HOUSE COMMITTEE ON WATER POLICY

January 30, 1997 Hearing Room D

3:00 P.M. Tape 12- 14

MEMBERS PRESENT: Rep. Ken Messerle, Chair

Rep. Tim Josi, Vice-Chair

Rep. Jo Ann Bowman

Rep. Tony Corcoran

Rep. Steve Harper

Rep. Jeff Kruse

Rep. Jim Welsh

MEMBER EXCUSED:

VISITING MEMBER: Rep. Bob Jenson

STAFF PRESENT: Pat Zwick, Policy Analyst

Rebecca M. Nickel, Administrative Support

MEASURE/ISSUES HEARD: Department of Environmental Quality

*** Urban and Non-Urban Water Quality Issues**

Oregon Department of Fish and Wildlife

*** Effects of Ocean Conditions**

These minutes are in compliance with Senate and House Rules. Only text enclosed in quotation marks reports a speaker's exact words. For complete contents, please refer to the tapes.

Tape/#	Speaker	Comments
TAPE 12, A		
002	Chair Messerle	Calls the meeting to order at 3:06 p.m.
DEPT. OF ENVIRONMENTAL QUALITY - URBAN &		

NON-URBAN WATER QUALITY ISSUES		
013	Langdon Marsh	Director, Dept. of Environmental Quality (DEQ) introduces Debra Sturdevant, non-point source specialist, Watershed Section, DEQ. Presents and reviews written testimony. **(EXHIBIT A)**
023	Chair Messerle	Comments regarding water policy and the need to examine all aspects of pollution, not only non point source pollution.
025	Marsh	Provides a brief overview of problems facing water policy issues * litigation situation * non point source pollution * temperature standard * 303(d) List
038	Marsh	Review - Litigation concerning Section 303(d)
054	Chair Messerle	Asks about the number of cases in Oregon and if there are any notices of intent to file suit.
056	Marsh	**(EXHIBIT A, Page 2)**
059	Marsh	Review - Oregon Lawsuits related to Clean Water Act
099	Rep. Kruse	Asks for clarification regarding the setting of the temperature standard and the subsequent rate of stream listing.
108	Marsh	The lawsuit required the use of temperature and because of this many streams were listed on the basis of temperature only.
120	Rep. Josi	Comments requiring Mr. Marsh's earlier testimony (January 21, 1997), and asks if anyone from DEQ was monitoring the meeting of January 28, 1997.
134	Marsh	No.
135	Rep. Josi	Recommends that Mr. Marsh get a copy of the tapes from January 28, 1997, so that DEQ can respond to the allegations made by testimony of interest groups.
150	Marsh	Will do that; comments on the situation with National Marine Fishery Service (NMFS) and the standard. NMFS feels that the flexibility of the standard may not be protective enough of fish. Through weekly meetings with NMFS, DEQ has been trying to assure them that the standard is protective of fish as a beneficial use.
		Requests that DEQ spends more time with the committee

169	Rep. Josi	discussing the temperature methodology.
174	Marsh	Presentation for today will elaborate the temperature standard and the science behind its development.
179	Chair Messerle	Supports Rep. Josi's request that Mr. Marsh listen to the tapes from January 28, 1997, meeting.
185	Marsh	Review - Other Lawsuits
209	Chair Messerle	Asks if the Oregon plan is for 10 years.
211	Marsh	Yes, however Oregon's plan is more complete and will be able to convince potential plaintiffs that the plan will work.
225	Marsh	Review - Non Point Pollution
246	Chair Messerle	Asks about studies on the Tualatin and the Coquille.
250	Marsh	They do not hold true for any particular basin; 75% of sub-basins are affected by non point sources, the other 25% are affected by complex sources. The Willamette and Columbia study show that the significant source of problem is from urban storm run-off.
272	Rep. Kruse	Asks if there has been any analysis comparing the types of pollution and sources and the types of non point pollution, such as agricultural and forestry.
281	Marsh	Can do that in areas where there has already been extensive study such as the Tualatin and the Coquille basins.
285	Rep. Kruse	Asks if other than focus areas, the information is generally "guess-work."
287	Marsh	Yes, but it depends on what is being compared.
291	Marsh	Review - Polluted runoff
301	Marsh	Review - DEQ's Temperature Standard * effective July 1996 * more flexible than previous standard * affects the same number of water bodies * geographic shift from Eastside to Westside Submits an issue paper regarding the scientific basis for the setting of the current temperature standard. **(EXHIBIT B)**
330	Chair Messerle	Asks if the issue paper was included in the packet he had received the night before.

