



Alouette River Management Society
2018 Annual Report on Activities

Prepared for the City of Maple Ridge
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Executive Director, ARMS

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ARMS 25th Anniversary

2018 marked ARMS 25th anniversary year and this coincided with the 25th Annual Ridge Meadows Rivers Day. Ridge Meadows Day was a hit! The celebration took place at the Rivers Heritage Centre and Allco Fish Hatchery in Maple Ridge, British Columbia. This annual event takes place in conjunction with BC Rivers Day and World Rivers Day. This now worldwide celebration of rivers was founded by BCIT Rivers Institute Chair, Mark Angelo.

Last year we also celebrated the 25th anniversary of ARMS with a special recognition ceremony to acknowledge some of the important persons and groups who have contributed greatly to ARMS' and Rivers Day over the years. The special ceremony took place at the Rivers Heritage with the following awards presented:

Founders of ARMS:

- Geoff Clayton
- Gord Robson
- Tom Cadieux (absent on the day, Ron MacLean accepted for him)



Left: Mark Angelo, Founder of BC Rivers Day – Right: Geoff Clayton, Co-Founder of ARMS

Long-time supporters of ARMS and Rivers Day

- Marvin Rosenau – retired DFO, retired MOE, current instructor at BCIT’s Fish, Wildlife and Recreation program – many years assisting ARMS and founders with scientific advice around fisheries in the Alouette Watershed.
- Maurice Coulter-Boisvert, retired DFO Community Advisor for Allco Hatchery and community engagement work with ARMS, was on the Alouette River Sockeye Reanadromization Project committee (around fish passage)
- Ron MacLean (BC Corrections, Allco Hatchery Manager – 25 years +)
- Mike Ilaender (BC Corrections, Allco Hatchery Assistant Manager – 25 years +)
- Fraser Regional Correctional Centre
- Rick Bailey (Councillor, Katzie First Nation)
- Katzie First Nation
- City of Maple Ridge
- City of Pitt Meadows



Cheryl Ashlie (ARMS President) presenting an award to Geoff Clayton and Gord Robson.

The event had many fun activities for families including kids' trout fishing pond, birdhouse building, honey bee hive observation, the Ta Daa Lady's Nylon Zoo Salmon tent, face painting with the Emerald Pig Theatrical Society and live music from Lisa Rae Simons, Synergy, and the Backroad Cruisers.



BC Driftfishers volunteer with young fisher at 25th Annual Rivers Day.



Top left: Birdhouse building,
 Top right: A great catch at the rainbow trout pond,
 Bottom: ARMS directors, staff and Pitt Meadows Councillor Mike Stark celebrating with Geoff Clayton, co-founder of ARMS



Left to right: Sarajayne Anderson and Jasmine Sidhu, ARMS seasonal staff at Rivers Day

VIPs who greeted the public included City of Maple Ridge councillor Bob Masse, City of Pitt Meadows Councillor Mike Stark, and Maple Ridge-Mission MLA Bob D'Eith. Below: MLA for Maple Ridge-Mission Bob D'Eith presenting a letter of recognition to ARMS staff and President, Below right: ARMS presents an award to the two most important volunteers of 2018.



How many people attended/involved?

- # of volunteers including Corrections work crew – 60
- # of hours contributed on the day, and including set-up/take-down – 472
- # of people attending including public and exhibitors – 465

There was a lot of wonderful feedback from volunteers/visitors:

“Hi Greta, just a note to say congrats again to you and all those at ARMS on your 25th anniversary. It was good to be there for the opening ceremony and I so admire the great work that ARMS has done (and continues to do). - Sorry I couldn't stay longer but there were a few other Rivers Day festivities I had to be at over the day. Both BC and World Rivers Day events went incredibly well and being at Ridge Meadows was a wonderful way to kick things off. I wish you the very best and thanks again for your efforts. Cheers”

– Mark Angelo, BC Rivers Day and World Rivers Day Founder and Chair, Chair of the BC Rivers Institute, OBE, CM.

“Thank you for having Watershed Watch Salmon Society attend your event. It was a great day despite the rain! We look forward to working with ARMS at other events in the future.”

– Ellika Cairns, Outreach & Engagement Assistant, Watershed Watch Salmon Society

“Thanks for hosting a great event. And especially for accommodating our change in location. Your flexibility is much appreciated.”

- Christian Cowley, Executive Director, CEED Centre Society

“Always fun, see ya next year”

– Peter James Esau, Backroad Cruisers musical duo

“Thanks, Greta! You & Sophie did a fabulous job as always, Congratulations!!! All the best”

– Leanne Koehn, Community Engagement, Ridge Meadows Recycling Society

“We may find the numbers were down in comparison to sunny RD's (Rivers Day) in other years. But the upbeat feeling from all that did attended made it seem like a full house. And, the work and organization of the event was so evident and well done. Speaking personally, both Aline and I enjoyed meeting old friends and new acquaintances too. Further, we had waited in the lineup for hamburgers, and finally got to place our order when they said the propane had shut down to their stove-s? So we moved on and sat down at a table. However, low and behold you turned up ½ hour later with a small plate of hamburgers and offered us one. What a nice thoughtful touch that was, and so thoroughly appreciated, because of you we got our burgers. All round a great day for us and I am sure it was for a great day for all that attended. Thanks again,”

- Geoff & Aline Clayton, ARMS members and Rivers Day attendees

“We will be there again next year. Welcome and good job”

– Cam Aronetz, BC Federation of Driftfishers – trout fishing pond volunteer

"Hi Greta and Sophie, Great job on the Sunday event!! Thank you so much for letting us be a part of it. Hope we can do it again next year!"

- Katy Jay, BC Hydro Fish and Aquatics Team

"Hi Greta, Thanks for the positive feedback. I heard lots of great comments myself as well - and that's what I like! I'd love to be part of next year's celebration I'll mark it down. Cheers!"

-Lisa Rae Simons, musician



25th Annual Ridge Meadows RIVERS DAY

Celebrate BC's incredible river heritage at this **FREE** family event!

SUNDAY, SEPTEMBER 23 11:00am - 3:00pm

Allico Fish Hatchery, 24959 Alouette Rd, Maple Ridge

- Live Entertainment
- Food Stands
- Fishing with BC Drift Fishery
- Raffle & Silent Auction
- Vancouver Aquarium ocean wise.
- Ta Daa Lady - Nylon Zoo
- Kids Activities & Face Painting
- Environmental Exhibitors

....AND LOTS MORE!

Questions? Want to **VOLUNTEER** this year? Contact us!

