

1 **FOREST PRACTICES BOARD**

2 February 2, 2005

3 Natural Resource Building, Room 172

4 Olympia, Washington

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6  
7 **Members Present:**

8 Pat McElroy, Designee for Commissioner Sutherland, Chair of the Board

9 Bob Kelly, General Public Member

10 David Hagiwara, General Public Member

11 Doug Stinson, General Public Member/Small Forest Landowner

12 Eric Johnson, Lewis County Commissioner

13 Lee Faulconer, Designee for Director, Department of Agriculture

14 Sherry Fox, General Public Member/Independent Logging Contractor

15 Sue Mauermann, Designee for Director, Office of Trade and Economic Development

16 Toby Murray, General Public Member

17 Tom Laurie, Designee for Director, Department of Ecology

18  
19 **Joining by Phone Conference:**

20 Alan Soicher, General Public Member

21  
22 **Absent:**

23 John Mankowski, Designee for Director, Department of Fish and Wildlife

24  
25 **Staff:**

26 Jed Herman, Forest Practices Assistant Division Manager

27 Karrie Brandt, Board Coordinator

28 Lenny Young, Forest Practices Division Manager

29 Paddy O'Brien, Assistant Attorney General

30 Patricia Anderson, Rules Coordinator

31  
32 **CALL TO ORDER**

33 Pat McElroy called the meeting to order at 9:00 a.m. Karrie Brandt gave an emergency safety  
34 briefing. Introductions were made of the Board, staff, and attendees.

35  
36 **PURPOSE & OBJECTIVE**

37 Gary Graves, Department of Natural Resources (DNR), briefed the Board on the day's agenda.

38  
39 **HISTORY BACKGROUND**

40 Stephen Bernath, Department of Ecology (DOE), gave a presentation to the Board reviewing the  
41 history, present, and future of water typing in Forest Practices. He reported that the first rules for  
42 the Forest Practices Act were done in 1975, which included water typing. Rough quarter township  
43 maps were developed by biologists who identified known fish presence using the Type 1 through  
44 5 identification system that is still used today.

1 In 1996, as a result of new data that showed the Type 1-5 water typing system was up to 70%  
2 inaccurate in identifying stream types, the Board passed an emergency water typing rule intended  
3 to be an interim rule for only a few years. One aspect to that rule was adopting new physical  
4 criteria such as two foot bankfull width and 20% stream gradient on fish bearing streams and  
5 electrofishing on upper stream reaches. Another part of that was a commitment to Forests and Fish  
6 negotiations to look at additional aspects for protecting fish.

7

8 In the Forests and Fish negotiations, decisions were made to protect fish at all life stages, focus on  
9 fish habitat rather than fish presence, and to use a model approach for more accurate maps. One  
10 significant change was to move from a number symbology (Type 1-5) to a letter symbology  
11 (Type S, F, Np, Ns).

12

13 Pat McElroy commented that he has repeatedly heard out in the field “how can it be habitat, I  
14 don’t find fish?” Bernath explained that there was two reasons how that could occur: fluctuating  
15 water years and stream degradation.

16

## 17 **HISTORY OVERVIEW OF MODEL**

18 Brian Fransen, Weyerhaeuser Company, presented the water typing model. He described how a  
19 digital elevation model (DEM) is used as the base data to predict fish habitat by creating stream  
20 networks from the DEM grid cells. Every 10 meters along a DEM-derived stream the Geographic  
21 Information System (GIS) calculates the amount of basin area, precipitation, elevation, direction  
22 of stream flow, and a 100-meter average gradient above and below each point. It also calculates  
23 the spatial location of the point across the landscape. The model then incorporates all these  
24 influences, distills them down into a single number through an equation, and yields an index or  
25 likelihood that fish habitat is present for each 10-meter cell point along a DEM stream. Fransen  
26 stated that the model works well in most situations. Most of the points are within 500 ft of the true  
27 end of fish habitat (EOFH) when measured on the ground. The errors occur in predictable  
28 locations such as natural barriers, headwater ponds and lakes, and areas of very low topographic  
29 relief.

