



Alberta Conservation
Association

Annual Report 2016/17



2016/17 Snapshot

- Hired four full and 24 seasonal positions; 13 of these positions were filled with past and current seasonal staff.
- Fourteen companies have become new Corporate Partners In Conservation or have increased their ongoing support for ACA programs and projects.
- The *Alberta Outdoor Adventure Guide* app was redesigned for iOS and Android users.
- Finished the year with 11,594 Facebook followers, 4,343 Twitter followers, 336 YouTube subscribers, and 76,958 Constant Contact subscribers.
- 4-H Alberta, Boy Scouts, schools, fish and game clubs, and private landowners raised 17,980 pheasant chicks to be released throughout the province.
- The MULTISAR Program was expanded to include grasslands within the South Saskatchewan drainage. The expansion saw new partnerships, four comprehensive long-term habitat conservation strategies on 8,000 acres, and 15 enhancements among ten producers including upland watering sites, portable watering units, and fencing.
- Successfully overwintered stocked trout populations at 18 aerated lakes.
- Collected over 1,000 westslope cutthroat trout samples for genetic analysis to aid in recovery of this *Threatened* species.
- Added seven new conservation sites and four expansions, totalling 1,770 acres (716 ha) with an approximate land value of \$4,735,000.
- Planted 118,800 trees and shrubs on conservation sites.
- Developed and delivered the new RAP education trailer. The trailer is split into two large displays: one featuring hunting violations and the other, fishing.
- Funded 90 projects through ACA Conservation, Community, and Education and ACA Research grants.
- Wabamun Lake Kids Can Catch was wildly successful this year with 1,626 kids and adults coming out to give ice fishing a try.

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Annual Report 2016/17



Our Vision

An Alberta with an abundance and diversity of wildlife, fish and their habitats; where future generations continue to use, enjoy and value our rich outdoor heritage.

Our Mission

ACA conserves, protects and enhances fish and wildlife populations and their habitats for Albertans to enjoy, value and use.

Abbreviations Index

ac	acre
°C	degree Celsius
cm	centimetre
h	hour
ha	hectare
km	kilometre
km ²	square kilometre
m	metre
mm	millimetre
mg/L	milligram per litre

Contents

About Us	5
Message from the Chairman	7
President and CEO's Message	9
Our People. Our Commitment	10
Health and Safety	10
Human Resources	11
Information Technology	11
Business Development	13
Our Conservation Programs	15
Information, Education, and Communications	15
Wildlife	21
Fisheries	31
Land Management	39
ACA Conservation Reports	45
Report A Poacher and Livestock Compensation Programs	47
Granting Programs	49
ACA Conservation, Community and Education Grants	49
ACA Research Grants	49
Grants in Biodiversity	49
ACA Chair in Fisheries and Wildlife at the University of Alberta	49
Auditor's Report	54
Financial Highlights	57

Cover Photo: Satellite collar found in the Birch Mountains. The collar was found intact near the remains of a young male wolverine thought to have been attacked by wolves.

Project: Wolverine Density, Movement, and Denning along the Western Periphery of the Birch Mountains

Photo: ACA, Mike Jokinen



Member Groups

Alberta Fish & Game Association
Alberta Hunter Education
Instructors' Association
Alberta Professional Outfitters
Society
Alberta Trappers' Association
Nature Alberta
Pheasants Forever, Alberta Council
Treaty 8 First Nations of Alberta
Trout Unlimited Canada
Wild Sheep Foundation Alberta

Board of Directors 2016/17

Executive

Pat Long, Chairman – Wild Sheep Foundation Alberta
Brian Bildson, Vice Chairman – Public At Large, Business Representative
Bill Abercrombie, Secretary – Alberta Trappers' Association
Robert Gruszecki, Treasurer – Alberta Hunter Education Instructors' Association
Tom Bateman, Past Chairman – Southern Alberta Board Liaison

Directors

Ken Ambrock – Northern Alberta Board Liaison
Dr. Mark Boyce – ACA/University of Alberta Chair in Fisheries and Wildlife
Randy Collins – Alberta Fish & Game Association
Silvia D'Amelio – Trout Unlimited Canada
Rob Duncan – Public At Large, Southern Region
Dr. Lee Foote – Public At Large, Academic Representative
Chris Fowler – Public At Large, Northeast Region
Leonard Hanson – Pheasants Forever, Alberta Council
Dr. Brian Joubert – Nature Alberta
Adam Norris – Public At Large, Northwest Region
Carla Rhyant – Alberta Professional Outfitters Society
Travis Ripley – Minister's Representative, Alberta Environment and Parks
Greg Shyba – Public at Large, Central Region

About ACA

Alberta Conservation Association's (ACA) Wildlife, Fisheries, and Land Management program biologists work on projects around the province to ensure that wildlife, fish, and their habitats flourish. ACA is a non-profit organization dedicated to conserving, protecting, and enhancing these elements for Albertans to enjoy, value, and use now and for generations to come.

Delegated Roles and Responsibilities

In addition to being a not-for-profit organization, and a registered charity, ACA holds special status as a Delegated Administrative Organization (DAO), which means that we deliver responsibilities as outlined in the *Wildlife Act* and defined in a Memorandum of Understanding (MOU) with Alberta Environment and Parks (AEP). In our role as a DAO, results from our population studies, surveys and assessments feed directly into AEP management plans and can form the basis for fishing and hunting regulation changes and evaluations of new management strategies.



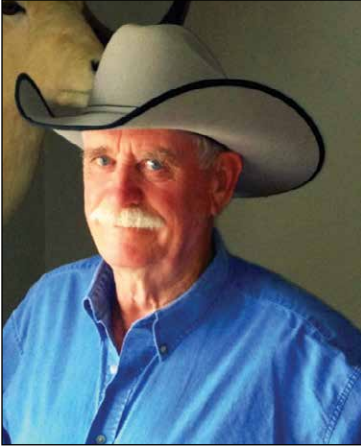
Project: MULTISAR – South Saskatchewan, Rachel Whitehouse installing fence reflectors

Partnerships: Alberta Beef Producers, Alberta Environment and Parks, Canadian Cattlemen's Association, Canadian Roundtable for Sustainable Beef, Cows and Fish – Alberta Riparian Habitat Management Society, landholders, Prairie Conservation Forum

Photo: ACA, Brad Downey



Message from the Chairman



I feel a great deal of pride every time I step back and look at the wide range of conservation activities ACA achieves in a year. Pride, not for what has been accomplished, but for the way it has been accomplished. I have been associated with ACA for many years, and in the beginning it was not always smooth sailing. We did not always work as well as we could have with our member groups and we were not as good at communicating with our stakeholders as we could have been. But things have changed, and for the better! I don't think our relationship with member groups has ever been stronger and I believe we have more interaction with our stakeholders than we have ever had.

It is clear from our *Annual Report* that ACA does not operate in isolation. We rely heavily on partnerships to make our projects successful. Stakeholder volunteers, member groups, corporations, Alberta Environment and Parks, and municipalities all play an important role in conservation in this province, and without these partners we could not be successful. Knowing that so many partners are willing to work with us says something about our work and our people.

As you are reading the *Annual Report*, another Alberta summer will be upon us. I will be spending as much time as possible outdoors, sharing this beautiful province with my children and grandchildren. Despite the numerous conservation issues that arise on a constant basis, I am confident that because of the collaborative attitude seen throughout the conservation community, my grandchildren will someday be able to enjoy these same natural treasures with their own grandchildren, and that is a reason to smile.

Have a great summer and enjoy your time with family.

A handwritten signature in black ink, which appears to read "Pat Long".

Pat Long, Chairman of the Board

Project: Pheasant Studies – Upland Game
Bird Productivity Survey, Pen-reared
Pheasant Hen Survival Study

Partnerships: Landowners, Pheasants
Forever – Calgary Chapter, various 4-H
clubs across southern Alberta, 4-H family
volunteers

Photo: ACA, Kyle Prince



President and CEO's Message

From grizzlies to grayling, plovers to cutthroat, ACA tackles the whole gambit of wildlife, fish, and habitat projects across this province. It amazes me every year when I review the *Annual Report* to see the sheer volume of work that is being achieved. Long-term projects such as MULTISAR and Riparian Conservation continue to expand, while new projects such as the Haig Lake Angler survey and the Harvest Your Own campaign have been added.

Although there are a wide range of projects occurring across our various program areas, the one clear theme that permeates throughout the *Annual Report* is the importance of partnerships involved in these projects. Once again this year, our member groups, stakeholders, corporate partners, and of course, dedicated staff, worked tirelessly to ensure ACA was able to complete a huge number of conservation projects not only to benefit wildlife and fish, but future generations of Albertans as well. It is clear that we accomplish much more working together than we ever could working apart.

Take the time to look through the project descriptions contained in this report and you will gain an understanding where your levy funds are being spent. If you are looking for more detail you can always go to our website where every project has an annual summary posted. Of course, if you still have questions, do not hesitate to contact me directly. If I don't have an answer for you, I will find someone that does. Open, honest, and transparent is what we are striving for and I believe it is this attitude that has aided ACA in gaining the large number of supportive partners that we have.

As always, I welcome your feedback. We are spending funds provided by stakeholders like you, so it is good to know that we are meeting your expectations, and if we are not, we need to know what we can do differently.

Have a great summer.

Sincerely,

A handwritten signature in black ink, appearing to read 'Todd Zimmerling', with a stylized, flowing script.

Todd Zimmerling
President and CEO
Alberta Conservation Association

Our People. Our Culture.



Photo: ACA, Colin Eyo

Health and Safety

Health and safety is a key element in today's workplace whether in the office or out in the field. ACA's health and safety program was established, and is continually maintained and improved, to provide the necessary tools for our staff to work in a manner that meets and exceeds OH&S standards. The end goal is always that everyone working on ACA projects goes home healthy and safe!

All workers (employees, contractors, volunteers, visitors) are required to comply with ACA's Health and Safety Program in order to protect themselves and others, which creates a safer and healthier work environment.

2016/17 Overview

- Maintained low number of overall incidents with a minor increase in damage to equipment/property and motor vehicles compared to previous year.
- Continued to conduct work according to requirements established by the Certificate of Recognition (COR) program. Last year, ACA completed the 2016 Internal COR Audit and achieved an overall grade of 99%; scoring 100% in 12 of the 13 mandatory elements. The main goal was to ensure all aspects of the ACA Health and Safety Program had the required Job Hazard Assessments and maintenance schedules were being met.
- Continued emphasis on incorporating all aspects of ACA's Health and Safety Program into employees' day-to-day operations.
- 2016 ACA Employee Survey results showed that the majority of ACA staff supported and understood how ACA's safety program contributed to their safe work environment.

Human Resources

ACA completes many conservation projects over considerable territory each year, thanks in large part to our 80 permanent staff and numerous seasonal staff. It's not just about hiring talent; it is about keeping people and helping them grow and stay engaged over the long term. ACA's most valuable resources is its employees.

Congratulations and thanks are extended to the following individuals who achieved significant Years of Service milestones this year:

15 Years of Service

Julie Landry-Deboer

10 Years of Service

Peter Aku, Brad Hurkett, Leila Lassey

5 Years of Service

Blair Seward

2016/17 Overview

Employee Survey

- 98.7% of employees agree they are satisfied with ACA as a place to work—a tremendous accomplishment.
- 93.7% of employees are satisfied with having a good work-life balance.
- 92.4% are satisfied with ACA's benefit plan.
- 87.3% are satisfied with the whole compensation package available to them.

Employee Retention

- Staff turnover decreased slightly over last year to 5%. We continue to concentrate on professional development and employee engagement. Employee review documents were redesigned for easier understanding, giving employees freedom to contribute to their own career path with ACA.

Career Fairs

- Attended career fairs at the University of Lethbridge and University of Alberta. These fairs provided excellent opportunities to introduce ourselves and inform new graduates about career options available at ACA.

Recruitment

- Filled four permanent positions. We also hired 24 seasonal to work for

next year's summer field season. This was a successful year for recruitment of staff—13 of these positions were filled with past and current seasonal staff. ACA has a strong recruitment and retention program that has allowed us to continually hire back staff who have worked with us in the past.

Information Technology

As our organization continues to evolve, the management and ease of access to systems and databases becomes increasingly important. Information Technology (IT) is committed to finding solutions, increasing operational efficiencies, and saving resources in support of this growth.

With changes in the workforce and in digital technology, it is essential for staff to access files from just about anywhere and to work on projects in conjunction with other researchers at almost any location in the province. The IT team is committed to finding solutions by consulting with staff, talking with partners, and meeting with experts in the field to develop a system that ensures staff are working as efficiently and effectively as possible.

Work continued this year on the long-range plan and focus for technology. Mobile access continues to be our top priority as our needs change over time and we require increased access from remote field sites. We continued with a review of our internal systems and storage and began a review of our key applications and access, evaluating the benefits of cloud versus on-site storage. We began an audit of our existing systems much like we did with our network structure and hardware with the intent to see where, if any, improvements could be made. We are moving toward a set structure that will be expandable as ACA work continues to grow over time.

As an example, a new internet phone system was implemented

in the Sherwood Park office this year. Features include the ability to have voicemail emailed to staff, call forwarding to multiple devices, and remote access through internet or cellular service. This phone system will be expanded in the future to include all ACA offices and will allow calls to be moved around the province. This advances us toward our "offices without walls" goal to allow consistent and company-wide access regardless of physical location.

2016/17 Overview

- Continued improving staff access by moving to a blend between remote access and cloud-based structure, allowing staff to work across the province and collaborate with external resources as required.
- Accessed expertise by using targeted consultants to increase the timing and effectiveness of IT solutions. IT staff are actively involved in planning and delivering the systems they oversee and maintain, which creates an environment of accountability and strong customer support.
- Continued updating and improving systems to provide better and more consistent online access for staff. The main system improvement was customization and updates to the Project Safety Plan form to allow more information to be included and increase ease of use. Our goal is to streamline system entry to make an efficient and user-friendly environment for staff, whether they are entering data or retrieving information for monitoring the progress of their projects.
- Continued to support staff with new drone technology for testing in project delivery.
- Completed implementation of a new phone system in Sherwood Park offices that will expand over time to all locations. This internet based system allows for better communication company-wide and will eliminate individual systems in regional offices.
- Began an evaluation of current data storage and access systems to determine where changes are required to standardize the process company-wide.
- Continued work to link current systems, decreasing duplication and staff effort in planning and forecasting results.

Taber Pheasant Festival
Photo: ACA, Colin Eyo



Business Development

ACA partners with many Alberta corporations (big and small), municipalities, and community organizations that sponsor, donate, and otherwise support our conservation work and values. These partnerships are integral to helping us achieve the annual goals of our Wildlife, Fisheries, Land Management and the Information, Education, and Communication Programs. Over the past few years, we have also seen a dramatic increase in support for our growing number of events that continue to engage and educate people about conservation in communities across Alberta.

Many of our partnerships are formerly recognized in our Corporate Partners in Conservation (CPIC) Program, which provides unique opportunities for businesses, municipalities, and organizations to be directly plugged into ACA's conservation work. Our CPIC participants enjoy the ability to promote their affiliation with us through their own communications, and benefit from ACA's promotion of these partnerships through our communications initiatives.

Business Development also generates additional revenue through advertising sales to support our communications activities on television, radio, online, and our in-house publications *Conservation Magazine* and the *Alberta Discover Guide*.



Kids Can Catch Event, Wabamun Lake
Photo: ACA, Colin Eyo

2016/17 Overview

- We are pleased to recognize fourteen companies that are either new Corporate Partners In Conservation or have increased their ongoing support for ACA programs and projects:
 - Abacus Datagraphics: Internet Mapping Program
 - Access Pipeline Inc.: Enhanced Fish Stocking at Gibbons and Roadway Ponds
 - Cabela's: Kids Can Catch, Archery Days, Waterfowl Warmup, Taber Pheasant Festival, Trout Pond Survey
 - Canadian Tire Cochrane: Enhanced Fish Stocking at Mitford Pond
 - Capital Power: Genesee Power Plant Peregrine Camera
 - CCI Inc.: Enhanced Fish Stocking at Dewitt's Pond
 - Inter Pipeline Ltd.: Report A Poacher Education Trailer
 - Martin Motor Sports: Report A Poacher Education Trailer
 - MacFarlane Pheasants Inc.: 4-H Pheasant Raise and Release and Taber Pheasant Festival
 - SysGen Solutions Group Ltd.: Enhanced Fish Stocking Program at Beaumont Pond, Nose Creek Pond, and Mitchell Pond
 - Town of Cochrane: Enhanced Fish Stocking Program at Dewitt's Pond
 - TransAlta Generation Partnership: Peregrine Cameras Project, Wabamun Lake Kids Can Catch
 - West Fraser Ltd. (Sundre Forest Products): Fishery Inventories
 - Wingate by Wyndham: WIN Card Benefits Program



Our Conservation Programs

Information, Education, and Communications

Alberta Conservation Association and conservation itself mean many different things to many different groups of people. The Information, Education, and Communications Program is key to keeping conservation relevant to Alberta's scope of lifestyles and corporate citizens. The program builds relationships and creates awareness between conservation stakeholders—hunters, anglers, trappers, the public, corporate partners, and landowners.

2016/17 Overview

- 60,000 copies of *Alberta Discover Guide* were delivered in January 2017, featuring 776 conservation sites (including DUC and AFGA sites). The Guide is a free annual publication that provides outdoor enthusiasts with a list of conservation sites that can be accessed for hunting, fishing, hiking, and foraging.
- The *Alberta Outdoor Adventure Guide* app was redesigned with a focus on the end user and made available on Android.
- The successful Harvest Your Own advertising campaign and website were designed and launched across print and digital media including outdoor billboards. Aimed to capitalize on the localvore culture and the “non-hormone” wave the concept presents hunting as an alternative to where people source their protein. This ongoing investment into information and communications is important to maintaining engagement and education of non-consumers and consumers of wild game.
- The *Annual Operating Plan* and *Annual Report* were completed and provided to our Board of Directors.
- Produced a combined total of 30,000 copies of *Conservation Magazine* for 2016.

- Supported the Wildlife, Fish, and Land Management Resource Programs with visual communications and on-demand design and media services such as regional advertising, site signage, and angler online surveys.
- Business Development successfully engaged corporate funding for a new Report A Poacher trailer. Communications designed and developed content for digital and static displays and worked alongside Business Development to produce the trailer on time and under budget.
- Kids Can Catch is a province-wide program sponsored by Dow Chemical Canada. ACA partners with community and corporate partners to create free family fishing events at lakes and ponds. In total, 4,352 adults and children came out to fish at 17 Kids Can Catch events, involving 67 corporate and community event partners.
- The peregrine cameras continued to be a popular draw and its audiences raised funds for a new ferruginous hawk camera—increasing awareness of species at risk.
- In 2016/17, ACA had 11,594 Facebook followers, 4,343 Twitter followers, 336 YouTube subscribers and 76,958 subscribers to Constant Contact.
- The Taber Pheasant Festival celebrated its sixth year. The week-long festival is the biggest hunting festival in Canada. Events include: dog training seminar, novice hunt, culinary evening, and scotch tasting. The celebration banquet was sold out with close to 350 attendees.