www.alouetteriver.org | sophie@alouetteriver.org | 604-467-6401

ALOUETTE RIVER MANAGEMENT SOCIETY

SUPPORTERS & FUNDERS

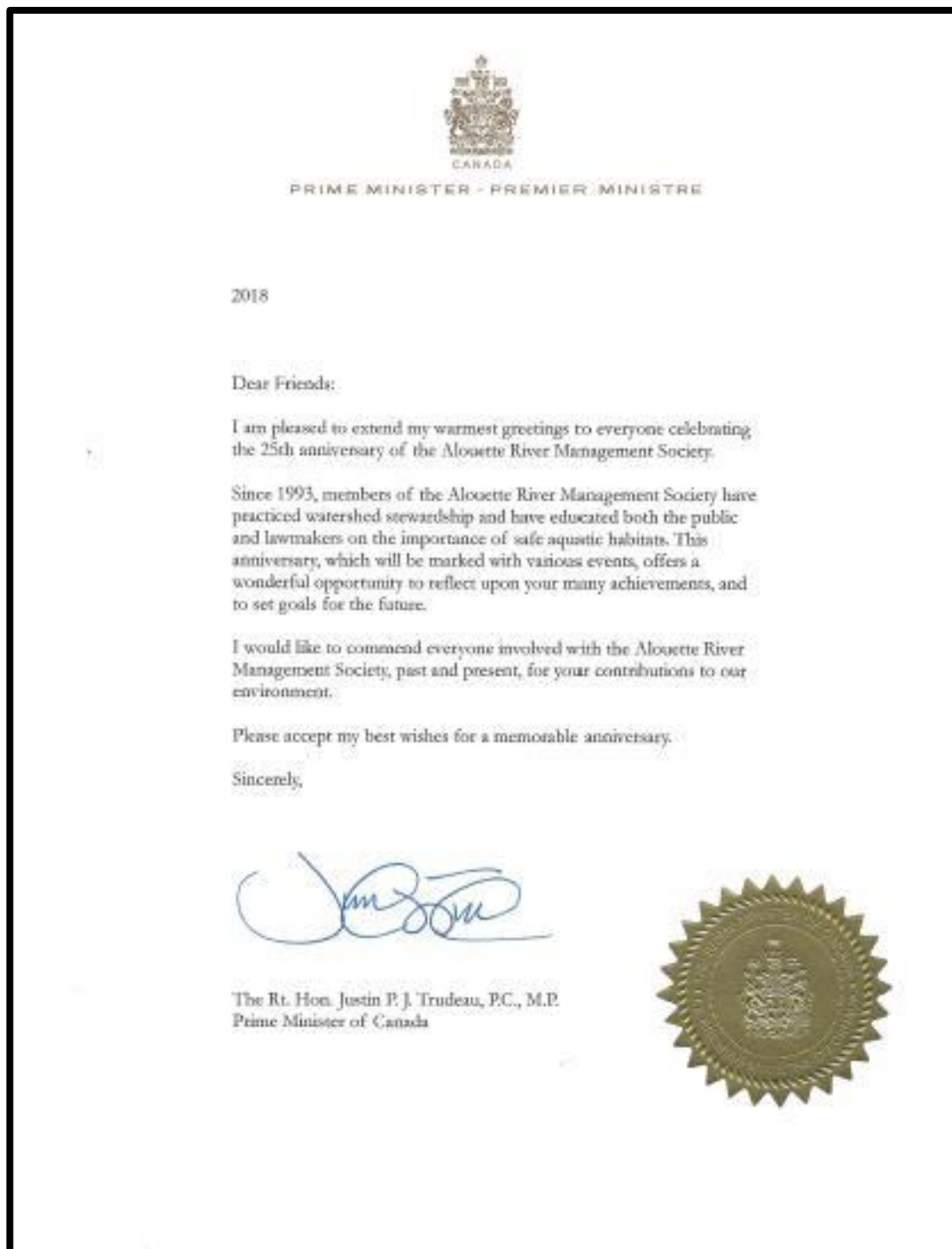
- BRITISH COLUMBIA
- MAPLE RIDGE - PITT MEADOWS AGRICULTURAL ASSOCIATION
- MAPLE RIDGE PARKS, RECREATION & CULTURE
- GLASS WORLD
- FWCP Fish & Wildlife COMPENSATION PROGRAM
- PORT of Vancouver
- RE/MAX

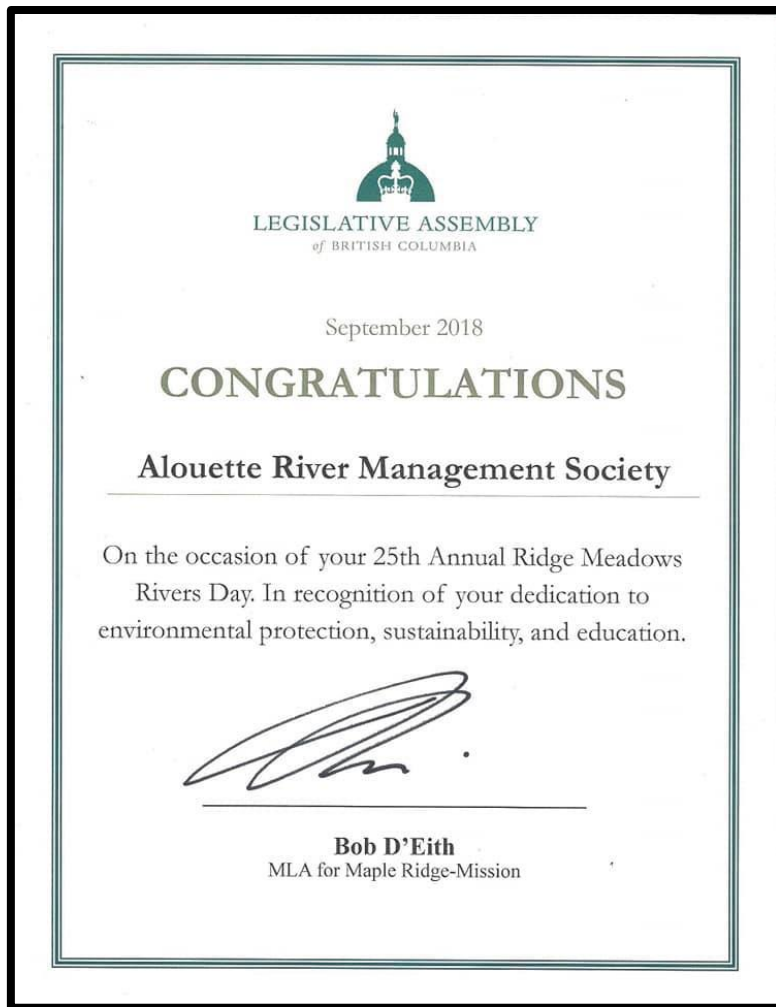
What's On!

We were very grateful to have had the full support of the Fraser Regional Correctional Centre, Katzie First Nation, City of Maple Ridge's Parks, Recreation and Culture department, BC Federation of Driftfishers, the Port of Vancouver, Innergex Renewable Energy Corporation, the Fish and Wildlife Compensation Program and the Kiwanis Club. Our core volunteers included the 1st Laity View Scouts, Sitter 604 and local high school students – without them we would not have been able to put on such a great event.

Special Recognitions

In 2018, ARMS was honoured to receive a letter from the Prime Minister of Canada, Justin Trudeau to recognize our 25th anniversary year and from the MLA for Maple Ridge-Mission Bob D'Eith. We also were awarded recognition for the Maple Ridge Heritage Award 2018 for "Stewardship of a Community Cultural Asset".





ARMS staff and directors receiving Maple Ridge Heritage Award

Environmental Education

In 2018, teachers were again keen to take advantage of the new experiential focus of the updated B.C. School Curriculum with many returning teachers as well as new teachers reaching out for environmental workshops or tours. ARMS delivered education to **93 individual Pre-K to Elementary level classes or groups in 2018.**

ARMS introduced our new Wildlife Workshop instructor, Jasmine Sidhu, who we hired for the spring and fall seasons. Jasmine was a great addition to ARMS' nature-based education programming and was received very well by teachers and students. Jasmine had a lot to learn in a short time but came through with flying colours and we couldn't be happier! Jasmine delivered education to over 1100 students from preschool age to grade 7 from February 22nd to June 19th to 24 different schools in SD42, Mission School District, Surrey, Coquitlam, and Langley School Districts. Jasmine holds a Bachelor of Science in Biology from the University of Northern British Columbia. Her passion to facilitate stewardship in her hometown is one of the many reasons why working with ARMS has been such a mutually beneficial relationship.



ARMS instructor at Cottonwood Preschool

EDUCATION PROGRAMS by Total Cumulative Hours	2018
In-Class	1185
Watershed Education & Hatchery Tours	2201
Habitat Programs	631
Eco-Camps	1206
TOTAL Education hours	5223

EDUCATION PROGRAMS by Number of students reached	2018
In-Class	831
Watershed Education & Hatchery Tours	727
Habitat Programs	351
Eco-Camps	268
TOTAL STUDENTS REACHED	2177

ARMS delivered environmental education to these schools in 2018:

Maple Ridge – SD42

- Albion Elementary School
- Alexander Robinson Elementary School
- Blue Mountain Elementary School
- Eric Langton Elementary School
- Fairview Elementary School
- Glenwood Elementary School
- Golden Ears Elementary School
- Harry Hooge Elementary School
- Kanaka Elementary School
- Maple Ridge Christian School
- Maple Ridge Elementary School
- Meadowridge School
- Whonnock Elementary School
- James Cameron School

Pitt Meadows – SD42

- Edith McDermott Elementary School
- Highland Park Elementary School
- Pitt Meadows Elementary School

Other school districts

- Coquitlam Elementary School, Coquitlam

- Hatzic Elementary School, Mission
- Lynn Fripps Elementary School, Langley
- Moody Elementary School, Port Moody
- Our Lady Fatima Catholic Elementary School, Coquitlam
- Panorama Heights Elementary School, Coquitlam
- St Edmunds Elementary School, North Vancouver
- Uconnect Langley
- Valley Christian School, Mission
- West Langley Elementary School, Langley
- William Watson Elementary School, Surrey

Pre-schools and other groups

- Honeybee Preschool
- Kids by Design Preschool
- Meadow Montessori
- Maple Ridge Girl Guides



ARMS pro-d day in November 2018

ARMS hosted a total of 6 spring and summer camps in 2018 with our new Eco Camps supervisor, Dan Mikolay heading up the team. High school volunteers and Canada Summer Jobs students proved to be excellent camp leaders and assistants and without them our camps would not run.

