bracing / support strokes
- Development of Basic C2C Roll
- Wet Exit
- Rescue Self (Whitewater swimming techniques, avoiding foot entrapment, etc)
- Edging
- Emptying a kayak full of water

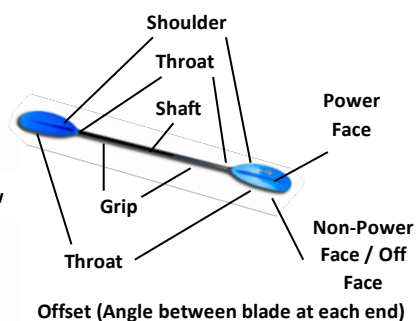
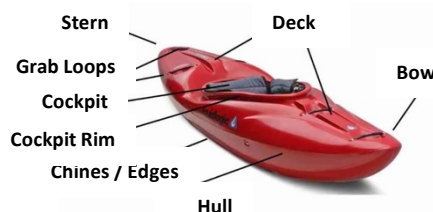
● **Transitional kayak Skills:**

- Edge control development
- Bow Draw / C-Stroke
- Hanging Draw
- Eddie entry and exit (Break in and out of flow)
- Ferry Glide & S-Turns
- Edge turns
- Whitewater / rapid reading
- Rescue Others - T & X Rescue, throw bag skills (Throw and swimmer recovery)
- Build confidence rolling in flow

● **Intermediate level skills:**

- “Not beatering” (Strong, confident, effective and efficient strokes, active blade usage and effective boat control, with reduced dependence on brace and increased use of active blade)
- Dependable “Bomber roll” in most situations (C2C, Sweep, Back Deck, etc) and development of an offside roll and hand roll.
- Effective wave surfing / hole negotiation
- Boof stroke development
- Use of rapid characteristics to position boat and negotiate rapids (use of micro eddies, cross current speed, waves, pillow rocks, flow / tongues / drops, eddie lines, etc)
- Complex white-water rescue and kayak recovery

**PARTS OF A KAYAK AND PADDLE**



**Canoe and Kayak Workshop – Moving and White Water  
Participant Handout (V4.1)**

**PADDLING ABILITY IS BASED ON A BALANCE OF SKILL LEVEL, EXPERIENCE LEVEL AND  
PADDLING PARTNER SUPPORT**

- **Skill Level > experience level can lead to misjudgement**
- **Experience level = or > skill level is preferable.**
- If you not flipping over or making mistakes your being defensive and not trying.
- **Paddling is a team sport** - everyone is developing their skills / Everyone is between swims – The team supports the swimmer / Try things to present others that opportunity.

**You may want to focus on skills if:**

- You find yourself self-rescuing a lot and/or often have to rely on others to help rescue you.
- Your lines frequently turn out a lot different than you imagined when scouting.
- People are hesitant to take you on the runs you want to go on.
- You are gripped and tense while paddling and at the bottom you just want to be off the river.
- You are fearful of all the hazards and want to make sure that you can always avoid them.
- You simply want to challenge yourself, but you don't want to challenge yourself by paddling harder runs with higher consequences.

**SLOWING PADDLE PROGRESSION MAKES FOR A BETTER PADDLER**

1st lesson about paddling progression: **SLOW DOWN.** You have a lot to learn. All parts of your technique have to be coordinated to keep you upright and moving with the required angle, edge and speed. A mistake can make the entire skill collapse like a house of cards.

2nd lesson about paddling progression: **YOU CAN'T LEARN WITHOUT MAKING MISTAKES.** Much of white-water canoeing / kayaking is the art of constantly adjusting errors to create your line, and these adjustments and corrections are every bit as important as the ideal technique.

**THE FASTER YOU PROGRESS, THE MORE INEVITABLE FAILURE BECOMES.** Few beginners or intermediates realize that they are practicing an unseen technique —every time you make an error, you practice strokes and techniques to correct the mistake and regain control. It is part of the skill. More than likely though, these mistakes often frustrate because they feel like failures, not useful practice. Mistakes and swimming are not failures, they are recognition that you are trying skills and learning to master them.

While paddling lower Grades you are practicing a safety net of error-correction skills, bringing the boat back into control and bringing your movements back into the proper technique. Mistakes that are corrected are a part of the paddling progression and creates an essential set of skills / muscle memory responses that funnel back to the correct motion. when you pursue harder white-water too quickly, it is only a matter of time before the river plunges you and your technique breaks down. the faster you progress, the more inevitable the plunge becomes. enjoy practicing skills on easier white-water to allow strong skill response when required in difficult white-water situations.

**Canoe and Kayak Workshop – Moving and White Water  
Participant Handout (V4.1)**

**PADDLE STROKE ELEMENTS AND CONSIDERATION**

- **Stroke components:**
  - “Catch”,
  - “Pull” or “Power”,
  - “Recovery and Reset”
- **Shoulder / paddle safety** (Paddlers box, power position / torso rotation and paddle control. Avoid high braces.)
- **Stroke effects (can be Implemented into the Components of the Stroke):**
  - Propulsion
  - Directional change
  - Stability
- **Paddle Stroke Technique Focus Areas:**
  - Paddle profile (blade depth, power face placement / angle, hand placement, shaft position / hand movement)
  - body posture (body position in boat, use of trunk rotation/hinging, use of leg drive, maintenance of the paddlers box & use of knees/feet)
  - boat profile (lean/edging and direction of the craft)
  - head position / where looking
- **Paddle Grip:**
  - Identify grip / control hand to control the paddle
  - Knuckles aligned with edge of blade
  - Allow shaft to rotate freely in non-grip / non-control hand
  - Hands evenly spaced on shaft
  - Elbows approx. 90<sup>0</sup> to shaft
  - Grip / control hand never changes
  - Regularly check both grips as hands may reposition themselves unnoticed.

