

**WEIR
ready!**

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We're ready! Thank you for your interest in this presentation!



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We respectfully acknowledge that our activities take place on the lands, and on rivers, within the Cowichan Tribes' traditional territory.

The recreational canoes and kayaks we paddle strongly reflect design features developed and perfected by Canada's First Peoples. We are grateful!

Who are WE ??

**WEIR
Recreational
River Users!**

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We're the Island's river-recreation enthusiasts.

And, YES, it's OK to admit you don't even know who we are!
That's our own fault for tip-toeing quietly around, and paddling
beneath most people's radar.



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We're whitewater canoeists



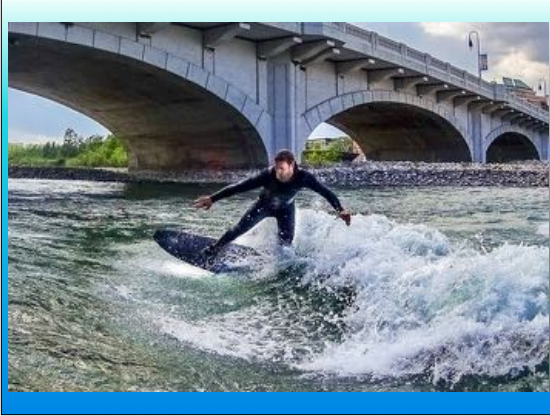
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We're stand-up paddleboarders



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We're whitewater kayakers



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We're board-surfers



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We're tubers.



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We're boogie-boarders



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And we're part of the world-wide community of recreational river-users! Here's Tom Rutherford, recreating in Africa. Note the traditional dugout canoe!

**“So-o, WHAT does
‘Recreation’
have to do with
the Cowichan Weir
project ??”
(GLAD you asked!!)**

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The COWICHAN is a designated CANADIAN HERITAGE RIVER!



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NOTE that the CANOE and the RIVER have been chosen as symbols to represent the essence of our Canadian Heritage!

There are three criteria used for selecting a Canadian Heritage River — Natural Values, Cultural Values & Recreational Values

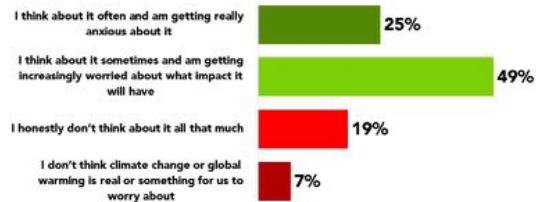
CRITERIA FOR HERITAGE RIVER DESIGNATION

1. Natural Values
2. Cultural Values
3. Recreational Values

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But in current River Management practices, RECREATION may be overlooked. Not worthy? Not serious enough?

FEELINGS ABOUT CLIMATE CHANGE



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But think about this: Research shows that about $\frac{3}{4}$ of our population experiences SIGNIFICANT STRESS when faced with climate change issues. (Let's not even mention COVID-19!)

And STRESS affects MENTAL HEALTH.

Reasons for Participation in Outdoor Recreation

Stress Management and Relaxation

Feelings of anxiety and stress are increasingly common in society today. Some of the reasons for these feelings include:

- Urbanisation: communities being over-crowded and polluted e.g. Large cities.
- Unemployment: resulting in poverty and family pressures to survive contributing to higher stress levels.
- Increased Responsibility: longer hours at work, people commuting greater distances to work lead to less time at home with the family.
- Social Changes: the change in traditional family roles, family breakdown increase stress levels.
- Disadvantaged Groups: experience discrimination, harassment, drug abuse, poverty and unemployment.

Outdoor recreation can be an avenue to alleviate stress and anxiety caused by everyday life. It is seen as an escape from a regular routine and gives a person the opportunity to 're-create' themselves. Outdoor recreation can promote feelings of relaxation or excitement that distracts people from the stress in their lives.

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It's well known that OUTDOOR RECREATION is one key strategy toward mitigating unhealthy stress in our lives.

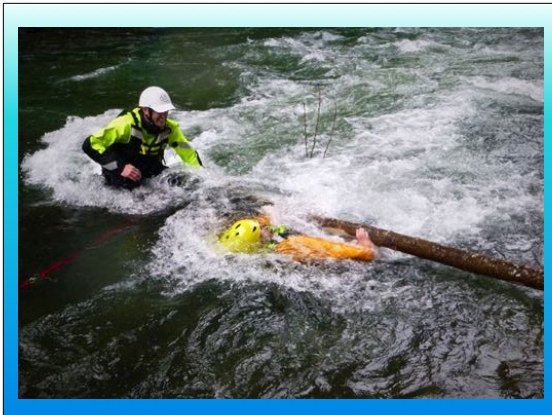
So, MAYBE recreation isn't quite as frivolous a topic as sometimes deemed!



