PRINCE WILLIAM SOUND/COPPER RIVER
REGIONAL PLANNING TEAM

Regular Meeting
April 7, 2014 @ 10:00 a.m.
PWSAC Conference Room

APPROVED MINUTES

CALL TO ORDER: Chairman Joyce called the meeting to order at 10:01 a.m.

ROLL CALL:
Present: Tim Joyce (Chairman), Dan Bosch, Ron Josephson, Jeremy Botz, George Covel, Jim Kallander, John Platt, and (via telephone) Mark Somerville.
A quorum was established.

MOTION TO APPROVE/AMED AGENDA:
Motion, Bosch; Second, Covel to approve the draft agenda of April 7, 2014 regular meeting of the Prince William Sound/Copper River Regional Planning Team (RPT).

Discussion:
Under Agency Reports add ADF&G, Ron Josephson and, U.S. Forest Service, Kent Hodges.
Motion passed unanimously with additions.

MOTION TO APPROVE MINUTES:
Motion, Bosch; Second, Botz to approve the minutes from April 15, 2013 regular meeting of the RPT.

Correction: Page 2, paragraph 3, line 2, change the word *million* to *billion*.
Motion passed unanimously with corrections.

INTRODUCTIONS:
ADF&G Staff: Commercial Fisheries, Chenega and Cordova, Tommy Sheridan; Commercial Fisheries, Anchorage, Bert Lewis; Commercial Fisheries, Regional Resource Development Biologist, Homer, Ethan Ford; Commercial Fisheries, Cordova, Amanda Wiese.

Prince William Sound Aquaculture Corporation (PWSAC) Staff: General Manager, Dave Reggiani; Executive Secretary, Kate Jager, and Administrative Assistant, Terry Bonnell.

Other Public Present: Executive Director, Valdez Fisheries Development Association, Inc.(VFDA) Solomon Gulch Hatchery, Mike Wells; U.S Forest Service, Ken Hodges.

Recorder: Kate Jager & Terry Bonnell
Transcriber: Kate Jager

PUBLIC COMMENT: None

OLD BUSINESS: None

AGENCY REPORTS:
U.S. Forest Service, Ken Hodges gave an update, on the U.S. Forest Service projects. In the 90's, ADF&G collaborated with the Forest Service to stock sockeye salmon at Solf Lake. The escapement count has been monitored with video cameras and this year it was successful by working the entire season. In the 90's, ADF&G and PWSAC estimated that the lake had the capacity for 1000 returning sockeye salmon. This year we counted approximately 750 sockeye which is close to what had been predicted. The lake is performing as expected. Given its proximity to the Main Bay Hatchery (MBH) some of the fish coming up to Solf Lake are also contributing to the commercial fisheries there. There were reports of folks coming down from Whittier for recreational fishing so it is supporting some of the guiding services and outfitters.

There will be a graduate student coming on, Luke Hidalfo. He has a graduate student project through the Oregon State University. He will be placing water temperature sensors and water pressure transducers in approximately 50 locations around the Prince William Sound (PWS). This should give base line data on the Hydrograph, the temperature regimes, and looking at ground water vs surface water runoff to see how those might be affected by climate change in the future. A lot of the ground water systems have a more stable temperature regime, unlike the weather which can vary from year to year. The surface water temperatures vary accordingly. The ground water temperatures may be more stable and these streams may be much less vulnerable to the affects of climate changes.

Alaska Pink and Chum Salmon Permitted Capacity and Egg-take by Year Report -
ADF&G, Ron Josephson, gave a power point presentation on the chum and pink salmon capacities statewide. For a number of years the Department has been making the statement that our production is stable and has been for some time. The Department has been approving a number of increases, particularly chum and pink salmon, over the last few years. Currently Kodiak is at its permitted capacity. PWS has been at its permitted capacity since the late 1990's. The short fall has occurred in the Cook Inlet between what is permitted and what has actually been taken. Cook Inlet Aquaculture Association (CIAA) stopped producing pink salmon at Tutka Bay and the Port Graham Hatchery Corporation (PGHC) closed down. This year the CIAA's intention is to take its permitted capacity at the Tutka Bay facility and a portion at the recently reopened PGHC facility. The village of Port Graham gave up their permit so CIAA was able to apply and receive that permit and reopen PGHC. In South East, the pink salmon program facilities are at Port Armstrong (AKI) and Kake Nonprofit Fisheries Corporation (KNFC). Northern Southeast Regional Aquaculture Association (NSRAA) is expected to do chum

salmon releases. AKI has requested a Permit Alteration Request (PAR) increase this year.

