

GREAT NEWS FOR RANCH HOUSE SPRING CREEK!



Above: This is the first photo of a small brook trout that hatched in Ranch House Spring Creek this spring! The presence of this and other newly hatched trout confirms the successful incubation of trout eggs from the fall 2013 Spawning Event on the stream. The result adds a whole new significance to the importance of the stream's role in the watershed's fishery and hopefully Ranch House Spring Creek's long term protection!

New Hatch of Trout is the First Documentation of Successful Reproduction!

It is one thing to document a successful spawning season on a trout stream, but in order to confirm the event's importance, you need to document the success of the incubation of the eggs. This will verify that there is successful reproduction occurring on the creek!

To achieve this verification, proof of a successful hatch of eggs

must be recorded. Often, a trout trapping program will do this, but if you are on a low budget study, simply by taking photos of the newly hatched trout will accomplish the same goal!

The largest factor involved in the later methodology, is having the time to monitor the stream closely, for the first signs of a trout hatch. Also, you need to

know where and what to look for!

When trout fry first emerge from the spawning gravel, they are very poor swimmers, so they have a tendency to collect in slow water habitats, downstream of the spawning habitat. With some patience and by closely observing these lateral margin habitats, you can spot the small trout in these areas, if you're lucky!

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Bow Valley Riparian Recovery and Enhancement Program 2014 Progress Report for May 29th!

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info@streamtender.com



Recreational Fisheries Conservation Partnerships Program
Programme de partenariats relatifs à la conservation des pêches récréatives

New Partner for the Bow Valley Riparian Recovery and Enhancement Program!

Bow Valley Habitat Development is pleased to announce that Fisheries and Oceans Canada has joined the partnership program for the "Bow Valley Riparian Recovery and Enhancement Program".

The "Recreational Fisheries Conservation Partnerships Program" will be involved in the

and 2015 work programs for Nose Creek, West Nose Creek and Bighill Creek. The work will involve the planting of native willows and trees along all three of these streams.

The new plants will create and enhance fish habitat along the stream banks and provide a direct benefit to sport anglers. All three

of these streams are tributaries to the Bow River, which provides a major sport fishing industry in the Calgary area.

The DFO partnership program will match up to 50% of other partnership dollars that are contributed towards this watershed program. Having a two year commitment from DFO is great news!

Walmart/Evergreen Contribute to the Bow Valley Riparian Program for 2014!

In 2013, Walmart and Evergreen made a major contribution towards the Nose Creek Riparian Recovery and Enhancement Program! Walmart dollars made it possible to plant over 2,000 native willow and tree plants along the stream banks of Nose Creek.

BVHD is pleased to announce that once again, Walmart funding

will be used to complete another planting in the 2014 season. This year, the partnership will allow the planting of approximately 1,200 native willows and trees along the stream banks of three area streams.

This partnership will provide a major boost to the "Bow Valley Riparian Recovery and Enhance-

ment Program"! The plantings will result in major long term riparian recovery on Nose Creek, West Nose Creek and Bighill Creek.

Last year's Walmart/Evergreen programs on Nose Creek in Airdrie, resulted in the completion of riparian planting on over 1.5 km of the stream bank. BVHD appreciates their ongoing support!



"Last Years 2013 Willow and Tree Crop is looking Really Great!"



Above: This photo was taken on May 22nd, 2014. It shows some of the willow plants that were planted along the stream banks of Bighill Creek, in the Town of Cochrane, Alberta. By the end of the summer, they should be well established along this section of stream bank! **Right Photo:** This photo shows two Stage Two willow plants that were planted by ATCO Pipeline volunteers in 2013!



"West Nose Creek Riparian Work is Well Underway!"

So far this past May, major planting have been carried out on all three properties located on West Nose Creek. The plan for this stream was to complete most of the plantings on the two properties outside of the City of Calgary first, and then concentrate more on the sites located within the City limits!

The reason for this is that the upper reaches of the stream have heavy growths of canary grass, which dominate the stream banks later on in the summer!



Above: This photo is of willow plants that are planted on the outside bend of the stream channel. Looking down on them, you can see that the heavy planting will help stabilize the stream bank in future years!



Above: A brook trout fry, close to the stream bank.

"More Great News for the Bighill Creek System!"



Above: The first recorded photo of a trout hatching on the park spring!

