



## SILVICULTURE FUNDING ANNOUNCED

The 1987/88 fiscal year promises to be a rewarding one for forestry — with FRDA providing \$1.97 million for Indian Forest Lands projects. This includes collecting inventory data, preparing management and working plans, carrying out backlog reforestation and intensive forest management activities.

At the Indian Advisory Board meeting held on April 10, 1987, a number of proposals were approved. A total of \$108,000 (CFS) will be spent on conducting inventories and preparing management plans for the Kwiakah, Tahltan, Iskut and Osoyoos Bands. A total of \$406,000 (CFS) is to be spent on backlog reforestation and intensive forest management on Penticton, Mount Currie, Chawathil, Anderson Lake, Alkali Lake, Canin Lake, Boothroyd, Katzie and Westbank Band lands this fiscal year. During the next two fiscal years these Bands will be spending \$1.12 million (CFS) on various silvicultural treatments. These funds however, are approved pending satisfactory completion of work carried out this year.

One of the Mount Currie Band projects, is the collection of Douglas-fir cones which will allow them to sow their own seeds. Both the Mount Currie and Katzie Bands propose to propagate cottonwood cuttings on some of their lands.

Some bands intend to use funds from the Indian Community Human Resource Development Strategy (ICHRDS) or the Canadian Employment and Immigration Commission (CEIC) for their 20% share of the total costs. The Anderson Lake Band have fine tuned this idea. They will pay 100% of the costs of treating 20% of the area



through ICHRDS (20% of total project costs) while the Canadian Forestry Service will pay 100% of the costs of treating the remaining areas (80% of the total project costs). To qualify, however, the area that is paid for by the Band must be treated according to the silvicultural prescriptions outlined in the management and operating plans to FRDA standards and the actual cost must be competitive with current contract rates.

Many bands are using consultants to prepare proposals for management plans and supervise silvicultural treatments. The consultants will ensure high quality proposals and high quality work. They can also be used to monitor the projects on behalf of the Band and

the CFS provided that a Registered Professional Forester signs the monitoring reports. Technicians can be used to supervise the work on a weekly or periodic basis. Consulting foresters will help bands get full value from the treatment and full payment for the program.

A few silviculture proposals were not approved by the Advisory Board because the Bands did not intend to pay 20% of the costs each year, although they would pay 20% of the total costs by the end of the third year of the project. The Board decided that the Bands must make a 20% contribution each year and that they must decide how much they can contribute so that a maximum funding level can be determined. Otherwise, their proposals were acceptable.

More silviculture proposals can still be accommodated, especially during the 1987 field season. Money is still available. All we require is an approved forest management plan in place and a proposal that meets our funding criteria. This information was sent out to bands earlier this year, so get in touch with us if you don't have them.

Funds are also still available for those bands that require an inventory and management plan. This step has to take place before the silviculture money can be assessed. ■

“One of the Mount Currie Band projects, is the collection of Douglas-fir cones which will allow them to sow their own seeds”

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PACIFIC FORESTRY CENTRE

# PLANNING A REFORESTATION PROJECT

by Eleanor Stoffelsen, R.P.F.

Prior to logging it is important to plan which silviculture system will be used to reforest your site to keep it in commercial forest production. This begins with planning the logging method used, and includes the site preparation after harvest (i.e., preparing the ground for planting or seeding) and reforestation method.

If you are going to plant the site, it is important to make a careful selection of the tree species, type of stock and the season of planting. These choices will be based on the type of forest present before logging (species composition, disease or insect problems, brush or deciduous component), and 'site' conditions (soil, drainage, slope) after logging and the local climate.

When you plant will depend on the species — some can be planted anytime, others only in the spring. It will depend on climate — a predictable summer drought, for example, would eliminate summer planting. Finally, it will depend on stock type — container seedlings may have a better survival rate than bare-root stock when species are planted in the summer. The availability of seedlings or planters may affect these decisions as well.

There are a great variety of seedling species available from B.C. nurseries including: white, Engelmann and sitka spruce; lodgepole and ponderosa pine; western hemlock; western red cedar; and Coastal and Interior Douglas-fir. A forester and a nurseryman should be consulted, however, when choosing seedlings. The stock-types available are variations of the two main types: bareroot and container grown seedlings.