The chum salmon permitted capacity has been rising. Kodiak is at its permitted capacity of 28 million; PWS has been taking all of its permitted capacity and South East is where the requests for increased production have been for the last few years.

A slide of hatchery release of salmon by country release of fish through 2012 was presented. Russia has increased its release some but is not flooding worldwide with increased hatchery production. In 2011 there was a downturn due to the earthquake and tidal wave from Japan.

NEW BUSINESS:

a) Solomon Gulch Hatchery PAR (Action)

Motion, Kallander; Second Platt to recommend approval of the Solomon Gulch Hatchery Permit Alteration Request (PAR).

Discussion:
Covel said it would be helpful to have some guidance on how this RPT should evaluate a proposal like this. We don't have a lot of information but we do have information from the operator. We don't have the benefit of a white paper, a Department analysis of this PAR. He said he was confused on how to formulate an opinion and evaluate this in the context of this RPT.

Josephson said when the Department gets the PAR's, it is always looking at how the return will affect management. Management includes not just the fisheries targeting these fish but also will these fish be showing up in streams, is there going to be straying, is that going to complicate escapement monitoring. When you have new production it is a little more of a vacuum then would be in a case like VFDA or the pink salmon production request for PWSAC hatcheries. We have a lot of information on how those hatchery fish are performing at those various hatcheries. When the Department looked at all of the PWSAC hatcheries and the white paper that was written about that the focus was not on Valdez. The Department looked at Valdez but they didn't have the same issues with straying that we have seen at Armin F. Koenig (AFK) Hatchery, Wally Noerenberg Hatchery (WNH) and to a certain degree at Cannery Creek Hatchery (CCH). The management, because of the early run timing, is much easier to do.

Lewis said the Department was recently entertaining some concepts like this at Cook Inlet. The Regional Comprehensive Plan in Cook Inlet has a project criteria checklist that we went through as a group. It was what the RPT developed as they would entertain new projects. The Regional Comprehensive Plan here also has a criteria checklist for projects that identifies land use, allocation, fisheries congestion, and appropriate stocks. We have suggested that plan in the past but have never seen it used with this group even though it is this group's document.

Kallander asked to speak in favor of this permit increase. Having fished over there, while the increase is significant, he didn't see any management issues, there are certainly no capacity issues. It will not prolong the fishery necessarily and the peak will just be higher and the bell curve will remain similar to what it is now. The only issue would be when we are test fishing for early wild and PWSAC stocks. The test fishery that last into what is called the PWSAC run would have the VFDA component. There doesn't appear to be any problem separating out the VFDA component and get a clear picture of the percentage of wild stock and PWSAC contributions in that period when we are trying to gauge the next phase of the wild stock/PWSAC return. We would expect to see higher numbers as the tail of the bell curve may extend into that period but has not seemed to cause any management issues in the past.

Sheridan said by that time the cost recovery goals should have been met, the wild stock escapement is on its way to what it should be, and the brood is secure by that point. We have definitely noted the appearance of Solomon Gulch fish in the test fisheries but by that date in an average year everything is pretty much done at that point.

Kallander said he could not see any reason why we would not support this increase.

Joyce added some background on the RPT review on permits. These are the things that need to be considered when it comes to the review of an application:

- *The contribution the proposed hatchery would make to the common property fishery.*
- *Provisions for protection of the naturally occurring stocks from any adverse affects which may originate from the purposed hatchery [we are referring to the increase]*.
- *The compatibility of the purposed hatchery with the goals and objections of the comprehensive salmon plan for the region.*
- *Whether the proposed hatchery would make the best use of the sites potential to the benefit of the common property fishery.*

Once we determine these things, then [Joyce] would write a letter to the Commissioner that would state whether the RPT approves or disapproves.

There is one other item to be discussed, and that is during the review and the determination it lists eight different proposals. The fifth says the proposed hatchery must have a secure water source and delivery system that is adequate for the proposed incubation and rearing. That was one of the issues for Solomon Gulch. They need to redo a water pipe to bring additional water in to provide for this additional increase but they do not want to do that unless they get the additional increase.