30

31 Pat McElroy asked why certain areas on the map had heavy concentrations of points and in others  
32 they were noticeably absent. Fransen said that around Puget Sound there are very few points  
33 because of urban and rural agricultural land. The areas with heavier concentrations are from tribal  
34 survey efforts in 1994 and 1995.

1 McElroy also wanted to know if there is low topographic relief in areas where fish presence is  
2 questionable or does it occur more often in places where fish presence is more likely. Fransen  
3 stated that within areas of low topography some streams have fish and some do not. Without  
4 reliable information on gradient or basin area it is impossible for the model to accurately predict in  
5 those areas.

6  
7 McElroy then asked if many low elevation, low topographic relief areas exist that do not have fish  
8 habitat. Fransen replied yes. There are also many of those areas that do have fish habitat and the  
9 only way to deal with them is on the ground.

10

### 11 **FISH USE TO FISH HABITAT TRANSITION**

12 Doretta Collins, DNR, gave a presentation on the modeled EOFH point adjustments. She first  
13 explained that every segment upstream of the modeled end points were coded as a Type N, non-  
14 fish habitat, stream and every segment downstream as a Type F, fish habitat, stream. She also  
15 mentioned that an associated explanatory code table is kept in the hydrographic (hydro) database  
16 to track which streams have been modeled and how their codes were derived.

17

18 Two types of adjustments are being performed to the modeled streams: upward and downward  
19 adjustments. When survey information indicates that the break between fish presence and absence  
20 is located above the modeled end point, the Type F designation is adjusted upward to that break  
21 point. If surveys indicate the break point to be below the modeled end point, the Type N  
22 designation is adjusted downward to the break point.

23

24 In areas with natural barriers, the model has over predicted the end point and carried fish habitat  
25 far upstream. In those instances the stream segments between the surveyed EOFH and the  
26 modeled end point were adjusted to Type N streams and noted so in the explanatory code table. In  
27 concluding, Collins noted that adjustments were not done to all streams where field survey data  
28 had been submitted in time for the release of the new water typing system in Western Washington.

29

30 Bob Kelly asked if the adjustments were considered validation since the new points were a result  
31 of data being collected since the model was ran. Gary Graves said yes. As surveys are done for  
32 forest practice activities, the updated information is being used to provide the override on the  
33 adjustments either up or down on the modeled prediction point.

1 **OUTREACH & LEARNINGS - TRAINING**

2 Dennis McDonald, DNR, discussed what has been done to share information and receive feedback  
3 on the water typing map development. Over the past two years several mechanisms have been  
4 employed for outreach: a collaborative stakeholder process, presentations to regional and  
5 statewide organizations, public review, field trips, informal updates, and staff reports to the Board  
6 and Forests and Fish Policy. He shared facts about each process and the input that DNR received.  
7

8 Pat McElroy asked if using county information would help put unknown streams on to the hydro  
9 layer. McDonald said yes.

10

11 McDonald continued saying that starting July 1, 2004, DNR provided a public preview of the map  
12 and received comments until October 1, 2004. Some of the key themes from that preview process  
13 are as follows:

14

- 15       ▪ The map over predicts fish habitat in low elevation/low gradient streams and streams with  
16       water falls
- 17       ▪ Type 4, 5, and 9 waters have been classified as fish habitat (Type F)
- 18       ▪ The new water types and related forest practices will be too restrictive and landowners will  
19       have to convert to other land uses
- 20       ▪ Model results need to have a process for making adjustments
- 21       ▪ The current DNR process for making changes has proven to be too cumbersome, time  
22       consuming, and never verified upon completion
- 23       ▪ Information on stream location and classification have been provided on the forest  
24       practices applications (FPA) but have not been included on DNR’s hydro layer

25

26 Further outreach was provided through field trips to test the guidance to be provided in Board  
27 Manual Section 23. The field tests provided an opportunity for field practitioners to work with a  
28 draft manual to find the mapped EOFH point and provide feedback to DNR. The participants  
29 voiced the need to have the opportunity to make map adjustments based on local expertise and  
30 knowledge and not be limited to using only inter disciplinary (ID) teams. In addition, if the forest  
31 practice forester needs assistance they would like to use the ID team process or an Informal  
32 Conference Note (ICN) for disputes. Also, there is still a desire to have some form of defaults such  
33 as the two foot bankfull width and 20% stream gradient.