**Canoe and Kayak Workshop – Moving and White Water  
Participant Handout (V4.1)**

**KNOWLEDGE SHARING APPROACH**

- Ensure set-up and have relevant material with resources required
- Introduction - what being covered and why (*Provide Primacy of content and link to previous training and application of skills/knowledge requirements*)
- Focus on 3-5 key learning outcomes, with associated content.
- Lesson Summary (Consolidate learning at end) - what covered, what achieved, where to from here / focus for future skill/knowledge development required (*Provide Recency of content - feedback, emphasis, test recall of important content, reinforce/acknowledge/recognise achievement and link to further training or application*)

**SKILLS SHARING APPROACH**

- Ensure set-up and have relevant material with resources required
- Introduction - what being covered and why (*Provide Primacy of content and link to previous training and application of skills/knowledge requirements*)
- Skill / Knowledge Sharing technique (“I Do”, “We do”, “You Do”):
  - **D**emonstrate (Macro of skill and knowledge)
  - **E**xplain (break the skill down into its parts / elements of knowledge)
  - **D**emonstrate (using training steps / elements of knowledge)
  - **I**mitate (learners imitate)
  - **C**onsolidate (trainer and/or peers provides coaching / fault correction)
  - **T**rial (Practice), **T**est and evaluate
- Lesson Summary (Consolidate learning at end) - what covered, what achieved, where to from here / focus for future skill/knowledge development required (*Provide Recency of content - feedback, emphasis, test recall of important content, reinforce/acknowledge/recognise achievement and link to further training or application*)

**PEER REVIEW TECHNIQUE**

- Someone demonstrates a technique they have learned.
- Each member of group gives a positive appraisal.
- Each member of the group given opportunity to suggest any improvements.

**Canoe and Kayak Workshop – Moving and White Water  
Participant Handout (V4.1)**

**CANOE CONTROL**

- **Basic Canoe Strokes**
  - Forward and reverse strokes
  - Sweep stroke (forward and reverse)
  - Draws stroke (including feathering & sculling draw and Bow Draw)
  - Pry stroke
  - J-Stroke and Stern rudder / River J-stroke (Forward stroke with Stern Pry/Draw)
  - Low support or bracing stroke
  - Bow Cut (On-side / off-side)
  - Emergency Stop
- **Crew communication**
  - “Paddle Easy” / “Paddle Hard”
  - “Back Paddle”
  - “Left turn” or “Right turn”
  - “Pivot left” or “Pivot right”
  - “Draw Left / Right”
  - “Lean Left / Right” / “Tilt Left / Right”
  - “Stop”
- **Entering and Exiting Flow**
  - **P** – Position Canoe (Angle of approach, spot where on Eddie line to cross and desired location aiming for on river)
  - **M** - Momentum
  - **I** - Initiate turn and look / body face where you want to go
  - **T** - Tilt away from flow
  - **H** - Hold turn until canoe positioned aiming for arrival at desired location on river

