

Jump 2013 Jesup

An Invasive Species Story!

It Is Just a Matter of Time!

A Crayfish Invasion of the Bow River!

See the video of the eauture

Story by: Guy Woods

Background and Capture

I had been planting willows and trees along the stream banks of Nose Creek in Airdrie, this past May. During my days on the water, I came across two piles of crustacean shells, at two different locations along the creek. They were broken pieces of shell and pincers that I first thought might be blue crab shells, because the color of the dried shells were blue. They reminded me of Pacific blue crabs, which I had seen on the west coast of Mexico, in my earlier years.

I thought that some angler might be using crabs for bair, while fishing the Nose Creek for pike. Later on, one of the volunteer tree planters from Microsoft, in Calgary, also spotted a pile of bits of shell and she suggested that it might be crayfish, because she found the head shell and antenna on the grassy shoreline. In any case, while talking to Peter McCartney, of the Airdrie Echo newspaper, the top was brought up and Peter told me that if crayfish were invading the local waters of Nose Creek, it would make a great story for the paper.

The only problem was that we would need some hard evidence, like a photo of one of them, before the story could be put into print. I told Peter that I would try to catch a crayfish from the creek, on one of my many trips to Airdrie, to plant willows. If I was successful, I would contact him and let him know, including whether I was able to take a photo or two of my catch.

A few days later, on a Saturday, I was headed up to Airdrie to do some video of a Canadian Pacific volunteer planting site that was completed in 2012, a year earlier. On this trip I decided to pack my hip waders, a dip net and a small bucket along with my video gear. Thinking that possibly I might try and capture a cryish from the shoreline. I knew that there was some rock rip-rap rock armouring the base of a bridge, near where I had found one of the piles of shell pieces, so I thought that this would be a good place to try and carch something.

I arrived at the creek in Airdrie, early in the morning and I decided to try and catch a crayfish, before I got down to video recording the planting sites. After parking my truck, I slipped on my hip waders, grabbed my video gear, dip net and the bucket, and headed down to the creek. The potential capture site was located in Sierra Springs, in Airdrie, lust over the hill from the Taco Bell.

Below the bridge, I flipped over the first rock and saw something dart away into the turbid water, immediately after I had lifted the rock. Getting really excited, I decided to have the net ready for another try. Still not positive that what I saw was a crayfish, I needed to actually catch one before I could be convinced! After all, this was still purely speculation!

My next attempt worked out perfectly! When I flipped the next rock, I saw a crayfish dart for cover and netted it in a quick swoop of the net. What a surprise! I had captured my first ever crayfish and this was the evidence that I was looking for! I knew that Peter would be very please when I broke the news to him. After putting the crayfish in the bucket, I took some time examining the specimen and then grabbed my video camera to take a little footage. Later on, I did some still shots with my camera.







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Crayfish are native to Alberta in only one watershed, the Beaver River, near Lac Labiche. The crayfish that I captured was definitely introduced illegally into Nose Creek. Most likely, someone with an aquarium was moving and decided to free their pet crustaceans into the Nose Creek, rather than take them along on their move. Definitely a bad decision! No doubt that whom ever stocked these creatures into Nose Creek didn't have an inkling of what the consequences might be.

With Nose Creek being a tributary to the Bow River, it is just a matter of time before these invaders make it downstream to the famous trout river. There are all kinds of possible impacts that could disrupt the world famous trout fishery of the Bow River. Crayfish are known to decimate invertebrate populations on some lakes where they have been illegally introduced in the United States! Also, what type of parasites do these crustaceans carry, even possibly some type of diseases that could be transmitted to existing invertebrate and fish populations in the Bow River?

On some well known trout rivers south of the border, trout are known to feed on native crayfish that occupy those streams. However, these are native varieties of crayfish, and this is something totally different than an introduced strain that is not native to a watershed. The specimen that I captured was carrying an egg sack below its tail. This would indicate to me that these crayfish are successfully reproducing in this Airdrie stream. On the photo below, you can clearly see the egg sack on this female crayfish. Obviously, these invaders are reproducing in this Nose Creek.

