

Commission d'enquête sur le déclin des populations de saumon rouge du fleuve Fraser

Public Hearings

Audience publique

Commissioner

L'Honorable juge /
The Honourable Justice
Bruce Cohen

Commissaire

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Wednesday, March 2, 2011



Commission d'enquête sur le déclin des populations de saumon rouge du fleuve Fraser

Errata for the Transcript of Hearings on March 2, 2011

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No appearance B.C. Public Service Alliance of Canada

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No appearance Rio Tinto Alcan Inc. ("RTAI")

No appearance B.C. Salmon Farmers Association

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No appearance Seafood Producers Association of B.C.

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Morton; Raincoast Research Society; Pacific Coast Wild Salmon Society

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of Drift Fishers ("WFFDF")

Maa-nulth Treaty Society; Tsawwassen No appearance

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Western Central Coast Salish First No appearance

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Council: Chehalis Indian Band:

Secwepemc Fisheries Commission of the Shuswap Nation Tribal Council; Upper Fraser Fisheries Conservation Alliance; Other Douglas Treaty First Nations who applied together (the Snuneymuxw, Tsartlip and Tsawout); Adams Lake Indian Band; Carrier Sekani Tribal

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No appearance Laich-kwil-tach Treaty Society

Chief Harold Sewid, Aboriginal Aquaculture Association ("LJHAH")

No appearance Musgamagw Tsawataineuk Tribal

Council ("MTTC")

Lisa Fong Heiltsuk Tribal Council ("HTC")

Ming Song

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THE REGISTRAR: Order. The hearing is now resumed.

MR. MARTLAND: Mr. Commissioner, we are commencing the Recreational Fishing portion of our hearings.

Before we do, there is one item to address quickly in relation to an exhibit late in the day yesterday, and it's on the screen now. Mr. Tyzuk put to Mr. Morely this document, the 2004, along with some other Year in Review reports. This one we in our haste to conclude, was not marked as an exhibit. I'd suggest it should become an exhibit now, please.

THE REGISTRAR: Exhibit number 510.

EXHIBIT 510: BC Seafood Industry Year in Review 2004

MR. MARTLAND: Thank you. The witnesses today, Mr. Commissioner, are Devona Adams, Deborah Sneddon and Joe Tadey. And what I'll look to do is take a moment by way of introduction to cover a few things, and then I'll ask that they be affirmed as a panel today.

Our approach for the Recreational Fishing hearings in some ways is similar to the Commercial Fishing hearings which have largely concluded. There will be some documents that I'll be taking these witnesses to, which will be fairly quick. It is to ensure they are part of the record, rather than asking witnesses to review them in detail through their testimony, at least in my questions.

We have made a decision relatively -- this week, I think it was, to combine these three witnesses. We initially had Ms. Adams and Ms. Sneddon as a first panel, and Mr. Tadey as a separate panel. We have since re-jigged, if you will, and have put them all together. I think that will be a more efficient way to proceed.

The second component to our -- these are three people from the Department of Fisheries and Oceans today. The second component to this evidence on recreational fishing will be a panel on Monday of three gentlemen with significant

PANEL NO. 23 Proceedings

1 experience in the recreational fishery.
2 The first item of business is to a

The first item of business is to ask that the Policy and Practice Report on Recreational Salmon Fishing, Licensing Management and Related Issues, that that please be marked, I suppose not as an exhibit, but as a Policy and Practice Report, or PPR, formally.

THE REGISTRAR: That will be PPR No. 7.

PPR-7: Policy and Practice Report, Recreational Salmon Fishing: Licensing, Management and Related Issues, February 7,

MR. MARTLAND: And as with other PPRs, the approach Commission counsel will take is to use that as the context and background, and to presume it is accurate unless we have situations where counsel or participants identify corrections or concerns to it. I'll have some questions of that nature today where I'll be asking some of these witnesses for comments or corrections to the PPR. My expectation at a general level is that the report is basically accurate with relatively smaller clarifications.

I should also advise I'll be working from the exhibit list for this portion of our hearings, and as I go through questions, I'll be referring to the exhibit list, and that will also reflect tabs in the binders that these witnesses have. So that may assist them, as well.

If I could ask, please, Mr. Registrar, these witnesses be affirmed.

DEVONA ADAMS, affirmed.

DEBORAH SNEDDON, affirmed.

JOE TADEY, affirmed.

THE REGISTRAR: State your name, please.

MS. ADAMS: Devona Adams.

MS. SNEDDON: Deborah Sneddon.

MR. TADEY: Joe Tadey.

THE REGISTRAR: Thank you. Counsel.

1 2	EXAN	MINATION IN CHIEF BY MR. MARTLAND:
3 4 5 6 7	Q	And just for the sake of the record, Ms. Sneddon, I'll just perhaps confirm through you, your legal name is Deborah, D-e-b-o-r-a-h, and yet you also use Debra, D-e-b-r-a, so we may see both on some of the documents. Do I have that right?
8 9 10 11	MS. Q	SNEDDON: That is correct. And my suggestion, if you're agreeable, is that for the Commission purposes, we might use your formal legal name, the longer one.
12 13 14 15	MS. Q	SNEDDON: That's fine, yes. Thank you. I'd like to start by way of background very briefly. Number 2 on the exhibit list is the c.v. for Ms. Adams. Ms. Adams, you recognize that as your c.v.?
17 18		ADAMS: Yes, I do. MARTLAND: If that could please be marked as an
19 20	THE	exhibit. REGISTRAR: Exhibit 511.
21 22 23 24		EXHIBIT 511: Curriculum vitae of Devona Adams
25	MR.	MARTLAND:
26 27	Q	Next, number 3 on the exhibit list. Ms. Sneddon, that's your c.v.?
28 29 30		SNEDDON: Yes, it is. MARTLAND: If that could please be marked as an exhibit.
31 32	THE	REGISTRAR: Exhibit 512.
33 34 35		EXHIBIT 512: Curriculum vitae of Deborah Sneddon
36 37 38 39	MR. Q	MARTLAND: And jumping ahead to number 28 on the exhibit list, Mr. Tadey, I expect you'll see your c.v. there?
40 41 42		TADEY: Yes, that's mine. MARTLAND: And if I could ask that please be marked as an exhibit.
43 44	THE	REGISTRAR: Exhibit 513.
45 46		EXHIBIT 513: Curriculum vitae of Joe Tadey

MR. MARTLAND:

Q I will move quickly to summarize your backgrounds, and I'll do this by way of a longwinded leading question, but welcoming you to correct anything I have wrong.

Ms. Adams, first, you studied Fish, Wildlife and Recreation at BCIT, the BC Institute of Technology, and then started with the DFO in 1985. I understand that you have worked continually with the Department since, that you've been involved with groundfish and salmon, and with both the recreational and commercial fishery, including significant experience doing consultations with stakeholders. In 1996 I understand you took the position as Resource Manager for the Fraser River and in 2005 you moved to Vancouver head office, and your current position is Regional Recreational Fishery Coordinator. Do I have that right?

MS. ADAMS: Yes, that's correct.

- Thank you. Ms. Sneddon, for your part, you attended Simon Fraser University, worked in Toronto with the Tax Department, and in 1992 returned to this province and started with the DFO Licensing Unit. I understand that you've worked your way up in Licensing to become the head of that unit, and in recent years have been involved in managing the recreational fishery in the Lower Fraser area.
- MS. SNEDDON: Yes, that's correct.
- Q I'll pause to ask you if you could please briefly explain what the Lower Fraser area includes. What does that refer to.
- MS. SNEDDON: The Lower Fraser area is a geographical area that includes the Lower Mainland, the Fraser River area up to and including Sawmill Creek, which is just past Yale. It includes Howe Sound, Indian Arm, Squamish, Pemberton, and the freshwater systems on the Sunshine Coast, and it includes part of the ocean area outside of the mouth of the Fraser River, halfway through Georgia Strait.
- Q Thank you. And I take it that since September of 2010 you've been in an acting assignment as Program Coordinator for the Lower Fraser Resource Management?
- MS. SNEDDON: Yes, that is correct.
- Q Thank you. Mr. Tadey, you have a B.Sc. degree in

Biology from Simon Fraser University. In 1994 you began doing contract work for the DFO related to stock assessment, in particular of Late Stuart sockeye. And in 1996 I understand you were hired as a senior technician in the Department's stock assessment -- the DFO Stock Assessment Chinook and Coho Program, and that you later became the Stock Assessment Biologist for that program; is that accurate?

MR. TADEY: Yes.

- Q In 2004. And since 2004 you've acted as the program head and biologist for the Chinook and Coho Program. You've spent time as a Management Biologist in the Lower Fraser area, related to chinook, coho and chum, and in 2008 you took on your current role as the Program Head/Biologist Chum, Pink and Recreational Fisheries Program.
- MR. TADEY: Yes.
- Q And your current position has you responsible for the recreational creel surveys for salmon fisheries in the Lower Fraser River.
- MR. TADEY: Yes.
- Q Great. I'll start with some general questions. I can advise the witnesses I'll be focusing my questions first on Ms. Adams and Ms. Sneddon, and then focusing, turning later to the question of creel surveys, where the questions will be directed at Mr. Tadey, but addressing all witnesses at that point.

By way of some questions about the overview of the recreational fishery and, witnesses, please take as a given that anything you can do to tie this back to Fraser sockeye, as opposed to salmon generally, is appreciated, but some of my questions will be general. This is a general one and, Ms. Adams, I'd like to ask if you could describe the place of recreational fishing in this province, as opposed to other parts of Canada. How significant is recreational fishing in B.C.?

- MS. ADAMS: Just until recently the Pacific Coast of Canada's marine fishery, marine recreational fishery, was and still remains the largest marine fishery in the country. And it's significant in terms of the number of participants, and also the number of angler days, and economic analysis related to that, the input.
- Q And salmon, could you comment on salmon fishing

within the recreational fishery in this province?
MS. ADAMS: Salmon fishing in the recreational
fisheries has been the backbone since the early,
well, late 1800s and recently we've seen a shift
due to declining salmon stocks to other species,
such as halibut, crab, rock fish, prawns and other
non-salmon species, but salmon still remains the
critical backbone of the recreational fishing
community in both marine and in freshwater.

- And for both the marine and freshwater salmon fishing, could you give us a sense of where that recreational fishing takes place.
- MS. ADAMS: You're asking specifically with regards to sockeye?
- Q I think it makes sense to focus, to make that a Fraser sockeye question, if you will.
- MS. ADAMS: Okay. I would focus, then, on Southern B.C., and in Southern B.C. the area from Mission to Hope in the Fraser River is an area that we consider to be a moderate to high impact fishery. For the rest of the Southern B.C., with the exception of Barkley Sound, we would consider the fishery to be low to moderate, basically low impact fisheries in those areas when we look at the overall scope of sockeye activity in Southern B.C.
- And with respect to the in-river fishery for sockeye and the Policy and Practice Report, I don't need to go there on the screen, but it talks about that fishery. And I understand that it was reopened in the mid-1990s and that that can be a very significant fishery, a lot of activity.
- MS. ADAMS: Yes. I spent many years working in groundfish fisheries and offshore fisheries, and in '96 I had the opportunity to move to the Fraser River, and at that time there was just the beginnings of a sockeye fishery in the Fraser River. And since that time it has developed. It's very dependent on the abundance of sockeye available in the system at the time.
- Ms. Sneddon, you work in this -- you know this area well, and I'd like to ask you what, with the concentration of activity in the Fraser River and particularly in the area around Chilliwack, let's say, could you give us a sense of what that looks like and whether there are problems that arise from lots of people fishing at one time.

MS. SNEDDON: Right. So the Lower Fraser area being so close to the Greater Vancouver area can generate a lot of interest and activity on the river. The Mission to Hope area has a number of access points when it's low water in the middle of summer when sockeye are going through, where people can actually walk out to the river, which allows more anglers to access the fishery. In the early part of the year, when we're fishing for chinook, if you did an over-flight on a weekend day, you could see anywhere from 100 to 300 people. But during a sockeye fishery when there's a lot of abundance of sockeye, you could see on an over-flight 1,500 people.

So a lot of people coming onto the river. Small access points. There's only two or three boat launches, so a lot of concentration in small areas. And, you know, the fishing areas that are out there are fairly small once you get onto the river. There's a bar that you can fish, and if you get 1,500 people out there, you can generally see, you know, a couple of hundred on a bar, and that can lead to conflict both between themselves, and then with other fishing activity taking place on the river, like driftnet fishing with the First Nations, there can be conflict between the two user groups.

- Q And without getting into great detail, could you give us a sense of steps that have been taken to address what you've just described, conflict on the river.
- MS. SNEDDON: Yeah, there's been, and it's not really a recent phenomena, but back when Devona was the manager in the Fraser, she did start a dialogue group between First Nations and recreational anglers in the area. It started off, it didn't get a lot of traction, but in recent years it has certainly been reinvigorated.

There was an incident a couple of years ago where one of the chiefs, the chief of the Chehalis Band was shot by a person recreationally angling; wouldn't call him a recreational angler. And that generated a lot of dialogue between the two sectors because everyone felt that that behaviour was not acceptable and they wanted to see what they could do to reduce conflict.

So they reinvigorated this dialogue session

between the First Nations and recreational anglers. There's been a lot of participation in the meetings. They meet monthly. They have developed a River Manners video as well as pamphlets, and they've done a lot of work in educating through both going out personally, and putting it on YouTube, and through tackle shops and trying to educate people, as well as through the different Bands, trying to explain what goes on in a recreational fishery, trying to dispel some myths and to try and build common ground so they can move forward and work together.

- Q Ms. Adams, could you comment briefly on the demographics of the recreational sector.
- MS. ADAMS: I'm assuming that's for the sockeye fishery.
- Q That makes sense to do it that way.
- MS. ADAMS: Yes. In the Fraser River area generally it's predominated by male participants, and generally in the 45 to 65-year-old age category. It's a very mixed composition of ethnicities. And there are more and more families participating in the fishery, I would say, as Deb mentioned. And when the water is low, a lot of the participants will take their families out on Friday, Saturday, Sunday, and possibly a holiday Monday, to have a family fishing activity, where they'll camp right on the river bar and they will participate in sockeye and chinook fishing and have a family outing.

So there are children involved, and women involved, but I would say the predominant participants are males. And generally they're British Columbians. We have seen Albertans participate, and also some Washington State, just south of the border, participating in the fishery as well. Very few international participants, because there's no guarantees on whether that fishery will happen, and people coming from the UK or other parts of Europe will not book a holiday based on an activity in that area, because it's a gamble whether it will happen or not.

- Q Mm-hmm. Year-to-year they may not, they can't say with any certainty whether there will be an opening.
- MS. ADAMS: That's correct.
- Q I'm not sure whether, Ms. Adams or Ms. Sneddon,

you're better to answer, but in a brief way if you could help us to get a sense from, let's say, 2007 to present what sort of a fishery there has been for sockeye, for Fraser sockeye by recreational fishers.

MS. SNEDDON: Okav. So as Devona points out, it is

MS. SNEDDON: Okay. So as Devona points out, it is definitely a very sporadic opportunity. So if we're talking 2007, 2007 we did not see much in the way of sockeye returns, and we did not have a total allowable catch that allowed for recreational opportunities. So there was no opportunity in 2007.

In 2008 there was again not a lot of total allowable catch, or TAC, but it did allow an opportunity, and I believe it was for three days in the marine waters and five days in the Fraser River itself in early September.

In 2009 there was no fishery because of low abundance of sockeye and no total allowable catch.

And in 2010 we had, I think it was about 35 days of fishing. So very variable fishing opportunities.

- And we don't need the precise dates, but was that a start in August in 2010, July or August, that summer month?
- MS. SNEDDON: Yes, it was early August.
- O Thank you. I'm going to move to some questions about licensing and licence fees. I'll direct these to you, Ms. Adams. The Policy and Practice Report describes licences and what I'll do is take that as read, if you will, and move to some specific questions. One of them is whether are there ever suspensions of recreational licences?
- MS. ADAMS: For recreational fisheries we do not have a process for suspensions. But I am aware that through some prosecutions licence holders have had their boats seized, their gear seized and they have been prohibited from participating in the recreational fishery for any variable time period. So through the courts, yes, but through the Department of Fisheries, no.
- Q And if I can just rephrase that and see if I have it right. For example, that would mean that a person might have a court-imposed prohibition on fishing, but when -- if they were to apply for or fill out the paperwork for a recreational licence, there's nothing in the system that would stop them

from being issued the paper. They might be in breach of the court order, but am I right that there's no screening that goes on at that point? MS. ADAMS: That's correct. Our fishery officers do have access to the licensing information, and the

- MS. ADAMS: That's correct. Our fishery officers do have access to the licensing information, and they would probably check, you know, if they came upon a person, they would check to make sure that those persons did not have a court-imposed order prohibiting them from participating. But it's not something that's upfront in our licensing system.
- And without taking you through the licensing system for recreational fishers, at a general level, how would you -- how well do you think the system works?
- MS. ADAMS: I think in the 21st Century with the electronic technology, we could move to more of an electronic licensing system. Right now, 20 percent of our licences are sold through an electronic process. The other 80 percent are sold by paper, they're paper copies. And they're distributed through many vendors: Canadian Tire, Joe's Fish and Tackle Shop, gas stations up in 100 Mile House, like through local community, people who distribute them.

But I know our colleagues in the Province of B.C. went to an electronic licensing system almost 100 percent. I don't think it's completely 100 percent, but probably four or five years ago they went to 100 percent online licensing. And I think that provides a lot of really good resourcing, and it also makes it more accessible to some of the participants — not all of them. Not all of our aging male participants have computer access, but I think we're seeing a trend towards people doing things electronically, and I think that would be a step in the right direction.

- Q In your discussions and the feedback that you get from those in the recreational sector, are there specific concerns around the licensing process, or does it seem to be fairly well accepted?
- MS. ADAMS: I would say it's very well accepted It started in the early 1980s. We had some changes in the late '80s, and our last changes for our licensing system were in the mid-'90s. And I know there's other countries in the world that don't have any licensing, so I think we're in pretty good shape. Can we make it better? Absolutely.

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- Q And the one example you gave about moving to an electronic system, are there other improvements that you would suggest?
- MS. ADAMS: One of the things we've been exploring with our Science staff is our quest to improve catch monitoring. We'd like to use the electronic licensing system as a database for a sample, and a study, so take a representative random sample of our participants through that on a fairly regular basis, and we are doing that right now through our 2010 national survey. We've pulled 12,000 licences, combination of paper copies and electronic copies, and we're doing comparisons on that to see if there's any biases in our samples from using the electronic database versus the paper database. So I think that's where we really want to move towards, is using it for other purposes, like getting input into our fisheries management, but also our catch accounting programs.
- Q And just so I'm clear, is the 2010 survey you referred to, am I right that that's part of the five-year national recreational mail surveys?
- MS. ADAMS: That's correct. It's currently underway right now. As of, you know, the close of 2010, we started issuing questionnaires to 12,000 participants throughout Canada and internationally.
- With respect to licence fees, am I right, Ms. Adams, that the entirety of the fees from licences both fishing federal recreational licences, but also conservation stamps, goes into general revenue. Is that your understanding?
- MS. ADAMS: So for access to tidal water fishing in British Columbia, we have a flat access fee, a licence fee. We have an annual licence. We have one-day, three-day and five-day licence, and the revenues from that go directly into general revenue. And we also have a salmon stamp for those participants who choose to retain a salmon. They must have affixed to their licence a salmon stamp. And a portion of that salmon stamp, a very small portion, a stamp is around \$6, \$1 that goes to the Pacific Salmon Foundation through a funding arrangement.
- Q We have, and I think the Policy and Practice Report refers to the view of some in the

recreational sector that there should be an increase to the fees for recreational licences, 3 contingent on the money not disappearing, if you will, into general revenue, but going over to, for 5 example, monitoring or other recreational 6 programs. Could you comment on that. First of 7 all, am I right that that's something that's been 8 advanced by, I presume, the SFAB, the Sport 9 Fishing Advisory Board? 10 MS. ADAMS: Yes. For the past several years the Sport 11 Fishing Advisory Board, which represents the 12 recreational fishers in British Columbia, have 13 expressed an interest in increasing licence fees 14 to go directly into improvements for catch 15 accounting and also salmon enhancement production. 16 And is there a current process for a fee, for 17 considering a fee review or a fee increase? Is 18 there a fee review underway now, or any active 19 process, to your knowledge, within the Department? 20 MS. ADAMS: There's no specific fee review underway for 21 recreational fisheries. There are certainly 22 staff, including myself, in the Department that 23 are looking at ways that we could get more 24 revenues from licence fees and/or stamps to help 25 us with our catch accounting programs and the costs of doing those programs. And one of the 26 27 areas is proposing it to the users through the 28 User Fees Act process or possibly Treasury Board. 29 And the User Fees Act, I take it, may be somewhat 30 of a hurdle to increasing the fees, at least it 31 would slow down that process significantly. 32 MS. ADAMS: Yes. The User Fees Act, my understanding 33 is it went in place in the mid-2000s, and there 34 been very few federal government departments that 35 have been successful in getting user fees through 36 that. I think it's -- I think three groups have 37 tried, three departments have tried. We're in the 38 process of examining how we might go about 39 proceeding through an application through the User 40 Fees Act to get fees for the recreational fishery 41 and direct that monies towards improvement in 42 catch monitoring. But there's no guarantees that 43 the money would go back into those specific 44 programs. We would have to work through Treasury

Board to get those funds redirected to catch

So the recreational community is very

monitoring.