Alberta Discover Guide

The *Alberta Discover Guide* is a free annual publication which features conservation sites across Alberta that outdoor enthusiasts can access for hunting, fishing, hiking, foraging, and photography. The 2017 edition featured 776 conservation sites. Available in both print and digital formats, the guide provides individual site details and directions to conservation sites, including stocked and aerated lakes and ponds. We printed 60,000 copies of the 2017 issue—a reduction from 80,000 in previous years as a response to lower advertising revenue and to reduce costs and waste. Copies are mailed to subscribers at the beginning of each year and distributed at trade shows and hunting and fishing licence retailers across Alberta. The *Alberta Discover Guide* remains a popular resource with hunters and anglers.

Partnerships

Advertisers, Alberta Fish & Game Association and affiliated clubs, Ducks Unlimited Canada

Alberta Outdoor Adventure Guide App

In 2016/17, we relaunched the *Alberta Outdoor Adventure Guide* app to be both iOS- and Android-friendly. The app is free of charge and provides information on conservation sites contained in the print and web versions of the *Alberta Discover Guide* in a mobile format. In-app notifications help us communicate relevant information about the recreational opportunities ACA creates, such as stocked and aerated fishing ponds, pheasant release sites, and kid-friendly events. It also provides us with a platform for advertising content from ACA's stakeholders and other organizations and businesses focused on fishing, hunting, and conservation. The new app was downloaded by 6,827 individual users.

Partnerships

N/A

Annual Operating Plan

Our *Annual Operating Plan* informs Albertans and our stakeholders and partners about the projects we are undertaking during the fiscal year and how we are directing revenue to our resource program areas. The plan is produced each year in both print and electronic formats. The accuracy of the content is our primary concern prior to its release. Our Information, Education, and Communications Program coordinates content from the other resource programs and then edits the content and designs the document. After review and approval by our Board of Directors, the plan is posted on our website at the start of each fiscal year. In 2016/17, the plan was provided to the Board in a timely fashion for approval and was posted on our website at the beginning of the fiscal year.

Partnerships

N/A

Annual Report

Our *Annual Report* is a valuable tool for ACA and our stakeholders because it provides information about our work and the funding we receive each year from levies, partnerships, and donations; it also provides audited financial statements. It is one of our business reports that demonstrates that ACA is accountable and transparent. Our Information, Education, and Communications Program team coordinates content for the report from the other resource programs, edits the content, and designs and produces the document. After the report has been reviewed and approved by our Board of Directors, it is printed and posted on our website. Through this process, our communications team also edits all resource program annual summaries and posts them on our website each April following ACA's fiscal year-end.

Partnerships

N/A

Archery Days

ACA supports the efforts of local organizers to plan and host archery events that provide youth and first-time archers with an opportunity to learn the basics of archery in a fun and accessible way. The goal of each event is to foster an interest in archery as a gateway to hunting. Each event is led by a local organization. In 2016/17, Archery Days events were held in Lamont, Magrath, and Edmonton. Nearly 500 people tried archery during the three events.

Partnerships

Alberta Bowhunters Association, Alberta Hunter Education Instructors' Association, Aux Sable, Cabela's Edmonton North, Cabela's Edmonton South, Lamont Fish & Game Club, Magrath Rod and Gun Club, University of Alberta

Conservation Magazine

Conservation Magazine is a free bi-annual publication produced by ACA that highlights the projects and work we and our member groups are doing in Alberta, discusses topical conservation issues, and bridges an understanding between the hunting and angling communities and the larger conservation community. The magazine also helps increase ACA's profile in Alberta and is used as a tool by some of our program areas (Wildlife, Fisheries, Land Management, Business Development) to reach out to potential donors and partners. The 2016 editions included articles on carrying capacity, the ACA Enchant project, invasive species, member groups Trout Unlimited Canada and Alberta Trappers' Association, the wolverine project, and a lengthy article on the elk hunt at Canadian Forces Base Suffield. The magazine is delivered to over 12,000 subscribers and distributed at trade shows and events, and it is also available in digital format.

Partnerships

Advertisers

Conservation Site Signs

Each of our conservation sites has branded signage to recognize our partners, provide wayfinding for users, and inform users of any restrictions on the site. We work with our Wildlife, Fisheries, and Land Management teams to produce signs for these conservation sites, including fisheries access sites and their boundaries, as well as for pheasant release sites, thin-ice areas (warnings), and interpretive trails.

Partnerships

N/A

Emerging Issues

Additional requests for communications support by the executive of ACA or the resource programs (Wildlife, Fisheries, and Land Management) occur throughout the year. These requests include editing presentations, relaying up-to-date information on aeration and changes in pheasant release sites, responding through social media to news events, or documenting damage to conservation sites using drone footage. Our Information, Education, and Communications Program team provides on-demand services in design, copywriting, editing, print production, and digital media.

Partnerships

N/A

Final Report Series

Each year, our resource programs (Wildlife, Fisheries, and Land Management) are responsible for submitting reports on the projects they have been working on to describe the findings of their work. Our Information, Education, and Communications Program team is responsible for editing, proofing, and formatting these reports and making sure they are available to the public and our stakeholders and partners through our website, and the Alberta Government Library.

Partnerships

N/A

General Advertising

Advertising helps us work toward a number of long-term goals within the *Strategic Business Plan*, such as increasing public recognition of the ACA brand; creating positive profiles of hunting, fishing, and trapping; and developing corporate partnerships. In addition to these primary goals, ongoing ACA program support (such as for the Enhanced Fish Stocking project, Report A Poacher Program and event promotions) provides recognition of the work we do, leading to increased ACA brand recognition by the public and corporate support. We create consistent and contemporary visual communications using print, web, and social media platforms.

Partnerships

N/A

Grant Fund Annual Report

The *Grant Fund Annual Report* provides stakeholders with information about our granting process, the funding allocations, and the activities and results of the projects that receive funding each fiscal year. ACA annually funnels over \$1 million into conservation work in Alberta through grants. Since starting our grant programs in 2002/03, we have awarded over \$15.4 million. Since 2014/15, ACA has administered two grant programs: ACA Research Grants and ACA Conservation, Community, and Education Grants. Projects that have benefitted from long-term funding cover everything from avian monitoring and education programs to research on bighorn sheep and elk. Other recipients include the Edmonton Nature Club's popular Snow Goose Chase, the Camrose Purple Martin Festival, and many Alberta Hunter Education Instructors' Association programs, which engage youth and adults in outdoor recreational activities, such as archery, fishing, and hunting. The Conservation, Community, and Education Grants also fund education programs, such as Trout Unlimited Canada's Emerald

Award-winning Yellow Fish Road program and Nature Alberta's Living by Water program. These projects are only a small sample of the 979 projects funded so far. We update the grants section on our website as needed and promote grants and deadlines in the fall and winter.

Partnerships

N/A

Internal Communications Needs

Effective communication is an integral part of our operations and fundamental to ensuring our stakeholders and the public are informed about, and engaged with, our programming. This work includes proactively informing individuals and organizations about upcoming opportunities, such as events or volunteer opportunities, and sharing results and information about completed projects or initiatives. The Internal Communications Needs project provides creative and technical services to the President and CEO, our Human Resources and Business Development teams, and our Wildlife, Fisheries, and Land Management Programs.

We work with program managers, regional managers, and project leads to ensure that our programs and projects receive the communications materials and support needed to contribute to their success and recognition. This work is accomplished by our communications staff and using out-sourced services.

Partnerships

N/A

Kids Can Catch Program

Kids Can Catch is a province-wide program in which ACA teams up with community and corporate partners to create free family fishing events. Sponsored by Dow Chemical Canada, Kids Can Catch aims to "hook" new and young anglers on fish conservation and responsible angling. In 2016/17, nearly 4,500

adults and children came out to fish at 17 Kids Can Catch events across Alberta, involving 67 community and corporate partners. The success of this year's events shows that the Kids Can Catch Program is a successful model in which ACA can engage local organizations and businesses interested in fishing and conservation, and invite families, youth, and new Canadians to give fishing a try and learn about fishing, conservation, and responsible angling. The program continues to generate interest from community and corporate partners.

Partnerships

Program sponsor:

Dow Chemical Canada

Event partners: 8th Avenue Eyecare, Brooks; Absolute Safety, Brooks; Access Pipeline; Alberta Fish & Game Association; Alberta Fish & Wildlife Enforcement Branch; Alberta Hunter Education Instructors' Association; Alberta Lifesaving Society; ATB Financial, Cochrane; ATB Financial, Stony Plain; Aux Sable; Berkley; Brooks and County of Newell Early Childhood Development Coalition; Brooks Fire Department; Brooks Fish & Game Association; Cabela's, Calgary; Cabela's, Edmonton North; Cabela's, Edmonton South; Canadian Tire Jump Start; Canadian Tire, Brooks and Cochrane; City of Fort Saskatchewan; CN Police Service; Coronation Elks; Coronation Family and Community Support Services; Coronation Family Foods; County of Newell; County of Paintearth; Edmonton Old Timers' Fishing Club; Edmonton Trout Fishing Club; Fort Saskatchewan Fish & Game Association; Fort Saskatchewan Lions Club; Fort Saskatchewan Naturalist Society; Golby Hardware and Sports; Grimshaw Agricultural Society; Handi-Can Septic; Harold Walters & Associates; Heartland Elks; Heritage Ranch; JobSite Workwear; Lamont Fish & Game Association; Magrath Rod and Gun Club; Night Owls Citizens on Patrol; Northern Lights Fly Tyers; Parkland County; Peace Country Fly Fishers; Pita Pit, Brooks; Provost and District Fish & Game Association;

River Valley Alliance; Safari Club International, Red Deer Chapter; Servus Credit Union, Wabamun; Shakespeare; Slave Lake Rod and Gun Club; Stony Plain Fish & Game Association; Superfly; Thompson Pallister Bait Company; Town of Beaumont; Town of Cochrane; Town of Coronation; Town of Gibbons; Town of Provost; Town of Stettler; TransAlta; Vibrook Vacuum and Septic; Village of Wabamun; Wabamun and District Chamber of Commerce; Walleye Master; Wholesale Sports, Grande Prairie; Wolverine Gun and Tackle

Marketing Campaign: Harvest Your Own

Hunting and angling are important to ACA because licence levies help support the association and our work. Positive promotion of hunting, angling, and trapping is part of our *Strategic Business Plan* and must be undertaken with a long-term approach. This ongoing investment in information and communications is important to continue to engage and educate non-consumers and consumers of wild game. The initial campaign launch for Harvest Your Own generated positive response and awareness. The campaign was expanded into fall 2016 and spring 2017 and will be ongoing. The Harvest Your Own website had 3,526 users and 31,896 page views. Users visited 1.91 pages per session, and the average duration of visits was 1:12 minutes.

Partnerships

N/A

Media Releases

Media releases inform television, radio, and print media sources about events and important information in hopes that they might be announced to a bigger audience. In 2016/17, we sent media releases announcing a partnership with the Philip J. Currie Dinosaur Museum, reminding new anglers of our Kids Can Catch Wabamun event, reporting on new grants, and publicizing our brand new Report A Poacher trailer.

Partnerships

N/A

Online Advertising

We use online advertising to increase public awareness of ACA and our initiatives. By developing advertising campaigns, often based on seasonal initiatives, we can greatly increase our exposure to the public. Online search advertising enables the public to easily find ACA's website and specific web pages by typing keywords into the Google search engine. Traditionally, websites reach the first page of Google search results for specific keywords through a variety of metrics that determine the website's quality and relevance. With online advertising, we can force our web pages to the top, so the top one to three results for specific keywords will be our web pages. In 2016/17, we launched five Google Adwords campaigns, generating over 30,000 clicks and 770,000 impressions. We also launched one Facebook campaign, reaching over 150,000 people, recording nearly 10,000 engagement actions, and garnering over 700 followers.

Partnerships

N/A

Peregrine Cameras

The peregrine cameras provide a bird's-eye view into the daily lives of peregrine falcons as they fight for mates and territory, catch food, and raise their young. We have cameras at five locations in Edmonton—Bell Tower, University of Alberta, Genesee Power Plant, Agrium Redwater, and Weber Centre—and we live-stream the video to our website. The cameras draw attention to this species and to other species-at-risk initiatives and resources available from Alberta Environment and Parks. Views of peregrine pages on our website accounted for 34% of web traffic in 2016/17.

Partnerships

Aspen Properties, Capital Power, TeraGo, TransAlta, University of Alberta, WiBand

Riparian Publication

The *Caring for Shorelines* booklet is an existing riparian resource that has become outdated and was to be rewritten and republished. Nature Alberta approached ACA and Alberta Environment and Parks to combine resources and knowledge to produce a more robust riparian resource for the public within their Living Edge program. In 2016/17, the design and content for the publication was ultimately rejected, and the project was renegotiated, with ACA taking the lead role in redesign and content development. Concepts for the publication were developed and approved. Content development is ongoing.

Partnerships

Alberta Environment and Parks, Nature Alberta

Social Media

One of ACA's key goals in our 10-year *Strategic Business Plan* is to raise awareness about our organization and the work we do. Social media is a way for us to connect with, inform, and grow our audience. By having a medium where we can share our work and interests with people on a daily basis, we can generate interest and conversations that would otherwise not exist. In 2016/17, we connected with the public through our four primary social media mediums: Facebook, Twitter, our e-newsletter, and YouTube. Ultimately, the goal of our social media efforts is fostering an interested and compassionate audience so that we are connected with a larger scope of people when the time comes to deliver an important message or make a request regarding conservation in Alberta. In the past year, we have engaged nearly 3,300 new followers on Facebook, over 800 new followers on Twitter, and nearly 30 new subscribers on YouTube.

Partnerships

N/A

Stakeholder Communications

To foster positive business relationships and partnerships in conservation sectors, ACA promotes projects and events for our stakeholders and member groups whenever possible. This support might appear as an advertisement in *Conservation Magazine*, a post in social media, or a design for a conservation site sign. Our Information, Education, and Communications Program is able to provide creative services related to visual communications and social media, such as design, creative copywriting, digital design, editing, social media, and industry-standard print media production.

Partnerships

N/A

Taber Pheasant Festival

In 2016, The Taber Pheasant Festival celebrated its sixth year. As in previous years, this week-long hunting event kicked off with a novice-focused hunting weekend largely run by the Alberta Hunter Education Instructors' Association. Novice hunters were given the opportunity to develop their shooting skills on clay targets with a shooting coach and then guided through a pheasant hunt by a mentor. Following this hunt, novice hunters were treated to a pheasant stew prepared by chefs featured at our culinary event hosted later in the week. The six days that followed the novice hunts focused on regular hunting opportunities at 40 locations within the Municipal District of Taber. We released 5,100 pheasants over the course of seven days. Roughly 760 hunters, including 73 novice hunters, participated in the festival. Of these hunters, 91% were residents of Alberta and 9% travelled from British Columbia, Saskatchewan, Ontario, or the United States. Sponsorship and support has increased year after year, from 11 initial sponsors in 2011 to over 50 in 2016. Daily after-hour events helped to round off a fun-filled

week; these events included dog-training seminars, a scotch-tasting evening, and a chef-led culinary evening highlighting various ways to prepare pheasant. The festival has gained recognition not only for its hunting opportunities but also for the positive economic and cultural benefits it has fostered in the Taber area, and it continually receives significant media attention during the event.

Partnerships

Alberta Culinary Tourism Alliance, Alberta Fish & Game Association, Alberta Hunter Education Instructors' Association, Beretta/Benelli/Tikka (Stoeger Canada), C&B Alberta Solar Development, Cycle Works, Heritage Inn Taber/Canadian Destinations Group, landowners, MacFarlane Pheasants, Municipal District of Taber, Pheasants Forever – Calgary Chapter, Taber & District Chamber of Commerce, Taber Irrigation District, Town of Taber, Town of Vauxhall, Vortex

Waterfowl Warmup

ACA hosted Waterfowl Warmup on August 18, 2016, at Beaverhill Sporting Clays, 45 minutes east of Edmonton, to raise funds for a new educational trailer for the Report A Poacher Program. Sporting clays is like golf with a shotgun—rather than holes there are shooting stations with trap machines that launch clay targets. The four-person team that shoots the most clay targets wins. But the real winner is wildlife and fish in Alberta because the event raised funds to purchase the new educational trailer and increased awareness about the value of the Report A Poacher Program. In 2016/17, 14 teams participated, including a couple of fish and game clubs.

Partnerships

Beaverhill Sporting Clays, Cabela's Canada, Canadian Red Agencies, Evan's Group

Website Maintenance and Development

ACA's website provides an accessible gateway to information about our work using current technology to engage users. It is perhaps the primary platform we use to work toward increasing our profile in Alberta, one of the long-term goals of ACA's 10-year *Strategic Business Plan*. In 2016/17, the ACA website achieved approximately 479,181 page views, with the average user spending 2:10 minutes per page.

Partnerships

N/A

WIN Card Reimbursements

Working in partnership with Hunting for Tomorrow and the Alberta Hunter Education Instructors' Association, the WIN Card Reimbursement Program supports the recruitment of young people into hunting. This program gives ACA and its member groups a way to connect with new hunters when they purchase their first WIN card. Although the cost of reimbursing each youth for their first WIN card is relatively small, the impact of this program has been significant. ACA has been able to enhance young hunters' experiences by introducing and connecting them to programs, information, and member-group organizations. It is our hope that making these connections at a young age will result in long-term relationships being formed between these young stakeholders and the larger conservation community. In 2016/17, Hunting for Tomorrow distributed over 1,800 information packages to youth who had completed the hunter education course. A total of 344 youth returned the reimbursement form and asked to be included on ACA's mailing list to receive ongoing information from ACA regarding hunting, fishing, trapping, and other conservation activities.

Partnerships

Alberta Hunter Education Instructors' Association, Hunting for Tomorrow



Wildlife Program

Partnerships remain the cornerstone of our wildlife program with these long-term relationships forming the foundation of meaningful conservation. While science-based evidence is important for guiding the way, it's the common ground among stakeholders that moves conservation forward.

ACA's Wildlife Program works with many stakeholders in a variety of different projects, from working with Alberta trappers for the wolverine project to working with 4-H members to raise and release pheasant hens and working with landowners to improve shoreline breeding habitat for piping plovers. Our projects would suffer without the help of our partners and stakeholders.

