

WUHLFORD HOP IN POLITICAL THEORY  
AND POLICY ANALYSIS  
513 NORTH PARK  
INDIANA UNIVERSITY  
BLOOMINGTON, INDIANA 47405-3186

**Linking Management of Private Resources to  
Protection of a Common-Pool Resource:  
An Institutional Analysis of the Washington State  
Forests and Fish Plan**

by  
Shane Day

Presented at the Institutional Analysis and Development Mini-Conference and  
TransCoop Meeting, Humboldt University/Indiana University,  
December 13<sup>th</sup>, 14<sup>th</sup>, and 16<sup>th</sup>, 2002, Workshop in Political Theory and Policy Analysis,  
Indiana University, Bloomington, Indiana, USA



In 1999 the National Marine Fisheries Service declared several "ecologically significant units" (ESUs) of Pacific Northwest Salmon as "threatened" or "endangered" under the Endangered Species Act<sup>1</sup>. While several other ESUs had been listed as threatened or endangered before, two of the populations listed as threatened this time, Puget Sound Chinook and Hood Canal Chum, used spawning grounds coterminous with various urban populations in the greater Seattle metropolitan area. This listing represented the first time the ESA was being invoked to help save a species existing directly within a major metropolitan area. Not surprisingly, the listing caused a great amount of concern and uncertainty for urban dwellers in western Washington State, who at arms length had listened for years to complaints from rural residents and farmers who had dealt with ESA listings pertaining to salmon in eastern Washington and Oregon, and set forth a major flurry of policy activity amongst local politicians and interest groups.

Even before the listings became official, the Governor of the State of Washington set about to develop a restoration plan designed to meet the requirements of the ESA and quell fears amongst the citizens of Washington State pertaining to the potential costs involved. This action was meant to clearly indicate the State's willingness to address the issue holistically, by seeking to address every potential cause of salmon decline and not placing the burden of responsibility on any particular party, and its willingness to work collaboratively not only with federal regulators, but potentially regulated economic sectors and individuals. This approach led to collaborative rulemaking on a sector-by-sector basis, and included a variety of actors beyond the usual actors, regulated industry and the particular regulatory agency with oversight, engaged in command-and-control regulatory schemes. The State's effort at addressing the

<sup>1</sup> **Federal Register, Vol. 64, No. 56: March 24, 1999**

impacts of forestry practices on salmon habitat, known by many names but most commonly as the "Forests and Fish Plan", was the first such effort at collaborative rulemaking at the sector level.

Institutional analysis is potentially useful in answering several questions pertaining to this unique case. Using the Institutional Analysis and Development Framework (IAD) developed by scholars at the Workshop on Political Theory and Policy Analysis under the leadership of Elinor and Vincent Ostrom, (particularly focusing on its examination of multiple levels of analysis and exogenous factors affecting the institutional environment) I hope to answer the question of why the Forests and Fish Plan, a "voluntary" form of self-regulation, was established and what principles were most influential in forming its structure. I will also provide a preliminary evaluation of the implications of the institution and the potential for actor compliance, which will include a discussion on the importance of third party monitors and how they are meant to ensure compliance with the rules-in-use. Furthermore, I will examine existing literature pertaining to voluntary self regulation in environmental policy, and I will show that the institutional change towards voluntary agreements in environmental policy identified by John Maxwell and Thomas Lyon is similarly applicable to issues of natural resource management.

### **Physical and Material Conditions**

Salmon have a unique life cycle that makes the species susceptible to a variety of natural and man-made threats. Because salmon are anadromous, meaning they spend portions of their lives in freshwater and saltwater, they face different threats to their survival in each environment. Obviously, salmon are faced with natural predation from killer whales, sea lions, humankind, and other predators while at sea. Furthermore, long time-scale changes in ocean temperatures, known as the Pacific Decadal Oscillation phenomenon, have been shown

to impact salmon migrations, exacerbating predation at sea, and data suggests a strong correlation between ocean temperature and reproduction numbers<sup>2</sup>. But salmon face their greatest threats in freshwater, where they spawn and where juveniles live for up to over a year before heading out to sea. Here adults are subjected to predation on their way to their spawning grounds by a variety of natural predators, and are harvested by humans, by both commercial and recreational interests. Thus salmon are appropriated by humans in both freshwater and saltwater environments. Yet the greatest incidence of salmon mortality during their entire life cycle occurs during their juvenile phase. Of the some **2000-2500** eggs that are laid by a female, only around 6 survive to maturity and move on to the ocean environment<sup>3</sup>. Furthermore, the spawning habitat of wild salmon is susceptible to a number of impacts from human activity. These include but are not limited to, pesticide run-offs from agriculture, sedimentation of spawning beds that prevents sufficient oxygen being supplied to hatchling eggs, rising water temperatures that kill juvenile fish, blockage of fish passage by hydroelectric dams and other man-made barriers, and competition from genetically inferior hatchery-raised fish<sup>4</sup>. The variety of human impacts on salmon has been generally categorized into the "4 H's": Habitat, Harvest, Hatcheries, and Hydropower<sup>5</sup>.

Habitat impacts are the predominate concern pertaining to the effects of forestry practices on fish. Forest practices produce various negative externalities, predominately sedimentation of spawning beds and deterioration of water quality as a result of road construction and clear cutting on steep slopes, which exacerbates erosion. In addition, the cutting of trees in close proximity to a stream, an ecological zone called the "riparian zone",

<sup>2</sup> For more on this consult Mantua, et al.

<sup>3</sup> Statistics vary by species, due to variations in juvenile life cycles and the number of eggs a female carries, but the survival statistic is generally indicative for all species. For more information go to <http://www.wa.gov/wdfw/fish/chum/chum-3d.htm>

<sup>4</sup> For an excellent introductory overview, see *Upstream: Salmon and Society in the Pacific Northwest*.

eliminates shade which results in higher water temperatures and diminished capability to hide from predators. Removal of woody debris from streams also takes away juvenile rearing habitat necessary for hiding from predators<sup>6</sup>. The Forests and Fish Plan was designed to address these varieties of forest practices that affect salmon.

### **Attributes of the Community**

Salmon hold a significant iconographic status for the people of the Pacific Northwest. Beyond native populations, which have long accorded salmon significant religious and cultural value, non-native populations have adopted salmon as a symbol of their identity as Northwesterners. This is clearly evidenced by poll data which show a majority of residents agreeing that "restoring the wild salmon runs is more important than the economic problems it may cause", and with only 35% of respondents suggesting that economic considerations should outweigh environmental ones<sup>7</sup>. Furthermore, the aforementioned poll shows that respondents display a remarkable willingness to pay *both* higher taxes and higher electric bills in order to restore salmon. Clearly, salmon hold an important status for the majority of citizens in the Pacific Northwest.