It took a lot of trips to finally observe the first batch of trout hatching on the BHC Park Spring Creek this year of 2014! Because I only observed the one brook trout fry, from the 2013 spawning event on the creek, it took some

effort to finally get a few photos of the small trout. The above photo was taken on May 20th, when I decided to visit the creek, on the way back from a willow planting project. I was almost ready to give up on the possibility of a hatch this spring!

“Spotting That First Newly Hatched Trout on Ranch House Spring Creek – This Spring”



A Ranch House Spring Creek Brook Trout Fry, photographed on March 27th.

Above: The unmistakable parr marks (black spots) on the sides of this trout fry confirm its identity!

The first trout fry that I spotted on Ranch House Spring Creek, happened on the 27th day of April 2014. While walking the stream channel, below where I had observed spawning brook trout in the fall of 2013, I spotted a small swimming object, darting into the cover of the shoreline grasses.

At first, I wasn't sure that it was a trout, thinking that it could possibly be a mayfly nymph. It was that small just a little further upstream, I came to another quite water pool, and while carefully watching the bottom area of the pool, I spotted a small fish's sudden movement. I knew at that point in time that it was a small trout, because of the body dimensions and the way in which it was swimming.

The fish was definitely a poor swimmer, so this ruled out a minnow or stickle back. Also, the fishes coloring was almost black in appearance. Once a few close up photos were taken, I confirmed that it was a trout, by the obvious parr marks along the sides of the fish's body.

I had been monitoring the Ranch House Spring Creek for the first evidence of a trout hatch, since early March of 2014. Now, after all of the time spent walking the creek, I finally had the proof that I needed to confirm a successful incubation of the brook trout eggs, from the previous spawning season!

Judging by the size of the largest trout fry that I observed that day in April, I estimate that the first emergence started in mid-April. So, the primary emergence time on Ranch House Spring Creek is in the third and fourth week of April. This is valuable information to have on hand, for future reference!

By the number of juvenile brook trout that I have observed since the first trout was spotted, I can safely say that the hatch on Ranch House Spring Creek in the spring of 2014 was very substantial! Also, the amount of recruitment into the watershed of the Bighill Creek is of major importance to the stream's fishery!

“Bighill Creek Fishery in Recovery”



Above: This nice little brook trout was caught during the 2013 fishing season, on Bighill Creek. The Stream is starting to show signs of recovery, after many years since the sport fishery collapsed!

An old friend that worked on the Millennium Creek Project as a volunteer in 2008, recently asked me about the status of the fishery in Bighill Creek. I told him that things were improving in the last few years.

Although the sport fishery in Bighill Creek was historically well known in the area, the stream had suffered many years of low water and no trout populations. However, since the start of the new Millennium, the volume of the water's flow has

dramatically increased in the creek and the trout populations are on the rebound.

With high water flows, thanks to replenished ground water springs, the recruitment of trout back into the Bighill Creek has started, without the help of fisheries managers. All of the new trout occupying the creek have done so by natural recruitment.

This shows you how important a good volume of flow is, along with good

in-stream fish habitat. Trout from the Bow River started this recovery off by moving back upstream, into the creek.

I was really surprised to discover that both brook trout and brown trout were actually using the Bighill Creek as a spawning habitat, in 2008. This, along with the new spawning activity on both Millennium Creek and Ranch House Spring Creek, will facilitate a full recovery to the fishery, in the near future!

“An Egg Hatch Confirmed on Bighill Park Spring Creek!”

Despite constant monitoring and wishful thinking, I could not confirm a trout hatch on the Bighill Park Spring Creek this late winter and early spring until May 20th! However, this does not mean that there wasn't some trout hatching during that earlier period of time.

As is usually the case, juvenile brook trout are noticed in shallow lateral margin habitats along the stream, just below the spawning beds, just after they hatch!

At first, I did not find any present on my many trips to the spawning area on the creek. Well known fisheries biologist and water quality expert, Al Sossiak, once told

me that there may be too much calcium in the spring creek's water, which would prevent the trout eggs from taking in oxygen, during incubation.

For a long time, I was thinking that this may be the case! Or at least this may contribute to a low survival rate of incubating trout eggs!

In the early part of the 20th century, a trout hatchery was built on the creek, but it provided to be unsuccessful at that time and this water quality issue may have been the cause!

Finding that first hatched trout this spring, has led me to believe that at least some trout do survive thru incubation! This is great news for the creek!

