



ALBERTA WHITEWATER ASSOCIATION

Kananaskis River – Canoe Meadows Flood Repair Report

The 2013 Plan

The AWA's plan for the Kananaskis River in 2013 was to obtain sufficient Alberta Lotteries grant support to:

1. build new features on the Kananaskis River, especially the novice teaching area below the race course
2. upgrade the race course for the 2013 National Whitewater Championships
3. repair damages that had occurred in the last 6 years since 2008, when the AWA was last able to do work in the river.

This was put on hold because funding was not approved in April and there was no time in May to undertake the amount of work required. This delay proved to be a blessing in disguise as we found out two months later.

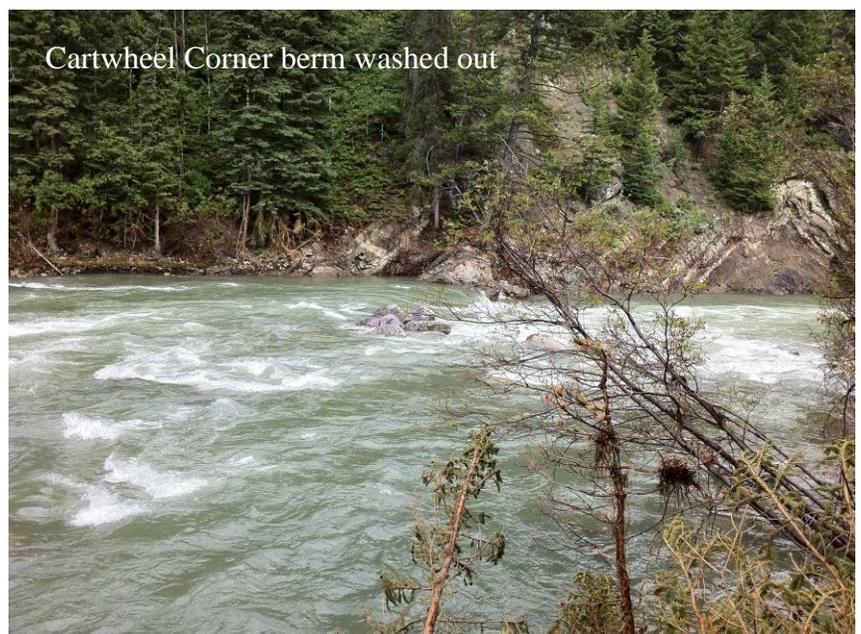
The Flood

Major flooding in southern Alberta on June 20-21, 2013 resulted in a devastating washout of the lower Kananaskis River including all of the whitewater features, the slalom gate system and the Kananaskis Riverwalk. During the flood event, the AWA began discussions with Alberta Parks to determine the extent of the damage and the public safety situation. Of critical concern was how the flood might have left slalom gates, wires and strings in the water that could be a hazard to rafters and paddlers.

Alberta Parks instituted a complete closure of Bow Valley Provincial Park, including the lower Kananaskis River, shutting down rafting and paddling until the safety issues could be addressed. After a preliminary scouting of the river, the AWA crafted an emergency response plan to tear down the entire slalom gate system and to do a safety audit of the river so the Kananaskis River could be opened as soon as possible.

A shout out to the paddling community and the commercial rafting and kayaking companies brought an immediate response and a two day work bee was planned for June 28-29. Staff members from the companies and volunteers did an amazing job the first day to clean up the strings and wires lying on the banks and in the water.

At the end of the day a scouting party was sent downstream from Canoe Meadows to investigate if any other substantial navigation obstacles remained in the river. The party found that the river had altered its course in several locations but that it was perfectly safe for commercial rafting and intermediate level paddlers.



The second day, the group of 100 volunteers cleaned up more of the debris along the shoreline. A second scouting party was sent up to the Widowmaker to float down to Canoe Meadows. This party also reported back that most of the whitewater features that had been built since 1985 had been substantially altered or destroyed by the flood. The good news was that the river was safe to paddle and raft, but would not be as much fun as it had been before, without the features that had transformed the river from a placid float into a whitewater challenge.

What we found out when we were able to assess the damage was that the flood had:

1. destroyed all the big berms that squeezed the river and created the drop structures at W wave, Santa Clause, Smitty's, Wall Wave Green Tongue, Upper Race Course, Otter Slide, Novice Teaching Eddies
2. rolled many of the big boulders around that created the features at Point Break, Santa Claus, Santa's Little Helper, Smitty's, Green Tongue, Upper Race Course, Miami, Notch, Lower Race Course, Novice Teaching Eddies
3. deposited gravels and sand and the larger cobbles from the berms across wide areas of the river
4. scoured out pockets of bedrock
5. damaged the Kananaskis Riverwalk to the point where it was no longer passable



Flood Debris piled up on shore

We owe a big thank you to the numerous people who came out and took on the daunting task of cleaning up the flood debris that was left strewn on the banks and in the river.