Project: Wolverine Density, Movement, and Denning along the Western Periphery of the Birch Mountains

Partnerships: Alberta Environment and Parks, Alberta Trappers' Association, Animal Damage Control – A Division of Bushman Inc., ATB Financial, Bildson Realty Ltd., BRE-JON Enterprises Ltd., Crowsnest Conservation Society, Daishowa-Marubeni International Ltd., Hinton Trappers Association, McGill University, Orion Foundation of Calgary, Richard D. McCabe Professional Corporation, Roadrunner Leasing and Sales Ltd., Rocky Mountain Wilderness Society, South Country Trappers, Stojan's Motor Sports, TD Friends of the Environment Foundation, Trapper Gord Homestead & Survival, University of Alberta

Photo: ACA, Corey Rasmussen

2016/17 Overview

- Operated 17 wolverine live traps and 14 run pole camera traps in the Birch Mountains this past winter. We radio collared three females and four males. Two of three females were recaptures and both of these denned. The four males were new captures with one these overlapping its territory into Wood Buffalo National Park.
- A final report covering the run-pole work over the past six years is now available on our external website. We also published a paper in the *Journal of Wildlife Management*: "The distribution of wolverines relative to snow cover, Alberta, Canada."
- Set up 922 rub objects to collect grizzly bear DNA from hair sample in BMA 5 in south western Alberta. We completed over 3,600 visits to these rub objects over a 12 week duration with five field crews visiting each site four times. They covered more than 6,000 km on the trail. We collected 1,289 bear hair samples from these rub objects on both public and private land, and submitted these to the lab for analysis.
- Eighty-six 4-H members participated in the third year of the Raise and Release Program. They raised 9,470 day-old chicks to 14-week-old hen pheasants and roosters. An additional 8,510 pheasant chicks were raised by Boy Scout groups, schools, Fish & Game clubs, and private landowners throughout Alberta. We held three workshops discussing pheasant husbandry and the habitat requirements of pheasants once released into the wild.
- Tested survival of pen-reared pheasants released as 14-week-old poults in four sites presumed to have high quality habitat. Apparent survival to 30 weeks of age ranged from 44–55% at three sites and down to 11% at the fourth site.
- Released 26,000 male pheasants on 41 public hunting release sites to increase hunting opportunities in Alberta. Five Fish & Game clubs played key roles with this program by releasing pheasants at 24 of these sites through the season. We added a new site (Whitetail North, Ducks Unlimited property) near Grande Prairie, with 4-H members in the region providing 1,000 male pheasants for put-and-take hunting opportunities at this site. MacFarlane Pheasants released pheasants three times per week at the remaining 16 sites.
- Pronghorn continue to select historic crossing sites rather than switching to locations that would provide easier passage. In an effort to improve pronghorn movement across a fenced landscape, we've been trialling a few different modifications. Smooth wire appeared to be most effective, followed closely by carabineers, which were used to clip the bottom wire to the wire above. White PVC pipe used to raise the bottom wire by clipping it to the wire above appeared to deter or impede movement by pronghorn.
- Collaborated with other organizations to survey 66 waterbodies and located 123 adult piping plovers as part of the 2016 International Piping Plover Census. This count is lower than the previous four in Alberta (1996 = 276 birds, 2001 = 150 birds, 2006 = 274 birds, and 2011 = 244 birds), and the lowest count since 2000. This apparent decline has been occurring over the last few years and may be due to the substantial reduction in available breeding habitat since 2012, resulting from vegetation encroachment on some lakes (e.g., Muriel), and from flooding of nesting habitat on other lakes where water levels remained at their highest level in more than a decade (e.g., Handhills).
- Collaborated with ranchers to update plans and reassess range health on roughly 70,000 acres through the MULTISAR program within the Milk River drainage. We also partnered with eight producers to implement 13 enhancements ranging from water wells to native grass reseeding to the installation of wildlife-friendly fence lines.
- Expanded the MULTISAR program to include grasslands within the South Saskatchewan drainage. We kicked off this expansion with new partnerships, and completed four comprehensive long-term habitat conservation strategies on 8,000 acres. We also implemented 15 enhancements among ten producers including upland watering sites, portable watering units, and fencing.
- Initiated a partnership with Washington State University to test and refine sampling protocols to improve amphibian detection using eDNA taken from pond water.
- Through our collaboration with Enchant Farm, we trialed 21 seed varieties in test plots to assess their potential as brood-rearing habitat (insect-rich) or territorial edge habitat (tall-structure) for pheasants and grey partridge. We also worked with our partners to design four wetlands. Wetland placement will reduce the amount of crop lost to periodic flooding and also serves as high-value wildlife habitat.

ACA/4-H Pheasant Raise and Release Program

Pheasants were first introduced into Alberta in 1908 by a group of recreational enthusiasts to provide enhanced upland hunting opportunities. Now more than 100 years later, the tradition continues as ACA partners with many stakeholders to improve upland hunting opportunities in Alberta. Changes in agricultural practices and the conversion of native prairie into cropland have dramatically modified the landscape to the point where native game birds are nearly eliminated from areas dedicated to cropland. Pheasants can adapt to areas predominately used for cropland provided that a suite of habitat features are also available. In 2014, we initiated a partnership with 4-H Alberta and other interested groups to offer them the opportunity to raise pheasants from day-old chicks to adult birds for release. In 2016/17, 86 kids from 4-H raised 9,470 hen pheasants and released them into suitable upland habitat. This was higher than the previous year in which participants raised 5,350 pheasants. In addition to pheasants raised by 4-H participants, 8,510 pheasants were raised by other interest groups, including private landowners, school divisions, fish and game clubs, and Boy Scout groups. We held workshops throughout the province to provide guidance on pheasant husbandry and to discuss habitat features important for improving the odds of survival once the hens are released into the wild.

Partnerships

4-H Alberta, Committed Ag, Lethbridge Fish & Game Association, Red Deer Fish & Game Association, Wheatland Conservation and Wildlife Association

Alberta Volunteer Amphibian Monitoring Program

Volunteers have been playing a crucial role in wildlife conservation efforts for many years. Vast datasets collected through long-established programs like the North American Breeding Bird Survey, or more recent programs such as eBird, would not exist without their efforts. Individuals who volunteer with ACA can develop skills and gain knowledge related to conservation and, at the same time, increase our capacity to deliver conservation initiatives. In 2016/17, 15 participants from the Alberta Volunteer Amphibian Monitoring Program (AVAMP) submitted 36 amphibian and four reptile observations, including one location of a snake hibernacula (den). These data represented 70% of the amphibian and 22% of the reptile species native to the province. Data collected by volunteers provide a better understanding of the distribution and status of Alberta's amphibians and reptiles, and provide valuable information for land-use planning efforts. These partnerships and volunteer relationships are examples of how ACA can work with a network of enthusiastic volunteers to positively impact conservation.

Partnerships

TD Friends of the Environment Foundation

Alberta Wildlife Status Reports

ACA and Alberta Environment and Parks (AEP) produce Alberta Wildlife Status Reports for wild species that are believed to be declining in Alberta. These reports are the essential first step for a species to have its status assessed, and they play a key role in identifying *Endangered* and *Threatened* species that need legal protection and recovery actions to keep them from becoming extinct in Alberta. Each status report summarizes the information needed for assessing a species' status—where it lives; the specific habitat it requires;

its population size and whether it is stable, increasing, or declining; factors preventing the species from thriving in Alberta; and what work has been done or is ongoing to manage the species in Alberta. A committee of Alberta-based scientists compares the information in each status report to internationally set thresholds (for population size, for e.g.,) and recommends a status for the species. Using international criteria and thresholds ensures the status assessment process is as unbiased as possible. The status recommended by the scientists is subsequently scrutinized by an Alberta-based multi-stakeholder committee (the Endangered Species Conservation Committee). Composed of land managers, academic institutions, conservation groups, and industry, the committee provides its recommendation on a species' status to the Minister of AEP. The ultimate decision on status designation (e.g., *Endangered*, *Threatened*) is made by the Minister. In 2016/17, we completed two reports (American bison update, western wood-pewee) for review by Alberta's Endangered Species Conservation Committee. ACA plays a key role in assessing the status of Alberta's species at risk through our involvement with the Alberta Wildlife Status Report series.

Partnerships

Alberta Environment and Parks

Amphibian Monitoring Using Environmental DNA

Environmental DNA, or eDNA, refers to the DNA that organisms leave behind or shed as they pass through the environment. Genetic techniques have evolved to allow researchers to detect DNA signatures from material such as mucus, feces, urine, or sloughed skin that is naturally contained within water and sediment. We are working toward a reliable method of detecting amphibians using eDNA. In 2016/17, the first phase of this work was completed, with the development of an approach for detecting three amphibian species by an MSc student

from the University of Alberta. For the second phase of this work, we partnered with Washington State University to further refine these methods and evaluate three sample collection procedures to improve reliability of detection: 1) collecting a simple water grab sample, 2) passing water through a cellulose nitrate filter, and 3) collecting surface material from the top of the substrate on the pond floor. In the summer of 2016, we collected water and sediment samples from five ponds near Edmonton and submitted them to a molecular laboratory at Washington State University to try to detect the presence of up to five species of amphibians: wood frog, boreal chorus frog, western toad, Canadian toad, and tiger salamander. The work has allowed us to gain new insights into using eDNA to detect species and to better understand the limitations of eDNA detection methods for short- and long-term monitoring of amphibians in Alberta.

Partnerships

Shell Canada Energy; University of Alberta – David Coltman, Corey Davis, and Cynthia Paszkowski; Washington State University – Caren Goldberg

Enchant Project – Strong Farmlands. Thriving Habitat.

We have a long-term working relationship with a farm to evaluate approaches for re-establishing vibrant upland game bird densities while maintaining a profitable farming operation. We also monitor a range of non-target species to assess how these treatments impact biodiversity (amphibians and songbirds). We trial enhancements that focus on improving habitat features important for nesting, brood rearing, and winter survival of pheasants and grey partridge. This includes approaches within the crop, the juxtaposition of crops types and rotation, harvest methods, field edge improvements, water management and wetlands creation, and seed trial

plots. Beginning in 2014, the initial two years of the project focused on collecting baseline data to allow for future comparisons of treatments. In 2016/17, we trialed 21 seed varieties in test plots to assess germination and growth as potential components for a brood mix and an edge habitat mix. We trialed the edge-habitat mix (sorghum/millet/corn varieties) in areas with and without irrigation. As expected, survival and growth in irrigated plots was considerably greater. The density of partridge pairs has increased on the farm in each of the past three years (10.3 pairs/km², 22.2 pairs/km², and 28.4 pairs/km² in 2014 to 2016, respectively), although our autumn count in 2016 was lower than in 2015. Finding approaches that increase game bird densities while complementing or minimizing impacts to farm operations is key to convincing producers that both goals are attainable on the same farm.

Partnerships

Haggins family, Stamp Farms



Project: Amphibian Monitoring Using Environmental DNA

Photo: ACA, Amanda Rezansoff

Grizzly Bear Population Inventory in Bear Management Area 5

Grizzly bears are an iconic symbol of our wilderness and historically an important part of Alberta's hunting heritage. In 2010, grizzly bears were designated as *Threatened* under the provincial *Wildlife Act*, and in 2012, the western population was federally designated as a *Species of Special Concern* by the Committee on the Status of Endangered Wildlife in Canada. The last population estimate for Bear Management Area (BMA) 5 was completed in 2006. During the summers of 2014 and 2015, we surveyed public and private lands within the study area to identify bear rub objects. In total, we identified

922 rub objects. During the summer of 2016, we visited all of these rub objects four times. On the first visit we cleaned off any existing hair samples, and during the three subsequent visits we collected new hair samples. We sent 1,289 hair samples to Wildlife Genetics International for genetic (DNA) analysis. The DNA results will be used in combination with data from the northern portion of the management area in a spatially explicit capture-recapture framework to estimate grizzly bear density and abundance in BMA 5. An accurate population estimate is a key part of the decision process for understanding human-bear conflicts and for proactive land use planning designed to reduce these conflicts.

Partnerships

Alberta Environment and Parks, Alberta Innovates, Alberta Parks, Bear Scare Limited, Benga Mining Limited operating as Riversdale Resources Limited, Cycleworks Motorsports, landowners in southwestern Alberta, Municipal District of Ranchlands, Parks Canada, Safari Club International – Northern Alberta Chapter, Spray Lake Sawmills, Waterton Biosphere Reserve Association

Habitat Legacy Partnership

Upland game birds are valued for their showy colours, breeding displays, and long history in the hunting tradition of Alberta. A mix of habitat features that provide conditions suitable for nesting, brood rearing, winter protection, and travel is crucial to the success of upland birds. ACA initiated the Habitat Legacy Partnership to work collaboratively with conservation groups, private landowners, irrigation districts, and municipal districts to facilitate enhancements that target these habitat features. In 2016/17, we planted 6,000 shrubs on land open to hunting to create escape cover and winter habitat for upland game birds and other wildlife. We also maintained and monitored more than 17 km of shrub rows planted over the past five years. These shelterbelts benefit a variety of wildlife species and are often a first step in engaging landowners in habitat enhancement activities. To improve habitat connectivity, water quality, and hunting access, we collaborated with partners on the Milk River Ridge Reservoir Water Quality Stewardship Initiative project. This initiative has opened up more than 600 acres for hunting by creating a boundary around 30 km of the reservoir and main canal to separate riparian habitat from encroaching agriculture. This new fence line distinguishes this zone from private property and has enabled us to re-establish brood rearing cover through much of this zone. With partners, we were able to construct a 2.5 ha wetland that will provide habitat for wildlife and will serve as a nutrient settling pond to improve water quality. Most of this southern landscape is



Project: Grizzly Bear Population Inventory in Bear Management Area 5

Photo: ACA, Kelly Mulligan

in private hands. We continue to develop strong working partnerships within the agricultural community and recognize that farmers and ranchers play a key role in the future sustainability of upland game birds in this system. Engaging and listening to our stakeholders is a fundamental guiding principle that strengthens the grassroots nature of this work. We will continue to work with landowners to enhance habitat through a network of key drainages to improve the odds for the long-term sustainability of game birds on this landscape.

Partnerships

Alberta Environment and Parks, David Bissett, County of Warner, Irrican Power, landowners, Lethbridge Fish & Game Association, Magrath Rod and Gun Club, Pheasants Forever – Calgary and Lethbridge chapters, Raymond Irrigation District, Southern Alberta Bowhunters Association, St. Mary River Irrigation District, Taber Irrigation District

MULTISAR – Milk River

Southeastern Alberta is home to the highest density of *At Risk* wildlife in Alberta. MULTISAR – Milk River is a multi-species stewardship program for species at risk focusing on the Milk River watershed. The program is a collaborative effort among landowners, ACA, Alberta Environment and Parks, and Prairie Conservation Forum. In 2016/17, we completed wildlife and range surveys on about 70,000 acres of land and completed five habitat plans for landowners to help them incorporate wildlife habitat needs into their ranching practices. Federally *Endangered* greater short-horned lizards and little brown bats, as well as *Threatened* ferruginous hawks, chestnut-collared longspurs, and Sprague's pipits, are just a few of the species identified on these lands. We implemented enhancements on eight properties, including the continued restoration of 1,300 acres back to native grass by spraying for brome, Canada thistle, and other weeds. We continued work on another two enhancements initiated in previous years, including seeding native grass on 160 acres and prepping another

284 acres for 2017/18 to ensure we have a clean seed bed. Producers have also installed smooth bottom wire placed 45 cm from the ground along about 6 km of fence line to help facilitate the movement of pronghorn across their land. Through open communication, we continue to build long-term relationships with landholders and increase their awareness of species at risk.

Partnerships

Alberta Environment and Parks, Canadian Natural Resources Limited, Government of Canada, landholders, Prairie Conservation Forum

MULTISAR – South Saskatchewan

Numerous species at risk occur in the southern part of Alberta, often overlapping with agricultural landscapes, particularly livestock grazing operations. Often it is the existing land management approaches that have allowed these species at risk to persist, but there are also many opportunities on these lands and adjoining lands to further enhance habitat quality for species at risk. The Canadian Cattlemen's Association, through funding from the Species at Risk Partnerships on Agricultural Lands Program, is partnering with the Alberta Beef Producers, Canadian Roundtable for Sustainable Beef, MULTISAR, and Cows and Fish for five years (2015–2020) to increase, maintain, and improve habitat for species at risk within the Grassland Natural Region of Alberta. This work will be completed through knowledge sharing, habitat assessments, development of voluntary habitat conservation plans, and subsequent implementation and monitoring of beneficial management practices. In 2016/17, we completed wildlife and range surveys on about 8,000 acres of land and completed four habitat plans for landowners to assist them with incorporating wildlife habitat needs into their ranching practices. Federally *Threatened* ferruginous hawks, chestnut-collared longspurs, and Sprague's pipits were just a few of the species identified on these lands. We implemented enhancements on ten properties, which included four new properties that will be included

in the program in 2017/18 and two demonstration sites. Enhancements ranged from installing upland watering sites and pasture pipelines to prevent cattle pressure on riparian areas, to using fencing to prevent cattle from disturbing springs and streams. Through open communication, we continue to build long-term relationships with landholders and increase their awareness of species at risk.

Partnerships

Alberta Beef Producers, Alberta Environment and Parks, Canadian Cattlemen's Association, Canadian Roundtable for Sustainable Beef, Cows and Fish – Alberta Riparian Habitat Management Society, landholders, Prairie Conservation Forum

Pheasant Release Program

Upland game bird hunting has a long-standing tradition in Alberta. Since the introduction of the Chinese ring-necked pheasant in the early 1900s, wild populations have become established in select areas of southern Alberta. To accommodate the high demand for hunting opportunities, the Alberta government started a hatchery in 1945 and created the Provincial Pheasant Release Program, which released thousands of hatchery-raised pheasants onto the landscape each fall. In more recent years, the hatchery was privatized due to government cutbacks and was on the brink of being lost entirely in 2013. However, a small group of keen hunters formed Upland Birds of Alberta and agreed to run the program for that year. ACA agreed to take over the program beginning with the 2014 season, with the overall goal to provide greater hunting opportunity for all Albertans. We released 17,080 male pheasants for the fall hunting season in 2014 and increased this number to 25,000 in 2015 and 26,000 in 2016. We developed a web page that shows a map and directions to all the sites to make this hunting opportunity more accessible. We operated 41 release sites in 2016, including one new site—Whitetail North—in the Grande Prairie area. We worked with five fish and game clubs who played a key role in weekly

releases of pheasants (6,040 total) at 24 sites from Medicine Hat to Cardston. We also partnered with 4-H families near Grande Prairie to raise 1,000 roosters to be released at the Whitetail North site. We contracted MacFarlane Pheasants to release birds three times per week at the remaining 16 sites (18,960 pheasants). MacFarlane housed these birds in a holding facility near Strathmore. At northern sites, birds were released for nine weeks beginning in mid September. At southern sites, releases corresponded with the October 15 opening day and continued for six weeks. The program has been well-received, with positive feedback from hundreds of hunters.