Spring break camps in March were themed “The Science of Harry Potter”. This proved to be a very popular theme with 72 children registered for this eco-camp over two weeks, making it the most successful spring break camp ARMS has ever offered the community.

Summer camps ran in July and August with a total of individual 167 registrations over 4 weeks for either a full week or on a daily basis. Themes offered to children for summer included “Build It! Bake It!”, “Pixelmon!”, and “Nature Detectives”.

ALOUETTE RIVER MANAGEMENT SOCIETY
www.alouetteriver.org

2018 Summer Day Camps

Rivers Heritage Centre, Allco Park, 24959 Alouette Road Maple Ridge

Build It! Bake It! Camp
Age: 8Y - 12Y
Get outside with foraging games, hunting for natural resources and making tasty treats.
* Design, build and make creations
- Woodworking skills
- Baked goods in the kitchen
July 23 - 27 | Mon - Fri: 9:30am - 2:00pm
Fee: \$180/week registration \$40/day registration

Pixelmon Eco-camp
Age: 6Y - 12Y
It's Minecraft...it's Pokémon...it's both! Get outside in this technology-free camp!
* Touch a snake!
* Be a Paleontologist for a day! Dig for fossils!
* Ecological learning & exploration
July 16 - 20 | Mon - Fri: 9:30am - 2:00pm
Aug 13 - 17 | Mon - Fri: 9:30am - 2:00pm
Fee: \$180/week registration \$40/day registration

Nature Detective Camp
Age: 5Y - 8Y
Explore the amazing natural world around us with this exciting summer adventure!
* Solve nature mysteries in Allco Park
* Identify the locals - plants, birds, bugs, animal tracks
* Arts, crafts, games, friendship-building!
July 30 - Aug 3 | Mon - Fri: 9:30am - 2:00pm
Fee: \$180/week registration \$40/day registration

Finding Dory Camp
Age: 5Y - 8Y
Navigate the amazing wonders of water! Learn cool skills and build confidence.
* Seek out water creatures
* Search for Dory and her fishy friends
* Learn how to purify water and drink air!
* Arts, crafts, games, making friends & memories
Aug 7 - 10 | Tues - Fri: 9:30am - 2:00pm
Fee: \$144/week registration \$40/day registration

Register at www.rec4u.ca | Contact Sophie for details at sophie@alouetteriver.org

MAPLE RIDGE PARKS, RECREATION & CULTURE

Our summer students were extremely enthusiastic, professional and a lot of fun to work with. They planned the summer camps in conjunction with the camp supervisor, including all activities, leading their assigned camp theme, working with high school volunteers and delivering high-quality outdoor-focused camps. Gross earnings from spring and summer camp registrations was \$28,000! Much needed income to ensure these camps continue to be offered.

Parents were surveyed with some of their positive feedback below:

The camp was a total positive experience
8/8/2018

This is the best camp on offer in Maple Ridge!
8/7/2018

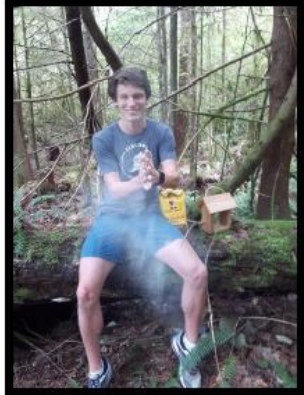
I think it was a great camp and my son was so excited and proud of the things he did. I honestly can't say anything that needs improvement! Other than I wish there was more camps so he could go even more :)
8/7/2018

I feel that it was well rounded as it was and my 7-year old son loved his time there.

8/7/2018

I like the natural and educational experience the camp has offered 8/8/2018

ARMS environmental education, spring & summer eco-camps have been another huge success, bringing in over \$28,000 so far this year!



Without our Canada Summer Jobs students, ARMS would not have been able to put on such wonderful programming for children, get into Maple Ridge Park for outreach and other important environmental projects. We were extremely lucky to receive funding from the Government of Canada, totalling \$20,702 for six amazing students.



Canada Summer Jobs students and ARMS staff at Marion Lake, Maple Ridge

ARMS hosted 3 UBC practicum teachers in the spring at the Rivers Heritage Centre. This was a great help to ARMS and a valuable learning experience for the practicum students. The Teacher Candidates assisted in delivering some educational programming and we were lucky again in 2018 with one teacher candidate having carpentry skills! These were put to good use for ARMS “Pollinator Project”. The student built 4 new garden beds and planted pollinator-friendly plants, built a honey bee hive shed, and 4 eight-foot long benches which we used for our education and camp programs in good weather under the trees or around the Rivers Heritage Centre. The UBC students also helped out enormously in planning, prepping and implementing a native planting session at the newly refurbished Merkley Park in Maple Ridge. With \$2,200 in funds from Forest Recovery Canada, volunteers from ARMS and Honda and professional assistance from the City of Maple Ridge’s Parks division, the event saw approximately 600 native trees, shrubs and grasses planted near the upgraded and renamed “Karina Le Blanc sports field”.



UBC teacher candidates, Nolan Irwin and Craig Ballantyne at Merkley Park planting event with Honda Surrey and ARMS, May 2018



Pilot Pro-D Days

A new addition to our education programming included Pro D days for parents looking for something different to offer their children on the days school is closed. The first Pro D day was run in October with a second Pro D offered in November with our Camps supervisor, Dan Mikolay and Sophie Smith, leading the kids through a fun-filled day of “A Day with Mr Fixer-Mixer! The children had a lot of fun with different activities appealing to different learning styles. We had a lot of outdoor play, creative, hands-on building and baking, and great science demos including a salmon dissection.



With the continued support of the City of Maple Ridge, ARMS can deliver interactive, relevant, and engaging educational programming to youth in Maple Ridge. Raising environmental awareness in our youth so that they may become better stewards of the Alouette Watershed and their local environment is one of ARMS' key priorities.

Pollinator Habitat Enhancement Project – funded by Vancity Community Action Grant and TD Friends of the Environment Foundation

Chartwell Willow Retirement Centre

One of our summer students Alli Di Giovanni, coordinated and planned an event which took place at the Chartwell Willow Retirement Centre. During this 2-hour event 25 attendees learned about ARMS and the importance of pollinators, planted \$200 worth of donated plants in their garden, painted wooden butterflies, built mason bee houses and chatted with ARMS staff about our observation honeybee hive. This event was extremely successful and hopefully starts a great future relationship with the Chartwell Willow Retirement Centre and paves the way for future alike events.



Top left: Volunteers from Chartwell Residence, Top right: ARMS summer student Alli Di Giovanni helping plant with resident,
Bottom: TD FEF and Vancity Community Grant plaque

As part of the “Pollinator Project”, ARMS ran 5 community honeybee hive workshops with our beekeeper friend and mentor, Loretta Jackson aka “The Bee Lady”. On these days, Loretta had an average of 10 participants including young children who listened and watched as she opened the hives for inspection, demonstrated the use of tools like a smoker and how to look for the queen.



Loretta Jackson leading a free community honey bee hive workshop in June

Pollinator Garden Beds

During two of the community bee clinics offered a total of 8 garden plots were reinvigorated with a weed-whacking party and new pollinator friendly plants going in. This was achieved by coordinating the help of volunteers (attendees of the bee clinic) and ARMS co-workers. Six garden beds were prepped, pruning overgrown bushes, removing green waste, planting and mulching. A row of sunflowers was planted which required digging out grass and moving soil to the row; these sunflowers were grown and donated by Alli and other plants were donated. Another new garden bed was constructed, in which wild flowers and green pepper plants were installed. ARMS now has a total of 11 pollinator-friendly garden beds on site along with the native plant gardens adjoining the River Heritage Centre. A beautiful pollinator hotel wall was built and donated to ARMS by director Don Thompson. It was installed within the fenced garden area and will provide lots of opportunities for pollinator insect nesting this season. It will also provide educational opportunities for our school and community groups.