Bare-root stock is grown in outdoor nursery fields, generally for two seasons, before being dug up in the late fall and packed and stored overwinter in coolers. Since the roots are unprotected it is very important to handle the stock carefully to avoid damage, especially during the planting phase.

Container grown seedlings, known as plug stock, are grown in greenhouses, for one or two seasons and come in a variety of types based on the size of the tube shaped root mass. A



transplant stock may be produced by planting a one year old plug in the outdoor nursery bed for the second growing season.

The quantity of stock to be planted on each hectare will depend on the species and site characteristics and the region in which you are working. B.C. Forest Service (BCFS) Regional Reforestation and Site Preparation Coordinators (listed below), will be able to provide regional stocking guidelines. These guidelines are based on past mortality experienced with different species and sites and should be consulted. Once you know the number of seedlings required on each hectare, you can quickly calculate your total needs.

The next step is to make an agreement with a commercial nursery (listed on page 3) to grow a quantity of seedlings of the required species and stock-type (called a sowing request). The usual time to order seedlings is in August or September and the cost (presently between 14 and 22 cents per seedling) and other details will be arranged in a contract with the grower. He will look after gathering or buying the seed; sowing; growing; packing and shipping the seedlings.

If you are unable to make a sowing request on time, it may be possible to buy a limited number of surplus seed-

lings. Inquiries can be directed to one of the nurseries (listed on page 3) or to the BCFS Regional Reforestation and Site Preparation Coordinators closest to you:

Vancouver	Larry Sigurdson 660-7581
Prince George	Mike Bruhm 656-6177
Prince Rupert	Gerry Pinkerton 847-7512
Kamloops	Mark Faliszewski 828-4166
Nelson	Bruce Fraser 354-6278
Cariboo	Warren Mitchel 398-4397

These people will be able to tell you:

- names and locations of B.C. Forest Service and commercial nurseries which have a surplus;
- species, stock-type and quantities available;
- when the stock will be available; and
- cost of the seedlings.

Unfortunately seedling surpluses will likely be identified at the end of the planting season when it may not be appropriate to plant, and the uncertainty surrounding the availability of surplus seedlings makes it difficult to plan your silviculture program.

# Forest Insect and Disease Survey in the Pacific and Yukon Region

As the forest land base is reduced and wood supply becomes critical, the need for forest management is intensified. Under these circumstances the impact of native insects and diseases and the threat of introduced pests is of increasing importance. The consequent demand for information which will allow good management decisions and indicate where more research is needed is rapidly increasing as well.

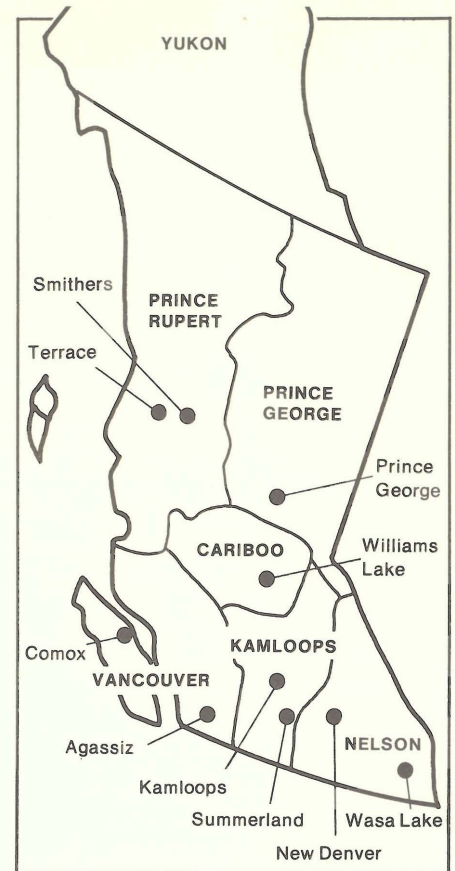
The Forest Insect and Disease Survey (or FIDS as they are more commonly known) has the responsibility for: (1) producing an overview of forest pest conditions and their implications; (2) maintaining records and surveys to support quarantines and facilitate predictions; (3) supporting forestry research with records, herbaria and insect collections; and, (4) providing advice on forest insect and disease conditions.