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nervous. Yes, they support having increased fees for catch accounting and salmon enhancement production. But to have it going to general revenue concerns them.

- Q What's your view on the merits of the fee increase for recreational licences?
- MS. ADAMS: I think a marginal increase would certainly be warranted, given the costs of running programs, particularly catch monitoring. I think there's also a very fine line of a breaking point where our participants will choose to go golfing, or they will choose to participate in other outdoor activities. And we've seen that through the national survey and also through our programs, that we're seeing the number of anglers, licensed anglers decreasing from the early 1990s we had about 480,000 tidal water licences issued. this past year we had 290,000 licences, so there's been a significant drop since the early '90s. so the cost of the licence is a factor in where people make their choices about their outdoor recreation activities.
- Q And I should, because we're proceeding on the footing that the PPR gives us the context, I haven't asked questions about the distinction between federal and provincial licences that are issued. But I take it the numbers you've described refer to the licences that are issued for tidal water fisheries, which wouldn't reflect what's going on, for example, in the river upstream of the Mission Bridge.
- MS. ADAMS: That's correct.
- Q I'm going to ask Mr. Lunn that number 4 from our exhibit list please be brought up. You'll see, and I'll just direct your attention, this is prepared, Ms. Adams, by you and Paul Ryall, it says at the bottom. It doesn't seem to have a date on it. But the second bullet, if you will, under "Background":

The recreational sector believes they are currently contributing more revenue to the Federal Government than the service costs provided to their sector. The annual licence fee revenues from approximately 325,000 tidal water recreational licences --

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-- (licence fees and stamp) are approximately \$6.5 M.

And then under the "Key Messages" at the bottom:

DFO is committed to working with the SFAB on this initiative. DFO will review current resources and make adjustments where necessary.

I take it this describes that SFAB perspective on contributing, really a perspective that they are contributing more by way of fees and stamp money than the services that they're receiving?

MS. ADAMS: We started engaging with the recreational community in 2005 and '06 to look at how we might go about obtaining additional funding through the licence fee and/or a stamp, and that money is going directly into catch monitoring programs.

One of the things the recreational community asked the Department was, what are your current costs, and expenditures and revenues? And so a colleague of mine and I were asked to go through national regional headquarters and area staff in very general terms to determine what our current expenditures are for the various programs. So in 2005 we determined that approximately, that the Department was receiving somewhere between six and seven million dollars in licence fees and stamps from marine licences, and that we were spending in the neighbourhood of \$15 million in all our program costs directly related to the recreational fishery. The bulk of the \$15 million expenditures that we assessed were related to salmon enhancement. The next big fee was staff time and overhead related, and the other piece was catch accounting.

So just from that quick math, the recreational community said, well, the Department of Fisheries, the Government of Canada is receiving between six and seven million dollars through fees, and you're spending 15 million. Approximately 50 percent of the Department's expenditures are being funded through the recreational licence fees, and they felt and made

a statement at that time, and I don't know that it's been validated or verified, that they didn't feel in their opinion that there was any other fishing sector group that was funding 50 percent of the program costs related to their fishery.

Thank you. And I'll indeed, first, before I leave this document, I'd ask this please be marked as an exhibit.

THE REGISTRAR: Exhibit number 514.

EXHIBIT 514: Memo re Issue Meeting with Sport Fishery Advisory Board Representatives re Cost Recovery

MR. MARTLAND:

- And, Ms. Adams, I'll go to number 89 on the exhibit list, because I think when you were referring to the \$15 million figure, could you describe what this is, please, once it's flipped There we are. Is that, am I right in guessing that that reflects the figure at the bottom right --
- MS. ADAMS: Yes.
- -- of the spreadsheet?
- MS. ADAMS: Yes. This is the document I was referring to. It was very draft. Some of the recreational participants that we presented this to did not agree with some of the calculations. But this was our best estimate at the time of where our expenditures were, and the revenues that we had.
- And it's very hard to read, but if I have it right, it has in the upper left, "20-Mar-06". Does that seem to be when this was prepared --
- MS. ADAMS: Yes.
- -- in March of 2006?
- MS. ADAMS: Yes. And it was draft, and it certainly was not a very sharpened pencil, but a very rough look at where expenditures and revenues were.
- MR. MARTLAND: I'd ask this be marked as the next exhibit, please.
- THE REGISTRAR: Exhibit 515.

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EXHIBIT 515: Recreational Program Delivery Costs, Discussion Draft Only, chart prepared March 20, 2006

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MR. MARTLAND:

- Q Number 7 in the list of exhibits, just to round out this question and the record on the matter of revenue arising from recreational fees, this is the "Pacific Region Stats" it's entitled "Annual Comparison of Sales Tidal Waters Sportfishing Database and National Recreational On-line System" is what it's entitled, and it seems to give us numbers from the 1999/2000 season to the present, to 2011, but as of a certain date. Is that accurate?
- MS. ADAMS: Yes, this is accurate. And I understand, I mean, this is to December 24th. I have received information that the revenues for all licences for the completion of 2010 was in the neighbourhood of 5.9 million.
- MR. MARTLAND: I'd ask this be marked as the next exhibit, please.

THE REGISTRAR: Exhibit 516.

EXHIBIT 516: Pacific Region Stats - Annual Comparison of Sales TWS Database and NRLS, 1999/2000 - 2010/2011

MR. MARTLAND:

- Q I am going to move to, Ms. Adams, I'm going to keep you in the hot seat, if you will, but ask you about the Tidal Waters Sport Fishing Guide. And again taking as background what is set out in the --
- MS. SNEDDON: Brock, sorry, could I add something to Devona's testimony before we move on?
- MS. SNEDDON: So we talked about licence fees and increases in licence fees. So the Department and the recreational community have been looking at not just increases to licence fees for catch monitoring, but there has been a number of proposals from other areas, like sturgeon, like halibut and catch monitoring. So we have a bunch of people looking for the Department to increase licence fees for these different programs. So it's not just catch monitoring. So we're trying to look at a holistic way of putting all of the information we need into one licence fee increase. But again, it's not just a fee just for catch monitoring that we're looking at. So that is a

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The other challenge is with the User Fees Act and when it came into place, in order to make an argument to Treasury Board that we need the money to go directly to programs, part of our problem is, is the Department doesn't -- it runs a deficit every year. And so it would be highly unlikely we'd be able to convince Treasury Board that any additional funding should go directly towards a program, versus the Department's deficit. just wanted to make that clear.

- Thank you, I appreciate that. With respect to the Sport Fishing Guide, number 5 on our list of exhibits. You'll recognize this. The 2009-2011 B.C. Tidal Waters Sport Fishing Guide; is that right, Ms. Adams?
- MS. ADAMS: Yes, that's correct.
- If this could be marked as an exhibit, please. And to complete the record, this, when one flips it over, on the printed version flips it upside down, the back half of the document will provide what's set out at number 6 on the list of exhibits, the British Columbia Freshwater Salmon Supplement.
- MS. ADAMS: Just to clarify, the federal Yes. government is responsible for managing all marine fisheries and fishers in those activities, and we also manage salmon in freshwater, the rest of the freshwater fisheries are managed by the Province of B.C. and licensed by the Province of B.C.
- And so the province, just to be clear on that, the province handles licensing for the in-river, the non-tidal fishery, but the management falls to the DFO?
- MS. ADAMS: Only for salmon in freshwater.
- For salmon, thank you.
- MS. ADAMS: Yes.
- MR. MARTLAND: Thank you.
- THE REGISTRAR: Item number 5 will be marked as 517.
- 40 MR. MARTLAND: I'm sorry, thank you.

EXHIBIT 517: 2009-2111 British Columbia Tidal Waters Sport Fishing Guide

MR. MARTLAND: And number 6, if the Freshwater Salmon Supplement, if I could ask that become an exhibit, please.

THE REGISTRAR: Exhibit 518.

EXHIBIT 518: 2009-2111 British Columbia Freshwater Salmon Supplement

MR. MARTLAND: Thank you, Mr. Giles.

Ms. Adams, at a general level these guides, and in particular I'll ask that the other one be brought up, please, the Tidal Waters Guide. Thank you. Is it fair to say that this guide is one of the primary means for the Department to communicate with anglers?

MS. ADAMS: It is one of the primary guides for communicating with anglers for everything except for salmon. And the reason being as you can see there, it's a two-year guide.

Q = Mm-hmm.

- MS. ADAMS: And salmon predictions come out every year. And so what you'll find in there for a lot of the dynamic salmon, like chinook and coho and sockeye, you will find in the "Opportunities" section of the guide, "opportunities expected" or "opportunities will be announced", because of this two-year publication and also the dynamic nature of salmon fishing in this province.
- So is it the case that there may be other fisheries where the ground rules set out in the guide can apply for a two-year period relatively safely, whereas I think what you're describing with salmon is you can't set rules in advance for any length of time.
- MS. ADAMS: That's correct. And it's not just about the species specific information that we provide in here, we also provide information around species at risk programs, marine mammal programs, different ecosystem aspects, so there's more than just us saying you're allowed to go sockeye fishing in the Fraser during these times and these are your limits. It's a very comprehensive document, and those types of pieces of information do not change. They're what we call static and core.
- Q Thank you. Ms. Sneddon, you had a comment?
 MS. SNEDDON: Yes. In addition this, the guide,
 actually outlines now what are the points to
 remember when you go salmon fishing. What's legal
 and what's illegal, what's the gear type. Those

types of things generally don't change in the twoyear period. It's just that whether it's open or not might.

That's helpful. And, Ms. Sneddon, I take it

- Q That's helpful. And, Ms. Sneddon, I take it you're one of the key authors of this guide?
- MS. SNEDDON: Yes, I am. I did this version and the one that's coming out in two weeks from now.
- Q Oh, well, we're almost, we should have waited another two weeks, I suppose.
- MS. SNEDDON: That's it.

- But we'll carry on. That was one of my questions, and maybe to get a sense of how much this document changes year-to-year and what remains generally the same. I'd like to move at this fairly quickly, but I'll ask you, Ms. Sneddon, these questions. Within this exhibit, page 4, and Mr. Lunn, I'll provide Ringtail numbers, page 9. It's five numbers off, if you will. Page 9 of 91 on the screen. And, Ms. Sneddon, this provides a description of "Unlawful Actions", this is the way of communicating regulations that govern the recreational fishery?
- MS. SNEDDON: Yes, that is correct.
- On the next page you'll see reference to the "Observe, Record, Report" line, which encourages people to report violations.
- MS. SNEDDON: Yeah, that is the information for observe, record, report, yes.
- Q On the page 14, Mr. Lunn, which is page 8 of the guide, the SFAB "Code of Conduct" is reproduced there. And lower in the page "Catch and release techniques to remember".
- MS. SNEDDON: Yes, right. The Department and the Sport Fish Advisory Board were definitely concerned around fishing behaviour and wanting to make sure that people were fishing responsibly, so they developed this Code of Conduct. And a number of years ago it was included in the guide, and continues to remain in there. And it's one of our tools that we use when talking to anglers on the river and with behaviour issues.
- Q And some of the points under the "Catch and release techniques" are relevant to selective fishing, and I'll return to selective fishing a little later in my questions. But if I could just confirm, am I right to say that these techniques to remember are not regulations, they're not

requirements, it's guidance and advice?

MS. SNEDDON: Yes, that is correct. By regulation, what we can say is that it is illegal to -- or that you must release in the least harmful manner any fish you do not intend to keep. That's our regulation. The rest is, yeah, techniques and points to remember.

- Mr. Lunn, on page 18, which is page 12 of the guide, this gives some more specific information relevant to salmon, and really I suppose sets out a checklist of things that the angler should remember before heading off fishing to purchase a licence and stamp requirement, about barbless hooks, checking to see if the fishery is open, et cetera; is that right?
- MS. SNEDDON: Yeah, this section is trying to make sure that people read this before they go out, they know what the rules are and it provides in a fairly small area what the information is. But in the next version, I've gotten a lot of advice from recreational anglers and from fishery officers and DFO staff that it's just a little bit convoluted. And so we've worked on some of the wording and we've set it out in a different manner. So here's the points to remember about gear. Here's the points to remember about areas. Here's, you know, we've laid it out a little bit easier and it's a constant evolution. We did this with the last version. We're doing it with this, when we take feedback from anybody who's willing to help us make this a more readable and usable guide for recreational anglers.
- Q And at a basic level it's unrealistic to expect that your average angler will head into the Canadian regulations and study them. This is how you're trying to communicate and ensure that people know what they should and shouldn't be doing.
- MS. SNEDDON: Yes, that is correct. The regulations, not the easiest things to find and fairly dry reading, so this is much better.
- Q No comment. On the next page you'll see there's a picture at the bottom of the next page of the circle hook, and there's a discussion there which I won't read out. But it talks about the Department preparing a regulatory submission about the possibility of requiring circle hooks. Why

don't I first ask, what would circle hooks,
they're referred to here as being, at the bottom
of that paragraph:

...a valuable conservation tool in certain fisheries...

MS. ADAMS: We did some studies in the late '90s when we had some coho concerns, and we were looking at the difference of the impacts on fish, particularly in freshwater, using a J-hook, which is a traditional fishing hook versus a circle hook, which has been used in commercial fisheries for many years. And what we found was that with J-hooks, coho in particular would deeply ingest the hook and it would cause internal damage. And that was when they were using bait. With the circle hook we found there was less mortality in the fish, or on the fish, because the fish was generally hooked in the mouth.

And the recreational community asked the Department to proceed with having a regulation change of allowing circle hooks in the sport fishing regulations. We proceeded and it has met a couple of challenges just with the tabling of a revised *Fisheries Act* to different reviews with the Standing Committee, and we still have it on the books to go forward, but we're waiting for some processes that are unfolding.

- Q You'd like to see that change made?
- MS. ADAMS: I think it would be an important addition to the regulations. I don't think it's just specific to helping the sockeye fishery in the Fraser. I think it could be used in a number of different fisheries and areas, but it's not something I think we would look at being a magic solution for sockeye fishing in the Fraser.
- Ms. Sneddon, continuing in the guide, and I won't do this in any detail, but there's a set of charts that set out, and if we have a look at the next page, we'll see an example of that and there's a general description, and then more detailed description for particular areas for the tidal fishing areas and particular species. And this starts with the salmon, discussing salmon.

But this, and then if we flip ahead, Mr. Lunn, to page 42, number 36, page 36 in the guide.

I take it this is the section which goes through
the different - and have a look at one page on,
please - "Closures by Area". So I take it these
are ways of communicating basic information about
what the closures are and what rules apply in a
particular area?

MS. SNEDDON: Yes, that is correct. So for example if

- MS. SNEDDON: Yes, that is correct. So for example if you look on that first page on the salmon table, it says that in all areas, it's the first line of the table, page --
- Q I'm sorry, page --
- MS. SNEDDON: -- 14.
- Q -- 14, which is page 20 of the document on Ringtail.
- MS. SNEDDON: Okay. So it says for all areas for chinook from January 1 to January 31st it's open at two per day, except the tidal portion of the Fraser River. But you may go to page 46, I think it was, you were just on, the "Closures" section and we --
- Q It's 36 of the guide and page, I'm sorry to give everyone two numbers, 42 in the document.
- MS. SNEDDON: Next page on that.
- Q Thanks.

- MS. SNEDDON: So when you look there, it says under Areas 1, 101 and 142, it says "All Finfish, including Salmon" if you're fishing in the tidal portion of a stream, you must have a single barbless hook. So you do need to read the two in conjunction. They're not standalone documents or parts of a document.
- Q Thank you. Just to complete the quick review of this, page 59, Mr. Lunn, is page 53 of the guide. And this is a coloured guide when it's printed and circulated to people?
- MS. SNEDDON: Yes, it is, and again this is one of the pieces we've revamped this year is, you know, we have the sections were outlined, tables, closures and species ID, and so this year we've moved it around a little bit and we've put here's the table for salmon, here's the information for salmon, here's the species ID for salmon. And we've moved it together just so it's a little bit easier for people to read. But that is our ID.

We also have in the "Freshwater" section the species ID for what the fish look like when they're in freshwater.

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- Q The fact that the guide is published for a twoyear period, I understand it's been criticized by some because for salmon, in particular, it may be the case that as soon as they're actually printed, it's out of date in a sense, or doesn't accurately set out the information. I don't know, first of all, is that inevitably the case, and are there specific things that can be done to address that problem, or challenge?
- MS. SNEDDON: I wouldn't say that the document is out of date. I would say there's pieces of the document that are definitely out of -- well, not even out of date, they just they're subject to change. And we try to address that in the guide by saying "to be announced" or "to be determined". So they do not mean the same thing, those terminologies, you know, "to be announced" means we're pretty sure there's going to be a fishery, so we don't know what the dates are yet, but it's going to come up. If it's "to be determined", we don't really know yet. We don't have a forecast or there's some uncertainty. So those parts, that's fisheries management. You cannot always predict what's going to happen.

With the rest of the information generally doesn't change. You know, the gear hasn't changed that much over years. The species ID doesn't change that much.

But we also, when we run out of guides, usually year one into it, we do a reprint and at that point if there are major errors, or things we want to correct or change, we do that at that time, as well.

We also have an additional tool for communicating with the public and that is the Fishery Notice system. So when there is a change to the guide, we do what's called a Fishery Notice and it does go out to a wide audience of people who have either signed up, or who issue licences and through the Department staff, and then it's broadly distributed to anglers that we have access to.

- Q Ms. Adams?
- MS. ADAMS: I would also just add that we're also exploring opportunities to move into the technology age of having "iApplications" with the guide so that people could have it in real time,

and also there are challenges with that, given the geography of the Province of B.C. in terms of receiving that information. But it would certainly be another option.

Mm-hmm. And I'll return to fishery notices. Why

- Q Mm-hmm. And I'll return to fishery notices. Why don't I move towards the question generally of managing the recreational fishery, and we'll try to focus on Fraser sockeye where we can. At a general level, though, is it fair to say that the most blunt tool or the basic tool for management is to open or close the fishery?
- MS. SNEDDON: Yeah, that definitely is the blunt, to open and close.
- Q What other types of tools are available to managers?
- MS. SNEDDON: Well, we can determine whether or not what the size limit is, first off, there's a minimum size limit. Sometimes there's a maximum in other species, not sockeye specifically, but size limits.

There is daily limits. Sometimes people refer to that as a bag limit, but that's really a hunting term. In fishing it is a daily limit.

There is a possession limit, which is generally two times your daily limit. That tries to account for people that are out on a holiday for more than one day, and you don't want to have a daily limit when they're travelling home. So we have a possession limit.

We have again, not specific to sockeye, but I'll just mention it, is whether it's a marked or unmarked fish, meaning a hatchery fish or not.

O Mm-hmm.

- MS. SNEDDON: We have --
- Q Well, I --
- MS. SNEDDON: Yes, Devona (indiscernible overlapping speakers).
- O Sure.
- MS. SNEDDON: There's a number of tools. So open and closing a particular area. So we may open one area versus another.
- Q Mr. Tadey.
 - MR. TADEY: Oh, I was just going to add, to a retention or non-retention, as well.
- O Mm-hmm.
- MR. TADEY: So most of what we've been describing here, going back, and I probably should have mentioned

it and maybe brought this up then, was when Deb was referring to when the sockeye fishery was opened --

Q = Mm-hmm.

- MR. TADEY: -- during the years, that was the retention part of the sockeye fishery she was referring to. so people were still fishing, but they couldn't retain any sockeye they caught.
- Q That would be a catch and release opening.

MR. TADEY: Yes.

- Q So to speak. All right. Are there ever limits placed on the number of licences issued? I suppose as context we've heard some description of the commercial fishery as being a limited entry fishery where there aren't new licences issued, per se. But does that ever happen in the recreational context?
- MS. ADAMS: You're asking -- sorry, what was the question again?
- Yes, I'm sorry, it wasn't very clear. The question is whether there would ever be a situation where the DFO would say no, there are no more licences. We've reached the maximum for recreational fishers.
- MS. ADAMS: The Department has not taken that approach to date. I wouldn't see that happening. What we found, actually, as I mentioned earlier, is that licence sales have decreased significantly in the last 20 years from 480,000 down to 280,000. I believe the public policy on it is that it's public access fishery and those British Columbians or visitors who choose to participate in that fishery can do so, and can get a licence to participate in the fishery. Similar to driver's licences, there's no limit on driver's licences in British Columbia or in Canada, and folks who want to drive have to go through the tests and get the licensing and proceed.
- Q I'd like to bring up number 9, please, on the exhibit list. Ms. Adams, this is an e-mail exchange with a fellow named Frank Staiger I may be mispronouncing the name from the Fraser River Fishing Lodge. I'm asking this just to get an understanding of the challenges and the criticism that can arise when there's a closure. And so I'll just take you to the bottom of the first page, the last full paragraph, or the second-last

full paragraph:

We have received the last --

This is from August 11, 2007:

We have received the last notice from DFO with the "indication" of closing the Fraser River or parts of the Fraser River for recreational fishing. We are SOLD OUT for salmon fishing with 22 direct jobs on the line. If the river is closing, we have to lay off most of our staff as a direct result.