That being said, the Elway Poll data also illustrates the popular conception that the main factor behind the decline in salmon populations is over fishing. When asked to indicate what they thought were "the major reasons for the decrease in salmon runs", 63% identified over fishing, as opposed to 32% who suggested loss of habitat. Interestingly however, Elway followed this open-ended question with a question about which of the "4 H's" was most harmful to salmon runs, to which 45% of respondents identified habitat as opposed to 30%

<sup>5</sup> These are the core elements of the *Statewide Strategy to Recover Salmon: Extinction is Not an Option*

<sup>6</sup> Information in this section compiled from the *Statewide Strategy to Recover Salmon: Extinction is Not an Option*.

<sup>7</sup> The Elway Poll, May 1997.

for harvest, 14% for hydropower, and 2% for hatcheries. The percentage of people identifying habitat, incidentally, was up from 29% just 3 years earlier, a significant increase. The discrepancy between responses to the two different questions could be interpreted as suggesting that fishing was seen as the initial culprit in salmon decline, but now habitat issues are the primary concern pertaining to our ability to ensure recovery. Nevertheless, what these data indicate is a propensity of citizens to play the "blame game" when it comes to responsibility for the problem and who should bear the costs of restoration. Despite strong scientific evidence and consensus that habitat issues are the primary concern pertaining to salmon decline and recovery, a good portion of the general public still ascribes a high degree of responsibility to the fishing industry.

Despite the concern shown for salmon recovery, people of the region have also historically leaned toward political conservatism and distrust of the Federal government, and have a checkered past with the Endangered Species Act. In the late 1980s, when the northern spotted owl was listed under the federal Endangered Species Act, timber harvest was significantly curtailed on public lands to accommodate the habitat needs of the owl and other species dependent on old-growth forests. This was a very divisive issue and raised several very vocal objections to the costs generated by the ESA, which were estimated to cost up to 28,000 jobs<sup>8</sup>. During the Northwest Forest Summit in 1993, President Clinton tried to diffuse the crisis and develop ways of protecting spotted owl habitat without completely shutting down the timber industry on public lands<sup>9</sup>. This legacy of "lines drawn in the forest" continues to divide citizens in Washington State, and is the source of much apprehension surrounding the utilization of the ESA.

<sup>8</sup> For a synopsis of the debate see Andre and Velasquez.

See La Tourette and Luscombe.

In addition, Native American tribes have a unique legal status pertaining to salmon. The landmark 1974 U.S. District Court ruling known popularly as the "Boldt Decision" upheld the earlier treaty rights of tribes in the Northwest to manage fisheries and equally share in the harvest of fish in their traditional fishing areas. Under this decision, tribes are granted 50% of the salmon harvest, and State regulations which "go beyond conserving the fishery to affect the time, place, manner and volume of the off-reservation treaty fishery" are determined to be illegal. The decision furthermore established the tribes as co-managers of the resource, and guaranteed their "position at the table" for any measure potentially impacting management of salmon<sup>10</sup>. In the years preceding and immediately following the decision, there were often violent altercations between tribes and non-tribal recreational and commercial fishing interests, and a commonly-held perception that tribal harvests were the source of salmon decline. However, nowadays the tribes have become accepted members of fishery management regimes, thanks to the Boldt decision, and remain very vocal and influential on conservation issues.

### **The Need for Multiple Levels of Analysis: Federal Law, State Recovery Plans, and Sector-Specific Legislation**

Because rules are nested within other sets of rules that define how and under what circumstances lower-order rules are to be changed, it is useful to distinguish between multiple levels of analysis<sup>11</sup>. In the case of endangered species preservation, *constitutional-choice level* rules are prescribed by the Endangered Species Act, which determines whether a problem exists, how rules and plans for addressing the problem are to be constructed, and whose behavior shall be regulated. At the *collective-choice level of* rules is the Washington State Governor's

<sup>10</sup> See Frank, Jr. for a Native perspective of the implications of the Boldt decision.

<sup>11</sup> See Ostrom, Gardner, and Walker, pg. 46-47, as well as Ostrom (forthcoming), Chapter 2.



Strategy to Recover Salmon, which prescribes what economic sectors and actors shall be focused upon for bearing the burden of salmon restoration, and devises different sets of rules to the specific sectors and actors. At the *operational* rule level is the Forests and Fish Plan, which is set of rules pertaining to a specific economic sector, private forest land owners, through using a system of forest practice standards defining what kinds of activities must or must not be undertaken in order to protect salmon.

*The Endangered Species Act:*

At the highest order of rules is the ESA. Implementation of the ESA begins with a "listing" of a particular species of plant or animal as "threatened", meaning it is in danger of becoming endangered, or "endangered" meaning it is in danger of becoming extinct "within the foreseeable future". Criteria for listing a species as threatened or endangered include destruction of a species' habitat; over-use for commercial, recreational, scientific, or educational purposes; disease or predation; inadequate regulatory mechanisms; and "other" man-made factors threatening a species' existence. Because salmon are a migratory species that spends the majority of its lifecycle in the ocean, the National Marine Fisheries Service (NMFS) holds regulatory oversight of the ESA in this case. The ESA is considered a strong law, in that legal interpretations of Section 4d of the ESA, the so-called "takings clause", have held that takings may not be limited to the physical act of taking or possessing an endangered species, but may also incorporate any activity that brings harm to the species, as in modifications of habitat. Thus a land use activity, such as forestry practices, that generates a negative externality on the survivability of an endangered species, can be regulated or prohibited, and potentially severe penalties for non-compliance may be imposed, including fines of up to \$50,000 and jail time. While the takings provision is not absolute, in that

exceptions for "incidental takings" and mitigation permits for habitat modifications may be allowed pursuant to the following of a particular procedure, rules under the law are nonetheless quite strict: using the Crawford and Ostrom ADICO grammar, one can boil down the rule of the ESA as reading "Everybody must not do anything to harm an endangered species under any circumstance other than the exceptions provided for under Section 10 or else face civil and/or criminal penalties."

