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## INDIGENOUS KNOWLEDGE CURRICULUM PROJECT



A project to integrate Indigenous Knowledge and customary stewardship in the education of the future Pikangikum natural resources managers for the Whitefeather Forest Initiative.

## BACKGROUND TO THE PROJECT – THE WHITEFEATHER FOREST INITIATIVE



Elder Lucy Strang

The Indigenous Knowledge Curriculum project was developed in the context of the Whitefeather Forest Initiative ( see [www.whitefeatherforest.com](http://www.whitefeatherforest.com) ). Started in 1996 by Pikangikum First Nation, the purpose of the Initiative is to create new livelihood opportunities for the rapidly rebounding population of the community; and, to ensure that new land uses that can support new livelihood opportunities embody the resource stewardship tradition of Pikangikum people.

The customary stewardship practices of the people of Pikangikum are based on a sophisticated and potent knowledge tradition that has enabled

them to keep the land and built bio-diversity and abundance for many generations in the Whitefeather Forest. Rather than let this knowledge tradition become increasingly invisible, the Elders of Pikangikum insisted that it be brought into the planning process and given the same weight as the Western tradition. Elder Lucy Strang stated this most persuasively when she emphasized that there must be “balance” between Indigenous Knowledge and Western Science traditions in all aspects of Whitefeather Forest Initiative planning.

Since its inception the Whitefeather Forest Initiative has stayed focused on a path towards economic renewal rooted in customary stewardship

of the land. This approach is reflected in the precedent-setting Keeping the Land strategy (completed in 2006), the inaugural Forest Management Plan (approved in 2012), the Dedicated Protected Areas Management Plan (to be completed in 2014), and in revisions to Ontario’s Forest Management Planning Manual that include direction regarding the role of Pikangikum Elders and Indigenous Knowledge in planning for the Whitefeather Forest.

This planning has laid the basis for the incorporation of Pikangikum Indigenous Knowledge and customary stewardship into economic development and resource management in the Whitefeather Forest. At the same time, it was always understood that a way would have to be found to ensure that future generations involved in enterprise undertakings based on the Whitefeather Forest understand and are able to implement the Indigenous Knowledge and customary stewardship approach of their Elders and other bush experts.



Elder Solomon Turtle with youth at the Whitefeather Forest ASEP Training Program Career Fair

*We started this Initiative because of the land. The people of Pikangikum have lived for a long time and this is how we survived.... We started this for our youth. For my part, I am now old so I need to plan for their future. -Elder Solomon Turtle*





Paddy Peters, Whitefeather Forest Initiative Planning Coordinator, guiding children through the displays at a Whitefeather Forest Planning Open House

## BACKGROUND TO THE PROJECT – THE WHITEFEATHER FOREST TRAINING PROGRAM

Planning for capacity development to prepare for opportunities in the Whitefeather Forest Initiative has been integral to the Initiative from the beginning. Plans have been developed for a wide variety of opportunities, including college-educated resource management technicians. It was understood that it would be critical that these resource management technician trainees, in particular, be taught not only the Western Science tradition of resource management but also the Pikangikum customary tradition of resource management, if they were to be able to follow through on plans developed under the guidance of the Elders.

In 2008 the Human Resource and Social Development Canada Aboriginal Skills and Employment Partnership Program agreed to fund a major training program to prepare individuals for jobs in or near to the Whitefeather Forest – the Whitefeather Forest ASEP Training Program. This program included training for many of the jobs being developed through the Whitefeather Forest Initiative, including education for re-

source management technicians through delivery of Confederation College's Forest Ecosystem Management diploma program. This provided an opportunity to integrate the teaching of the Pikangikum customary tradition of resource management into a College program.

An important goal of this training program was to strive for high retention rates. The retention strategy included community-based delivery and a support network of individuals from among the Elders. It was also determined that inclusion of local Indigenous Knowledge in the content of the training program would help improve retention as well strengthen the student's connection to their own Indigenous Knowledge tradition.

The training program started in 2009 with intake and upgrading. At the same time efforts were underway to find a way to support the inclusion of Indigenous Knowledge in the training for resource management technicians, scheduled to start following Upgrading.

*Overall, in regard to the Whitefeather planning, this is what the Elders are doing; for our traditional land area. They were doing it to provide a future for their children and grandchildren and youth of the community, and they wanted to involve the younger generation in all of the planning process. The other thing they looked at is how do we get the younger generation involved. The meetings they were having were open meetings and we did not get much participation from the youth in the community, so they looked at how the youth would learn from the Elders -- to put something in place where the youth would be taught the knowledge of the Elders. -Paddy Peters, Land Planning Coordinator, Pikangikum First Nation.*



The late Elder Oliver Hill with youth at a Career Fair to recruit youth to the Whitefeather Forest ASEP Training Program



Celebrating the first ever Confederation College convocation held on a First Nation. Students graduated from College Access and Office Administration programs. Some of the College Access graduates went on to the FEM program.