Jumping ahead and one page over, the second paragraph:

We kill a ridiculously low number of salmon per guest. On average 1 salmon per 2 guests, the rest is catch and release. The impact of a closure would be a disaster for all of us.

I don't need to have you comment on the specifics of that, but could you comment more generally about the impacts of a closure and the sorts of what the problems and the consequences that arise.

MS. ADAMS: In both freshwater and marine water recreational fisheries there is an element of visitors to the Province of British Columbia, and they book their holidays like any of us do, probably six months in advance, if not earlier, because they are incurring flights, different modes of travel to get there. They need to book accommodation and they want to make sure they have the proper licensing in place. Similar to commercial fisheries, when opportunities don't happen, that they have an expectation that will, they ask us for refunds on their licences, they ask us for refunds on their plan ride that they took to come from Germany and they ask us for refunds on hotels.

Well, I mean, that's ridiculous. You're dealing with a natural resource, and the conservation of the resource takes precedence as well as our legal obligations. And we communicate that as staff to the recreational fishing community, particularly related to sockeye

fisheries because of the dynamic nature of the returns and the test fishing information that we're getting. So there is no guarantees on this.

And we, as mentioned in my response to this

And we, as mentioned in my response to this letter, we have conservation concerns and legal obligations that precede others having opportunities. There are folks that I would say do not accept that, they simply don't accept that, in the recreational community and in other fisheries, as well.

MR. MARTLAND: I'll ask a question in a moment to follow up. I'd ask this be marked as the next exhibit, please.

THE REGISTRAR: Exhibit 519.

EXHIBIT 519: E-mail exchange between F. Staiger, Fraser River Fishing Lodge & Resort, and D. Adams, DFO, August 11 and 13, 2007

MR. MARTLAND:

- Q With respect to this, then, I take from that, Ms. Adams, anticipating that you'll face unhappiness or criticism, one of the things that you look to do is to reach out and communicate in advance to set expectations; is that right?
- MS. ADAMS: Yes. I would say, in my experience, in my work with the Department of Fisheries, we do extensive consultations with -- and I'll just speak specifically to the recreational fisheries, because that's what we're speaking about today. And we're doing a number of different ways of communicating with them pre-season, in-season post-season, and Deb can probably add some more specifics related to the Fraser sockeye fishery. Q Thank you. Ms. Sneddon.
- MS. SNEDDON: Right. So this e-mail came about in 2007 in August when we had low abundance of sockeye. We had two options really with regulations there. We can say no fishing for sockeye, or we can close the river to salmon fishing. Closing the river to salmon fishing is our last option. We know that that affects people because they have businesses, they have holidays, they have all those things Devona talked about planned, and it definitely affects the economics of the area, as well as the social life of people.

So it's definitely a last resort, and we

would prefer to go to no fishing for whatever species is in trouble, so that anglers can fish for species that are not -- co-migrating species that are still more abundant. In this year we just didn't have the flexibility to do that. weren't meeting our obligations for First Nations and we needed to make a change and we went with no fishing for salmon in the area where this lodge was, and it did absolutely cause some consternation. This one of the easier ones to respond to, actually, compared to many of the emails and letters we get on the subject. But it's definitely not something the Department takes lightly.

And this shouldn't have necessarily been a surprise in 2007 to Frank. We had biweekly information from the Pacific Salmon Commission that gives the run size. It shows where we're at with total allowable catch. That's distributed to many people, including the local committees in this area, of which I believe Frank at that time was a member. It wasn't a surprise to most people that we were going down this road. We were seeing runs not returning and we didn't have the ability to prosecute these fisheries. Yes, so...

- And I'll move, perhaps, just to continue in this discussion, through a few documents. Number 10 on the list and really by way of an example, we've had reference to the Fishery Notice. This is an example of a Fishery Notice? Now, the font is awfully -- it looks like a trick question now. I don't know if you can read that, but as I look at it, it seems to date to August 2009.
- MS. SNEDDON: Yes, that is correct. So similar to 2007, in August of 2009 we had returns not meeting expectations, and we were at a point where we did not have any total allowable catch that would allow for recreational and commercial fisheries to take place. And in this case we were saying could you please yeah, and "please", not a regulation would you please fish more selectively than you have been. And we went with no fishing for sockeye and we encouraged them to use one of the methods there to fish for the chinook that were more abundant.
- MR. MARTLAND: If the Fishery Notice could please be marked as the next exhibit.

THE REGISTRAR: Exhibit 520.

EXHIBIT 520: Fishery Notice, Region 2, No Fishing for Sockeye in Non-tidal Waters of Fraser River, August 11, 2009

MR. MARTLAND:

 Q Number 11 in the book, on our list, rather, Ms. Sneddon, this is an e-mail that you sent to others within the Department August of '09, and to read the start of it:

Folks, I need to express my concerns again regarding a short notice closure of the Fraser River to no fishing for salmon. We have an industry here that has the potential of [20,000 to 30,000] anglers. It is impossible to reach that level of participants in less than 24 hours.

The next full paragraph:

As I stated, we need to give them time to react to this news.

Could you comment on those points that you made?

MS. SNEDDON: Yeah, okay. So August of 2009 is fairly vivid still. So I think it was August 8th we still were looking at a run size for Summer run sockeye of 8.5 million, and then on Friday we get together with the Pacific Salmon Commission and we get a run size of 600,000. And there was certainly a lot of panic within the Department about what we needed to do in order to make sure we meet our conservation requirements, and then if we have any fish above that, that we're meeting our priorities for First Nations food, social, ceremonial.

At the time this notice came out, the fishery in the Fraser River, which is a medium to high impact area because of the number of anglers that can access the fishery there, it was a non-retention of sockeye. So they could go out and fish for chinook. They could catch sockeye and release them. And at this point when we got to 600,000 Summer run sockeye and we didn't have any available for the recreational fishery, we needed

 to make a change. And so was the change no fishing for sockeye, or was it no fishing for salmon. And that was a debate we had within the Department.

It was certainly my view, and as I expressed here, was that I would prefer to see it go to no fishing for sockeye, allow anglers to make the choice to support us and to fish more selectively using the gear types in that Fishery Notice that I mentioned, so that they could target the more abundant chinook.

The debate going on was that, you know, we needed to take drastic action and go to no fishing for salmon. And I said that, you know, we really have a huge audience here. It's very hard for us to reach all these people. You know, August 11th, it's a Friday night. People have already gone out to fishing bars. Lots of them are camping. It was 4:20. We hadn't even issued a notice yet. So businesses are closed, people are not paying attention to what's going on at this point, and I really were encouraging my colleagues that we needed to take some time and think about this a little more clearly before we went to a no fishing for salmon.

In the end we did go with no fishing for sockeye for a short period of time to try and allow anglers to change their behaviour and just focus on fishing for chinook.

- Q And the Department aims to provide 48 hours notice and not to close on a weekend; is that right?
- MS. SNEDDON: Yeah, that is correct. So again because of all the things I just mentioned, we definitely have an agreement with the recreational anglers on when we would close fisheries. We try to give them as much notice as possible, 48 hours, and again not closing on a weekend. Conservation trumps everything. If we were at the stage where we were 100 percent certain and we knew the impact was so great, we would have closed it immediately. At that point, you know, we still allowed for some behaviour changes and we thought that this was the most risk averse method at that time to go to was no fishing for sockeye.
- MR. MARTLAND: I'd ask this be marked as the next exhibit, please.
- MS. ADAMS: I would also just like to add something, if

I may. It's not just the recreational community and the large numbers of participants that we're trying to reach. It's our own staff. We have Fishery Officers trying to enforce a fishery that folks may or may not know there's been a change. So in order to do this in an orderly manner, we have to develop these guidelines and principles, recognizing the unique nature of the recreational fishery in terms of the number of participants, fishing in this area and all of the different access points. It's not logistically possible, short of having the Goodyear blimp fly over, notifying these folks. So we have to have time to get our own staff to be able to communicate and enforce, as well.

THE REGISTRAR: That document is 521, the last document.

MR. MARTLAND: Thank you, Mr. Giles.

EXHIBIT 521: E-mail from D. Sneddon to J. Grout et al re Recreational Chinook Fishery dated August 11, 2009

MR. MARTLAND:

- Q The number 12 on our list of exhibits, Ms. Sneddon, I'll take you just to page 3, and I won't read this out apart from highly selectively. But this perhaps is an example, an e-mail from Bill Otway, August 15, 2009. It uses words like "underhanded", "reprehensible", "a total insult", "cavalier". I take it that's an expression of some of the level of unhappiness about what happened in the summer of 2009?
- MS. SNEDDON: Yes, absolutely. I said the e-mail earlier from Frank Staiger was certainly easier to respond to than this one. Bill, yeah, he definitely points out that in his view that the action was this way, you know, and my response, or in the Department's response, I mean, we're very clear that this shouldn't have been a surprise to anybody, either, other than -- sorry.

The surprise wasn't that we took action. You know, the Pacific Salmon Commission comes with a run size. We need to react to that. Sockeye is dynamic. It works that way. We don't just keep a fishery open because it's going to cause problems within the recreational fishery. Conservation

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comes first, followed by First Nations. The comments from Bill are fairly common

comments from recreational anglers when this type of activity takes place.

MR. MARTLAND: I would ask this be marked as the next exhibit, please.

THE REGISTRAR: Exhibit 522.

EXHIBIT 522: E-mail from D. Sneddon to J. Grout re Salmon Region 2 Non-Tidal Waters of the Fraser River

- MR. MARTLAND: What I'd like to do, Mr. Commissioner, if it's agreeable, we usually break at a quarter past. I have one other short section I expect that I can cover and then I might suggest the break.
- These are questions on consultation. Ms. Adams, I'll direct them at you because I think most of them focus on the SFAB. And I won't try and have you explain the entirety of the consultative processes, if you could take the PPR as giving us some background. I'll first very quickly lead you through some documents. Number 13 on the list is entitled "The Sport Fishing Advisory Board 'An Overview'", and on page 2 of that document it provides a chart which sets out the organizational structure of the SFAB.

MS. ADAMS: Yes, that's correct.

MR. MARTLAND: If this could be marked as an exhibit, please.

THE REGISTRAR: Exhibit 523.

EXHIBIT 523: The Sport Fishing Advisory Board "An Overview" and organizational chart

MR. MARTLAND:

- Number 14 on our list is already an exhibit, it's Exhibit 421 in these proceedings. You'll recognize that as being the Terms of Reference for the SFAB.
- MS. ADAMS: Yes, that's correct. They were just approved January 2010.
- The next item, to be sure that we're thorough, number 15 on our list of exhibits, this is the comparable Terms of Reference but for the Regional SFAC, Sport Fishing Advisory Committees.

MS. ADAMS: That's correct. There's three levels of 1 the advisory process. 3 MR. MARTLAND: Mr. Registrar, I'd ask this become the next exhibit, please. 5 THE REGISTRAR: Exhibit 524. 6 7 EXHIBIT 524: Terms of Reference, Regional 8 Sport Fishing Advisory Committees, January 9 2010 10 11 MR. MARTLAND: And number 16 on the list is the Local Sport 12 13 Fishing Advisory Committees' Terms of Reference. 14 Do you recognize that? 15 MS. ADAMS: Yes, I do, that's correct. MR. MARTLAND: And, Mr. Giles, if I could ask that 16 17 please be given an exhibit number, as well. 18 THE REGISTRAR: The number again was...? 19 MR. MARTLAND: Number 16 on our list, the Local SFAC 20 Terms --21 THE REGISTRAR: Thank you. That's 525. 22 23 EXHIBIT 525: Terms of Reference, Local Sport 24 Fishing Advisory Committees, January 2010 25 26 MR. MARTLAND: 27 With respect to the SFAB process, Ms. Adams, could 28 you please comment on how it is that you try to, 29 or how it is that the Department tries to consult 30 with and have input from such a big and diverse 31 and disparate group of people that make up the 32 angling community. 33 MS. ADAMS: The Sport Fishing Advisory Board was formed 34 in 1964. It's, I believe, one of the oldest 35 advisory processes, but it's gone through several 36 revisions. And the most recent advisory board reflects a bottom-up approach, so we have 22 local 37 38 committees. We then have a northern and a 39 southern regional committee and then a main board 40 of British Columbia. The participants in the 41 process range from independent anglers to 42 businesses, and we try and balance through the terms of reference and the number of seats on the 43

board, a balance between participants in the

fishery who do not derive an income from the

people who do not derive an income from the

fishery, and those who do. And we consider the

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- fishery to be primary anglers, and those who
 derive a portion of their income to be considered
 secondary, and that's been approved through the
 advisory board's terms of reference.
 And I take it that's to avoid those who are making
 - Q And I take it that's to avoid those who are making money from the recreational sector dominating that process.
 - MS. ADAMS: The recreational community as a whole, and this is through the Sport Fishing Advisory Board's processes, believe very strongly that the recreational fishery remain a public fishery. And in doing so, they do not want the business interest to dominate the discussion or the agenda of their processes. The advisory boards meet twice a year. We have a post-season and a preseason planning, and that's for all levels. And at those meetings we're very cognizant, I think as a group of Department and recreational fishing community folks about the advice that we're getting and the different interests that are being brought forward.
 - Q How does the Department support the SFAB, including with money?
 - MS. ADAMS: The Department of Fisheries at the main board for British Columbia, and at the regional boards, the north and the south, we provide travel funding and some per diem meal allowances to travelling participants.
 - And those people who are part of the SFAB do so on a volunteer basis, or at least they're not remunerated by the Department?
 - MS. ADAMS: That's correct.
 - Are there improvements to the SFAB process that any of the three of you would suggest, but, Ms. Adams, I'll begin with you.
 - MS. ADAMS: I think it works very well. These folks meet twice a year. I'm speaking at the main board. We have meetings on Saturdays and Sundays, so they're showing up. A lot of these folks are still working volunteers. They have their regular business, jobs during the week, and we meet with them on weekends.

And I think generally it works very well. They come to consensus agreement on most issues. But the process is governed by a voting procedure, and they use Robert's Rules of Order and very rarely do they come down to close votes. I would

say most of their advice is based on consensus. They're able to reach that, but there's the odd one where they can't. And that will be recorded.

Yeah, I think we get a really good crosssection of participation. They cover all species in marine waters and salmon in freshwater, and they try and cover off both operational issues, as well as policy.

An area that I would see an improvement needed is to have forums where specific important public policy discussions can happen. We're often looking at operational issues and don't have the time to discuss very important policy questions and issues.

Ms. Sneddon, anything to add?

MS. SNEDDON: Yes. I'm not going to talk about improvements so much as you talk about consultation and the Sport Fish Advisory Board. In addition to these local boards, regional and main boards, we also have subcommittees, and we have a number of tem. We have a SFAB Working Group, or Subcommittee Working Groups, we have a chinook and coho one and we have one specifically for sockeye and we talk about sockeye, pink and chinook, and it meets weekly during the sockeye season. We have a pre-season, a post-season meeting, and then somewhere in mid-July we start meeting weekly and we provide information through that process, as well.

And I think it works fairly effectively.

Again, you know, with information changing very regularly on sockeye, generally two times a week, I send that information out to the groups, to the Sockeye Working Group, but we don't meet until the Tuesday night the following night, unless there's an emergency that we need to get together for. And that Sockeye Working Group is made up of members from both the marine waters and the freshwater, but it is predominantly freshwater representatives from the local committees.

MR. MARTLAND: Thank you. Mr. Commissioner, I've run a bit long. If we could move to the break, please. THE REGISTRAR: The hearing will now recess for 15 minutes.

(PROCEEDINGS ADJOURNED FOR MORNING RECESS) (PROCEEDINGS RECONVENED)

THE REGISTRAR: Order. The hearing is now resumed.

EXAMINATION IN CHIEF BY MR. MARTLAND, continuing:

Q Just before the break, Ms. Sneddon, you made a reference to one of the SFAB working groups. I think you said sockeye, pink and chinook and may have meant to mean sockeye, pink and chum; is that right?

MS. SNEDDON: Yes, that is correct. There is a separate working group for chinook and coho.

And perhaps it's timely that pick up on that because I have a question or two about the allocation policy from 1999. And as context for that question, the Allocation Policy in relation to recreational fishers uses language referring to providing stable and predictable opportunities, priority access for chinook and coho with a focus on the opportunity to catch fish and the expectation of catching some fish. Opportunity and expectation are the phrases or words used. And then there's a formula for sockeye, pink and chum, which provides for a 95 to 5 percent split, if you will, between the commercial and recreational fisheries. And there's language about providing predictable and stable fishing opportunities for sockeye, pink and chum.

Ms. Adams, I'd like to, with that as the premise of the question in a very much the Cole's notes version of the Allocation Policy, could you please offer your views on that formulation for recreational fishers? How does the Allocation Policy -- how well does the Allocation Policy work for the recreational fishery?

MS. ADAMS: The policy went into effect in 1999 after many, many years and different processes to try and come to some resolution on the Allocation Policy. What the recreational community wanted as paramount to their fishery was some certainty around priority access for chinook and coho and that's covered in one of the principles. It was also recognized through the Allocation Policy processes that sockeye, pink and chum were also important but not as important as they are to the commercial fishing industry. And so in this policy, there was a method of the 95/5 split. So 5 percent of the sockeye allocation between

commercial and recreational would be allocated to the recreational fishing community, a cap of 5 percent. And the same is true for chum and also for pink salmon and that's applicable on a coastwide basis.

- Ms. Sneddon, have there been issues with that 5 percent cap on sockeye, pink and chum on each of those species, have there been issues recently with the recreational sector potentially reaching the 5 percent mark or a concern about that?
- MS. SNEDDON: There was a meeting we held in January of the Allocation Implementation Committee, which is a sub-committee of the Integrated Harvest Planning Committee. There was definitely some concern, not just from the recreational but from the commercial about where we were at within that 5 percent cap and we wanted to have a review for both sectors of where we were on all species. We looked at the information over a variety of years and overall we are not over the 5 percent cap. In 2010, with the abundance of sockeye that was available for the recreational fishery, particularly in the nontidal Fraser, there was an opportunity to potentially increase the daily limit and allow the anglers there to harvest more fish.

There was a discussion within the sockeye, pink and chum working group about how that might affect the 5 percent and whether or not we should go down that road in this year when there's high abundance and get close to that 5 percent when in other years when we have lower abundance. There was a risk associated with going over. So we had a discussion around it and determined that we wouldn't increase the daily limit in that area. And then in January of this year when we had our review, we were still under the 5 percent over all the time series that we looked at.

- Q I take it years of low abundance create more of a risk of hitting the 5 percent cap, that even if you have hypothetically parallel effort by the recreational sector or the same number of fish caught, if you will, on a small return that's going to obviously lead to a higher percentage share.
- MS. SNEDDON: That part is not necessarily driven by Fraser sockeye. It's mostly driven by Barkley Sound sockeye where the catch can be fairly

significant by the recreational sector. But
because it's a coast-wide 5 percent cap in years
of lower abundance for commercial fishing of
Fraser, that catch of Barkley Sound sockeye can
account for a significant amount of recreational
catch.

Ms. Adams, in the Mission to Hope area in

- Ms. Adams, in the Mission to Hope area in particular, is it even possible to provide predictable and stable access to sockeye?
- MS. ADAMS: In the ten years that I worked in the Fraser River up until 2005, no, it's not predictable. It's very difficult and it's very dynamic. So we have tried to work with the angling community to not set them up for expectations; rather, if there is an opportunity it's a bonus.
- Q Yes?

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- MS. SNEDDON: I'd just like to add that that's sockeye specific. There are other species that we definitely have provided opportunity and they know well in advance like pink salmon and chum salmon for the most part is very stable, very predictable opportunities.
- Ms. Adams, what sort of management and planning work occurs before the fishing season in a given year?
- MS. ADAMS: Generally, we do a post-season meeting with all stakeholders and particularly with the recreational committee. We do meetings at the local level so with all of our 22 local committees throughout the province. We meet with them and we explain where we ended up at the end of the fishery and we ask them for feedback on how they felt the fishery went in that year and if there's areas that we can improve in for subsequent years. And that covers everything from fishing opportunities to enforcement concerns to catch monitoring to areas where we could do improvements with education and awareness to some seasonal differences like years where we have pink fisheries and years where we don't have pink fisheries.

And also comments from the community on the department's Salmon Enhancement Program where they would like to see the department spending more time and funding on some additional enhancement opportunities and clipping of hatchery fish. So

it covers a broad range of issues. So the first meeting of the year post-season and then the meetings leading up to our next fishing season we're developing with them Integrated Fisheries Management Plans. And those management plans, which I'm sure you've seen, cover the full gamut of all of the operational details, as well as the conservation objectives, the legal objectives, the department's enforcement objectives, international obligations, catch monitor. I mean the list goes on and on and I'm sure you have seen those.

