

Wheel Spinning:

A Productive Path to Protect Native Trout?



By Lorne Fitch, *P. Biol.*

How does one measure progress in conservation? Aldo Leopold wisely pointed out: “The only progress that counts is that on the actual landscape of the back forty.” In the wake of native trout management plans and recovery strategies one needs to chart the progress towards moving bull trout and westslope cutthroat trout from the brink to a safer place. Obligations to trout conservation have no meaning without action. And sometimes we can’t wait for governments to do the right thing; we have to act on our own and trust that our actions will prompt others to follow.

A Glacial Process

Carl Hunt, retired fisheries biologist and constant campaigner for trout conservation, points out that dire signals about bull trout were recognized before 1980. In the early 1980s the Alberta Fish and Game Association introduced the slogan: “Save the Bull Trout.” Provincial fisheries biologists provided management plans and wrote recovery plans in the mid-1980s.

A clarion call to action was sounded in the early 1990s and a “Friends of the Bull Trout” group formed to focus attention on the plight of the species. Status reports throughout the range of bull trout confirmed suspicions, papers were written, and conferences were held. We were building a sense of collective angst and need to take action to the issue.

Another slogan was coined, “No Black – Put it Back,” to alert anglers about misidentifying bull trout as brook trout. Bull trout were too scarce and too precious to

catch and keep. Signs were posted advising people they were in “Bull Trout Country.” The dedicated bunch also gave the species some political support, by encouraging the provincial government to make bull trout our provincial fish species.

A “Management and Recovery Plan” was written in 1994; in 1995 bull trout were protected from angler harvest. By 2002, over two decades after the red lights started flashing, the slow wheels of government had deemed bull trout a “Species of Special Concern.” A status report was completed in 2009, followed by a conservation and management plan in 2012. By this time bull trout were designated as “threatened.”

Some 35 years after the warning bells for bull trout began to ring we are now at a point where the province is launching the initiation of the recovery strategy. Hopefully this strategy is in the nick of time and not too late.

The chronology of events leading to action on the westslope cutthroat trout file is similarly glacial. By 1996 a loss of 30 percent of cutthroat range was noted in Banff National Park, followed by warning signals from the Oldman watershed in 1997. A status report completed in 2006 led to the species being designated as “threatened” in the same year. Three years later, in 2009, a multi-stakeholder recovery team was established. This group worked for four years to complete a recovery plan in 2013 with endorsement from the provincial government.

One can’t be critical of the energy, experience, and biology that went into trout

management plans and recovery strategies. The test though, as Leopold pointed out, is whether any of this hopeful text is being translated into things on the ground, in watersheds and on streams where these imperiled trout species live.

For example, designating critical habitat for cutthroat trout was delayed for over a year by the federal government. It took a regime change in Ottawa and legal action by the Alberta Wilderness Association and Timberwolf Society to achieve this bit of protection.

I have learned the approach involving status determination, recovery strategy preparation, and finally action plan work is so long and tedious that a species can probably go missing before anything concrete is actually agreed to and undertaken. Based on my observations these “recovery teams” are where the victim’s recovery is overseen by a tribunal that includes the perpetrators of its demise. It is a quintessentially Canadian affair, I think; one of abject fairness where, if you haven’t caused the problem, how can you be part of the solution?

The length of time for these recovery teams to provide a product is worrisome. It seems like the time spent debating recovery is always far longer than the time it takes for industry to win approval for a project that could push the species further and faster on its path of decline.

At every juncture in this tortuous path, there is a tendency for many participants to retreat to their corners with anticipation amid hopeful hype about a sense of stewardship for the future. In retrospect a



Ineffective effort to prevent excessive runoff from entering a tributary of Hidden Creek. PHOTO: © L. FITCH

cloak of naïveté blankets discussions and offers a comforting sense recovery strategies will work or are working.

One should question whether this work makes much difference in how the watersheds that these trout hang on in are treated. The contrast between what was said and agreed to by the department and what happens at ground level may be striking. It is as if no one outside the fisheries staff has read, understood the commitment to recovery efforts, and has thought about the application to land use. By land use I focus especially on logging, OHV use, and random camping.

Too Polite?: The Message of Management and Recovery Plans

These plans are too polite when it comes to the notion threatened fish species are likely to become endangered if nothing is done to reverse the factors that led them to their perilous status. This likelihood needs to be explicit, not implicit. Surely the point of recovery is not to maintain them on some razor's edge of existence but to allow populations to expand to the point they are robust enough both to survive and thrive within large portions of their historical range.

Management and recovery plans have been endorsed by the provincial govern-

ment through the responsible minister. One would think it reasonable to presume they are binding on all parts of the provincial government. The documents are, in effect, agreements not to let these threatened species plunge into the endangered category. They should be an implicit contract to pull the species back from the brink that all branches of government should respect.