This group is the national network within the Canadian Forestry Service (CFS), who, with the cooperation of federal, provincial, industrial and municipal agencies carry out forest insect and disease detection, monitor-

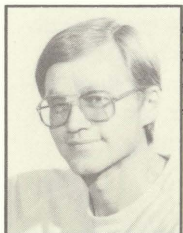
ing and damage appraisal. The six survey units within Canada maintain close liaisons with each other, provincial and federal agencies and with U.S. and international workers, to keep up to date on forest pest conditions, sampling procedures and damage assessment methodology.

## Who They are and What They do?

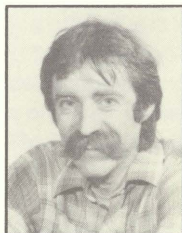
At the Pacific Forestry Centre (PFC), there are 19 positions within the FIDS organization headed by Dr. Allan Van Sickle. The 11 FIDS Rangers are supervised by Chief Ranger Colin Wood. From mid-May until late September the Rangers work from field stations throughout the six forest regions in B.C. and in the Yukon. Their regular reports are based on aerial and ground observations, pheromone traps, egg counts, plantation examinations, contacts with forestry workers, stand cruises, sketch maps, photographs, etc., most of which are supported by samples submitted for identification of the damaging agent.



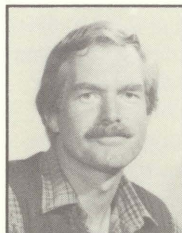
## 1987 FIDS Field Assignments



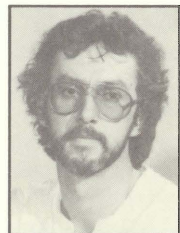
**BOB ERICKSON**  
Kamloops  
372-1241



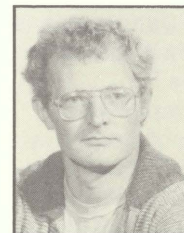
**JIM LORANGER**  
Summerland  
494-8742



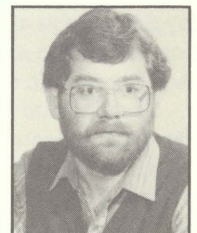
**PETER KOOT**  
Wasa Lake  
422-3465



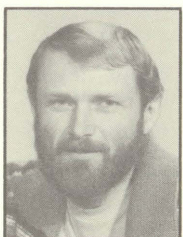
**JOHN VALLENTGOED**  
New Denver  
358-2264



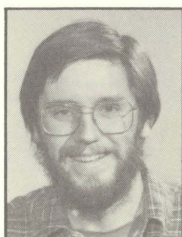
**ROD GARBUTT**  
Prince George  
963-7238



**ROD TURNQUIST**  
Prince George  
963-7238



**LEO UNGER**  
Smithers  
847-3174



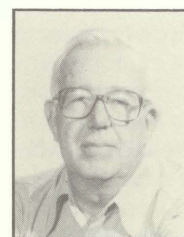
**ALAN STEWART**  
Terrace  
635-7660



**NICK HUMPHREYS**  
Agassiz  
796-2042



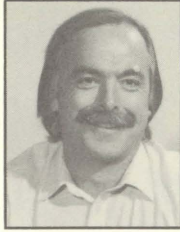
**BOB FERRIS**  
Comox  
339-4722



**DICK ANDREWS**  
Williams Lake  
392-6067



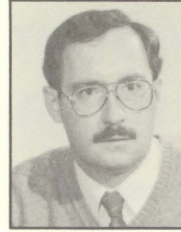
**ALLAN VAN SICKLE**  
Head, Forest Insect &  
Disease Survey



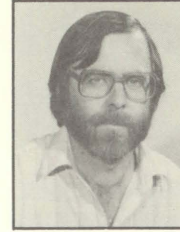
**COLIN WOOD**  
Chief Ranger



**JOAN STROBBE**  
Secretary



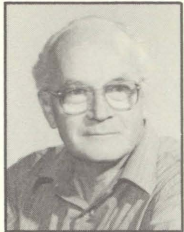
**LEE HUMBLE**  
Research Scientist,  
Insectary