Another aspect of the law that bears consideration is Section 11G, which provides citizen suit provisions. Any citizen may file a civil suit on their own behalf to "enjoin any person, including the United States and any other governmental instrumentality or agency who is alleged to be in violation", to "compel the Secretary to apply... prohibitions set forth in... this Act with respect to the taking of any endangered species", and/or to find against the Secretary "where there is an alleged failure of the Secretary to perform any act under section 4" of the ESA. This clause has been used very effectively by environmental groups seeking to ensure that endangered species provisions are carried out to the letter of the law.

It is also interesting to note that the wording of the ESA, in section 6A, mandates that cooperation "to the maximum extent practicable" be performed with the States. Section 6C(1) allows the agency with regulatory oversight to enter into cooperative agreements with States as long as the agency determines, on a yearly basis, that the State has established "acceptable conservation programs" in compliance with the provisions of the ESA. This clause is what enables lower-order rulemaking by States to be pursued.

*The Governor's Statewide Strategy to Recover Salmon:*

The "Statewide Strategy to Recover Salmon - Extinction is Not an Option" plan drawn up by the Governor's Salmon Recovery Office, seeks to hold off heavy handed Federal regulation under the ESA by independently setting standards for ESA compliance that might

meet or exceed guidelines independently developed by NMFS. NMFS has to date determined that the approach and standards set forth under this strategy to be compliant with the provisions of the ESA. That the State and regulated industry show a preference against Federal action is hinted at in the official language of the Washington Forest Protection Association (WFPA): "By stepping into a leadership role, state and local governments, Native American tribes, and private forest landowners are setting an example of how local efforts are successfully contributing to the conservation of fish and protection of water quality."<sup>12</sup> Briefly outlined, the Extinction is not an Option plan seeks to individually address each of the factors — hydropower, harvests, hatcheries, and habitat - affecting the decline of salmon in the State of Washington. On the habitat side of the 4H equation, the State has proposed to regulate particular economic sectors whose activities have a significant impact on salmon. The State has thus distinguished between agricultural practices, forestry practices, urban development, management of urban storm water, over exploitation of stream water by public utilities and private appropriators, industry-related water pollution, and barriers to fish access to habitat as the primary threats to habitat in need of regulation, and proposed different sets of rules for *each sector*. And this is under the rubric of just one of the 4 H's, which hints at the complexity of the State plan in general. The Washington State Forests and Fish Plan is thus best conceptualized as a constitutive part of the State Habitat strategy, and is in fact the first sub-sector to propose ESA compliant rules for self-regulation.

*The Washington State Forests and Fish Plan:*

At the operational-level of rules exists the Timber Fish and Wildlife plan, or as it is popularly known, the Forests and Fish Plan (alternately known as the Forests and Fish Law,

<sup>12</sup> Statement available at [www.forestsandfish.com](http://www.forestsandfish.com)

or **Forests and Fish Forever**, but henceforth **noted** as **FFP**). As suggested, the **FFP** is a constituent part of **the** overall State **of** Washington response to the ESA listing. The **FFP** represents **the** first concrete effort to address the practices of a particular sector: private forest **land** owners, **and being** the first, it has garnered an incredible amount of attention from those who see **it as a** litmus **test for** how **all** further **sets** of rules governing other affected sectors will **be** developed **and** implemented.

The **Forests & Fish Plan** regulates forest practices along **60,000** miles of streams and in **8** million acres of privately owned forests in Washington State. The complexity of the plan is hinted at by the official language of the **Washington Forest Protection Association (WFPA)**: "Prompted by the pending listings of threatened and endangered salmon, members of the **Washington Forest Protection Association** (primarily industrial forest landowners), members of the **Washington Farm Forestry Association** (small family tree farmers), the **Association of Washington Counties**, **State Departments of Ecology, Natural Resources, and Fish & Wildlife**, **Native American Tribes** and the **Federal US Fish & Wildlife, National Marine Fisheries Service (NMFS)** and **Environmental Protection Agency** worked in collaboration to develop changes to existing state forest practices regulations to protect fish habitat and water quality."<sup>15</sup> According to the official legislative text of the plan, its goals are set forth as being: (1) to provide compliance with the **Endangered Species Act** for aquatic and riparian-dependent species on non-federal forest lands; (2) to restore and maintain riparian habitat on non-federal forest lands to support a harvestable supply of fish; (3) to meet the requirements of the **Clean Water Act** for water

<sup>15</sup> See reference *supra*.  
Page 11 of 35

**quality on non-federal forest lands; and (4) to keep the timber industry economically viable in the State of Washington<sup>4</sup>.**

The statement of purpose and outline of these goals elucidate much of the philosophy behind the FFP. The goals are mostly fish specific: the purpose of the entire plan is to address forest practices that have a direct, scientifically proven impact on fish. They also indicate an explicit preference on the part of all parties to avoid direct Federal regulation, the avoidance of which can be seen as the primary point of consensus between all parties. It is also interesting to note the inclusiveness being afforded to a variety of groups interesting in participating in policy design, as the WFPA, Washington Farm Forestry Association (small family tree farmers), the Association of Washington Counties, State Departments of Ecology, Natural Resources, and Fish & Wildlife, Native American Tribes and the Federal US Fish & Wildlife, National Marine Fisheries Service (NMFS) and Environmental Protection Agency developed and agreed upon the standards set forth in the agreement. It is also worthy to note here that the initial development of the FFP also included the engagement of environmental groups, who later pulled out of the negotiations, and therefore the outcome of the policy design may be seen as predominantly reflecting governmental and industry interests. Overall, the plan can be seen as an enabling approach in that it seeks to establish industry buy-in by allowing the industry a say in the development of industry practice standards. Viewed from the perspective of a typology of regulatory forms (Gunningham and Rees, 1997), this can best be seen as an example of "mandated partial self-regulation", given that standards have been set with considerable input from industry and other stakeholders, and that enforcement and

<sup>4</sup> Official legislative text may be found at: <http://www.wa.gov/dnr/htdocs/fp/fpb/forests&fish.html>  
Page 12 of 35

monitoring is still primarily under the purview of the State, carried out by DNR, although a significant monitoring role has also been granted to a third party: Native American tribes<sup>15</sup>.

The FFP seeks to change practices in such a way as to protect salmon while allowing for at least some level of profitable land-use by the forest industry. It is clear from the plan that past practices have been scientifically proven as detrimental to fish, a position generally accepted by the forestry industry, and thus in need of fine tuning. In addition, due to the collaborative nature of the policy design process, there is a clear assumption of a willingness to comply with the plan on the part of the forest industry. This can be explained as a legacy of the spotted owl issue, which taught the industry that ESA regulation is serious business, and that a failure to cooperate with authorities may result in stiffer regulations than might otherwise be faced<sup>16</sup>.