Partnerships

4-H Alberta, Cardston Fish & Game Association, Ducks Unlimited Canada, Fort Macleod Fish & Game Association, Lethbridge Fish & Game Association, MacFarlane Pheasants, Medicine Hat Fish & Game Association, Picture Butte Fish & Game Association

Pheasant Studies – Upland Game Bird Productivity Survey, Pen-reared Pheasant Hen Survival Study

We conduct annual upland game bird surveys (pheasant, grey partridge, sharp-tailed grouse) in select locations to better understand the habitat conditions associated with annual recruitment and survival, as well as provide a forecast of game birds to encourage hunting. We also assess the survival of pen-reared pheasants at sites assumed to be good habitat to inform our understanding of variability in survival across sites. There has been a great deal of enthusiasm and support for the ACA/4-H Pheasant Raise and Release Program over the past three years, with the number of members participating growing each year. The members released nearly 9,500 pheasants in 2016/17, and a better understanding of survival in different habitats will help guide the location of future release sites. In 2016/17, we used trained dogs to survey game birds along select routes in late summer and early fall,

and we posted results to our website for use by the hunting community. Pheasant recruitment was higher than normal in 2016 but down more than two-fold for grey partridge. We walked 47 km during 19.25 hours of survey time and flushed 263 pheasants and 159 partridge. This translates to 4.2 encounters per hour. Survival was higher than expected for pen-reared pheasant poults at three of four release sites. Survival to 30 weeks ranged from 44% to 55% at three sites and was 11% at the fourth site. Pen reared pheasants typically have low survival rates, so a better understanding of the habitat conditions that improve survival will help inform our work with the Pheasant Raise and Release Program.

Partnerships

Landowners, Pheasants Forever – Calgary Chapter, various 4-H clubs across southern Alberta, 4-H family volunteers

Piping Plover Recovery Program

Piping plovers are small, stubby-billed *Endangered* shorebirds that nest and feed along gravel beaches. They face a number of threats, including high rates of predation and damage to their nesting and feeding habitat. We are working with landowners across east-central and southern Alberta to improve habitat and promote awareness of the plight of the piping plover. Each year, we also conduct piping plover counts on key breeding lakes to monitor population numbers and distribution; this work complements the international census conducted every five years across North America and helps us guide habitat improvement activities. In 2016/17, we surveyed 66 waterbodies and found 123 adults on 17 lakes, with ten or more adults on six of these lakes. We improved over 6 km of shoreline habitat by working with landowners to install a temporary electric fence at one lake and by implementing seasonal grazing at a second lake to reduce vegetation. We also installed a viewing platform with interpretive signage and reduced vegetation encroachment on piping plover habitat at the Junction Lake Conservation Site. Since large-

scale recovery efforts began in 2002, we have improved over 58 km of shoreline habitat, with the majority of “critical” piping plover habitat protected or improved using fencing.

Partnerships

Alberta Environment and Parks, ConocoPhillips, cooperating landowners, Department of National Defence, Government of Canada

Pronghorn Resource Enhancement and Monitoring

Having evolved on the wide-open prairies of North America, pronghorn did not develop an instinct to jump vertical obstacles. The proliferation of barbed-wire fencing that followed cattle ranching since the 1880s now poses a serious barrier to pronghorn movement. Pronghorn may cross under fence lines in some locations, but it slows down their movement making them susceptible to predators, and in some cases, the barbed wire strips hair off their backs causing lacerations and making them vulnerable to infection and frostbite. Replacing the bottom wire with smooth wire and raising it to 45 cm is effective at facilitating movement, but it is costly. We are trialing approaches to improve movement across fence lines at select crossing locations. In 2016/17, we processed images from 48 trail cameras at our study site in Canadian Forces Base Suffield from our fence-modification trials in 2015/16. Images of pronghorn were the most common, followed by elk, coyote, and deer. To improve migration and address the question of how long it takes for pronghorn to adjust to using modified sites, we are collaborating on a companion project in Montana, where the modifications will be in place for 13 to 14 months, as opposed to four to 4.5 months in Alberta. Initial findings suggest that smooth wire is the most effective fence modification, followed closely by carabineers that clip the bottom wire to the wire above. White PVC pipe used to raise the bottom wire by clipping it to the wire above appears to be a

deterrent to pronghorn movement. As final results become available, we will disseminate our findings to stakeholders, wildlife managers, and conservation groups to further restore pronghorn movement pathways that have been relied on for thousands of years.

Partnerships

Alberta Fish & Game Association, Bushnell, Cabela's Canada, Canadian Forces Base Suffield, National Fish and Wildlife Foundation, Onefour Research Station, Safari Club International – Northern Alberta Chapter (Hunting Heritage Fund), TD Friends of the Environment Foundation, The Nature Conservancy, University of Montana, World Wildlife Fund

Restoring Natural Habitat for Wildlife

Wildfire control began in Alberta's national parks in the 1930s and on provincial forested land in the 1950s. Fire suppression in Alberta forests has reduced the loss of

merchantable timber and risks to human settlements. However, fire suppression has had negative consequences as well. Lack of a natural fire regime has changed vegetation succession, diversity, and structure, which provide habitat diversity important for the survival of many wildlife species. The primary focus of the Restoring Natural Habitat for Wildlife project is to restore natural ecosystem patterns and wildlife habitat values within landscape units and focal areas that have aged beyond the natural range of variability. In 2016/17, we worked with Alberta Environment and Parks and Alberta Agriculture and Forestry to identify key areas in need of prescribed burning that support mountain sheep and other ungulates. These provincial ministries value ACA's support in identifying and planning habitat enhancements (primarily prescribed burns) on Alberta public lands not influenced by other disturbances (e.g., commercial logging) to restore a more natural state of habitat diversity. We

also worked on an assessment of the response of vegetation to a prescribed fire in the upper North Saskatchewan River drainage six years after burning; this assessment will determine if this burn met key objectives for wildlife. And we worked with our Land Management Program to plan disturbance regimes on ACA-managed lands. The goal is to improve habitat diversity, structure, and successional stages that will benefit wildlife. With support from wildland firefighters from the Alberta government, we initiated hand cutting of trees on our Leddy Conservation Site, which is intended to enhance habitat for wildlife by emulating more natural disturbance patterns.

Partnerships

Alberta Agriculture and Forestry, Alberta Environment and Parks

Project: Restoring Natural Habitat for Wildlife

Photo: ACA



Sharp-tailed Grouse Habitat Inventory and Stewardship

During the spring of 2016, we worked with volunteers to conduct sharp-tailed grouse lek inventories at the Whitemud and Wanham provincial grazing reserves. At the Wanham grazing reserve, we identified eight individual lek sites, including one new site, one recolonized site that had previously been abandoned, and one inactive lek site. Five active lek sites were located at the Whitemud grazing reserve; previous to this effort, only one lek was known to exist at this reserve. In addition to this inventory work, we delivered a poster presentation and multimedia presentation on sharp-tailed grouse to members of the public at the Trumpeter Swan Festival in April 2016 in Grande Prairie, and we delivered a workshop on living with wildlife to landowners in February 2017 in Grimshaw.

Partnerships

Alberta Environment and Parks, Dunvegan Fish & Game Association, Peace Country Beef & Forage Association, Wanham Provincial Grazing Reserve, Whitemud Provincial Grazing Reserve

Waterfowl Crop Damage Prevention Program

The Waterfowl Crop Damage Prevention Program assists agricultural producers in reducing damage to crops caused by waterfowl during fall migration. To improve the effectiveness and efficiency of the program, in 2012/13 we approached counties and municipal districts in areas where we previously operated scare cannon distribution centres and offered scare cannons free of charge for them to incorporate into their existing equipment rental programs. In 2016/17, we continued to work with producers as well as counties and municipal districts to ensure that scare cannons were available where needed for waterfowl crop damage prevention. In support of these efforts, we provided locations

where scare cannons were available for loan and crop damage prevention strategies on the ACA website.

Partnerships

Alberta Environment and Parks, County of Athabasca, County of Camrose, County of Clear Hills, County of Flagstaff, County of Grande Prairie, County of Lac La Biche, County of Lacombe, County of McKenzie, County of Minburn, County of Northern Lights, County of Northern Sunrise, County of Paintearth, County of Ponoka, County of Smoky Lake, County of St. Paul, County of Stettler, County of Two Hills, County of Vermillion River, Municipal District of Big Lakes, Municipal District of Bonnyville, Municipal District of Greenview, Municipal District of Peace, Municipal District of Provost, Municipal District of Smoky River, Municipal District of Spirit River

Wolverine Density, Movement, and Denning along the Western Periphery of the Birch Mountains

We are working in partnership with Alberta Trappers' Association (ATA) to identify where wolverines occur in the province and determine the major factors associated with their distribution. To complement our citizen science project to investigate wolverine abundance and distribution using trail camera data, we initiated a partnership with the University of Alberta to study wolverine ecology at a finer scale. We worked with a PhD student to radio collar wolverines to investigate their movements and feeding patterns in northwestern Alberta. As that project wrapped up, we shifted our focus to working with ATA to investigate wolverine habits in north-central Alberta, where there is less industrial disturbance but more natural disturbance. We are interested in comparing how wolverines use the habitat, what they eat, and where they den between these two areas of Alberta. This work will provide a broader geographic context in which to understand wolverine ecology in Alberta.

Partnerships

Alberta Environment and Parks, Alberta Trappers' Association, Animal Damage Control – A Division of Bushman Inc., ATB Financial, Bildson Realty Ltd., BRE-JON Enterprises Ltd., Crowsnest Conservation Society, Daishowa-Marubeni International Ltd., Hinton Trappers Association, McGill University, Orion Foundation of Calgary, Richard D. McCabe Professional Corporation, Roadrunner Leasing and Sales Ltd., Rocky Mountain Wilderness Society, South Country Trappers, Stojan's Motor Sports, TD Friends of the Environment Foundation, Trapper Gord Homestead & Survival, University of Alberta

Individual donors

P. Bumstead, L. Elias, L. Hommy, R. Kantor, G. Kruger, G. Macmillan, L. Marciak, D. Middleton, S. Otto, D. Pilon, A. Pollock, R. Reed, B. Smith, J. Sorenson, W. Sullivan, N. Tait, D. Ukeniek, S. Wilson, M. Zapach

Working with Alberta's Trappers to Map Wolverine Distribution and Identify Conservation Risks

Since 2012, we have been working in collaboration with Alberta Trappers' Association to identify where wolverines occur in the province and to determine the major factors associated with their distribution. To do this, bait stations with trail cameras were set up within the Registered Fur Management Areas of volunteer trappers. Trappers checked and maintained these sites throughout the winter and then provided the photos to biologists who analyzed them to determine what site characteristics were associated with a higher probability of finding wolverines and other species. Sampling was focused on Boreal regions of the province during the winters of 2013/14, 2014/15, and 2015/16, within a study area that roughly stretched from Cold Lake to Grande Prairie and north to the Northwest Territories



border. Camera images collected in these years were analyzed the following year. At least 30 individual wolverines were detected at 22 of the 47 sites in 2013/14. During the winter of 2014/15, wolverines were detected at 18 of 62 sites; we identified at least 19 different wolverines based on unique markings. Wolverine were detected at eight of the 46 sites during the winter of 2015/16; we identified at least 23 different wolverines, including seven individuals that were detected in previous winters. Wolverine were more likely to occur in areas that had more conifer forest cover and were less likely to occur in areas with higher road and well densities or areas closer to human population centres. We approximated the relationship between elevation and latitude that influences ambient temperature and found that the cooler the relative theoretical temperatures within a township, the more likely wolverines were to occupy a given area. We found genetic types in the Boreal

that are more common in the Arctic and along the Pacific Coast than they are in Alberta's Rocky Mountains. Similar to wolverines, lynx occupancy was higher in areas with more conifer forest cover, greater snow depths, and predicted cooler temperatures (i.e., farther north and higher in elevation). In contrast, fisher occurrence was greater in areas farther south in latitude and with more deciduous forest cover. Our findings from 2012 to 2016 will be summarized in a final report and published on our website in the near future.

Partnerships

Alberta Environment and Parks, Alberta Trappers' Association, Animal Damage Control – A Division of Bushman Inc., Daishowa-Marubeni International Ltd., Environment and Climate Change Canada, Harvest Operations Corp., Shell FuellingChange Grant, Trapper Gord Homestead & Survival, United States Forest Service Genetics Laboratory, University of Alberta, W. Sullivan

Project: Sharp-tailed Grouse Habitat Inventory and Stewardship

Photo: ACA, Garret McKen



Fisheries Program

Fishing is one of Alberta’s favourite pastimes, so ACA has an entire team of biologists dedicated to keeping its lakes and fish healthy. This year we, along with partners, stocked over 61 waterbodies and considered another 49 for the fish stocking project, conducted angler surveys, (interviewing over 1,300 anglers), worked at restoring sport fisheries in some of Alberta’s lakes that have become prone to algal blooms, and generated information required for provincial conservation and species recovery initiatives.

Our fish stocking and lake aeration projects provide Albertans with recreational angling in areas of the province where such fishing opportunities don’t otherwise exist. Results of our angler surveys feed directly into Alberta Environment and Parks fisheries management plans and form the basis for fishing regulation changes. Similarly, evaluation and inventory studies generate critical information on population structure, abundance, distribution, and life history of priority fish species required for provincial conservation and species recovery initiatives.

Overall, the success of our Fisheries program activities in 2016/17 involved the support of over 44 partners consisting of provincial and federal governments, industry, watershed groups, non-governmental organizations, counties/municipalities, and other interested groups.

2016/17 Overview

- Over 120,000 twenty-cm long trout (115,950 rainbow and 5,000 brown) stocked into 61 waterbodies in regions of the province where angling opportunities are limited.
- Screened 49 new waterbodies for fish stocking project expansion, five of which met initial criteria for further evaluation.
- Anglers are very satisfied with their fishing experience at EFS ponds and most frequented these ponds because of their proximity to home.
- One new pond (Shell True North Pond) approved for trout stocking in 2017/18.
- All 18 aerated lakes successfully overwintered stocked trout populations with no mortalities, ensuring angling opportunities that would otherwise not exist.
- Expanded aeration project by adding Police Outpost Lake.
- Surveyed six watersheds, four lakes, and 56 ponds, and generated information on fish population status, distribution, recreational harvest, habitat fragmentation, and spawning and rearing habitat.
- 1,328 anglers interviewed during creel surveys.
- Very strong angler participation in study comparing harvest of different strains of rainbow trout in EFS ponds; anglers returned 26% of the fish tags!
- Over 2,100 river km surveyed.
- Identified previously unknown bull trout rearing stream in the headwaters of the Elk River.

- Identified major westslope cutthroat rearing stream in the upper Oldman River watershed for potential protection and conservation.
- Collected over 1,000 westslope cutthroat trout samples for genetic analysis to aid in recovery of this *Threatened* species.
- Forged unique partnerships that enabled forestry industry and government land use planners to pool resources to address fish conservation issues of mutual interest.

Project: North Saskatchewan River Fish Sustainability Index Data Gaps

Partnerships: Alberta Environment and Parks, Hinton Wood Products – A Division of West Fraser Mills Ltd.

Photo: ACA, Andrew Clough

Angler Recruitment and Retention Trends in Alberta

Between 1985 and 2010, the number of licensed anglers in Canada declined by 31% despite a 30% increase in the population over the same time frame. Anglers were found to be much older than they used to be, with the mean age of Canadian anglers increasing from 41 in 1975 to 50 in 2010, suggesting that decreased popularity of angling is primarily due to poor recruitment of young anglers. Alberta trends mirror those observed nationally; the number of licensed anglers in the province had declined by 27% while the population had grown 38%. In 2010, the average age of an angler was 45. Recent licence sales data suggest the precipitous declines in anglers observed in the 1990s and early 2000s may be over, but fundamental questions remain. What are current rates of angler recruitment and retention in Alberta, and how have they changed through time? Do angler retention and recruitment rates vary by gender and age? What factors influence yearly angler licence sales? Answering these questions is essential for credible forecasting of future angler participation rates and for developing and evaluating angler recruitment and retention initiatives. ACA continues to work with the provincial government to assess factors that influence recruitment and retention of anglers in Alberta.

Partnerships

N/A

Assessment of Winter Dissolved Oxygen for Priority Cold-water Fish Species

Cumulative landscape disturbances have resulted in widespread declines of lotic fisheries across Alberta, and the nutrient inputs from surrounding land management practices have been linked to anoxic conditions in Alberta streams. Low dissolved oxygen levels in winter can be a significant limiting factor for fish production, particularly for

cold-water fish species in Alberta, such as Arctic grayling, bull trout, Athabasca rainbow trout, and westslope cutthroat trout. Past measurements suggest winter dissolved oxygen levels fall below the federal guidelines for cold water species in some Alberta streams and approach sub-lethal levels in others. In winter 2016/17, we began broad-scale monitoring across two watersheds to identify locations where winter dissolved oxygen levels may become limiting for Arctic grayling in the Whitemud River watershed in northwestern Alberta and for westslope cutthroat trout in the Willow Creek watershed in southwestern Alberta. At eight locations on the Whitemud River and six locations on Willow Creek, we installed sensors (datasondes) to monitor under-ice dissolved oxygen levels and investigate diurnal patterns along the mainstems. We began bi-weekly measurements with handheld dissolved oxygen meters at all datasonde stations and on all major tributaries entering the mainstems. To date, we have observed unsuitable dissolved oxygen levels and/or ice conditions at six of 13 sampling locations in the Whitemud River watershed and six of 17 locations in the Willow Creek watershed. We will continue monitoring until ice break-up in the spring of 2017, at which time datasondes will be retrieved and analyzed, and methods will be refined for future assessments.

Partnerships

Alberta Environment and Parks

Central Region Aeration Development

With increased demand for recreational angling opportunities and a levy increase in 2014, additional funds were allocated to the Fisheries Program to expand our aeration project. We identified Hansen's Reservoir and Winchell Lake as new aeration opportunities to create or enhance angling opportunities. Discussions with Fortis Alberta and Mountain View

County provided insight into the cost of these new projects. We used a portable propane generator to power a surface aerator at Hansen's Reservoir to provide adequate oxygen for fish survival. Early results from dissolved oxygen monitoring indicated that the surface aerator increased dissolved oxygen levels well above 3 mg/L, with much higher monthly averages than in previous winters.