- Yes, and we've had evidence on a general level on the development of the IFMPs. I won't be getting into great detail. What is the SFAB's involvement in that process?
- The SFAB, as I mentioned earlier, covers MS. ADAMS: all species in all waters and policy and operational issues. So I think if you were to put the commercial crab fishery, commercial prawn fishery, commercial salmon fishery, commercial groundfish fisheries in one room for a week and it would be an interesting scenario but that's like what the SFAB is. We meet for Saturday and Sunday. We talk about all of those different fisheries and all of the issues related to them and the science. And from that process, they then move to an Integrated Harvest Planning Committee process with the department, which includes First Nations, environmental organizations, commercial fishers and I think there are times when the Province of B.C. sits at that table as well but that's the forum.

They also work in a number of different working groups with other stakeholders like Deb mentioned earlier, the Allocation Implementation Committee, there's local area groups where some of our fishers will be fishing in, say, Johnstone Straits, and the local Campbell River fishermen, both commercial and recreational, will discuss some in-season challenges that they may be having in terms of open times and areas and how that may impact one another. So we're trying to work more integrated with all of the different stakeholders in the various areas.

And it's a challenge but I think it's definitely improved and continues to improve. The Integrated Harvest Planning Committee has been

around, I think, five years now, maybe a little bit longer. But it started out getting going and building relationships. And now I think there's some very important work that they're doing on a number of key areas and I think it will continue to improve. I think we have to have those discussions together, not separately.

Ms. Sneddon?

MS. SNEDDON: Just to add to that a little bit more detail. So when the draft Integrated Fisheries Management Plan comes out, the IFMP, we do take that to the local committees, all 22 committees, we ask for their advice on it. You know, it's generally a 200-plus-page document so we try and condense it to the parts we think they're interested in and can provide as advice that we could use.

And we go out and we meet with them on that. And we also allow anyone in the public to comment on it. We do put it on our internet, on the public internet, and anybody who wants to comment on it, whether they're part of a local sport fish advisory committee or not, just a regular recreational angler, they can provide their comments to the department. And we take those comments from those local committees up through that SFAB process, through the regional board and the main board.

- Q Could you describe, Ms. Sneddon, if the FRIMT, Fraser River Integrated Management Team, and in particular what it's doing for the management of the recreational salmon fishery?
- MS. SNEDDON: Okay. So the FRIMT, or the Fraser River Integrated Management Team, is an internal departmental group of people. We have representatives. It is a south coast of B.C.; it's not a north coast process for the most part. We have local managers, area chiefs of resource management, area chiefs of stock assessment, area chiefs of conservation and protection, the salmon team lead generally and the Canadian chair of the Fraser River panel, which is currently Barry Rosenberger. And we get together at a minimum twice a week but sometimes five times a week to talk about sockeye and pink, in pink years, fisheries management.

And we review the information that we get

from the Pacific Salmon Commission. Sometimes we get it in advance. Sometimes it's just after the meeting. We review the information. We look at our conservation requirements. We look at fisheries planning. We look at how we would plan a fishery to meet all of our policies, the Allocation Policy, the priority for First Nations FSC, and we make not always a consensus decision but we make a collaborative plan in order to manage the fishery according to the department's policies.

- With respect to the question of whether to open the recreational fishery for Fraser sockeye, I'd like to learn a little about the approach taken.
- MR. MARTLAND: And I'll try and do this by using number 17 on our list of documents, Mr. Lunn.
- The first page of number 17 on the list is an email, Ms. Sneddon, that you sent June 22, 2009, to quite a long list of folks within the department, and you'll see the reference there:

Attached is a 2006 information note, which outlines an approach for managing recreational fisheries for sockeye coastwide.

Then skipping one sentence.

I have reviewed the document and believe the principles are still valid and the approach is appropriate for 2009.

And then it attaches at page 2 the Decision Guidelines for the Recreational Fraser River Sockeye Fishery from, I think, 2006; is that correct?

MS. SNEDDON: Yes, that is correct. So the guidelines were developed in 2006 by my predecessor and in conjunction with Devona Adams here. And we really wanted to try and meet that requirement that the recreational fishery sector was looking for around stable and predictable opportunity. So we looked at the recreational sockeye fishery, where it takes place, what are the impacts of that fishery and are there any decisions we could make, decision guidelines that we could put forward that the community would be aware of on how we would

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manage this fishery in order to provide that stable and predictable opportunity. So for example, we looked at the history of the catch of sockeye in the marine water. So the marine waters where fishing for Fraser River sockeye might take place is generally off Victoria, some up in Campbell River and off the mouth of the Fraser. We looked at the catch from that fishery and it seemed to range somewhere between three and 7,000 sockeye a year so we figured that was a fairly low impact fishery and --

- MR. MARTLAND: And I wonder if I can just interject because it may be helpful to have on screen one page on, Mr. Lunn, at the bottom under "New Decision Guidelines".
- Q There's reference to south coast marine waters, which I think is what you're speaking about?
- MS. SNEDDON: Yes, absolutely. So when we looked at that, we thought, well, that's a fairly low-impact fishery. What could we do in order to provide stable and predictable opportunities. And we said, well, if we think we're going to meet our First Nations FAC requirements that they're actually fishing, and that we are pretty sure we're going to have a commercial total allowable catch, we'll open that fishery, low impact. In the other area, the non-tidal waters of the Fraser River, mainly from Mission to Hope, we thought we'd look at the catch, we looked at what the history was there. It was quite a range but it was between 50 -- I can't remember now, was it 50 or 20 and 120,000. So it could be a significant fishery. We assessed that as a medium-to-high impact fishery and we said, well, what could we do in order to provide stable and predictable opportunities?

Well, we knew that, first off, we needed to make sure that the First Nation FSC fisheries were open and were having full opportunities. So there's a range of opportunities that we consider full. We wanted to make sure that we had a harvestable surplus. And if those two conditions were met, we would be able to provide opportunities.

I just want to back up just a bit and make sure that prior to any of this taking place, we want to make sure that we're meeting our

- conservation requirements. Okay. So these were
 the two guidelines we came up with. We also put
 in a little bit of more information about when we
 would close these fisheries, which you could see
 in that note.

 MR. MARTLAND: And we scroll down to see that. It's
 - MR. MARTLAND: And we scroll down to see that. It's the last part of the second page or the last page there.
 - MS. SNEDDON: So closing the in-river recreational fishery. If we had any kind of information that said we weren't going to meet the FSC requirements, which is, you know, what happened in 2007 and 2009, and if there was a conservation objective that we were not going to meet. So in the Fraser, it would be Cultus sockeye or Interior Fraser coho or the escapement target not being met. So we put this in place in 2006. It was agreed to in 2006, was implemented in 2006, 7 and In 2009, when I did send this forward, we'd had a number of different legal decisions that had come forward in 2008/2009 and most notably I think it's Douglas, which changed the way the department looked at the risk around opening these fisheries. And so it really wasn't implemented in 2009.
 - And I won't ask you to start into a legal discussion but could you perhaps describe what the different approach, what the result of that was in 2009? What was the approach taken in 2009?
 - MS. SNEDDON: The difference in 2009 was we wanted to make sure that not only was there an anticipation of a commercial total allowable catch but there actually was one. So we didn't open the marine recreational fishery until we were opening the commercial recreational fishery. We didn't open it in advance at all. And in-river it was the same rules; it had to be full First Nations full fisheries and the harvestable surplus.
 - MR. MARTLAND: I'll ask that this be marked as an exhibit, please.
 - THE REGISTRAR: It will be marked as Exhibit Number 526. I notice that there's four different CAN numbers. Do you want them marked alphabetically in sequence?
 - MR. MARTLAND: I'm open to guidance. That makes some sense to me to mark the attached documents with an A, B and a C.
 - THE REGISTRAR: CAN number 8590 will be Exhibit 526.

Ending in 591 will be 526-A. Ending in 592 will be 526-B. Ending in 593 will be 526-C.

EXHIBIT 526: Email from D. Sneddon to P. Ryall re Recreational Sockeye Management, June 22, 2009, with three attachments

EXHIBIT 526-A: Memo to RDFAM - Decision Guidelines for the Recreational FRS Fishery, March 2006

EXHIBIT 526-B: Transmittal Cover from J. Wild to D. Radford, RDFAM for Memo at Exhibit 526-A, March 6, 2006

EXHIBIT 526-C: Appendix 1 - Regulation of the Recreational FRS Fishery

MR. MARTLAND:

- Ms. Sneddon, when, as often occurs, changes need to be made in the middle of the season, the recreational fishing season for sockeye, could you describe very briefly how those changes are affected?
- MS. SNEDDON: Yes, so you're right, changes definitely come into play in Fraser River sockeye fisheries management. And the first step internally is we make the decision at the Fraser River Integrated Management Team level what decision we're going to make. From that point, we have to make a regulatory change. And so we do what's called a variation order to vary the regulation.

So whether it's to open or close or increase the daily limit or close an area, we would fill out these forms. It's a memo to the regional director general asking her to vary either the waters or the open time or the daily limit. At the same time, we do a fishery notice for the public and we send that up through a series of steps to be reviewed and approved. It goes to the regional director general, who signs off on it. When she does, it goes on our fishery notice system out to the public and we send it out to a wide audience at that point.

Ms. Sneddon, is Creel information, and we'll be picking up on the Creel topic with Mr. Tadey soon, but is the information from Creel Surveys

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something that is used in the middle of a fishing season?

- MS. SNEDDON: You know, it hasn't historically been used but in the last four years it definitely has come into play. So in 2007 and in 2009, you know, we had a preseason forecast that didn't return. And we had some concerns around that. We also had a recreational fishery open for chinook allowing the catch and release of sockeye. And we needed to know what the impact of that catch and release fishery for sockeye was. So we did use the information from the in-season Creel program in order to assess the risk of that fishery and make decisions.
- I'll ask only one or two questions about a document which probably understates the significance of the document. Number 20 in the list of exhibits is the Vision for Recreational Fisheries in British Columbia, 2009 to 2013. It's discussed at some length in the Policy and Practice Report Number 7 and so I won't take you through the governing principles and the vision as they're set out there. Ms. Adams, what I would like to ask you about is, in particular, your involvement in this and what prompted the vision, the process that led up to this document.
- MS. ADAMS: My role in this was as the regional recreational fisheries coordinator, one of the people that would lead this, as well as some of the directors in our department. We also had provincial government staff participating at a very high level and also the recreational community. The genesis of this, where this originated, was a result of the Pearse McRae process in 2004 where they delivered a joint task report, I believe it was, and then also First Nations developed a report on "Our Place at the Table".

And those reports were delivered to government and recommendations were made in the formation of Pacific fisheries reform. The recreational community indicated to the Department of Fisheries that they felt in both of those processes that nowhere in them did they see themselves in that process, that there was not a vision for them in the future of fisheries in British Columbia and they asked the department to

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consider that. And the department did and we agreed that, yes, they were more focused on the commercial and First Nations aspects and futures for the fishery and that we would work with them to develop a vision for their fishery. Many of the principles in the document are similar to the ones that are outlined in the Pacific Fisheries Reform Initiative so I won't go through those. And just to say that this did start in the fall of 2005. We developed the draft vision for comment and a framework over that time and then we started consultations outside the recreational fishing community in 2007, 2008 and 2009. And this document was approved by our fisheries minister in January of 2010.

MR. MARTLAND: If this could be marked as an exhibit, please?

THE REGISTRAR: Exhibit 527.

EXHIBIT 527: Vision for Recreational Fisheries 2009 - 2013 Approved January 2010

I wonder, Mr. Martland, if I could THE COMMISSIONER: just ask a quick question. I meant to ask this of another panel but simply forgot. And you may not be the right folks to answer this in any event. In the course of this Commission, I have, as you have and my colleagues on the Commission have, seen many, many documents. I've seen documents called "new directions", I've seen documents called "policies", I've seen documents called "vision statements", I've seen documents called "reform". And in some cases, they're actually acted upon, my words not yours, it's like a policy in the guise of something called a "vision statement" where it's actually acted upon. seem to be just for discussion purposes, purely still called a "policy".

It's unclear to me, and you may not be the right people to answer this, how on earth do you sort this all out? What does it all mean? What's a policy? What's a vision? What's a new direction? What's a reform package? Do they all have the same weight? I mean I understand the content is different for them. But in terms of you responsibilities, taking them forward, consulting with user groups, talking to the public

about them, posting them on websites, how do I weight them in terms of within DFO their implications and their sense of weight and responsibility?

MS. ADAMS: You're correct. I'm probably not the person to answer all of that but I would say that staff and stakeholders share the concerns or the confusion or whatever, fitting it all together and what takes priority or not. I can speak to the vision document. The vision for the recreational fisheries is based on a national operational policy for recreational fisheries in Canada. This is a made-in-B.C. piece of that. So we have a higher overarching national policy for recreational fisheries in Canada and this is the vision underneath that for British Columbia with more specifics to it.

MR. MARTLAND:

- Q Ms. Adams, is there work being done to follow up on vision, the document?
- MS. ADAMS: Yes, we're currently working with the recreational community and with some Province of B.C. staff, although they've been going through several re-organizations, as you're probably well aware. But what we did from the vision was we worked with the community to identify, you know, there's a lot of issues going on in all of these fisheries. We don't have the resources to tackle a hundred issues at one time. We need help from you to identify with us and the Province of B.C. the most important issues that we can start tackling together, recognizing that there's going to be trade-offs and give-and-take on all fronts. We're not always all of us going to get everything we want. And so we went about doing workshops in an action planning process because part of our vision, the second page of it, says the vision is only as good as the actions we take. And we really believe in that because we've all seen way too many vision documents sitting on shelves somewhere that are never acted on.

So we developed an action group. I met with them. We had facilitated discussions. And I said to the recreational community, can you please give us your Reader's Digest of the highest priorities? And they gave us 60-some-odd. And I said, "Folks, that's still too much. We need you to narrow it

down." And I think we got down to 22. And we now have 12. So they've given us their 12 priorities and we've been trying to action them. And communication, education, awareness is up there in the top three. Access and allocation is also up there. And the third one, I'll just speak to the top three. I don't want to bore you with the details on 12 of them. But the third one is improvement of information and catch accounting so that we can make the best decisions possible for the resource and also for the fisheries as a whole.

- Ms. Sneddon, I will really only ask one or two questions on an area of some controversy or interest, and I'm sure you spend a lot of your time addressing these sorts of questions. This has to do with the bottom bouncing method, in particular, as used in the river. There's been some controversy over that, and this is discussed in the PPR, but there are different views as to whether that's considered an unethical way of fishing, whether it's considered a perfectly ethical way of fishing. That's a slippery process, deciding what ethics should govern. So I'd like you to very briefly comment on the controversy but perhaps, more importantly, does the department get involved in that ethical controversy or debate? Does it have a position or view?
- MS. SNEDDON: All right. So maybe just a bit of background. Bottom bouncing is a legitimate fishing method. It's been around forever. It's used worldwide for all sorts of species. It's used in deep water in Australia on reefs. It's used for walleye Ontario. It's used for steelhead on the Thompson River. It's a very effective method for targeting fish and very selective in clear water conditions. And generally you're bouncing some type of a lure on the bottom of the river that the fish sees and actively strikes. What's occurred in the Fraser River is somebody has decided that they would try that in the Fraser River but the Fraser River is, well, generally not more than six to eight inches of visibility.

So you're bouncing along a weight with a hook and a line, generally not a spoon, just a line with some wool on it. And you're bouncing it

along the bottom of the river and a fish is swimming upstream and he's got his mouth open as he's going upstream and the hook hits the outside of his mouth if the river's bank is here. And you feel something and you pull on the line and you've hooked a fish. It does hook generally in the mouth but it has not bit the lure. But it is hooked in the mouth, which is, by regulation, a legal fishing method.

So there are some proponents in the recreational fishing community who view this as not true sport fishing. In the Fraser, not the majority of anglers, as you can see by the number of people that go out fishing for sockeye. The department does not get involved in that ethical debate. If it's a legal fishing method, it's open or it's closed. We don't regulate bottom bouncing. We don't have the authority to do that and we don't get into a debate about ethics. It's a legal fishing method when they hook it in the mouth. There was something else I was going to say on that.

Q Go ahead, yes.

- MS. SNEDDON: There's debates in all sectors around whether their fishery is ethical or not. There's groundfish troll fisheries, there's seine fisheries, there's even trolling. You know, there's impacts to other fish and the environment that are ethical concerns for people so it's not a thing just for the recreational community.
 - If I might turn to PPR-7, on my printed version page 35, paragraph 86. And Ms. Sneddon, this is a question about something that's referred to in the PPR, a 2007 draft paper by the Chilliwack River Watershed Strategy. And it sets out some issues that have arisen there. I take it you have some comments on those issues and whether they apply to Fraser sockeye?
- MS. SNEDDON: Yes, absolutely. So this is a document, the Chilliwack River Watershed Strategy. They are a group of people in the Chilliwack area that were concerned around fishing and fishing behaviour on the Chilliwack River. They got together, they wrote a paper, it was provided to the department. And in that paper, they talked about fishing behaviour on the Chilliwack. The Chilliwack is a fairly small system with a lot of anglers in a

small area that get, at certain times of the year, a huge abundance of fish. And when you have a huge abundance of fish in a small area with a lot of people, you tend to see some behaviours that may not be very acceptable. This is not specific to sockeye because we do not have a sockeye fishery in the Chilliwack River. But some of these problems have definitely gone into the Fraser, although at what levels would be hard to determine. I would say that some of those behaviours have come into the Fraser River.

- Thank you. Ms. Adams, I would like to ask you about selective fishing and the relevance and applicability of selective fishing to recreational salmon fishing.
- MS. ADAMS: Just with regards to recreational salmon fishing, in order to improve selectivity, we use different, very limited options in the fisheries regulations, which we can vary the method of gear that folks are using, the bait that they're using and a few other types of gear and bait and methodrelated regulations but there are probably less than 12 of them in the regulations. So we don't have what the fishermen called a lot of tools in our toolbox for gear and method and bait regulation. So the main restrictions that we have for the recreational fishing community with regards to gear would be barbed or not and then looking at hook shank, between the hook and the stock of the hook, and then other things like bait So it's very limited in terms of restriction. what we can do with gear, bait and method regulations.
- Q Do you think the department needs more tools at its disposal, a greater power to use regulations?
- MS. ADAMS: You know, this Chilliwack River group recommended a number of things. We've also looked at fisheries in Lake Washington for sockeye. And we look at fisheries, obviously, in other jurisdictions to see how they're dealing with challenges. And I guess the short answer is, yes, I think we could add some additional tools in our toolbox, our regulatory toolbox. The recreational community has historically held very near and dear to their hearts that the department not start mucking around in what they call their tackle box. We don't want you regulating ethics; we want you

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managing fish and fisheries and you need to leave the ethical things to us. And sometimes we've taken that advice and other times we haven't; we've put in regulations that we believe are needed and necessary. But certainly, I think we could have some additional tools in our toolbox. We talked earlier about circle hook. That could be one but it's not certainly the exhaustive list of options.

- I'm going to turn to some final questions before we break at 12:30. This may run us to the break. With respect to the sockeye catch-and-release mortality study that was conducted, and Ms. Sneddon, I'll direct these questions to you. The Policy and Practice Report is on screen, which is helpful. Paragraph 82 on page 34 refers to this at the top of the page as being a three-year release mortality study. In fact it's continuing this year, it's a four-year release mortality study?
- MS. SNEDDON: Yes, that is correct.
- Q And before I get into the specifics of the report, at a general level, could you help us understand what is the importance of having catch-and-release mortality information? What is the importance of that information?
- MS. SNEDDON: Well, this study came about for a number of reasons. But the first and main reason it came about was in the Fraser, in the Chilliwack area, there was some conflict between First Nations and the recreational community. There was a view that the recreational catch-and-release fishery of sockeye had a significant impact on sockeye that were being released and it was causing some conflict between the user groups. The Fraser Salmon and Watersheds Program assisted the department with some funding to come and initiate a study. We developed a study designed jointly with them with biologists from the department and we came up with a study design that would look at four years of information so that we could capture all the run timing groups, if possible, a wide variety of water conditions, both temperature and flow, and also the abundance, whether the abundance affects whether or not mortality rates are higher or lower.

So we got some money together and we started

this study. The intention, one, was to try and dispel some myths if we could. It was also part of the Allocation Policy. It does say that in the future recreational catch-and-release mortalities would have to be accounted for. Although the Policy doesn't say when it's going to be accounted for, it is something that we needed to look at it. Catch-and-release mortalities are not required only for recreational fisheries. We need to have them in all fisheries. That is something that is ongoing and that's noted in one of the reports we were looking at.

MS. ADAMS: It's in the IFMP.

MS. SNEDDON: In the IFMP. And it's something that a group called NSERC, National Sciences and Engineering Research Council, have a funding grant and they're looking at catch-and-release mortalities in all sectors. They're looking in seine fisheries, troll fisheries and gillnets. And so when we have that information we're going to know the true mortality and that will help us to better manage salmon fisheries. And so this study, again, it was a four-year study. We've conducted three years.

And in the past, what we've done is we didn't have any information about release mortalities in freshwater. And we'd been applying a 10 percent mortality to any fish caught and released based on a study done using troll gear in the marine waters. So if you're fishing in the marine waters with troll gear, it's clear water, you're using a hook, a lure or something, the fish actually bites it, the hook's inside the mouth, the chances of it hitting a vein and bleeding out and dying, we estimated through studies, 10 percent.