Wells clarified as the facility is now, they are completely maxed out on their ability to get water from the hydro plant to the hatchery. The water line is 32 years old and at the end of its useful life. They have a project that will go to bid in midsummer to increase the 24 inch line to a 42 inch line. That project will happen regardless of the outcome of this

PAR. They are also working with the utilities by looking at increasing their emergency water supply. This is a high pressure tap that comes before the turbines and the high pressure comes directly off the pen stocks. The utilities are agreeable to work with VFDA on that. Because of the engineering issues and cavitations that goes along with pulling the water off before the turbines it is in full review with the engineers. Wells said if they are in a position where the PAR is not granted they can make adjustments with recirculation and use their existing facility to provide the emergency water source. As it stands now with the current set of operating parameters the utility uses to generate power, we feel we have almost twice the water supply that is exhausted out of the turbines and the tailrace. What they do not have is the ability to get that water to the hatchery which will be fixed by this water project. Wells said they are confident that as these things fall into place they will have the water necessary to take on this increased production. This is just a matter of working through some details with Copper Valley. For the parameters of this discussion, what we have is more than enough tailrace water on a normal basis; they just need to get across the road. He said they feel they have the ability to work with the utilities for emergency water supply. They have other mechanisms that are either in place or will be coming into place to provide emergency recirculation in that event.

One of the projects on the table that is just getting ready to go into engineering is to provide another de-gassing tower for their long term rearing ability in their coho facility. As the 42 inch water line is installed they will also install an 18 inch line that will provide recirculation. They will be moving into that investment as well to create the de-gassing tower in that coho facility which will improve and allow us to provide recirculation for the coho program which uses a majority of the facilities water.

Covel asked what the earliest projected egg-take would be, given your water issues and your incubation space issues.

Wells replied the earliest egg-take would be 2016 for the first 20 million increases. We think we can get that assuming the water line construction goes as planned in 2015. We actually have the existing floor space for the incubators to take that first 20 million. The construction will have to happen starting in 2015 to provide for that last 50 million eggs.

Bosch asked if this would cause any conflict between the sport fishermen and the commercial fishermen.

Wells said it would not. If you have a bigger return it will add itself to the existing run entry. On the average that fishery wraps up somewhere around the 25th of July. We have coho management in our annual management plan (AMP) that comes into play on the 15th of August to manage for the sport fishery. There are mechanisms in that AMP to manage it from the hatchery for surplus fish. They feel they can manage surplus around the hatchery without disrupting the coho fishery. There is no anticipated change to their permitted level of coho incubation, that program will stay as it is.

Covel said it is important as a member of the RPT and important to the process that we have consistant approaches to these questions that come before us and the Commissioner as well. Covel said he found the white paper concerning PWSAC production increases to be useful and helpful in understanding the rationale behind those that were granted and those that were not granted. It functioned more or less like a check list. He said he would prefer at this stage in the game if we had something like that in front of us, a more complete analysis. He noted in the evaluation process that all of the facilities went through in the last couple of years there is some pending work in their recommendations for Solomon Gulch concerning assessment of the run timing. He also noted given this magnitude of increase of this sort, we might want to look at some of the outstanding questions that are there and see if the scope of work in our research program adequately addresses some of those. Covel said that was one of the things he had not really considered himself as we charge down the road; the research is the different dynamics associated with the VFDA timed pink salmon and PWSAC's pink salmon. We might want to review and see if there are some things we can do with the scope of work in that project so that the straying issues are adequately addressed. We made some assumptions over the years concerning straying with the earliest timed pinks salmon in the PWS and they are at this point just assumptions. Those are some of the things in terms of having consistant process that are important to consider. One of the reasons for the time line question was to see if we had a little bit more time to consider some of these and put together some of this background information so that we can make a better informed decision and have a good record to support it. At this point it might be best to delay this recommendation until we have some information in front of us. Covel said he did not want that to become an impediment to getting where the VFDA would like to go with this; but the needs of the record and the needs of the decision maker probably would demand that we put together a little more background and also roll their program and those issues concerning the VFDA better into our research program.