I don't think this is how these plans are regarded. Instead they say this: "Do what you can to stop making things worse, and try to make things better." This is couched in more scientific or administrative language such as:

- Cumulative effects assessments leading to thresholds for linear disturbance and percentage watershed disturbance.
- Water Act reclassification of key streams to Class "A" to protect critical habitats, especially spawning streams and elimination of "Green Zone Exemptions" for stream crossings.
- Identify sediment sources caused by roads and other land use activities for remediation.
- Ensure hydrologic response of key watersheds is not altered by land use activities.
- Change the guidelines that govern land uses (especially the Timber Harvest Operating Ground Rules) to ensure higher

levels of protection to fish, using empirical evidence to meet specific targets for habitat maintenance.

- Develop habitat restoration plans that adequately protect critical habitats.
- Increase efforts in fish population and habitat monitoring.

What is being done on the Ground?

Maybe we should trust that real actions and real progress are being made. But, I'd suggest you indulge whatever skepticism you may have and get out there. If you go into the woods today, you're in for a big surprise. So, in my case, I analyzed the Oldman watershed. This is a summary of what the ground there looks like to me.

I used observations of land use intensity, frequency, and additive effects to assess the progress on the ground towards recovery efforts for bull trout and cutthroat trout habitat in the Oldman watershed. This included 17 streams in the upper Oldman, 15 streams in the Crowsnest, 11 streams in the Castle, six in the Waterton, two in the St. Mary and three in the Willow Creek watersheds. The results from those 54 streams and rivers was not encouraging.

The biggest impact in most watersheds was from the sheer number of roads, trails, seismic lines, and pipeline right of ways. The linear density (km/km²) and number of stream crossings contributes to erosion, sediment transport, and hydrological changes to all these watersheds. The use of this network of access routes by OHVs and other vehicles seems unabated and growing. For those watersheds where linear density has been inventoried, this exceeds the ecological thresholds for both bull trout and cutthroat trout by orders of magnitude.

If unregulated OHV activity, including commercial motorcycle races, is the symptom, the cause is resource extraction, notably logging, but also petroleum development and past and proposed coal mining. The network of roads and trails continues to grow, not shrink.

Historically, logging was the largest land use footprint in most of these watersheds.

Apart from the Castle, where logging has been terminated by park designation, logging continues in most other watersheds containing threatened fish species. Fish in the Castle aren't out of the woods yet, with hundreds of kilometres of old logging roads still used by frenetic OHV users.

Despite a bull trout management plan and a cutthroat trout recovery strategy, logging of sensitive watersheds proceeds, seemingly without concern for these threatened species. Logging (and roading), through excessive linear disturbance and massive sediment loading, have reduced essential bull trout and cutthroat streams to a lowest common denominator status. Instead of treating bull trout and cutthroat trout as threatened species, entitled to extra care and protection the, professional foresters and managers ignore them, as if they already did not exist.

Hidden Creek, the epi-centre for bull trout spawning in the Oldman watershed was logged without appropriate stream buffers applied. Immediately following logging (and the 2013 flood) redd counts for bull trout in Hidden Creek dropped from about 100 per year to a mere fifteen.

Allison Creek, one of the few Crowsnest tributaries still holding cutthroat trout was logged, again with significant deviations from the minimal ground rules. The logging road had, in one location, barely a three metre buffer, when it is supposed to have a 100 metre one. The slope slumped and sediment has been bleeding into the creek more or less continuously for several years. Remediation efforts are a bad joke.

In Star Creek, subject to a questionable research effort to increase stream flows with logging, the Forest Service changed the rules to downgrade the *Water Act* designation of stream side buffers to the lowest level possible to allow the maximum amount of timber to be removed. This was done with an imperfect knowledge of the pure cutthroat population in the stream.

Logging is planned along White Creek which contains the highest density of cutthroat trout of any system within the historic range of the species. It should be a

reference stream, set aside as a benchmark, not another site for logging.

Proposed coal mining in the Crowsnest watershed is a new, significant threat to remnant, pure cutthroat populations in that watershed. Past, unremediated mining activities add to the cumulative impact of other land uses. Plans to mine again on Grassy Mountain north of Blairmore have the dubious distinction of negatively affecting not one but two cutthroat populations, in Gold and Blairmore creeks. Exploration activity is already under investigation for possible infractions.

Most of the streams I observed had multiple perturbations, including random camping, water diversions, commercial recreational development, and grazing. There are no safe havens left, no refuges from logging, with the possible exception of the Castle if its newly conferred park status supports a range of land uses consistent with the common sense meaning of "fully protected."