Volunteers spend the day at ARMS helping build pollinator beds and install a pollinator wall – funding provided by TD FEF and Vancity Community Grant for this project.

Canada Summer Jobs Students Outreach in the community

Maple Ridge Park and Haney Farmers Market

Our summer students attended the Haney Farmers Market to promote ARMS and the Pollinator Project. We successfully met with many members of the community and educated them on what ARMS does in the community. As we also brought the observation hive, we were able to entice people over to our information booth to chat with us about our resident honeybees. We were also successful in promoting ARMS Summer Camps and selling “I love ARMS!” bumper stickers for the first time. At Maple Ridge Park, summer students met with many parents enjoying the playground area, providing information about ARMS Summer Camps and the Alouette Fish Passage Initiative.



Left: Canada Summer Jobs student Tim Bientjes at Maple Ridge Park,
Right: One of ARMS' 2018 fundraising activities

Maple Ridge Adopt-A-Block Program (AAB)

In 2018, Maple Ridge Adopt-A-Block had **19 new adoptions**. In total, **13 individuals/families memberships, 2 business memberships, 2 group/charity membership and 2 new school memberships**. To date there are **currently 84 actively enrolled members** to the Adopt-A-Block Program. These **84 members are currently monitoring more than 107 sections** of Maple Ridge, as some adopt more than one section and others choose to extend the boundaries of their adopted locations. AAB also manages a program for children ages 3-8, Maple Ridge's Litter Heroes where we currently have 486 registered members. No new adoptions were made in 2018 as the program did not offer new registrations due to lack of sponsorship funding. However, the Litter Heroes Program **hosted 3 litter pick up events** this year for current membership engagement 1) Maple Ridge Earth Day at Memorial Peace Park 2) Father's Day Fish Release & pancake breakfast at Maple Ridge Park and 3) Ridge Meadows Rivers Day at Allco Park.



Harris & Leib Insurance staff volunteer for a litter pick up event along their newly adopted section of 128th Avenue, Maple Ridge.

Continued and New Partnerships

The Alouette River Management Society and Maple Ridge Adopt-A-Block maintained an excellent working partnership with the Sitter 604, Aryan Saed, to engage community members in local events he hosts in the Albion area. This is an excellent relationship for Adopt-A-Block to have because it creates strong intra-community ties while establishing new avenues for individuals to advance Adopt-A-Block initiatives to better the City of Maple Ridge through collaborative efforts.

The Ridge Meadows Association for Community Living repaired the Adopt-a-Block volunteer vests and made another 50 reusable bags which were greatly needed for the program.

Signage

A long-standing feature of the Program is the installation and maintenance of street signs for participating groups and/or businesses. This feature continues to be available for individual and family Program members as well.

It must be noted that municipal street signs of recognition are installed only upon the basis of explicit signed consent by Program members. Thus, current quantifiable Program signage may not accurately reflect the membership base.



Committed Adopt-a-Block volunteers from Maple Ridge BCSPCA with new sign, bags and grabbers.

Equipment

Garbage grabbers and our reusable bags can be signed-out by members at only one location this year. The Maple Ridge Leisure Centre is under renovation and did not have the space to store adopt-a-block equipment. Alternatively, the ARMS office at the Rivers Heritage Centre remains as a pick-up location and/or the coordinator will make arrangements with new members to drop off equipment at their adoption

location. This equipment can be kept by members for the duration of the adoption commitment period or until members decide to opt out of the Program.

Events, Activities, and Group Cleanups

The Adopt-A-Block Program organized and/or participated in **27 different activities** in 2018. These included:

1. Presentation to MP Dan Ruimy – January 23rd 2018
2. UFV Geography Networking Conference – January 24th 2018
3. Maple Ridge Lions Meeting – February 26th 2018
4. City of Maple Ridge Regular Council Meeting – February 27th 2018
5. Earth Day lead up event – March 3rd 2018
6. Spring Break Kids Camps March 20th – 24th 2018
7. Streamkeepers Training Session March 25th & 26th 2018
8. Maple Ridge Earth Day - April 21st 2018
9. Allco Park Clean up event April 28th 2018
10. Ridge Meadows Home Show May 4th - 6th 2018
11. Earth Day wrap up event May 10th 2018
12. ARMS 2nd annual fundraiser event May 17th 2018
13. Bee Clinic at the Rivers Heritage Centre May 26th 2018
14. Maple Ridge Park outreach June 1st 2018
15. Maple Ridge Park outreach June 15th 2018
16. Litter Heroes FREE Pancake Breakfast June 17th 2018
17. Father's Day Fish Release June 17th 2018
18. Adopt-a-Stream Storm Drain Painting with SD42 June 20th 2018
19. Maple Ridge Park outreach June 22nd 2018
20. Haney Farmers Market June 30th 2018
21. Country Fest July 28th + 29th, 2018
22. ARMS Summer Camps July + August 2018
23. ECO Friday at Rivers Heritage Centre, July 20th 2018
24. GETI Fest, September 15th 2018
25. Eric Langton Open House, Sept 20th 2018
26. Rivers Day, September 23rd 2018
27. Kiwanis Club of Golden Ears information night, November 20th 2018



Eric Langton Elementary students cleaning up a stretch of Morse Creek, Maple Ridge.

Promotion

Brochures were printed and distributed at all the above events. A space in the Maple Ridge Library and Maple Ridge City Hall was also reserved for AAB where brochures can be made available to the public. Adopt-A-Block is advertised frequently on ARMS social media and in the Alouette River Newsletter. Adopt-A-Block registration packages and information are all available online at www.alouetteriver.org/adopt-a-block. Sophie Smith, Adopt-a-Block Coordinator presented the program to Kiwanis Club of Golden Ears in November.



Pitt Meadows Pilot Adopt-a-Program:

The ongoing request and interest by Pitt Meadows residents with regards to joining the Program has worked in their favor as the City of Pitt Meadows has contracted ARMS to run the Adopt-a-Program in their municipality. ARMS and AAB approached the City of Pitt Meadows in 2017 to offer a pilot AAB program for 2018 with the intention of securing a "service for fee" agreement. This pilot agreement was approved in April 2018. ARMS has since submitted a proposal to extend this program into 2019 and is currently awaiting approval from the City of Pitt Meadows.



ARMS staff and City of Pitt Meadows staff enjoy the sun at the launch of the Adopt-a-Program at Harris Road Park.

Successful Grant Applications for ARMS Projects 2018

Totalled \$172,884

1. **\$87,932** - Fish and Wildlife Compensation Program (FWCP) – *Alouette Watershed Sockeye – Fish Passage Feasibility Project – Year 2*
2. **\$52,000** - BC Community Gaming grant – *ARMS Education, Rivers Heritage Centre, Adopt-a-Block and Stewardship Programs*
3. **\$20,702** - Canada Summer Jobs (Canadian Government) – 6 summer students for *Environmental Education and Eco-camps*
4. **\$3,250** – City of Pitt Meadows – Pilot for Adopt-a-Program
5. **\$2,500** - Vancity Community Partnership Program - *Alouette River Butterfly Gardens and Pollinator Community Engagement Project*
6. **\$1,500** - City of Maple Ridge Parks & Leisure Festival grant – *25th Annual Ridge Meadows Rivers Day*
7. **\$1,500** - Pacific Salmon Foundation (PSF) – *Invasive Species Removal at 232nd Street Channel*
8. **\$1,000** – Department of Fisheries and Oceans – *Community Salmon Education programming*
9. **\$950** - Fish and Wildlife Compensation Program Community Grants - *25th Annual Ridge Meadows Rivers Day*
10. **\$950** - Port of Vancouver - *25th Annual Ridge Meadows Rivers Day*
11. **\$600** - Fish and Wildlife Compensation Program (FWCP) - *232nd Street Overwintering Channel Habitat Rehabilitation through Invasive Plant Treatment*



ARMS staff and directors accept a cheque from Vancity for the Pollinators project, March 2018.