**Canoe and Kayak Workshop – Moving and White Water  
Participant Handout (V4.1)**

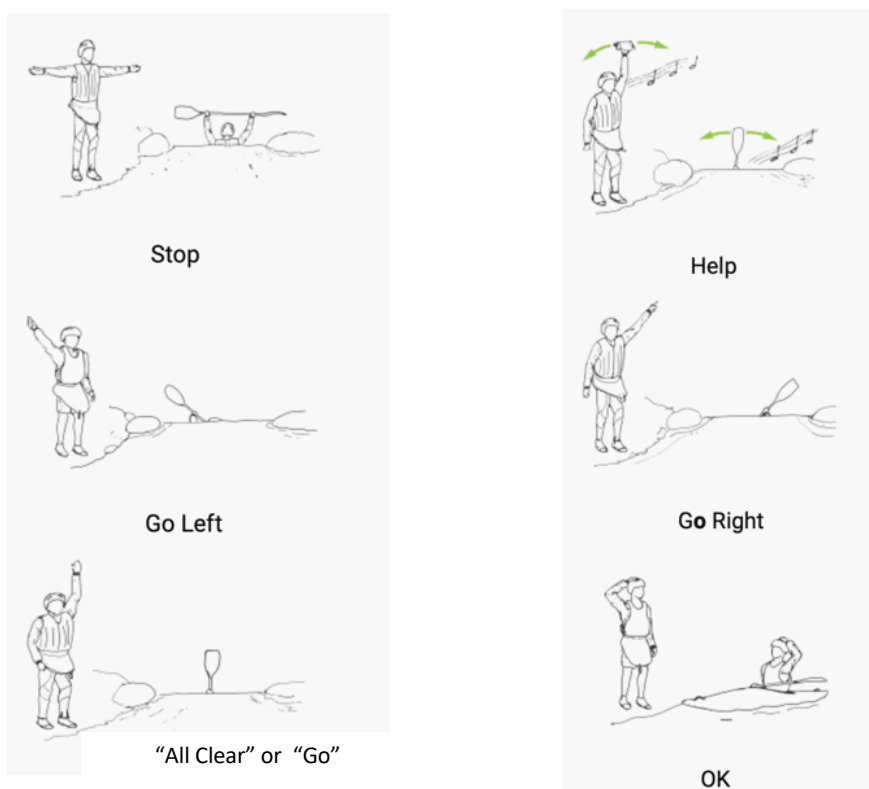
**KAYAK CONTROL**

- **Basic Kayak Strokes**
  - Forward and reverse strokes
  - Sweep stroke (forward and reverse)
  - Draws stroke (including feathering & sculling draw)
  - Hanging draw
  - C-stroke and bow draw
  - Edge turn
  - Active blade stroke
  - Low Bracing stroke
  - Emergency Stop
- **Kayak Entering and Exiting Flow**
  - **P** – Position Canoe (Angle of approach, spot where on Eddie line to cross and desired location aiming for on river)
  - **A** – Angle
  - **S** - Speed
  - **E** – Edge and look / body face where you want to go
- **Beginners Break In / Break out** – Paddle across eddie line angled at approx 10 o'clock (or 2 o'clock), lean/edge, sweep stroke into flow and brace away from entered flow
- **Intermediate Break-In / Break-Out** - Power Stroke into flow across eddie line at approx 10 o'clock (or 2 o'clock), edge and hanging draw away from entering flow



**Canoe and Kayak Workshop – Moving and White Water  
Participant Handout (V4.1)**

**RIVER SIGNALS**



- **Point to safety.** If you see a rock or a hole or the best run through a rapid, point at the best route, not the danger.
- **DANGER / Hazard** - Cross your arms over your head in an X and point to safe route / direction (don't point at the hazard).
- **Eddy Out** – Circle arm overhead and then point to the side of the river to pull to shore to.
- **READY** – Responding to “Ready” with a thumbs up or paddle held vertically.
- **Are You OK? / I'M OK** - Pat yourself on the head or the thumb on forefinger OK signal. This is both a statement and a question. A pat on the head and pointing at someone can be a question – Are you ok? And a pat on the head back says “Yes, I’m ok”
- **River Left / Right.** Direction facing down stream
- **Person Overboard / “Swimmer”** - Stroke arms as in an air swim, and intersperse by pointing to the swimmer.
- **Portage / Walk to Scout** – 2 fingers or two arms in a walking motion
- **Scout** – Flat, horizontal hand at brow with a slight back and forward motion. Normally combined with a stop motion and an indication of which bank on which to stop.
- **Throw Rope.** Throwing motion with arm
- **Stopper / Hole.** Arm held up & open and close and close hand
- **Strainer / Sieve.** Caged hand. Downwards facing for strainer and upwards facing for sieve.
- **Well Done.** A clapping motion.
- **Raft Up.** Optional (Can be a pump up and down of the stop signal)

**WHISTLE SIGNALS**

- Every paddler to carry a whistle. Whistle signals need to be confirmed prior to paddling. More or less signals can be used, if required, as long as all have understanding of their meaning.
  - **One Whistle Blast** – “Look at me” or “All Clear”
  - **Two Whistle Blasts** – **\*Optional\*** (Can be “Non-life threatening action required”, “Stop”, “look upstream”, “raft up”, “safety in position” or otherwise. Confirmed during bank brief)
  - **Three Whistle Blasts** – Help, Emergency

**Canoe and Kayak Workshop – Moving and White Water  
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**FIRST AID REVISION**

Participants should be familiar with like first aid requirements and treatments:

- **D** = Danger,
- **R** = Response,
- **S** = Send for help,
- **A** = Airway,
- **B** = Breathing,
- **C** = CPR

Treatment of:

- Drowning
- Control of bleeding
- Snake and spider bites,
- Burns,
- Fractures and wounds,
- Hypothermia / Hyperthermia,
- Heat illness / injury,
- Shock,
- Spinal injury,
- Panic / Asthma attack
- Any other protocols relevant to the activity being conducted.

Canoe and Kayak Workshop – Moving and White Water  
Participant Handout (V4.1)

**BASIC MOVING & WHITE-WATER SAFETY**

- Don't become part of the rescue
- Respect the force of the water / "Do not stand up in Rapids" / avoid entrapment.

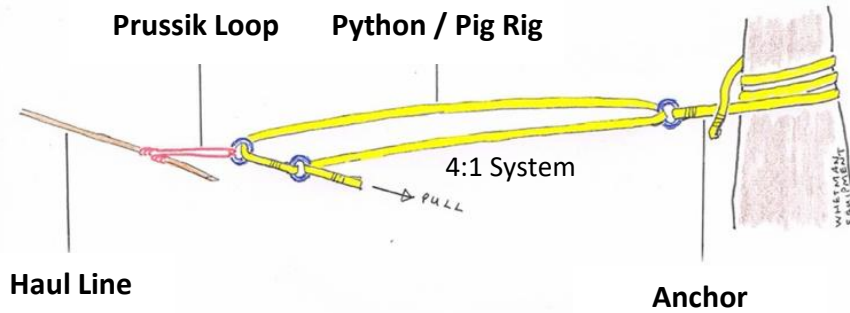


- If in doubt get out and scout (Take paddle and throw bag with you to scout)
- The 3 m Rule – a helmet and PFD must be worn at all times when on the water and within 3 m of white-water
- Upstream has right of way
- Personal safety comes first and then Group Safety and then Boat safety
- Don't dive into water - Water entry achieved through shallow surface skim technique