The Pit of Policy

So where are we at with the policy level decisions, the marching orders for departmental staff? The direction provided in the management plans and recovery strategies spoke to a number of things that needed to be done and changed to allow these trout species to persist. So, as of this writing how many have been completed, set in policy stone, translated into guidelines, explained to those whose responsibility it is to accomplish these directives?

When a coalition of conservation groups raised the question of progress on protection of bull trout and cutthroat trout with the former minister of the then Department of Environment and Sustainable Development on seven areas identified in management and recovery plans the answers were telling. No recommendation had been followed through on, some were in "early stages", in others "discussions have occurred with departmental staff" and mostly things were being "planned." Charitably, this is all code for no progress. Even something as simple as an administrative



This example of clearcut logging in Hidden Creek illustrates all too well why excessive sedimentation threatens this SARA-designated critical habitat for westslope cutthroat trout. PHOTO: © L. FITCH

change to designate critical streams as Class "A" under the *Water Act*, the highest level of protection afforded by provincial legislation, seems to have encountered a road block.

Giving the government some credit, there are plans to begin planning for the linear footprint, recreation management, cumulative effects and biodiversity. But, these ideas are barely off the drawing board and timelines to their completion, if they ever are completed, are unclear. At some point we have to do something. Otherwise we navigate through a sea of planning where no wind fills the sails to take us to the port called progress.

The aggravating thing about the planning leading to policy is this: When all is said and done, more is said than done.

Lights at the End of the Tunnel

Although it's easy to become despondent over the lack of measureable progress by government, there are hopeful signs from actions undertaken by non-government groups. The Oldman Watershed Council

(OWC) initiated a headwaters project (the Headwaters Action Plan) to deal with issues like cumulative effects, linear disturbance and thresholds for land use activity. They have made substantial progress in shining a bright light on these issues, often in the face of government intransigence and lack of support.

The OWC, Ghost Watershed Alliance, Trout Unlimited and Cows and Fish have all taken on restoration projects to aid both bull trout and cutthroat trout. They have successfully mobilized support from volunteers, sometimes industry and OHV groups, to replant riparian areas and stabilize eroding banks.

But, like Aldo Leopold's bird dog, who would point meadowlarks when there were no grouse available, there is a tendency in conservation work for our own form of displacement behavior. Even though the largest issues related to biodiversity conservation and maintenance of landscape integrity are ones of policy and legislation these tend to be difficult ships to turn. This is especially so when arms of government refuse to recognize the reef of imperilled species approaching. So, we divert to postage sized restoration projects, looking for cooperation and collaboration with other like-minded organizations and congratulating ourselves over the small, but largely insignificant, scale of such endeavors.

As we inch forward a few metres at a time with band aids of restoration, kilometres and townships of the landscape are transformed by industrial practices. For every

kilogram of sediment arrested with a restoration project, tons pour off of poorly constructed, badly placed, and inadequately maintained roads and trails.

Where to from Here?

I've come to the conclusion that in forested watersheds trout have only two real enemies – industrial scale, clear cut logging and roads. Maybe someday we will discover these are also the enemies of what we can become, especially because of the cumulative impacts of too many activities crammed into a limited landscape.

The Eastern Slopes are a trout forest, a watershed forest, maybe even a recreational forest but not a commercial forest. To treat the Eastern Slopes as a commercial forest is to fail to meet other, more important societal and environmental needs, including maintenance of native trout, the indicators of effective landscape management. Yet, the Alberta Forest Service continues to fan the dying flames of commercial logging, ransacking the forest to keep an industrial welfare recipient alive.

There is a troubling pattern of behavior – minimalist and unproven guidelines, the least onerous, or no monitoring, insufficient oversight and compliance, foot dragging once problems are identified and then cheap, insubstantial, and cosmetic solutions.

History wasn't made yesterday – it is still being made today. Trout declines continue. History teaches lessons about limits. Our watersheds, our wildlife, our threatened

fish species will not survive a combination of benign neglect, sluggish actions and the cumulative pounding of industrial and recreational activity.

The key is a policy decision (and the will to enforce it) that would see no further habitat loss in watersheds containing native trout followed by an aggressive habitat restoration program. The policy would be informed by science, the precautionary principle and not by economic drivers. It has to be applied at the right scale – big rather than little.

We are at a critical junction in the management of species at risk in Alberta, especially native fish. Either we act, act quickly and decisively to recover populations, or they will surely slip through our fingers, out of our memory and out of our watersheds. If future generations remember the loss they may well curse us for our carelessness.

Alternatively, we should invest in the future, since that's where all of us will spend the rest of our lives. In that future world I would hope there will be abundant populations of native trout. But, it's hard to see how we are going to get there on the pathway we are currently on.

Because today, as Buffy Sainte-Marie sings: "Little wheels spin and spin, big wheels turn around and around." ♣

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Featured Artist Wendy Morris



"Silence", Mixed Media, 48" x 24"