Partnerships

Alberta Environment and Parks, Mountain View County

Enhanced Fish Stocking Evaluation

In 1998, ACA assumed responsibility for delivering the Enhanced Fish Stocking project, with the objective to provide increased angling opportunities to Albertans by stocking catchable-sized (≥ 20 cm) rainbow trout in parts of the province where angling opportunities are limited. Since 1998, we have annually stocked from 59 to 81 small waterbodies with approximately 131,000 catchable rainbow trout. With the rising cost of stocking farm-grown fish and anecdotal evidence suggesting some of our waterbodies may not be suitable for stocking, we began evaluating the suitability of waterbodies for fish stocking and angler use by estimating angler effort at individual waterbodies. We found that angler use varied greatly at the 18 waterbodies surveyed in 2016/17. Counts of anglers ranged from 33 to 2,168, and estimates of the number of anglers per hectare ranged from 37 to 6,247. This information will help us manage stocking times and rates, and evaluate site management options such as amenities and infrastructure at individual waterbodies.

Partnerships

Alberta Environment and Parks

Enhanced Fish Stocking Project

The Enhanced Fish Stocking project provides anglers with increased opportunities to catch and harvest

20-cm rainbow trout and brown trout in areas of Alberta where angling opportunities are limited or do not exist. Recipient waterbodies are prone to winterkill and require annual stocking of trout to maintain angling opportunities. In 2015, we included brown trout in our stocking plan, and this was continued in 2016. Rainbow trout and brown trout stockings were completed through nine contracts: eight with private growers and one with the Government of Alberta fish hatchery. We stocked 61 waterbodies with a total of 115,950 rainbow trout and seven waterbodies with a total of 5,000 brown trout. About 60% of the stockings were completed before the May long weekend. We also installed project signs at ten waterbodies and two interpretive signs at one waterbody.

Partnerships

Access Pipeline, Agrium Redwater, Alberta Environment and Parks, Aquality Environmental, Aux Sable Energy, City of Fort Saskatchewan, Complete Crossings, Dow Chemical Canada

Enhanced Fish Stocking Water Quality

Since 1998, ACA has been stocking trout in Alberta waterbodies through the Enhanced Fish Stocking (EFS) project. Despite the popularity and high cost of this project, little information exists about the physical and chemical characteristics of the stocked waterbodies. To improve management of the EFS project and help inform current and future EFS projects, we collected bathymetric and water quality data to create a comprehensive database of all EFS stocked waterbodies in Alberta. EFS waterbodies span a range of physical and water quality characteristics but are typically small and shallow, and are prone to high temperatures and low dissolved oxygen levels during the summer. Similarly, nutrient concentrations are high and algal growth is abundant.

Partnerships

Alberta Environment and Parks



Photo: ACA, Britt Keeling

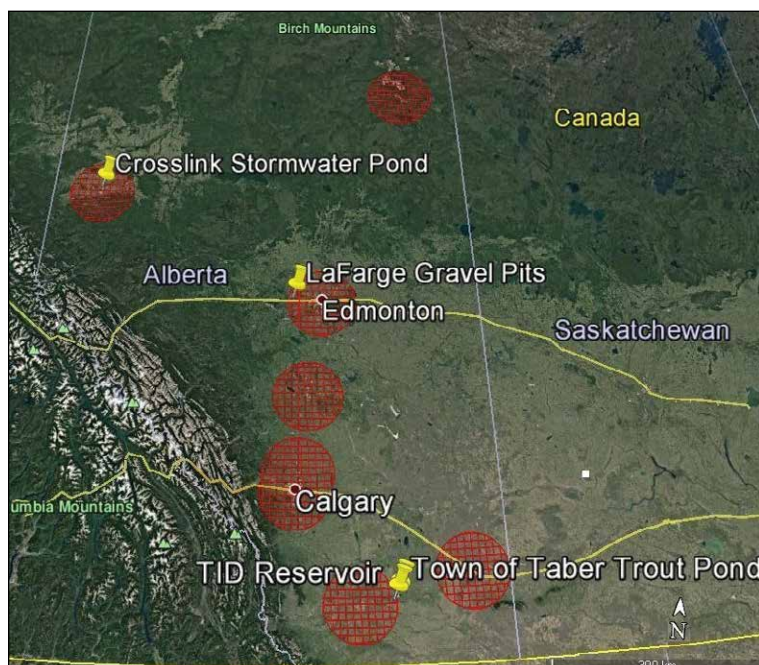
Fish Stocking Expansion – New Lakes

With approximately 1,100 lakes with sport fish and over 300,000 anglers, Alberta has more anglers but only a fraction of the number of lakes of the other Prairie provinces. The resulting high fishing pressure puts considerable strain on Alberta's recreational fisheries. Given the high fishing pressure and relatively limited fishing opportunities in Alberta, ACA is working to identify new lakes to stock with rainbow trout through the Enhanced Fish Stocking (EFS) project. In 2016, we continued our investigation of potential EFS waterbodies that were first identified during a desktop study in 2015. We were able to evaluate a total of

37 waterbodies. Insufficient water depth and access issues resulted in 32 waterbodies failing ACA's criteria for development of a recreational fishery. However, five ponds were suitable for further investigation prior to being developed into EFS ponds: two abandoned gravel pits, one stormwater pond, one abandoned drinking water reservoir, and one dry trout pond. These five ponds will undergo further scrutiny and, if suitable, will be developed into fisheries in collaboration with applicable ACA partners.

Partnerships

Alberta Environment and Parks, Alberta Fish & Game Association, County of Grande Prairie, Lafarge, Taber Irrigation District, Town of Taber



Project: Fish Stocking Expansion – New Lakes

Fish Stocking Expansion – New Species and Strains

The Alberta Government and ACA currently stock several strains of rainbow trout, including Troutlodge Silver Steelhead and Lyndon strains, in waterbodies across Alberta. Both strains are bred for fast growth and favourable angling qualities. To assess these qualities in the field, we compared condition and angler harvest of the Silver Steelhead and Lyndon strains at three small put-and-take fisheries during the summer of 2016/17. Gill nets were used to assess trout relative abundance and condition, and angler reports of catches of tagged trout (corrected for reporting rate and tag loss) were used to assess angler harvest. Condition of both strains was good overall, although the Lyndon strain exhibited greater variation in condition, and both strains lost condition over the summer. Of the 2,600 trout we tagged, anglers reported catching 680 (26%) trout, including 278 Lyndons and 402 Silvers. Of these, 142 (51%) Lyndons and 222 (55%) Silvers were kept. Although imprecise, our estimates of angler harvest indicated a large proportion of both strains were harvested from most ponds. Interestingly, the Silver strain was more likely to be harvested than the Lyndon strain at any given pond, an observation corroborated by our gill net catch. Millions of rainbow trout are cultured in Alberta every year, and small differences in field performance, like those assessed in our study, have important implications for the quality and efficiency of Alberta's trout stocking program. In 2017/18, we will focus on replicating our results and reducing imprecision in our estimates of angler harvest.

Partnerships

Alberta Environment and Parks, Cabela's Canada, Lacombe County, Town of Beaumont, Town of High River

Hasse Lake Fisheries Restoration

In recent decades, changes in watershed land use have resulted in increased nutrient runoff, particularly phosphorus, into many lakes, including Hasse Lake. Increased phosphorus in aquatic systems has led to increased intensity and frequency of algal blooms, especially blue-green cyanobacteria blooms, and fish kills. Recurring fish kills in Hasse Lake have decimated what used to be a popular stocked sport fishery. The primary goal of this project is to support and collaborate with local efforts to reduce nutrient loading in Hasse Lake to improve water quality and restore the stocked sport fishery. During surveys in past seasons, we have found no evidence of large fish species in Hasse Lake, catching only fathead minnows and brook stickleback. In 2016/17, we continued to maintain numerous partnerships in support of the project. We provided technical guidance and recommendations to Parkland County, delivering on-the-ground restoration activities in collaboration with local agricultural producers. We will continue to participate in local initiatives and provide support through data collection, communication, and coordination and delivery of on-the-ground restoration projects.

Partnerships

Alberta Environment and Parks, North Saskatchewan Watershed Alliance, Parkland County Alternative Land Use Services Program

Isle Lake Fisheries Restoration

In recent decades, changes in watershed land use have resulted in increased nutrient runoff, particularly phosphorus, into many lakes, including Isle Lake. Increased phosphorus in aquatic systems has led to increased intensity and frequency of algal blooms, especially blue-green cyanobacteria blooms, and fish kills. Recurring fish kills in Isle Lake have decimated what used to be vibrant and popular

recreational sport fishery. Prior to our survey in 2015, local reports from Isle Lake indicated a complete loss of sport fish; however, we found a remnant population of sport fish that survived the kill events or may have migrated in from nearby waterbodies. The primary goal of this project is to support and collaborate with local efforts to reduce nutrient loading to Isle Lake, improving water quality and restoring the fish community and associated sport fishery. In 2016/17, we maintained numerous partnerships with key stakeholders, including the Lake Isle & Lac Ste. Anne Water Quality Management Society, Parkland County and Lac Ste. Anne County Alternative Land Use Services Program, and Sturgeon River Watershed Alliance, which allowed us to support watershed improvements by helping to guide the delivery of on-the-ground restoration activities, providing technical guidance and recommendations, and sharing results of our field surveys.

Partnerships

Alberta Environment and Parks, Environment and Climate Change Canada – Environmental Damages Fund, Lake Isle & Lac Ste. Anne Water Quality Management Society, Parkland County and Lac Ste. Anne County Alternative Land Use Services Program, Sturgeon River Watershed Alliance

Kakwa River Watershed Arctic Grayling Assessment (Year 1 of 2)

Alberta's Arctic grayling populations have drastically declined as a result of habitat degradation and fragmentation, and overfishing. A highly migratory species, Arctic grayling is negatively impacted by poorly installed stream crossings and the development of roads and other linear features adjacent to streams. Resource development in the Kakwa River watershed has expanded over the last two decades and is suspected of negatively impacting grayling populations; however, data are outdated. ACA is conducting a two-year study to assess the relative abundance, distribution,

and population structure of Arctic grayling in the Kakwa River watershed. The goal of the study is to update grayling data that will feed directly into the provincial Arctic grayling Fish Sustainability Index and support regulatory actions to remediate the effects of industrial activities on grayling populations and their habitats in the Kakwa River watershed. In July 2016, we sampled Arctic grayling throughout the watershed using angling. A total of 63 sites were sampled, covering a total distance of 27.2 stream km. We captured 57 grayling in the lower two-thirds of the watershed but did not detect grayling at 75% of sites. No grayling were captured upstream of the South Kakwa River Falls and Lower Kakwa River Falls. Relative abundance was low at most sites: catch per unit effort was $<0.24 \pm 0.48$ fish/h. In year two of the study (2017/18), we plan to sample sites in tributary streams and the Kakwa River, downstream of the confluence of the South Kakwa and Kakwa rivers. We will also resample sites upstream of South Kakwa River Falls and Francis Peak Creek Falls to confirm that these streams are non-fish bearing.

Partnerships

Alberta Environment and Parks

Lake Aeration

We use aeration as a fisheries management technique to provide Albertans with recreational angling opportunities in areas of the province where such opportunities are otherwise limited. Aerated waterbodies are typically shallow and eutrophic, experience prolonged ice cover, and are prone to summer and winter fish kills. Using aeration, we maintain dissolved oxygen levels above 3 mg/L to promote year-round survival of stocked trout. In 2016/17, we aerated 18 waterbodies across the province, all of which successfully overwintered sport fish. In the winter of 2016/17, we expanded our aeration activities to include Police Outpost Lake. We upgraded aeration infrastructure at Radway Fish Pond and Sulphur Lake, and for the first time, deployed a propane generator to power aerators at Hansen's Reservoir. We continued to work with Mountain View County and the Municipal District of Greenview toward developing aeration facilities at Winchell and West Dollar lakes. Further, we established and maintained financial and in-kind partnerships for existing and new aeration projects.

Partnerships

Access Pipelines, Alberta Environment and Parks, Daishowa-Marubeni International Ltd., Edmonton Trout Fishing Club, Edson Forest Products, Fisheries and Oceans Canada, Fisheries Enhancement Society of Alberta, Municipal District of Greenview No. 16, Northern Sunrise County, Radway Lions Club, Spring Lake Campground, Thorhild County, Trout Unlimited Canada – Oldman River chapter, Village of Spring Lake

North Saskatchewan River Fish Sustainability Index Data Gaps

Alberta Environment and Parks's Fish Sustainability Index is a standardized process of assessment that provides a landscape-level overview of fish sustainability within the province and enables broad-scale evaluation of management actions and land-use planning. Priority species for assessment include bull trout, mountain whitefish, and burbot. Bull trout is a native sport species classed as *Threatened* in Alberta and is particularly sensitive to habitat change. In the summer of 2016, we used backpack and tote-barge electrofishing gear to

Project: Lake Aeration, Ironside Pond

Photo: ACA



sample 40 sites randomly distributed throughout the Elk River, Rifle Creek, and Crow Creek. We captured 3,793 fish, including 38 bull trout, 27 mountain whitefish, and 56 burbot, in the sampling area. Our catch was dominated by white sucker, which was also the most widely distributed species. Bull trout were detected at ten sites in the headwaters of the Elk River, indicating the existence of a remnant population. Immature bull trout were most abundant in a tributary to the Elk River, likely an important spawning stream for the population. Our study provides land-use managers with information on fish species distribution and abundance that is necessary to minimize land use impacts to fish, evaluate bull trout status, and otherwise balance the diverse values of the the North Saskatchewan River watershed.

Partnerships

Alberta Environment and Parks,
Hinton Wood Products – A Division
of West Fraser Mills Ltd.

Summer Angler Survey at Haig and Moose Lakes

High fishing pressure, coupled with slow-growing and late-maturing populations, has resulted in the overharvest of many of Alberta's sport fish populations, especially

northern pike and walleye. To generate information required for managing these species in Haig and Moose lakes, we conducted angler surveys during the summer of 2016. At Haig Lake, we interviewed 248 anglers who fished for 806.75 h, resulting in an estimated 722 anglers fishing for 2,415.8 h or 2.64 h/ha of angling pressure during the survey period. At Moose Lake, we interviewed 711 anglers who fished for 2,194 h, resulting in an estimated 1,846 anglers fishing for 5,476.2 h or 1.35 h/ha of angling pressure. Catch rate was higher at Haig Lake than at Moose Lake, with anglers catching 2.03 walleye/h and 0.26 northern pike/h at Haig Lake, and 0.14 walleye/h and 0.47 northern pike/h at Moose Lake.

Partnerships

Alberta Environment and Parks,
Government of Canada – Canada
Summer Jobs

Upper Bow River Angler Survey

Attracting both resident and non-resident anglers, the Bow River and its major tributaries are considered destination trout fishing streams in Alberta. The main objective of this study is to provide current angler survey information from the upper Bow and Elbow rivers to aid Alberta Environment and Parks in managing

these important sport fisheries. We estimated angler effort, trip length, and fish catch by conducting angler interviews and instantaneous angler counts on the upper Bow River from Banff National Park to Bears paw Reservoir. We also estimated angler effort by conducting instantaneous angler counts on the Elbow River from Canyon Creek to Glenmore Reservoir. Between May 1 and October 31, 2016, we interviewed 369 anglers on the upper Bow River and estimated that anglers fished for 20,904 hours, made 10,055 trips, and released 10,291 fish during the survey period. Brown trout was the most abundantly released fish species at 5,343, followed by mountain whitefish at 3,900 and rainbow trout at 874. Releases of lake trout and cutthroat trout were estimated to be fairly small. Between June 16 and October 31, 2016, we estimated anglers fished for 9,699 hours on the Elbow River. Anglers did not report any harvest of fish during the survey, indicating that the upper Bow River is functioning as a catch-and-release fishery. Urban areas of Canmore and Cochrane accounted for the largest number of anglers in the survey.

Partnerships

Alberta Environment and Parks,
Government of Canada – Canada
Summer Jobs





Westslope Cutthroat Trout Recovery and Watershed Disturbance

Westslope cutthroat trout (WSCT) in Alberta is considered *Threatened* under Canada's *Species at Risk Act*. One major threat facing the species is increased deposition of fine sediment into streams from human-caused landscape disturbances. The upper Oldman River watershed is the largest remaining core area of genetically pure WSCT in Alberta and has undergone varying degrees of landscape disturbance. The objective of our study was to document abundance, population structure, and distribution of genetically pure WSCT, relative to sediment and habitat measures, across a range of disturbance levels. In the summer of 2016, we completed a two-year study to sample fish and sediment and record pool-habitat measures in the upper Oldman River watershed. We electrofished 57 reaches along eight major waterbodies and 16 reaches on ten

headwater tributaries. We measured sediment quantity using a deposited sediment sampler and grid-toss methods and performed pool counts to determine pool frequency. In all, we captured more than 3,800 cutthroat trout and collected more than 1,100 tissue samples from streams where genetic status was uncertain. Streams with the lowest disturbance had significantly higher WSCT catch rates, fine-sediment deposition, and scour-pool frequency than streams with higher disturbance. We estimated the highest WSCT abundances in Vicary Creek, followed by White and Daisy creeks. Total WSCT and juvenile abundances in Vicary Creek were greater than in Racehorse, South Racehorse, North Racehorse, Dutch, and Hidden creeks combined. Similarly, adult abundance in White Creek was greater than Racehorse, South Racehorse, North Racehorse, and Dutch creeks combined. Juveniles accounted for the greatest proportion of the catch at Vicary and Daisy creeks, whereas adults

were most prevalent in the catch at White Creek. Hidden Creek had the lowest abundance of WSCT. Linear disturbance may reduce scour pool habitats that support WSCT, and where fine sediment is deposited. Vicary, White, and Daisy creeks are key watersheds supporting WSCT in the upper Oldman River watershed. White Creek is crucial adult habitat, and Vicary Creek is a major juvenile rearing stream.

Partnerships

Alberta Environment and Parks,
City of Lethbridge – Water and Wastewater

Project: Westslope Cutthroat Trout Recovery and Watershed Disturbance

Photos: ACA



Land Management

ACA's Land Management Program is all about conserving important wildlife and fish habitat across Alberta. Our conservation sites span hundreds of thousands of acres across Alberta, each listed in our *Alberta Discover Guide*. We conserve wild places for wildlife with an added benefit that extends to outdoor enthusiasts to enjoy. Each site has its own characteristics that provide an array of opportunities to hunt, fish, forage, or view wildlife.