333	Marsh	Yes.
335	Chair Messerle	Asks if the other members received the same packet.
336	Marsh	The packets are not the same, but he will make sure that the other members receive the same information.
338	Marsh	Review - Development of the Temperature Standard **(EXHIBIT A)**
360	Rep. Josi	Asks for information regarding the committee make-up.
366	Marsh	Review - Policy & Technical Advisory Committees
385	Rep. Josi	Asks if the decisions made by the committee were made by consensus.
388	Marsh	Largely a consensus process, but unsure if the end decision was made by vote.
394	Rep. Josi	Requests additional information on the consensus approach and details of votes.
TAPE 13, A		
016	Marsh	Will provide the background information.
018	Rep. Kruse	Comments on the Policy/Advisory Committee make-up * lack of landowners in the make up of the Policy/Advisory Committee.
024	Marsh	Affirms this and plans to take it into account when developing future standards.
026	Chair Messerle	Asks if the temperature standards are adopted by the Environmental Protection Agency (EPA) at this point.
029	Marsh	Submitted to EPA, but not currently approved. They are going through a consultation period with NMFS. DEQ is unsure of when the decision will be made.
034	Debra Sturdevant	Specialist, Watershed Section, DEQ. Unsure when the process will be completed; NMFS does not plan to address the temperature question until after the coho decision.
038	Chair Messerle	Asks for clarification on what the listing is based on - the standard or the law suits by EPA.
040	Marsh	The listing is based on temperature standard. The Clean Water Act requires a triennial review of the listing standard. Current lawsuits relate to the listing, not the standard. DEQ, in consultation with EPA, chose the temperature standard for update and revision in order to provide it with more flexibility. It is not directly related to Endangered Species Listing (ESL), but there must be consultation with all agencies including NMFS.
	Chair	Asks for current status of the temperature standard and

055	Messerle	approval.
063	Marsh	The triennial review is now in progress.
078	Chair Messerle	Comments that members of the scientific community are coming forward to point out that there needs to be additional study regarding the temperature standard.
084	Marsh	Review - Temperature Standard Subcommittee
091	Marsh	Introduces Debra Sturdevant to discuss the technical information behind the temperature standard.
098	Sturdevant	Review - Technical Analysis
111	Chair Messerle	Asks for a clarification of "protection" when used in the context of "protecting beneficial use."
116	Sturdevant	Full Protection - not intending to go back to full level of pre-European populations of fish, but are looking for "...viable and sustainable populations over the long term that can withstand some of the natural variability they have to deal with."
127	Chair Messerle	Asks for additional clarification - definition of "protection" when referring only to temperature.
130	Sturdevant	Process included: * identification of species * identification of uses by the species throughout the year and at which life stages * needs of the fish for a specific life stage * juvenile rearing study based on sub-lethal effects: * temperature which affected the rate of disease * growth rate of juveniles * competition effects * survival rate of eggs (female exposed to warm water)
175	Chair Messerle	Asks that in the future, the entire committee receive the same information as he does.
182	Chair Messerle	Asks about exposure time at the higher temperatures.
183	Sturdevant	The unit of the standard and degree of exposure which is necessary to cause problems. The unit chosen is the "average of the daily maximum temperatures for a seven-