1 Sherry Fox asked if concurrence of a submitted water type modification request form could be  
2 done with either an ICN or an ID team. McDonald said yes.

3

4 McDonald mentioned that overall DNR has learned that the map created by the model is a good  
5 start and can be used while validation of the model is being conducted. Also, DNR needs to have a  
6 process in place to make adjustments to the map because the current rule does not provide the  
7 needed flexibility. Finally, approaches need to be established to help small forest landowners  
8 transition to finding and protecting fish habitat.

9

10 Concluding, McDonald stated that training would be offered on implementing the new water  
11 typing system to be used for this season.

12

13 McElroy told McDonald that it would be useful for the Board to have a document that lists out the  
14 learned observations and recommendations.

15

16 David Hagiwara added that he would also like to see what options and proposals are being  
17 discussed to assist small forest landowners with finding fish habitat.

18

19 Eric Johnson asked if there was an agreed upon definition of fish habitat for the purpose of water  
20 typing. Jed Herman spoke of a definition in Washington's Administrative Code (WAC) 222-16-  
21 031 that says "likely to be used by fish" which does not have very much operational power and is  
22 hard to apply.

23

24 Hagiwara pointed out that fluctuating water years could have an impact and asked if the impact  
25 could be gauged on the maps. Herman replied that there is a provision in Board Manual Section 13  
26 for surveyors to be cognizant of drought years, but the model is based on information such as  
27 basin area, precipitation, elevation, gradient, etc. that does not have to do with what the water was  
28 doing on that day or that year.

29

30 McElroy said there are three policy decisions the Forest Practices Board has made and should  
31 keep in mind as this information is presented.

32

1. Fish in all life stages

33

2. Fish habitat not presence

34

3. A model driven process

1 **PUBLIC COMMENT**

2 Bob Dick – American Forest Resource Council

3 Dick said the current stream typing system is not perfect but it has mechanisms to fix errors. He  
4 went on to say that the only way to make the new model accurate is to survey 95% of the streams.  
5 The model is based on assumptions, so he feels the current system needs to be kept in place.  
6 Electrofishing, though controversial, works. The Forest Practices Act did not indicate that the goal  
7 was to find and protect the very last fish. The model is a valid tool and should not be thrown out,  
8 but it is not “the” tool. Dick said it is the Board’s responsibility to protect the forest environment  
9 and forest industry, and while this topic is being debated the habitat environment in Washington  
10 State is being reduced.

11

12 Toby Thaler – Washington Forest Law Center (WFLC)

13 Thaler, on behalf of the conservation caucus, stated that the Board needs to continue using the  
14 current water typing system. The new model is not ready to be used. He said that the underlying  
15 purpose of the Forests and Fish Report (FFR) is the conservation and recovery of fish. A key  
16 policy decision made when implementing the FFR was to shift the focus to habitat protection.  
17 WFLC supports moving forward with a model but the proposed model has some problems and  
18 would oppose any use of the model that would shift habitat protection away from the resource. In  
19 conclusion, Thayer said if WAC 222-16-030 needs to be changed, the Legislature says the  
20 adaptive management process and validation must be completed first.

21

22 Kevin Godbout – Weyerhaeuser Comany

23 Godbout commented on the water typing system. He said the FFR clearly states that fish habitat  
24 will be established based upon a GIS model using parameters such as basin size, gradient, and  
25 elevation. Therefore, the discussions on defining fish habitat are unnecessary; the model is the  
26 definition of habitat. Other issues need to be worked on for the model such as model verification,  
27 specific regional issues, and low land types.