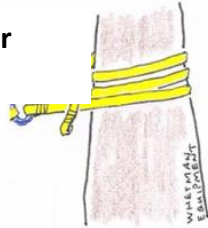
**RESCUE KNOWLEDGE**

- **Basic Knots**
  - Round turn and two half hitches (Tie down knot)
  - Clove Hitch (Anchoring Knot)
  - Clove hitch on the bight (Quick release tow line knot)
  - Figure of 8 and Figure of 8 on the bite (Loop / tie off)
  - Bowline (Loop / tie off knot)
- **Rescue Knots**
  - Munter Hitch
  - Alpine Butterfly
  - Prusik knot
- **Hierarchy of Rescue:**
  - Self-Rescue
  - **Reach** (Hand, paddle, stick, etc)
  - **Throw** (Rope, float, cinch, etc)
  - Wade (Group formations)
  - **Row - Paddle** – Retrieval or Tow (Deck rescue & contact tow)
  - **Go** (Swim, **Tow**, Live bait & V-lower)
  - Helo / "000"
- **Rescue Response:**
  - **Danger** (Protect self & others – "Don't become part of the rescue")
  - **Rescue response sequence:**
    - Self-rescue if able (guided / directed)
    - Assisted rescue - Reach, Throw, Row & Go
    - Escalate when beyond Guide capacity – Helo

### PYTHON / PIG RIG SET-UP



Anchor



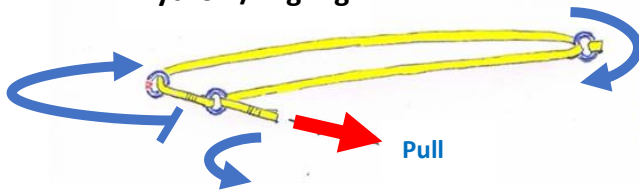
Use a 5m Python as an anchor (Wrap at least 3 times around tree)

Prussik Loop



Use a Prussik and one carabiner (Rope jam / hitch optional)

Python / Pig Rig




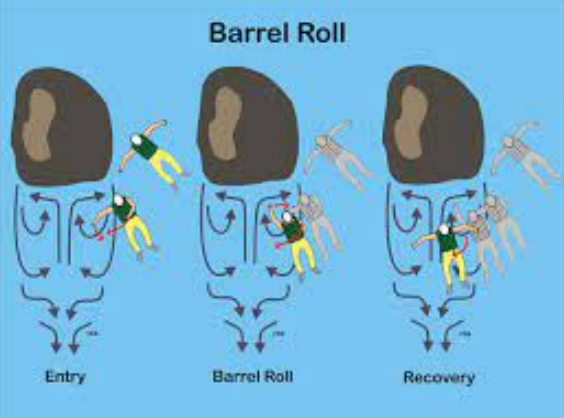
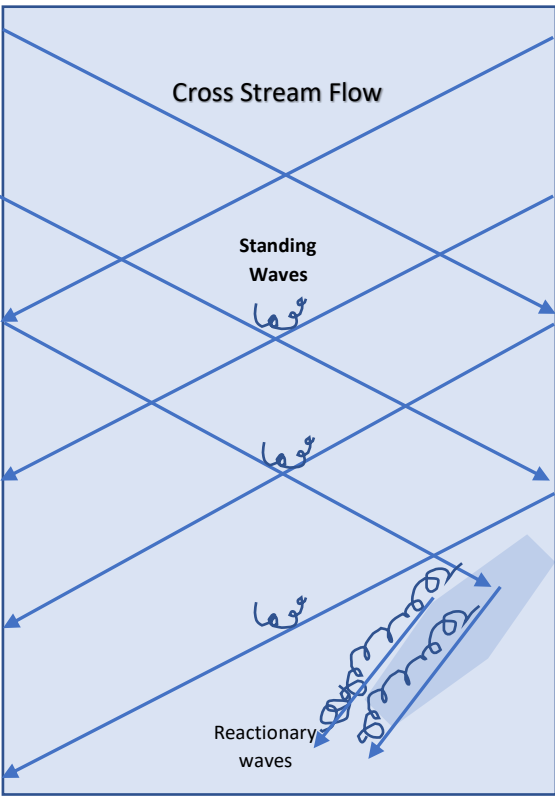
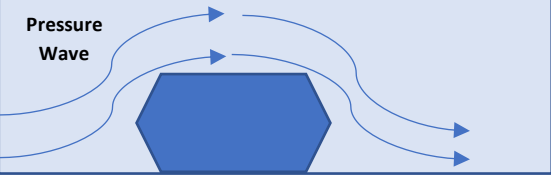
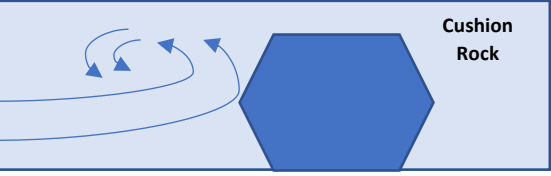
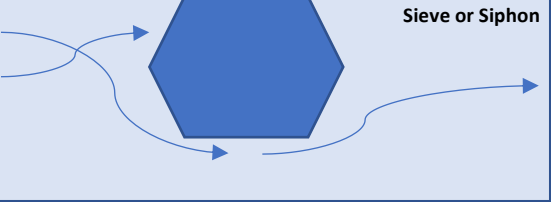
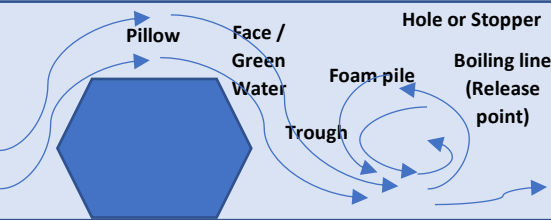
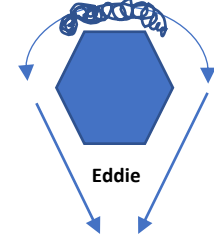
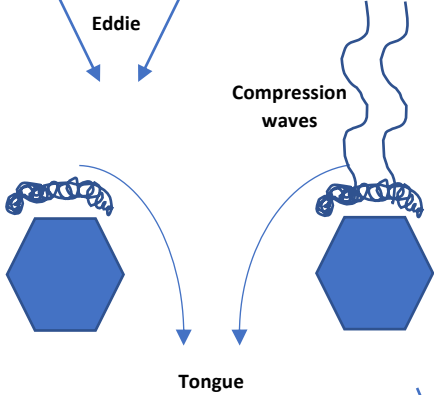
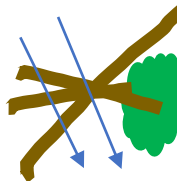
Use a 5m Python and two carabiners.