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Above: Trout fry will lay motionless on the bottom of lateral margin habitats where they try to avoid detection from predators. These lateral margin habitats are quiet backwaters where the current is moderate and there is plenty of cover habitat, such as aquatic weeds and grasses.

2013 Rainbow Trout Egg Hatch on Jumpingpound Creek, Yet to be Determined!

Last year, a few of us local fly fishers confirmed that there was a good hatch of rainbow trout on the Jumpingpound Creek in 2012.

We know this for sure, because there were all kinds of small four inch rainbow trout in the Bow River, in the Town of Cochrane last year!

What I am interest in, is knowing if any newly hatched rainbow trout survived the flooding in June of last year, on the Jumpingpound Creek.

There may have been enough successful spawning completed in the early spring, by Bow River rainbow trout, to have insured some recruitment.

Once the trout eggs are spawned in the gravel and fertilized, they are sometimes surprisingly able to withstand a considerably flood event, yet still hatch!

Us local fly fishers should find out if any made it thru the flood, by possibly catching a few 4 inch trout this July!



Above: These small juvenile rainbow trout, were successfully hatched on Jumpingpound Creek in the early summer of 2012. The small rainbow trout often travel in schools.

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"Willows Along the Water's Edge"



The primary objective for the successful completion of BVHD and its partner's riparian habitat programs, along area streams, is the creation of fish habitat. There are a number of other very important benefits that are a consequence of these programs, but creating fish habitat is the main goal.

With this in mind, most of the plantings of native willow and tree plants is completed right along the water's edge, where it will provide the best results, in the long-term.

When I say long-term, I mean that as the willows and trees grow, they become more and more effective as fish habitat.

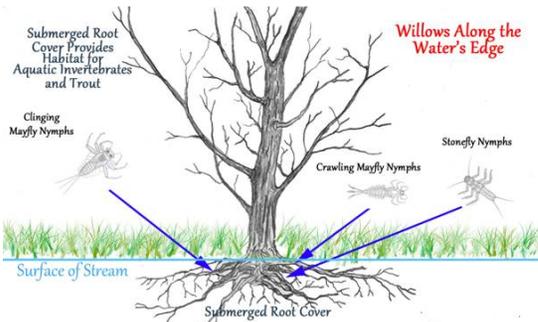
By growing willows and trees right along the edge of the stream bank, the plants will provide overhead cover; both above and below the surface of the water.

The base of the willow plant, the branches or limbs and the root systems, all together, create good habitat for both aquatic invertebrates and fish. This is often called structure, by both anglers

and fisheries biologists.

Aquatic invertebrates, such as May fly nymphs and stoneflies will utilize the submerged part of the willow plants as habitat. Trout love to hold in these areas, not only for the cover, but occasionally to snack on an available nymph.

Having fly fished for many years, I never pass up the opportunity to cast an imitation dry fly or nymph, close to the cover of an overhanging willow or tree plant. Often, with good results!



Trout like to hold below the overhanging limbs of Willows and under Root Systems

"Willows Planted on Bighill Creek in 2010 are Growing Very Nicely and They Will Soon Provide Great Overhead Cover!"

In early May of this year, I visited some of the planting sites along Bighill Creek, in the Town of Cochrane, Alberta. It was very rewarding to see that some of the plants that were planted in 2010 are now starting to stand out, along the banks of the stream.

You can still see the top of the original cutting that the plant was grown from (See the photo below). Once the leaves are showing this spring, the plants

will provide a little shade to the stream, but it will be a few more years before the plants start to provide habitat for fish.

Then again, there may be some fish utilizing the young plants, even at their early stage of development. At some of the planting locations along the creek, there is already a bit of an undercut bank, which always works well for a trout in need of a little overhead cover, and the young willows will enhance this!

It usually takes approximately 4 to 5 years, before a newly planted willow is starting to stand out to both fish and passers by.

I really look forward to taking a few photos of some of the planting sites, when the willows are large enough to be noticeable in a photo of a reach of stream that has been planted years earlier.

I also look forward to one-day casting a trout fly close to and our willow plants for a trout!!



"Willows Hanging On to the Stream Bank!"

On the outside bend of a stream bank, where undercutting by the flow occurs, willow plants help to stabilize the stream bank.

Even after most of the root systems have been washed free from the stream bank, the willow plants will still hang on to what remains of the eroding stream bank.

The root systems on mature willow plants is strong enough to support the weight of the entire plant, even when most of the willow is suspended over the

water, with little soil beneath the plant.