How long they have been present in the stream is unknown to me, but Peter McCarney did contact Alberta Fish & Wildlife, and they were unaware of them being present in Nose Creek. The individual that Peter talked to suggested that the shell pieces that I found could possibly have been leftover's from a bait fisherman that was using crayfish for bait. This was the same presumption that I had made, before I had captured this first crayfish!

"Two Major Bow River Boulder Enhancement Projects From the Past"



Above: In 1987, a series of very large boulder rock placements were completed on the Bow River in the Town of Cochrane. The objective was to create low flow habitat for trout and mountain whitefish.

The two boulder fish at enhancement

projects were partnership

enhancement project was completed by BVHD, with by BVII..., support from Utilities Gas funding TransAlta

programs, completed by Bow Valley Habitat TransÁlta Utilities Corporation, Nova Gas Pipelines (ATCO Pipelines), The Alberta Conservation Association, The Town of Cochrane and The Jumpingpound Chapter of Trout Unlimited Canada. Development.

The 1987 project was funded by the Alberta Buck for Wildlife Program, and additional support was received from the Town of Cochrane.

Above: In 1996, a much larger boulder fish habitat enhancement project was completed at five different sites on the Bow River in the Town of Cochrane, Alberta. In total, a 133 class 4 and 5 boulders were placed in the riverbed at

The objective of both enhancement projects was to create low water fish habitat for the resident trout and mountain whitefish in this reach of the Bow River.

All of the work was

completed during a low flow period in the early morning hours, when flow levels were work being completed in the river, during both boulder projects.

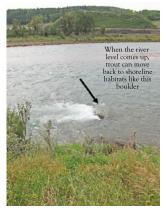
During non-peak electricity demand hours, at the Ghost Dam power facility, water is held back to re-fill the reservoir with water. This creates a low flow period on the Bow River in Cochrane. TransAlta modified its flow program, to accommodate the

How Trout and Mountain Whitefish Utilize Boulder Habitats — Under High and Low Flow Conditions, on the Bow River in the Town of Cochrane!



This photo shows an exposed boulder in the stream channel, near the shoreline. This photo was taken under lower flow levels than the photo on the top right.

Further out in the river channel, you can see a submerged boulder that is disrupting the flow in the channel. Trout and whitefish like to hold just downstream of these boulders, where the current has been slowed down. See the video links to the right. They will show how trout and whitefish



Only a few hours later, and standing in the same general position as when I took the photo on the top left, you can see how the river looks with higher flows. Now the boulder near the shoreline is submerged and it will provide good holding habitat for trout and whitefish that move into the shore, from the mid-channel habitat.

The boulder in the mid-channel area is now submerged. This is evident by the lack surface



Above: This is what one of the triple rock placements looked like in 1996, just after the project for that year was completed. Note the pocket pool area just below the three rocks. This provides great low water fish habitat!

Large flood events benefit the Large flood events benefit the fishery in a river or stream by creating new habitats for the fish that reside in their waters. The scouring effects of a flood also enhance invertebrate habitats of the long term!

The high water's of a flood will move large amounts of woody mount of the high water of the long terms. The woody debris is utilized by both the property of the property

trout and invertebrates as habitat.
Scouring of river and stream
banks will also expose new
boulders into the stream channel, especially on rivers such as the Bow River

I have walked on the river banks on the Bow River in Cochrane, since the flood waters receded, and there are plenty of new boulder habitats in the river. Also, on some sections of the river, large amounts of trees and root systems line the shore of the river.

"The Boulder Projects - 2013 Post Flood Report"

When the swift current from the flood scoured the base of some high river banks on the Bow this year, river banks on the Bow this year, large rocks were exposed and some fell down into the river channel, along the river bank. In other instances, large boulders that were already buried beneath cobble and gravel, are now exposed above the substrate!