**BOB DUNCAN**  
Technician  
Insectary



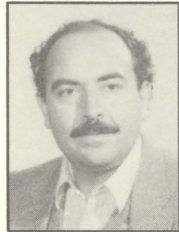
**ERIKA PASS**  
Technician  
Insectary



**AL FUNK**  
Research Scientist



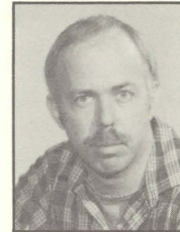
**DAPHNE LOWE**  
Technician  
Herbarium



**RENE ALFARO**  
Research Scientist  
Damage Appraisal



**EMIL WEGWITZ**  
Technician



**GEORGE BROWN**  
Technician

Verification of the damaging agents is performed by Herbarium and Insectary staff. A collection of 26 000 disease specimens representing 3300 organisms, as well as a collection of 66 000 insects representing 6000 different species; and all their associated records are essential for the correct identification of pests causing damage in B.C. and the Yukon. Dr. Al Funk, the pathologist in charge of the Herbarium and Daphne Lowe, Herbarium technician, provide identification services to clients of the CFS. The Insectary staff, headed by Lee Humble who is assisted by Erika Pass and Bob Duncan provide insect rearing as well as diagnostic and taxonomic services.

Equally vital is the work of the damage appraisal project headed by Dr. Rene Alfaro and assisted by Emil Wegwitz and George Brown. Working in close cooperation with FIDS, the research group is responsible for identifying types of injuries and determining the relationships between levels and duration of pest activity and the resulting tree and stand loss in increment mortality, form, etc. The detection and general overview surveys conducted by the FIDS rangers are basic to loss studies. The linkages between visible symptoms and loss must be derived. In turn these factors can be applied to annual survey results to estimate regional and national losses caused by forest pests.

Mrs. Joan Strobbe, FIDS secretary, types the many reports, letters and manuals, cheerfully answers the telephone and maintains general office efficiency and order.

### Communicating Survey Results

An important aspect of FIDS is the communication of information to operational levels of forest management agencies, parks, educational institutions, private individuals and other agencies. During the field season "Pest Reports" may be issued to alert local managers of new or threatening outbreaks. A regional report is prepared each fall which reviews the impact and status of major forest insects and diseases throughout B.C. and the Yukon for the current year, and forecasts some pest conditions for the following year. More detailed information for each provincial forest region is compiled and available. Contributions are also made to national forestry statistics and to a national FIDS report which outlines pest conditions in the forests across Canada. Scientific publications and checklists are also produced.

A great deal of the work of the FIDS unit at PFC involves liaison with provincial government agencies, particularly the B.C. Forest Service, Yukon Lands and Forests, other federal agencies

including Parks Canada, as well as the forest industry.

FIDS staff members contribute to various pest committees including the B.C. Forest Pest Review Committee, an inter-disciplinary group concerned with forest pest problems in the province.

Forest insects and diseases will increasingly influence how forests are managed. Detailed measurements of losses for a range of pests and situations can be combined with survey results to improve statistics and to guide research and forest management. FIDS in the Pacific and Yukon region is an integral part of the team required to solve major problems and reduce uncertainty in the complex, long-range management of forest crops.

Pacific Forestry Centre  
506 West Burnside Road, Victoria, B.C.  
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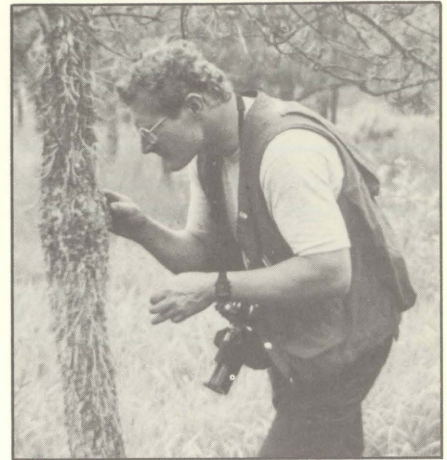
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## Commercial Nurseries