There is usually enough of the root system extending back into the still stable stream bank, to keep the plant attached and growing. The plant can stay in this position for many years!

Willow plants like this one will reduce that amount of stream bank erosion, and also provide excellent habitat in the stream channel below. This is why a healthy riparian buffer is very important on trout streams!



Above: This mature willow plant is still attached to the stream bank and its roots are still intact to the soil bank from the water's edge.

The Bow Valley Riparian Recovery and Enhancement Program for 2014

With the ongoing support and success of the Bighill Creek and Nose Creek Riparian Recovery and Enhancement Program, BVHD has decided to expand the program to include West Nose Creek.

The programs combined will now fall under the title of "The Bow Valley Riparian Recovery and Enhancement Program".

Bow Valley Habitat Development (BVHD) and its partners have the opportunity to make a major positive impact on the health and future recovery of these important tributaries to the Bow River system.

The future result will be an improvement in water quality and fish and wildlife habitat in the watershed!

"Bow River Boulders Still in Place After the Winter of 2014!"

Every spring, especially after a severe winter like we had this year, I like to visit some of the boulder sites that BVHD created on the Bow River in 1996.

My main interest is to see if there has been any

movement of the large class 4 and 5 rocks, by either ice flow or flood events.

I am pleased to report that despite heavy winter ice, the boulders are still in their original placement!

My next trip down to the river, for a closer look, will be with a fly rod in my hand. This closer inspection of the sites is much more rewarding than just taking a few photos of the big rocks!



"The Famous Doc Spratley"

Left Photo:

This photo shows one of the triple rock placements that are located just downstream of the River Avenue Bridge, in the Town of Cochrane.

During low flow periods, later on in the summer months, I like to fish these structures for rainbow trout and mountain whitefish!



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Return to No-Name Creek

The weather this month has been cold and this past week of the first part of May has been brutal! I was anxious to get down to some serious spring fly fishing!

I had been out a few times, casting streamer flies, but after a really cold winter, the trout were still a bit lethargic. Now it was May 7th and we were going to get a break in the weather.

My plans for this slightly warmer day, was to visit one of my favourite trout streams. It had been a few years since I last fished the stream and after thinking about it for some time, my mind was made up.

For this article I will call the trout stream "No-Name", out of respect for the landowner's privacy.

No-Name Creek is a small brook trout stream that I first fished back in the late 1960's and it was also one of the first trout streams that I did fish habitat enhancement work on. Among other things, I did some willow planting along the stream banks, back in the 1980's.

This fly fishing trip would also serve as an inspection tour, with a little photography. Hopefully, at least one good photo of an early season brook trout would help make my day!

The water temperatures in the stream would still be very cold, after the recent sub-zero week of a late winter blast, so I didn't expect a banner day of fly fishing on the creek.

When I arrived at the stream, it was my planned 10:00 AM start and already the weather was starting to warm up a bit. Excitement was building, as I grabbed my fly fishing gear and set out over the hill, down to the creek.

The plan was to fish a streamer on that day, so as is normally the case with streamer fishing I would start upstream and travel down.



Above: Willow cuttings were planted along the stream banks of the creek in 1989. Right: A year later, the plants were starting to help stabilize the stream banks!

A few hundred metres from the truck, I climbed a steep slope down to the trout stream. As soon as the stream came into view, I could see that there was excellent flow in the creek. Precipitation in recent years had really made a huge difference!

Although the water was slightly turbid, you could still see down to the bottom in the shallower runs and riffles. There was great cobble and gravel covering the streambed, with a nice mat of narrow leaf water plantain.

The landscape was still quite familiar, and it felt good to be back on this beautiful little trout stream that I had

fished on for many years in the past!

As soon as my fly line leader was modified for streamer fishing, I picked out an early season favourite streamer fly pattern of mine, and tied it on the fluorocarbon tippet. Now I was ready to start fishing!

My enthusiasm got the best of me, and I was expecting to hook a trout in the first good pools and runs that I cast my fly pattern on. However, this did not happen, and over the next hour of fishing the upper reach, I ended up

continuously changing fly patterns, hoping to find the right one to tempt the trout with.

As my hard efforts of fly fishing continued downstream, I began to have doubts about catching any trout at all.

I couldn't figure out why I hadn't at least seen a trout in the water. Even a "follow up" (when a trout chases your fly pattern for a brief moment, but then turns away) would have lifted my spirits!