Fundraising Activities - \$7657

ARMS continued its fundraising activities including our 2nd Annual Fundraiser Dinner held at the Maple Ridge Equi-Centre Ranch Pub and Grill, Rotary Duck Race ticket sales and Bruce Muir Painting Raffle.

The 2nd Annual Fundraiser Dinner was sold out again (100 tickets!) with \$3,325 donated in silent auction items with many local businesses, community groups, individuals and levels of government supporting this event.

ARMS 2nd annual fundraiser a success!



*Fraser Regional Correctional Centre
DFO*

Real Canadian Super Store

Safeway Maple Ridge

Blenz Coffee Maple Ridge

Thrifty's Food Maple Ridge

Maple Ridge Liquor Store

Outer Limits Clothing Co.

Mark's Work Wearhouse

Patagonia Vancouver

Lafarge Coquitlam

Maple Ridge SPCA

Golden Meadows Honey Farm

Valhalla Pure

Haney Sewing and Sound

Little Cricket Gifts



Maple Ridge Equi-Sports Centre



GM Restaurant

Cabela's Abbotsford

Haney Builders Supplies

Canadian Tire

Trevor Linden Fitness

Bosley's

Triple Tree Nursery

BC Federation of Drift Fishers

Wanstalls Hunting & Shooting

Doug & Patty

Emily Gutenberg

Sandi Temple

Cheryl Ashlie

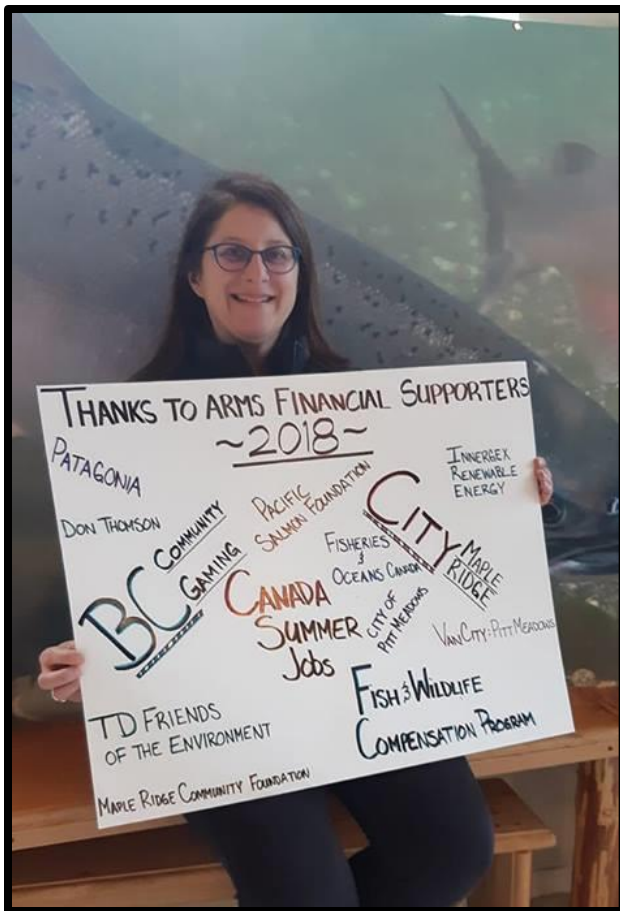
Aline Clayton

Ken Stewart

Ron Antalek

Donations and In-kind Received through 2018 - \$15,311

- John Thomson Estate - \$3000 to establish a student bursary
- David Thomson - \$2500 to establish a student bursary
- Forest Recovery Canada - \$2200
- Nancy Trethewy Estate - \$1500
- Liz and Geoff Hancock - \$1000
- Josine Eikenlenboom - \$1000
- RONA Maple Ridge - \$1000
- Patagonia Vancouver - \$610
- Bruce Muir – artwork value at \$600
- Maple Ridge Lions – \$500 (food and concession truck value)
- Innergex Renewable Energy Corporation - \$500
- John Thomson - \$440
- Don Thomson – habitat building materials valued at \$375
- Terry Conn - \$336
- West Coast Bee Supply - \$250



Alouette River Sockeye and Fish Passage Work

ARMS is a member of the Alouette River Sockeye Reanadromization Project (ARSRP) committee, a group which is dedicated to seeing fish passage over the Alouette Dam for sockeye salmon and other resident salmon species which would use the Alouette Lake for spawning and rearing. This group meets each year in spring and fall to work on projects that are currently aimed at researching the viability of restoring Alouette sockeye salmon above the Alouette dam. The group was successful in its funding application to the Fish and Wildlife Compensation Program (FWCP) for Year 2 of its eleven-year plan to determine the feasibility of restoring a self-sustaining sockeye salmon run back in the upper Alouette watershed. The group was approved for \$87,932 to run its adult sockeye enumeration and kokanee smolt enumeration.

In late June of 2018, the Allco Fish fence was raised to start the adult Sockeye enumeration work. This work began with daily early morning checks of the Allco fish trap by BC Corrections. Adult Sockeye salmon arriving at the ALLCO fish fence are typically expected from early July through to early fall. ARMS staff took genetic samples to be able to assess whether the returns were of Alouette stock. Other samples included taking scales to determine the years spent in the ocean and fork length measurements were taken. The fish were then transported to Alouette Reservoir by truck and trailer and released into the Alouette Reservoir.

The ALLCO fish fence was in operation for the entire sockeye run in 2018. Fourteen fish were captured, from July 17 – September 4, 2018, in good health and transported successfully to the Alouette Reservoir. July 23rd being the peak this year with eight adult Sockeye arriving in the trap. Genetic samples of all fourteen sockeye were taken and submitted to the Pacific Biological Station (DFO) for in-kind testing and analysis.



In September 2018, the ARSRP group was invited to present its results to that point to the FWCP Review panel. Greta Borick-Cunningham (ARMS), Debbie Miller (Katzie First Nation) and Dr. Brett Van Poorten (Ministry of Environment and Climate Change) were well received by the panel and were happy to answer

questions from individual members of the board. The ARSRP partnership includes a long-standing commitment from Katzie First Nation Fisheries and Oceans Canada, ARMS, Ministry of Environment and Climate Change, LGL Limited, and BC Hydro. The group is currently awaiting funding approval for Year 3 of the project to the amount of \$98,000.

On 25 October, a mature adult red Sockeye salmon arrived at the ALLCO fish fence to the great excitement of ARMS staff and Fisheries technicians on hand that day conducting chum egg-takes. On 26 October, the adult Sockeye salmon was measured, sampled and photographed then released into the Alouette Reservoir via the Allco fish hatchery trailer. Reports from ARMS staff were that the fish swam off in good condition.



ARMS staff, Sophie Smith, with mature red adult Sockeye returnee to Allco fish fence – October 26, 2018
(Photo: G.Borick-Cunningham)

It was the first time; ARMS staff had seen an adult Sockeye salmon return to the Allco fish fence this late in the season and in red maturation colours. To current knowledge, Alouette adult Sockeye do not change into the “traditional” red colouration as do other Sockeye species. The colouring we have seen is generally a silver/green/black.

All fifteen (15) samples sent to the Pacific Biological Station were proven to be of Alouette origin (100% probability). Since, 2007, **345 adult Sockeye have returned** to the ALLCO fish fence of which **283 have been successfully transported by BC Corrections to the Alouette Reservoir.**

Alouette River Ecosystem Partnership (AREP)

In July 2018, ARMS was invited to join the City of Maple Ridge-led initiative for ecosystem health in the Alouette Watershed and called the “Alouette River Ecosystem Partnership”. This group consists of the City of Maple Ridge, Katzie First Nation, Kwantlen First Nation and the Alouette River Management Society. All partners signed on to a Memorandum of Understanding with a special signing ceremony held at the Rivers Heritage Centre on September 28. Chief Grace Cunningham (Katzie First Nation), Chief Marilyn Gabriel (Kwantlen First Nation), Mayor Nicole Read (City of Maple Ridge and Cheryl Ashlie (ARMS President) were all in attendance along with local media including CBC and other major news media outlets.