But when you're fishing in the Fraser River and you're bottom bouncing, you're bouncing this hook along and it hooks you in the outside of the mouth in what's called the maxillary, it generally does not hit a vein. Very, very few fish were thought to die, as a result of this fishing activity. So we wanted to prove that. So we put this study in place. And after three years, you know, we're in the 1 to 3 percent range, rather than 10 percent, which, in some years when you're releasing a lot of sockeye could be a fairly significant number. So in 2010, in the salmon

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IFMP, we adopted a 3 percent mortality rate to use against fish caught and released rather than a 10 percent. And that 3 percent is higher than the three years of the study so far. But those numbers that are reported in paragraph 82 there, those are the hard number, that's not the variance, so there is a variance around those. And so we went with 3 percent for that buffer.

- And that's a very concise way of giving us an understanding of the study, which is referred to here, conducted by J.O. Thomas and Associates in the Fraser River. And I just want to confirm that I have it right. As a result of the numbers that were developed from that study from the department's point of view, for planning and management purposes, rather than applying a 10 percent mortality rate to fish that are caught and released, that's changed to a 3 percent rate? MS. SNEDDON: Yes, that is correct.
 - Now, I have a correction to the PPR, which I'd like to ask you about. And paragraph 81 of our report makes reference incorrectly to, third sentence down:

This number was based on information from a commercial troll fishery.

In fact, it's a marine but a recreational troll fishery that generated the 10 percent figure?

- MS. SNEDDON: Yes, that is correct. So that was the two changes I wanted to mention, that one and the three to four-year in paragraph 82.
- Thank you. I think it is more by way of completing the documentary record. Number 22 on the list of exhibits --
- MS. SNEDDON: Actually, Brock, before we move on, could I talk a little bit more about that mortality? Yes.
- MS. SNEDDON: Okay. So the study is a short-term mortality study. We're only looking at mortality over 24-hour mortality. We're not looking longterm. And that is what's been consistently used in the marine water fisheries as well. applying a short-term mortality. The NSERC program that is currently underway, the five-year one, they're looking at longer-term. They're looking at, did the fish make it to the spawning

1 ground? So for management purposes, this study was looking at 24 hours and that's what we're 3 going to use until we have more information, which we need from all fisheries, not just recreational. 5 Thank you. And I should maybe put on record or 6 identify that you, in fact, in August of last 7 year, with Ms. Grant, myself and Mitch Taylor from 8 the Department of Justice took us to the Fraser 9 River and showed us Mr. Thomas, the study that he 10 was conducting and that work that's described in 11 these reports. 12 MS. SNEDDON: Yes, that is correct; we had a field 13 trip. 14 I'm not sure how Mr. Taylor manages to go fishing 15 and not come here for the hearing today but I'll leave that to Mr. Timberg. With respect to the 16 17 first document there, number 22, that is the study 18 with a date of February 2009, "The Preliminary 19 Investigations", is what it's entitled. 20 MS. SNEDDON: Yes, that's the results from the 2008 21 year, the final report. 22 MR. MARTLAND: I'd ask this be marked as the next exhibit, please. 23 24 THE REGISTRAR: Exhibit 528. 25

EXHIBIT 528: 2008 Lower FRS Recreational Hook and Release Mortality Study, February 2009

MR. MARTLAND: Mr. Registrar, please let me know if I do this too quickly with respect to entering these exhibits. There's three others. They go in number sequentially by year. Number 23 on the list of documents is the 2008 Preliminary Summary.

Q Is that correct, Ms. Sneddon?

MS. SNEDDON: Sorry. Yes, it is.

MR. MARTLAND: I'd ask that be marked as an exhibit, please.

THE REGISTRAR: 529.

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EXHIBIT 529: 2008 Lower FRS Recreational Hook and Release Mortality Study Preliminary Summary 2008

- MR. MARTLAND: Number 24 should be the 2009 Summary of Findings.
- Q Is that correct, Ms. Sneddon?

MS. SNEDDON: Yes, that is correct. THE REGISTRAR: 530.

EXHIBIT 530: 2009 Lower FRS Recreational Hook and Release Mortality Study, Summary of Findings, June 2010

- MR. MARTLAND: Finally, number 25 on the list, the 2010 Summary of Findings.
- Q Is that correct?

MS. SNEDDON: Yes, that is correct.

THE REGISTRAR: 531.

EXHIBIT 531: 2010 Lower FRS Recreational Hook and Release Mortality Study, Summary of Findings, November 2010

MR. MARTLAND:

- Q Before I move into some questions on creel surveys, I have sort of a question that doesn't fit neatly anywhere but it's this. Ms. Adams, I'll start with you. Could you comment on the relative importance of the recreational fishery within the Department of Fisheries and Oceans? Is recreational fishery a forgotten younger sibling within the department?
- MS. ADAMS: I would say if we looked nationally, yes, because most of our fisheries in Canada are commercial that the Department of Fisheries is involved in. In the Pacific region, I would say that it still is low in profile within the Pacific. But I think it has the opportunity and has had the opportunity to climb in the last, I don't know, ten, 20 years. After the Pearse Commission in '82, it was identified that there were very few resources dedicated to the recreational fishery and the department increased resources. And currently, there are very few fisheries management resources directly working on recreational fisheries in this province.
- Q Mr. Tadey or Ms. Sneddon, anything to add on that question?
- MS. SNEDDON: I guess, yes, Devona pointed out that the Pearse report recommended an increase and that did happen and we did have a division called the Recreational Fisheries Division that worked out of our regional headquarters and had, I think there

were, 12 people working in recreational fisheries management full-time. Currently, we have Devona 3 as the regional recreational coordinator and then three area staff who work full-time on 5 recreational fisheries. And then we have other 6 managers that work, do some part-time stuff. 7 I'm not sure where we were in the mid-'90s 8 anymore. 9 MR. MARTLAND: Mr. Commissioner, it's --10 THE COMMISSIONER: I wanted to ask this panel. 11 you may not be the right people to answer and so I 12 apologize. One of you, and I can't recall which 13 one, I think it might have been you, Ms. Adams, 14 that used the word that conservation trumps 15 everything else. Not your exact words but I think that was the spirit of what you had to say. 16 17 the folks within the recreational fishery in DFO, 18 who are managing the recreational fishery, do they 19 wear the same hat with respect to conservation, 20 First Nations and then the recreational fishery? 21 In other words, are there different people doing 22 these different tasks in terms of the decision-23 making side of it, or is it a person taking off 24 one hat today and putting on another hat and saying, well, I've dealt with the conservation 25 26 issues, now, I've got to deal with the FSC, and 27 tomorrow I'll deal with the recreational fishery? 28 MS. ADAMS: My experience is it's been a bit of both. 29 When I worked in the Fraser River, I felt like 30 Sybil. Half the time, I was a commercial fishery 31 manager and the other half I was a recreational 32 fishery manager. But there are common principles 33 and certainly conservation, I think, most staff at 34 any level, whether it's fisheries management or 35 stock assessment or enforcement, we're very 36 cognizant. And I think most of us have got 37 involved in resource management because we care 38 about the resource. And so we want to make sure 39 the resources is protected. So I would say that 40 message gets out. It gets a bit tricky in how to 41 implement some of the policies and some of the 42 case law and court decisions and we're still 43 finding our way on that. But I think there are 44 certainly crossovers in all of our jobs between 45 the different fisheries. But in this region, we only have four dedicated fishery managers working 46 47 on recreational fisheries. Deb, you might want to

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- MS. SNEDDON: In the lower Fraser area and in sockeye management in particular. It is a team, the Fraser River Integrated Management Team, that's looking at sockeye management and we are 100 percent looking at conservation first then our obligations under First Nations, either FSC or treaty obligations, and then we're looking at the Allocation Policy and where we fit commercial and recreational in there. So as that team, we're working together to meet all of those guidelines. The questions that I have remaining focus on creel surveys. Mr. Tadey, I expect most of these will be directed your way. If I might start, Mr. Tadey, and please assume the question is directed to you unless I say otherwise. If I might start by confirming the staffing with respect to the recreational creel survey in the lower Fraser. take it that includes one biologist, one technical person, one data entry clerk and in addition to that a number of term of seasonal employees who
- I'm the program head for a program that has MR. TADEY: the title of chum, pink and recreational fishery so I do chum assessments, pink assessments, some escapement work, juvenile work and then a portion of the program I'm involved in also does recreational fisheries assessments. So yes, there's myself, there's another biologist in our group, there's a full-time technician in our group and then through the course of the season, we have operational and salary dollars that we use to hire staff to conduct our recreational surveys. In the past, the recreational survey in the Fraser mainstem has gone from May even through to December.

I think some of the earlier studies went from March until December. The time period varies sometimes depending on the funding. But you know, recently, it's been a May to mid-October sort of period so that's a large part of the year where we have staff that, yes, they're doing other things but a large part of the time is dedicated towards assessing the recreational fishery. And seasonally, we will hire, can be anywhere from eight to 12 seasonal staff to conduct the assessment projects.

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- Q I should ask the most obvious question. What is the creel survey?
 - MR. TADEY: Creel survey is a systematic, planned, structured method for assessing recreational effort and catch. That's my interpretation of it and that's what we use for the Fraser. That's what our goal is for the Fraser so that's what a creel survey is.
 - In the case of the creel, as used for fish in the Fraser River and the recreational fishery in the Fraser River, could you give us an understanding, at a general or overview level, of how that survey is used, what the components are of the survey? How it's conducted, I'm sorry.
 - MR. TADEY: The creel survey, we use in the Fraser mainstem is actually a complemented survey. uses two independent surveys. One is an access point survey where we will visit various locations on the Fraser River and interview anglers, as they're leaving the fishing for the day. Access points are usually places where there's a little bit of a bottleneck that might be for anglers. could be a boat ramp. It could be a trail. So what we get from that, one of the components that we get from that is when we interview the anglers, that's where we conduct an interview of the angler. And from those interviews, we will ask questions like, "How long have you been fishing?" "What is your target species that you were trying to catch?" "What did you catch?" "Of what you caught what did you harvest and keep or what did you release?" We'll get information like that from the anglers. We can also inspect the catch. We can ask if we can inspect the catch as well for verification of what they have told us: species identification, collection of biological information.

What we can get from that information is a rate of what the angler has caught by species. And we pair that up with another survey of the entire study area. I'm wondering now if this might be a good time through the presentation --

- Q I thought you were going to say to have lunch. MR. TADEY: To have lunch.
- Q I was going to suggest lunch. I wonder if I might suggest that we break until two o'clock, Mr. Commissioner, and convene at that point.

1 MR. TADEY: Okay. And then I'll re-ask you more questions. 3 THE REGISTRAR: The hearing will now adjourn until 2:00 4 p.m. 5 6 (PROCEEDINGS ADJOURNED FOR NOON RECESS) 7 (PROCEEDINGS RECONVENED) 8 9 THE REGISTRAR: Order. The hearing is now resumed. 10 MR. MARTLAND: Thank you. Mr. Commissioner, I 11 understand we will be sitting this afternoon until 12 3:45 and skipping the break. So I will continue 13 with my questions, and these are questions that I 14 expect will be focused or directed towards Mr. 15 Tadey on the creel survey. 16 17 EXAMINATION IN CHIEF BY MR. MARTLAND, continuing: 18 19 Mr. Tadey, I understand that the purpose of a 20 creel survey is stock assessment rather than catch 21 monitoring for enforcement purposes, is that 22 correct, and could you comment on why that's the 23 case. 24 MR. TADEY: 25 26 27 28 29

- Yes, it is. The program we run is sciencebased. One of the things that certainly we like to do is collect information from the recreational community that's unbiased, and one of the things that may taint or bias the information that's provided to us would be if anglers have the perception or think that we are in fact enforcing fishery regulations, as well. That's one of the main reasons we would separate; that's one of the main reasons why we consider ourselves a survey and not any sort of fishery monitoring program.
- And along those lines I think you described earlier about a creel surveyor might ask to inspect or look at the catch, someone's catch or just the fish they have. But in that situation, it's not a power of inspection. They're not looking at the fish with a view to writing a ticket or dealing with a violation if there's something inappropriate that occurs; is that right?
- MR. TADEY: That's correct. The survey we conduct is a survey. It's completely voluntary. So we ask the anglers if we can ask them some questions about their fishing experience. And they can decline us

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with no recourse at all on our part. And that's
the same with the follow-up questions would be if
they have indicated that they've harvested salmon,
a follow-up question would be would they mind if
we looked at their catch.

With the creel surveys that are conducted in the

- Q With the creel surveys that are conducted in the Fraser, the Lower Fraser, do those, am I right that they relate to all species of salmon including sockeye?
- MR. TADEY: Yes. Yeah, any fish that we encounter, any salmon species we encountered in the catch would be recorded, regardless of species.
- Now, you've been for some time giving presentations that I know your colleagues refer to as a "Creel 101", an introduction and explanation of the creel survey as it's conducted; is that right?

MR. TADEY: Yes.

And in October you gave a presentation to my colleague, Ms. Grant, and me, and I'd like to refer, Mr. Lunn, please, to number 29 from the list of exhibits. And when it shows on screen you'll see that it indeed gives it away at the top, "Presented to the Cohen Commission on October 26th, 2010 in Vancouver BC". Do you recognize that as the creel presentation that you gave to us.

MR. TADEY: Yes.

MR. MARTLAND: I'd like this to be marked as an exhibit, please.

THE REGISTRAR: Exhibit number 532.

EXHIBIT 532: Tadey et al, Fraser Stock Assessment, Recreational Fisheries Assessments, presented October 26, 2010

MR. MARTLAND:

Mr. Tadey, what I'll try to do here is lead you through this document. This document is in evidence, and indeed I'll editorialize to say is a helpful resource for those looking to understand the creel survey as it's conducted. It has maps on it. It has some pictures which are helpful in giving a sense of things, but more importantly the discussion here and the methodology is set out. So I'll take you to some more specific points, rather than going through the whole document.

What I'd like to do first is to go to let's say page 2, and welcome you to refer to page 2 and page 3. Could you explain the goal and purposes of the creel survey, please.

MR. TADEY: Yeah, I should point out in subsequent presentations I've merged these two slides. But certainly the original, the primary goal of our survey would be to determine catch and effort. Catch in this case being harvest. That's what most people want to know.

Secondary information that we can collect is information on releases. We can also collect — and this all done by species. We could also collect biological information, whether or not the fish is marked for other scientific studies, assessments that are going on. Also gear/method used, what the angler is targeting, those are other things that we can collect with our survey.

- Q And I think some of these terms will probably be self-apparent, but let me just confirm. "Effort", what does effort refer to? If it's helpful, there's definitions that show on pages 4 and 5, and as I look at page 5 in the middle we see reference to "Effort".
- MR. TADEY: In order to --
- Q And that refers to basically the time, you use time as the measurement tool, I suppose, to determine, to look at the conduct or the time that puts in by anglers?
- MR. TADEY: Yeah. There's two inputs to the equation that we use to generate any catch estimate, whether it's harvest or release. And one of those inputs is a rate of release, rate of harvest, rate of catch. It's how many fish you've caught in an hour. The other input is the effort. The product of those two, multiplying those two together will give you an estimate of catch, or and we do the same thing for harvest and release. It all depends on what you're talking about. Do you want catch, which includes harvest and release, do you just want harvest, do you just want released.
- Q Right. And so let's look at page 4, please, of this document. And page 4 gives HPUE, RPUE, CPUE. In each of these cases, for example, and please correct me if I get this wrong, but harvest per unit effort will talk about the number of the harvest, in other words, the kept or retained fish

per unit effort would be, for example, if one uses an hour of angler time on the water, you might generate a number to say that the number of fish were kept per single angler's single hour, for example. I don't know if those are the measurements you might use, but that would reflect the HPUE; is that right?

- MR. TADEY: Yes, that's right. So we would, when we interview anglers, we ask them for harvest per unit effort, we ask them how many fish have they harvested by species, and we also ask how long they have been fishing. And a minor point is we do make the distinction, we want anglers, we ask them about how long they've been actively fishing. Certainly if an angler has taken a break for an hour for lunch, it's not something we want to roll up in an effort. So that's how we do get harvest per unit effort, release per unit effort, catch per unit effort from angler interviews, and it is basically just what they've caught over the time they spent actively fishing.
- Page 6 of this document refers to the "Estimated Harvest". I take it this is the formula for estimating harvest?
- MR. TADEY: Yeah, that's the formula I referred to earlier. The two inputs, one is a total effort calculation and the other is a rate, a harvest per unit effort. In this case with our survey, it's angler hour.
- Q And if we look at, moving to page 7, this is a discussion about the "Harvest-Per-Unit-Effort" and it gives us a description of how that calculation is done. Could you help us, could you explain that, please.
- MR. TADEY: This slide shows how we collect the information. So we have surveyors this information, the rate of harvest in this example here, is collected from angler interviews. We will be surveying anglers and asking them for information on harvest and how long they've been actively fishing. There are seven days in a week and there's a randomness to how we sample the days. We do not sample every day. And we can't sample all daylight hours. Budget constraints don't allow us to do that. And in fact you may not get any better resolution to any estimate by going that full distance.

We sample, we have shifts during the full daylight hours because during the summer months when sockeye are running we will, you know, it can be light, people can be angling on the river at 6:00 a.m. in the morning and they can be fishing till ten o'clock at night. So we will have two shifts to cover the full daylight hours.

The weekends, we sample all weekends and holidays. Those are days that are usually of high effort and we want to capture those.

The weekdays -- did I say weekday and holidays? I meant to say weekend and holidays we sample all of those days.

Q = Mm-hmm.

- MR. TADEY: Weekdays are the days we randomly sample. Generally it's about three of the five weekdays that we will sample in a week. And the days off for our creel surveyors are taken during the weekdays. So this is how we construct our surveyors to collect the information on rates, harvest rate.
- Q Yes. And the creel surveyors are interviewing, obviously, anglers. It's a voluntary process, I take it, from what you've described?
- MR. TADEY: Yes.
- As far as the anglers. How does a creel surveyor and how does the study account for the fact that someone might be lying about their catch. And I suppose fish stories being what they are, they might be lying by saying they caught more than they did and released, or conversely misrepresenting how much they kept or caught. But how do you, is that something that can be accounted for?
- MR. TADEY: If there's intent there for an angler to lie, you know, there's really no mechanism currently in our survey, there's no mechanism to catch that. Unless the angler has harvested something and release numbers are obviously different than a harvest number if an angler has said he's harvested a salmon, one of the follow-up questions is "Can we inspect your catch?" So certainly there's a verification process there. We get a really strong -- there are very few anglers that we survey that refuse to be interviewed. And dependent on the year, some of the -- it can be up to 95 percent of the anglers

that have said they've harvested something, let us inspect their catch. You know, that varies. It could be 75 percent up to 95 percent. So to me that's a fairly good sample. And the amount of misreporting on numbers, I haven't seen one since I've been involved in this program in 2008, I haven't seen where someone has said they caught two but they've shown us three. So I think that answers the question there.

On the release numbers it's different. There's nothing for us to ask, there's nothing we can get from the angler in the interview process to verify how many fish he said he released. Mm-hmm. Ms. Sneddon.

MS. SNEDDON: I'll use Devona's mike. Sorry. When you're talking about whether or not somebody's going to be telling the truth, you have to look not just at the recreational fishery but at all fisheries - all - and you can look at all salmon fisheries and whether or not what type of catch monitoring program they have. If it's not a mandatory landing program where somebody's inspecting your catch, there's the opportunity for somebody to misrepresent, and it may be intentional; it may be unintentional.

And in the recreational fishery for the most part, what we find is if there's a misrepresentation, it's usually unintentional. It's usually more about releases than catch, because we're inspecting catch. And you know, if you're in a situation where there's a lot of fish going through at a time that you're not allowed to keep, when you start releasing them and you get over three or four fish, you start to lose track of how many fish you've released.

Q Mm-hmm. Slide 8, page 8 of this gives us the calculation for "Harvest-Per-Unit-Effort", I think that's probably self-explanatory. Let me ask you a question to go back, Mr. Tadey, to this question about what happens with faulty information or inaccurate information. Is there a process to account for answers that simply don't fit, outliers, or information in the creel survey that is far off base from the other information that's being collected?

MR. TADEY: One thing that I will do and our biologists will do with the information is we do look for

outliers and see if they can be explained. If someone is — has indicated that they've released 25 chinook and they've only been fishing for an hour, and we look at other anglers within the same area and the same time period that have not even come close to that sort of rate of release, it certainly draws a light to that record. And those records can be and will be removed. It's very few that are. And the amount of sampling that we do, whether probably, I mean, whether we include those or do not include those, it's not going to sway the result in any meaningful way. Because there are so few of those outliers. But it is something we do, and we look and, yes, there are some that we will exclude.