However, there was one pleasant distraction that impressed me as I fished the creek on the top of the reach, and that was how well the stream banks had recovered, since my willow planting efforts in the 1980's! I stopped my fishing to take a few photos.



Above: The willows that had been planted right along the water's edge have grown to provide great fish habitat, along the stream banks.

Around the same time that I started to work on "No-Name" Creek, back in the 1980's, a fencing program was completed on the stream. Knowing this in advance, the completion of the willow planting program would result in a more rapid recovery of the stream banks. Once grazing cattle were kept away from the stream, the new willows were expected to do quite well.

This turned out to be a real showcase project, for the protection of trout streams on agricultural land. However, the maintenance of the fencing can be very costly over time. Frost heaving of the fence posts results in annual or semi-annual post pounding projects.

Because the landowner is intent on taking care of this small trout stream, he had spent many hours keeping the property well maintained. This takes real commitment and as a sport angler, I really appreciate his hard work!



Above: There turned out to be plenty of small brook trout in the shallow waters of the small feeder spring that entered the mainstem of No-Name Creek. This evidence of a new generation of trout for the stream is always good to discover and it definitely lifts my spirits to know that the health of the fishery in the stream is still in good shape. Even if I didn't catch a trout that day, I would still be satisfied that they were definitely present in the creek and if I put in the time, I would be bound to catch one. If not today, then maybe on the next fly fishing trip!

"Not Ready to Give Up—Just Yet!"

After spotting the trout fry in the feeder spring, I gained a little more confidence in my fly fishing endeavour! Now I knew that there had to be some resident brook trout that were mature enough to lay eggs in the gravel during the previous fall spawning period.

There had to be a reason why I was not doing very well with my fly fishing. I knew that all of the different fly patterns that I was trying were used successfully, on previous trips to the creek, in similar spring conditions.

The recent cold snap was probably the most likely reason for the slow fishing that day. Maybe the cold water had made the trout too lethargic to actively attack a streamer pattern. It was time to start slowing down my retrieve!

Another possibility was that the trout were still hold up in wintering pools, where the current of flow is more moderate and the depth provides security for lethargic trout. Maybe the trout were wintering further downstream than the area in which I was fishing.

Approximately one hour after I spotted the juvenile trout, I came upon a series of tight meanders in the creek channel. The gradient of flow was slower and the depth seemed adequate for wintering trout, so I decided to slow my pace down a bit and spend a little more time fishing this section of the creek.

For the last 30 minutes of fishing my streamer pattern, I had slowed down my retrieve considerably, making my streamer fly pattern swim deeper.

This would make it more likely that my hook would find a snag on some submerged wood or weeds, but this is just part of the fly fishing experience! So far, I hadn't lost a single fly pattern that day, maybe I wasn't fishing aggressively enough!

I came to a tight turning oxbow in the stream channel, and on my first cast I felt something hit my fly pattern. On the next cast, I made my first hook up on a really large brook trout. Finally, I had broken the "jinx"! The trout put up a fairly nice battle, but the cold water inhibited its ability to shake free of the streamer hook.

Finally, I brought the fat male brook trout into my waiting net. What a great feeling! In the next few seconds I managed a good photo of the trout, before releasing it safely back into the creek.



Above: This beautiful 14 inch male brook trout made the whole day's fishing worth my while. Soon after this catch, I headed back to my truck, quite content with the fishing experience on "No-Name Creek" that day!

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Above: This is a photo of one of the willow planting sites that I completed. These willows are 25 years old!

"Walmart/Evergreen 2013 Planting Update–Nose Creek, Airdrie"



Nose Creek, Airdrie
Walmart Planting Site
Slantec and CP volunteers
2013



Above: In 2013, approximately 2,300 willow and tree plants were planted on Nose Creek, in the City of Airdrie, Alberta. Volunteers from BVHHD, the City of Airdrie, Slantec, and retired CP employees got the job done! The funding for this program was provided by the Evergreen/Walmart green grant program. I returned to the sites on May 24th, 2014, to take a few photos. **Top Right:** This is one of the plants after a year in the ground. You can see that during the flood of last year, grasses and debris covered many of the plants. However, despite the natural perils, this *Salix* willow plant will thrive over the coming years. Eventually, plants such as this survivor, will cover the stream banks of Nose Creek and provide both fish and wildlife habitat into the future!