Elder Matthew Strang at the Career Fair taught landscape ecology, including customary indigenous prescribed fire, during the co-op work placement.



## PLANNING FOR THE PROJECT – THE GENERATIVE CURRICULUM APPROACH

The Whitefeather Forest Initiative team investigated what might be the best approach for integrating Indigenous Knowledge into a post-secondary program.

The Generative Curriculum Model was chosen as the approach that best addressed what the Pikangikum Elders wanted to achieve in the project. This approach was developed by Drs. Jessica Ball and Alan Pence of the University of Victoria in partnership with the Meadow Lake Tribal Council for training childcare workers (see <http://fnpp.org/fnppv.htm>); however, it had many attributes that fit the needs of training in the Whitefeather Forest Initiative context (see the sidebar Guiding Principles). These included the emphasis on a balance between Western Science traditions and First Nations customary local knowledge, co-creation of a curriculum with community members which gave space for intense involvement of Elders and other bush experts, and community-based delivery.

The fact that the approach had been used successfully with other First Nations in Canada for training at the college level, and that it had been identified as a “best practice” by UNESCO also helped with the decision (see <http://www.unesco.org/most/bpik2o-2.htm>).

### Generative Curriculum Model: Guiding Principles

- Support community initiative in a community-based setting
- Promote respect “all ways” (multicultural inputs)
- Draw upon community and individual strengths
- Ensure a broad ecological perspective (awareness of the child in the context of family and community)
- Provide education and career ladder for students, such that credit for this coursework will be fully applicable to future study and practice
- Engage in co-construction of a bi-cultural curriculum, in which Elders and other community resource people figure prominently;
- Provide the basis for broader child, youth, family and community-serving training and services, while the immediate focus is on early childhood care and development



Indigenous Knowledge Curriculum project team meeting, Pikangikum, August 27, 2010. Standing, from left to right: Dave Carr (Confederation College), Paddy Peters (Whitefeather Forest Initiative), Elder Thomas Peters (Whitefeather Forest ASEP program), Andrew Chapeskie (Whitefeather Forest Initiative), Jimmy Keeper (Pikangikum Education Authority), Elder Gideon Peters (Whitefeather Forest Initiative), Andrew Keeper (Whitefeather Forest ASEP program), Elder Tom Quill Sr. (Whitefeather Forest Initiative), the late Elder Oliver Hill (Whitefeather Forest Initiative), Elder Alec Keeper (Whitefeather Forest Initiative), Brian Kurikka, (Confederation College). Kneeling, from left to right: Lloyd Quill (Whitefeather Forest Initiative), Elder Charlie Turtle (Pikangikum Council), Timmy K Strang (Whitefeather Forest Initiative).

## PLANNING FOR THE PROJECT – PARTNERSHIPS

A project was developed by the Whitefeather Forest Initiative team in partnership with Confederation College to seek support for this effort. In 2009 the Ontario Trillium Foundation agreed to provide support to Pikangikum First Nation for the Indigenous Knowledge curriculum project under its Future Fund program.

Additional support was provided by Pikangikum First Nation, the Ministry of Aboriginal Affairs, the Ministry of Natural Resources and Ontario Parks.



A formal agreement was subsequently entered into with Confederation College (see <http://www.confederationc.on.ca/>) to use the Generative Curriculum approach in the delivery of the Forest Ecosystem Management program. The College had already agreed to modularize the program to enable community-based delivery.

Community Facilitator Timmy K. Strang and student Valerie King assess site conditions in a harvest area adjacent to the Whitefeather Forest.







Forest Ecosystem Management students in class.

## THE PROJECT – DELIVERY OF THE FOREST ECOSYSTEM MANAGEMENT PROGRAM IN PIKANGIKUM

The Forest Ecosystem Management program (see [www.confederation.on.ca/foresteco](http://www.confederation.on.ca/foresteco)) delivery, together with the implementation of the Indigenous Knowledge Curriculum project, began in Pikangikum August of 2011. The Forest Ecosystem Management program is a two

year diploma program, usually taught in four semesters, with two mandatory four month co-op placements after the first and second year.

To accommodate community-based delivery, courses were delivered one or two at a time in two-week timeframes,

and all eight months of the mandatory co-op placement requirement occurred at the end of the classroom delivery.

Valerie King, Forest Ecosystem Management student, conducting site survey as part of the program.



Steering Group meeting, Pikangikum, November 2011, with Elders, students, Instructors, College representatives, Whitefeather Forest Initiative staff.