28

29 Godbout also pointed out that if Board Manual Section 13 needs to be revised, it must be done  
30 timely. Field season starts March 1, 2005, and revisions made during a field season complicate  
31 processing FPA’s. So, if the Board makes changes after March 1, 2005, he asked that they have a  
32 delayed effective date for the 2006 season.

1 Maurice Williamson – Small Forest Landowner Advisory Committee

2 Williamson said the Advisory Committee supports no change with the stream typing until there is  
3 an assurance of assistance in place to small forest landowners in determining where fish stop.  
4 They support simple, accurate water typing systems and feel that there needs to be some flexibility  
5 in determining fish presence. Williamson stated that very few small forest landowners are capable  
6 of making those determinations and will need adequate technical assistance.

7

8 Sherry Fox asked the Advisory Committee to develop a list of the technical expertise small forest  
9 landowners would need to determine fish habitat. Williamson said there are probably only a  
10 couple specialties that are needed to help small forest landowners. The problem will be availability  
11 and how many people can assist in determining where points are for an extensive period of time.

12

13 Dick Whitmore – Washington Alder LLC

14 Whitmore informed the Board that the model is not working well in the northwest part of  
15 Washington State. He said it was unfortunate that the past 30 years of stream work did not get put  
16 into the model. Under the new rules, each of those streams will have to be redone with an ID team.  
17 Whitmore continued saying that with Adaptive Management the rules keep getting more  
18 astringent. Industry has followed the current rules and provided stream information that seems to  
19 go nowhere. The model needs to have more accuracy, and he stated that electrofishing is a great  
20 tool.

21

22 Kendra Smith – Skagit County

23 Smith thanked the Board for considering the county's past concerns during the water typing  
24 model's development and submitted a letter from the Board of County Commissioners in response  
25 to the proposed stream typing map and accompanying draft guidelines. The county is still  
26 concerned about the map's inaccuracies. It does not work well in the northwest region of  
27 Washington State with its glaciated geology, natural barriers, and low flood plains, which are  
28 affected greatly by the model's low gradient inaccuracies. The county is also concerned about its  
29 timber industry. Without an accurate map they cannot determine the amount of harvest that can  
30 occur. Smith stated that the map is a great tool to use for a starting point, but electrofishing is  
31 essential in verifying the points. There will also need to be a way to update the map as new  
32 information becomes available.

1 Peter Revesz – Clark County Tree Farmer

2 Revesz recognized that the new maps would have errors both in favor and not in favor of  
3 landowners. The problems are not only with the model's accuracy but the rules. His own 50 foot  
4 stream buffers will turn into 140-170 foot buffers with the new maps. The problem is with the  
5 different definitions, criteria, and requirements being used by the different local, state, and federal  
6 agencies. He voiced his frustration with the fact that some look at all fish in all life stages, some  
7 are only focused on anadromous fish, some see just fish presence, and others see only fish habitat.  
8 He wanted to know how landowners are supposed to comply. Revesz also objects to restoring  
9 streams for anadromous fish when they are not the native fish populations.

10

11 Dennis Creel and Andy Blachly – Hampton Tree Farms

12 Creel commented that while the modeled map is fairly accurate in Hampton's southwest  
13 ownership area, it is rarely accurate in their northwest ownership area. He suggested putting the  
14 map into place but not changing the manual until the effects of the map are known.

15

16 Blachly reiterated that the model works poorly in the northwest area with roughly 25% accuracy.  
17 This includes the high stream reaches as well as the low land areas. He told the Board the model  
18 did not examine the stream profile gradient for impassable reaches but that the information could  
19 be obtained with existing data. Hampton is interested in working with the modeling group to  
20 improve the modeled results before implementation and would like to retain electrofishing in the  
21 interim until the model is more acceptable.

22

23 Pat McElroy asked staff to provide the Board with additional information on map accuracy in the  
24 northwest region.

25

26 Ken Miller – Washington Farm Forestry Association (WFFA)

27 Miller submitted and read comment letters from Richard Atkins, Atkins Tree Farm LLC, and Jim  
28 Murphy, small forest landowner.