Willow and Tree Plants are Efficient Debris



Above: You can see that they have accumulated a fair amount of garbage since their planting last year! These 2013 willow plants were from the Walmart Program along Nose Creek.



Right Photo:

This poor plant from the Microsoft Planting, is almost entirely covered in plastic, paper and dead grass! Last year was a very challenging year for planting programs, with the flooding of 2013!

A Look Back at the Volunteer Support for the 2013 Planting Programs



Nose Creek, Airdrie
Canadian Pacific Site
CP Volunteers



Bighill Creek - Shell Canada Planting Site
ATCO Pipelines
Volunteers 2013



Bighill Creek
ATCO Pipelines
Volunteers 2013



Microsoft Volunteer Planting Program
Nose Creek, Airdrie



Nose Creek, Airdrie
Diageo Planting Site
Diageo/Evergreen volunteers 2013

Some More Photos of Last Year's Willow and Tree Crop on Nose Creek!

Right Photo:

These willows are from the Canadian Pacific planting program in the community of Willowbrook, in the City of Airdrie. The plants were planted during the high water levels of the flood of 2013. However, despite this challenge, the plants survived well and they are starting out in fair condition for the 2014 growing season! (photo taken May 24, 2014)



As I look back to the hard work and pleasant experiences of our 2013 willow and tree planting programs, it motivates my enthusiasm for another year of riparian recovery and enhancement work on our area streams.

The planting results from last year's programs is also a rewarding and motivating factor in continuing with these type of projects!

Bighill Creek Willow Crop Doing Well!

Since Bow Valley Habitat Development and its partners first started the riparian recovery program on Bighill Creek, the stream's lower reach is starting to show a fast recovery! Despite difficult soil conditions on the lower reach, persistence pays and plants from the last few years are growing well. With poor soil quality, the new willows and trees will take some time to become obvious to the passer by, but in a few more years, the plants will stand out along the stream banks!

The most important thing is that the root systems become well established in the soil of the stream banks. Once strong root systems are present, the tops will grow very well and the plants can recover from any beaver predation! This riparian recovery and enhancement program will be very beneficial to the recovering trout populations in the stream. Presently, the spawning opportunities for resident trout are recovering and with the addition of good willow and tree habitat, all will be well!



Left Photo:

This batch of willows is in great condition. They are from the 2013, Honda Canada Foundation planting program. Bow Valley Habitat volunteers put these beauties into the ground in the early spring of 2013. This photo was taken on May 24th, 2014.



Because the plants were planted back from the water's edge, they survived the flood in better condition than others that were planted close along the stream bank!

Recruitment of New Generations of Trout on Bighill Creek and its Tributaries is Getting Better and Better!

Both 2013 and 2014 have been eventful years, from a fisheries perspective! In 2013, spawning activity was documented on the Ranch House Spring Creek and the Park Spring Creek, for the first time!

For this year, so far, confirmation of a successful incubation of trout eggs and a hatch of those trout has already taken place on both of these streams, also for the first time! It took a lot of trips to verify this discovery, but it was well worth the effort, in the end!

The first evidence of spawning on the Bighill Creek system was established during a comprehensive fisheries study that was completed by Bow Valley Habitat Development in 2008 and 2009. However, during that study, a research licence and a trout trapping permit were necessary to determine if there was a successful incubation of trout eggs and a hatch, on the main-stem of the Bighill Creek.

The more recent discoveries of new recruitment on the BHC system were accomplished simply by visual verification and a few photos and video to back up the findings. Furthermore, the documentation of successful reproduction of trout on the Park Spring Creek and the Ranch House Spring Creek

didn't cost a thing! Just a little time and gas money, was all that was needed to confirm what I had suspected was about to happen!

The driving force behind these discoveries is my own personal interest in the fishery and knowing that if the proper evidence is gathered, these discoveries will benefit the fishery on the creek for years to come!

Eventually, I plan on making a few pages of an addendum that I can add onto the original 59 page Bighill Creek fisheries study document that was published in 2009. However, there is no hurry to do this, because no doubt there will be more to add over time!

Identifying newly hatched trout is not that hard to do, when the stream where they are hatching has crystal clear water, such as is the case on both Ranch House Spring Creek and the Park Spring Creek.

Once emergence times are established, which means when the trout emerge from the spawning gravel, it is far easier to find these small trout fry on planned trips to the streams! On murky water streams such as the main-stem of the Bighill Creek, it is very difficult to find

trout larva, even in the backwaters of lateral margin habitats.