		day contiguous period."
199	Chair Messerle	Asks for clarification.
201	Sturdevant	The seven day period was chosen so that it would indicate exposure over a period of time. It would be more reasonable than an average yearly temperature.
215	Chair Messerle	Asks how long a species can survive at high temperatures.
218	Sturdevant	Incipient lethal levels are in the mid- to upper-70's. Studies are made by exposing a group of fish and measuring how long it takes for 50% to die within a 24-hour period. The current standard is not based on this type of effect.
229	Rep. Kruse	Wants a list of wild runs of fish that were studied at various temperatures. Comments on the difference of lab vs. field studies.
240	Sturdevant	Both lab and field studies were considered and the results were balanced. The technical committee decided that there is not a large range of temperature requirements between the salmonid and other species in the state of Oregon.
274	Rep. Kruse	Comments regarding laboratory experiments and results.
288	Marsh	DEQ can provide more information about the studies (lab and field) and/or provide a person to make a presentation to the committee.
303	Chair Messerle	Comments on the need to develop a program.
322	Chair Messerle	Comments.
329	Sturdevant	Review - Water temperature influences
374	Rep. Corcoran	Asks about graph of Steamboat Creek Basin and difference of temperature changes after clear-cut. **(EXHIBIT B, pg. 18)**
TAPE 12, B		
007	Rep. Corcoran	Clarifies his question regarding the graph.
013	Sturdevant	Removal of coverage and shade can work both ways; depending on individual situations: * allows the stream to heat faster

* allows the stream to cool faster

The Alsea Watershed Study shows temperature readings in 1965, prior to being cut, and then again in 1967. This shows the effect of vegetation on the temperature of a stream.

037	Rep. Kruse	Comments on the difference of average temperatures over a period of 10 years.
042	Chair Messerle	Comments on the difference of climate cycles.
048	Sturdevant	Most of the data in 303(d) list would have come from the last 10 years.
052	Chair Messerle	Comments that that would have been during a dry cycle.
053	Rep. Bowman	Asks for clarification regarding the temperature variations.
058	Sturdevant	Refers to a clear-cut as having effect on the temperature change.
067	Rep. Bowman	Asks for additional clarification.
069	Sturdevant	The examples in question are from different locations.
071	Rep. Bowman	Asks if there have been follow-up studies to chart the difference in the same location after a 10 year period.
074	Sturdevant	Not in the Alsea Study, there was "before" data in the Steamboat Study.
077	Rep. Kruse	Comments regarding studies and the changes in laws since the studies have taken place, particularly forest practices.
089	Sturdevant	Review - Water temperature influence
098	Rep. Josi	Asks for the effect of stream temperature of water coming out of the drains into the streams.
101	Sturdevant	The effect of surface run-off depends on the situation. Surface run-off could have a cooling effect on the stream.
114	Sturdevant	Review - Alsea Watershed Study Example
125	Rep. Corcoran	Asks for clarification on the lack of representation by range specialists on the technical subcommittee.
133	Sturdevant	No range-land scientist or ecologist served on the committee. The emphasis was on fish biology and fish ecology. The Policy/Analysis Committee had members from a wider spectrum of specialties.
146	Chair Messerle	Clarifies for the record that he was asking a question about the lack of range scientists on the technical subcommittee; not making a statement.
152	Rep. Jenson	Comments on the need to identify the questions that scientists need to address. The answers which will be given depend on the questions which are asked.

168	Marsh	Asks Rep. Jenson for clarification.
172	Rep. Jenson	Wants to have an idea of what questions were asked when the studies were undertaken.
174	Sturdevant	The main questions asked were: * What are the beneficial uses to be identified? * What is the temperature requirement necessary to maintain those beneficial uses? * How does stream temperature vary in the environment?
199	Rep. Bowman	Asks about secondary beneficial uses.
202	Sturdevant	Other aquatic life.
212	Chair Messerle	Asks for additional questions. Asks how prioritization is made.
220	Douglas DeHart	Assistant Director, Chief of Fisheries, ODFW, states his name for the record.
224	Marsh	<u>303(d) List</u> DEQ is required to look at all the streams in the state, not just the endangered ones. The information is available in DEQ's 1994/96 303 (d) List Supporting Documents, which includes the Decision Matrix, the Criteria used for Listing Waterbodies, a glossary and a bibliography. Offers to provide this document to any member of the committee who would like to see it, however, the document is very large, and available only on an as-needed basis.
254	Rep. Kruse	Asks for the number of streams that met the standard.
258	Marsh	Does not know if this data is available, will check into it.
265	Rep. Kruse	Comments on the history of improvements in water quality in the state over the last two decades and the improvements in the forestry industry. Asks how the streams could be so bad now, if there have been so many improvements.
287	Marsh	A new tool has been developed which will try to answer those question. The Water Quality Index demonstrates the trend of the condition of the streams. It has been discovered that a large number of streams are increasing in quality.
310	Marsh	Review - 303(d) List Priorities
378	Marsh	Review - Total Maximum Daily Load (TMDL)
TAPE 13, B		
011	Marsh	Review - Basic Elements of a TMDL
029	Chair Messerle	Asks about the basis of point source and non point source pollution in the prioritization process.