29

30 Atkins' letter commented that there are many streams and wetlands on his tree farm. He has  
31 compared the new DNR modeled maps with his own and found many incorrectly mapped streams  
32 and wetlands. However, the determined EOFH points agree closely with his maps, which used the  
33 two foot width rule. Atkins also said there should be an interim or final report about the fish model  
34 mapping. It should include a comparison of the length of potential fish bearing streams shown on



1 forest practice maps at the time the Forests and Fish rules became effective, the length used in the  
2 2001 Small Business Economic Impact Statement, and the length shown on the new model.

3  
4 Murphy wrote that he believes it is ridiculous to ask a small forest landowner to determine  
5 potential fish habitat. Measuring two foot bankfull width was hard enough for many landowners,  
6 but finding EOFH is asking too much. The change will increase a landowner's financial load. He  
7 feels that Washington State should not further burden small forest landowners with requirements  
8 to verify or authenticate the state produced water typing maps. Instead, the state agencies should  
9 field verify or type waters for the small forest landowners upon request. Murphy concluded that  
10 small forest landowners own the low gradient streams and tributaries. They are disproportionately  
11 impacted and desperately need relief in the form of alternate plan templates, long term FPA's, and  
12 a simplified FPA process.

13  
14 Paul Kriegel – Goodyear Nelson Hardwood Lumber Co. Inc.

15 Kriegel told the Board that Goodyear Nelson is mostly a small urban tree farm with existing  
16 pressures to convert the property. He expressed his disappointment that DNR has not utilized the  
17 stream information that has been previously submitted by landowners on FPA's for the modeled  
18 map. Kriegel then said if a new system is needed, make it one that shares the burden of proving  
19 fish presence equally and not disproportionately on to the small forest landowner.

20  
21 Dave Chamberlain – C & G Timber, Inc.

22 Chamberlain hoped the new water typing system would be an improvement and not put more  
23 burden on small forest landowners. He said that the map is inadequate especially in the northwest  
24 area. The map should be used as a tool only and if a landowner is certain that there are no  
25 endangered fish in their streams they should be allowed to electrofish. Regardless of what map is  
26 used, there must be a mechanism for landowners to establish fish presence. Chamberlain said that  
27 protecting fish in streams is acceptable, but protecting streams without fish is not.

28  
29 Aubrey Stargell – Nielsen Brothers, Inc.

30 Stargell said the model is not consistently accurate especially in low elevation areas. He is  
31 struggling to understand what is broken with the current water typing system that the model is  
32 supposed to fix. The burden of proving fish presence is on the landowner, but electrofishing is the  
33 best tool to accomplish that and it has been removed. Stargell pointed out that a deadline is not a  
34 valid reason to adopt an inaccurate or faulty product. Landowners are mentioning more often that

1 it is harder to maintain a viable tree farm and there are more incentives to convert their land to  
2 non-forestry uses.

3

4 McElroy asked Lenny Young why the stream information submitted on FPA maps were not going  
5 into the water typing database. Young explained that requests to change a water type in the system  
6 need to go through the concurrence process, which is triggered by the water type modification  
7 request form.

8

9 McElroy asked Young if the Forests and Fish negotiators understood that there would be  
10 numerous waterways and streams not found in the database. That the model was to be deployed on  
11 the known streams with updates occurring overtime. Young confirmed and went on to say that the  
12 model was never intended to predict the locations of unknown streams. It was recognized that  
13 there were certain streams that the model would not be able to classify and contingencies would be  
14 developed on how to deal with those situations when they arose.

15

16 **ALTERNATIVES**

17 Gary Graves presented the Board with three alternatives to consider for moving forward with  
18 western Washington water typing.

19

20 **Option 1: Habitat Model**

21 The Board could adopt the new water typing map, deploy it March 1, 2005, and start operating  
22 under existing WAC 222-16-030 instead of the current interim rule, WAC 222-16-031.