## THE PROJECT – INVOLVEMENT OF ELDERS AND OTHER BUSH EXPERTS IN THE CLASSROOM

It took considerable cross-cultural effort to find a practical pathway to involve Elders in the classroom. Initially the primary bush expert involved with the students was the Community Facilitator, hired to provide support both to the students and to the Indigenous Knowledge project. However, by January of 2012 more extensive Elder involvement was underway. Over the period of classroom delivery – August 2011 to December 2012 – sixteen Elders and bush experts attended classes on thirty-three occasions. Students also attended meetings of the Whitefeather Forest Initiative Steering Group and participated in forest seminars with the Elders. Teaching topics included the following:

- The importance of respecting the Anishinaabe way, what is expected of the students
- Traditional uses of trees including making snowshoes that involved detailed knowledge of the fibre attributes of wood
- Indigenous Knowledge and customary stewardship related to forest management practices, timber harvesting and forest renewal, including Indigenous perspectives on current non-native forestry practices
- Indigenous Knowledge and customary stewardship related to working and surviving on the land, ecological dynamics and associated customary teachings





Instructor Gary McKibben and student Darrell Keeper work on road layout to Dogrib Rapids.

## THE PROJECT – INVOLVEMENT OF ELDERS AND OTHER BUSH EXPERTS IN THE CO-OP PLACEMENT

All of the students spent at least two months of their co-op placement with the Whitefeather Forest Initiative in Pikangikum. Three of the students spent an additional five months with the Initiative. During all of the time spent with the Initiative, the students were learning from Elders, other bush experts and other Whitefeather Forest Initiative team members.

During this time, ten Elders worked intensively with the co-op students. The work was project based and included:

- Development of two sets of prescribed burn plans, incorporating customary prescribed burning practices and teachings
- Development of two Indigenous cultural landscape tours
- Layout of a forestry access roads including water crossings as well as harvest areas
- Documentation of historical occupancy in the Whitefeather Forest for Land Use Planning-related consultation and dialogue purposes with outside interested parties
- Planning for and implementation of a tour for a group of eleven Japanese visitors which took place in August 2013

Tour group including two of the students, Elders and the Community Facilitator (back row).



Timmy K Strang teaching landscape ecology/procuring food during the road layout work at Dogrib Rapids.



Timmy K Strang and student Max King take a break at Dogrib Rapids during road layout work.





Forest Tour July 2012, Standing left to right, Jimmy Keeper (head trapper and Whitefeather Forest Initiative Steering Group member), Elder Tom Quill Sr., Timmy K Strang (Community Facilitator), Murray Quill (student), Aaron Palmer (Instructor and WFI Forester). Kneeling left to right, students Robert King, Max King, and Darrell Keeper.

## RESULTS – MEETING THE PROJECT GOALS

### The project met its two primary goals:

- It provided a space for the integration of the Pikangikum customary approach to resource management into the training of future resource managers.
- It enhanced retention of students in the program, leading to a milestone achievement in Indigenous education in Northern Ontario, the first time five students completed the Forest Ecosystem Management Diploma Program together in Northern Ontario.

In the final project evaluation Steering Group meeting, Pikangikum Elders noted that they were very satisfied that the project had been carried out. They stressed that this was the first project of its kind, that there was significant Indigenous Knowledge learning, and that this community-based post-secondary approach could truly flourish in the future at Pikangikum.

## RESULTS – PROJECT PRODUCTS

One objective of the project was to adapt the curriculum for the Forest Ecosystem Management to accommodate local Pikangikum Indigenous Knowledge. A document containing suggested adaptations to the courses in the Forest Ecosystem Management was completed after the classroom delivery of the program. These suggested adaptations include Indigenous Knowledge that was brought to the classes by the Elders and bush experts along with additional content based on guidance from the Elders that could be brought to future community-based resource management education. This document is available from the Whitefeather Forest Initiative.

An additional product that was developed is a list of potential educational resources specific to Indigenous Knowledge in relation to the Whitefeather Forest, including planning documents that contain Indigenous Knowledge, background studies that have been done to support planning, along with research reports and selected articles.

*We had brave leaders that have laid the foundation for our youth to carry forward – refusing to allow forestry companies the opportunity to take over our lands. It is the youths' responsibility now. The land management agreement has lost hunting and trapping due to commercial pricing -- it is not a viable industry. We ... have to take care of the forest and through our knowledge and our people as the keepers of the land.*  
 –Paddy Peters, Land Planning Coordinator, Pikangikum First Nation.





## LESSONS – PEOPLE MATTER

The losses of two key Elders of the Whitefeather Forest Initiative Steering Group had a profound effect on the project during the early days. As well, changes in the provision of curriculum specialist services part way through the project had an impact. It meant that while delivery of the Forest Ecosystem Management courses by the College continued, there were gaps in curriculum specialist participation which could have enabled the Elders and the Instructors to take the most advantage of the educational opportunities presented by the project.