#### **Rules and Guidelines Under the FFP**

The plan itself provides for a number of policy tools, predominately consisting of science-based industry practice standards with mandatory compliance. The Washington State Department of Natural Resources is compelled to issue 5 year permits for logging activities so long as compliance with the plan's practice standards are followed. Failure to comply can result in a revocation of permit, and DNR has discretion to extract "financial assurances" from operators who have at least three "major violations" in a three year period. Major violations include operating without a DNR issued permit, operating in violation of a particular practice standard, or continuation of activities despite notices to comply or a stop work order<sup>17</sup>. It is also worth mentioning that the plan also provides suggestions for voluntary

<sup>15</sup> Appendix K of the official legislation sets guidelines for monitoring and provides for punitive actions, and is included at the end of this paper as "Appendix One".

<sup>16</sup> This statement is informed in large part by private conversations with Bill Ross of Ross & Associates, who facilitated the FFP negotiation process.

<sup>17</sup> See Appendix One at the end of this paper.

actions above and beyond the baseline requirements of the plan. Briefly outlined, the plan provides for the following<sup>18</sup>:

- A comprehensive set of science-based recommendations. It provides for "Adaptive Management" strategies that allow forest practices to change as new learning from science becomes available.
- It expands streamside protection zones necessary for providing shade, and allowing trees to grow tall and undisturbed along sensitive stream banks. Forestry activity is limited in areas up to 200 feet on each side of a stream. The Plan covers all streams that provide fish habitat as well as streams where fish are currently present.
- It accounts for significant differences in growing conditions and fish habitat between Western Washington and Eastern Washington. Western Washington riparian strategies protect fish habitat streams with three zone buffers. Eastern Washington riparian strategies recognize different climactic and forest conditions east of the Cascade Mountains.
- It includes stringent new methods for improved road building to limit the amount of sediment and surface run-off that enters into streams. It regulates how forest managers deal with old "legacy" roads.
- The Plan identifies and provides more extensive protections for sensitive wetland areas. Watershed analysis will continue to be voluntary. New regulations for riparian management zones will supersede existing watershed analysis prescriptions.

**Information taken from the Washington Forest Protection Association's website:**  
[http://www.forestsandfish.com/ffr\\_agreement.html](http://www.forestsandfish.com/ffr_agreement.html)

- It identifies steep and unstable slopes and requires that foresters restrict activity or work with special care to prevent land slides in these hazardous areas.
- It provides for ongoing monitoring and evaluation of all forest activities and includes methods for learning from science.
- It limits the use of pesticides and reduces their entry into water.
- It provides predictability and business certainty for private forest land owners, encouraging them to keep growing trees instead of selling off important fish habitat lands for development.

As indicated above, under the FFP there are several general classes of rules governing specific forest practices, including: riparian strategies, logging on unstable slopes, road building and maintenance, use of pesticides, wetland protection, and watershed analysis. Re-phrased in the Crawford and Ostrom ADICO framework, the general forest practice rules can be denoted as "private forest landowners must not perform a particular practice under any circumstances without an incidental take permit granted under the ESA or else be subjected to revocation of logging permits, penalties assessed by DNR as provided under the plan, or penalties as provided under the ESA."

Voluntary commitments provided for under the plan may be generally re-phrased as, "private forest landowners may perform an activity that enhances their ability to meet these guidelines". Furthermore, several rules are provided for allowable practices under specific conditions. An example of such a rule is "private landowners may perform salvage logging in an inner riparian zone if the landowner has not performed harvesting in that inner riparian



zone." In this way, both of these sets of "rules" may be more appropriately labeled "norms" in that an "or else" provision is not specified. In addition, a "rule" such as "training programs will be established to train operators on proper road maintenance" or "a recognition program for landowners with exceptionally well-maintained roads will be instituted"<sup>20</sup> may be more appropriately labeled "shared strategies", in that the "rule" does not provide a "deontic" component nor an "or else" provision. Thus the FFP is a complex web of rules, norms, and shared strategies.

There are several other notable classes of rules as well, namely rules pertaining to enforcement<sup>21</sup>. A notable provision under Appendix K of the FFP is provision 11(b), which states "Tribes will have the opportunity to participate in identifying, planning, developing, and implementing restoration projects using watershed analysis or other appropriate planning tools... [and] the department (DNR) will invite representatives of other agencies, tribes, and interest groups to accompany a department representative... on any such inspections." Furthermore, Section One G of the FFP grants Tribal governments a role in all aspects of the Plan's implementation, and they have been granted the power to directly bring their concerns about non-compliance to DNR. This circumvents the courts and potentially allows for quick investigation and action against possible violators.

This wide range of rules thus encompasses all seven types of rules identified by Ostrom. Boundary rules are essentially spelled out at the collective-choice level under the Governor's strategy, whose emphasis on a sector-by-sector approach dictates the boundaries of the FFP as being specific to private forest landowners. However, several rules specifying an explicit role of tribal members, as well as rule 11.b. under Appendix K which allows for

<sup>19</sup> Appendix B of the FFP.

<sup>20</sup> Both of these rules are provided for under Appendix D of the FFP.

DNR to invite representatives from other "interest groups" expands the possibility for other actors to be involved in the institutional arrangement. Position rules are clearly laid out: DNR is enforcer, landowners are cooperative regulatees, tribes are monitors, etc. Authority rules are extensive and specify a number of expected actions of all parties. Scope rules are also extensive and are incorporated into many of the practice standards embodied in the agreement. Aggregation rules essentially define the relationship between DNR and landowners, as well as between tribes and both DNR and landowners, and establishes some measure of decision rules, as in the prescribed process for changing rules in response to new scientific information. Information rules are prevalent, and usually located under voluntary commitments such as Appendix D, Sec. 111, clause E which specifies that, "Training programs will be established to train operators on proper road maintenance and construction standards." Finally, payoff rules prescribe penalties for non-compliance, and in some instances prescribe incentives for certain activities as in Appendix D, Sec. 111, clause C which specifies that, "A recognition program for landowners with exceptionally well-maintained roads will be instituted", which is of potential benefit to those landowners who want to maintain positive and very visible public relations.