Our work allowed Alberta Parks to reopen the Kananaskis River to recreational paddling and commercial rafting 10 days after the flood. This was the first Kananaskis Country facility opened to the public after the flood.

Resources and Funding

Any project of this magnitude requires a lot of organization, manpower and finances. The

AWA assigned the task to bring the Kananaskis back to its Executive Director. The AWA put an eligibility application into the Disaster Recovery Program (DRP) for the project in early July. This is a risky and challenging process because the DRP does not pay expenses prior to work commencing and reserves the right to not pay for any expenses that their auditors deem to be ineligible costs.

The AWA paid all the costs to repair the upper race course - \$35,000 - from its rainy day fund with the hope that it would be reimbursed by the government. There were many worrisome nights, onsite meetings and long phone calls to government people to get the support that we would need for the job of rebuilding the Kan.

In January, 2014 the AWA was informed that the \$35,000 expense claim would be covered with some minor exceptions and that assistance would be available for the rest of the project with conditions. The future costs are estimated to be \$220,000 for the rest of the river. The conditions of the program require that the facility has to be rebuilt to the same or equivalent standard as existed prior to the flood and that any new work would have to be paid by the AWA. There was and there continues to be some risk that the AWA might not receive all the money it expends on the project. But the AWA is committed to making sure that the Kananaskis remains the premier site for whitewater paddling in Western Canada.

Upper Race Course Repairs

With less than 4 weeks before athletes from across Canada would arrive in Alberta to compete at the National Whitewater Championships, the AWA was placed in a difficult position trying to determine if a race was possible at the Kananaskis or would need to be moved to another location. This was made more difficult because the Barrier Dam that controls the flow into the lower Kananaskis River was critically damaged. With no ability to shut the river down, the opportunity to work in the river to repair damages was lost.

On July 12th, TransAlta informed the AWA that they would be shutting off water at Barrier Dam to investigate the damage in the dam. The AWA jumped on the opportunity and contracted with Foran Construction for 2 days of Trackhoe work to fix the upper race course for Nationals. When the sediment settled, a semblance of a whitewater course was ready for paddling. Perhaps not at the level desired but sufficient given the circumstances.

With no ability to control flow, the Kananaskis flowed at higher than normal levels and this washed out some of the hard won gains to rebuild the walkway at Cartwheel Corner where spectators and officials would be gathering at the end of the month for the Nationals.

A team from Alberta Slalom Canoe Kayak was contracted by the AWA to rebuild the slalom gate system on the upper race course for Nationals. During the week of Nationals, Tyson Trucking came on site to repair the Riverwalk at Cartwheel Corner so it wouldn't be washed out during the competitions.

The result was a great week of racing and competition including the National Slalom, Downriver and Freestyle events.



Plans for Next Stage of Repairs

Throughout July, TransAlta was working to determine the extent of the damages at Barrier Dam. Initially the corporation believed that they would be operational again by mid-late August. The AWA and the Alberta River Surfing Association made plans around this information to begin repair work in August as soon as it was possible for TransAlta to control the flows in the river. Plans were drafted for river work and then put on hold as it became known that the damage to the dam was more extensive than originally thought. As August morphed into September, any thought of a fall construction window was shelved.

At the date of this report in mid-January, TransAlta is telling us that their work to repair Barrier Dam is proceeding and they anticipate being ready to re-open the hydro generating station in April. This of course has us all excited again about being able to get back into the river to repair the damages and get things tuned up for the 2014 paddling season.

But this enthusiasm has to be taken with a reality check, because the Barrier Dam may not be fully functioning in May when the spring runoff begins. It would be foolish to fix up the river for the normal 30-35 cubic meter per second (cms) flow and then have the river flowing at 65 – 100 cms and washing out all of our new work.

The AWA is planning for construction to begin April 7th, 2014 in the river. We have ordered 1,500 tonnes of new rock from Exshaw to be delivered on site for that date and have scheduled contractors to bring in the equipment to start moving that rock into the river and rebuilding the features that were destroyed.