Joyce said what he was reading is there is some information from the straying in the PWS ADF&G of 2012 where it said there was not a lot of Solomon Gulch Hatchery straying but maybe that study wasn't looking at early run stocks but more at the PWSAC stocks. That would be the obvious reason if you are not out looking in July when those VFDA stocks are spawning you are not going to find them. Joyce said he was hearing Covel say he was not comfortable moving ahead right now and is looking for some more information, maybe the inclusion of some of the information in the study for the scope of the work for the State. It is not something that wouldn't be considered in the future. As far as a production increase of 70 million it might be something to look at a little more carefully at this point in time. Joyce said he had heard Wells, as far as their floor space capacity; they could do 20 million but not 70 million without some construction. It might be something where the RPT could look at something less than the 70 million at this point in time until we get some more information in the future to look at. Maybe the Department can increase their scope of work on the straying study to see if, in fact, there are some impacts out there regarding the earlier run fish and look into some of these earlier timed systems to see whether or not the Solomon Gulch fish are, in fact, there to confirm what is being said here.

Kallander said PWSAC is being held to a much higher standard than any other hatchery in the State. Because of that he did not want to encumber the VFDA because of management's perception that there is a dangerous problem with PWSACs production. That said, his understanding in talking with people in the Department, we are not far away from getting some preliminary determinations on PWSAC's straying. As soon as we get some idea of what may be termed as expectable straying rate that could contradict this white paper, he would not want to see every hatchery in the state having straying studies conducted. PWSAC is burdened with it and that is enough. There is no compelling reason to let that bleed over into another hatchery at this point. As far as Covel's point, Kallander said he would concur on having some sort of check off sheet to measure compliance and for the RPT to be consistant going forward is a good idea. If Wells thought reducing this approval to 20 million at this point would not inhibit the VFDA going forward we could review the additional 50 at the next RPT meeting, Kallander said he would not be opposed to that but he would be opposed to standing down on this approval at this point with any other concession.

Covel asked to bring his comments further out. He fully well recognizes the need for pink salmon in the worldwide market place right now. We need to be careful as we consider these things that we don't drag our feet too much that someone else replaces our production. On the other side of the coin, PWS is under a tremendous amount of scrutiny and has been for a number of years. It is very important that whatever decisions we make in respect to production are well supported and documented. The confidences we are beginning to build in our programs has slipped a little bit, not necessarily in Alaska, but out in the market place. There is really the need for good records and good supporting information like the white paper.

Josephson said the Departments perspective is to not have a lot of permitted capacity out there that isn't being utilized. We found that the VFDA's incremental increase purposed in their PAR was good. We do not want to permit 70 million eggs now when it could be several years before the hatchery is ready for them. The Department also recognizes that the VFDA needs some assurances if they are going to spend the money on a larger facility there will be a value for it. The Department is looking at a conditional approval where the approved increase of 20 million green pink salmon eggs would not be effective until 2016. The further increase of an additional 20 million eggs would not be effective until 2018 upon demonstration of the physical capacity and would be a condition of the permit. Consideration of a further increase of 30 million green pink salmon eggs which would bring the total capacity to 300 million to be entertained only after completion of the pink salmon phase of the Alaskan Salmon Wild Hatchery Interaction Studies which results will factor into such a decision. Those study results are expected in 2019. A request could be entertained in the year 2020. By 2020 the Department and the VFDA will have a lot more information available.

Kallander verified with Wells that if the RPT approved 20 million green pink salmon eggs today it would not hold up the VFDA going forward for the next couple of years.

Wells answered if the RPT were to approve 20 million eggs today we will still need to increase the water to the hatchery and is scheduled to happen regardless. If the RPT would consider a phased approach the VFDA Board would look at making the investment of a 1,700 addition to the existing facility. If the RPT would approve the next 20 million so that we could plan on 40 million eggs in the next 5 years his Board would move ahead.

Josephson said we are discussing effectively giving the VFDA 40 million of the 70 million requested at different stages. They can take 20 million effective in 2016 and an additional 20 million in 2018 assuming they have the physical capacity at that time.

Wells agreed that the VFDA could agree to 20 million eggs now and another 20 million by 2018. That is reasonable with the 30 million pending per the decision of the study outcome.

Joyce added with the white paper and the check list off the comprehensive plan and approving 20 million eggs now for 2016, perhaps we can come back next year with the comprehensive plan review and look at phase 2 and 3 to see where the gaps are. We can look at where some of that production was needed and requested while doing our checklist. We will also have some information by 2016 when we get to the point of needing to do the next increment from the straying study as well as other projects going on out in the Sound that will help us make a good science based decision.

Covel read language from the white paper concerning PWSAC PAR's consistant with the language in communications from the Commissioner on the status of our PAR a few years back. It reads: "An increase in the permitted capacity, in this case CCH, by 34 million pinks eggs is recommended. Further increases in this case at WNH and AFK are not recommended until a more comprehensive research directed at a better understanding of total wild stocks returns can be implemented." Covel said language like that in a motion that also might incorporate some of the logistical needs of Solomon Gulch would cover what we need to do here today and fix the numbers as appropriate and offer a amended motion to that affect.