On the main-stem of larger streams, the newly hatch trout have to avoid larger trout just after they hatch, so they are usually more vigilant at staying well hidden in any available cover. This is when a trout trapping program is required to get the job done!

With the recent improvements in recruitment on some of the Bighill Creek's tributaries, I am expecting to see a substantial improvement in the sport fishery in the coming years. I can guarantee that I will also be closely monitoring this result! This is when the fun part of my job starts to come into play!

When I do get the chance to cast a trout fly over the familiar waters of the Bighill Creek in the future, I will no-doubt wonder if any of the trout that I might catch are actually ones that I have observed as newly hatched fish, on one of my many trips to the spawning areas on the creek.

This lingering thought is one of the many rewards that pass thru my mind while fishing on a stream that I am also working on! This is one of the many perks in my line of work!



Above: This small brook trout hatched on the main stem of Bighill Creek on May 18th, 2009. It measured 28 mm in this photo.



Left: This is a photo of the first documented brook trout that hatched on Millennium Creek, in March of 2011!

Right: This brook trout hatched in late May of 2014, on the Park Spring Creek. This is also the first documented hatch of trout on this small tributary to Bighill Creek!



Above: This brook trout fry was photographed in mid-April of 2014, just after it hatched on Ranch House Creek!



"2014 Bow Valley Riparian Recovery and Enhancement Program"

The Bow Valley Riparian Recovery and Enhancement Program for 2014 is off to a great start, with plenty of willow and tree plants already in the ground during the month of May! With all of the snow over the winter, the ground was soft and perfect for early planting this year!

By the time this magazine issue is downloaded to the web, BVHD volunteers and partners should have over 4,000 plants started along the stream

banks of all three of the targeted area streams. The plants were well advanced in growth so they will have a head start into the growing season this spring!

Some of the planting sites where rodents are known to be a problem, received special attention in the last week of May. A hot pepper oil was applied to the stem of the willow plants to deter muskrats, voles, mice, gophers and beavers!



Above: These newly planted young plants are shown along the stream banks of West Nose Creek.



Above: This photo shows a row of new plants that were planted along the stream banks of Bighill Creek in the Town of Cochrane, Alberta. The starter plants will have a chance to grow a bit before the shoreline grasses catch up!

"Willow Plant Survival is Sometimes Deceiving!"

Over the years, I have noticed that after a winter in the ground some of the newly planted willow plants appear to be dead, in the first part of spring! Many of these suspect plants start to show new signs of growth later on in the spring, as new chutes suddenly appear near the base of the plant stock.

In 2013, I decided to conduct an experiment with a bundle of willows that had been prepared in a rooting medium. I left the rooting medium with growing willow plants, outdoors over the winter.

Sure enough, in the early spring, some of the plants came to leaf as soon as the weather warmed up! Other plants, which appeared to be dead from the severe winter months, were examined to any signs of life in the root systems.

It was surprising to see how many of the plants that were dead in appearance on the top, were actually still alive and suckering up new chutes from the living part of the willow cutting!

I had exposed the bottom part of the cuttings in the rooting medium, with great care, to make sure that I didn't remove any of these delicate new chutes, as I disassembled the rooting medium. This is something that I couldn't do if I pulled a cutting from the soil, so the experiment worked out quite well!

I laid a sample of the recovering willow cutting out on a sheet of plywood for a few photos. You could also notice that the living part of the cutting was still quite green in appearance and it would be this living tissue that would sustain the plant enough to get a late start in the growing season, with a new willow plant surviving into the future!

Sometimes I will advise volunteers of this and tell them not to get disheartened when it appears that some of the plants have died over the winter months. In my experiment with those plants that looked dead on the top, I found that about 30% of them were still alive!

Left Photo: This photo shows the top of the willow cutting appears to be dead, but on the root system, there is a number of new chutes and a green stock!

"BP Volunteers Lend a Hand To Plant!"

On May 28th, this spring, Volunteer retirees from British Petroleum chipped in to plant willows and trees along the stream banks of West Nose Creek.

Bow Valley Habitat Development had worked with this group in the past, and it was a pleasure to have them back to assist in the Bow Valley Riparian Recovery and Enhancement Program for 2014!

Despite the threat of approaching heavy rain, a group of twelve volunteers and I showed up at the site

to help improve the riparian zone along this pretty little stream.