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The Recreational Paddlesport Community promotes very high SAFETY and ENVIRONMENTAL standards.

We're well known for engaging youth – the next generation of river stewards. Engagement begins with ACCESS and EDUCATION.



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We teach not only paddling skills, but also RIVER SAFETY and RESCUE skills.

Here's a student learning about DEFENSIVE SWIMMING when faced with a dangerous log on the river.



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We're vigilant about locating and identifying hazards.


We work closely with Parks staff, and Search and Rescue personnel, to warn river users about the locations of these hazards.



**Human-
and
Gravity-
Powered!**

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We take only pictures, and we DON'T leave footprints. We don't stir up silt. We don't trample spawning beds. We don't tear up riparian zones.



**No fossil fuels
were harmed in
the making of this
presentation**

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No motors, no fumes, no oil slicks, no emissions!

We don't drop garbage into the river. In fact...



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... we regularly PICK UP garbage on the river...



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...not only during River Cleanup Events, but also on regular trips. We are EYES in inaccessible stretches of the river, and we don't hesitate to report concerns to appropriate authorities.

Those are the kinds of ETHICAL and ENVIRONMENTAL standards which govern our practice.

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- Cowichan River Stewardship Roundtable
- Cowichan Lake & River Stewardship Society
- Koksilah Working Group
- N. Cowican's Parks & Trails Master Plan: (Chemainus River Recreational Corridor)

In addition, we work with several local Watershed Stewardship groups. We promote PARTNERSHIPS!

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We believe the plans for the new weir are ALMOST a masterpiece. Industrial use? Agricultural needs? Domestic requirements? Cultural values? Fish habitat? – ALL COVERED!

But RIVER RECREATION has been overlooked – (our own fault for not speaking up sooner!)

Now, before we present some suggestions, please let us be clear:

**This presentation
completely
supports the
weir initiative!**

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YES !!

**We offer NO suggestions
opposing
the project's intent
to increase water storage,
safeguard habitat, and
ensure riparian health.**

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NONE AT ALL !!

**So, um, – HOW *could*
the Weir Project
benefit Recreational
River Users?**

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Glad you asked! Scroll on!



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The weir's designed to increase water storage, guaranteeing adequate flows in summer drought conditions.

We support that! And recreational tubers will benefit from increased flows in the summer. We're grateful for that!



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But for most river users, the season doesn't begin until the rains come, usually in October. The season ends in April or May, when rivers dry up. WINTER is paddling season!

We believe that the design of the weir **and** river bed COULD easily be tweaked to provide recreational value, not just in summer, but also during fall, winter, and spring.

An ALL YEAR WEIR!



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So let's talk weir design. We ALL know that weirs are designed to STORE WATER for a variety of uses.

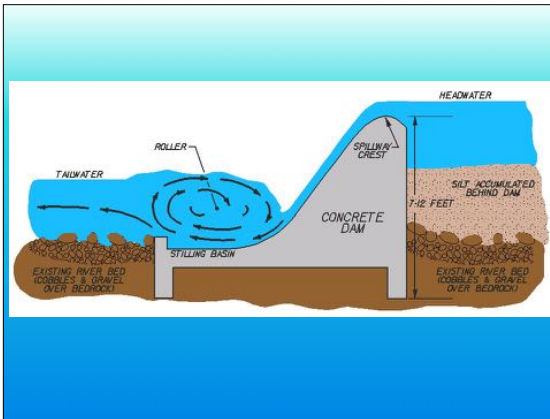
But they can do more!



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For example, this weir is designed to be a DROWNING MACHINE! It forms a dangerous hydraulic – a river-wide hole -- deadly to anyone caught in it.

And let's not assume that the sign, or the orange buoys, will prevent people from floating into what LOOKS like an easy drop.



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Here's a sketch -- Anyone who floats over the top, or drifts up into the outflow at the bottom, can be caught, trapped, and drowned in the recirculating roller.

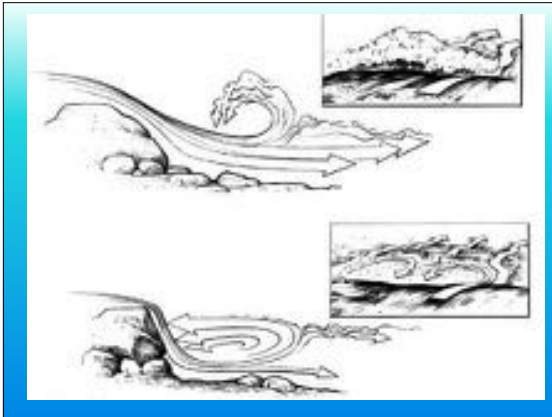
WEIR all about river safety! We DON'T want this kind of weir!