Wells said if it pleases the RPT, he would prefer it is 20 million eggs effective in 2016 with another 20 million eggs effective in 2018. This would give the VFDA at least two planning steps with the final 30 million contingent upon review.

Kallander said we should break and craft language for a total of 40 million by 2018 with conditions on the 30 million.

Wells said the Board is ready to make the needed expansion for the full 50 million. What they would prefer is not to have to come back with another PAR for the second 20 million eggs. If we could do that second 20 million by 2018 with conditions that would be agreeable.

Motion, Kallander; Second Bosch to recess.
Motion passed unanimously.

Off the record 11:14 a.m.
On the record 11:34 a.m.

Motion to Amend Covel; Second Kallander to recommend an increase in permitted capacity at Solomon Gulch Hatchery by 20 million eggs beginning 2016. An additional 20 million green eggs recommended beginning 2018 are conditionally authorized pending completion of required hatchery infrastructure. Further increases are not recommended until more comprehensive research directed at better understanding total wild stock returns, stock identification and run timing are implemented.

Discussion:
Covel said to his understanding this will move the process along in an acceptable manner for the VFDA. It will also provide some language consistant and being used in evaluating PWSAC requested production increases. Most importantly it builds a good record for the public and others to look at.

Josephson said the information that is going to be gained by the Alaska Salmon Hatchery Wild Interaction Study will be invaluable help when we are making these decisions.

Amendment passed unanimously.
Motion with amendment passed unanimously.

b) Solomon Gulch Hatchery AMP (Action)

Motion, Josephson; Second, Kallander to recommend approval of the Solomon Gulch Hatchery 2014 Annual Management Plan (AMP).

Discussion:
Kallander asked Wells if there were any changes in the AMP from last year.

Wells replied there were no substantive changes just the numbers and dates updated.

Motion passed unanimously.

c) Main Bay Hatchery AMP (Action)

Motion, Covel, Platt to recommend approval of the Main Bay Hatchery 2014 Annual Management Plan (AMP

Discussion:

Kallander asked Reggiani if there were any changes in the AMP from last year.

Reggiani replied there were no substantive changes just numbers updated.

Motion passed unanimously.

d) Cannery Creek Hatchery, Armin F. Koernig Hatchery, Wally Noerenberg Hatchry AMP (Action)

Motion, Covel; Second, Kallander to recommend approval of the Wally Noerenberg Hatchery, Armin F. Koernig Hatchery and Cannery Creek Hatchery 2014 Annual Management Plan (AMP).

Discussion:
Bosch pointed out that in the previous year PWSAC had a Fish Transfer Permit (FTP) for Chinook salmon coming from Fort Richardson and the Deception Creek stock. There is no longer non-revenue King Salmon at Fort Richardson. That needs to change to the Hernandez and Deception Creek stock. That will give PWSAC two different brood stocks to work from to get fish for Chenega.

Reggiani agreed to change names.

Kallander asked Reggiani if there were any substantial changes in the three management plans before the RPT.

Reggiani said there were none.

Motion passed unanimously.

e) Gulkana Hatchery AMP (Action)

Motion, Covel; Second Bosch to recommend approval of the Gulkana Hatchery I and II 2014 Annual Management Plan (AMP).

Discussion:
Josephson said one element of this on page 11, the last paragraph, PWSAC is proposing beginning in brood year 2014 the fish be coded wire tagged rather than otolith marked. Josephson said he was opposed to that. There is no coded wire tagging of any sockeye salmon anymore anywhere. What the Department found with the otolith marking when 100% of the fish are marked it changes the whole sampling dynamic. Rather than having to sample 20% of the catch you go to representative sampling. If you get from 100 to 400 otoliths you get a much more precise estimate of the hatchery contribution. We have also found that coded wire tags tend to underestimate hatchery production particularly with pink and chum salmon. We have been looking at the King salmon production in South East which is all coded wire tagged. A lot of effort goes into coded wire tagging

King salmon. It is probably the most robust sampling you can have. With 20% of the fisheries sampled we still believe we are underestimating our hatchery contribution by approximately 15%. The Department is taking some steps to address that by rigorous sampling at the rack at the hatcheries and adjusting our tag ratio at release based on what we are finding at the hatcheries. We get credit for that 15% we believe we are underestimating. There would not be any way of doing that here. Also complicating this coded wire tags is that they will only be tagged at Crosswinds Lake. We would have no way of knowledge of what the contribution would be of Paxson and Summit Lake.