040	Marsh	The list of TMDL's currently underway are a result of the settlement of litigation, of those, most of them are complex basis (point and non-point); the Columbia Slough is entirely point and urban storm water runoff; the rest have agricultural or forestry involvement. The new ones (Tillamook, Rogue and Umpqua), have a share of both and need to be addressed.
059	Chair Messerle	Asks if the Columbia Slough situation is a human factor or a fishery factor. Comments on the Banion moratorium.
069	Marsh	It is a potential human health factor because some sub-cultures in the area are eating fish from the Columbia Slough. It has a high priority partially because of that reason. There is contention over what kinds of development should be allowed in the vicinity of the slough.
089	Chair Messerle	Asks for the frequency of spills during storms.
091	Marsh	Part of the problem on the Columbia Slough is the combined storm and sewer overflow. This occurs anytime there is approximately 1/4 inch of rain.
104	Chair Messerle	Asks DeHart if this puts the fisheries at risk.
106	DeHart	There are very few native fish species left in the Columbia Slough, only introduced species, such as carp. It has gone beyond a fisheries management issue, the primary issue is human health. Outside of heavily impacted urban areas, fish are more sensitive to water temperature and quantity issues than pollution.
132	Chair Messerle	Asks why the native species are gone from Columbia Slough.
134	DeHart	There is no water flow in the slough.
137	Rep. Bowman	Asks how close DEQ is working with the City of Portland in the resolution of the Columbia Slough issue. Comments on the seriousness of this issue.
148	Marsh	DEQ is not waiting for the TMDL to be completed to assist the City of Portland in the clean up. In addition to the construction by the City for the interception of sewage and storm water, there are a number of clean up activities.
174	Rep. Bowman	Comments on the number of brownfields left by companies that have not taken responsibility and the failure of this being made a priority over fish recovery issues.
191	Marsh	The process of TMDL development and the work with the City of Portland to make the interceptor projects operational has made this issue the focus of attention. Will provided a copy of report which was submitted to the Legislature and details the activities DEQ is involved with on the Columbia Slough.
201	Rep. Josi	Comments on the urban "vs." rural rivalry and pollution in Oregon. The cost of the fixing this problem on the slough is approximately $750 million and will require a sewer rate increase of approximately 14%.

220	Chair Messerle	Comments on the need to resolve the situation instead of placing blame. Mentions the report submitted by the Division of State Lands (DSL) and ODFW, and the fact that it does not match up with the studies made by DEQ. Asks Mr. Marsh for explanation.
242	Marsh	Is not familiar with the study.
244	Chair Messerle	The DSL study is more recent then the DEQ studies and perhaps the information has more validity.
248	Rep. Corcoran	Notes that DeHart is possibly more familiar with the report than Mr. Marsh.
250	DeHart	The sensitive issues are different for DSL and DEQ. Areas that are highly productive for fish have a great deal of desirable qualities. ODFW provided observations for DSL on biological indicators of success. The approaches made by the different agencies partially overlay, but not completely. Fish are sensitive to quality and quantity issues. If the quantity issue is met, some quality issues can be overcome.
288	Rep. Josi	Asks about DSL's authority over gravel removal and for clarification on the five yard removal criterion. Asks how the navigability issues will fit into this.
303	DeHart	Can't speak on all these issues as they are not his area of expertise. DSL has worked with ODFW in order to understand the impact on salmon and this has caused the application of increased restriction and the use of the five yard criterion.
309	Rep. Josi	Comments about the non-adjudicated segments where citizens own the beds and banks. Questions the legality of DSL requiring permits to remove five cubic yards in areas that are non-adjudicated and that are not deemed navigable.
326	DeHart	Can't respond to this because it is not his area of expertise.
328	Chair Messerle	Comments on the DSL study and the impacts.
348	DeHart	DSL asked ODFW to understand which areas were important habitat areas that produced fish and which areas would need the highest level of protection from major change.
346	Chair Messerle	Asks if there are any other questions for DEQ.
350	Rep. Kruse	Thanks Mr. Marsh for his information and his cooperation and comments on the committee's need to have more information.
357	Chair Messerle	Comments on the improvement of information for the committee.