### **The Relationship Between Physical Conditions, Community Attributes, and Multiple Levels of Regulatory Oversight: An Explanation of Institutional Choice**

All of the factors mentioned above - physical and material conditions, community attributes, and the combinatory effect of multiple levels of rules - can explain the unique configuration of rules under the FFP. First of all, both the Governor's recovery strategy and the FFP exemplify a strong concern for the needs of salmon, a position strongly based upon science, and the holistic approach to salmon restoration embodied in the Governor's strategy

in particular represents a noble approach of not placing blame for the problem on any particular group. **This** is remarkable in light of the aforementioned propensity for citizens to place **the** onus of responsibility of salmon decline on a particular sector or activity, not to mention various factions blaming each other. Political leadership could have just as easily attempted to scapegoat a politically vulnerable group and force them to bear the burden. But in light of mounting scientific evidence suggesting an interaction effect of all of the 4 H's, and because of the strong cultural role that salmon play in the Pacific Northwest, this did not materialize.

Furthermore, the perception of the ESA as an intimidating and strong piece of legislation is overtly evidenced by statements from all sides about the desirability of avoiding direct Federal regulation under the Endangered Species Act. Essentially forced to the negotiating table by the threat of Federal regulation, all sides engaged in a form of State-level regulated negotiation, also known as "reg-neg".<sup>22</sup> Bound by the strict higher-order rules of the ESA, which governs all activities that impact endangered species, all parties sought to develop practice standards that met or exceeded the requirements set forth under the ESA. By not participating in the policy design process, actors would run the risk of having to follow federally designed operational-level rules that had the potential for being ultra-strict, as was learned by the forest industry when logging was virtually banned on public lands when the spotted owl was listed under the ESA. Therefore a key element in the process was the willingness of the National Marine Fisheries Service to defer to State and local authorities for devising specific operational rules on how to comply with the rules set forth under ESA.

It is important also to interpret this deference on the part of NMFS as being influenced by the contentious legacy of the spotted owl listing, the lingering effects of which

create an incentive for the Federal government to not come across as heavy handed by allowing for local solutions to local problems.

**An interesting aspect of this case also rests on the significant role of science in informing rule-making. Much of this can be attributed to the leadership of the Governor's office, but also reflects values of all parties that politics should play a back seat to science. An interesting aspect of this case is that the science employed by both sides must have been mostly compatible. As Kubasek and Silverman argue, reg-neg situations are not possible when compromise from one group is a necessary condition.<sup>23</sup> By focusing on science in the formation of the institutional rules, forcing one group to compromise its values becomes unnecessary, unless each side possessed radically different scientific evidence. It then appears that each side's scientific findings must have been similar enough to allow for minor adjustments here and there without forcing any significant compromises from any side.**

**Furthermore, a very significant aspect of the agreement is the fluidity that is ascribed to the standards themselves through the practice of adaptive management. Briefly, adaptive management allows for changes to be made in rules with the advent of new science. This is a double-edged sword, in that it leaves open the possibility that new scientific findings may necessitate either stricter regulations, or conversely, that they may warrant a change in the rules-in-use that favors landowners, or perhaps even a revocation of current restrictions. Appendix L provides for a clear process for changing existing rules, including provisions for a public review process and a dispute resolution process pertaining to proposed rule changes.<sup>24</sup>**

<sup>22</sup> Kubasek and Silverman, pg. 87

<sup>23</sup> See reference *supra*.

<sup>24</sup> See especially Appendix L, Sec. IV.

## **Voluntary Self-Regulation and the Potential for Compliance: Incentives and Constraints in the Action Arena**

The FFP is generally regarded as a significant development in public-private cooperation in regulatory affairs, in that all provisions of the agreement were voluntarily and collaboratively developed. Other important aspects of the plan lie in the role that it ascribes to third party intermediaries, particularly tribes and other "interested parties", as well as its provision for several voluntary commitments desired of industry. However it is important to view the plan within the overall context of the collective-choice and constitutional-choice rule levels, as the FFP is a constitutive policy of a general strategy which in turn was drafted under the umbrella of a potentially more coercive regulatory regime (the ESA). It is important to realize that its effectiveness in providing positive outcomes vis-a-vis fish preservation will ultimately be gauged by federal authorities. If it fails, the cooperative relationship between government and industry will likely devolve into a more antagonistic, coercive relationship, thus demolishing the sugary rhetoric of the benefits of cooperation being espoused by all parties to the FFP.

### *Regulatory Style and Enforcement Issues:*

Overall the regulatory style of the FFP is best classified as "flexible" under a typology of regulatory styles devised by May and Winter, with the state as more of an "insistent enforcer"; given the *potentially* coercive measures that can be employed and the moderate level of formalism that exists<sup>25</sup>. The FFP incorporates much rhetorical emphasis on attaining "results", and as such much care was taken to devise a policy that allowed for changes over time. The variety of regulatory provisions provided for under the FFP, from the ability to the

<sup>25</sup> May and Winter, Page 148. See also Table 1 on page 156.  
Page 20 of 35

provision under the plan for possible criminal prosecution for violations to the ability to change policy with the advent of new scientific evidence, underscores this "flexible" style. This provision for criminal sanctions also illustrates the potential use of highly coercive measures should the cooperative spirit of the plan breaks down and non-compliance occurs, and as suggested by Firestone, is instrumental in effecting a change in values and beliefs amongst regulated entities.<sup>26</sup>

The enforcement approach under the FFP is rather unique due to the interesting circumstances under which the policy was designed. As mentioned earlier, the practice standards embodied in the plan are scientifically based, employing a general consensus about what constitutes "good science", and as such the plan incorporates easily measurable baselines for compliance, and thus easily observable infractions (for instance, investigating whether or not riparian "buffer zone" - the area of coverage in the immediate vicinity of a stream - standards are being kept is relatively easy). In the case of violations, punitive damages will take into account whether the violation was self-reported and if so, lighter penalties will be applied, and the industry has agreed to support a voluntary self-accreditation program that recognizes parties that meet or exceed the standards set forth under the FFP<sup>27</sup>.

The enforcement measures of the policy reflect other parties' interests as well. Perhaps the most striking element of these enforcement measures is the role that the Tribes have in the process. While regulatory oversight remains under the purview of the Department of Natural Resources (DNR), the tribes play a significant role in monitoring compliance. As mentioned earlier, under the plan tribes have the right to participate in any part of the implementation and enforcement of the plan, and can bring action against perceived violators

**Firestone, pg. 8.**

<sup>27</sup> See Appendix 1

by reporting even *potential* violations to DNR. This can be seen as an attempt to mitigate the possibility of "regulatory capture" of government agencies by industrial interests. However it is also important in that it underscores the remarkably cooperative nature of the institutional arrangement, especially given the historical antagonism between the tribes and various non-tribal commercial interests and landowners.