This is great for the trout and mountain whitefish in the Bow! During normal high water flows, the fish will have that much more habitat in the water along the shoreline of the river. These boulders create eddies and pocket habitats in the faster flowing riffles on the river.

An article on the new

An article on the new generations of trout being present in the Bow is mentioned in this magazine issue. These new trout will have a lot more habitat to grow in, over the next few years. All as a result of the flood event this year!



Above: This is the exact same triple rock placement as shown in the photo to the left. This photo was taken on the morning of August 29th of this year. Note that this is a side view photo.



Two Underwater Video Assessments of the Bow River Boulder Project Were Completed in 1998 and 2000!

You can Witness for Yourself, How Effective These Habitats Are, By Clicking on The Video Links Below:

1998 Bow River Boulder Site Video Assessment

2000 Bow River Boulder Site Video Assessment

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Above: This is a photo of a nice rainbow trout that I caught at one of the boulder habitats in Cochrane.

Since the Bow River Boulder Projects were completed, I have spent many hours fishing the structures at low water conditions. These sites have become some of my favourite areas to fish on this reach of the Bow River, near Cochrane. I have been fortunate enough to have caught many a nice rainbow trout, like the one pictured above, and many nice Rocky Mountain whitefish as well!



June 2013 Issue

Update on Last Year's Willow and Tree Planting Project on Nose Creek in Airdrie!



Above: If you look in this photo, you can see young willow plants in the fast growing spring grass. These willow and tree plants were planted by Canadian Pacific volunteers, last year. The site is located along a stream bank on Nose Creek in Airdrie. The plants will become more noticeable in a few more years, but for now, they are still pretty small. The main thing is that the survival rate was high enough through the first year, to provide great riparian cover along the water's edge in future years.

This year, on June 22nd, CP volunteers will return to the creek to plant over 400 more willow and tree

plants on the opposite side of the stream channel. During that event, a short period of time will be allotted for the volunteers, so that they can have a look at last year's planting effort. I am sure that they should sepacially enjoy his part of the outing have look and their previous planting work is producing grat results!



Above: This is a photo of the length of stream channel on Nose Creek, in Airdrie, that Canadian Pacific volunteers are planting on. The right side of the stream channel was planted with willow and tree plants in 2012 and this year the left side will be completed. The Canadian Pacific plantings were done along the water's edge.

A Honda Canada Foundation/BVHD partnership has completed a planting further back from the edge of the stream bank, on the right side of the stream channel, this spring. Further down the stream channel Statter would reserve the reserve than the stream channel. Statter would reserve the stream channel stream channel stream channels the stream channel stream channel stream channels the stream channel stream channel stream channels the stream channel stream channels s

the stream channel, Stantec volunteers planted over 600 plants on the right hand side of the creek, last year. With this type of extensive riparian planting work being completed on this reach of the creek, a noticeable difference will be observed over the next few years and into the

Publishers Note:

This particular photo will be used again, in future issues of Stream Tender Magazine, for a before and after comparison of this planting site!





Above: This photo shows one of the willow plants that was put into the ground by Stantec volunteers, in 2012. The exceptional growth made the plant worthy of a photograph and a place in this magazine. Some plants do far better than others and this cannot be explained in simple terms, but it is always reaches are always.

good to see!

"Just a Reminder of Why We Are Planting Along Nose Creek!"

I have often made a point of mentioning some of the reasons why planting willows and trees along our waterways is an important pursuit! Stating that it is beneficial to both fish and wildlife habitat, water quality and just the general aesthetics of enhancing an area back to a natural

Most people that have an interest in such environmental objectives are well aware of most of the obvious benefits already, but I still like to think that I am convincing someone new to this field of interest., so I

keep doing it anyway!