At the same time those who were very much present in the project made a crucial difference to the outcome, in some cases in unexpected ways. In addition to the Elders who took it upon themselves to attend classes and focus intensely with the co-op students, others who played a key role included:

- The Community Facilitator who helped with student attendance, worked with students on their assignments so that he understood their challenges, took them to his trapline to teach them how to survive from his experience as a bush expert.
- Those individuals familiar with the Whitefeather Forest Initiative, both from the Whitefeather Forest Initiative team and the partners in the Ministry of Natural Resources, who helped facilitate the role of the Elders and bush experts and provided important work experience opportunities.
- The members of the Confederation College staff, who helped to make space for the project in the delivery of the program and make space for the Elders in the classroom.



Elder Harry Quill teaching students and Japanese visitors how to make bannock-on-a-stick during the Indigenous Cultural landscape tour.

## LESSONS – RELATIONSHIPS MATTER

To the extent that Elders and other bush experts were involved, there was usually an individual or individuals with a prior relationship with, and therefore knowledge about, the Whitefeather Forest Initiative and the Elders, who helped facilitate that involvement. For example, Indigenous Knowledge instructor participation improved whenever the College Instructor had a prior relationship with the Whitefeather Forest Initiative.

Timmy K Strang at a bush “classroom”.



## LESSONS – TEACHING VENUE MATTERS

To approach the ideal of giving equal weight to local Indigenous Knowledge within the College curriculum, it is important to involve Elders and other bush experts in the classroom. At the same time, customary transmission of knowledge has not occurred in a classroom setting. Even Elders who have experience in the classroom are still likely to be more comfortable transmitting knowledge about the forest while being in the forest. As noted above, the community facilitator chose to bring students to his trapline for teaching.

As well, in the customary approach to stewardship, great deference is shown to those experts who have recognized knowledge of how to keep the land in the areas for which they have stewardship responsibilities. Given that collaboration with College Instructors is part of the teaching process, many Elders would show deference to Instructors and out of respect, may not want to interfere in the instructor’s space. This needs to be considered in the process of building strong cross-cultural teaching experiences in the classroom.







Member from the Whitefeather Forest Initiative Steering Group, with MNR Regional Director Alan Willcocks and Ontario Parks Director Bradley Fauteaux, at the celebration of the Forest Management Plan and Dedicated Protected Areas Partnership Agreement, June 2012.



Elder Tom Quill Sr. and Timmy K. Strang with students discussing silvicultural techniques in an area adjacent to the Whitefeather Forest during a forest seminar.

## GOING FORWARD

Based on lessons learned, we will take the following into account in future projects of this type:

- Ensure that there is a Community Facilitator with expert bush skills to support the students and support the inclusion of local Indigenous Knowledge
- Ensure that there is an educational specialist, either one of the Instructors or an additional service provider, throughout the life of the project, to facilitate the relationship between the Elders, Instructors, students; and to help ensure maximum educational benefits are derived from the project
- Be attentive at all times to cross-cultural relationship building, and make use of existing cross-cultural relationships
- Ensure that there are opportunities for learning outside of the classroom, in the forest, in work contexts.

The Generative Curriculum approach can be useful in a wide variety of contexts. In any context in which youth will benefit from the local knowledge of their Elders, this approach provides a pathway for inter-generational local learning in a formal educational context.

What it does not result in, is a static curriculum that can be put on the shelf for future use. The knowledge being shared, and the way it is being shared, is specific to the local context and to the individual teaching the knowledge, and will change over time. As such the approach requires commitment and flexibility, not only by the Elders and the youth but also by the educational institution involved.

It is a journey worth taking, we are excited about using it in the future, and we are willing to share more about our experience with anyone interested.

## Acknowledgments

The Whitefeather Forest Initiative, and in particular the Elders and bush experts of the Whitefeather Forest Steering Group and the Students of the Forest Ecosystem Management Program would like to thank the following for their contribution to our project :

- Pikangikum First Nation
- Ontario Trillium Foundation
- Confederation College
- Dr. Jessica Ball
- Ontario Ministry of Natural Resources
- Ontario Ministry of Aboriginal Affairs
- Whitefeather Forest ASEP Corporation
- Dr. Anita Olsen Harper
- Johnston Research Inc.

**Kitchi Miigwetch!**

Community Facilitator Timmy K. Strang and students Murray Quill, Max King and Warren Keeper with Elder Lucy Strang whose vision for education for the Whitefeather Forest Initiative inspired the Indigenous Knowledge Curriculum Project.