23

<u>Advantages</u>	<u>Disadvantages</u>
1. Implements philosophy of protecting fish habitat 2. Map becomes the rule 3. Map is better than current map as far as placement of the water 4. Board Manual Section 23 provides guidance to locate EOFH 5. Electrofishing reduced 6. Training is planned	1. Implementation problems based on lack of user confidence in maps 2. Map becomes the rule and flexibility is lost in how we operate on the ground 3. No clear way to type unmapped, unmodeled streams 4. Requires ID team process to make changes to the water typing map 5. ID team workload 6. Training requirements 7. Board Manual Section 23 still to be written 8. Reduces flexibility

38 Lee Faulconer asked if Option 1 is implemented would the reduced ability to electrofish mean that

1 it would be limited to certain described situations. Graves said electrofishing would be used as a  
2 tool to identify unknown stream types.

3

4 Eric Johnson commented that the advantages to Option 1 are more agency than user oriented and  
5 none of the disadvantages address small forest landowner assistance issues. Graves replied that  
6 while DNR cannot provide small landowners with all their needed assistance there is an existing  
7 system already in place to inform them of the resources that are available to them. Johnson said  
8 this was a big disadvantage to this option.

9

10 Pat McElroy asked Graves to discuss why the workload for ID teams would increase. Graves  
11 responded that WAC 222-16-030 says that an ID team can be requested to validate a point if a  
12 landowner disagrees with the identification of fish habitat.

13

14 Sherry Fox added that another reason for the increase is that most unmodeled streams are within  
15 small forest landowners' ownerships that all need ID team assistance to identify them.

16

17 David Hagiwara asked Graves to explain the time required to complete the ID team process.  
18 Graves said typically half to one full day is spent at the site with three to fifteen people per team.

19

## 20 **Option 2: Interim Rule**

21 The Board would continue to use the current interim rule (WAC 222-16-031).

22

23 <u>Advantages</u>	24 <u>Disadvantages</u>
25 1. Stakeholders are familiar with interim 26 rules	1. Does not take advantage of improved map
27 2. No training requirements	2. Does not reduce electrofishing
28 3. Possible concurrent statewide 29 implementation	3. Not progressing toward protection of fish habitat

## 30 **Option 2 with a variation**

31 Graves then described a variation to the current interim rule that the Board could put in place with  
32 Option 2. The variation would also allow DNR to administratively update the Water Type Base  
33 and Activity Maps, incorporate the new symbology of S, F, and N for the water types, and provide  
34 guidance on how to implement the new symbology with the current Board Manual Section 13.

1 **Option 2 with a variation**

2 Advantages

Disadvantages

- 3 1. Users start getting familiar with new map  
4 2. No other changes to current process  
5 3. Use of improved maps  
6 4. Training is minimal  
7

1. Not progressing toward protection of fish habitat  
2. Does not reduce reliance on electrofishing

8 Johnson asked if ID teams go away with the variation option and if so, how would map changes be  
9 made. Graves said yes, and that if landowners disagree with modeled points they could rely on the  
10 two foot bankfull width and 20% stream gradient rule and inform DNR of their decision. Any  
11 remaining concerns would have to be verified through electrofishing and the submittal of a water  
12 type modification request form.  
13

14 **Option 3: Hybrid**

15 The Board would still operate under the interim rule (WAC 222-16-031) but incorporate some  
16 options from the permanent rule (WAC 222-16-030). Option 3: Hybrid would allow DNR to  
17 update the Water Type Base and Activity Maps, incorporate the new S, F, and N symbology,  
18 modify Board Manual Section 13 to search for habitat indicators for western Washington, and  
19 perform an evaluation over the next one to two years.  
20

21 Advantages

Disadvantages

- 22 1. Map is better than current map  
23 2. Stakeholders build confidence with  
24 new map through use  
25 3. Initially develop habitat features as  
26 guidance to be integrated into Board  
27 Manual Section 13  
28 4. Electrofishing reduced  
29 5. Updating process maintains flexibility of  
30 using field determinations without an  
31 ID team.  
32 6. Provides a clear process to type unmapped  
33 and unmodeled streams  
34 7. Provides a process to update the map  
35 8. Training scheduled  
36