### Z-DRAG BLOCK SET-UP

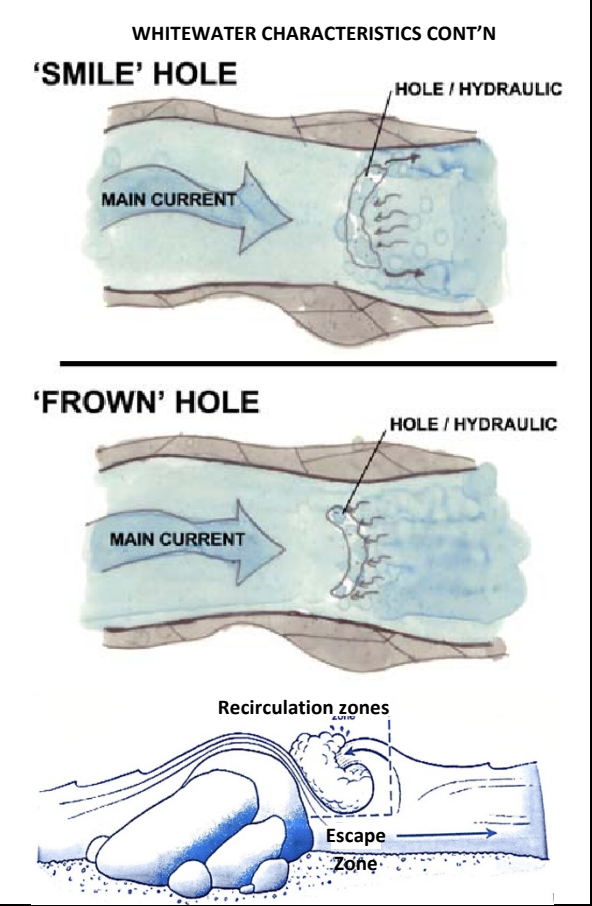
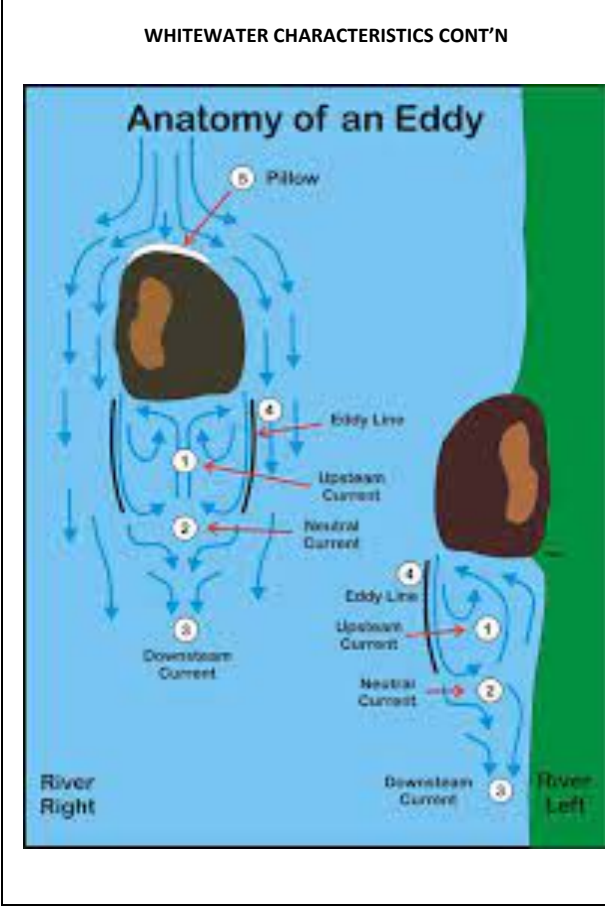
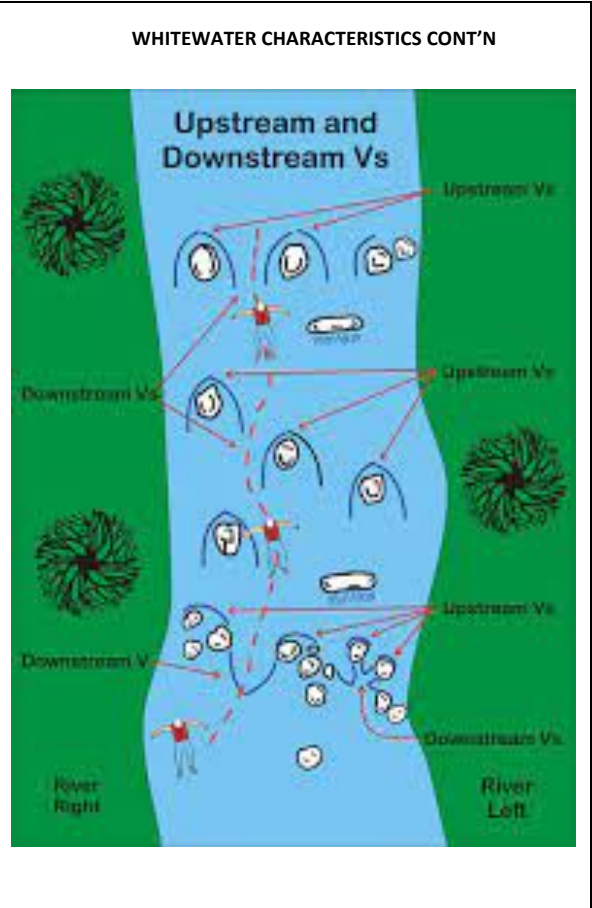
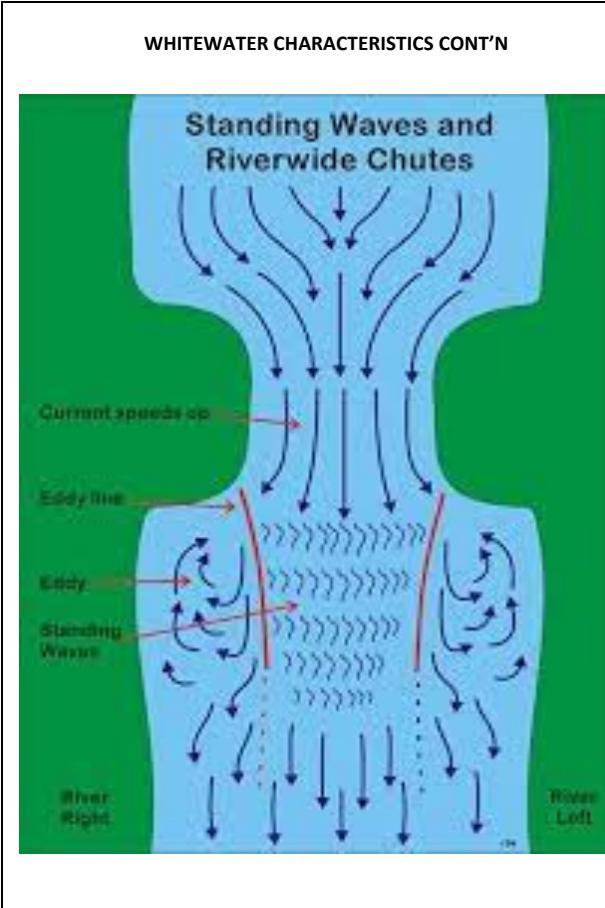
3:1 System



