

Family forest stewardship coached planning in Washington State, USA

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ABSTRACT

From 1992 through 2005, approximately 1,100 family forest owners in Washington State participated in a Forest Stewardship Coached Planning short course conducted collaboratively by Washington State University Extension (WSUE) and the Washington State Department of Natural Resources (WDNR). The multi-session short course is designed to provide forest stewardship education and to assist private forest landowners in writing their own forest stewardship management plans with guidance and "coaching" by natural resource professionals. A 2006 survey of past course participants had a 60% completion rate. The course has proven to be a highly successful approach for educating family forest owners and improving management of their forests. As a result of the course: 96% of the respondents had a better understanding about management options and 73% implemented a practice they would not have done otherwise. Management planning is high among the respondents with 60% having a written plan; 55% having completed a written plan as a result of the course, and 5% who already had a written plan prior to the course. Course participants expressed strong interest in attending future topic specific forest stewardship classes. Ninety-nine percent of participants would recommend the course to others.

INTRODUCTION

Family forests or non-industrial private forests (NIPF) are important in Washington State, totaling 1.2M ha or nearly 20% of Washington State's total

forestland held by an estimated 100,000 family forest owners. Since 1992, approximately 1,100 family forest owners in Washington State attended a Forest Stewardship Coached Planning short course conducted collaboratively by Washington State University Extension (WSUE) and the Washington State Department of Natural Resources (WDNR). The multi-session short course is designed to provide forest stewardship education and to assist private forest landowners with writing their own forest stewardship management plans with guidance and "coaching" by natural resource professionals.

Written forest management plans have long been viewed as important tools for building stewardship among family forest owners. Not only do plans foster sustainable forestry, but they also serve to educate and engage family forest owners (Munsell and Germain, 2004). Esseks and Moulton (2000) report that over three-quarters of NIPF owners implement their respective plans. Munsell and Germain (2004) suggest that family forest owners active in forestry extension programmes are more likely to have a forest management plan and that the likelihood increases with greater participation. They found that extension programmes transfer stewardship values and sustainable forest management information, and in turn, written management plans increase the frequency and likelihood of implementation. In Washington State, Baumgartner et al. (2003) found that users of WSU Extension are more likely to conduct active forest management projects, and may have a clearer understanding of the multi-use capabilities of their forests.

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PRIVATE FOREST MANAGEMENT PLANS IN WASHINGTON STATE

In Washington, there are three basic types of forest management plans: tax plans, commercial production plans, and stewardship management plans. Each type of plan may or may not contain the same level of information; much depends on the author and the owner's goals. Tax plans usually contain only the "bare bones" information required to receive reduced tax rates. Commercial production plans are strongly oriented to the production of commercial forest products, i.e., growing forests to produce the most volume of good quality wood in the shortest time frame possible. Forest Stewardship Plans contain more detailed information than tax plans and are more oriented to forest ecosystems than commercial plans (Sachet, 2006).

Forest stewardship plans are products of the Forest Stewardship Program created by the Cooperative Forestry Assistance Act of 1988. A primary goal of the programme is the development of comprehensive, multi-resource management plans that provide landowners with information to manage their properties for a variety of products and services. The programme provides technical assistance through state forestry agency partners to encourage owners to develop the plans.

In Washington State, there are three primary ways for family forest owners to get a stewardship plan: 1) hire a consulting forester to write the plan; 2) participate in Personal Coached management plan writing with a DNR forester; or 3) attend a Coached Forest Stewardship Management Plan course.

For the period 1997-2005 inclusive (9 years), the Washington DNR has approved 2,992 Forest Stewardship Plans on 91,987 ha for an average of 332 plans per year on ownerships averaging 31 ha (Gibbs, 2006). We estimate that of all DNR approved plans, 75% are written by consulting foresters, 5% through personal coached plan writing, and 20% by participants of a coached forest stewardship plan writing course.