- Page 9 of the PowerPoint gives us two different versions or components of effort. Calculated for the day is "Daily Effort"; calculated for the entire fishery reflects "Total Effort", and then if we turn to page 10, "Daily Effort", there's reference here to hourly rod counts, and instantaneous effort or rod counts. If you could please explain what those refer to.
- MR. TADEY: The effort calculation is probably a little more problematic to explain than just the rate calculation. There's two pieces of information we need to calculate total effort, and one of them is an activity profile, or we conduct on an hourly basis at some points along the river, we get an activity profile of the number of anglers fishing every hour. And that's what you see in what's labelled number 10, starting at five o'clock in the morning and working to 20:00 hours, those are the number of rods we've counted in a particular site at a particular location on the river.
- Q Mm-hmm.
- MR. TADEY: And what we do then, the second part of the effort calculation is on a day that's randomly chosen, one day on the weekend, and one day during the week, we will do an instantaneous effort count of the whole study area. Usually on the Fraser it's from an over-flight.
- Q Mm-hmm.
- MR. TADEY: More than not it's from an over-flight, where we will fly from the top of Coquihalla, where the Coquihalla River confluence, all the way down to Mission Bridge, and we will conduct angler

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counts. The time of day at which we do that count, we can then look at that activity profile. And if the activity profile says that ten percent of the anglers of the total, ten percent of the anglers for the whole day were fishing at that time, then we know that, or the assumption is that our over-flight count makes up ten percent of the total daily effort. That gives us the total, that gives us the daily effort.

And then for total effort we'll multiply that daily effort by the number of days in the study, in the study period or analysis period.

- Q Mm-hmm. For the hourly rod counts, are the results of an hourly rod count, can they be extrapolated to other parts of the river?
- MR. TADEY: Yes. And that is what we do. So those are conducted at various sites along the river and, yes, the assumption is, is that that profile we see on those it represents the entire study area.
- And so I'm going to do this by way of the pictures on page 10. There's a helicopter, a plane, a boat, and then someone on a bridge with binoculars. I take it what does the hourly rod count as described here refer to. Is that the fellow on the bridge?
- MR. TADEY: And the boat. The bridge, that one is actually on the Chilliwack River and he's got So on the top of every hour, he will binoculars. count how many rods or how many anglers are actively fishing in a defined area. The larger the area, the better, and that's what he's doing on Keith Wilson Bridge there. We can also get hourly rod counts by boat, and that's something we do in the Fraser main stem where we'll leave Island 22 in this example in the picture, travel down to Grassy Bar, which is about, I don't know, about maybe a four or five-minute boat ride, and count how many rods are fishing from Island 22 down to Grassy Bar. And that's conducted on every hour.
 - I should go back to ask you one other question on the landing sites. If surveys are conducted based on landing sites, what is the process for determining what the catch or harvest is all along the river?
- MR. TADEY: The landing sites provide us the rate. so they provide us the catch or harvest, or release,

per unit effort, which is the angler hour, or it should also be the rod hour, because that's what we're really counting is actively fishing rods, rods that are actively engaged in fishing. So the access sites, the interview sites, provide us with the rate. The activity profile and the over-flight that gets us that instantaneous effort count, provides us with the effort. So I think that answers, I hope that answers the question. Deb, you've got something?

MS. SNEDDON: Yeah, I would just say that when we use Island 22, it is a major boat launch in the Chilliwack area that draws fishermen that go to a variety of fishing sites from that area. So they can go upstream an hour, downstream half an hour, whatever, and they all funnel into that Island 22 area. So when you get an interview from Island 22, they may not have been fishing right there. They've been fishing somewhere else and it is generally representative of the entire study area.

So in that sense I take it the landing site approach gives you first a picture of who is fishing right there, but secondly people that are coming in from other areas on the river?

- MR. TADEY: Yes. And everything in between. There are some access sites that you're only interviewing anglers that fished at that particular site, and then there are access sites like Island 22, which is a boat launch as Deb mentioned, that really the catch per unit effort that we're getting there is a blend of many, many different angling sites.
- The concepts of accuracy and precision are (a) they're distinct, and (b) they're important to creel surveys. Could you please help us by explaining that, Mr. Tadey.
- MR. TADEY: Sure. Accuracy and precision are sometimes terms, especially in my experience with fisheries, that to me are misunderstood. And the way I look at precision is precision has to do with the repeatability of getting the same result if you conducted another sample from the population of interest. So it's a repeatability. If you sampled multiple times, how close would those results be to each other. If they're far apart, then it's not precise. If they're tight together, then it's precise.

Accuracy, sometimes people look at precision as accuracy, but accuracy is more to do with how close your result or your estimate is to the truth. And that's more accuracy. So the two are separate, and so things like precision would be when you, you know, when you give a point estimate and we say it's plus or minus 15 percent. 15, plus or minus 15 percent would be a precision estimate. With respect to the creel data that's collected in

- Q With respect to the creel data that's collected in the field, I understand that it's collected into a database that's called CREST, C-R-E-S-T, that at this point CREST is being developed, and I'll just state this and welcome your comment and see if I have it right. The CREST software is being developed. At this point it doesn't yet give you an analysis function, and at this point that the data is being put into Excel for use?
- MR. TADEY: This past year we actually just used CREST. Q Okay.
- MR. TADEY: What occurred, just a little backup, a little history, we had a software package that was developed in the '80s. It ran off a platform, a computer platform that was DOS-based. That program, that software program was developed by a consulting company called DPA, so we call it the DPA software. But the current platform we have for our operating system for our computers doesn't support that program. So three years ago the development of a new software program that would be supported by our current system, and do more things, I suppose, as well, and more integrated with other within the region.

In the interim that program called CREST, as you said, it's not finished yet. Currently we're in the testing stage on generating estimates. There's a couple of components to that software program and one of them is the data entry tool, so the entering of the data. The other component to the CREST software is the analytical tool, to be able to generate estimates. And over the last couple of years we've been testing the data entry end of it.

For a number of years -- not a number of years, for two years, one year we entered it in both systems. This past year, having conducted the testing on the data entry part, we just

entered it into CREST. The analytical end of it, though, is not complete yet. We haven't done the final testing on that yet. So currently the analytical component of what we do is being done in Excel right now as an interim measure.

Thank you. I'll take you, please, to slide 20 on

- Thank you. I'll take you, please, to slide 20 on this presentation. And without going into great detail, let me try and focus on and ask you via this table to help us to determine the estimated harvest for sockeye in 2009, and we'll look, I take it, to the last column, "2009 Totals". Sockeye is about in the middle of the page, that's a zero; is that right?
- MR. TADEY: Yes, that's correct.
- Q And I take it that number doesn't account for or doesn't allow for any illegal recreational harvest or inadvertent harvest, for example, someone who's misidentifying species?
- MR. TADEY: It would have accounted for any inadvertent harvest. When we do ask, when people have harvested salmon, we do ask to inspect the catch. So if there is a species identification, for instance an angler thought it was a chinook but it turned out to be a sockeye, then we would record that as a sockeye and you would see that show up as a harvest amount there. And I'm just, yeah, there's nothing in that year.

In some of the summary tables of previous years you'll notice there's a couple of years where there may be 11 sockeye harvested, and that's probably the result of one of those incidences where we had one interview that harvested a sockeye when they shouldn't have.

- Q And I'll take you to the next page, and about under the "2007" column, sockeye, about two-thirds of the way down, we see exactly that number --
- MR. TADEY: Right.
- Q -- 11, that's what you're referring to.
- MR. TADEY: Yeah. So on inadvertent harvest, yes, we will absolutely get a taste of that with our surveying, and it does occur. And that's where that 11 right there, that's what that would reflect.
- Q And again if we go back to the page before, just for one further question, the 2009 totals, I took you to the estimated harvest, and just to complete the picture, estimated release of sockeye, a

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1 little over 20,000.

MR. TADEY: Correct.

- Q Those are numbers that come from interviews with anglers who are describing what they've caught and released, and then working from those answers, multiplying the release per unit effort by your numbers for the effort, calculated using rod counts and over-flights?
- MR. TADEY: Yes.
- Q Am I right that your team, when you're conducting this survey, produces reports about every two weeks?
- MR. TADEY: That's the goal. Generally without any regulation changes and historically recently we've, you know, last couple of years or so, we've generated estimates generally around the 15th, the middle of the month from say the 1st to the 15th, and then another estimate that goes from the 16th to the end of the month.
- Q And are those reports posted on the Department's website?
- MR. TADEY: They are.
- Q I take it you're also able to generate reports or graphs, or what have you, but to reflect that information to fisheries managers?
- MR. TADEY: Yes.
- I'll take you now to some documents. Number 32 on our list of exhibits. This is an e-mail that you were c.c.'d on from Jason Mahoney, who you work with, to Timber Whitehouse. I take it you report to Timber Whitehouse, am I...
- MR. TADEY: Yes, I report to Timber.
- And this indeed gives us some Excel spreadsheets that are attached. If we look at the second page, for example. Is this an example of you generating numbers, this is August 2009, that the e-mail attaching these was sent. is this an example of that sort of process where you're generating numbers in the middle of the season and presenting that information in different graphs?
- MR. TADEY: Yes. Yes, it is.
- $\mbox{MR. MARTLAND:}\ \mbox{If I could ask this be marked as the next exhibit, please.}$
- THE REGISTRAR: Exhibit 533.

EXHIBIT 533: E-mail from J. Mahoney to T. 1 2 Whitehouse re August Fraser Recreational 3 Angling Method Breakdown, August 31, 2009 4 5 MR. MARTLAND: And Ms. Grant raises with me that 6 there's in fact two documents, there's the e-mail 7 and then the attachments to it. I wonder if the 8 attachments should be "A" within that number. 9 Thank you. 10 THE REGISTRAR: Be 533A. 11 12 EXHIBIT 533A: 2009 Recreational Angling 13 Methods Observed During the Lower Fraser 14 River Mainstem IRCs, Excel spreadsheet 15 16 MR. MARTLAND: 17 Tab number 33 from our list of exhibits is entitled "a general overview" on the Fraser 18 19 Recreational Fishery Estimates. Did you prepare 20 this document? 21 MR. TADEY: Yes, I did. 22 MR. MARTLAND: I'd ask this be marked as the next 2.3 exhibit. 2.4 THE REGISTRAR: Exhibit 534. 25 26 EXHIBIT 534: Fraser River Recreational 27 Fishery Estimates: a general overview on how 28 they are generated 29 30 MR. MARTLAND: 31 I take it you've reviewed this fairly recently. 32 Is this an accurate description of how the creel 33 survey is conducted in basic terms? MR. TADEY: Yeah, I would say so. 34 35 Thank you. Number 34 in the list of exhibits we 36 have sender and recipient both on this panel. 37 suppose that's convenient. From you, Mr. Tadey, to Ms. Sneddon, November 25, 2009, providing 38 39 information on the 2009 Fraser River recreational 40 fishery. I understand you sent that --MR. LUNN: Mr. Martland, I may have a different 41 42 document. 43 MR. MARTLAND: You do, and I may have misspoken. 44 Number 34 on our list, please. All right. 45 fine. The Ringtail number is CAN044406. 46 MR. LUNN: That's what we have. Perhaps it's

mislabelled.

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MR. MARTLAND: That's all right. But now I wonder what you have. Why don't I set that aside and we may pick up on that if we need to, or I may -- Ms. Grande-McNeill is passing up a copy of it. I'll set that aside, though for now.

MR. LUNN: Thank you.

MR. MARTLAND:

- Q And without going to any particular document, let me just ask you without taking you to any particular document, during the 2009 fishing season, I take it that you had, probably like other fishing seasons, concerns expressed about the creel methods.
- MR. TADEY: In 2009, if you're referring to the document, you know, the 34.
- Yeah, I'm trying not to do it with any documents, and that's the difficulty you may have and I may have, but other people don't.

Let me simply do this. I'm going to move you to a different document, please, number 35 on our list of exhibits, with my fingers crossed, Mr. Lunn. This seems to be a Draft Recreational Fishery Monitoring and Catch Reporting Consultation Document from September 2004; is that right?

- MR. TADEY: It is, but I think this is the first time I had seen this was in my first interview with yourself.
- Q That was something you saw through the Commission, but not prior to that.
- MR. TADEY: Yeah, that's right. I had not seen it before and I haven't, other than looking at the page that we reviewed, I have not reviewed it since.
- Q Okay.
- MR. TADEY: Or looked at it since. I think just to get back to your question, too, you know, I mean, there isn't -- no, there isn't a season that goes by that people don't raise concerns about the recreational assessment that we conduct on the river.
- MR. MARTLAND: Now, it's artificial, having had a witness say he hadn't seen this before the Commission, but I will ask that this number 35 from the list please be marked as an exhibit.

 THE REGISTRAR: Exhibit number 535.

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EXHIBIT 535: Draft Recreational Fishery Monitoring and Catch Reporting Consultation Document, September 2004

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MR. MARTLAND:

Q Ms. Sneddon and Ms. Adams, I'd like to put to you and ask you to address some of the criticisms that have been made of -- and Mr. Tadey as well -- of the creel survey. In our Policy and Practice Report, we've simply identified some of the different kinds of criticisms that are made. There are some criticisms that are made about the whole methodology or approach. There are some criticisms that are different in nature that seem to suggest if more resources were put in, if there were more surveyors and more over-flights, it's not that the process is flawed but it's not done in a powerful enough way.

Likewise, there are some who say that the creel approach significantly over-represents the impact of the recreational fishery, and there are others who say it significantly under-represents. So I'd like you to please respond to some of those concerns and criticisms. Ms. Adams?

MS. ADAMS: So the Department's catch-monitoring programs for all of our fisheries vary from probably the best monitoring occurs in our groundfish fisheries where we have onboard observers, dockside monitoring, mandatory hail out/hail in, mandatory logbooks - so that would be sort of the Cadillac or the Porsche system - right down to fisheries where we don't have any monitoring; for instance, in the recreational fishery we have limits on sand dollars and starfish, but we don't monitor them at this time.

Then we have salmon fisheries monitoring which varies for all of the different harvesting groups and generally speaking, we have coverage during peak times in peak areas and on peak fisheries, and it really depends on the season and the type of fishery we're having and the funding that we have available.

Deb and Joe can probably speak in more detail with regards to the Fraser's monitoring programs. Thank you. Ms. Sneddon?

MS. SNEDDON: Right. I think it's definitely been comments made around the methodology for creek

 programs, both in the Strait of Georgia and in the Fraser River. There have been a number of reviews of those types of programs, scientific reviews, peer-reviewed. The methodology is an accepted methodology for the size and scope of fishery that the recreational fishery encompasses. We're comfortable with that.

In recent years, resources have been a problem in some times. You don't have enough money to do what you'd like to do. I think any catch-monitoring program, whether it's recreational, First Nation or commercial, some resources -- additional resources could help us in getting better estimates. The question is how much better of an estimate? If our point estimate is plus or minus five or ten percent, do you need to spend a lot of money to get plus or minus five percent? It doesn't make any difference in your management, so those are trade-offs that we have to look at when we're allocating our budgets every year.

Questions around over-estimating, underestimating harvests, yeah, I think there's definitely questions from all sectors about the recreational catch and release numbers. We're doing our best in order to educate people around our programs. That's the main problem, is that there's a real lack of understanding of how we do catch-monitoring programs in all sectors.

We've, through a variety of forums, started to - at least in the past four years - educate people. So at the local Sport Fish Advisory Committee meetings, I've brought out presentations on both their catch-monitoring program and the First Nation catch-monitoring program in the area and tried to educate them. We're doing the same on the First Nation side of things when we meet with them. We're hoping that once they gain an understanding of both the commonalities of these programs and about what their own programs are, there'll be more trust in those numbers.

Q Why do you think there is such a misunderstanding? MS. SNEDDON: In some cases, it is -- if you read Joe's "Creel 101", it's not the easiest document to read at a presentation. It's not -- if you're a layperson, it's not that easy. It's a difficult topic and I think that that's part of it.

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I think another part, at least on the recreational side of things, is they're all volunteers. They're committed to recreational fisheries, but they are also going to a million meetings about recreational fisheries and they're overwhelmed with information already. The catch information probably just is the lowest priority as far as how they do the catch information, how we assess the catch.

- Q When you say "they", who are you referring to? MS. SNEDDON: Recreational anglers, sorry.
- Mr. Tadey, you hear these criticisms. You're often dispatched as the "Creel 101" presenter and you face these criticisms. How do you field those sorts of concerns about the creel survey?
- MR. TADEY: Concerns? I actually don't have any reservations about accepting criticism or concerns. I think if people are passionate about it and they want to learn and understand what we do, and if they learn and understand what we do, they may have improvements to what we do. We are certainly open and have stated on numerous occasions we're open to people providing us with information that's going to help improve what we do.

Deb said it well. I have had the perception from some people that this is my creel survey, it's my design, it's something that I do, and that can't be farther from the truth. This has been developed in the Fraser, in the Strait of Georgia back in the mid-'80s. It's used throughout the region, this study design, or a fraternal twin of this study design is used elsewhere, where you're combining and collecting information in the same manner and putting it together in the same manner.

It has been peer-reviewed. It's not only used in the recreational fishery, but it's also used in Fraser First Nations FSC fishery, this study design. So it certainly has had opportunity to be kicked around and improved on, but it doesn't mean it can improve.

Deb also indicated, okay, how much juice for the squeeze? And certainly you can throw more money at an assessment, and I would argue that this assessment, because of the nature of the fishery in the Fraser - this is a moderate to high impact fishery - the assessment dollars that this

fishery receives is high. It is at the high end. So I believe there is a proportional amount of money that's directed to assess this fishery.

Certainly some criticism like is it an underestimate? Well, it could be very well, because we certainly don't assess certain parts of the Fraser River where recreational fishing takes place and Fraser sockeye can be harvested. We don't, on a routinely basis, we will not -- and part of our study area is not downstream of Mission bridge, but people can recreationally angle for sockeye downstream.

When we have looked downstream to determine whether or not we're missing anything there, and whether or not the squeeze would be worth the juice, we do not, in our opinion, get results on effort down there that would indicate that we would need to go down there, that missing that effort is significantly biasing our catch estimate in a direction.

We were fortunate this year from where our over-flight left, it was from Pitt Meadows so we, this past year, routinely flew downstream of Mission bridge. We routinely flew from Port Mann to Mission, which is a fair chunk of the river. If you look at the over-flight counts and the percentage of anglers we saw down there fishing, relative to the total area, for the time the sockeye are moving through, it's one percent. So the amount of money to assess that area would not be one percent. It'd be a lot of money to assess and just to get that one percent.

So certainly decisions are made like that. Budgetary constraints mean that we don't survey certain areas. So, yes, there is some validity to people that might say our estimates are an underestimate because we don't survey that part. It's not rolled up. We don't expand our estimate to include that one percent that's fishing down there.

- Ms. Adams, I'll begin with you. Are there particular suggestions for improving how creels are conducted?
- MS. ADAMS: I think the bigger question is catchmonitoring as a whole, not just creel. Creel is one methodology. We also use logbook reports from different components of the fishery including

2.8

electronic logbooks from some of our charter operators and guides. We're looking at -- as my colleagues have said, what's the bar? What's the level of standard that we want to cross -- all fisheries -- and the Department has just released a catch-monitoring framework which outlines the standards that we want to look at and the risk associated with various fisheries. Like I don't think it's a high risk that we don't evaluate sand dollar and starfish collection, but in the areas, say, around moderate to high sockeye impacts, yeah, we need to have some rigorous programs in those areas, and we're working with the recreational communities to develop different programs; as I mentioned, electronic logbooks.

We've just been working with the Sport

We've just been working with the Sport Fishing Institute and the Province of B.C. on a certified title angling guide program for marine waters of which there is a catch-reporting requirement in there.

- Q The CTAG, Certified Title Angling Guide program is a program that allows for certification of those guides working in tidal waters?
- MS. ADAMS: Yes, that's correct.
- Q And could you just expand a little bit on the catch-monitoring component to that?
- MS. ADAMS: In order to be an accredited certified professional angling guide in marine waters, you need to pass several modules of training within the accreditation program, and one of the elements in that program is catch-reporting and monitoring programs and submissions of information, when and where asked for information. The electronic logbook is one of the methods, as well as hard copy logbooks that we get from lodges and charter boats.
 - Ms. Sneddon, do you have suggestions for -- and I think Ms. Adams quite properly broadened it to catch monitoring, not specific to creel.
- MS. SNEDDON: No, I think Devona covered it, and I think as Joe pointed out, you have to really assess whether or not putting any more money or expanding an area is worth the effort. I think what we need to do before we get to the point of saying we need to make changes is make sure we understand what our current programs are coastwide. What are our priorities coast-wide for all

species, before we -- and we currently don't do
the best of jobs at that, but we're currently
looking at it now. Once we determine all
fisheries, what are all our programs, where's all
our money going and where's the requirement,
where's the need the most, and looking at it from
that picture, we'll see some places where we can
make some change.

MS. ADAMS: One other area that I mentioned earlier

- MS. ADAMS: One other area that I mentioned earlier this morning was that we would like to build on the electronic technologies that are out there and we would like to use the licensing system to do random surveys online and through different possibilities of text message reports or possibly catch record cards associated with it. We see that being used in Washington State and other jurisdictions and we think there's some merit in trying that here.
- Mr. Tadey, did you have any comments on the question I asked about catch-monitoring improvements?
- MR. TADEY: On catch-monitoring improvements?