- |   |   |
|---|---|
| 1. <b>Arbordale Nursery</b><br>Courtenay, B.C.                                  | D. Hanson<br>338-1069                               |
| 2. <b>Arbutus Grove Nursery Ltd.</b><br>Sidney, B.C.                            | H. Stoffelsma, F. Westerman<br>656-4162             |
| 3. <b>Elmor Greenhouses</b><br>Nanose, B.C.                                     | F. Morris<br>468-7525                               |
| 4. <b>Hybrid Nurseries Ltd.</b><br>Pitt Meadows, B.C.                           | B. Morton<br>465-6276                               |
| 5. <b>Industrial Forestry Service</b><br>Prince George, B.C.                    | F. Donnelly<br>565-4115 Office,<br>967-4545 Nursery |
| 6. <b>Nuu-chah-nulth Tribal Council</b><br>Forest Nurseries, Port Alberni, B.C. | D. Jacobson<br>724-6333                             |
| 7. <b>J.C. Ostergard</b><br>Cumberland, B.C.                                    | J.C. Ostergard<br>335-2566                          |
| 8. <b>Pelton Reforestation Ltd.</b><br>Maple Ridge, B.C.                        | N. Pelton<br>465-5411                               |
| 9. <b>Reid, Collins Nurseries Ltd.</b><br>Aldergrove, B.C.                      | L. Glen<br>533-2212                                 |
| 10. <b>Riverside Nursery</b><br>Hedley, B.C.                                    | I. Nelson<br>292-8397                               |
| 11. <b>Ruff's Greenhouses</b><br>Prince George, B.C.                            | O. Ruff<br>963-7722                                 |
| 12. <b>Sylvan Vale Nursery Ltd.</b><br>Black Creek, B.C.                        | S. Jones<br>337-8487                                |
| 13. <b>Summit Nursery Ltd.</b><br>Telkwa, B.C.                                  | J. Kitchen<br>846-5882                              |
| 14. <b>Valentine Farm</b><br>Sidney, B.C.                                       | D. Eburne<br>656-4696                               |
| 15. <b>World Silviculture</b><br>Oliver, B.C.                                   | K. Stralbyski<br>498-4974/4975                      |
| 16. <b>Woodmere Nursery Ltd.</b><br>Smithers, B.C.                              | C. Kooistra<br>847-3488                             |
| 17. <b>Yellow Point Propagation</b><br>Ladysmith, B.C.                          | D. Piggot<br>245-4635                               |
| 18. <b>Daveron Nurseries Ltd.</b><br>Summerland, B.C.                           | David Lund<br>494-9225                              |
| 19. <b>Hammer Enterprises Inc.</b><br>Maple Ridge, B.C.                         | Rick Hammer<br>465-9393                             |
| 20. <b>Hi-Gro Silva Nursery Ltd.</b><br>Quesnel, B.C.                           | Colin Eves<br>992-5502                              |
| 21. <b>Jaro Forest Services Ltd.</b><br>Cumberland, B.C.                        | Arne Ostergard<br>336-2566                          |
| 22. <b>University of British Columbia</b><br>Vancouver, B.C.                    | Zika Srejic<br>228-6839/3543                        |
| 23. <b>Malaspina College</b><br>Nanaimo, B.C.                                   | Dieter Thomas<br>753-3245                           |



## FIDS FIFTY FIRST

**Please Note:**  
The Forest Insect and Disease Survey Insert.

The Forest Insect and Disease Survey, a unit of the Canadian Forestry Service, celebrated its fiftieth anniversary last year. The FIDS group is responsible for strict surveillance of insect and disease conditions in Canada's forests and have gained an international reputation for expertise in forest plant protection. If you think you have an insect or disease problem in your forest contact your local FIDS Ranger (see insert) or call the FIDS office at the Pacific Forestry Centre. ■

## U.S. Intertribal Timber Council Indian Forest Management Symposium

The five Native Advisory Board members, Alan Casimer, Harold Derickson, John Jackson, Thomas Pierre and Bill Wasden, will be attending a timber symposium entitled "Indian Forest Management: It's Not Just Trees" in Green Bay, Wisconsin from May 18 to 21, 1987. This symposium is being organized by the US Intertribal Timber Council and should prove to be an interesting and informative event.

More news on this after the symposium. ■

## New Advisory Board Member

Bill Wasden of the Musgamagw Tribal Council joined the Advisory Board as a regular member at the April 10, 1987 meeting. He brings, to the Board, extensive practical experience in managing natural resource projects

on the Coast as well as knowledge of the requirements of coastal bands.