Private Consultant Prepared Plans

Hiring a consultant is usually the quickest way to get an acceptable written plan. The WDNR and WSUE have a list of consultants that provide such services. The cost for a plan covering 30 ha ranges from \$500 to \$1,500; the cost rises accordingly with the addition of an intensive timber inventory. In some circumstances, there is a government funded cost-share programme that will provide up to 75% (or \$800 maximum) of the consultant's fee. Cost-share plans must meet minimum criteria and be approved by a WDNR forester.

Personal Coached Stewardship Plan

Under this method, the owner works directly with a WDNR forester who makes a site visit, helps set management goals if needed, and provides information or sources to begin putting the plan together. The family forest owner produces a rough draft of a plan that the WDNR forester reviews, makes suggested changes, and returns. There may be a couple of revisions before a plan is finalized. The advantage of this method is landowner cost savings; the disadvantage is the time it takes to complete the plan. WDNR foresters are spread very thin, with work schedules usually committed two or more weeks in advance. This method generally takes 45 to 90 days to produce a completed plan.

Forest Stewardship Coached Planning Course

WSU Extension and WDNR Stewardship Forestry cooperatively conduct classes at different locations in Washington. The course is designed to give students a basic understanding of setting forest management goals, forest ecology, forest soils, wildlife management, forest insects/diseases, silvicultural practices, and more. The course also includes a site visit by a WDNR forester or wildlife habitat specialist. The goal of the course is to provide the basic information and methods needed for family forest owners to write their own plans and often provides owners with help similar to the Personal Coached Stewardship Plan process. Instructors change for various offerings of the course, but, in addition to WSUE and WDNR

employees, private consultants and employees of other public agencies provide information. Course participants receive a notebook of Extension and related reference publications. This notebook becomes a reference library and study materials for the participants.

WSUE/WDNR FOREST STEWARDSHIP COACHED PLANNING SHORT COURSE

The first forest stewardship coached planning course in Washington was offered in 1992. To encourage action beyond the Extension classroom, Arno Bergstrom, WSUE Field Educator, in collaboration with Don Theoe, WDNR, reworked a concept from Montana State University Extension to involve owners in the plan-writing process. Partial funding to initiate the programme came from the USDA. Forest Service Cooperative Programs. What evolved is a 6 to 9 week course, one night per week (2+ hours) plus a Saturday field trip, which costs about \$150. Landowners learn useful information about their forests and with guidance from instructors, are encouraged to write their own forest stewardship plans. The course is offered in various locations through out the state each year. The length and content of the course varies depends on the course location. The typical curriculum includes:

- Introduction to Forest Stewardship and Personal Goals
- Maps and Property Descriptions
- Introduction to Forest Ecology
- Inventory of Forest Resources, Field Equipment and Tree Measurements
- Silviculture Techniques and Alternatives, and Site Regeneration
- Fish and Wildlife Habitat Identification, Inventory and Enhancement
- Forest Soils
- Riparian Areas and Water Quality Issues
- Forest Health
- Special Forest Products and Cultural Resource Protection
- Taxes, Legal Issues, Forest Practice Regulations, and Incentive Programmes

Course participants who complete a multi-resource Forest Stewardship Plan for their property

may submit the plan for approval to participate in the Forest Stewardship Program administered by the Washington State Department of Natural Resources. Landowners with approved plans may qualify for reduced "current use" property tax rates from the county assessor, as well as federal cost-share programmes that provide monetary incentives for such practices as pre-commercial thinning, upgrading of culverts, and rehabilitation of sites that have been taken over by noxious weeds. Owners with approved plans are qualified to have their property recognized as a "Stewardship Forest" upon plan implementation. Also, the American Forest Foundation accepts Forest Stewardship Plans for Certified Tree Farm® requirements. Upon request, participants get an on-the-ground, personalized consultation by a WDNR Forest Stewardship Forester or biologist or both to discuss plan development and implementation.