On the issue of targeting enforcement, because of the relatively small number of regulated entities, the relative transparency of their activities, the pledge that landowners will collaboratively help each other in adhering to the standards, and that accidental violations will be self-reported, there is an assumption of transparency and the ability to monitor compliance industry wide without the need to target enforcement or perform random inspections. The only provision pertaining to targeted enforcement lies in DNR's right of free monitoring access for "ID Teams" consisting of DNR agents, tribal members and others, and their authority to track repeat offenders and to incrementally apply more punitive sanctions from a range of options .

The coerciveness of the plan's provisions, as evidenced by this range of options for the application of sanctions, also underscores the flexible regulatory style of the FFP. DNR has discretion in determining and applying sanctions, which include written and verbal warnings, civil penalties, stop work orders, provision of collateral "assurances" from repeat violators in order to continue activities, revocation of licenses, and criminal prosecution<sup>29</sup>. However the wording of the plan appears to indicate a willingness on the part of DNR to allow for some measure of violations, as evidenced by their emphasis on gradually applying increasingly punitive sanctions on repeat offenders and DNR's olive branch of lesser

See Appendix 1

<sup>29</sup> See Appendix 1

sanctions for self-reporting of violations. It seems reasonable to assume that given the cooperative environment surrounding the design and implementation of this plan, the more punitive sanctioning options are unlikely to be applied, at least in the short term, as the FFP is seen as a litmus test for developing similar industry-specific habitat conservation plans, and any breakdown of the cooperative spirit that surrounded the design of FFP might negatively affect other sectoral efforts of the Governor's Recovery Strategy. And again, NMFS has ultimate discretion to apply stricter regulations at a higher-level of rules under the ESA, should the FFP be deemed inadequate in achieving results - bearing in mind that NMFS faces an incentive not to do so in order to avoid risking a large-scale revolt against the ESA.

*Estimating Potential for Compliance:*

I believe that the FFP has a strong chance of achieving compliance, due to the buy-in on the part of all parties for the practice standards set forth in the plan. Whether or not such compliance with practice standards will result in the projected positive outcomes vis-a-vis salmon restoration is another matter. Nearly universal compliance will allow for testing of the scientific models used in the plan, and the provision for adaptive management allows for quick changes in standards as new scientific findings are developed, should present scientific models prove to be inadequate. Industry has an incentive to comply with the provisions given the intense public scrutiny on their actions vis-a-vis salmon recovery, and the policy has enough provisions for significant sanctions that it has a good degree of coercive teeth.

**See for instance Appendix K Section I, clauses C and D.**



*Incentives for Compliance Facing Industry:*

The underlying motivation for industry participation in this process lies in their ability to continue harvesting at least some quantity of timber, which sits in stark contrast to the moratorium on logging on public lands that was implemented during the spotted owl ESA listing. Failure to comply runs the risk of stricter ESA action under NMFS regulation. In addition, because the industry itself was involved in the setting of these standards, it has an incentive to comply with them lest they face a public relations nightmare with environmentalists and the general public, who at the moment are overwhelmingly pro-salmon. The public relations campaign waged by the WFPA, consisting primarily of 30 minute "infomercials" and full page newspaper ads, can be seen as an effort to cultivate this pro-salmon public opinion, and more or less invites public monitoring of forestry practices by educating the public about what the industry is, or should be, doing to protect salmon. And because of the "adaptive management" component written into the legislation, there is an incentive to develop improved ways of providing for salmon survival, and the resultant possibility over time of a change in the standards themselves. Another significant incentive for industry compliance rests in the threat of sanctions from State regulators, which include the imposition of penalties (including criminal prosecution), revocation of accreditation, and forced mitigation measures for violations of specific practice standard violations<sup>31</sup>.

The FFP is remarkable in that it suggests an unusual trust in State government regulators on the part of landowners. However, I feel that willingness to comply on the part of industry is affected more by a fear of federal oversight than by a sense of faith in State regulation or fear of the ability of the State to apply sanctions. However, a potential for non-

<sup>31</sup> See Appendix K below.

compliance lies in the fact that the FFP is a constitutive element of the Governor's coordinated salmon response, which is primarily concerned with salmon preservation. The forest industry risks bearing an inordinate cost of salmon preservation by being the first regulated sector. If other agreements with agricultural, logging, fishing, and other sectors are perceived as not as stringent, the industry runs the risk of bearing the costs of preservation and essentially subsidizing exploiters of salmon, such as the Tribes and fishing industry. And if these other agreements lack the strength of the FFP, there is a risk that the overall goal of salmon preservation will not be met, which invites the stricter Federal regulation that nobody wants. This underscores the need for continued vigilance on the part of the Governor's Salmon Recovery Office to ensure that subsequent institutional arrangements keep salmon restoration the number one priority.

*Incentives for Ensuring Compliance - NMFS:*

**One of the driving forces behind the spirit of cooperation that existed during policy design was the universal fear on the part of all parties of a more intrusive and highly coercive regulatory regime under NMFS. It should be emphasized that the FFP would not have been possible without the explicit approval of Federal authorities, who thus far have been remarkably accommodating in allowing for such collaborative efforts at rulemaking. NMFS' conciliatory posture thus far has been tempered by thinly veiled references to a "wait and see" approach to gauge the outcomes of state actions before it comes in with stricter regulation. This accommodation is best attributed, I feel, to the proactive leadership on the part of both State and local governments to take the initiative on the salmon problem, and the willingness to cooperate exhibited by the industry itself. But**

**regardless, the number one incentive to comply with the rules set forth is the threat of tougher on the part of NMFS should this spirit of cooperation dissolve.**

*Incentives for Ensuring Compliance - State Regulators:*

The ability to apply sanctions highlights the regulatory oversight role held by Washington State DNR. Again, it is important to note that the plan is still subject to NMFS approval, and that should the plan prove inadequate, the Federal government may take over regulation of the industry, raising the specter of Federal intervention that the FFP was initially formulated to head off. Therein lies the primary incentive for the State to do a good job as intermediary. And as mentioned above, the State has a strong incentive to maintain equity of burden across all regulated sectors targeted by the Governor's recovery strategy.