The group is well known in the Calgary community for their hard work in both environmental enhancement programs and other endeavours to make the community a better place to live!

With a little bit of good luck, the heavy rain passed us by and the conditions for planting willows and trees was excellent!

I always look forward to working with this group, they are great folks!



"Rumour Has it That Trout Once Inhabited West Nose Creek!"

During the BP volunteer planting event, Phil Unland, one of the volunteers spearheads the groups events, mentioned that he had talked to a neighbour that had once fished for trout in West Nose Creek.

Phil promised to send me some contact information to get in touch with this friend of his, so that I can gain a little more information from him about the past!

I am really excited to hear about this rumour and hopefully I can gather that information on this topic! Having a sport fishery historically being part of the stream's past will help to build on our argument to restore this little stream!

Just knowing that the creek once provided a suitable habitat for trout is very encouraging! We now know that we are on the right track!!



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More Photos of This Year's Plants That Were Planted on West Nose Creek



Left Photo:
This photo shows some of the new plants that were planted along West Nose Creek in May of this year. They appear with leaves that are slightly lighter in green than the surrounding water sedges and canary grasses. The plants were planted approximately 1 metre apart and close to the water's edge.
By planting so close to the edge of the stream, the root systems will help to stabilize the stream banks, provide future shade to the creek and hopefully habitat for trout.



Right Photo:
On some areas along the water's edge, where there was very low bank elevation, the willows were planted slightly back from the water's edge. As you can see on this willow plant, the top development was very advanced for this early in the spring (May 27). This advanced growth will give the plant a great start into the growing season.



Bow Valley Riparian Recovery and Enhancement Program 2014 Progress Report for May 2014—Up To May 29th!

After a very severe winter, with plenty of snow and ice along the area streams, willow and tree planting conditions could not be better this spring! After the frost left the stream banks, the ground was wet and ideal for planting projects!

As a result, the Bow Valley Riparian Recovery and Enhancement Program, for 2014, is off to a very good start this year! Having lots of good partners involved has been a real benefit to this year's program!

Planting started in mid-May and already, as of May 29th, a total of 4,342 willow and tree plants have been planted along the stream banks of the three targeted area streams. The following is a break down of how many willows and trees have been planted on each of the three streams:

Bighill Creek	—926
West Nose Creek	—2,271
Nose Creek	—1,145

The break down of how many willows and trees for each partner, so far, is as follows:

Cochrane Foundation	—302
Walmart/Evergreen	—1,273
BVHD planted the additional 83 on behalf of Evergreen and Walmart!	
Inter Pipeline	—408
Recreational Fisheries Conservation Partnership Program (DF0)	—2,359

As you can see, plenty of willow and tree plants are already in the ground on the three streams. There is a lot more planting to do yet, but with the expected June rainy season upon us, the conditions for the planting program should continue to be "top notch!"

I have been closely monitoring all of the planting sites, and the survival rates are really good. Hopefully, no major flood events will hit these streams this year! However, with the really moist soil, I was able to see that lots of plants were planted a ways back from the water's edge as well as those close to the edge of the streams!

Left Photo: It is expected that the first resident trout on West Nose Creek will be the German brown trout, such as the one pictured on the photo. These trout are a very hardy strain and they are known to occupy streams in poor condition!



Above: This willow was planted along Bighill Creek in mid-May and it is growing very well so far. Some plants are more advanced in growth!

"As of May 29th, 2014, there has been a total of 121.5 volunteer hours contributed towards the successful completion of this year's program!"



2012 Microsoft Planting Site Revisited!



This late May, I revisited the West Nose Creek Planting site that Microsoft volunteers planted in 2012. It had been a few years and I was anxious to see how and if any of the plants had survived. The site was hit by a heavy killer frost, the night after the planting day, so some of the plants did not survive the shock of both planting and a heavy frost!

Fortunately, some of the plants did survive and they are now starting to show the first stages of early growth. I found that some of the plants were still a

small in size, when compared to other planting sites that were completed about the same time, but that is just how it goes with these type of planting programs!

For this year's 2014 planting program, some of the planting sites are adjacent to the old Microsoft site, so I will plant a few extra plants at the site just to show more of a positive change in future years.

There were enough surviving plants at the site to make a real difference in the future, but more will help!



Above: These two *Salix exigua* (sandbar or narrow leaf willows) were planted by Microsoft volunteers in 2012, on West Nose Creek, in the City of Calgary.



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