As I get older, I find myself more aware of some of the simple things that nature has to offer. Even such things as song birds, and my amazement of how they have learned how to adapt to both an urban and suburban environment. On two occasions this spring, while planting willows along both Nose Creek, I have disturbed nesting waterfowl and on one occasion, a Hungarian partridge that was laying over a nest of eggs. All of these birds over a nest of eggs. All of these birds were nesting in a cover of dense snowberry shrubs, which happened to be the only shrub cover along both locations of stream channel that I was

planting on.

The snowberry shrub is a great habitat for nesting birds, at least those that nest on the ground. For song birds, a nest suspended from a cluster of willow limbs is the best location. Above the ground and high enough to

Above the ground and nigh enough to avoid most ground predators.

While collecting thousands of cuttings in the late winter and early spring, I will always find plenty of song bird nests, abandoned after the last

Having spent many years fishing small trout streams, I have learned thru experience, the importance of willow cover over the water's edge, as habitat for trout and other fish. Especially if the limbs and branches of willows and trees are submerged below the surface of the

Also while angling small streams for trout during the hot summer months, I have learned that trout prefer the shade and cooler water provided by tall willows and trees along the water's

From my house, it is just a short walk From my house, it is just a short walk to a section of the Bighill Creek, where over many years, the stream has been protected from extensive cattle pasturing, development and other impacts that might disturb the natural setting. What a great place to walk, when compared to the rest of the creek! A good reminder!







Lake Trout



Pike







June 2013 Issue

Magazine Mission Statement

"Local Trout Stream Project News and Information"

"You can view previous issues of this magazine by clicking on the link below!"

Previous Issue



Stream Tender Web Site

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Program Partners

Cochrane Community Grant Program















AIRDRIE

Microsoft







Willow Planting Helps to Stabilize Stream Banks!



Above: These willow plants were planted in 2011, with funding provided by Inter Pipeline. The stream bank erosion has been reduced at this site and over time it will be stopped completely. The root systems from the plants will re-enforce the soil between te top of the stream bank and the surface of the stream's water levels. The willow planting is the most cost effective method of stabilizing stream banks and it has been used extensively on the Bighill Creek Project. This photo was taken in the early spring, when the water levels were high in the creek.

Bighill Creek Willow and Tree Planting Underway!



Above: Volunteer, Derek Stonehouse from Cochrane, plants one of many willow and tree plants along the stream banks of Bighill Creek. Planting started in mid May and it will continue into the month of June. A total of nearly 3,000 plants will be put into the ground during this program!

Millennium Creek Update for 2013



Above: This recently taken photo shows one of the pool habitats along Millennium Creek. Despite the low gradient in the stream channel, the pools habitats have maintained good depth since they were constructed. This particular log v-weir pool habitat was constructed in 2007, six years ago!

"Pool Habitats are Still Maintaining Their Depth and the Stream Channel has Stabilized On Millennium Creek!"

The Nose Creek Planting Program is Already Nearly Completed!



Above: This is a photo (taken 5 days after the planting) of some of the Stage Two willow and tree plants that were recently planted by a team of volunteers from Microsoft's Calgary Office. The planting program is organized by Evergreen Canada. The Nose Creek planting was part of a national Microsoft tree planting project that occurred around the same time in May, all across Canada. On this particular project in Airdrie, a total of 536 willow and tree plants were planted along the stream banks of Nose Creek!

Despite a torrent of rain and cool weather, a total of 11 volunteers from Microsoft's Calgary office showed up to complete a major willow and tree planting project on Nose Creek, on May 23rd, of 2013.

Helping out with the effort, the City of Airdrie's Crystal Bazar and two other staff members showed up to chip in. Considering the size of the planting job to be completed, this help from city staff was well received by the Microsoft crew!

After a few hours of hard labour, spiced up with some humorous moments to make the experience enjoyable, the job was completed! A total of 536 plants were finally in the ground and from that point in time, the pleasure would come in watching the plants grow into maturity, over the years to come.

High water from all of the rains had flooded many of the plants underwater, but a few days later, they were once again above water and looking as healthy as they were when they were planted!

Honda Canada Foundation's Planting is Coming Along Nicely!