We will try to recreate the whitewater features and upgrade where possible anything that we can do to improve the recreational experience for everyone. The things to expect on the river:

1. The W-waves above Lusk Creek will be rebuilt and the midstream eddy excavated at this first feature below Hollywood
2. The Lusk Creek eddies will be excavated and rebuilt
3. At Point Break a viewing platform – like Miami Beach – is planned to run on the east bank, river right shore. This will make future freestyle events easier to stage and manage without as much degradation to the embankment.
4. Point Break and its outlying play waves, Thunder Bunny et al, will be rebuilt.
5. The viewing area at Santa Claus will be rebuilt and Santa Claus berms and hole will be rebuilt.
6. Santa's Little Helper will be tweaked up.
7. New eddies and small surfing waves can be expected throughout the upper reach and we will try to make the stretches of flat water a little more entertaining.
8. The Alberta River Surfers Association has an exciting new project to build a new surfing wave between Santa's Little Helper and Smitty's Wave that will be more of a green wave that is conducive to river surfboards.
9. Smitty's wave will be reconfigured to make it fun yet safe for swimmers that are flushed into the Headwall.
10. Wallwave and the bedrock that made Wallwave possible will require a rethink because of the erosion of pockets in the bedrock. With the water off, we hope to be able to figure out how to build an entertaining intermediate wave/hole.
11. There was a lot of material was deposited in the river between Wallwave and Cartwheel Corner. This will need to be moved and reconfigured into the berms and embankments and the fill for the Riverwalk behind a hard surfaced retaining walls.
12. The move of Green Tongue will make it possible to build some intermediate teaching eddies and waves in between Wallwave and the new Green Tongue.
13. The Kananaskis Riverwalk on the river right side will be widened from the Headwall all the way down to Miami shifting the river over to the left side of the channel.

14. The Miami Beach area will largely stay the same but a new rock may be repositioned into the old Miami Hole location to recreate this feature. All of the midstream piles will be reworked to make them more resilient and less susceptible to being moved by rafts or high water.

15. The Cheesewave and the upstream attainment from the Shark's Tooth up the river left side will be rebuilt.



16. The Kananaskis

Riverwalk below Miami and down to the Lower Race Course will be rebuilt with a wider profile.

17. The rocks in the Notch were blown out by the flood. We are going to build a new Notch at the point below the deep Notch pool where the river shallows out and begins to pick up speed again. The new Notch will choke the flow here and flood the pool back up to the Shark's Tooth at the bottom of the Upper Race course. This will create a 1 meter head of water and a new wave feature in this section above the Otter Slide. This new rapid will speed up the water down into the Otter Slide giving us a longer rapid to use for competition and training

18. The berms on river right in the Otter Slide and the Kananaskis Riverwalk through this section will be rebuilt down to the TakeOut Eddy.

19. All of the midstream rocks, holes and waves in the Lower Race Course need work so that features like Random Hole and Last Wave are rebuilt, the attainment up function is restored and the sharp eddy lines and bouncing waves are shaped.

20. Throughout the Upper and Lower Race courses, the river will be narrowed and squeezed to keep the flow faster and more exciting.

21. Below the race course, we are working on building a better novice teaching area. We will be building out the river right wall eddies between the Takeout and Forty Boat Eddy to make them big enough to use for teaching eddy turns. On the river left bank we are building a fish ladder to bring paddlers up from Forty Boat back to the Takeout Eddy. We will also be rebuilding the little surfing waves that were popular in this section.

22. The Forty Boat Novice Teaching area will be touched up with a new midstream pile and small surfing wave at the bottom.

23. A wide handicapped walking path will be constructed from the parking lot down to the lower part of Forty Boat eddy.

24. Downstream of the race course, we will examine if there are any safety concerns or environmental issues that need to be addressed once the river is turned off and we can walk the river bed.

25. We want to improve the novice-intermediate paddling features downstream of Canoe Meadows to Seebe, but this requires new permits and a lot more planning. It also requires permission from the landowners adjacent to the river which we have never received for this section of the river.

We expect this work to take 3-4 weeks with 2 Trackhoes, 2 RockTrucks and 1 Loader working 10 hour days. We would like to be finished up by May 2 so that Raft Guide training can begin on time and the spring paddling season can start. But we cannot make any promises until we:

- A. understand the status of the Barrier Dam repairs
- B. see what kind of water holdbacks and releases TransAlta is able to give us throughout the construction period
- C. know how quickly the repairs can be completed

We believe that this plan will build a better and more flood resilient Kananaskis that will be able to survive future flood events like this one. We are excited about the opportunity to reshape the river and rebuild the premier whitewater paddling facility in western Canada.

The support of our paddling community is essential to helping us make this all happen. A lot of work has to be done with big equipment and we have limited opportunity for volunteers to be around the equipment. We will need help tearing down sections of the Upper Slalom Race Course so the equipment can get into the river and do the work required. We will be working to refinish the trail system and put the gate system back up over the summer. If you would like to volunteer we would love to have you join our team.

Should you have any thoughts or concerns to add to this discussion you can contact:

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