**Canoe and Kayak Workshop – Moving and White Water  
Participant Handout (V4.1)**

WHITEWATER SWIMMING TECHNIQUES	WHITEWATER CHARACTERISTICS
<p align="center"><b>Defensive and Aggressive Swimming</b></p>  <p><b>Defensive Swimming:</b> On your back, feet up and back paddle.</p> <p><b>Aggressive Swimming:</b> Crawl stroke with head up.</p> <p align="center"><b>Barrel Roll</b></p>  <p><b>Entry</b>      <b>Barrel Roll</b>      <b>Recovery</b></p>	 <p><b>Cross Stream Flow</b></p> <p><b>Standing Waves</b></p> <p><b>Reactionary waves</b></p>
<p align="center"><b>WHITEWATER CHARACTERISTICS CONT'N</b></p>  <p><b>Pressure Wave</b></p>  <p><b>Cushion Rock</b></p>  <p><b>Sieve or Siphon</b></p>  <p><b>Hole or Stopper</b></p> <p><b>Pillow</b>      <b>Face / Green Water</b>      <b>Foam pile</b>      <b>Trough</b>      <b>Boiling line (Release point)</b></p>	<p align="center"><b>WHITEWATER CHARACTERISTICS CONT'N</b></p> <p align="center"><b>Flow around a rock / river feature</b></p>  <p><b>Eddie</b></p>  <p><b>Compression waves</b></p> <p><b>Tongue</b></p>  <p><b>Strainer</b></p>

Canoe and Kayak Workshop – Moving and White Water  
Participant Handout (V4.1)





Canoe and Kayak Workshop – Moving and White Water  
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**WHITEWATER CHARACTERISTICS CONT'N**

The diagram illustrates river bends with two profiles, A and B. Profile A shows a V-shaped bend with a 'Faster Current' on the outer bank and a 'Slower Current' on the inner bank. Profile B shows a shallower bend with a 'Gravel Bar' in the center. Swimmers are shown navigating these bends. A note states: 'Note: The Vector Pull can be used in conjunction with stepping backwards also.'

**RESCUE SKILLS**

**Throw Bag Drill**

- 1 Swimmer Enters Water
- 2 Throwing the Throw Bag
- 3 Swimmer places line over outside shoulder
- 4 Placing the Rope

Final step: Hauling Swimmer into Shore

Labels: River Right, River Left, Swimmers, Rescuers, Safety.

**RESCUE SKILLS**

**Using Vector Pull to Increase Pendulum Effect**

Scene #1: Rescuer throws throw bag to swimmer.

Scene #2: Swimmer pendulums close to shore.

Scene #3: Second rescuer uses Vector Pull to pull swimmer to shore.

Labels: Standing Bag, Current, River Right, River Left.