Above: A total of 375 Stage One willow and tree plants were planted at a site along the stream banks of Nose Creek this May, utilizing funding provided by the Honda. Canada Foundation. The total crop was planted by BVHD volunteer labour and so, the willows and trees are coming along the stream of the willows and trees are coming along the complex of the willows and trees are coming along the stream of the willows and trees are along along the will be stream of the will be stream of the s

watering sessions to help get the plants off to a good start. The roots on both the Stage One and Stage Two plants are planted deep below the surface of the ground, so once the plant roots are starting to establish themselves in their new environment, they will quickly start to grow. They will also be more tolerant to drought! Walmart/Evergreen Planting Program is Still in the Works – Along the Banks of Nose Creek in Airdrie!



Above: Stage One willow and tree plants that were recently underwater, during a high flow event on Nose Creek. These plants are part of the Walmart/Evergreen planting project.

Although the Walmart/Evergreen project is still in the works, a total of 1,095 Stage One and 456 Stage Two plants have already been planted along a large section of stream bank, on Nose Creek in Airdrie. All of these plants are coming along just fine, and BVHD expects a good survival rate for this crop!

A volunteer event is planned for June 15th, 2013, to plant the remaining 343 Stage Two willow and tree plants at the same planting site in Sierra Springs Community. Once this final planting is completed, the total number of plants will be at 1,894 plants, which makes this planting project the largest in the 2013 Nose Creek Riparian Recovery and Enhancement Project!

Stream Tender Magazine looks forward to covering the progress of these willow and tree plants into the future years!"





"Update on 2012 Bighill Creek Willow and Tree Planting Program"



Above: This is a photo of some of the willow plants that were planted along the stream banks of Bighill Creek, in the Town of Cochrane. This site is part of the combined plants completed by Inter Pipeline, the Cochrane Foundation and the Town of Cochrane Community Grant Program. It will be a few more years before the willow plants will dominate the stream banks of this section of the stream.

Bow Valley Habitat Development is very pleased to report that the Town of Cochrane Community Grant Program will fund the planting of an additional 500 willow and tree plants along the banks of the Bighill Creek this June! The Cochrane Community Grant Program was also involved in the 2012 planting programs, such as the site shown above. Keep reading this magazine for the results and follow-up to this new project!

Shell Canada's Willow and Tree Crop is off to a Great Start, on Bighill Creek!



Above: This is one of 500 Stage One willow and tree plants that were planted along the stream banks on Bighill Creek this spring, as part of the Shell Canada willow and tree planting spring, as part of the Shell Canada willow and thee phanting program. The 2013 Shell planting project was completed in the month of May, and the willows and trees are already off to a great start. The high amounts of rain fall in the later weeks of May insured that the plants would be well rooted in the new ground along the creek, within a few weeks after they were planted.

This is the first year that Shell has participated in the Bighill Creek Project and we are very pleased to have them as partners in this program!

The Cochrane Foundation's 2013 Planting Project on Bighill Creek Has Also Been Completed!



Above: Derek Stonehouse plants one of the Cochrane Foundation's willo plants on an area near the stream bank of Bighill Creek. The Cochrane Foundation has been a participant on a number of fish habitat and representation of the plants of th

The Cochrane Foundation supports many community groups in the Town of Cochrane and surrounding area and its mandate includes participation in environmental programs, such as our area stream restoration and fish habitat enhancement work. The program was started by the late Neil Harvey, of Glenbow Ranches Ltd.



"ATCO Pipelines Bighill Creek Planting Program"



On June 7th this spring, ATCO Pipelines volunteers will be planting the balance of the 350 willow and tree plants that are a part of their Bighill Creek Planting Program for this year. Already, I50 Sage One plants have been planted on one side of the creek at the planting site, and on the 7th another 200 or more plants will be put into the ground, on the west side of

the stream.

This is the first year that ATCO Pipelines has participated as a partner on the Bighill Creek Project and we are very pleased that they are involved! With the recent rains in the Town of Cochrane, the ground should still be moist and good for planting, come

planting day.