Somerville said he would concur with Josephson.

Kallander said he understands there are two upsides for coded wire tags for PWSAC. The first is cost. PWSAC could save $68,000 per year doing coded wire tag vs strontium chloride. The other upside more directly affects fishermen in that the process of identifying the hatchery stocks with coded wire tag would be more immediate and pertinent to management than waiting for otoliths which can run weeks behind the fishery. It seems like the more timely the management has the information on the hatchery contribution the more effective it would be. PWSAC used to use coded wire tag and then we switched to strontium chloride. PWSAC never receives reports on any of the otolith data. From PWSAC's point of view it is ridiculous to be spending all of this money with no actual results. Maybe somebody from the Department can speak to that.

Joyce said this is a change from what has been occurring. There must be obvious reasons for that proposed change. Maybe we should have PWSAC speak to the reasons why this was being recommended as a change.

Covel answered this past winter PWSAC's Production Planning Committee was tasked with taking a comprehensive look at a number of our programs with an eye towards cost and improving the way we do business. One of the programs we looked at across the board was the marking program. The total cost of that program from marking, the recovery, the evaluation of everything amounts to about 10% of PWSAC's budget. It seemed like an obvious place to look at and see if we could do better. We found in our discussions, which included the Department, there was a full range of success and failures in this. Probably the best example where otolith marking works for us and yields the most usable results in a timely fashion is with pink salmon. No one will dispute the pinks and real time management of the pink salmon is absolutely essential to the success of that fishery. We have the capability to do that and it's been working. On the other end of the spectrum we identified our coho program. It is a small program where we mark fish and do not perform any recoveries. We also found that as much as we would like to make clean business decisions and say this is good and yielding a product and this one is not good so let's get rid of it, there are other constraints out there on how we do business. There are other reasons why we have to mark fish other than whether they are yielding meaningful results or not. The allocation plan that we live under is one reason and is a key to calculating values of these fisheries by being able to distinguish fish marked by PWSAC from unmarked fish. Those are some of the things we came up with. One of the

most expensive areas of our marking program is the strontium chloride marking program. Another thing we talked about with respect to strontium marking, is that it could end at any time for us. Strontium Chloride is under the Federal INAD (Investigated New Animal Drug) is a provisional thing. One way of thinking is that we may as well get out ahead of it and go to something that yields us the type of information we need. It saves us money and avoids all of a sudden something going away at an inconvenient time. That is how we came up with the Gulkana recommendation. The 100% marking is a great thing if you are using it to the degree it can be used. It is a great thing from a public perception standpoint. We would love to hear all hatchery fish are marked. We could probably get what we need in terms of the allocation, for management, for post season evaluation with a coded wire tag program and save a lot of money in the process. That is the background from this winter. That is what we went through this winter and how this recommendation came about.

Kallander asked Botz during the summer run what is the turnaround for samples on strontium marking.

Botz answered it is approximately a week to 10 days. We start sampling usually after the second week of June. Then that sample would be available for management by approximately the 18th.

Kallander asked if they would prefer to have samples from an opener that were identified right at the plant where they are taking the fish.

Botz said yes some of that immediate information would be very useful. Coded wire tags are much less precise. You are talking about marking just a portion of the total release from Gulkana Hatcheries of Crosswind and Summit smolt. You are leaving out all the Paxson volitional fish which make up a fairly large component of the total return. You can come up with survival assumptions. Each one is a different ratio and can come up with some kind of an estimate. Botz said he would not have the confidence in that estimate that he would have with 100% mark estimates. We are moving from talking about 100% marking to something that is on the realm of 7% marking rate.

Covel said he had forgotten a couple of things. There is another reason we need marks in some areas of our programs. Of course there is the research program and it is key to that as long as it goes on. Back to Gulkana and the precision thing, that is one of the things that has been frustrating over the years. It seems like we have had a heck of a problem with precision. Sometimes those strontium marks generate a lot more questions than they have answers in those years that all the unmarked fish showed up in places where they are not supposed to be with no spawning habitat there. How did they get there? The years where we had to send the samples back out to get re-read. Strontium is not a panacea. None of these methods are perfect. You would think that something that is 100% marked would give you a high degree of precision and would be fine if all the marks were definitive but they are often times not. So the question becomes, can we live with something less than that. Can we manage, can we live with it.