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However, weirs, and their river-beds, can be designed not only to be safe, but also to provide recreational features in the outflow.

“OK, so what IS a ‘recreational feature’?” you ask.



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Basically, a play feature is a WAVE or HOLE, formed when water flows over an obstacle on the river-bed.



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And river players don't just use rivers for downstream travel, we're always on the lookout for waves and holes, for some 'PARK and PLAY'...



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...maybe to surf on your SUP...



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...or spin your kayak...



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...or get vertical in your canoe...



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...or just simply to enjoy!



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It's true that waves and holes occur randomly on natural rivers.
That can be GOOD! -- Or maybe not!

PROBLEMS WITH NATURAL WAVES:

1. They appear or disappear depending on daily flows
2. They may be too big, too small, or too dangerous
3. They may not be accessible without an eddy nearby

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NATURAL features aren't always friendly!

So – what's the solution?

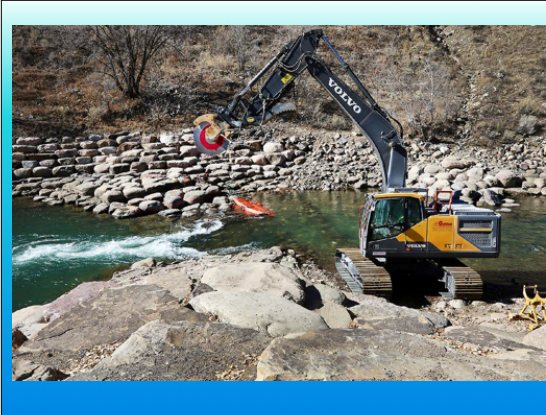
**WEIR -
the solution
!!!**

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During construction of the weir, we can install obstacles on the river bed to create waves , holes, and eddies.

A weir can control the flows over the obstacles.

THEN, play features become predictable, safe, effective, and accessible.



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And by the way -- this idea isn't new! Installing play features in rivers commonly occurs in the construction of many WHITEWATER PLAY PARKS, in the U.S. and Canada...

(Just not on Vancouver Island!!!)



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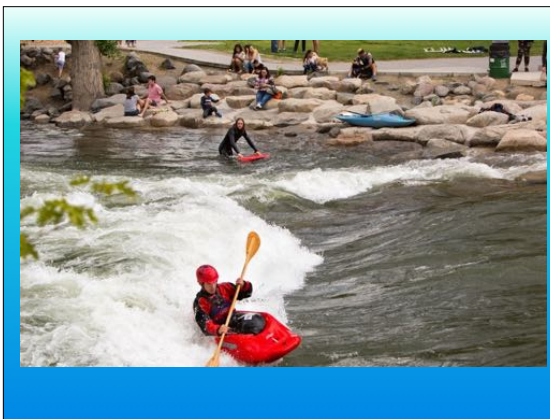
We are NOT proposing construction of a complete whitewater play park! But SOME limited elements of whitewater park design MIGHT be feasible, within our weir design.

Perhaps you are not familiar with WHITEWATER PLAY PARKS, or what they look like. So – let's take a quick tour.



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The Truckee River Whitewater Play Park is located right downtown in Reno, Nevada. This park is fairly large – several different features, of varying difficulty.



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In high spring flows, whitewater boaters come to town. They play on the waves all day, free of charge.

THEN, when the sun goes down, they drop lots of dollars in restaurants, shops, pubs, hotels, campgrounds and casinos. It's well-documented that whitewater parks quickly pay for themselves -- they generate VERY significant tourist revenue for their communities.



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Later in summer, when the river drops, families with tubes come out to enjoy the river.

The Truckee is one of the most heavily fished rivers in Nevada. Studies show that play features, constructed from natural materials, can be MORE HELPFUL THAN HARMFUL to fish passage.

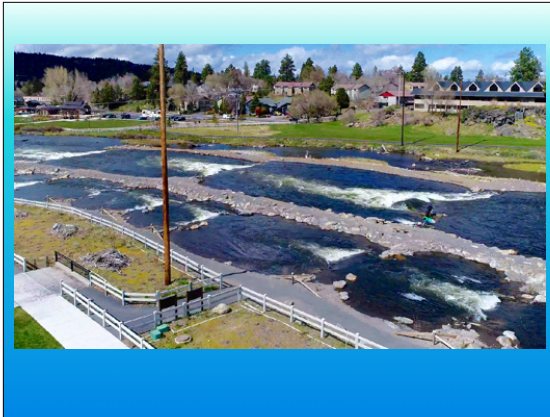


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The city of Bend, on the Deschutes River in Oregon, has developed a downtown whitewater park. On this sketch, the water flows from right to left. The right channel (top of picture) is the “Habitat Channel”. NO PEOPLE ALLOWED – it’s being restored for native plants, animals, fish, and water-fowl.