The Stage One plants that we planted along the creek in May, are all growing good and when the volunteers show up for their main event, they will be able to see them, just across the stream channel, from their planting site!

This is a photo of one of the Stage One willow plants that were planted in the month of May. The photo was

Inter Pipeline's Willow and Tree Planting Update and report!

Inter Pipeline has been a strong supporting partner in the Bighill Creek Project, over the last few years. Before that, they helped to construct the spawning channel on Millennium Creek in 2010, which has resulted in successful spawning activity and trout hatches over the past 3 years, since it was built!

Last year, Inter Pipeline chipped in to help plant over 1,000 willow and tree plants on the Bighill Creek. This year, an additional 1,000 plants have

already been planted as part of their partnership in this riparian recovery and enhancement project. Bow Valley Habitat Development and the residents of the Town of Cochrane are in appreciation of the of the lown of Cochrane are in appreciation of the companies contribution towards a sustainable and healthy stream environment along the Bighill Creek, and its recovering fisheries. Both are directly connected and the newly created riparian habitat along the stream, will benefit the spawning trout that visit the creek every fall, to spawn!

This photo shows some of the willow plants that were planted along BHC in 2012, as part of the Inter Pipeline Partnership Program. The green leaves in this photo are on the limbs of new willow plants.



Read the blog on this issue!

Invasion of the Crayfish on Nose Creek





HOME





June 2013 Issue

"A Heck of a Good Fish Story!"

Publisher's Note:

I met Corey Muller on the Bighill Creek, he works for Eagle Creek Wildlife Control and he told me "a heek of a good fish story", so I asked him if he world put it to words and share it with the reader's of this magazine.



Photo taken by Helen Muller

Another Fish Story; By Corey Muller

This is a fisherman's tale that is unique and, unlike other fishing stories it's true! I have my wife Helen, as a witness to vouch for its authenticity.

In early September 2012, I was hired on by the county to remove a colony of beavers from Dog Pound Creek, whose dam was causing flooding on the nearby road making it impassable.
When I began working on the beaver colony, I could see a couple of trout schooling at the base of the dam unable to proceed upstream.

When I began working on the beaver colony, I could see a couple of trout schooling at the base of the dam unable to proceed upstream. While removing beavers from an area, I typically set my traps and open the dam to get the water flowing. The first day, I set traps and opened the dam allowing some water to drain. The second day I returned with my wife Helen, to show her how beautiful the area is and to perhaps view some wildlife. Upon our return we found that I had captured a beaver and the dam was repaired indicating at least one beaver was still around.

I began breaching the dam again, eventually getting some water flowing. As I stood on the dam next to where I had breached the dam, catching my breath, I saw splashing and a flash of brown, with red spots of a fish swimming against the current upstream through the breach in the dam I just made.

The water flowing through the dam was still only 3 to 4 inches deep but this fish was determined to make his way upstream. I quickly

The water flowing through the dam was still only 3 to 4 inches deep but this fish was determined to make his way upstream. I quickly attempted to graph the fish with my hands, but soon realized it was too slipper ye to learn hugged the fish! In the merine, Helen is standing on shore wondering what on earth am I doing, bending over in the water and splashing around like a crazed maniac! That is, until she sees me come up cradling a huge, beautiful brown trout. We quickly took pictures of the brown trout and measured it before releasing it above the beaver dam. The brown trout was a beautiful

We quickly took pictures of the brown trout and measured it before releasing it above the beaver dam. The brown trout was a beautiful male or buck, in his full spawning colors and a hooked jaw. Measuring 27 inches, he is my biggest trout to date. All that, without the aid of a fishing rod!



Ranch House Spring Creek Update!