1. Implementation problems based on lack  
of confidence in model performance  
2. Model lacks validation  
3. Training requirements

37 Hagiwara asked Graves what DNR expects to evaluate after one or two years. Graves said it  
38 would give DNR enough time to evaluate what the model did and what the end results are from  
39 field verification.  
40

41 DNR believes that the ultimate goal of Forests and Fish is to identify and protect fish habitat

1 within the waters of Washington State. If that is the case fish habitat criteria needs to be  
2 established in order to describe the habitat features to be located in the field. This would start to  
3 move the standard practice away from the two foot bankfull width and 20% stream gradient  
4 criteria and the reliance on protocol surveys.

5  
6 Bob Kelly stated that the first attempts to define fish habitat criteria were unsuccessful and asked  
7 Graves if it was possible to define them in the future. Graves believes it could be defined with  
8 some boundaries to help define those features specifically enough to apply them in the field.

9  
10 McElroy inquired if Option 3: Hybrid would allow the Board to proceed while fish habitat criteria  
11 are defined. Graves said yes.

12  
13 DNR recommends Option 3: Hybrid. On March 1, 2005, DNR will replace the Water Type Base  
14 and Activity Maps, implement the S, F, and N symbology, and provide guidance on how to  
15 implement the new symbology with Board Manual Section 13. Over the next several months DNR  
16 will also establish fish habitat criteria, modify Board Manual Section 13, and develop training.  
17 Option 3: Hybrid will also give DNR the opportunity to utilize some of the validation study to be  
18 completed by CMER, use other existing datasets to check and improve the system, and ultimately  
19 move the program toward identifying and protecting fish habitat.

## 20 21 **PANEL DISCUSSION**

22 Jed Herman facilitated the panel discussion. Each panelist spoke to the following two points: what  
23 would you hope would be achieved with a habitat based water typing system, and comment on  
24 your organization's thoughts and concerns regarding details of implementation of the fish habitat  
25 based water typing system.

26  
27 Stephen Bernath (DOE) responded that DOE hopes the Board will adopt a water typing system  
28 that recognizes and protects habitat features, does not always need a fish biologist to determine  
29 fish habitat, and has easily accessible data to the public and other government entities to assist in  
30 it's management. He said that DOE supports both the DNR recommended option and transitioning  
31 water typing from the numerical symbology to an alphabetical one. Bernath added there should be  
32 more discussions with field staff to help them understand the new direction toward a habitat based  
33 system. He also pointed out that the interim rule has been in place many more seasons than it was  
34 intended for.

1 David Whipple, Washington Department of Fish and Wildlife (WDFW), discussed how WDFW  
2 hopes that having a habitat based water typing system would achieve the policy goals of the FFR  
3 as well as the rules in protecting habitat. They hope an accurate and adaptable system can be  
4 created that would be implemented appropriately and show stakeholders why points were  
5 identified the way they were. WDFW would also like to see a system that would reduce the  
6 amount of time and money spent in determining habitat. He said that WDFW supports the Option  
7 3: Hybrid recommendation but are concerned with obtaining the 95% accuracy rate. There is  
8 evidence that the model has problems. Whipple explained that some EOFH points coincide with  
9 road crossings or culverts. He stated that fish habitat criteria needs to be defined and Board  
10 Manual Section 13 must be accurate and thorough in its guidance to achieve effective and  
11 consistent implementation. He also mentioned that electrofishing was a good tool but only focuses  
12 on fish presence and not fish habitat.