Despite these obvious incentives to comply, a potential problem pertaining to compliance rests upon uncertainty surrounding enforcement capacity. Studies quoted by Firestone indicate that increases in inspections lead to a decrease in the probability of non-compliance<sup>32</sup>, however it is unclear to what extent DNR will have the capacity to undertake large-scale inspections, as the plan calls for an initial budget allocation to the State of only \$15.1 million.<sup>33</sup>

*Incentives for Ensuring Compliance Facing the Tribes:*

The role of the Tribes as another intermediary in the regulatory process is a very unique aspect of the FFP. Performing their monitoring role, the tribes have been given power to directly bring their concerns about non-compliance to DNR. This circumvents the courts and potentially allows for quick investigation and action against violators. The incentives for the tribes to monitor compliance are clear: of all of the actors, their interests are most closely

<sup>32</sup> Magat and Viscusi, in Firestone, Page 3.

<sup>33</sup> See Appendix N of the FFP.

tied to the restoration of salmon. Their livelihoods in many instances depend upon income generated from sales from their harvest allocations, so the more fish coming back to spawn in streams, the better.

However, similar to the capacity issues mentioned above vis-a-vis the State, it is unclear whether the tribes will have a sufficient enough capacity to identify potential violations to report to DNR. In order to address the lack of resources on the part of the tribes, the plan allocates **\$4** million in federal funds to boost this capacity.

*The Role of Environmental Groups:*

Another issue, relating to the future activity of environmental groups, is more uncertain. The willingness of these groups to walk away from the process because their stricter practice standards were not met may be seen as a willingness to resort to utilizing the citizen-suit provisions provided for under the ESA. Whether this strategy might work is in question however. As Kubasek and Silverman point out, courts generally accept agency-promulgated rules as law unless a citizen-suit can prove that it was too vague, it violated a constitutional standard, the agency acted beyond its scope of power, or that it did not follow the proper procedures.<sup>34</sup> Such suits, Kubasek and Silverman assert, are very difficult to win, and because of the spirit of cooperation behind all other parties, the environmental community might run the risk of being perceived as odd-man out should it try to disrupt the process.

*Synopsis:*

Ultimately the FFP will be judged on the basis of its results on salmon preservation, and if salmon continue to decline, foresters and others will be taken to task for their actions, and will be faced with the kind of public relations nightmare and Federal oversight that they

are trying to avoid in the first place. All sides face incentives to cooperate and comply with the mutually-determined standards, and their cooperation has allowed for the derivation of sound science-based approaches that might not have evolved in an adversarial environment, although one must wonder if the consensual approach to developing standards led to a "watering down of many standards"<sup>34</sup>. The role of adaptive management furthermore allows for dynamic change over time, ensuring that new scientific discoveries will inform forestry practices and lead to the evolution of practice standards that benefit fish and potentially change the incentive structures facing each of the actors. The outcome remains to be seen.

#### **Theories of the Rise of Voluntary Self-Regulating Institutions.**

The historic reliance on command and control regulatory methods has obviated any significant role for third parties, and fostered an environment of "adversarial legalism" in American regulation, particularly in the realm of environmental policy (Kagan, 2000). Regulatory scholars saw the antagonistic government-industry relationship as impenetrable by outside forces, and often focused their studies on government actors due to the perception that what power to be had was held almost exclusively by regulators. However, shifts in recent years to more cooperative regulatory styles has allowed the permeation of greater influence in the policy cycle by other entities, including the regulated entities themselves and other groups who perceive themselves as affected stakeholders. It is this latter group that is referred to as "third parties".

An interesting application of institutional analysis that seeks to explain the rise of voluntary self-regulation in environmental policy has been performed by Maxwell and Lyon.

<sup>34</sup> Kubasek and Silverman, pg. 86.

<sup>35</sup> Gunningham and Rees, pg. 372.

Drawing upon their own work as well as others (Maxwell Lyon, and Hackett 2000; Hansen 1999, and Segerson and Miceli 1998), they assert that four types of actors have the ability to drive change in environmental regulatory policy: the regulated firms themselves, national environmental groups, the Environmental Protection Agency in conjunction with State regulatory agencies, and legislators (particularly Congress). Furthermore, they argue that the move towards voluntary self-regulation exhibits two significant features: reaction to "outside threats of new regulations or direct criticism" drives the incentives behind cooperation, and voluntary agreements "by their nature" involve only regulated industries and the agency with regulatory oversight - in their case the EPA. The first finding is consistent with other regulatory theorists' work, especially Gunningham and Rees' concept of "mandated partial self-regulation" mentioned earlier in this paper. Because they do not acknowledge "national environmental groups" as having a role in the development of voluntary regulatory systems, their analysis continues to ascribe little importance to third party involvement in regulatory policy. I argue that their model can be easily extrapolated to issues of natural resource management, and that the case of the FFP can be used to test their primary findings.

The case of the FFP surely lends credence to their first observation that voluntary agreements are the result of perceived threats of harsh regulatory action. Again, it is important to view the FFP within the overall context of the salmon crisis, and despite its appearance as being "voluntary", one must view it as a policy nested within an ominous, potentially more coercive policy (the ESA). In this way, the FFP resembles all of the models presented by Maxwell and Lyon. In particular, it supports Maxwell, Lyon, and Hackett's model of "preemptive self-regulation" under which the potential political costs outweigh "organizing costs" and thus potentially regulated actors are driven to cooperate. It also supports Segerson and Miceli's model of legislative pressure, due to the deference in which

Page 29 of 35

NMFS is allowing self-regulation to proceed *as long as* the policy produces satisfactory results. Finally, it is a clear example of Hansen's model of voluntary agreements as being characterized by direct negotiation between regulated parties and a regulatory body, who each seek to "achieve higher utility" through Nash bargaining in order to avoid the perceived higher costs of higher-order regulation.

However, their second assertion doesn't really hold up in the case of the FFP. The activity of regulatory agencies at both federal and State levels, regulated industries, and third party stakeholders in the form of Native American Tribes (as well as the initial cooperation of a coalition of environmental interest groups), challenges the assertion that "voluntary agreements by their nature involve only two of the four organizations... regulated industry and the [regulatory agency]" that are capable of bringing about policy change. Insofar as environmental groups were instrumental in the early stages of getting all parties to the negotiation table, and given the continued involvement of the Tribes, it is clear that third parties do indeed hold a significant role in developing voluntary agreements, a role that is neglected by the Maxwell and Lyon model.

