

Final Project Report:
Increasing awareness of, and protection for,
habitats associated with
Permanent Freshwater Springs

Prepared for:
Yukon Fish and Game
Association
for
Yukon Fish and Wildlife
Enhancement Trust



Spring at McIntyre Creek near pumphouse

Prepared by:

Laberge
ENVIRONMENTAL SERVICES

&

AvF R&D

Introduction:

Both human population and land development is concentrated in the southwest Yukon. Development is occurring in advance of Land Use Planning and high resolution resource inventories. Critical or unique habitats are therefore threatened. These include areas where there are permanent discharges of high quality (for aquatic life) water from underground sources. For convenience, these will be referred to as “Permanent Freshwater Springs” or PFWS. They include the outflows immediately downstream, and the surrounding land that is warmed from below by the springs during the winter. Permanent Freshwater Springs provide habitat for a wider range of plants and invertebrates than does the surrounding upland or riparian lands. This enriched environment in turn provides habitat for terrestrial and avian wildlife. The outflow from the area may provide overwintering habitat for fish and aquatic wildlife.

The goal of this project was to protect PFWS, which are relatively rare habitats for fish and wildlife, by developing tools to allow citizens, organizations, or agencies to identify the areas and to appreciate their value.

The Final Project Report follows the format of the Enhancement Trust’ “Final Report Guidelines”.

Project Activities

Project Activities

Included:

- Project design. As per the Panels request, the project design/protocols were discussed with Sean Collins, DFO Resource Restoration Biologist, and Bruce Bennett, YTG Co-ordinator, Conservation Data Center.
- Planning and Organization. The Project Team determined tasks and schedules.
- Field Work. Botanists B. Burns and S. Withers conducted assessments of known freshwater springs through plant identification, image acquisition, and collection of voucher specimens. A. von Finster scouted for additional PWFS.
- The tools were drafted and then submitted to S. Collins and B. Bennett for review. Both provided useful comments which we addressed in the final products. The Final Project Report was prepared. Distribution of the tools has commenced.
- The tools include a Power Point Presentation and a PDF document both titled “Identification and Protection of Freshwater Springs in the South West Yukon”.

Contribution of Activities to the Project Goals and Objectives:

All project objectives were met through developing tools to realize the project Goal.

Effect of Project Activities on the future welfare of fish, wildlife and their habitats:

The project developed tools for others to use in a format that will be accessible to them. The tools are being distributed widely. If this results in the tools being used, the effects will be positive.

Unexpected positive or negative results:

All results were expected and had been anticipated and addressed in our planning.

Non-completion of objectives, goals and activities:

All project objectives, goal and activities were completed as planned.

Conduct of additional Project Activities not in the work plan:

The work plan was followed. Additional Activities included those requested by the Trust, specifically submitting the products to DFO and YG for review

Variances in Goals, Objectives and Work Plan:

There were no variances in Goals or Objectives, or in the substance of the Work Plan. We did, however, have to adjust our schedule. We could not meet our target completion date of October 31, 2012 due to unforeseen circumstances

Communications

Sharing of results:

The Pamphlet and Presentation are being placed on the YF&GA website, and copies emailed directly to:

- CAFN;
- KDFN;
- LSCFN;
- TKC;
- TTC;
- CTFN;
- YG EMR;
- YG E;
- EC CWS;
- DFO;
- Yukon College;
- CYFN;
- City of Whitehorse;

- Yukon Conservation Society;
- Yukon Chamber of Mines;
- Canadian Parks and Wilderness Society;
- Friends of McIntyre Creek;
- And others to be determined.

Identification of the contribution of the Enhancement Trust:

All products explicitly recognize the contribution of the Trust as the funding agency.

Promotional material, strategies and techniques used to promote the project and objectives:

Promotional activities commenced during the application process when First Nations in the SW Yukon, Environmental Non-Governmental Organizations (ENGO) and government agencies were approached. The project objectives were described and support requested. The Fact Sheet and PP Presentation are being distributed widely through direct email and posted on our website.

Photos of the project:

Both tools are image-based.

Applicant suggestions

Lessons learned from conducting the project:

The Project Team was highly experienced, and project activities were within their technical areas of expertise. With the exception of the delay in completion the project proceeded as planned.

Existing needs that could be met through future projects or funding:

This project adequately addressed the means of identifying permanent freshwater springs in the South West Yukon. As development pressures from mining, forest harvesting, oil and gas or hydro-electrical projects increase in the remainder of the Yukon it will be important to develop means of identifying rare or critical habitats. This may be in advance of, or following, regional or local Land Use Planning processes. The use of proxy or indicator species is a cost effective means of identifying such habitats. A case may be made for future expansion of the concept to other areas of the Yukon.

Modifications to the project if it were to be done again:

The project took place in a part of the Yukon well known to the Project Team. Essentially, the Project Team had acquired local knowledge during the years and decades they had lived and worked in the area. They were also able to provide the majority of the scientific/technical knowledge. This allowed the project to be adequately planned and to proceed smoothly. Should the concept of indicator

plant species be extended to other parts of the Yukon, a reconnaissance component would be useful. The reconnaissance should include accessing local knowledge.

If more work is to be done, how would the Project Team propose it proceed?

As noted, no further work is required for the South West Yukon. For other areas of the Yukon, the following process is suggested:

- The lead field investigators must have demonstrated expertise in the identification of plant species;
- The existing scientific/technical literature for the geographical area of interest should be accessed and reviewed as part of the planning process;
- Local knowledge of permanent ground water springs should be pursued through approaching persons who use the land or fly over it during the winter months. They will be best able to locate and describe the open water, off channel areas that are indicative of permanent ground water discharges.
- The scientific/technical and local information should inform the filed component.

Suggestions for Improvements to the Enhancement Trust Process:

None.

Likes and dislikes about working with the Enhancement Trust and its Staff:

We were entirely satisfied with the Trust and found the staff to be approachable and helpful.