 Certainly within my jurisdictional area in the Fraser, there are certainly species that we don't monitor as well as we might do, Fraser sockeye or Fraser chinook in the Fraser main stem. The last couple of years our monitoring program has been truncated at October 15th. But the fishery is still open and coho salmon are coming through at that time. So certainly in the overall catchmonitoring picture, that would be an area.

Tributary monitoring programs, we do conduct creek surveys on the Chilliwack River which has a sockeye population, Cultus sockeye. But again, we start that one in September 15th and it's more directed at the chinook. It's a chinook indicator population, exploitation rate population.

So, really, there, the focus there is really chinook catch, not sockeye, although we do get sockeye release numbers. But we are starting September 15th and sockeye are in there, Cultus sockeye are in there a lot earlier than that. So there's an area that's deficient for Fraser sockeye. Those are two examples.

I think the one thing that -- and it kind of links back as well to a little bit of what Deb talked about, the "Creel 101" document that I

wrote and the complexity of that, and even that's hard to understand. I do get that. I wrote this document as a way -- when I first started on this program, I wrote this as a way to educate myself on what the creek survey was doing and how it was generating an estimate. It wasn't as brief as some of the paragraphs that were on other things, and it wasn't as technical as the technical documents that I went through to do this, and the people I talked to, to write this. So it's more of an intermediate step, but it took me a while, yeah, to understand it.

So absolutely it's going to take people -- I think one of the things that we're trying to do, and it does take time and it does take resources is the program I'm involved in, we do present. The idea is to present this, and if people want to understand what we are doing in the Fraser River and how we are coming up with the estimate. We are more than willing to provide information to them, interact with them, present, have dialogue with them to help them understand what we are doing.

But that does draw resources. It does draw my time, it does draw of my staff's time in order to go out there and do these things. So certainly more resources, we can always use it, but I think the idea that Deb said is we need to identify where the priorities lie. So an overall assessment of what we've got, where we want to go, what gaps we want to fill in order to get there, what it's going to cost and start making decisions.

- With respect to I'm almost concluded with my questions - I'd like to go, please, to the PPR-7 at paragraph 12.
- MR. MARTLAND: Perhaps Mr. Lunn can zoom in on paragraph 12. That would be helpful.
- Q Ms. Adams, this is a description of what the regulations say about snares and about foul-hooking. I understand that foul-hooking and the retention of foul-hooked fish may be handled differently in non-tidal water. Could you please help us understand that?
- MS. ADAMS: Yeah, the main difference is that anglers are not permitted to retain a foul-hooked fish in fresh water. In marine waters, they may be

- trolling and in a boat and not know what has taken
 the hook, and we do allow them to retain a foulhooked fish in marine waters and tidal waters, but
 not in fresh water.
 And that's a helpful clarification. My last
 - And that's a helpful clarification. My last question, I understand Mr. Lunn has tracked down number 34 on our list of exhibit. As it says -- Mr. Tadey, I'll direct this to you. This is provided by you to Ms. Sneddon, providing information on the 2009 Fraser River recreational fisher; is that correct?
 - MR. TADEY: Yes.

- And the context I think is set out in that background, the last part of it, that Bill Ottway was asked to provide written questions. He did so, and this is an attempt to address concerns that had been raised; is that right?
- MR. TADEY: That's right.
- Q By the recreational sector.
- MR. TADEY: Yeah, in a meeting that was held between Deb, myself, Devona and recreational fishery representatives.
- MR. MARTLAND: Thank you. I'll ask this become the next exhibit. That concludes my questions, thank you.
- THE REGISTRAR: Exhibit number 536.

EXHIBIT 536: Information on the 2009 Fraser River Recreational Fishery, November 25, 2009

MR. MARTLAND: Mr. Timberg is next, and, Mr. Commissioner, I should indicate that Mr. Timberg and Ms. Grande-McNeill separately had prepared on the premise that we had two witnesses followed by

- one, and they'd asked if they might divide the responsibility as counsel for this evidence, and I'd said we'd support them in that, given that we had made that change relatively late, close to the hearings, after they'd done preparation work.
- THE COMMISSIONER: Mr. Martland, what are the time estimates for in chief and cross?
- MR. MARTLAND: The time estimates -- I don't know that I've been -- Mr. Timberg, in my expectation, may be close to completed or completed today. The time limits for tomorrow leave us in good shape to conclude the evidence tomorrow. I can add them up, but I think we'll be fine with that. I'll put

it this way: At one point I wondered if we would free up extra time in the afternoon tomorrow. I don't think I can safely say that.

 MR. TIMBERG: Thank you, Mr. Commissioner. For the record, Mr. Timberg for Canada. I have approximately 15 questions.

CROSS-EXAMINATION BY MR. TIMBERG:

- Q So, Ms. Adams, the PPR mentions that the recreational fishery for sockeye in the Fraser only emerged in the mid-1980s. Could you please elaborate on why that is?
- MS. ADAMS: Yeah, it was the late to -- mid to late
- Q Oh, I said mid-1990s (sic), sorry, I misspoke there. So I'll just repeat the question for clarity.

The PPR mentions that the recreational fishery for sockeye in the Fraser only emerged in the mid-1990s. Why is that?

MS. ADAMS: There were several things that -- I guess there was some activity on sockeye previous to that, but it didn't really become known until people, as Dev mentioned earlier, discovered this bottom-bouncing technique that they could encounter sockeye.

Also, there was a major shift in fishing activity related to chinook and coho fishing, and significant management measures, conservation measures, were put in place for chinook and coho conservation. Folks started to redirect their efforts onto other species like sockeye, like halibut, crab, prawn. We started to see diminishing returns and poor ocean survival in the Strait of Georgia, particularly related to coho fishing.

Coho and chinook fishing, as mentioned, and as outlined clearly in the salmon allocation policies, coho and chinook fisheries were the backbone of the recreational fishery, salmon fishery in the province. That started to decline and folks started to look for other opportunities and sockeye became that opportunity.

Q Okay. Thank you. Yes, Ms. Sneddon?

MS. SNEDDON: Right. A couple of other things that we think were -- provided people to target on sockeye

were the cost of marine fishing has gone up. The cost to own a boat and gas and all those things associated with it, with the economic decline, people were more inclined to fish areas where you could just drive to the edge of the river and throw out a line. It was a lot cheaper to go out fishing on the river than it is to go on the ocean.

Also, the population in the Fraser Valley and in Vancouver has increased dramatically since the mid-'90s, and that -- we've brought in a lot of anglers from other areas. You know, they've moved here and they're avid anglers wanting to get out into the environment and fish. So those two pieces, as well as what Devona mentioned.

Q All right. Thank you. And --

- MR. TADEY: Tim? Just I think the one -- did you mention, as well just on that, that the sockeye in the mid-'90s, the sockeye, the fishery was open in the Fraser. I'm not sure if that was mentioned. That it was only re-opened to the retention of sockeye in 1995, so prior to that, you weren't allowed to retain any sockeye.
- Q Thank you.

- MR. TADEY: Yeah.
- Q Ms. Adams, can you describe what your understanding is of the value of the recreational Fraser River sockeye fishery?
- MS. ADAMS: Oh, I think the value of all fisheries is a hotly debated issue amongst all the different stakeholders and First Nations. We've seen estimates from a number of different sources that have estimated the value for both freshwater and marine recreational fisheries to be upward of 1.2 billion annually. That includes both direct expenditures as well as partial investments.
- Q And is that for the recreational fishery for all species or is that directed towards Fraser River sockeye?
- MS. ADAMS: That's for all species. And I would just like to add that my experience with fisheries and, I would say, an area of concern is, oh, there's always the debate around what the economic value of the various fisheries are, and from my perspective, I feel that all the fisheries in British Columbia are valuable, and it's -- we don't seem to have a common matrix across all

fisheries to measure them.

Because it's not just about dollars and cents. It's about the social value of fisheries and also the cultural value and the different jobs that it creates in the economy and the communities as well. It's more than just dollars and cents. All right. Thank you. And, Ms. Sneddon, could

- Q All right. Thank you. And, Ms. Sneddon, could you give us an example of what a tackle shop in Chilliwack would look like when the Fraser River sockeye fishery is open?
- MS. SNEDDON: All right. So as Devona pointed out, all fisheries are definitely valid. Recreational fishery is no different than any other, but in the Lower Mainland, there's a number of major tackle shops where people are going to go and get their gear to go out and fish. In the Chilliwack area alone, there's four shops. If you go into one when there's a sockeye opening, not one -- in May, but in a sockeye opening in August on a one day in August, early in the fishery, they can take in anywhere from 20 to \$50,000 a day in retail sales. You will have a line-up of 15 people at the cash register all day long.
- Q Thank you. Ms. Adams, earlier this morning, the Commissioner asked a question about how to -- how he should rate or place emphasis on the various DFO policies or visions or initiatives, and he gave an example of a number of different documents and language that DFO has used.
- MR. TIMBERG: I was thinking that if we could move, Mr. Registrar, to Exhibit 445, which is the IFMP from 2010/2011, and if we could move to page 13 of 233.
- Q Ms. Adams and/or Ms. Sneddon, if you could perhaps describe how the IFMP and this section on the policy framework for the management of Pacific salmon fisheries could assist in answer the question that the Commission posed to you?
- MS. ADAMS: Yes, it was a good question from the Commissioner, and -- I mean it is confusing, and one of the ways that the Department has tried to reduce the confusion or at least make it a bit more open and transparent was to start the initiation of developing integrated fisheries management plans. That started about 15 years ago.

The reason we wanted to do it is because there are so many documents. There's the

Fisheries Act, Species At Risk Act, there's Acts and policies and regulations. There's different directives and initiatives, and so how does one, in any aspect of the fishery, try and understand and make sense of it all.

So one of the pieces that we did was develop a listing in the Integrated Fisheries Management Plan of the various drivers that drive the public policy and government policy and they're noted, as you mentioned, in the south coast salmon IFMP and it outlines the policy framework there on page 13.

It goes through a number of different drivers. As we go through the document, it talks about conservation policies, access policies, Wild Salmon Policy, species at risk. The list goes on. But these are all elements that, as staff working on salmon fisheries, were aware of an were using these to incorporate into our operationalizing (sic) of this plan.

Deb can speak more specifically on the Fraser arrangements because there's a number of specific drivers and policies, regulations and processes that deal with the salmon, in particular Fraser Salmon -- Fraser sockeye salmon.

- Q And I note that this section, "Policy Framework for the Management of Pacific Salmon Fisheries", page 13,14 and 15, provides a bit of a narrative of the development of DFO's policies over the years and would that be a fair estimate that there's policies that have been in existence, and then there's drivers as to new directions that are taking place?
- MS. ADAMS: Yes. I mean the over-arching regulations, Acts, case law, international obligations under treaties, a number of those are well-established and have been in place for a number of years. As time evolves, we have developed additional policies like the Wild Salmon Policy, Selective Fisheries, Catch Monitoring Policy, Salmon Allocation. What we try and do in the Integrated Fisheries Management Plan is try and figure out, okay, we've got these over-arching policies and Acts and regulations, that's nice. But how do we actually make that work on the ground and on the water? That's what we're trying to do through the Integrated Harvest Planning, is outline what it is. Then we've got some decision guidelines.

We talked about different decision guidelines for sockeye earlier today. We try and put them in one place that all the different stakeholders can see in one place as opposed to rules being made up in season, people not knowing what the rules of the road are. That was the intent behind the Integrated Fisheries Management Plan

In my experience, it continues. Every year we add things to it. It's not that we've arrived. We're continuing to build on it so this year's Integrated Fisheries Management Plan will include social and economic pieces in here. It's a start. And that we keep doing -- every year we're adding additional information as it becomes available to us, so that it's open, it's there for everyone to see. We're not in a back room making up the policies. They're there.

- Right. And, then, just for clarity, then, the IFMP then is you consult with the various groups annually as to the development of this plan.
- MS. ADAMS: Yes, we do. Probably more than they would like.
- Q All right. So perhaps we -- and I just note -- THE COMMISSIONER: What exhibit number was that, I'm sorry, Mr. Timberg.
- MR. TIMBERG: Yes, this is Exhibit 445.
- Q And I note on page 13, it references "Pacific Fisheries Reform" announced by the Department in April of 2005.
- MR. TIMBERG: Mr. Lunn, if we could perhaps just pop quickly to Exhibit 269.
- Q Ms. Adams, can you identify this document as a Pacific Fisheries Reform?
- MS. ADAMS: Yes.
- MR. TIMBERG: And for the assistance of the record, this is the document that Jeff Grout spoke about in his testimony under the commercial fishing panel.

So going back, then, to the IFMP, if we may, Mr. Registrar, if we could then perhaps turn to page -- I'd like you to just sort of walk us through the IFMP as to where the sections are that reference Fraser River sockeye salmon. So page 25. This is section 3.8 on the Pacific Salmon Treaty.

Q Again, Ms. Adams and/or Ms. Sneddon, if you could walk us through the relevance of this section.

MS. SNEDDON: Right. So as I mentioned earlier, when we'd go out and consult with the groups, we start at the lowest level of the Sport Fish Advisory Committee and, you know, as you see by the size of this document, it's pretty challenging for us to consult on every page in it. So we referenced the important parts that we think they need to definitely look at every year and provide us advice on it.

One of the places we would start is s. 3.8, Pacific Salmon Treaty on page 25. And so in this section, it talks about what our international obligations are and how we might meet them. The next page talks about the Pacific Salmon Treaty renewal, because we are in discussions -- I think we actually might have concluded them -- on some species already. But it gives an update on where we're at with our negotiations with the U.S.

After that point, I think we go to --Then there's section 4.1 -- or section 4, "Objectives" --

MS. SNEEDON: Yes.

- Q -- with 4.1 "Fishery Management Objectives for Stock of Concern."
- MS. SNEDDON: Right. So on the next page 28, it talks about our concerns for Cultus Lake and Late Run sockeye and it outlines how we're going to manage them pre-season so there's no surprises coming along, hopefully.
- Q All right. And just so for the record, that's section 4.1.2 "Interior Fraser River Coho, Lower Fraser Coho and" -- straight -- oh, that's coho.
- MS. SNEDDON: It's right below that one. It's 4.1.3. Q Okay, thank you.
- MS. SNEDDON: That's Cultus Lake and Late Run sockeye, and both of those are Fraser River sockeye.
- Q Okay. And then I understand we should move to page 71 through 82.
- MS. SNEDDON: Yes. So that's the Fraser River sockeye decision guideline, so it talks, in just basic terms, about how we're going to manage the fisheries. We have four management groups, I'm sure you've heard about them, Early Stuart, Early Summer, Summer, Late. What are our constraints? What are we going to do pre-season? What does our forecast look like? What is our total mortality going to look like? How many fish do we want to

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see on the spawning grounds? It lays it out clearly for everybody to see what our plan is, what decisions we're going -- what are our decision points for each stock group.

Q All right. And then the sockeye recreational section?

MS. SNEDDON: Yes. So s. 7 is the "Southern B.C."

MS. SNEDDON: Yes. So s. 7 is the "Southern B.C. Fraser River Recreational Fishing Plan," and specific to sockeye is s. 7.4 on page 115. It's currently very skimpy in information and I actually noted that as we were preparing for this. We'll be bulking that up for the next version of it.

But it does talk a little bit about we need to make sure that we manage, according to our conservation, our goals for Cultus, Sakinaw, Nimpkish, so -- and Fraser Late Run sockeye. It talks in general terms about what our anticipated opportunities might be.

- Q All right. And then we should turn finally to Appendix 6 at page 179.
- MS. SNEDDON: Yes. So there's two appendices that are important to the recreational fishery. This is the first one, and it's the "Tidal Water" -- no, "Tidal Salmon Sport Fishing Guideline". So earlier we looked at the sport fishing guide, and we said, you know, maybe it might be somewhat out of date at print. This is --
- THE COMMISSIONER: Can I just -- can I just stop you just for a second. I apologize, Mr. Timberg, I'm sorry.
- MR. TIMBERG: Yes.

- THE COMMISSIONER: Just so I understand -- I believe I understand -- this is the IFMP for the entire fishery?
- MR. TIMBERG: This is for the salmon, southern salmon -- southern coast fishery, yeah.
- THE COMMISSIONER: Not just the recreational fishery but --
- MR. TIMBERG: That's correct. It's an integrated process, yeah.
- THE COMMISSIONER: And just refresh my memory again.

 Are the allocation numbers in this document?
- MS. SNEDDON: You know what, I don't know if they are in there or not. They're 95-5. I don't know -- there wouldn't be specific --
- MS. ADAMS: It was referred to --

MR. TIMBERG: No, appendix -- sorry, we're all talking at the same time. 3 Yeah, sorry, go ahead. MS. ADAMS: MR. TIMBERG: Jeff Grout, end of the commercial 5 fishery, spoke about Appendix 4, and if we turn to 6 that, that's at page 169. So that's a Pacific 7 Salmon Allocation and Implementation Plan. 8 that will be the commercial numbers, I believe. Then if we're now -- these witnesses for the 9 10 recreational fishing are speaking about Appendix 6 11 at page 179, and so here is the recreational. 12 I believe you'll have the First Nations part 13 explained to you under the First Nations section 14 which is to come. 15 THE COMMISSIONER: It's not in here? 16 MR. TIMBERG: I believe it is, but I'm not the expert 17 on that. But the purpose of the IFMP is to 18 integrate all of the various sectors together so 19 we can pull the commercial, the recreational, 20 First Nations together. The goal, as I understand 21 it, is to consult using the same document to pull 22 people together 'cause previously I understand the 23 consultations happened separately, and that led to 24 some problems. So this is the integrated portion. 25 Ms. Adams, I'll ask you to elaborate on what I've 26 just said. 27 MS. ADAMS: As I was mentioning earlier, we used to 28 have separate processes with different groups, or 29 maybe no process at all, and there was concern. 30 People felt that, first of all, they didn't know 31 what each other were asking for in their fisheries 32 and they didn't understand what government's 33 objectives were or even what government's policies 34 and regulations were. 35 So that was the start of the integrated 36 fisheries management planning process, and it 37 started with salmon and it's evolved into all of 38 our major shellfish fisheries and groundfish 39 fisheries and pelagic, like herring species, as well. I think it's been a good process because 40 41 people can see up front the policies and the 42 regulations and the Acts that are driving the work 43 Then it's up to us, as front-line that we do.

fishery managers, and also the different

harvesting sectors, to figure out, okay, how are

we going to take these high-level policies and

actually make it work when we get a run of -- a

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return of sockeye salmon of 600,000 or we get a return of 25 million. Like how will we actually conduct ourselves, and that's the whole -- I guess the real driver behind why we do Integrated Fisheries Management Plan.

So we'll develop proposals individually with different stakeholders and First Nations. Then we'll come to the integrated harvest planning meetings together with all of the stakeholders in one room and we will discuss with them areas of concern. We will try and find ways to resolve those concerns within our fisheries management planning process for the year.

Deb, I don't know if you want to add more specifics with regards to the sockeye planning.

MS. SNEDDON: No.

MS. ADAMS: Okay.

MR. TIMBERG:

Q So the second question that the Commissioner asked this morning was about decision-making and about the various hats that DFO staff wear to make decisions and attend at meetings, consult with respect to the priority of conservation first; food, social and ceremonial priority second; and then the equal priority to commercial and recreational fishing as set out under the allocation policy. So step 1, 2, 3.

So I'm wondering, after we've had this conversation about the IFMP process, if you could describe how - I'll start with you, Ms. Adams - how you, in your position, handle these various responsibilities of the different priorities.

MS. ADAMS: We have a team of staff comprised of enforcement officers, stock assessment and fishery managers, and we have an area-based structure. So for Fraser sockeye we have southern B.C. staff that are involved from all of those different areas of expertise, as well as the lower Fraser, the B.C. Interior, and then regional headquarters here in Vancouver, and our job is to bring forward the interests of all of the parties, including government's interest, and then to consider the advice that we receive from the different parties and make recommendations to our senior decision—makers, and obviously in the region for Fraser sockeye the two key decision—makers would be our regional director general and our chair of the

Fraser River Panel. 1 2 And that's Sue Farlinger, is the regional deputy 3 general? 4 MS. ADAMS: Yes. 5 And then that's Brian --6 MS. ADAMS: Barry Rosenberger --7 Barry. 8 MS. ADAMS: -- is currently the Canadian chair of the 9 Fraser River Panel. 10 So how, then, just to further elaborate on that, 11 with the various policies as the acts, the regs, 12 and the policies as described in the IFMP, how do 13 you apply those in making your recommendations? 14 MS. ADAMS: Well, just to clarify, just stepping back, 15 the Fraser River Panel waters, their authorities 16 go up to the Mission Bridge, and they don't 17 include First Nations' food, social and ceremonial 18 fisheries, they don't have authorities over that; 19 that's the Government of Canada's responsibility. 20 Really, what we use in-season we're looking at the 21 Salmon Allocation Policy, we're looking at the 22 Salmon Treaty, we're working through the Fraser 23 Panel, and we're looking at some Species at Risk 24 content, and Selective Fisheries Policy, and we're 25 developing our in-season operations and conduct of 26 our fisheries based on those salmon-related 27 policies and acts and regulations. 28 All right. And with respect to the question Q 29 about, then, the various hats that people wear, 30 can you clarify -- how would you answer that? 31 MS. ADAMS: We work as a team, both area staff and our 32 regional headquarters staff, and we have a -- our 33 team is comprised of a number of different folks 34 who have different expertise. So we would have, 35 as I mentioned, our enforcement staff, we have 36 stock assessment staff, and we have fishery 37 management staff, and it's the job of those folks on the front line to bring forward the interests 38 39 of the different First Nations groups as well as 40 other harvesters as to how they would like to 41 prosecute a fishery. 42 And we are also, obviously, checking with our 43 own government objectives around will that work 44 within the Cultus sockeye management objective, or 45 the Sakinaw sockeye management objectives, or 46 Early, Early Stuart, or Late Run sockeye 47 objectives.