The goals of the Alouette River Ecosystem Partnership are to:

- Create a functional watershed ecosystem in the Alouette River area that restores all seven species of Pacific Salmon
- Provide a scientifically sound and functional fish passage that reconnects the watershed above the dam with the river for the benefit of all species of salmon and freshwater fish
- Protect and enhance the current freshwater species
- Enhance wildlife resources in the ecosystem, and
- Develop recreational and educational opportunities with BC Parks and other partners



news

BC Hydro pressured to fund new salmon infrastructure in Alouette watershed



Left to right, Marilyn Gabriel, Kwantlen First Nation hereditary chief, Cheryl Ashlie, president of the Alouette River Management Society, Maple Ridge Mayor Nicole Read and Grace Cunningham, elected chief of the Katzie First Nation, take part in a signing ceremony to launch their partnership, the Alouette River Ecosystem Partnership. (Rafferty Baker/CBC)

Image from: CBC news article “BC Hydro pressured to fund new salmon infrastructure in Alouette watershed” – September 28, 2018.

The work of this group is in its early stages but seeks to create a collective partnership around a holistic vision for the health of the Alouette Watershed. ARMS is very proud to be a contributing member of this partnership and looks forward to the key initiatives it hopes to see come forward from this relationship.

Salmon Spawner Surveys

ARMS coordinated spawner surveys for the tenth year running in the same four tributaries within the Alouette Watershed. Spawner surveys provide information about the number of adult salmonids that reach the spawning grounds, and the proportion that spawn successfully. Fisheries managers use the term escapement to describe the number of fish that escape the various fisheries. These tributaries include Coho Creek, Latimer Channel, Millionaire Creek, and the North Alouette River.

Twelve volunteers including two ARMS members, two SFU students, two BCIT students, four community residents and 1st Laity View Scouts Coordinator, surveyed the tributaries for three months using the provided spawner survey kits. Included in each kit: note binder with loose-leaf waterproof paper, tally counter, fish knife, whistle, thermometer, two sets of propylene gloves, measuring tape, first aid kit, polarized glasses, and tote.

At the Allco Fish Fence, a total of 2625 adult spawners were counted including chum (2326), coho (288), and chinook (11). The adult returns were late in arriving for 2018 and the Allco fish fence was down several times due to BC Hydro controlled spills. As the fall rains were late, this was considered a potential reason for the late returns with low water in the tributaries of the Alouette River.



Salmon spawner volunteers at various survey days in Maple Ridge.


ARMS Community Workshops and Public Tours

We ran two community workshops in 2018 to provide the general public with greater access to free nature-based activities in the community of Maple Ridge. Both events were a hit, with a full house of approximately 30 attendees per group per workshop plus a waiting list for each session. ARMS ran these events in connection with the Maple Ridge Earth Day Festival and Allco Community Fish Hatchery.

Habitat Workshop: *Birdhouse Building with the Alouette River Management Society

Experience the
enchantment
of this hidden
wonderland
situated
along the
South
Alouette
River!

Part of the Maple Ridge Earth Day Lead Up Events!




Saturday March 3rd 2018
11:00am - 1:00pm

Join us at the River Heritage Centre
anytime between 11:00am and 1:00pm
24959 Alouette Road, Maple Ridge, V4R 1R8

**Birdhouses: minimum donation of \$10.00 per box*

Please RSVP to sophie@alouetteriver.org

www.alouetteriver.org



ANNUAL ALLCO FISH HATCHERY TOUR

On November 3rd, ARMS toured 26 individuals around the Allco Fish Hatchery as part of educating the public about the Alouette Watershed and ARMS work. Despite the rain, attendees left informed about the operation of the hatchery, fish fence and trap along with how the keystone species, salmon, tie into our ecosystem.

Participants were excited to view ARMS staff, Sophie Smith, pull out a variety of species from the fish trap including, a Chum, Coho and Chinook salmon.



Sophie demonstrating salmon egg fertilization process



Sophie showing the difference between a male and female



Chum salmon spawner at the Allco Fish Fence, November 2018.

ARMS Directors Meetings

ARMS directors met six times over 2018 (not including the AGM in April). We currently have 14 directors on our board and all are volunteers who donate a significant amount of time to the issues and work that ARMS is involved with in the Maple Ridge community. There were several ad hoc committees struck for various work including ARMS Fish Passage sub-committee, ARMS Fundraising sub-committee, and the ARMS financial sub-committee.

All meetings were held at the Rivers Heritage Centre at the Allco Community Fish Hatchery. A summer bbq and film showing of the “Super Salmon” was hosted by ARMS in June for volunteers and members.



Appendix A

2018 Chronology of ARMS Activities

(does not include Education bookings or Adopt-a-Block events)

January 11	Maple Ridge Earth Day meeting (ARMS organizes the Opening Ceremonies) ARMS board meeting
January 17	Innergex staff tour of the Alouette/Innergex coho-overwintering channel
January 23	Presentation of 2017 activities to MP Dan Ruimy at constituency office
January 24	Geography Department Networking event at University of the Fraser Valley
February 13	Interviews for ARMS seasonal wildlife instructor position
February 22	Ministry of Environment and Climate Change Steelhead scuba survey from Allco Hatchery fish fence Maple Ridge Heritage Commission Awards – ARMS received the “Stewardship of a Community Cultural Asset” in recognition of 25 years of work protecting, enhancing and advocating for the health of the Alouette River.
February 27	Presentation of Annual Report/Activities to City of Maple Ridge Mayor and Council
February 28	ARMS Membership Drive at Save-On Supermarket on 240 th Street
March 3	Bird House Building Open House, Self guided wildlife scavenger hunt in ALLCO Park
March 5	Alouette River Sockeye Reanadromization Project (ARSRP) spring meeting
March 8	Maple Ridge Earth Day meeting (ARMS organizes the Opening Ceremonies)
March 9	Spring break camp – high school volunteer orientation session
March 12-23	Spring break camps x 2 weeks
March 26	ARMS Membership Drive at Save-On Supermarket on 240 th Street
March 27	ARMS board meeting
March 28	Vancity Pitt Meadows branch – cheque presentation to ARMS for Pollinator Project
April 6	Katzie First Nation – Chief and Council inauguration at Health and Wellness Centre – ARMS attended and spoke about programs
April 12	Annual General Meeting at Maple Ridge Library (guest speaker Dianne Ramage of Pacific Salmon Foundation)

April 20	Pitt Meadows Earth Day – ARMS attended
April 21	Maple Ridge Earth Day – ARMS and Maple Ridge Adopt-a-Block attended
April 24	UBC Teacher Candidates start for 3-week community service program
April 28	Adopt-a-Block Clean up event with MP Dan Ruimy
May 4	Merkley Park Planting event with Honda Surrey
	Ridge Meadows Home Show – ARMS attended
May 5-6	Ridge Meadows Home Show – ARMS attended
May 10	ARMS board meeting
May 14	Alouette Dam tour with MP Dan Ruimy and BC Hydro
May 17	2 nd Annual Fundraiser Dinner at Maple Ridge Equi-Sports Centre
May 24	ARMS fish passage sub-committee meeting
May 26	Community Honeybee Hive Workshop at ARMS
June 1	Maple Ridge Park Outreach with ARMS and summer students
June 4	ARMS fish passage sub-committee meeting
June 5	1 st Laity View Scouts Pollinator event at ARMS
June 8	Maple Ridge Park Outreach with ARMS and summer students
June 9	Community Honeybee Hive Workshop at ARMS
June 13	RBC Wellness workshop – River Heritage Centre rental
June 17	Father’s Day Fish Release at Maple Ridge Park with Maple Ridge Lions – Pancake Breakfast for Litter Heroes
June 18	UBC Teacher Candidate start for 3-week community service program
	Hemmera Environmental and Dillon Consultants – Alouette/Innergex off-channel site visit
June 20	Maple Ridge Parks, Recreation and Culture Department – workshop day at ARMS
June 30	ARMS at Haney Farmers Market – Summer student outreach booth
July 6	Maple Ridge Park outreach – summer students
July 13	Pitt Meadows Adopt-a-Program event at Harris Park
July 16 – 20	“Pixelmon” Summer camp – full week at ARMS
July 18	City of Maple Ridge Fish Passage taskforce meeting – ARMS attended