## **Conclusion**

The case of the Washington State Forests and Fish Plan is an interesting example of voluntary self-regulation. Institutional analysis is useful in teasing out important factors behind its creation, what principles were involved, what incentives are built into the system in order to ensure compliance, and it can help highlight the conditions under which examples of voluntary self-regulation may evolve. By looking at multiple levels of analysis, one can see the plan as a sub-element of collective-choice and constitutional-choice level rules that in large measure constrain and shape the nature of the rules devised at the operational level.

Furthermore, material and physical conditions and cultural influences are important pieces in

developing a clear picture of how the institutional arrangement was devised, what its goals are, and its potential for success. Because of the richness and complexity of the case, institutional analysis may be very useful in answering any number of questions that are bound to be asked about the FFP. There is a wealth of particular rules and prescribed processes that could lead in a number of fruitful theoretical directions, especially as outcomes are measured after the plan has been implemented for a sufficient amount of time. How effective and costly have particular practice standards been? Has the role of third party intermediaries been significant in ensuring compliance? Have the processes for rule changing as prescribed by adaptive management been employed, and if so, how has this process worked? In what ways might higher-order rules constrain the ability to employ adaptive management? How easy is it to change the institution? Utilizing the IAD framework is a potentially useful tool in answering these questions, and the Forests and Fish Plan represents a unique case for testing and applying the range of theories and assumptions incorporated under the framework.



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## Appendix One:

### *Appendix K of the Forests and Fish Plan Legislation*

#### Enforcement

**I. Prescriptions.** The authors of this Report recommend the adoption of statutes, rules, and regulations as necessary to implement the following prescriptions:

#### **K.1 DNR enforcement rules and authority**

- (a) DNR will retain its current enforcement authority.
- (b) DNR will designate contact personnel to promptly respond to tribal concerns regarding resource damage. DNR will provide written follow-up reports on issues raised by tribes in connection with specific forest practices.
- (c) DNR will focus increased attention on repeat violators. (Using the Department of Health model, DNR will improve its database to track repeat violators who change their name or location to avoid enforcement.) DNR's authority to deny forest practices permits will be extended to the longer of one year from the issuance of a notice of intent to disapprove or until the violator pays all outstanding civil penalties or complies with all validly issued and outstanding notices to comply or stop work orders. In addition, the authors of this Report urge that consideration be given to the role that past violations should play in securing voluntary accreditation under the existing accreditation program for operators.
- (d) If an operator (or landowner) has three significant violations within a three-year period, DNR may require that he or she provide financial assurances prior to the conduct of any further forest practices on future forest practice permits. Significant violations means operating without a forest practices permit (other than an unintentional operation in connection with an approved permit outside of the approved boundary of such permit), operations in breach of the terms of any forest practice permit where such operations cause actual and material damage to public resources and the continuation of operations in breach of the terms of an effective stop work order or notice to comply.
- (e) A system with due process protections will be developed and adopted into rules by the Forest Practices Board to determine whether financial assurance will be required, the appropriate dollar amount of such assurances, the type of financial instruments which will be acceptable, and the process to be used in requiring financial assurances as a condition of approving a forest practice application. The process to be developed will include a consideration of factors, including the size of the landowner or operator, whether the violations were self-reported, the cooperation and response of the violator when such violations were discovered and other factors which may suggest that the requirement of financial assurances is not warranted in particular cases. Assurance payments will be established in amounts which are reasonable estimates of the potential amount of all civil penalties, fees and mitigation, which might be required to be paid under current law as a result of non-compliance with forest practice rules and department directives in connection with a typical forest practice operation and the risks to the state that the landowner or operator may be financially unable to pay the fines and fees or to complete the mitigation. Assurances may include cash deposits, bonds, letters of credit, letters of financial assurance, or other certifications to the effect that the operator has sufficient resources to cover any penalties and mitigation measures which might be assessed.

(f) An operator's name, if known, must be included on any forest practices application when submitted. Once an operator is hired or if the operator changes, the landowner must also provide a notice of such hiring or change to DNR within 48 hours. Upon receipt of any such application or subsequent notice, DNR shall promptly advise the landowner if the operator identified in such notice is on the list of operators then being denied permits by the DNR. Upon receipt of any such information from DNR, the landowner will not permit the identified operator to conduct the forest practices specified in the application.

(g) To improve efficiency, the opportunity to appeal a civil penalty "to a DNR region manager" will be deleted. Appeals will continue to be allowed to the DNR Supervisor or his or her designee and to the Forest Practices Appeals Board.

(h) Current rules require landowners to maintain roads regardless of how they come into a condition of disrepair. Landowners are currently exempted from the penalties for road violations caused by public use if DNR has not required the repair first. However, when the DNR requires a road to be fixed, the landowner must comply regardless of the cause. If there is non-compliance with the order then the exemption from other penalties is no longer valid.

(i) In any action instituted under RCW 76.09.170, in addition to other penalties imposed, DNR or the attorney general shall be able to collect interest accruing on the penalty, costs, and attorneys' fees.

**II. Voluntary commitments.** The authors will commit to undertake the following additional actions:

(a) DNR will work to improve relationships with county prosecutors through agreements or other appropriate means to encourage prosecuting criminal citations given by DNR in the case of egregious forest practices violations. DNR will provide a written report regarding the number of citations prosecuted by county prosecutors and the number of occasions on which the county prosecutor refuses to prosecute such a citation.

(b) All TFW caucuses continue to be committed to cooperative and collaborative efforts, including providing access to private land for TFW cooperators for specific forest practices activities such as I.D. teams, watershed analysis, and effectiveness monitoring per the CMER monitoring strategy. Tribes will have the opportunity to participate in identifying, planning, developing and implementing restoration projects using watershed analysis or other appropriate planning tools. In connection with any watershed analysis, any review of a pending application by an I.D. team appointed by the department, any compliance monitoring, and any effectiveness monitoring or other research which has been agreed to by a landowner, the department will invite representatives of other agencies, tribes, and interest groups to accompany a department representative where necessary to provide specific expertise to resolve issues that have been raised and, at the landowner's election, the landowner, on any such inspections after making reasonable efforts to notify the landowner of the persons being invited onto the property and of the purposes for which they are being invited.

(c) Operators will be encouraged to participate in the existing voluntary accreditation program, but participants will seek to secure improvements to the accreditation program sufficient to meet the goals of TFW. More emphasis will be placed on educating landowners and operators about forest practices rules and the underlying principles and biology.

(d) The authors will cooperate with and agree to perform statistically sound, biennial compliance audits.