Somerville said we are talking about cost and all and the $68,000 for the cost to PWSAC for doing the markings. Just the sampling of the up river fish alone is well over $75,000 annually for the Department. We are only able to achieve that because we have cut back on the number of samples we collect because of the 100% mark. At this point if we go back to coded wire tagging we will need to literally triple the number of fish we collect there. We would be looking at either not sampling the upper fisheries at all which is unacceptable or spreading those costs out and hiring an input firm or additional payments from the operator.

Covel asked what happens when the INAD permit goes away. What is plan b?

Josephson responded that PWSAC has been looking at this. Don Beard has been up there and worked with you at least conceptually about what it might take to thermal mark. Because you don't bulk incubate you have all your eggs in 60 or 70 incubators, that is a lot of water. In Main Bay when they are thermal marking, they have all of their eggs consolidated with a lot more control. There is no way to do dry marking because you would have to shut off the water and drain out the incubators, they would freeze. Thermal marking would be a very expensive thing at Gulkana. You could build a hatchery building and turn it into a conventional hatchery but that is another very expensive thing. There are no easy answers. It may cost PWSAC less to put in coded wire tags then to thermal mark the fish. It would be $50,000 at $.50 cents a fish to tag them if you had 100,000 at Crosswinds alone.

Reggiani said PWSACs thoughts on Summit Lake were that the number of returning adults did not really make sense to do. PWSAC's costs right now are about $150,000 annually for operations with $50,000 for supplies, $50,000 for labor, and $50,000 on the recovery. We anticipate, if we could go back to coded wire tags at Crosswinds, an annual savings of $68,000. The strontium chloride is extremely expensive at $42,000 by itself. The reason it is so expensive is because it is being produced under an INAD so that manufacture has to prove best practices. We have been looking at it. We have looked at thermal marking in a couple of ways. One by using diesel fired boilers and also a heat exchanger to capture whatever warmth there might be in the effluent river going by. It is problematic and challenging and certainly the time of year that a thermal mark would be applied is -20 degree temperatures there. There is no quick and easy answer for that program.

Josephson said we need more analysis of this in a document that would defend such a thing before the Department has any comfort changing at this point and time.

Joyce asked if PWSAC is planning on marking with strontium chloride this year.

Reggiani said correct. Why it is in this AMP is for the eggs that we are taking this year. Next spring we would not. The first year with the coded wire tag would be when the smolt are put in the lake.

Joyce said the other problem would be the overlap that will require two sampling schemes for at least two years. How do we get through this AMP knowing we have a year to work on something and see if we can come up with some alternative or compromise or a solution. It is unclear if that is doable but with an INAD permit system the way that works it could be that in two years you are not going to have that permit. There are some real issues trying to mark in those conditions at Gulkana whether it is coded wire tags or anything else. The capturing of the smolt and all the handling you have to do create issues in themselves. PWSAC has gone through a discussion on this. Maybe there might be a way where PWSAC and the Department can sit down and have some further discussions to come up with some options and recommendations in the near future so that we can come back and deal with that prior to next spring time. There is probably some kind of resolution to this.

Botz suggested reverting to the pre-existing language for this AMP then having further discussion.

Joyce said that might be a solution but there has to be some consideration when you are doing the language. There needs to be something added in that alternatives will be discussed and looked at rather than just saying this is how we are going to do it. PWSAC is coming from the direction that they need to look at something different because they have some problems with what they are doing. They are reverting back to previous language which was coded wire tags. Joyce said he was trying to offer an alternative and have both sides come to some kind of resolution on this.

Josephson said we need further analysis. PWSAC wanted to start the ball rolling by some sort of proposal to the Department that would address some of the cost and issues and how they expected to deal with them. Then the Department would work on it also and talk about some of our cost with such a change, if it was adopted, what it would entail. Then we could get a more comprehensive view on it.

Reggiani said that was the intent of including it in this AMP to offer a proposal. The editing time for the AMP was pretty short this year with PWSAC's spring meeting and the RPT meeting being so early in April. This was the intent, here is the proposal. Now PWSAC is looking for something coming back from the Department on an analysis. Like any other evaluation program it starts with what are we trying to evaluate. Then you build a sampling program so that you can evaluate it. That really needs to come from the Department with PWSAC's help. Coded wire tag is still a proven method to marking fish and is still used in the Pacific Northwest. Reggiani said he would look forward to having that discussion with Fish and Game but maybe the discussion needs to start with what we are trying to evaluate.