Each year, we acquire new conservation sites by securing habitat through direct purchase or donation. Thanks to our partners, we secured seven new conservation sites and four expansions this year. We collaborate with landowners within our Riparian Conservation and Landowner Habitat Program to conserve key wildlife and fish habitat while enhancing recreational access on deeded lands.

The success of our Land Management Program is a testament to the support and effort of over 50 partnerships, including government, industry, non-governmental organizations, counties/municipalities, leaseholders, private landowners, corporate partners, and other interested groups. These vital partnerships result in an overall reduction in the amount of levy dollars required to conserve and manage over 200,000 acres (80,937 ha) of habitat.

2016/17 Overview

- Added seven new conservation sites and four expansions, totalling 1,770 acres (716 ha) with an approximate land value of \$4,735,000.
- Completed our ten-year agreement with Shell Canada Energy conserving 1,882 acres (761.7 ha) over the ten years with an estimated land value of \$1,772,000.
- Currently managing 35 Landowner Habitat Program Agreements protecting 5,602 acres (2,267 ha) of wildlife and fish habitat.
- Conserved 320 acres with the addition of two new landowner habitat retention agreements.
- Collaborated with AEP on management of Crown conservation sites (disposition process ongoing).
- Inspected 191 conservation sites with maintenance and repairs completed on 79 sites.
- Habitat and recreational access improvements/enhancements on 54 conservation sites.
- Planted 118,800 trees and shrubs on conservation sites.
- Spent over 13,000 hours on conservation site management and maintenance.
- Maintained 26 fisheries access sites of which seven received site upgrades and enhancements, including improvements to an access road and parking lot, construction of a shoreline foot access trail, and the installation of five casting docks.
- Installed conservation site project signs, boundary, and "Foot Access Only" signs on 22 sites.
- Provided recommendations on 128 land-use referrals and public inquiries on conservation sites.
- Reviewed and began development or revisions on 33 management plans; nine of these were completed and signed.
- Completed 14 on-the-ground riparian enhancements protecting over 8.9 km of riparian habitat and conserved over 163 acres (66 ha) of riparian and upland habitat.
- Planted 1,350 trees and shrubs for bank stabilization on various riparian projects.
- Completed one riparian health assessment and collected water samples from 12 sites as part of baseline data collection and ongoing water quality monitoring.
- Collaborated with over 15 watershed groups and other organizations across Alberta.
- Provided recreational access to over 10,300 acres (4,100 ha) through access sign-in services for existing and new landowners.

Project: Conservation Site Management, Vegetation identification in permanent sample plot at North Fawcett 3

Partnerships: Alberta Environment and Parks, Alberta Fish & Game Association, Alberta Sport Connection, Alberta Trail Riding Association, Bow River Irrigation District, ConocoPhillips, County of Lethbridge, County of Newell, County of Warner, Daishowa-Marubeni International Ltd., DOW AgroSciences, Ducks Unlimited Canada, Eastern Irrigation District, Environment and Climate Change Canada, landowners, MULTISAR, Myrnam River Ridge Riders Snowmobile Club, Nature Conservancy of Canada, Pheasants Forever – Calgary and Chinook chapters, Shell Canada Energy, The Carbon Farmer Inc., Tree Canada, volunteer stewards, Westlock Whitetails Junior Forest Warden Club

Photo: ACA, Stephen Nadwornny

Conservation Site Management

ACA currently manages 355 conservation sites through our Conservation Site Management and Fisheries Access Site Management projects. These sites comprise over 210,000 acres (about 85,000 ha) of titled and Crown land in Alberta. Our Conservation Site Management project is responsible for stewarding these sites in accordance with site management plans. In 2016/17, we inspected and maintained 191 conservation sites. Our team also completed habitat enhancement projects on 49 conservation sites, including planting more than 118,805 trees and shrubs. Tree and shrub planting and other vegetation enhancements will benefit a variety of ungulates, upland game birds, and waterfowl. Recreational enhancements were completed at seven sites, including establishing trails, access gates, parking areas, and vehicular controls. We installed project signs on nine conservation sites and provided recommendations on 128 land-use referrals and public inquiries. We also managed public access on two high-use conservation

sites through a reservation system. Further, we continued discussions with Alberta Environment and Parks to determine long-term partnership roles and responsibilities at Crown-owned conservation sites that ACA manages. Our success in managing and enhancing conservation sites is achieved using a collaborative effort with a growing number of partners and volunteers throughout Alberta.

Partnerships

Alberta Environment and Parks, Alberta Fish & Game Association, Alberta Sport Connection, Alberta Trail Riding Association, Bow River Irrigation District, ConocoPhillips, County of Lethbridge, County of Newell, County of Warner, Daishowa-Marubeni International Ltd., DOW AgroSciences, Ducks Unlimited Canada, Eastern Irrigation District, Environment and Climate Change Canada, landowners, MULTISAR, Myrnam River Ridge Riders Snowmobile Club, Nature Conservancy of Canada, Pheasants Forever – Calgary and Chinook chapters, Shell Canada Energy, The Carbon Farmer Inc., Tree Canada, volunteer stewards, Westlock Whitetails Junior Forest Warden Club

Corporate Partners Program

The cumulative effect of habitat loss and fragmentation from human disturbance of natural ecosystems is a major concern in northern Alberta. As industrial activity continues to expand, greater emphasis is being placed on loss and alteration of habitat. Our Corporate Partners Program was initiated in 2002/03 with a goal to collaborate with industry and other organizations to conserve important wildlife and fish habitat. Our securement efforts are guided by focus areas and ranking criteria that are developed collaboratively between ACA and our corporate partners. Corporate partnerships and collaboration with other conservation organizations allow us to maximize our conservation impact and the overall effectiveness of our securement efforts. Partnerships may consist of short- or long-term agreements. Despite an economic downturn in 2016/17, we acquired four parcels of land, resulting in the creation of three new conservation sites and the expansion of one existing site. These acquisitions represent 760 acres (308 ha) of wildlife habitat with an estimated land value of about \$560,000. We concluded our ten-year partnership with Shell

Corporate Partners Program Securement Transactions in 2016/17

Project Name	Corporate Partner	Size (ac)	Special Features
Beaton Wetland NE-32-087-24-W5M SW-33-087-24-W5M	Suncor, AFGA, and Government of Canada Habitat Stewardship Program	320	This parcel of land is located 13 km northwest of Dixonville. Habitat consists of mixedwood forest and large wetland complex. Wildlife in this area include moose, elk, deer, black bear, beaver, muskrat, mink, wolves, and a variety of migratory bird species.
East Deadwood (Expansion) NW-08-089-21-W5M	Suncor	120	This site is 40 km southeast of Manning. Habitat includes mixedwood forest, riparian, and agriculture land. Directly west is a 35-acre wetland that provides habitat for a variety of waterfowl species. Wildlife in the area include moose, elk, deer, black bear, upland gamebirds, and waterfowl.
Tiger Lily SW-28-060-05-W5M	Shell	160	This site is located 8 km northeast of the community of Tiger Lily. Habitat is primarily dry mixedwood forest, grassy meadows, and a 17-acre wetland. Wildlife in the area include moose, deer, black bear, upland gamebirds, and waterfowl.
Musidora 4 NE-20-053-11-W4M	Suncor, AFGA, and DUC	160	This site is located approximately 16 km southeast of Two Hills. Habitat is primarily deciduous forest, shrubs, and open grass areas. There are several small wetlands scattered throughout this site. Wildlife in the area include moose, deer, small furbearers, and upland gamebirds.
TOTAL		760	

Canada Energy, during which we collaboratively conserved 1,882 acres (762 ha) of wildlife habitat with an estimated land value of \$1,772,000. Our goal is to continue to conserve key habitats using a collaborative approach and work toward expanding these opportunities by developing additional corporate partnerships.

Partnerships

Alberta Fish & Game Association, Ducks Unlimited Canada, Government of Canada Habitat Stewardship Program – Prevention Stream (Prairie Region), Shell Canada Energy, Suncor Energy Foundation

Fisheries Access Site Management

ACA's Land Management Program encompasses activities intended to conserve, protect, and enhance wildlife and fish habitat and to increase sustainable recreational opportunities, including angling and hunting. One of the activities of the program is the delivery of the Fisheries Access Site Management Program, which provides angling opportunities to key streams, rivers, and lakes throughout the province. We inspected and maintained 26 fisheries access sites and commissioned 14 maintenance

contracts in 2016/17. We upgraded seven sites by improving parking facilities and an access road, constructing a walking path, and installing five casting docks. We investigated the potential to develop new fisheries access sites at three waterbodies; however, all proved unfeasible because of the presence of sensitive wetlands, lack of sufficient depth, or inability to secure a Crown-land disposition. We engaged 16 partners in 2016/17, who generously contributed financial or in-kind assistance. We continued discussions with Alberta Environment and Parks to determine long-term partnership roles and responsibilities at Crown-owned fisheries access sites across the province.

Partnerships

Alberta Environment and Parks – Fish and Wildlife and Lands and Range divisions, Alberta Fish & Game Association, Alberta Lottery Fund – Community Facility Enhancement Program, Clearwater County, County of Newell, Devon Canada Corporation, Municipal District of Greenview, Municipal District of Northern Lights, Municipal District of Rocky View, North Raven River Working Group, Peace Country Fly Fishers, Shell Canada Energy, Trout Unlimited Canada – Yellowhead and Central chapters, Wetaskiwin County

Landowner Habitat Program

Alberta's population is steadily increasing and reached over four million people in 2016. About 410,000 km² of land in Alberta has now been altered from its natural state, more than in any other province. Almost two-thirds of the province (62%) has been altered by industrial or agricultural development. Urban and rural development and expansion have also contributed to habitat loss, fragmentation, and degradation. The Landowner Habitat Program was initiated to help conserve key habitat and reduce habitat loss on privately owned land. The program compensates landowners who are willing to sign a legally binding agreement to retain habitat for a term of five to 20 years and to provide reasonable public foot access. Participants in this program are acknowledged with a project sign and provided with *Use Respect – Ask First* signage to display along the perimeter of their property. We currently manage 35 agreements across the province, which conserve about 5,602 acres (2,267 ha) of important wildlife and fish habitat.

Partnerships

Landowners



Project: Fisheries Access Site Management

Photo: ACA, Tyler Johns

Management Plan Development

ACA currently manages and maintains 355 conservation sites, which comprise over 210,000 acres (about 85,000 ha). These conservation sites provide important habitat for a variety of wildlife and fish species and were conserved collaboratively with a variety of partners. To manage our conservation assets effectively, management plans are developed for each of these sites. Emphasis is placed on developing detailed habitat management objectives that maintain the ecological

integrity of each site. ACA works with our partners to develop management plans that identify the site history and features; our plan to manage, enhance, or restore habitat; recreational and facility enhancements; guidelines; and planned activities for the site. Management plans are reviewed by ACA and our partners as required or on a term basis (e.g., after five years) to ensure we are meeting our intended goals and objectives. In 2016/17, we developed 33 new management plans.

Partnerships

Alberta Environment and Parks, Alberta Fish & Game Association, Ducks Unlimited Canada, Pheasants Forever – Calgary and Chinook chapters, Shell Canada Energy

Project: Management Plan Development Program
Photo: ACA, Garret Mcken



Provincial Habitat Securement Program

Alberta’s population reached 4.27 million in 2016, with a growth of 1.6% from 2015 despite an economic downturn. Alberta’s natural land base is under intense pressure from a variety of sources related to its population growth, including agricultural, municipal, and industrial development. The Institute of Wetlands and Waterfowl Research estimates that about 64% of the slough/marsh wetlands in the settled areas of Alberta no longer exist. Our Provincial Habitat

Securement Program conserves important wildlife and fish habitat through land purchases, land donations, and leases on Crown land. Securing habitat ensures these lands will be conserved in perpetuity to benefit our valued wildlife and fish resources, and to provide Alberta’s outdoor enthusiasts with year-round, sustainable recreational opportunities. We use 28 priority focus areas to help guide securement efforts and opportunities. Collaborative partnerships with conservation groups, industry, companies, and individuals allow

us to maximize our conservation impact and the efficiency of our securement efforts. Together in 2016/17, we completed seven land acquisitions, which conserved 1,010 acres (408.8 ha). These acquisitions included five donations, one partial ecogift donation, and one purchase. These lands have an estimated land value of approximately \$4,175,000.

Partnerships

Alberta Fish & Game Association; Alberta Sport, Recreation, Parks and Wildlife Foundation; Ducks Unlimited Canada; Francis and Lillian Coulson; Golden family

Habitat Securement Program Transactions in 2016/17

Project Name	Securement Tool & Partners	Size (ac)	Special Features
Coulson Pt. NE-35-036-05-W5M	A private land donation to ACA.	12	This site is located on the North Raven River approximately 53 km west of Red Deer and 33 km southeast of Rocky Mountain House and is located in the dry mixedwood. The river supports excellent angling opportunities for brown trout, northern pike, mountain whitefish, and brook trout. This unique property provides spawning habitat and a travel corridor for wildlife including deer, elk, moose, black bear, furbearers, ruffed grouse, and waterfowl.
Birch Coulee NW-07-051-10-W4M SW-07-051-10-W4M	A land donation from ASRPWF to ACA and AFGA.	319	This site is approximately 2 km east of Innisfree and 118 km east of Edmonton and is located in the central parkland. It consists of mixed forest, riparian, and wetland habitat. A Ducks Unlimited Canada conservation site (7D Coulee) is adjacent to this property. Wildlife found here include deer, moose, furbearers, ruffed grouse, and waterfowl.
Golden Ranches (Expansion - Area 8) SW-36-051-21-W4M SE-36-051-21-W4M	A collaborative split purchase and Eco-gift donation partnership between ACA and the Golden family.	309.5	Area 8 is the final purchase of the Golden Ranches homestead and is located in the dry mixedwood. The acquired lands are located in the center of Golden Ranches Conservation Site; this parcel will be the hub where infrastructure will provide facilities for hunting and nature-related businesses and conservation partners to operate in. This expands the Golden Ranches Conservation Site to 1,659.5 acres. Wildlife in the area include deer, moose, furbearers, and a variety of waterfowl and shorebirds
Lac Emelien NW-29-052-08-W4M	A land donation from ASRPWF to ACA and AFGA.	151	This site is approximately 42 km northwest of Vermilion and 150 km east of Sherwood Park and is located in the dry mixedwood. It consists mostly of mixed forest with scattered wetland and riparian habitat throughout the property. Wildlife found here include deer, moose, small furbearers, ruffed grouse, and waterfowl. Black bear may be observed on this site as well.
Musidora (Expansion) SE-20-053-11-W4M	A land donation from ASRPWF to ACA and AFGA.	110	This site is approximately 17 km southeast of Two Hills and 105 km east of Fort Saskatchewan and is located in the dry mixedwood. It consists of mixedwood forest, riparian, and grassland habitat. It expands the Musidora Conservation Site to 750 acres and creates greater connectivity across the landscape. Wildlife found here include deer, moose, black bear, furbearers, ruffed grouse, and waterfowl.
North Cornerstone Pt. SE-04-053-11-W4M	A collaborative acquisition between ACA, AFGA, and DUC.	68.5	This site is approximately 20 km north of Innisfree and is located in the dry mixedwood. It consists of mixed forest, tame pasture, riparian, and several wetlands scattered throughout the property. There is several conservation sites in the immediate area which increases connectivity and overall wildlife value in the area. Wildlife found here include deer, moose, and waterfowl.
Silverberry (Expansion) Pt. NW-30-054-07-W4M Pt. SW-31-054-07-W4M	A land donation from ASRPWF to ACA and AFGA.	40	This site is approximately 50 km south of Elk Point and 170 km east of Ft. Saskatchewan and is located in the central parkland. It expands the Silverberry Conservation Site to 2,100 acres protecting a diverse community of habitats including mixed forest, grassland meadows, and wetland habitat. Wildlife found here and in the immediate area include deer, moose, black bear, furbearers, ruffed grouse, and waterfowl.
TOTAL		1,010	

Recreational Opportunity Enhancement

Despite an economic downturn, Alberta's population grew by 1.6% in 2015 to reach 4.27 million in 2016; this growth rate is slightly higher than the national average and the second highest in the country. As a result of continued population growth, demands on Alberta's natural land base also continue to increase from a variety of sources, including agricultural, municipal, and industrial development. The Recreational Opportunity Enhancement project was established to increase public access to fishing and hunting opportunities, as well as non-consumptive activities such as hiking, canoeing, and photography. A major focus of this project is to improve access to Crown waterbodies for waterfowl hunting and to private lands for upland and big game hunting. In addition, the project will focus on improving access to major rivers such as the Bow and North Saskatchewan rivers for angling and other water-related recreational activities. Working with individual landowners has allowed us to improve hunter access to 10,361 acres (4,193 ha) of private land across southern Alberta through a sign-in access system. In an effort to reduce ungulate depredation issues and improve hunter access in northwestern Alberta, we continue to collaborate with partners to develop a pilot program that will connect hunters with landowners experiencing depredation issues. Increased recreational opportunities will not only encourage hunter and angler recruitment but will also help maintain quality outdoor experiences by distributing hunters and anglers across the landscape.

Partnerships

Alberta Environment and Parks, Alberta Fish & Game Association, landowners, Lethbridge Fish & Game Association, Municipal District of Greenview

Riparian Conservation

The ecological integrity and health of Alberta's rivers, streams, and surrounding landscapes are often negatively affected by ongoing human development. Aquatic and terrestrial habitats have been degraded by activities such as agriculture, land conversion, forestry, oil and gas exploration, and urban and rural community development. Riparian areas are complex ecosystems that provide important ecological functions and are critical to maintaining watershed health. Proper management of this sensitive habitat is essential to maintain water quality and habitat integrity. The primary goal of our Riparian Conservation Program is to protect and restore riparian areas in priority watersheds through on-the-ground habitat restoration projects. We do this work by engaging landowners, the public, and other stakeholders through community outreach and education activities. Our collaborative partnerships with landowners, industry, government, watershed groups, and other stakeholders are an integral component of project delivery. In 2016/17, we focused our conservation efforts in the following priority watersheds: Beaverlodge, Edson, Owl, Raven, North Raven, and Oldman rivers; and Clear, Todd, Beaver, Drywood, Yarrow, Lyndon, Pincher, and Indianfarm creeks and their associated tributaries. We delivered 14 enhancement projects using a variety of management tools, including implementing landowner habitat lease agreements to conserve 163 acres (66 ha) of riparian and associated upland habitat; planting 1,350 white spruce, balsam poplar, and willow trees; and installing 8.89 km of mainly wildlife-friendly fencing to protect important riparian habitat. We also monitored water quality and riparian health on two systems to help evaluate the effectiveness of riparian enhancements, supported landowners with

riparian enhancement activities, and communicated our Riparian Conservation Program to various communities. Our efforts have contributed to improvements in riparian habitat health and have positively influenced the stewardship approach of many landowners and leaseholders.