Forest Stewardship Coached Planning Participant Survey

Washington State University Extension evaluated this programme by conducting a survey of past participants. The objective of this survey was to go beyond the end of the course evaluation and assess impacts of the course on landowners. In addition to deriving a profile of course participants, one goal of the survey was to find out how many participants wrote stewardship plans after completing the course. Another goal was to find out what forestry practices they had implemented since taking the course. Finally, WSUE wanted to find out about landowner interest in advanced stewardship courses.

Survey Methods

During the winter of 2006, a questionnaire was mailed to one member of all the families who took the WSUE Forest Stewardship Coached Planning Course between 1992 and 2005. The Social and Economic Sciences Research Center (SESRC) at Washington State University conducted the survey. Dillman's total design method was used to conduct the survey with a three-wave mailing (Dillman 2000).

We were able to locate addresses for 1,115 family forest ownerships that had participated in the coached planning course. Some addresses were lost over time, so the actual number of course participants is likely to be 10% to 20% higher. The response rate was 50%, but after removing the undeliverable and ineligible mailings, the completion rate was 554 surveys or 60%. Seventy-five percent of the respondents had attended a Forest Stewardship Coached Planning short course within the past five years. It appears that the response rate was higher for more recent course attendees partly because most of the 158 undeliverable addresses in the database were from course attendees from the early years.

RESULTS

Respondent Profile

Course participants averaged 67 ha of forestland with a median of 8 ha. The average and median age of the principal decision maker was 58 years. Respondents are highly educated with 87% having attended college. The principal decision-makers were: male 53%, female 18%, and 29% made joint family decisions. Household income was more than \$51,000 for 60% of respondents, with 28% making more than \$100,000. Retired individuals made up 37% of respondents, followed by those employed full-time at 32%, and other self-employed at 19%. (Table 1)

Landowner Motivations

Although the course is marketed and taught with the completion of a written management plan as a primary focus, only 58% of respondents indicated that this was one of their reasons for taking the course (Table 2). Learning how to manage and understand their forest resources were the most cited reasons for taking the course. Eighty-two percent of respondents indicated that learning about forest stewardship planning and management was the reason they took the course and 66% took the course to learn more about forested and other ecosystems. Qualifying for reduced taxes was important to 31%.

TABLE 1. Profile of survey respondents.

Characteristic	Range	Percent
Age (n = 514) (median 58 years)	<40 years	4
	40 – 55	38
	56 – 70	43
	+70	15
Education (n = 520)	Never attended school	0.2
	Elementary School	0.2
	High School	9
	Trade School	5
	Some college	42
	Graduate school	43
Employment (n = 488)	Retired	37
	Employed Full-time	32
	Other Self-employed	19
	Employed Part-time	6
	Self-employed Farmer/Rancher	4
	Homemaker	2
Income (n = 440)	0 - \$25,999	9
	\$26,000 – \$50,999	31
	\$51,000 – \$75,999	23
	\$76,000 – \$100,000	18
	\$100,000 +	28
Hectares owned (n = 530)	< 4	22
	4 – 19	52
	20 – 40	11
	41 – 161	5
	+161	10
Years owned (n = 522)	< 5 years	16
	5 – 14	33
	15 – 29	27
	30 – 79	21
	80+	2
Principal Decision-Maker (n = 517)	Male	53
	Female	18
	Joint family	29

TABLE 2. Reasons for attending the Forest Stewardship Coached Planning Course

Reason for taking course	Percent
To learn more about forest stewardship planning and management	82%
To learn more about forested and other ecosystems	66%
To write a forest stewardship plan	58%
To enroll or continue enrollment in tax incentive programmes	31%
To learn more about technical assistance	26%
To learn more about educational assistance	16%
To learn more about cost-share programmes	15%

(Respondents could select more than one reason)

Forest Stewardship Planning

Writing a forest stewardship plan was a reason that 58% of the respondents took the course (Table 2) and 55% completed a written plan (Table 3). Stewardship planning was high among the respondents with 60% having a written plan; 55% having completed a written plan as a result of the course and 5% who already had a written plan prior to the course (Table 3). Including another 8% who have a mental plan and don't believe they need a written plan, 68% of respondents have purposeful plans for their forests. And having a written plan was of interest to many who did not complete one; lack of time (8%) and the need for more technical assistance (5%) were other leading reasons for not writing a plan.