Last year, I published a blog and completed an article on the storm drain inflow on Ranch House Spring Creek, in the Town of Cochrane. The inflow was creating erosion problems to the existing stream channel. With plans to increase the discharge from the outflow, from a further expansion of an additional housing development that would feed this storm drain, it was necessary to pressure the

Town of Cochrane, to do something about this problem! If nothing was done, the small stream's banks would be eroded and the natural stream channel would eventually be

Presently, the small spring fed creek is utilized by both juvenile and mature brook trout, as a habitat. Because of this, the stream is considered extremely important to the fishery of the Bighill Creek!
BVHD had previously
completed a repair to the stream
channel on Ranch House Spring

completed a repair to the stream channel on Ranch House Spring Creek, and we are patiently waiting for something to be done about the problem, before any further work on the stream is pursued!

BVHD's position on the existing storm drain inflow, is that it needs to be removed from this small creek and redirected

into the Bighill Creek, at an acceptable location, so that it does not effect the fishery on that stream!

I recently toured the stream and I am happy to report that there are still brook trout present in the creek. They were also spotted above the old waterfall site, that was removed by BVHD in 2010, as part of a stream fish habitat enhancement project.

"Thistle Spraying: A Concern at our Willow and Tree Planting Sites!"

As is always the case, with willow and tree planting programs, a planting supervisor must insure that the new crop is protected from any human impacts!

He or she needs to inform the landowner of the importance of not spraying herbicides too close to the newly planted willows and trees! Both select and non-select herbicides will kill young willow and poplar tree plants.

Thistle sprays are defined as select herbicides, however, this definition means simply that the spray will kill all broad leaf plants. Not just thistles!

When I recommend to landowners or managers that they make sure that any thiste spraying is done a safe distance from any planting programs, I try to keep this suggested distance reasonable. Usually a 5 metre buffer zone, which allows for drift.

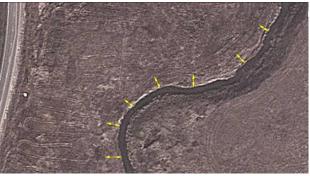
Drift is the dispersal of the

chemical spray that is attributed to wind or the turbulence created by the spray vehicle, which is usually a Quad ATV, with a spray bar attached.

Most land managers will point out to the thistle spray contractor that they should not spray on windy days. But sometimes the urge to get the job done, makes this condition of contract

overlooked: The interesting thing about riparian habitats, with lots of willows and trees, is that there are usually no thistles present. So once a healthy natural riparian zone has been created, the thistle problem is resolved. The native plants will dominate the landscape!

plants will dominate the landscape! It is just a matter of protecting the willow and tree crop until it reaches maturity! No thistle spraying should take place in an area less than 10 metres from the water's edge of a flowing stream!



Above: If you look closely at this aerial photograph, you can see the tire tracks of a Quad ATV, which had recently sprayed for thistles along a section of Nose Creek. The yellow arrows show the distance between the tire tracks and the water's edge along the creek. This distance was measured a between 8 and 10 metres. So this spraying contractor was considerate of the importance of not spraying too close to the creek channel. Bow Valley Habitat Development has plans for planting along this reach of the Nose Creek in the future. This year, a test plot of willows and trees were planted on this piece of land, and if the results are positive, more planting will occur in the future.

"Speaking of Invasive Plants!"

Just down the block from my house, and over the top of the valley's rim, is the Bighill Creek. Over recent years I have witnessed the invasion of the oriental "Cotoneaster" shrub. The plant was first imported from both China and Korea and it is most commonly used as a hedge shrub.

At the top of the stairs, leading down to the creek, there are two of these shrubs that were planted a number of years ago. Seeds from these two matures shrubs have ended up down along the stream bank of the Bighill Creek and the plants are spreading.

the plants are spreading.

I have no idea of how this variety of plant will effect the existing native plant varieties, but I suspect that its introduction will upset the biodiversity along the creek, over time!





Above: This is a photo of one of the many "Cotoneasters" growing along the Bighill Creek, near my house, in Cochrane!

Left Photo: This is a photo of the two mature shrubs located close to the stream