Partnerships

Agroforestry & Woodlot Extension Society, Alberta Fish & Game Association, ConocoPhillips, County of Grande Prairie, Cows and Fish – Alberta Riparian Habitat Management Society, Enerplus, Fisheries and Oceans Canada, Government of Canada, landowners, Milk River Watershed Council, Oldman Watershed Council, Syncrude Canada Ltd., Treecycler, Trout Unlimited Canada, West County Watershed Society

ACA Conservation Reports

The following is a list of final project reports published in 2016/17. All of these reports can be found on our website or through the Government of Alberta Library.

Annual Summary reports for all on-going projects can also be found on our website.

Fisheries

Fitzsimmons, K. 2017. A Creel-Based Assessment of the Upper Bow and Elbow River Sport Fisheries. 2016. Data Report, produced by Alberta Conservation Association, Cochrane, Alberta, Canada. 12 pp. + App.

Judd, C., M. Rodtka, and A. Clough. 2017. North Saskatchewan River Drainage, Fish Sustainability Index Data Gaps Project, 2016. Data Report, produced by Alberta Conservation Association, Rocky Mountain House, Alberta, Canada. 20 pp. + App.

Lebedynski, N. 2017. Summer Sport Fishery Angler Survey at Haig and Moose Lakes, Alberta, 2016. Data Report, produced by Alberta Conservation Association, Peace River, Alberta, Canada. 17 pp. + App.

Blackburn, J., K. Fitzsimmons, B. Hurkett, and L. Redman. 2017. Trends in distribution and abundance of westslope cutthroat trout and sedimentation in the upper Oldman River watershed, 2015 – 2016. Data Report, produced by Alberta Conservation Association, Lethbridge, Alberta, Canada. 32 pp. + App.

Wildlife

Webb, S., B. Abercrombie, R. Anderson, B. Bildson, M. Jokinen, N. Kimmy, and D. Manzer. 2017. Wolverine distribution and habitat associations on registered traplines in Alberta, winters 2011/12 – 2015/16. Data Report, produced by Alberta Conservation Association and Alberta Trappers' Association, Blairmore and Lethbridge, Alberta, Canada. 41 pp. + App.

Downey, B. 2017. Greater Sage Grouse Project 2014 – 2017. Data Report, produced by Alberta Conservation Association, Lethbridge, Alberta. 5 pp.

USE RESPECT

You can hunt on private land but you must get permission first. Accessing land where you don't have permission can result in a trespassing charge.

Checking county landowner maps and using resources like the Alberta Discover Guide can help you find a place to hunt. Landowners can provide contact information for hunters with Use Respect signs posted on their property. The signs are available free of charge from Alberta Conservation Association.

Remember: Use Respect – Ask First

USE RESPECT ASK FIRST



Please act responsibly and obtain permission from private landowner for access.

Report A Poacher and Livestock Compensation Programs

Report A Poacher

The Report A Poacher (RAP) Program encourages all Albertans—not just hunters and anglers—to help protect our wildlife, fish, and natural habitats. In addition to providing education about poaching, perhaps the most important RAP program tool is the toll-free phone number: 1-800-642-3800. It allows people to report suspected illegal activities 24 hours a day, seven days a week. Alberta Fish & Wildlife enforcement officers often rely on information from these calls; individuals and communities are RAP’s eyes and ears, and the important information they provide regularly leads to investigations and convictions.

RAP is delivered jointly by ACA and Alberta Justice and Solicitor General. ACA is responsible for program promotion and education activities to enhance public awareness and understanding of poaching, and also for the administration of program funds. Alberta Justice and Solicitor General retains sole responsibility for liaising with informants, investigating reports, and enforcing laws.



2016/17 Overview

- 14,894 total calls from the public to the RAP toll-free hotline.
- 3,097 calls about suspected illegal activity – reporting wildlife and fish resource crimes.
- 806 charges laid.
- \$108,600 in rewards paid to individuals whose call and information led to charges.
- Promoted RAP at numerous trade shows and events throughout Alberta, and distributed branded promotional items to educate and raise awareness about poaching and ethical hunting and fishing practices.
- Increased RAP promotion through social media, television, radio, and print.
- Developed and delivered the new RAP education trailer.

Livestock Compensation Programs

ACA takes pride in fostering good working relationships with landowners. For producers whose livestock may have been killed or injured as a result of predators (eagles, cougars, bears, and wolves) or hunter activities, relief is provided through the Wildlife Predator Compensation and Shot Livestock Compensation Programs. Like Report A Poacher, ACA is responsible for program promotion and compensation fund management, while Alberta Justice and Solicitor General is responsible for incident investigations and determining payouts.

Wildlife Predator	Claims	Compensation (\$)
Black Bear	25	23,527.17
Cougar	13	91,410.68
Grizzly Bear	64	6,004.12
Wolf	138	138,094.27
TOTAL	240	259,036.24
Shot Livestock	14	\$39,975.86



Ashley Jensen (MSc), ACA Grants in Biodiversity, Plumage Polymorphism
in Ruffed Grouse (*Bonasa umbellus*): Genetics and behaviour

Photo: Nick O'Neil

Granting Programs

Alberta's hunters and anglers contribute directly to conservation through levies on their hunting and fishing licences. A portion comes to ACA, and one of the many things we do, is support conservation efforts via our Granting Programs.

ACA Conservation, Community, and Education Grants

This fund supports conservation activities that contribute to wildlife and fish population health and the health of their habitats, and to the understanding, appreciation, and use of the environment. Projects that increase participation in, and awareness of, outdoor opportunities, while developing knowledge and respect for conservation, are also funded through this grant. The projects ranged from youth hunter, angler, and archery programs and local festivals such as the annual Snow Goose Chase, to restoration and stewardship projects, like the Weaselhead Invasive Plant Program.

2016/17 Overview

- Received 118 applications requesting just under \$1.7 million.
- Supported 75 projects with \$969,644 of funding.

ACA Research Grants

The ACA Research Grants fund high-quality research projects on wildlife, fish, and habitat which inform the effective management of wildlife and fish populations and habitat in Alberta. Topics ranged from estimating ungulate populations, using trail cameras, to long-term population studies on big horn sheep and the elk in Ya Ha Tinda.

2016/17 Overview

- Received 23 applications requesting \$625,403.
- Funded 15 research projects with a total of \$312,584.

Grants in Biodiversity

The ACA Grants in Biodiversity Program is funded by ACA and operated through the Alberta Cooperative Conservation Research Unit—a partnership between the Universities of Alberta, Calgary, and Lethbridge. The ACA Grants in Biodiversity program supported 23 graduate student projects with a total of \$222,090 of funding for 2016/17. Projects ranged from genetics of caribou to the effects of industrialization on songbirds and hawks. This year's grants ranged from \$4,660 to \$17,200 and were distributed to seven PhD and 16 Masters candidates. Although the study must be in Alberta, four of the projects were conducted by students from universities outside of the province.

2016/17 Overview

- 23 graduate students supported with \$222,090 in funding.
- Syncrude Canada Ltd. has signed a \$250,000 commitment over five years (2014 through 2018) in support of the ACA Grants in Biodiversity Program.

ACA Chair in Fisheries and Wildlife at the University of Alberta

The ACA Chair was established through an endowment to the University of Alberta, providing educational initiatives to wildlife professionals. By addressing issues and problems relevant to Alberta's biological resources, the Chair, Dr. Mark Boyce, supports ACA's goals for long-term, sustainable wildlife and fish resources. A contribution to teaching is also an essential duty of the position. The ACA Chair is expected to contribute to the activities of the Department of Biological Sciences and to the university as a whole. Dr. Boyce's expertise is internationally recognized, and he has significantly enhanced ACA's efforts to conserve Alberta's wildlife and fish resources. For more information and for a list of publications, visit biology.ualberta.ca/faculty/mark_boyce.

2016/17 Overview

- Endowed with \$20,500 as part of ACA's commitment to science, research, and education.

ACA Conservation, Community and Education Grants

Small Grants (\$3,000 and under)

Alberta Hunter Education Instructors' Association, 13th Annual OWL Day – "Outdoor Wildlife Learning," \$3,000.00

Alberta Hunter Education Instructors' Association, AHEIA's Teachers' Workshop, \$3,000.00

Alberta Hunter Education Instructors' Association, Alford Lake camp expansion, \$3,000.00

Alberta Hunter Education Instructors' Association, Conservation education for the Army Cadet league of Canada AB, \$3,000.00

Alberta Hunter Education Instructors' Association, Outdoor youth seminar, \$3,000.00

Alberta Hunter Education Instructors' Association, Youth fishing initiatives, \$3,000.00

Big Country Rod and Gun Club, Annual first time upland bird hunt, \$1,000.00

Calgary Fish & Game Association, Boat & Sportsmen's Show trout pond gifts, \$1,185.00

Edmonton Valley Zoo, Edmonton Valley Zoo wander fascination station, \$2,914.46

Helen Schuler Nature Centre, "Extreme by Nature" Environmental education for 11 to 15 year olds, \$3,000.00

Lacombe Fish & Game Association, Len Thompson fishing pond upgrades – signage and education portion, \$2,707.92

Manning Jr & Sr Gun Club, Novice pheasant shoot, \$3,000.00

Northern Lights Fly Fishers/TUC Edmonton Chpt, Kids' fly tying, \$1,429.00

Onoway & District Fish & Game Association, Bluebird/bat house project, \$800.00

Safari Club International Red Deer Chapter, Red Deer, Kids Can Fish Event, \$2,900.00

Safe Drinking Water Foundation, Operation Water Drop, Operation Water Pollution, and Operation Water Biology kits to be used by students in Alberta as part of field trips/ outdoor education, \$1,275.00

Southern Alberta Bible Camp, Archery Program, \$2,500.00

Southern Alberta Bible Camp, Pelletry Program, \$1,500.00

Trout Unlimited Canada – Bow River Chpt, Legacy Island annual maintenance, \$3,000.00

Weaselhead/Glenmore Park Preservation Society, Weaselhead Invasive Plant Program, \$3,000.00

Willingdon and District Fish & Game Association, Willingdon Fish Pond and Park, \$1,900.00

Large Grants (over \$3,000)

Alberta Fish & Game Association, Increasing habitat for species at risk in Alberta's grassland region through adaptive management, habitat enhancement, and outreach, \$35,800.00

Alberta Fish & Game Association, North Raven riparian conservation project, \$25,000.00

Alberta Fish & Game Association, Pronghorn antelope migration corridor enhancement, \$42,525.00

Alberta Hunter Education Instructors' Association, 23rd Annual Outdoor Women's Program, \$25,000.00

Alberta Hunter Education Instructors' Association, AHEIA's National Archery in the Schools Program (NASP), \$40,000.00

Alberta Hunter Education Instructors' Association, Outdoor Bound Mentorship Program, \$12,000.00

Alberta Hunter Education Instructors' Association, Provincial Hunting Day initiatives, \$20,000.00

Alberta Hunter Education Instructors' Association, Youth hunter education camps (Weeks 1-4), \$48,000.00

Alberta Invasive Species Council, PlayCleanGo; engaging recreationists, \$20,000.00

Alberta Trappers Association, Youth Trapper Camp, \$8,225.00

Beaverhill Bird Observatory, Public engagement, wildlife conservation, and monitoring at Beaverhill Lake, \$19,550.00

Canadian Parks and Wilderness Society (CPAWS) Southern Alberta Chapter, Kids for Conservation: getting youth outside to experience Alberta's Wilderness, \$9,250.00

Castle-Crown Wilderness Coalition, Education and reclamation in the Castle, \$14,700.00

CW Perry School, Fisher Education Program, \$5,095.00

Ducks Unlimited Canada (DUC), Wetland Discovery Days, \$20,000.00

Friends of Elk Island Society, Beaver Hills Dark Sky Preserve Bat Nights, \$5,814.00

Glenbow Ranch Park Foundation, 2016 Vegetation management at Glenbow Ranch Provincial Park, \$5,900.00

Glenbow Ranch Park Foundation, Environmental and conservation education at Glenbow Ranch Provincial Park, \$10,000.00

H.A. Kostash School, H.A. Kostash Youth Mentorship Programs, \$15,000.00

Highway Two Conservation, Alberta bat education and habitat protection: Establishment of the Cache Park Bat Reserve and the "Save a Barn, Save a Bat Program," \$8,300.00

Highway Two Conservation, Riparian Education Program, \$8,550.00

Hillcrest Fish & Game Protective Association, Coleman Fish and Game dam access upgrade, \$7,240.00

Inside Education, Wildlife education field trips, \$10,250.00

Lakeland Catholic School District No. 150 (Notre Dame High School), Enhancing outdoor education and wildlife pathway, \$5,000.00

Lamont Fish & Game Association, Archery/ Youth Development Programs, \$6,845.49

Lesser Slave Lake Bird Observatory, Avian Monitoring and Education Programs at Lesser Slave Lake, \$21,500.00

Lesser Slave Watershed Council, Living on the Edge awareness campaign, \$5,115.00

Lethbridge Fish & Game, 6th Annual LFCA/ ACA Youth Fishing Recruitment Day, \$10,800.00

Lethbridge Fish & Game, LFCA - Conservation Community, and Education Program, \$18,000.00

MD of Bonnyville, Crane Lake Riparian Restoration and Preservation Program, \$5,791.00

Milk River Watershed Council Canada, Promoting Youth Engagement Program within the MRWCC, \$10,000.00

Mountain View County, Riparian and ecological enhancement program, \$20,000.00

Nature Alberta, Implementing action to protect priority bird species in Alberta's IBAs, \$11,500.00

Nature Alberta, Living by Water, \$20,125.00

Nature Alberta, Nature Kids in a Backpack, \$31,000.00

Northern Lights Fly Fishers/TUC Edmonton, Conserving and restoring Arctic grayling in the Upper Pembina River Watershed – Habitat restoration planning, \$10,450.00

Northern Lights Fly Fishers/TUC Edmonton, Raven Riparian fencing project, \$29,085.00

Oldman Watershed Council, Engaging recreationists in the Dutch Creek restoration and education project, \$25,750.00

Parkland County, County Lands shoreline naturalization project, \$12,500.00

Partners in Habitat Development, Partners in Habitat Development, \$15,000.00

Pheasants Forever Calgary, 15th Annual PF Calgary/AHEIA youth/novice hunt, \$6,000.00

Red Deer County, Conservation Partners (a.k.a. ALUS) 2016, \$40,000.00

Red Deer FGA, Alberta Youth Pheasant Program, \$8,550.00

SARDA, SARDA Summer Field School: Retention of Wetlands on Croplands, \$4,200.00

Sustainability Resources Ltd, Watershed Resources: Riparian Restoration Program, \$4,940.00

The Nature Conservancy of Canada (NCC) Alberta Region, Wildlife-friendly fencing: implementing habitat management enhancements and improving wildlife movement in a key site in the Cypress Hills area, \$16,200.00

Town of Okotoks, Storm pond goldfish control and public education, \$10,000.00

Trout Unlimited Canada, Evaluation of Prairie Creek culvert retrofit and riparian enhancement and education project, \$28,012.00

Trout Unlimited Canada, Southern Alberta riparian improvement and awareness project, \$23,140.00

Trout Unlimited Canada, Yellow Fish Road in a Box, \$40,000.00

Trout Unlimited Canada – Bow River Chpt, Bow River – Legacy Island spawning enhancement and access study, \$24,000.00

Waterton Biosphere Reserve Association, Building wetland stewardship and improving wetland habitat in Waterton Biosphere Reserve, \$10,000.00

Zone 3 Fish & Game, Abandoned barbed wire hazard elimination at Buffalo and Bigelow pheasant sites, \$4,450.00

Zone 4&5 Alberta Fish & Game, Narrow Lake conservation centre, \$25,380.00

ACA Research Grants

fRI Research (Dr. Larsen), Linkages between habitat, ungulates, and the habitat use and performance of grizzly bears in west-central Alberta, \$16,500.00

fRI Research (Dr. MacNearney), Can forestry and silviculture practices help increase caribou functional habitat in west-central Alberta?, \$25,000.00

Glenbow Ranch Park Foundation (Dr. Tannas), Native grasslands ecosystem restoration, \$20,750.00 (not completed)

St. Mary's University (Dr. Lovell), Vocal, morphological, molecular, and ecological interactions between white-crowned sparrow (*Zonotrichia leucophrys*) subspecies in secondary contact, \$22,580.00

The Friends of Elk Island Society (Dr. Roy), Estimating known ungulate populations using trail cameras in Elk Island National Park, \$18,000.00

The King's University (Dr. Janzen), Enhanced camera trap image processing program, \$9,700.00

Trout Unlimited Canada (Dr. Peterson), Using citizen science to understand Didymo, \$10,577.00

Université de Sherbrooke (Dr. Festa-Bianchet), Experimental management of bighorn sheep, \$9,560.00

University of Alberta (Dr. Boyce), Black bear abundance, human-wildlife conflict, and interactions with grizzly bears on a multi-use landscape, \$11,300.00

University of Alberta (Dr. Macdonald), Tools to guide management of invasive species in grassland ecosystems, \$19,820.00

University of Alberta (Dr. Merrill), Persistence of the Ya Ha Tinda elk population: the role of calf survival, \$34,197.00

University of Alberta (Dr. Poesch), The effects of introduced fishes on potential aquatic insect prey subsidies to alpine birds, \$20,000.00

University of Alberta (Dr. Vinebrooke), Bioremediation of eutrophic lakes through fisheries management in Alberta, \$38,500.00

University of Calgary (Dr. Galpern), Wild pollinator conservation and restoration in Southern Alberta croplands II: wetlands and landscape heterogeneity, \$23,800.00

University of Saskatchewan (Dr. Soos), Relationship between health, habitat use, and migration of juvenile whooping cranes in relation to the oil sands region of northern Alberta, \$32,300.00

2016 ACA Grants in Biodiversity Recipients

Syncrude Canada Ltd. has committed \$250,000 over five years (2014 - 2018) to support the ACA Grants in Biodiversity.