13

14 Joseph Pavel, Northwest Indian Fisheries Commission, said that the Tribes would anticipate a  
15 model and mapping system that could be revised and improved regularly. They hope that a habitat  
16 system will offer a better balance of error than what currently exists today. Pavel supports the idea  
17 of managing habitat versus fish presence and feels a habitat system will reduce the risk of not  
18 achieving the fish population recovery goals. He stated that Option 3: Hybrid is the first step  
19 toward fixing the inadequacies of the emergency rule and addressing physical criteria. However,  
20 the Tribes are anxiously awaiting the required field validation study in order to implement the  
21 map. Pavel pointed out that there are substantial fish habitat waters that are not being correctly  
22 typed under the model in low gradient areas and informed the Board that other GIS data sources  
23 such as the Salmon and Steelhead Habitat Inventory and Assessment Program could be used to  
24 help improve the hydro layer.

25

26 Peter Heide, Washington Forest Protection Association (WFPA), told the Board that WFPA  
27 expects a habitat water typing system that identifies fish habitat based on the description agreed to  
28 in the FFR and to stakeholder satisfaction. The model approach is useful for developing maps but  
29 there needs to be a way to incorporate additional data to ensure quality. Heide said there is also an  
30 expectation to continue with electrofishing to help identify fish habitat. WFPA supports Option 3:  
31 Hybrid and is eager to see the S, F, and N symbology put into place. However, there needs to be a  
32 science-based system to find the unknown streams because the model is unable to identify any.  
33 Finally, CMER needs to investigate opportunities to improve the performance of the model.

1 Chris Mendoza, conservation caucus, hopes protection for the majority of fish habitat can be  
2 achieved with a habitat based system. He supports Option 3: Hybrid and the new stream typing  
3 symbology, but there needs to be field validation data in order to comply with  
4 WAC 222-16-030. Validation is also needed to determine where, under what conditions, and how  
5 the model will perform and assist with the geographical discrepancies. Mendoza agrees that  
6 electrofishing can harm fish but would advise the Board to look at the way it is conducted, as there  
7 is room for improvement to decrease electrofishing efforts while maintaining it's efficiency to find  
8 fish.

9

10 Sally Butts, United States Fish and Wildlife Service (USFWS), commented on behalf of both  
11 USFWS and the National Oceanic and Atmospheric Administration National Marine Fisheries  
12 Service. The Services hope there will be limited use of electrofishing (unmodeled streams or  
13 CMER research only) for any habitat system that is implemented. Both Services support the  
14 Option 3: Hybrid approach and are in favor of adopting the new S, F, and N stream typing  
15 symbology. The model has a few issues that need to be resolved, and one expectation is that model  
16 validation would occur to correct any concerns. Butts concluded that during the interim the  
17 Services would like to see electrofishing not exceed current rates and are hesitant to agree to any  
18 use increases in the future.

19

20 Ken Miller (WFFA) said that WFFA hopes that any adopted water typing approach will utilize the  
21 information provided to DNR on the FPA forms to update the data system. In general, WFFA  
22 supports the simplified S, F, and N stream typing symbology and the Option 3: Hybrid  
23 recommendation. However, they are nervous about the habitat process and fear that it could mean  
24 protecting fish where there is, ever was, or ever could be water. They are concerned about  
25 economic viability and are eager for the reasonable use exemption rule. Miller emphasized that  
26 stream typing is beyond most small forest landowners and what they need is expertise, simplicity,  
27 and reasonableness to best manage their forestlands.

28

29 Eric Johnson asked if the CMER validation study was regarding the logistical regression model or  
30 the validation of map points. Herman responded that it appears that the two "validations" are being  
31 used interchangeably. The CMER process is for the modeled approach and then there is an  
32 operational validation that DNR would do on an application-by-application basis.

33

34 Pat McElroy asked if the CMER process was designed to field verify whether or not points are

1 accurate. Mendoza said yes. The model validation study picks a modeled point for field crews to  
2 survey for fish. They measure the error distance between the two points. After the accumulation of  
3 enough data, a conclusion can be drawn as to how well the model performs in different areas.

4

5 Sherry Fox wanted to know which points and how many were going to be verified. Mendoza said  
6 that the study design was still being formulated.

7

8 McElroy announced that the Board would like to receive any existing and completed data from the  
9 northwest region to help inform them about the model for that area.

10

11 The meeting adjourned at 2:24 p.m.