Plans completed through the forest stewardship coached planning course method covered an average of 32 ha per ownership with a median size of 8 ha. This reflects that there were a few very large ownerships for which plans were written. Some plans were written for properties of less than one hectare and 10% of the plans were for properties over 56 ha.

Planning was a family effort. Family members played a large role in the writing of the plans; 70%

TABLE 3. Written management plans

Status of plan	Percent
Completed a written forest stewardship plan during or after the course	58%
Already had a written plan	5%
Did not write a plan because I know what I want without a plan	8%
Did not write a plan because I have not had time	7%
Did not write a plan because I need more technical assistance	2%
Did not write a plan – other	15%

indicated that a spouse helped with the plan, children helped with 13%, and other family members with 20% of the plans. This “family approach” may be a key factor in the strong follow-through in implementing forest stewardship practices. In many instances, a husband and wife or multiple family members attended the course. Although we don't have exact records, we estimate that a total of over 2,000 family members attended the course representing the 1,100 family forests that participated.

Knowledge Gained

The course has been very successful in imparting new knowledge to family forest owners. Over 90% of respondents indicated that they learned useful information about 7 of the 12 major course topics. In addition, 96% to 98% learned useful information about forest health, improving/protecting wildlife and fish habitat, growing or caring for trees, and forested ecosystems. More than 80% reported learning useful information on 3 of the 12 topics, and over 70% learned useful information about 2 of the 12 topics (Table 4). As a result of taking the forest stewardship coached planning course, 96% of all respondents said they had a better understanding about management options for their forestland.

Attending future forest stewardship courses is of high interest to many of the respondents. It appears that there is strong interest for additional or advanced forest stewardship courses for forest stewardship coached planning graduates (Table 5).

TABLE 4. Percent of respondents who learned useful information.

Topic	Percent
Forest health	98%
Improving/protecting wildlife and fish habitat	97%
Growing or caring for trees	97%
Forested ecosystems	96%
Forest soils	94%
Mapping/describing my property	92%
Timber and wood products	90%
Improving/protecting water quality	86%
Protecting property from wildfire	85%
Special forest products/agroforestry	82%
Forest recreation, aesthetics, & cultural resources	77%
Threatened and endangered species	71%

When presented with a list of 25 potential topics for future courses, most respondents indicated that they were somewhat to very interested in all of the potential topics. Some respondents were very interested in even the lowest rated topics of grazing management and fisheries enhancement; because many owners don't have fish-bearing streams or graze livestock, it does not mean these topics are unimportant to those who deal with these topics.

Forestry Practice Implementation

As a result of taking the course, 73% of the respondents reported implementing a forestry practice that they would not have done otherwise. And when questioned about specific forest stewardship practices undertaken or possibly undertaken in the future, respondents reported a wide variety of practices. These practices reflect the individual and differing interests and resources of the course participants. Table 6 reports the top four stewardship practices undertaken or contemplated in the following categories: growing or caring for trees, improving/protecting wildlife and fish habitat, improving/protecting water quality, and forest recreation/aesthetic enhancement. Considering that most of the

TABLE 5. Interest in attending future/advanced forest stewardship courses.

Topic	Percent "somewhat to very interested" in attending
Forest insects and diseases	82%
Tree/plant identification	80%
Ecosystem management	77%
Fire protection	76%
Wildlife habitat enhancement	76%
Thinning	76%
Reforestation	73%
Brush control	72%
Wildlife identification	70%
Forest practice laws	70%
Forest estate planning	65%
Forest inventory	64%
Forest soils/fertilization	64%
Animal damage control	62%
Non-timber forest products	59%
Water quality	59%
Streamside/wetland vegetation	56%
Harvesting/selling timber	55%
Taxes and record keeping	52%
Hardwood management	52%
Conversion from brush & hardwoods to conifer forest	51%
Road construction and maintenance	43%
Fisheries enhancement projects	36%
Grazing management	27%

TABLE 6. Top five stewardship practices undertaken or planned.