The centre “Whitewater” channel has four large waves for big boys and girls.

And the left “Passageway” channel, with a sidewalk alongside, is shallow, and has eight or ten small waves for kids on tubes.



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Here's a photo. The Bend Whitewater park is part of an ongoing campaign to restore the Deschutes River, including revitalizing stocks of sockeye, chinook, and steelhead.

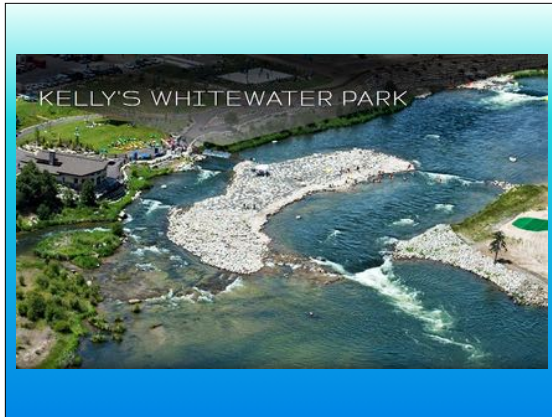
Where there's fish, there's osprey! (The large poles are provided for nests!)

Consensus seems to be that development of fish habitat, AND recreational use of the river, are not mutually antagonistic.



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The Bend Whitewater Park is CLEAN and SAFE. The kids' channel can be supervised easily from the sidewalk. Garbage cans, picnic tables, and washrooms are only a few steps away.



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This is Kelly's Whitewater Park, on the North Fork of the Payette River, in Cascade, Idaho. Here, water flows from upper-right to the bottom of the picture.

An artificial island splits the flow into two channels – the narrow right channel has smaller waves for tubers and beginners, and the wider left channel has bigger features.

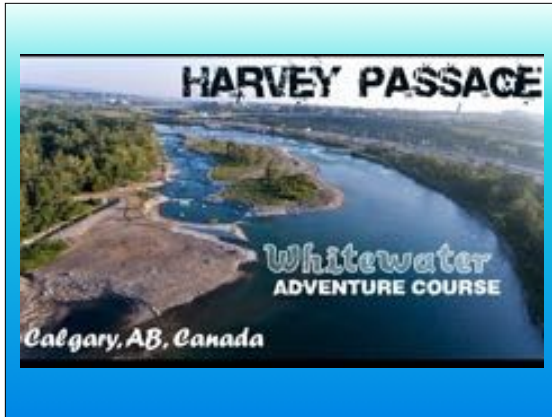


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Here, some paddlers are sampling a small wave in the right channel. And just upstream, (not in the picture,) an angler was casting for fish.

Note also the restoration of natural riparian vegetation.

The amenities building, in the background, features washrooms, change rooms, and spectator seating.



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Closer to home, Calgary removed a killer weir used for agricultural water storage on the Bow River, and replaced it with a whitewater park known as Harvie Passage.

Cochrane, Alberta is also developing a whitewater park. In Saskatoon, plans are underway to include a whitewater play park in conjunction with an upcoming Hydro project on the South Saskatchewan River.



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How do play features get developed? There are river engineers whose specialty is to design recreational features on rivers. Step 1 is for them to visit a location, and prepare a feasibility study.

We have consulted the engineer who designed Kelly's Park, and the Truckee Park, shown in previous slides, and he has indicated interest in our project.

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To summarize: Our VALUES include the notion that Recreational use of our river is part of our Heritage. It does not diminish the river's natural qualities; nor does it endanger habitat or Riparian Integrity. And we know that safe Recreation supports mental health by mitigating stress.

Our GOAL is NOT to propose construction of a full whitewater play park, but only to request that we EXPLORE THE FEASIBILITY of adding limited recreational features to our weir plans.

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And, finally, our OBJECTIVE is to promote a weir that gets the most juice from the squeeze! (metaphor by Tom Rutherford!)

OUR NEW WEIR SHOULD BE THE BEST IT CAN BE – with added value, NOT just for industry, or fish, or agriculture, but for ALL river users.



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We hope that Recreational River Users are now becoming recognized as legitimate PARTNERS in river-stewardship, through promoting SAFE and RESPONSIBLE practices.

Please be assured that paddlers will continue to provide solid support for sound watershed management. It's what partners do!



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We'd like to think that future recreationists will benefit from enlightened planning that took place way back in 2020 - 2021.



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Today's young people are our FUTURE RIVER-STEWARDS. We hope, for their sake, that this presentation generates a positive response to our request.



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Thank you for your attention to this presentation. SYotR - See YOU on the River!

Questions/Comments? rickbryan@shaw.ca or (250) 597-3932