MR. TIMBERG: Okay. Thank you very much. Mr. Commissioner, do you have any further questions on 3 this topic? THE COMMISSIONER: Just one very brief one, Mr. 5 Timberg. I'm grateful for you for allowing me to 6 do this. I apologize for interrupting your in 7 chief. 8 MR. TIMBERG: No. 9 THE COMMISSIONER: Just on this last couple of 10 questions you asked, if I understood Jeff Grout's 11 testimony, this document that you have on the 12 screen, the Integrated Fisheries Management Plan lots of acronyms - it goes to the IHPC for 13 14 discussion, but as I understand it, by the time it 15 gets to the IHPC this is all filled in, the boxes 16 are filled in, the allocation, the issues that are set out in here are addressed to be discussed by 17 18 the members of the IHPC. 19 But at what point in this sequence is there a 20 discussion amongst the stakeholders and the DFO 21 around the general policy considerations? 22 other words, not focusing on what this year's 23 allocation is going to be or what the TAC is going 24 to be or what the preseason forecast is; rather, 25 when do you have a discussion about, you know, how 26 should TAC be developed? What shall we do with the preseason forecast? The Allocation Policy, 27 28 how should it be administered? Those kinds of 29 things. When does that happen? 30 MS. ADAMS: I think some of it happens at all of the 31

MS. ADAMS: I think some of it happens at all of the different consultations we have with the respective harvesting groups. So when I meet with the recreational fishing community, we talk about some of those things. We also talk about the policy, those bigger, capital "P" policy issues, at the Integrated Harvest Planning meetings as well. We probably don't spend as much time on that as we would like, because there's this angst to go fishing and let's get the plan developed. And probably an area I think several people would want to see more time spent on is input to public policy and some of the key policies that drive our fisheries.

MS. SNEDDON: Tim, could I add to that?

MR. TIMBERG: Yes.

MS. SNEDDON: So in recent years our communications group has put together, we call it the fall road

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show, and it's a consultation package, and it's when we're trying to develop new policies or new 3 initiatives and a wide group of people go out and we go to many communities across B.C., taking 5 these new policies and new discussion documents 6 out and getting feedback on them from not just 7 industry people but also from the public. And so 8 that generally is in the fall of each year. 9 THE COMMISSIONER: Thank you, Mr. Timberg. 10 MR. TIMBERG: Okay. 11 Ms. Adams, this morning you were asked about what 12 methods or tools would managers like to use in the 13 Fraser sockeye fishery that are not included in 14 regulations, and I think you gave an answer, as an 15 example, circle hook, and I was wondering if there 16 were there other methods or tools you would like 17 that are not presently in the regulations? 18 MS. ADAMS: We've had some suggestions from the 19 recreational fishing community, although it's a 20 fine line, they don't really like us to be in the 21 tackle box and regulate them to death, but they 22 have -- some of them have expressed an interest in 23 having a regulation that limits a certain length 24 of the leader line that is on their fishing rod, 25 which would help avoid sockeye when we don't want 26 them to even encounter a sockeye. There's also 27 been suggestions to --

Q Can you describe that a bit more --

MS. ADAMS: I probably could, yeah.

Q -- what the length of a leader line is?

- MS. SNEDDON: Yeah, let me just start with the bottom bouncing method. So it is, you've got a rod with a line on it, you've got -- it's called a leader, and it goes from basically a swivel hook, a little, tiny swivel hook, out to your hook, your main hook, and somewhere attached on there is a weight, called a Bouncing Betty.
- Q Now, did you bring a sample?
- MS. SNEDDON: I did. I actually do have one, if you're interested, if anybody's interested --
- 41 Q Can you grab it quickly?
 - MS. SNEDDON: -- in seeing what it looks like.
- 43 O Is that a quick request, or is that a --
- 44 MS. SNEDDON: No; it's a quick request.
- 45 Q Okay.

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MS. ADAMS: I could maybe just answer some of the other questions.

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MS. ADAMS: A couple of other suggestions that we've received from the recreational fishing community is to do something similar to what the Province of B.C. Regulations are, and that is to put in a regulation where once a person has achieved their daily limit of sockeye salmon, that they must cease fishing immediately. So you can't continue to fish even for catch and release, and you can't continue to fish for Chinook; you're done. you've got two sockeye, you're done. observed that practice being used down in Lake Washington's sockeye fishery, where they have millions of anglers out on Lake Washington in one day and it could turn into a real free-for-all, but it doesn't, because there is this regulation where once you catch your one sockeye, the line is in the boat, you're done.

And so I know our colleagues in the Province of B.C. use that regulation steelhead, and I think we need to do some more -- or have some more dialogue with them as to the effectiveness of how that works for steelhead and whether it would be appropriate to do that with sockeye in the Fraser.

- And so as I understand it right now, an angler could catch their two fish limit, but then continue to do catch and release for the next number of hours?
- MS. ADAMS: Yes, that's correct, because --And what's the problem with that? Or why do you
 - want to limit that?
- MS. ADAMS: Well, I think, as we've mentioned earlier today, there's times and situations where we don't want them to continue fishing, we'd like them to stop fishing and leave, you know, basically either allow others to fish --
- Right.
- MS. ADAMS: -- and not have the release mortality. So I think that would certainly be one option, but there's several others that I think need to be explored, and we need to have dialogue with the community on.
- All right. And before we turn back to Ms. Sneddon, is there another one with respect to limiting certain methods at certain times?
- MS. ADAMS: I think Deb can speak to that with weights and --

MS. SNEDDON: Yes, so the main fishing method in the Fraser River for sockeye is bottom bouncer. And so as I mentioned, it's a leader. Here Joe, why don't you stretch that out. This is a standard operation for fishing. You've got a hook with a little bit of wool, so you can see it when it flies back at you and doesn't get caught in your face. A Bouncing Betty you tie to that end, and as you throw it out in the river, that weight is going to bounce along the bottom and this is going to be out there, free floating, and hopefully going to catch a fish through its mouth.

MS. ADAMS: Careful.

- MS. SNEDDON: Yes, I don't want to hurt myself. So there's three things associated with this that would help us in regulating. One, is to say, "Eliminate that gear type," say for a certain time period you may not want them to bottom out. So if you had a regulation that would say, "No bottom bouncing during this time period," you could implement it. We don't have that regulation, currently.
- Q And so before you move on, why would you want to have a regulation to limit bottom bouncing?
- MS. SNEDDON: Right. So let's say August of 2007 or August of 2009, when our only choices, when the stocks of -- when sockeye stocks did not return, were to either close the fishery completely or leave it open and have release mortalities, we had to go to no fish -- we had to go to close the fishery completely in order to reduce mortalities on sockeye.

If we had no bottom bouncing, we could continue to allow the Chinook fishing to occur, because Chinook fishing is done by -- can be done by a bar rig, which is you throw the line out, a fish comes up and actually bites the lure, which a sockeye doesn't. Chinook still feed while they're in their -- I don't know if they feed; they get annoyed by what they see and they actually bite the lure.

So we would be allowing people to fish for a species that's abundant, that's not of concern, with a method that is selective enough for them. And so bottom bouncing is not a selective fishing

- Q And so bottom bouncing is not a selective fishing technique?
- MS. SNEDDON: I would say that it is a selective

1 fishing technique in clear water --2 Right. -- for sure. 3 MS. SNEDDON: In the Fraser River, it is 4 not as selective as other methods that you would 5 be using to target other species. 6 And that's because of the -- the water is not 7 clear? 8 MS. SNEDDON: The water is not clear. 9 Thank you. 10 MS. SNEDDON: They're not seeing it. So one of the 11 things is eliminating bottom bouncing for a certain period of time. The other thing is the 12 13 length of this leader. So people use anywhere up 14 to, you know, 25 feet. If you only had two feet, 15 that basically eliminates bottom bouncing as well, because if the fish is that close to you it's 16 17 probably not going to be caught on your line. 18 And the third one is the size of that weight. 19 If we said, instead, they had to use a three-pound 20 weight, well, it isn't going to bounce anywhere. 21 You're going to throw it out there and it's going 22 to stay there. 23 Right. 24 MS. SNEDDON: So that would also eliminate it. 25 Okay. And presently you don't have those 26 abilities? 27 MS. SNEDDON: That's correct. 28 Okay. Thank you. 29 MS. SNEDDON: Joe has something to add, too. 30 MS. ADAMS: I would just add that for us to get 31 regulatory changes in place, it takes up to three 32 years to do that, so we need to make sure we've 33 got it -- what we want is definitely what's going 34 to address the problem, and then put it forward 35 and we're waiting probably for about three years 36 before it's passed to regulation. 37 Okay. Thank you. 38 MR. TADEY: And maybe the only thing I'll add, and I 39 hope it doesn't confuse the issue, I know some of 40 the documents talk about bottom bouncing and 41 flossing. And the reason it's called flossing is, 42 and how it's related to the length of the leader, 43 is as the cast for this sort of gear is generally 44 upstream and the leader will travel kind of 45 perpendicular to you across the river this way, 46 and as it's retrieved, that's when it -- that's

when the fish is hooked, and it's called flossing,

because as this leader is going down the river, it's -- fish are moving up the river, doing this. The line goes in and as it's being retrieved the line goes through, and eventually you get the hook, and that's why it's on the outside of the mouth. So that's the reason for flossing. Adjusting the leader length will prevent -- will make -- less leader, less flossing, less catch, so that's...yeah.

- Q And part of the reason for the low catch and release mortality, at least within a 24-hour period, is that the hook is on the outside of the mouth? That's one of the major factors?
- MR. TADEY: So there's not a lot of -- with the flossing technique and the hook on the outside of the mouth, yes, it's the physical damage that's being really assessed in that 24-hour period. I mean, it could be the handling as well.
- Q Right.

- MR. TADEY: But yeah, it's that physical damage is more -- is less on the outside of the mouth.
- Q Thank you. Ms. Adams, can you describe the kinds of -- I think we've done that, actually; I think we'll move on. Sorry.

Again, Ms. Adams, the Vision document that has been put into evidence by commission counsel spoke about shared stewardship, and I was wondering if you could just elaborate on what you mean by "shared stewardship" and what is its importance?

MS. ADAMS: I mean, it's basically something that we're just starting to work on, and what we're trying to do is find areas where, regardless of what harvesting sector or group that you're with, there's areas of common interest. So for instance, in a lot of the freshwater areas there's a common interest on water use, there's a common interest on habitat at is relates to salmon, and, I mean, I think other groups will have probably brought forward, or will, concerns about gravel, concerns about independent power projects. So there's a number of groups that are trying to work together regardless of whether you're a First Nation person, a commercial fisherman, or a recreational harvester or a conservation group. There's areas like that where they have common interests and they're willing to

work together to try and address some of those common concerns. And we've seen examples of them. Some of the groups Deb works with in the Fraser and Squamish Watersheds have done some shared stewardships, so I'll probably just pass it to her to add to that.

Q All right.

MS. SNEDDON: All right, so there's a couple of very good examples in the lower Fraser area. So the first one would be the Squamish to Lillooet Sport Fish Advisory Committee. So you've got the terms of reference from that -- Devona mentioned them earlier. It has generally been just a recreationally-focused group. In the Squamish area, in the Squamish to Lillooet area it's a small community. As Devona points out, they have a lot of the same interests.

And, at first, we had some First Nations expressing some interest about coming in and observing these meetings. And they came and observed, and then realized, everybody realized that they had a lot of things of value to contribute to the discussion, and so in the end they have become members of the committee. And so even though they're not recreational anglers, they're part of the Sport Fish Advisory Committee and they're active participants and it has certainly helped us in managing the fishery in those areas.

Q All right.

MS. SNEDDON: Another good example is on the Chehalis River with the Chehalis First Nation and the B.C. Federation of Drift Fishers, and they worked together, they got some, I think, some funding from somewhere, and they built a fishing trail that helped address some of the concerns Chehalis had around recreational anglers accessing the Chehalis River on their reserve, and there was some trespass issues, there were some sacred sites they didn't want disturbed, there were parking issues, and the group worked really closely together and developed some excellent fishing trails and really improved relationships between the recreational anglers and the First Nations there in that area.

MR. TIMBERG: And Mr. Registrar, if we could have, from Canada's Book of Documents, Tab 10?

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1 MR. LUNN: Is this under recreational or stock 2 assessment?
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- MR. TIMBERG: Recreational.
- MR. LUNN: Thank you.

- Q While we're waiting for that to come up, do you have an example about the Fraser River Salmon Tables Society?
- MS. SNEDDON: I'm not as intimately involved in the Fraser River Salmon Table, but it is a group that is not just recreational and First Nation, it also is commercial, and they have done some work together in trying to build bridges, educate each other about each other's fisheries, and improve relationships.
- MR. LUNN: Chehalis Opens, is that it?
- MR. TIMBERG: Yes.
 - Q And Ms. Sneddon, if you could identify -- is this the document about the Chehalis Salmon Sport Fishing trail you just spoke about?
 - MS. SNEDDON: Yes, that is. Actually, on the Fraser Salmon Table there was actually -- there is something else going on right now. They are working with First Nations. They've got some funding to look at a proposal to develop some camping sites on the Fraser River, there's really none on there, and they're working together right now to try and build a business plan to get some interest in generating something.
 - MR. TIMBERG: Okay. Thank you. And if this could be marked as the next exhibit?

THE REGISTRAR: Exhibit 537.

EXHIBIT 537: British Columbia Federation of Drift Fishers, Chehalis Opens Salmon Sport Fishing Trail news release

- MR. TIMBERG: So I'm down to four more questions here -- actually, three questions.
- Q Ms. Sneddon, this morning you spoke about the Barkley Sound sockeye recreational fishery and you said it's significant. I'd like you to elaborate. Can you clarify what the source of the sockeye salmon is in Barkley Sound? Are they Fraser River sockeye salmon?
- MS. SNEDDON: Correct. When I was talking about it, I was talking about the recreational sockeye fishery in B.C., and I was trying to explain that the

coast-wide cap, the five percent the recreational fishery has access to, includes sockeye from all different areas. So there's Barkley sockeye, there's Nass sockeye, and there's Fraser River sockeye. So Barkley sockeye is on the west coast of Vancouver Island, it's fish returning to the Somas system, and there's a couple of rivers in there that they go to or lakes that they come from into the Somas.

- Q All right. So your first point is that under the Allocation Policy, the five percent allocation is coast wide --
- MS. SNEDDON: Coast wide.
 - Q -- all species?
 - MS. SNEDDON: Yes.
- Q All right.

- MS. SNEDDON: Coast wide sockeye --
- Q Coast wide sockeye, right.
- MS. SNEDDON: -- coast wide chum, coast wide pink, yes.
 - Q Okay. So that's how that's done. And then I'd like to understand more about the Barkley Sound sockeye recreational fishery.
 - MS. SNEDDON: Right. The Barkley Sound recreational fishery, again, it's not a Fraser River fishery, it's a different stock completely. They don't access it. The fishery takes place mostly --
 - Q So it's not a Fraser River sockeye salmon?

 MS. SNEDDON: No. It takes place mostly in Barkley
 Sound and in Alberni Inlet. It's a very terminal
 fishery.
 - Q And the fish come from the Somas River; is that correct?
 - MS. SNEDDON: Yeah, at Great Central Lake and Somas River, yeah, sorry.
 - Q Right. Fair enough. You know it's not the Fraser River sockeye?
 - MS. SNEDDON: Hundred percent not Fraser.
 - Q Okay. And when you say it's significant, perhaps just to round out that picture, just so we know a bit of the dynamics, just briefly?
- MS. SNEDDON: Well, in the percentage of the five
 percent for recreational, it's not significant.
 In the percentage of catch within the Alberni
 Inlet, between commercial, recreational and First
 Nations, it, in some years, can be significant. I
 don't have numbers, but it can be, I'd say,
 significant, in the 30 percent range.

- Q All right. Now again, Ms. Sneddon, this morning you spoke about catch and release mortality studies, and you said that NSERC is looking at longer term catch and release mortality studies. So first of all, can you describe with the acronym NSERC stands for? I think it's N-S-E-R-C.
 - MS. SNEDDON: Right. That's the National Sciences and Engineering Research Council. I do believe it is a government agency that provides funding for people, mainly academics, to conduct research.
 - Q And do you know the academic that's conducting the research?
 - MS. SNEDDON: Right. So the long-term mortality study is a fellow out of Carleton University, his name is Dr. Steven Cooke, and he is looking at long-term release mortalities from all fisheries.
 - Q Okay. So he's looking at commercial fishery, recreational fishery, First Nations fishery?
 - MS. SNEDDON: Yeah, he's not looking specifically at commercial fishery or First Nation fishery or recreational fishery; he's looking at the gear that is being used.
 - Q Okay.

- MS. SNEDDON: Because some of those gears are being used by multiple sectors.
- Q All right.
- MS. SNEDDON: And I think Joe has something to add. O All right.
- MR. TADEY: I'd just add, yes, so NSERC is a funding body and they fund generally through universities. UBC is also -- Scott Hinch, Dr. Hinch, at UBC as well, is in partnership with Steve Cooke out of Carleton University, and the funding is given to these universities. They have to engage, as well be associated with a government body, like the Department of Fisheries and Oceans, like us, so we are involved in the study as well.

And, you know, generally they are looking at release mortality. So regardless of the sector that is doing the harvest, regardless of the type of gear that's being used, it's release mortality. They did, for the first year, focus on recreational. What they are using is they're trying to use -- they're trying to use DFO and a lot of the work that we conduct as platforms to do additional work at reduced cost, but they can also do that with the First Nations fisheries as well,

looking at Coho mortality and a pink seine -- a pink beach seine fishery.

So, you know, they piggybacked on the J.O. Thomas study that -- pardon me? They piggybacked on that study to try to leverage more information out of those studies, using other techniques, radio telemetry and things like that. So I hope that adds.

- And this study is looking at sockeye salmon; is that correct? That's part of one of the species they're looking at?
- MS. SNEDDON: They're looking at sockeye, but they're looking at all species.
- Q All right. Thank you. And do you know when this work will be completed, or when it started?
- MS. SNEDDON: My understanding, it was a five-year funding envelope that started in 2009.
- Q Okay. Thank you. And my final question is, perhaps for the panel, is what changes do you think are needed in the recreational fishery that will ensure the future sustainability of Fraser River sockeye? If you've already answered that, I'm just trying to give you an opportunity to make sure you've provided all your recommendations.
- MS. ADAMS: We did cover off some regulatory changes. I think given the magnitude of the number of participants that participate in recreational fisheries in general and in particular Fraser sockeye, I think we'll have a -- we will always need to continue work on communication, education and awareness because of the size of the group of people that we're dealing with.

I also strongly support increased strategic improvements to catch monitoring across the board, and I know that we're working on those, and I think that's very valuable, because you can't make good decisions with poor information.

Deb, you might want to add a few things.

MS. SNEDDON: And I guess just we haven't talked too much about it, but, you know, Devona was mentioning the number of staff that are dedicated to recreational fisheries management. It has gone down since the mid '90s, and I'm not sure that's the best for recreational management, but it's the department -- the direction we're at now, and perhaps additional resources both there and within our enforcement.

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PANEL NO. 23
Cross-exam by Mr. Timberg (CAN)

MR. TIMBERG: All right. Mr. Tadey? I guess I should leave that for my friend; I apologize. I have completed my questions, Mr. Commissioner, and Ms. Grande-McNeill has a few questions.

THE COMMISSIONER: I think we're going to adjourn for the day.

MR. TIMBERG: All right, should we adjourn now? Thank you.

THE REGISTRAR: The hearing is now adjourned for the day and will resume at ten o'clock tomorrow morning.

(PROCEEDINGS ADJOURNED AT 3:44 P.M. TO THURSDAY, MARCH 3, 2011, AT 10:00 A.M.)

I HEREBY CERTIFY the foregoing to be a true and accurate transcript of the evidence recorded on a sound recording apparatus, transcribed to the best of my skill and ability, and in accordance with applicable standards.

Pat Neumann

I HEREBY CERTIFY the foregoing to be a true and accurate transcript of the evidence recorded on a sound recording apparatus, transcribed to the best of my skill and ability, and in accordance with applicable standards.

Karen Acaster

I HEREBY CERTIFY the foregoing to be a true and accurate transcript of the evidence recorded on a sound recording apparatus, transcribed to the best of my skill and ability, and in accordance with applicable standards.

Diane Rochfort

I HEREBY CERTIFY the foregoing to be a true and accurate transcript of the evidence recorded on a sound recording apparatus, transcribed to the best of my skill and ability, and in accordance with applicable standards.

Karen Hefferland