Practice	Percent	
	Yes	No, but maybe in future
Growing or caring for trees		
Control competing grasses, weeds, or brush	73%	23%
Plant trees or shrubs	69%	26%
Pruning	64%	28%
Non-commercial thinning	49%	37%
Site preparation prior to planting trees	49%	37%
Improving/protecting wildlife and fish habitat		
Control non-native vegetation	72%	23%
Create snags or downed woody debris for wildlife	63%	27%
Retain “wildlife trees” during harvest activities (above minimum required)	44%	43%
Plant trees and/or shrubs specifically for wildlife	40%	46%
Install nest boxes or platforms	33%	53%
Improving/protecting water quality		
Maintain roads/culverts to ensure drainage and minimize erosion	52%	26%
Restrict stream and vehicle access to protect soil	39%	27%
Seed for erosion control	33%	40%
Install erosion control devices on roads	29%	35%
Close, rehabilitate, or abandon roads	15%	25%
Forest recreation/aesthetic enhancement		
Create/maintain trails	65%	25%
Thin/prune for aesthetics	56%	30%
Plant trees/shrubs for aesthetic purposes	49%	34%
Allow individuals to access with permission for hunting, hiking, etc.	38%	22%
Activities to improve aesthetics for outside viewers	36%	30%

respondents completed the course in the past 5 years, the amount of activity undertaken is somewhat remarkable.

Recommend Course to Others?

Perhaps one of the strongest indicators of how respondents valued the forest stewardship coached planning course is whether or not they would recommend the course to other landowners. It was almost unanimous — 99% would recommend the course to other landowners.

Comments and Testimonials

Also, the comments offered by the respondents are particularly telling. Here are some of the comments and testimonials volunteered by survey respondents:

“I thought I knew quite a bit about forestland because I previously owned 80 acres, but after I took the class, I really learned volumes more and was able to help my parents, who still own a family farm and timberland. A description of the class would be WOW!”

“I thought the Forest stewardship class was excellent, one of the most informative I have ever had. I highly recommend it to everyone who has property.”

“Love the people associated with this programme! Everyone I've met is smart, patient, and into the subject matter. I've been very impressed by the overall organization of this programme, its pricing, etc. I hope to persuade more people to seek out/attend future events/trainings.”

“The class provides an extraordinary opportunity to learn what I need to know to be a

steward of my land and its resources and wild inhabitants.”

“Because of the course, my stewardship plan is considered "professionally prepared" by DNR Foresters, Fish and Wildlife Agents and Private Forester recertifying tree farm. Thanks to you all!”

“I thought the stewardship course was outstanding. It is the kind of programme that makes a citizen proud of government and pleased to pay taxes to support it. Thank you!”

“Very useful information; format covered wide range of topics, some I had not considered before; very helpful in organizing management strategy and goals for the future - Highly recommended; in fact - 2 friends of mine attended the course at my suggestion and recommendation. Thank You!!”

“I've taken quite a few different classes in my life, but this class was the best one by far. From the teachers, to the specialists that came in every week, they were informative, and kept my interest. It's made such a difference by having a plan, I'm focused and on schedule! Thanks again!”

“I found the class very rewarding and enjoyed it very much so. All though I have not completed the "forest plan," the class helps me think "what if.” I was hoping to work on the plan this winter but work and kids keep me very busy. This is a very good programme and hope you keep it going for other landowner's. Thank you again.”

“I enjoyed the course and learned a lot of general forestry information. I think it was well worth my time spent even though I didn't write my own stewardship plan.”

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