From: Leinenbach, Peter
To: Henning, Alan; Wu, Jennifer
CC: Woodruff, Leigh; Kubo, Teresa; Leinenbach, Peter
Sent: 8/22/2014 5:13:05 PM
Subject: RE: Forestry - Pesticides Issue
Attachments: Weyerhaeuser_2014-781-0091.pptx

Alan –

Attached below is an image of this site – there are approximately 1,800 stream feet without any buffers in this application unit. Most of these stream segments drain directly into a fish bearing/perennial stream with their herbicides. The image clearly shows what you were talking about. (The image also shows the harvest machinery in action). On Tuesday, I will look into if we can get an estimate of the flow from these stream segments (using the NHD estimates) and compare the total flows from these 1800 ft of tribs to the estimated flow in the receiving fish bearing stream (i.e., blue line). It might not be important but if the receiving fish stream is low flow compared to the tribs, then the load of herbicides will have less dilution in the fish streams.

Alan, I hope the other sites you send me are as clear as this site.

Peter

From: Henning, Alan
Sent: Saturday, August 16, 2014 3:38 PM
To: Wu, Jennifer
Cc: Leinenbach, Peter
Subject: Forestry - Pesticides Issue

Jenny,

I've been reviewing your draft rationale for forestry – pesticides and think you have done a great job with what you have been given to work with. I think you have gotten some very good input from folks, and some very good comments from Dirk, Gabriela, Allison and others. Their comments and input help support a NOAA/EPA position that kind of leads to a conclusion that more "outreach and education" are needed and, **Ex. 5 - Deliberative** **Ex. 5 - Deliberative** However, I think the State could clearly argue that they have good outreach and education programs within their applicator licensure and registration programs. I suspect many of the items Dirk suggested for additional outreach already exist. I also suspect the State's applicator registration training programs cover most of the items he targeted. (Check out ODA's pesticide applicator registration training web site.) And, as Allison suggested in one of her comments, the lack of enforcement isn't a lack of a MM for CZARA; it is more of an implementation issue, and implementation is not an issue to be address in CZARA. Unfortunately, neither of these seem to provide us with a firm platform to get at the heart of the problem which is "the State has no management measures to protect Type N streams".

In an attempt to get at the issue of protecting type "N" streams, I went back to one of the comment letters that provides input on this particular issue – comment letter 76 from Jan Wroncy and Gary Hale. Their comment letter is over 40 MBs. with tons of attachments. Scrolling down to p 216, I found a copy of a 2/05/14 Notification of Operation/ Application for Permit for Aerial/ground application of herbicides on Weyerhaeuser land in the Coast Range, more specifically, in areas that include tributaries to the South Fork of the Alsea River. As you know, the mainstem of the Alsea River empties into the Pacific – it is a big salmon stream. (I suspect the commenters received a copy of permit because they have water rights downstream of the proposed spray site, and I believe that water right holders within 10 miles downstream of a intended spray site, need to be notified of a permitted spray operation.)

Detail of the operation provided in the Notification of Operation/Application for Permit, indicates that this will be an aerial (helicopter) application of herbicides. Also provide in the application were the "protected resources" where

buffers will be observed when spraying, i.e., "No herbicide will be directly applied within 60 feet (aerial) or 10 feet (ground) of the high water mark of any protected resource defined as **F or D (drinking water)** stream, lakes, significant wetlands and other areas of standing open water greater than one-quarter acre at the time of application." It is important to note in that same permit, the applicant indicated the presence of other "Tribs. To the South Fork Alsea River, and described them as "Small Non-Fish Stream(s), Small Unknown" indicating that there were type N streams and streams not classified. Note that in the Notification these were **not** included as "protected resources" where buffers were going to be applied.

Also included in the operation details were the names of the herbicides that might be applied. I say might because such notifications usually include a list of herbicides rather than the specific herbicide that will be used. I believe the operator is the one who must keep records on what is specifically sprayed. The State only gets that data when ODA (not ODF) requests that information from the applicator. The herbicides listed in this Notification included Atrazine 4L, Sulfomet, Oust, Velpar DF, 2,4-D LV6, Transline, Accord Concentrate, Rodeo, and the additives Foam Buster and Grounded. I looked up the label requirements for these herbicides. This is some of the language included on the labels:
Atrazine – "This pesticide is toxic to aquatic invertebrates. Do not apply directly to water….." (from Gabriela previous e-mail);
Sulfomet – "Do not apply directly to water….";
Oust – "For terrestrial uses, except for uses under the forest canopy, do not apply directly to water….";
Velpar DF – "Do not apply directly to water….";
2,4-D – "This product is toxic to fish and aquatic invertebrates. For terrestrial uses. Do not apply directly to water…" (from Gabriela);
Transline – "Do not apply directly to water….";
Accord Concentrate – "For control of annual and perennial weeds and woody plants in forests, non-crop sites, and in and around aquatic sites;…" likely for wet areas; and
Rodeo – essentially can be used in wet areas.

Note: If any of the first six herbicides were used on type N or unclassified waters, one could conclude the labeling requirements were not followed.

So, what does all of this mean? Well, I am not exactly sure because it looks like the Notification is submitted to ODF and the Department of Revenue, and is likely reviewed by ODF and sent back to the applicant with the date that it was received by ODF, and that the Operation is subject to a 15 day waiting period before it can start. Nowhere does it say that the Notification has been approved by the ODF. However, one assumes that once the letter goes back to the applicant and the 15 day wait period expires, the operation can commence. If that is the case, one could argue that the return of the notification to the applicant, is by default, a notice to proceed (after the 15 day wait period). If that is the case, then the applicant has been given a default "blessing" from the State to apply any of the aforementioned products to any type N stream and any "unclassified" stream even though the labeling requirements of six of the listed herbicides prohibit the application of the herbicide directly to the water.

Areas where I think we can determine that specific management measures are missing:

1. The State does not have management measures (ODF regulations) that provide protections for type "N" streams or "undefined" streams, period! I have not found in the State's regulations where buffer requirements have been established for type N streams and unclassified streams when herbicides are aerially applied. (We should start including "undefined" streams in our decision as well).
2. The State does not have management measures in place which allow them to determine if buffers, identified in the Notification, will be protective of the quality of all waters including, F, D, N and undefined/unclassified waters, because the application does not clearly define which herbicide is going to be used. If the State does not know which herbicide is going to be used, the State does not know the specific labeling requirements that need to be followed. Thus the State cannot determine if the buffering and other protective measures in the Notification will be protective of all of the waters of the State including, F, D, N and undefined/unclassified waters.

   Additional information: The ODF or ODA cannot determine if applicators are following the labeling requirements because the Notifications include a list of herbicides of which several or one could be used, and the ODF or ODA do not know which label needs to be followed. ODF can get information on the specific herbicide used (post spraying I believe) if they request the ODA to request that information from the applicator. My understanding is that the applicator is required to keep records on the specific chemical that was used. I

believe this is the process that had to be followed in the Triangle Lake investigation. It took several weeks for ODA to get the information from the applicators.

Jenny and Peter,

I know this is rough, but I think this construct provides a much more solid ground for our CZARA decision. Peter, if we can get spray information from Triangle Lake, we will be able to see if those "Notifications" are consistent with this one.

I've attached a copy of the reference Notification. It can also be found in comment letter 76 beginning on page 216.

Let me know what you think of this train of thought.

Alan