July 23 – 27	“Build It! Bake It!” Summer camp – full week at ARMS
July 25	ARMS Fish Passage subcommittee meeting
July 26	ARMS at Maple Ridge SPCA – “Bug’s Life workshop” for summer camp attendees
July 28 – 29	Maple Ridge-Pitt Meadows Country Fest – ARMS and Adopt-a-Block attended
July 30 – Aug 3	“Nature Detectives” summer camp– full week at ARMS
August 11	Community Honeybee Hive Workshop at ARMS
Aug 13- 17	“Pixelmon” Summer camp – full week at ARMS (second offering)
August 15	ARMS at Maple Ridge SPCA – “Bug’s Life workshop” for summer camp attendees
August 20	Site visit to 224 th Street Channel – regarding ditch clearing concerns
August 21	Loon Lake Tour – Malcolm Knapp Research Forest – summer students and ARMS attended
August 22	Site visit to 224 th Street Channel – regarding ditch clearing concerns
August 28	Coho Creek survey – accessibility concerns for salmon spawner surveys
September 5	Alouette River Sockeye Reanadromization Committee – fall meeting at Katzie Health and Wellness Centre, Pitt Meadows
September 13	ARMS board meeting
September 15	GETI Fest in Memorial Peace Park – ARMS attended
September 19	Rotary Duck Race Cheque Presentation Night – ARMS attended and received cheque of \$900
September 23	25 th Annual Ridge Meadows Rivers Day at Allco Community Fish Hatchery Special Awards Presentation to ARMS Founders and VIP’s in recognition of ARMS 25 th anniversary year
September 28	City of Maple Ridge “Alouette River Ecosystem Partnership” MOU signing at ARMS Rivers Heritage Centre. Chief Grace Cunningham (Katzie FN), Chief Marilyn Gabriel (Kwantlen FN) and Mayor Nicole Read in attendance.
October 1	Salmon spawner survey training with Pacific Streamkeepers Federation trainer Zo Ann Morten
October 3	Fish and Wildlife Compensation Program Review Panel meeting – ARSRP group attended and presented Year 3 proposal of “Alouette Watershed Sockeye – Fish Passage Feasibility” project.
October 11	Maple Ridge Earth Day meeting – ARMS in attendance for 2019 opening ceremonies planning

	Katzie Creek Connections event – ARMS attended at Katzie Health and Wellness Centre
October 12	ARMS met with MLA for Maple Ridge-Mission, Bob D'Eith regards Alouette fish passage
October 13	Salmon spawner training for new recruits – ARMS hosted training at Coho Creek
October 14	Katzie Slough Planting event in Pitt Meadows with Green Teams Canada – ARMS attended
October 15 – Nov 2	Various chum egg-takes with DFO and Lower Mainland community hatchery groups including BCIT Fish and Wildlife Program students, Mossom Creek, Seymour Salmon Society, Morten Creek and Noons Hatchery
October 16	University of the Fraser Valley – invited ARMS for presentation to Geography student's cohort
October 18	Hemmera and Dillon Consulting site visit to Alouette Innergex Channel
October 19	ARMS runs its first Pro D day offering for kids at the River Heritage Centre
October 20	Community Honeybee Hive Workshop at ARMS – final for the year
November 3	ARMS annual Allco Community Fish Hatchery tour for the public
November 6	Innergex Vice President, Matt Kennedy visit to ARMS and Alouette Innergex Channel
November 9	ARMS runs its second Pro D day offering for kids at the River Heritage Centre
November 22	ARMS board meeting
December 6	ARMS Christmas Holiday party

Appendix B

Environmental Education Programs Offered to Schools and the Maple Ridge Community.

School Field Trip Programs:

The Watershed Education Tour

Duration: 4.5 – 5 hours

Ages: Grades 4 – 7

Location: Rivers Heritage Center, Allco Fish Hatchery and Allco Park, Maple Ridge

Availability: September to November and February to June

Staff Required: 1 – 2

Description: The Watershed Education Tour provides a unique destination field trip for intermediate students. Students learn the following concepts with a hands-on approach: watersheds, salmon life cycle, pollution, aquatic life, forest and stream ecology, and wildlife biology. Teaching methods consist of classroom theory, interactive models, crafts, and hands-on studies. Students participate in a tour of the Allco Fish Hatchery, a forest nature walk and scavenger hunt, and an aquatic insect study. Fall viewing and activities include fish fence operation, brood stock incubation, spawning salmon, egg collection and fertilization, and salmon dissections. Spring demonstrations and activities include egg incubation, fish rearing, fish feeding, and fry release.

The Junior Watershed Education Tour

Duration: 2.5 – 3 hours

Ages: Grades 1 – 3

Location: Rivers Heritage Center and Allco Fish Hatchery, Maple Ridge

Availability: September to November and February to June

Staff Required: 1 – 2

Description: The Junior Watershed Education Tour provides a unique destination field trip for primary students. Students learn the following concepts with a hands-on approach: watersheds, salmon life cycle, pollution and stream ecology. Teaching methods consist of classroom theory, interactive models, crafts, and hands-on studies. Students participate in a tour of the Allco Fish Hatchery and an aquatic insect study. Fall viewing and activities include fish fence operation and spawning salmon. Spring demonstrations and activities include egg incubation, fish rearing, fish feeding, and fry release.

Allco Fish Hatchery Tours

Duration: 1 – 2 hours

Ages: Preschool – Grade 12; Community organizations on evenings and weekends

Location: Allco Fish Hatchery, Maple Ridge

Availability: Year round

Staff Required: 1

Description: This short tour includes an introduction to the salmon life cycle and a tour of the Allco Fish Hatchery. Seasonal demonstrations and viewing opportunities can include: fish feeding, fish fence operation, brood stock collection, spawning salmon, egg collection, fertilization and incubation, and fertilization and fish releases.

Salmon Dissection

Duration: 1.5 hours

Ages: Grades 4 – 12

Location: Rivers Heritage Center and Allco Fish Hatchery, Maple Ridge

Availability: October – December

Staff Required: 1 – 2

Description: The Salmon Dissection Program includes an introduction to the salmon life cycle, a short video, a tour of the Allco Fish Hatchery and a complete salmon dissection. Our dissection is a humane alternative to conventional dissection as we take already-spawned salmon that have recently died from the river. The students work in small groups and learn the physiological systems of salmon which include the respiratory, sensory, muscular, circulatory, reproductive, and digestive systems. The focus reflects the Integrated Resource Package objectives for each grade. Both external and internal features are identified and discussed before returning the salmon carcass to the river to complete its role in the food web.

Classroom Programs:

ARMS classroom programs are a great alternative to our field trips as we bring the natural environment inside to schools in Maple Ridge and Pitt Meadows from September to June. Each classroom program is 1.5 to 2 hours long and is presented by one or two Education Coordinators.

OWLES (Owls, Wildlife and Endangered Species)

Ages: Grades 5 – 7

Description: Owls, like many other species at risk are one of those species children and adults are unaware of. People may not even be aware that the decisions we make as a society can directly affect the health of our local food chains of our local species at risk (SAR). Through public awareness we hope to encourage students to educate the rest of their peers regarding the sensitivity of our SAR. Students will learn that by protecting these species we are protecting the species diversity of our area, which impacts other species as well. Teachers can opt to "bring education home" by speaking to the species right here in our environment, rather than (or at least as well as) speaking on species like the panda and others that are also endangered but are very hard for children to identify with as they are thousands of miles away.

It's A Bug's Life

Duration: 2 hours

Ages: Grades Pre-Kindergarten - 4

Staff Required: 1 - 2

Description: This program offers students and teachers alike an insight into the important role that pollinators perform in our ecosystems. Students will explore butterflies and bees, their lifecycles, anatomy, habitat, preferred plants, bee hive workings, pollinator arts and crafts, build a mason bee home.

Salmon Scales and Tales

Ages: Preschool – Grade 7

Description: The species of Pacific Salmon and their life cycles are introduced in this program. Children participate in interactive demonstrations and activities and come away with an understanding of the trials and tribulations salmon must face. The program includes a discussion of how the children and their families can protect salmon and their habitat. The concepts of this program work well in series with *Creepy Crawlies in the Classroom* and *Water Wise*.