Joyce said PWSAC will be marking fish this spring with strontium on this year's release. This AMP will apply to the spring of 2015. The Department and PWSAC need to sit down this spring and summer and come up with an idea or some type of resolution on

how we are going to proceed for 2015 spring and beyond. If it is something different, maybe there is a conversation time or transition time. The potential is there if there is a need and resolution to have a fall RPT meeting that we can modify this AMP for the marking if we need for the spring of 2015.

Joyce said for now what he was looking for is what we can pass that will work for the spring of 2015 unless we want to change it.

Kallander said on page 11 of the AMP, we either need to strike 4.4 CWT Application or rewrite it. In the first paragraph under 4.3 Otolith Marking the last sentence that starts with "In recent years," that is the first place where coded wire tag is spoken to but it makes no commitment in the AMP. The second paragraph looks status quo. In 4.4 CWT Application is where the AMP says what PWSAC is going to be going forward with coded wire tags. We could let 4.3 Otolith Marking go and address 4.4 CWT Application and we would be not committing to a different tagging study going forward. Then you could speak to a fall RPT and future workshops.

Amendment: Motion, Somerville, Second, Josephson to change the word "will" to "may" in the first sentence of the first paragraph of section 4.3; change the word "will" to "may" in the last sentence of the first paragraph of section 4.3; pending recommendation from a joint ADF&G and PWSAC review of the marking program at Gulkana Hatchery and striking the 4.4 paragraph.

Discussion:
Joyce said there needs to be some sort of time frame set up at some point where we are ready to come back and discuss this. There will be ramifications by next spring because you are going to be having fish that will need to be dealt with. There needs to be a decision way before that because if you will be doing the strontium mark you will need to purchase that or if you are going to be coded wire tagging you will need to purchase those. There needs to be a calendar date set up that PWSAC and the Department will have a decision made.

Kallander asked Reggiani's opinion on when he would need things ironed out to either stay status quo or ramp up a different program.

Reggiani replied fall would be a good time to start right after the fisheries and try to have a decision made by December.

Covel said if the Commissioner signs off on this AMP then the stage is set. You will have your template in place and the respective staff can deal with it and implement it.

Kallander said this protects everybody because neither the Department nor PWSAC can move forward without coming to a consensus based on the writing we provided. It serves the purpose of this committee. We have thoroughly tied both of our hands and we have to resolve this.

Botz suggested starting the discussion by September and resolving by December.

Joyce made the recommendation that PWSAC and the Department have a final resolution by December 15, 2014.

Somerville said setting a date for a final decision should set some commitments forward. It is easy to agree that for PWSAC they have a time line and they need a decision either for or against by December 15th. If we don't meet and discuss between now and then that will be a discussion at that meeting. We will basically be in the same boat we are now as far as deciding what to do there. Somerville sincerely hoped they could meet before then. It is easy to set a date that says the decision has to be made by this date, if we achieve our goals between now and then is what we have to work on.

Amendment passed unanimously.

Motion with amendment passed unanimously. Motion with

RPT CHAIR:
Joyce said he had retired from the Forest Service. He would be remaining in Cordova for the springtime and summertime and traveling some in the wintertime. He asked the RPT if they would like him to remain as Chair. If the RPT is looking to have springtime meetings in April he would be able to be there but if the RPT is looking to have multiple meetings throughout the year he could not. Joyce said he would be more than happy to continue on.

Josephson said there was no need to take any action on this and thanked Joyce for the update. The remaining RPT members concurred.

NEXT MEETING DATE: Next April 2015

COMMENTS:
Josephson said he was looking at retiring this coming summer sometime.

Kallander expressed his appreciation and thanked Josephson for participating in this RPT and all the good work he had done for PWSAC. Josephson was a breath of fresh air.

Joyce said Josephson is probably one of the few people left that knew what the F.R.E.D. Division was. He has a huge history that will be lost to the Department on hatchery production and the whole reason behind hatcheries. He told Josephson he would be missed. He congratulated Josephson and thanked him for his time.

ADJORNMENT:
Motion, Kallander; Second, Bosch to adjournment. Hearing no objections the Chairman gaveled the meeting closed at 12:48 p.m.