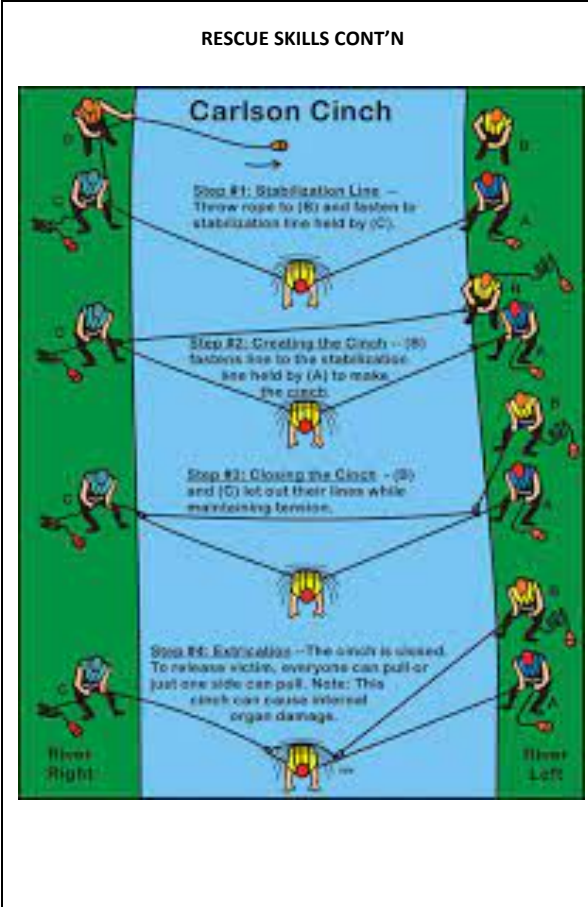
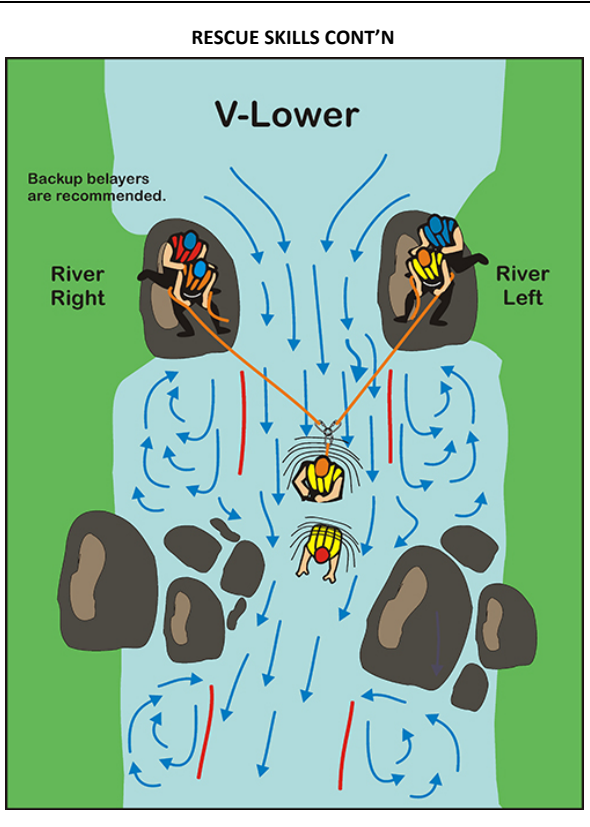
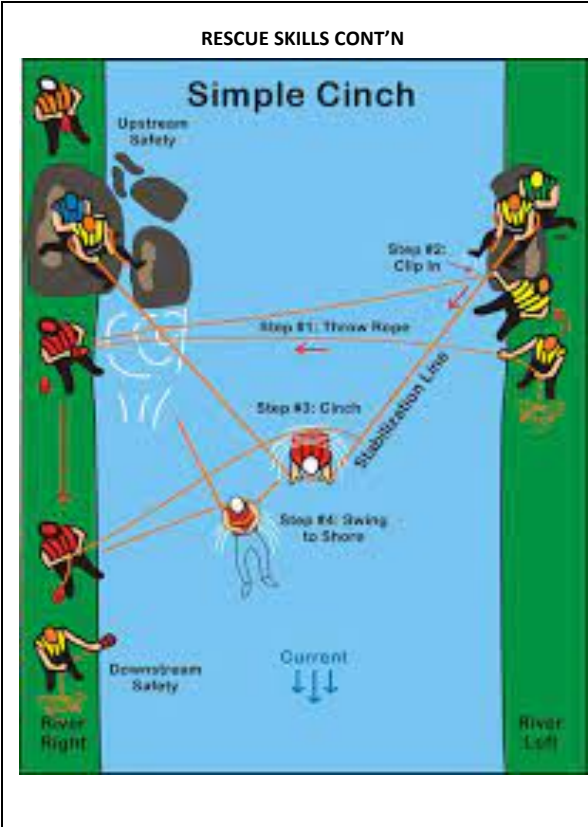
**RESCUE SKILLS CONT'N**

**Snag Line**

Upstream Safety, Downstream Safety, Current, River Right, River Left.

Labels: (a), (b), Snag Line, Stabilization Line, Bags weighted with stones.