Mr. Wasden replaced Elmer Derrick of Kitwancool, who left the Board following the completion of his term. ■

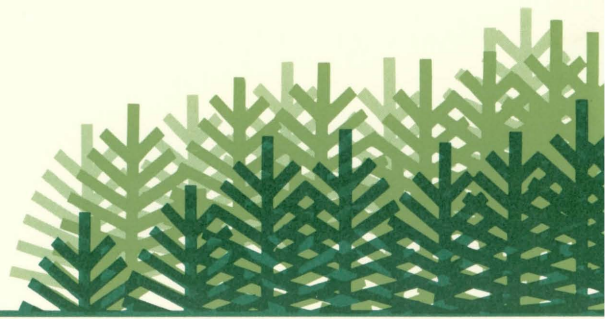


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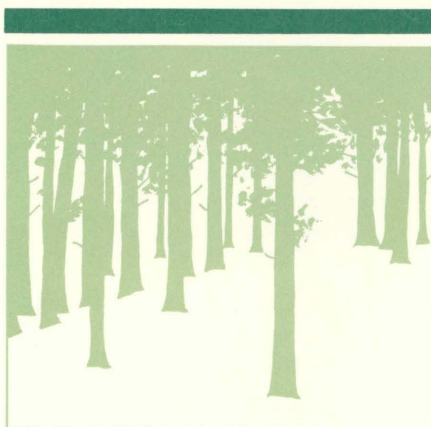
# WESTBANK INDIAN BAND'S ACQUISITION OF A WOODLOT

By Heather Rice, Westbank Band Forest Technician

B.C. Indian Bands are becoming more and more involved in forestry as they realize the potential their reserve lands hold for forestry development activities. The opportunity for the creation of training and employment projects for natives within their own communities as well as long term financial and social benefits to the Band exists in the development of reserve lands into economically viable forests. It was for these reasons that the Westbank Indian Band began researching the possibilities of obtaining a woodlot licence from the B.C. Forest Service (BCFS). The Band's Indian Reserve (I.R. #7) lands are located on two parcels, separated by an area of Crown land. It was determined that by including the Crown land in their forest management plans for the I.R. #7, they would increase the forestry potential and provide additional employment opportunities for Band members.

The first step in obtaining the woodlot was to contact the BCFS to determine the status of this land. The BCFS responded, indicating that the land was available as a woodlot; but before the Band could obtain the licence a number of procedures had to be followed: a registered professional forester (RPF) had to survey the Crown land and determine its forestry potential; the Band had to submit a woodlot licence application which included a forest and legal description of the lands to be encompassed; a \$200 deposit had to be made and a resume had to be submitted indicating the Band's capabilities to manage the woodlot.

Once the application was approved



by the BCFS it had to be advertised so that other interested parties could apply for the licence. The Westbank Band also had to reapply in response to the advertisement. No other applications were received, therefore, the final approval came through. Upon approval of the licence the Band hired an RPF consultant to prepare a Five Year Management and Working Plan for the woodlot. The management plan was submitted to the BCFS District Office and final approval was granted in the spring of 1987 when the Westbank Band was issued the licence.

Assistance from many agencies is available and should be used when applying for a woodlot licence. The Band received aid and information from Indian and Northern Affairs Canada, the RPF consultant and the BCFS. Using these resources leads to a better understanding of the application procedure and may help hasten the process.

The Westbank Indian Band's woodlot has an Annual Allowable Cut (AAC) of 1 050 m<sup>3</sup> on 391 hectares. This AAC along with silvicultural activities such

as spacing and pest control, could create over 100 man days of employment annually. The woodlot and the I.R. #7 lands contain a selection of mature Douglas-fir, yellow and lodgepole pine with minor amounts of western larch. In total the area that Westbank is committing to forestry development from their reserve lands (under the Indian Forest Lands Program, a federal sub-program of the Canada-British Columbia Forest Resource Development Agreement) equals some 414 ha. With the 391 ha of Crown land plus the reserve land the Band will be managing over 800 hectares of mature forest. The Band has hired a full-time Forest Technician to oversee their forestry activities as they continue to expand. These activities, along with the grazing of cattle on their grazing licence lands, will allow the Westbank Indian Band members increased financial opportunities and will allow them to return to a traditional use of the land. ■

## TREE TALK

Indian Forest Lands Program

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