Creepy Crawlies in the Classroom

Ages: Grades 1 – 7

Description: Our streams and rivers are host to dozens of species of aquatic insects. ARMS collects the critters and brings them to the classroom. The students actively identify and view the bugs under microscopes and magnifying glasses. Students also learn the life cycle of insects and how aquatic insects are indicators of water quality. The concepts of this program work well in series with *Salmon Scales and Tales* and *Water Wise*.

Water Wise

Ages: Grades 2 – 7

Description: This program examines the water cycle and the finite water resources existing on Earth. Children are introduced to the concept of watersheds and participate in an interactive watershed demonstration, learning about types of pollution and their effect on the environment. Actions to protect and conserve water are also discussed. The concepts of this program work well in series with *Salmon Scales and Tales* and *Creepy Crawlies in the Classroom*.

Trees of Life

Ages: Grades 1 – 7

Description: Students learn the fascinating facts about wildlife trees and their importance to BC's wildlife. The program starts with a short "Who Am I" game where participants learn some of the different species of wildlife tree users. Specific wildlife species are introduced including: black bears, owls, bats, and woodpeckers. The concepts of habitat and ecosystems are discussed and how humans can have a positive or negative impact on the environment. The final activity is an interactive game where participants identify different species of wildlife through sight, sound and touch.

Fantastic Frogs

Ages: Grades Preschool – Grade 2

Description: This program explores the differences between frogs and toads, the frog life cycle with models of each stage, species of frogs and endangered frog species. Students will hear recordings of native frog calls, learn the about the habitat of frogs by building a suitable frog habitat and, depending on the time of year, see a live frog.

School Ecology Tours

Duration: 4.5 – 5 hours

Ages: Grades 4 – 7

Staff Required: 1 – 2

Description: A full day tour exploring the ecology around each school in Maple Ridge and Pitt Meadows. With the difficulties some teachers may have to arrange a fieldtrip, ARMS brings an environmental fieldtrip program to the school. Concepts discussed include: watersheds, positive and negative impacts in a watershed, local wildlife. Activities incorporate a tour of the area surrounding their school, storm drain marking, and creating posters to explain to their peers why it is important to take care of the environment.

Habitat Programs:

Bird nest boxes, feeders, and bat boxes come in pre-cut kits and are easy to assemble. ARMS provides all necessary supplies, as well as guided instruction throughout the workshop. Each habitat program is 1.5 to 2 hours long and is presented by ARMS staff at the Rivers Heritage Centre or in the classroom. Habitat programs are available year round.

Bird Nest Box, Bird Feeders or Ladybug Hut Workshops

Ages: Grades 1 – 7

Description: This workshop includes a short presentation on wildlife and wildlife trees and their importance to the ecosystem. Students then have the opportunity to individually construct a bird nest box, bird feeder or ladybug hut.

Bat House Workshop

Ages: Grades 1 – 7

Description: This presentation focuses on bat facts and the benefits of having bats in our backyards. Students have the opportunity to construct a bat house to put up in their backyard or schoolyard. This program has been improved to provide a 2hr workshop which teachers can further expand on over the school year with the BC Curriculum.

ARMS Spring Break and Summer Eco-Camps:

Every year ARMS delivers Spring Break and Summer Eco-Camps at the Rivers Heritage Centre and Allco Park in Maple Ridge, BC. Each week-long day camp is for children aged 6-12 with a ratio of one adult to five children. Our camp programs have been developed with environmental-themed games, crafts and activities making them increasingly popular with children and parents. Registration for these camps is through Maple Ridge and Pitt Meadows Parks & Leisure Services. We also work with the career planning departments of the local high schools to obtain volunteer assistance for these programs. **In 2018, ARMS delivered camps to 268 school-aged children.** Included is a sample of a previous camps offered to the community:

SPRING BREAK ECO-CAMP:

Popular Theme Offerings

Pokemon Eco-camp

Description: Learn essential outdoor skills through play-based imaginative learning including orienteering skills using compasses and GPS. Track down those elusive Pokémon and catch them in their pokéball. Themed days include wildlife, rocks and minerals, gold and gems, volcanoes, weather, fire and water safety while having fun exploring the world of Pokémon.

Minecraft: Return to the Nether

Description: Children explore their world through the enchantment of the world of Minecraft. The elemental building blocks of this game can be found on earth. Children learn about mining, gold panning, and natural resources. This theme “Nether” explores one part of the world of Minecraft.

SUMMER ECO-CAMPS:

Popular Theme Offerings

Survivor – Amazing Race

Description: During this week, campers will participate in orienteering: learning how to use compasses, GPS location and maps. Geocaching will be a daily event, Tuesday will include a lifesaver first aid course. Learning different knots and tying techniques, fort building, weaving other basic survival skills will all be taught. Games such as the ever-popular man hunter, amazing race and survivor will be played as well as some team building exercises.

Community Educational Programs:

Adopt-A-Stream

Duration: 1 – 6 hours once a month

Ages: Grade 1 – 12; Community organizations on evenings and weekends

Location: Onsite at creeks throughout Maple Ridge

Availability: Year round

Staff Required: 2

Description: A popular community-wide environmental activity, the Adopt-A-Stream program is a partnership between School District #42, ARMS and the community of Maple Ridge. Students and residents participate in hands-on habitat enhancement and protection projects near their school and throughout Maple Ridge. The program commenced in 2011 with funding from the Fraser Salmon and Watershed Program and continued in 2012-2013 with Mountain Equipment Co-op’s Advocacy and Education grant, RBC Blue Water Program, and Vancity’s Community Fund. **Since 2014, partial funding continued from the City of Maple Ridge.** Activities offered year-round include: storm-drain marking, fish releases, water quality monitoring, bird box placement, vegetation planting, stream cleanups and aquatic insect monitoring. Nine local watercourses have been adopted including McKenney Creek, Latimer Creek, Latimer Channel, Millionaire Creek, North Alouette River, Katzie Slough and Coho Creek. Interested groups are asked to inquire with ARMS about specific activities.

Environmental Stewardship and Other Volunteer Activities Offered by ARMS includes:

Salmon Spawner Surveys

Duration: 2 hours per week

Ages: 10 & up

Location: Onsite at creeks throughout Maple Ridge

Availability: October - December

Staff Required: 1 - 2

Since the fall of 2007, ARMS staff and volunteers have conducted salmon spawner surveys on four tributaries of the Alouette River. The surveys consist of counting and identifying live and dead salmon and dissecting dead salmon to ascertain the health of the fish. Volunteers for the spawner surveys have included a local scout troop, families, fishermen, and seniors caring for the streams in their backyard.

Fish Releases

Duration: 1 hour

Ages: Preschool – Grade 7

Location: Onsite at creeks throughout Maple Ridge

Availability: April, May and June

Staff Required: 1 – 2

Description: Students have an opportunity to release salmon fry raised at the Allco Fish Hatchery into a neighbourhood stream. These salmon will eventually return to this same stream as spawning adults allowing the class to observe them for years to come. Students also examine the habitat components of the stream and learn what salmon need to survive. This program allows participants to make the connection between organism and habitat while making a positive impact on the environment.

Storm Drain Marking

Duration: 2 hours

Ages: Grades 3 – 10

Location: Throughout Maple Ridge

Availability: September – October and April – June

Staff Required: 1 – 2

Description: Storm drain marking is a simple way for students and neighbourhood residents to learn about the connection of storm drains and streams. Rainwater, which runs off our roads, parking lots and driveways, can carry toxic levels of pollutants and harm our streams and the creatures that live in them. The class is divided into small groups which then mark each storm drain in the neighbourhood. Templates are used to paint a small yellow fish at each drain and informational pamphlets are distributed to each residence in the neighbourhood to explain the significance of the yellow fish. Safety vests are provided and parents are encouraged to attend for supervision.

Office Assistance

Duration: varies

Ages: Adults

Location: Rivers Heritage Centre

Availability: Year round

Staff Required: 1 (for initial training)

Description: ARMS' volunteers assist with the organization of our library, entry of data from projects, and inventory. ARMS' Treasurer completes the payroll and financial data entry. Office assistance positions are also made available for disabled persons.