**Canoe and Kayak Workshop – Moving and White Water  
Participant Handout (V4.1)**





## Canoe and Kayak Workshop – Moving and White Water Participant Handout (V4.1)

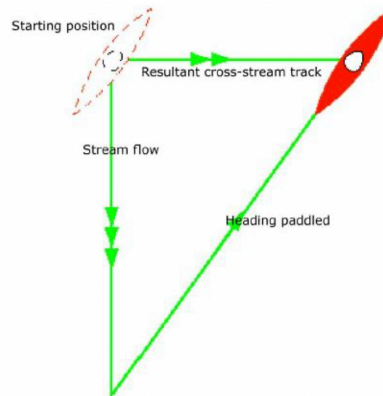
Stroke Components	Forward Stroke Technique Description			
	Novice paddler		More advanced paddler	
	Skill Sharing Technique	Focused Elements of Technique	Skill Sharing Technique	Focused Elements of Technique
Body Position	Focus on DEDICT based Instruction on key elements of technique	<ul style="list-style-type: none"> <li>Upright posture (slightly fwd lean)</li> </ul>	Focus on coaching / mentoring approach with key focus areas each session, including self-reflection and peer review. Aim at a maximum of 3 x good points and 3 x improves at a time.	<ul style="list-style-type: none"> <li>Upright posture (slightly fwd lean, chest out and chin up)</li> <li>Contact with boat maintained to ensure power transfer</li> </ul>
Catch		<ul style="list-style-type: none"> <li>Power face catch level with feet (Submerge blade square to the boat)</li> </ul>		<ul style="list-style-type: none"> <li>Rotate trunk for max reach (Wind up)</li> <li>Power face catch placement level with feet - Submerge blade square (90 degrees) to boat</li> <li>Upright paddle shaft</li> </ul>
Power		<ul style="list-style-type: none"> <li>Blade drawn through close to the boat</li> </ul>		<ul style="list-style-type: none"> <li>Leg drive through the footrest on stroke side</li> <li>Hip weight shift / subtle hip raise on stroke side to maintain boat balance</li> <li>Drive achieved through Trunk rotation (unwind) and abdominal pull to bring boat past paddle with blade square (90 degrees) to boat</li> <li>Elbows down</li> <li>Paddle shaft pivot off top hand and active blade drawn through close to the boat</li> <li>Finish stroke with top hand at eye level</li> </ul>
Release		<ul style="list-style-type: none"> <li>Lift blade from water level away from boat at hip</li> </ul>		<ul style="list-style-type: none"> <li>Lift blade from water level away from boat at hip</li> <li>Avoid top hand crossing of mid-line</li> </ul>
Recovery		<ul style="list-style-type: none"> <li>Drive off hand blade forward to setup for next catch</li> </ul>		<ul style="list-style-type: none"> <li>Drive top hand and leading shoulder forward through trunk rotation.</li> </ul>

**Canoe and Kayak Workshop – Moving and White Water  
Participant Handout (V4.1)**

**MOVING AND WHITEWATER TECHNIQUES**

• **Forward Ferry Gliding**

- To use current to efficiently cross a fast flow without losing ground
  - Enter and exit the current at an angle of around 11 o'clock (or 1 o'clock)
  - The boat needs speed when entering the current
  - Forward paddle equally on both sides
  - Lean boat downstream throughout the ferry. Grip with knees.
  - Use forward sweeps only for correction
  - Change the lean from downstream to upstream when entering the eddy!



• **Reverse Ferry Gliding**

- Useful to avoid obstacles downstream or scouting from a boat
  - Use the back of the blade
  - Use reverse paddling and only reverse sweep for correction
  - Look over downstream shoulder on alternate strokes
  - Correct leans are important.

Note: When practicing, can enter current facing upstream then spin around face to stern upstream for ferry glide.

• **Breaking In (to a current)**

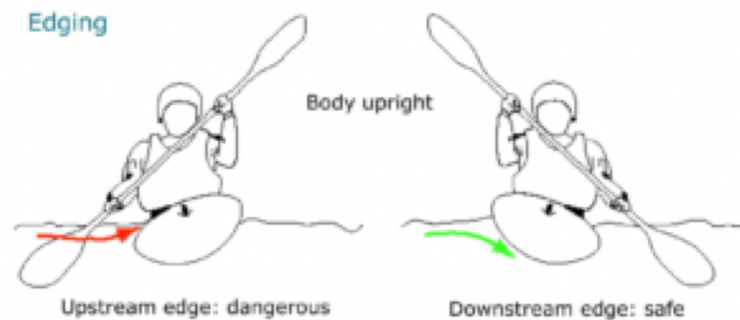
- The ability to move from eddies into the current and continues downstream
  - Approach the eddy line forcefully at about 45°
  - Break in usually at the top of the eddy where the eddy line is well defined.
  - Lean boat downstream (into the turn), tilt body downstream to current and look at desired end location to prevent the upstream boat edge from catching
  - Use a combination of sweep and bow draw strokes (or low brace turn combinations for stability) to cross the eddy line and to gain maximum assistance from the current

• **Breaking Out (from a current)**

- The ability to move from fast water into eddies
  - Approach the eddy line at about 45°
  - Break out usually as high on the eddy line where the eddy line is well defined
  - Use a combination of sweep (in the current) and bow draw or duffek (planted in the eddy) to cross the eddy line (or low brace turn combinations for stability)
  - Lean the boat into the turn to avoid catching an edge on the slower moving current

## Canoe and Kayak Workshop – Moving and White Water Participant Handout (V4.1)

- **Edging the Craft to Maintain Stability & Control**
  - On flat water, find your balance point by edging your craft without relying on support from the blade on the water
  - Keep your head inside the mid-line of the balance
  - Lift the inside hip
  - Slap support only to return to balance point, do not overcompensate
- **Edging in moving water**
  - Always lean downstream of current
  - Paddle decisively with dynamic hips to avoid catching an edge



- **Rock-A –Baby**
  - Useful for practicing balance and edge control leading to more advanced techniques later
    - Edging the boat, dip the bow and stern alternately using the hips
    - As momentum builds use the paddle to drive end of the boat eventually to a vertical position
    - Keep shaft parallel to boat
    - Drive the bow up from the face of the blade & drive the stern up from the back of the blade with a piston-like action from the arm
    - From the bow down position this sequence can be carried on into a cartwheel.