Recipient	Institution	Supervisor(s)	Project Title
Susan Anderson (MSc)	University of Calgary	Leland Jackson	Implications of nitrogen limitation in cyanobacteria in shallow lakes
Charlotte Brown (MSc)	University of Alberta	JC Cahill	Causes and consequences of size-asymmetric competition in a native grassland
Erin Campbell (MSc)	University of Alberta	Felix Sperling	Characterizing Alberta species of silverspot butterflies to support ecological assessments
Emma Carroll (MSc)	University of Calgary	Steven Vamosi	Population genetics of Bull trout (<i>Salvelinus confluentus</i>)
Maria Cavedon (PhD)	University of Calgary	Marco Musiani	Determining genomic characteristics of caribou in Alberta for management and conservation practices
Craig DeMaere (MSc)	University of Alberta	Cameron Carlyle and Edward Bork	Does heterogeneity in rangeland health predict biodiversity in Alberta's southern grasslands?
Jacqueline Dennett (PhD)	University of Alberta	Scott Nielsen	Search and rescue: Detection and translocation of rare plant species in the Lower Athabasca
Luiz Drummond Salvador (MSc)	University of Alberta	Mike Flannigan	Prescribed fire and whitebark pine recovery strategies: Natural regeneration in relation to fire severity
David Ensing (PhD)	Queen's University	Christopher Eckert	Phenological and genomic determinants of elevational range limits in <i>Rhinanthus minor</i> L.
Caroline Franklin (PhD)	University of Alberta	Ellen Macdonald	Responses of furbearers to variable green-tree retention harvesting in conifer-dominated boreal forest
Haley Glass (MSc)	University of Calgary	Steven Vamosi	Monitoring of amphibian populations in Jasper National Park using environmental DNA
Jocelyn Gregoire (MSc)	University of Alberta	Erin Bayne	Habitat utilization of boreal songbirds in response to linear feature width and vegetative recovery
Jori Harrison (MSc)	University of Calgary	Sean Rogers	Using environmental DNA to detect and assess species abundance of At Risk Alberta fishes
Alexandra Heathcote (MSc)	University of Manitoba	Nicola Koper	Investigating the effects of oil and gas infrastructure on the stress physiology and body condition of nestlings of two species of grassland songbirds
Ashley Jensen (MSc)	University of Lethbridge	Theresa Burg and Andrew Iwaniuk	Plumage polymorphism in Ruffed Grouse (<i>Bonasa umbellus</i>): Genetics and behaviour
Elly Knight (PhD)	University of Alberta	Erin Bayne	Linking hierarchical habitat relationships of common nighthawks in a dynamic landscape
Natalia Lifshitz (PhD)	University of Alberta	Colleen Cassady St. Clair	Evaluating the potential of using ornamental coloration of tree swallows as a non-invasive indicator of aquatic pollution
Nicholas Parayko (MSc)	University of Alberta	Erin Bayne	Response of ferruginous hawks (<i>Buteo regalis</i>) to transmission line construction and decommissioning
Angela Phung (MSc)	University of Alberta	Jessamyn Manson and Cameron Carlyle	Density dependent effects of an invasive legume on pollinator visitation rates to a rare native congener
Danielle Rivet (PhD)	University of Saskatchewan	Jeffrey Lane	Overwinter torpor profiles of Columbian ground squirrels subject to natural and manipulated environmental conditions
Kelsey Saboraki (MSc)	University of Winnipeg	Susan Lingle	Behavioural transmission of Chronic Wasting Disease in mule deer and white-tailed deer
Julie Steinke (MSc)	University of Alberta	Ellen Macdonald	Effects of mountain pine beetle on understory vegetation in lodgepole pine forests in western Alberta
Emily Upham-Mills (MSc)	University of Alberta	Erin Bayne	The use of migratory bird spring arrival timing and song phenology to inform habitat preference and quality

Auditor's Report





KINGSTON
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June 10, 2017

Edmonton, Alberta

INDEPENDENT AUDITOR'S REPORT

To the Members of Alberta Conservation Association

The accompanying summarized consolidated financial statements, which comprise the summary consolidated statement of financial position as at March 31, 2017, and the summary results from consolidated statements of operations for the year then ended are derived from the audited consolidated financial statements of the Alberta Conservation Association for the year ended March 31, 2017. We expressed a qualified audit opinion on those consolidated financial statements in our report dated June 10, 2017.

The summary consolidated financial statements do not contain all the disclosures required by accounting standards for not-for-profit organizations. Reading the summary financial statements, therefore, is not a substitute for reading the audited financial statements of Alberta Conservation Association.

Management's Responsibility for the Summarized Consolidated Financial Statements

Management is responsible for the preparation of the summarized consolidated financial statements on the basis described in Note 1.

Auditor's Responsibility

Our responsibility is to express an opinion on these summarized consolidated financial statements based on our procedures, which were conducted in accordance with Canadian Auditing Standard (CAS) 810, "Engagements to Report on Summary Financial Statements."

Opinion

In our opinion, the summarized consolidated financial statements derived from the audited consolidated financial statements of Alberta Conservation Association for the year ended March 31, 2017 are a fair summary of those consolidated financial statements, on the basis described in Note 1. However, the summary consolidated financial statements are subject to conditions equivalent to those of the audited consolidated financial statements of the Alberta Conservation Association for the year ended March 31, 2017, upon which we issued a qualified audit opinion.

In addition, in common with many not-for-profit organizations, the Association derives some of its revenue from partner contributions and donations, the completeness of which is not susceptible to satisfactory audit verification. Accordingly, our verification of these revenues was limited to the amount recorded in the records of the Association and we were not able to determine whether any adjustments might be necessary to partner contributions, excess of revenues over expenses, current assets, deferred contributions and net assets.

Kingston Ross Pasnak LLP

Kingston Ross Pasnak LLP
Chartered Professional Accountants

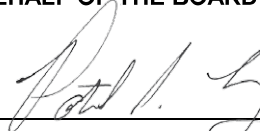
ALBERTA CONSERVATION ASSOCIATION**Summarized Consolidated Statement of Revenues and Expenditures****For the Year Ended March 31, 2017**


	2017	2016 (Restated)
REVENUE		
Levy, fees and assessments	\$ 14,570,386	\$ 14,625,606
Partner contributions	1,606,470	1,479,313
Investment income	326,969	233,653
Miscellaneous	298,964	319,630
Donations	73,833	28,047
Film sales	-	663
	16,876,622	16,686,912
EXPENSES		
Salaries and benefits	7,009,467	7,008,883
Contracted services	2,273,211	2,287,960
Materials and supplies	1,563,439	1,458,451
Grants	1,515,030	1,712,844
Rentals	456,979	388,326
Repairs and maintenance	419,516	315,145
Office	399,881	250,440
Travel	330,715	449,231
Amortization	311,015	289,729
Advertising	237,941	230,954
Fuel and lubricants	186,453	172,206
Landowner agreements	166,563	157,741
Telephone and communications	160,355	136,565
Insurance	131,346	123,647
Freight and postage	83,776	115,343
Interest on loans	59,008	75,705
Bank charges and interest	54,749	37,381
Utilities	50,283	45,721
Hosting and conferences	45,306	13,593
Training and membership	37,449	49,397
Fees, licenses and permits	33,745	38,622
Bad debts	494	-
	15,526,721	15,357,884
EXCESS OF REVENUE OVER EXPENSES FROM OPERATIONS	1,349,901	1,329,028
OTHER INCOME (EXPENSES)		
Unrealized (loss) gain on investments	430,221	(433,281)
Gain on disposal of investments	91,318	139,722
Write-off of aeration equipment	-	(442,532)
Loss on disposal of property, plant and equipment	(1,204)	(4,015)
	520,335	(740,106)
EXCESS OF REVENUE OVER EXPENSES	\$ 1,870,236	\$ 588,922

ALBERTA CONSERVATION ASSOCIATION
Summarized Consolidated Statement of Financial Position
March 31, 2017

	2017	2016 (Restated)
ASSETS		
CURRENT		
Cash	\$ 781,948	\$ 270,705
Short term investments	400,339	237,502
Accounts receivable	600,807	475,039
Inventory	6,153	8,204
Goods and Services Tax recoverable	113,764	68,013
Prepaid expenses	134,639	114,069
	2,037,650	1,173,532
LONG TERM INVESTMENTS	7,338,849	6,516,728
PROPERTY AND EQUIPMENT	29,243,264	24,964,703
FILM COLLECTION	1,549,577	3,023,870
	\$ 40,169,340	\$ 35,678,833
LIABILITIES AND NET ASSETS		
CURRENT		
Bank indebtedness	\$ -	\$ 330,000
Accounts payable and accrued liabilities	2,443,900	2,074,475
Source deductions payable	73,670	-
Deferred contributions	2,616,247	2,361,994
Deposits	11,560	35,638
Term loans	4,270,000	2,240,000
	9,415,377	7,042,107
PROJECT CONTRIBUTIONS	-	1,474,293
	9,415,377	8,516,400
NET ASSETS		
Invested in property and equipment	30,792,841	26,514,280
Internally restricted	1,176,182	594,183
Unrestricted	(1,215,060)	53,970
	30,753,963	27,162,433
	\$ 40,169,340	\$ 35,678,833

ON BEHALF OF THE BOARD


 _____ Director


 _____ Director

BASIS OF PRESENTATION

Management is responsible for the preparation of the summary consolidated financial statements. The summary consolidated financial statements are comprised of the summary consolidated statement of financial position and the summary consolidated statement of operations, and do not include and other schedules, a summary of significant accounting policies or the notes to the consolidated financial statements. The summary consolidated statement of financial position and the summary consolidated statement of operations are presented with the same amounts as the audited consolidated financial statements, but all note referencing has been removed.

Financial Highlights

Summarized Financial Statements

In 2016/17, ACA received \$14,570,386 in levy revenue from hunting and angling licences, representing a slight decrease of \$55,220 from the previous year. This result demonstrates that despite the continued downturn in the economy, interest in hunting and angling in Alberta remains stable, as the majority of this decrease can be easily explain as a result of poor weather during key fishing weekends.

Together, our Wildlife, Fisheries, Land Management, Communications, and Grants Programs had expenditures totalling \$11,004,061, plus an additional \$4,216,425 in land purchases and donations (for accounting purposes, these funds are recorded as assets, not direct operational expenditures). These numbers mean approximately 104.5% of the levy value collected went back into conserving Alberta's resources (expenses plus increase in habitat assets).

ACA received approximately \$6.5 million in non-levy revenue (including \$4,216,425 in land donations and funds for land purchase). These funds came from a variety of donors, including individuals, corporations, granting foundations, the federal government, and other conservation organizations. Administrative costs were held to 9.94% of total revenue (including funds for land purchase and donations).

Expenditures by Program

Often stakeholders want to determine what funds are being directed towards their particular passion. When examining the Expenditures by Program, please keep in mind that the numbers shown are somewhat arbitrary and do not necessarily represent all projects that may relate to a particular program area. For instance, fisheries access sites, which are directly related to increasing angling opportunities, are administered, and budgeted for, under our Land Management Program instead of the Fisheries Program. Granting is shown separately even though it relates to all three resource areas.

Administration costs continue to be well below the federal guideline for charitable organizations and includes areas such as Human Resources and regional and corporate administration.

Revenue by Source

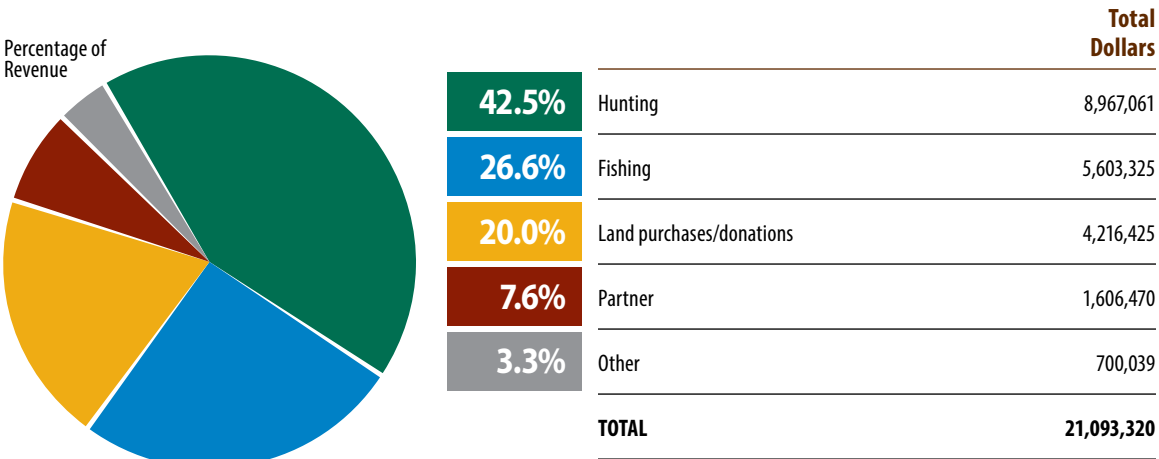
Approximately 30.1% of ACA's total budget was generated from non-levy sources (\$6,522,934). This decrease from the previous year was largely attributable to decreased corporate donations as a result of unfavourable economic conditions. Land donations and purchases conserved approximately 1,523 acres for future generations.

2016/17 Overview

- Received \$14,570,386 from levies on hunting and fishing licences.
- Received \$6.5 million in non-levy revenue.
- Applied \$15,220,486 in value directly towards the conservation of Alberta's wildlife, fish, and habitats.
- Administration costs kept to 9.94% of total expenditures.
- Current year surplus is \$1,873,025 (11.10% of budgeted revenue), of which \$518,412 are gains generated within our long-term investment accounts (not in management control). The remainder was budgeted for land purchases through the Habitat Securement Fund (\$600,000) leaving an operational surplus in management control of \$754,613, which is 4.5% of budgeted revenue.

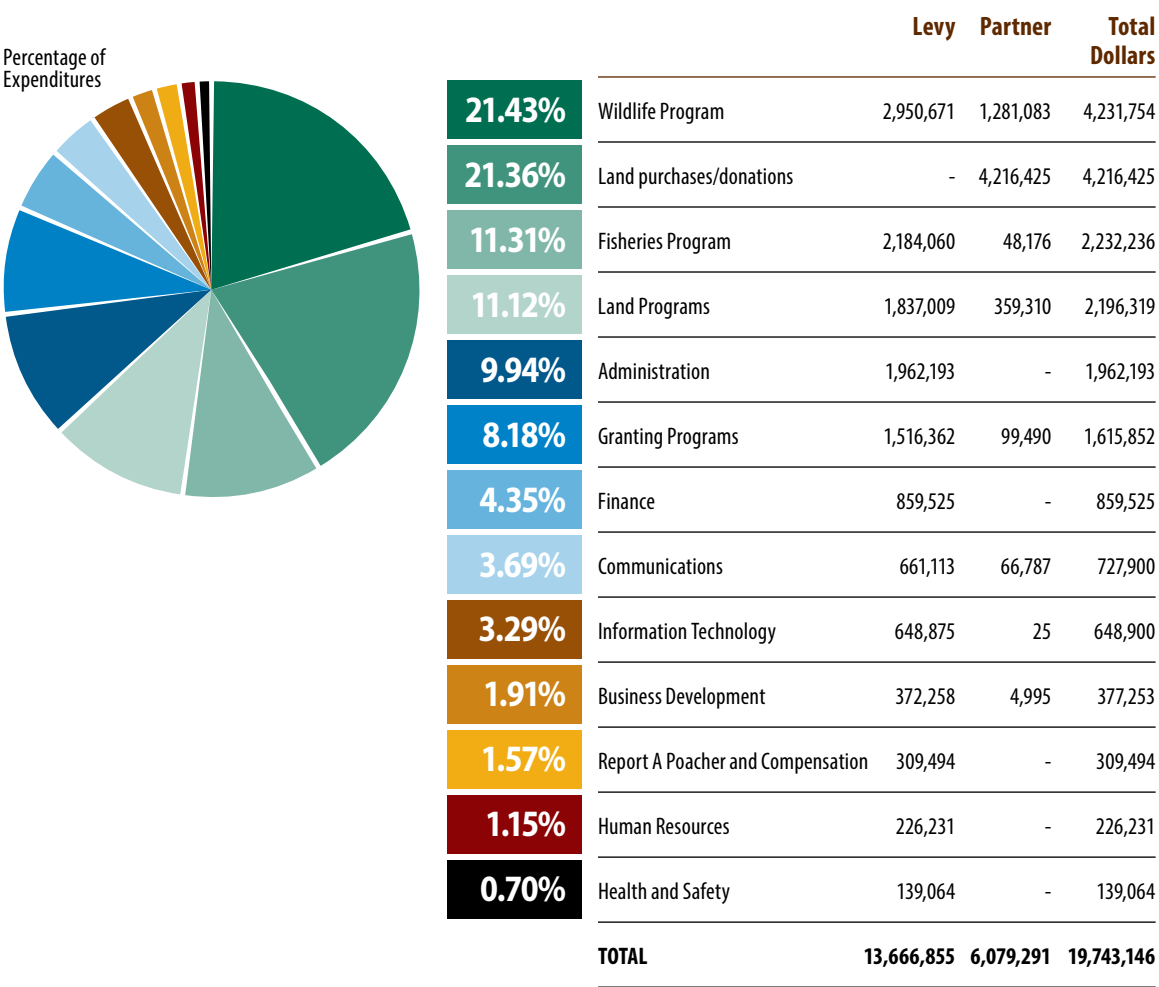
The following charts summarize the total operating budget breakdown according to each program and revenue area. We encourage you to review the entire annual report for a greater understanding of the conservation projects undertaken within each program and how they may relate to your particular interests. If you have any questions, please do not hesitate to contact our President and CEO, Todd Zimmerling.

Revenue by Source



*Not including unrealized gains on investments, but including \$326,969 in investment income (outside of Management’s control).

Expenditures by Program





Alberta Conservation Association wishes to thank our Corporate Partners in Conservation who have provided multi-year financial contributions in support our conservation programs and projects. Together we are conserving Alberta's natural heritage for generations to come.

Abacus Datagraphics
 Access Pipeline Inc.
 Agrium Inc.
 Aquality Environmental Consulting Ltd.
 Aux Sable
 Cabela's
 Canadian National Sportsmen's Shows
 Canadian Natural Resources Ltd.
 Canadian Tire Cochrane
 Capital Power
 CCI Inc.
 City of Fort Saskatchewan
 Cycle Works Motorsports
 Daishowa Marubeni International
 Dow Chemical Canada
 Edmonton Trout Fishing Club
 Inter Pipeline Ltd.
 Jobsite Workwear
 Let's Go Outdoors
 MacFarlane Pheasants Inc.
 Martin Motor Sports
 Matrix Solutions Inc.
 Shell Canada
 Suncor Energy Foundation
 Superior Propane
 Syncrude Canada
 SysGen Solutions Group Ltd.
 TeraGo Networks
 Thompson-Pallister Bait Company Ltd.
 Town of Cochrane
 TransAlta
 West Fraser Mills
 Wheaton Toyota On The Trail
 WiBand
 Wingate by Wyndham



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