OREGON DEPT. OF FISH & WILDLIFE - EFFECTS OF OCEAN CONDITIONS

Presents a graph on the effects of ocean changes. **(EXHIBIT C)**

375 DeHart

Conditions in the ocean phase of a salmon's life history and how it fits into the current status of fish stocks and the changes seen in coastal watersheds.

* Defines ocean conditions as: feeding conditions for salmon and steelhead and other fishes which are used. "Good ocean conditions" indicate conditions where fishes have good food supplies and thrive.

TAPE 14, A

Weather and Current Patterns

* long term fluctuations

* graph shows differences in air pressure and sea surface temperature from Eastern to Western Tropical Pacific.

* when the pattern is in the favorable phase:

* tends to be mild, wet weather on the Oregon and Washington coast, cooler springs and summers, very strong winds out of the Northwest in the springs and summers

* stream temperatures and coastal watersheds tend to be cooler, more water flow in the summer and fall

012 DeHart

* warmer near-surface water moves out to sea and cold water (rich in nutrients) comes up from the deep

* the algae and plankton grow and provide an abundance of food for the young salmon

When scientists began to study the salmon on the Oregon and Washington coast, they noticed that there were long-term patterns. Groups of bad years and groups of good years which lasted approximately 20 years. From the mid-70's to the mid-90's, the most recent 5-year period (1991-1995), "has been the worst of any time in our data record." There has been a steady influx of mackerel from the south which eat a large amount of the food the young salmon need in addition to the young salmon themselves. This has been a big factor in the decline of coho and has also affected steelhead and Chinook, Columbia River smelt, and many other species. Coho are strong indicators as they have a short and simple life history. The recent cool weather and increased precipitation and the reduction of mackerel along the northern coasts, may indicate the changing of the ocean conditions.

098 Rep. Josi Asks for additional information regarding the mackerel.

They move up with the warm water mass from California and then

100	DeHart	take advantage of the feeding conditions.
105	Rep. Bowman	Asks for Mr. DeHart's opinion on why a voluntary plan will improve the salmon situation.
		The ocean conditions are changing. There are indicating factors which have been measured and they indicate that the cycle may be changing. * the ocean conditions which will bring cooler conditions are looking up
109	DeHart	* scientists believe we are entering a long-term period of better conditions "If we invest in salmon now, it will pay a return...You can't just rebuild salmon for the good times, if you don't keep them strong enough so they make it through the bad times, we're not going to have them at all. And what we have right now are salmon populations that are weak, and can't make it through the bad times."
131	Rep. Bowman	Asks for clarification on this. Are the ocean conditions going to make everything O.K.?
136	DeHart	That is not true, there are good times and bad times and it is not anyone's fault. However, these fluctuations have been happening since the beginning and salmon have never been driven to such a low level before. The numbers are down now because of conditions in the watershed which need to be addressed.
144	Chair Messerle	Asks if the salmon resource reduction since the late 1970's has been compounded by the depleting ocean conditions and the high number of fisheries at that time.
156	DeHart	Yes, but fishing alone did not cause the problem.
160	Chair Messerle	Comments on the fishing industry.
162	Rep. Jenson	Asks if there is any widening of the science.
168	DeHart	Core mud samples from off the coast of Oregon and California, dating back hundreds of years, are showing anchovy and sardine scales. These remains are allowing the scientists to track the fluctuations of ocean conditions.
173	Rep. Jenson	Asks if increased scientific research would be of significant value to this problem.
177	DeHart	There is an increased amount of research going on now, but there is no way there can be predictions for the future.
179	Chair Messerle	Comments on DeHart's testimony. Discusses the agendas for the next four meetings. Adjourns the meeting at 5:10

Submitted By, Reviewed By,

Rebecca M. Nickel, Pat Zwick,

Administrative Support Policy Analyst

EXHIBIT SUMMARY

A - Department of Environmental Quality, Written Testimony, Langdon Marsh, 18 pp.

B - Department of Environmental Quality, Issue Paper, Langdon Marsh, 33 pp.

C - Oregon Department of Fish and Wildlife, Graphic, Douglas DeHart, 1 pp.