

Response to Comments on the August 15, 2007 Preliminary Draft of the Irrigation System Aquatic Weed Control Permit

October 1, 2007

Background:

A third draft of the irrigation district permit was provided to the stakeholder advisory committee. The committee met on August 29, 2007 to discuss the permit. An extended comment period lasted until September 28, 2007. A summary of the comments and Ecology's responses are included below. If multiple commenters submitted the same or similar comments, only one copy is included here. Everyone will have another opportunity to comment on all aspects of the permit during the official public comment period. Any questions should be addressed to Andrew Kolosseus, Washington State Department of Ecology, 360-407-7543, akol461@ecy.wa.gov.

Ecology received comments from:

1. Quincy-Columbia Basin Irrigation District
2. Naches Selah Irrigation District
3. South Columbia Basin Irrigation District
4. Bureau of Reclamation
5. Roza Irrigation District
6. Sunnyside Valley Irrigation District
7. Washington Department of Fish and Wildlife
8. East Columbia Basin Irrig. District
9. Wenatchee Reclamation District

More information is available on the Department of Ecology website at http://www.ecy.wa.gov/programs/wq/pesticides/irrigation/irrigation_index.html and the page specifically for the permit reissue at http://www.ecy.wa.gov/programs/wq/pesticides/irrigation/irrigation_reissue.html

Comments:

	Page:
Comment: Ditch Bank Applications.....	2
Comment: Point of compliance (1).....	4
Comment: Point of compliance (2).....	4
Comment: Point of Compliance (3).....	5
Comment: Copper build-up over time	6
Comment: Copper limits and compliance schedule.....	6
Comment: Copper limits.....	7
Comment: Copper mixing zones	7

Comment: Copper compliance schedule8
 Comment: DMR due dates.....9
 Comment: “Courses” vs. “bodies”9
 Comment: Wastes and pollutants.....10
 Comment: Minimum sampling frequency10
 Comment: Closed canal special situation11
 Comment: Holding water special situation (1)11
 Comment: Holding water special situation (2)11
 Comment: Consumed water special situation (1)12
 Comment: Consumed water special situation (2)12
 Comment: Consumed water special situation (3)12
 Comment: Time travel studies13
 Comment: Fluridone treatments.....13
 Comment: Posting requirements.....13
 Comment: Record retention.....14
 Comment: “Pesticide” vs. “herbicide”14

Comment: Ditch Bank Applications

S1.C. We appreciate the opportunity to obtain coverage for ditch bank pesticide use and prefer the original language in the draft permit or some language that may be crafted to provide the option to obtain coverage.

S1.C. We are receptive to the opportunity to add ditch bank pesticide applications and the language in the draft permit or some other language that could be added to provide the option to obtain coverage.

C1. Applications to Ditch banks. This entire part that was added to the permit for land applications needs to be removed. If an Irrigation District wants to apply for that coverage, they can through the regular permit process instead of this one.

Page 4 – Permit Coverage

C1. – Delete “this general permit also covers certain applications of pesticides to ditchbanks (see S1.C).”

We feel that all sections or partial sections concerning Ditch Bank Application should be omitted from the document; this includes: C1, S1.B3, S1.C, S2.B6, and P2.C. The application of aquatic and terrestrial chemicals should remain separate from one another concerning the permitting process.

P2. C. We do not support the language as drafted but do favor the discussion that we had during the conference call where a sign is posted on the application vehicle and the type of pesticide that is being applied.

Since that time, when I was gone, there have been other discussions which included the terrestrial portion of the permit with some confusion that now there is not an option to have the terrestrial portion removed. There was mention of Kelly and yourself on a phone conference with Kelly quoting some law suits that she strongly recommended the terrestrial to be on the permit for additional legal coverage. Later it was discovered through another email that Kelly's statement was incorrect and there are no lawsuits to support her recommendations. So my question is, what's up? What is the current status of terrestrials on the permit? What legal or organizational justification is Ecology using to put the terrestrial portion on the aquatic permit? If someone is making a requirement, there should be some backup to justify the changes. Can I please see those before the next draft is sent out? I am concerned with the District's making sound judgments based upon facts not opinions, just as I am sure Ecology is concerned

The District has reviewed the current Aquatic Plant and Algae Management General Permit and it is not a good fit for irrigation districts because it would be burdensome and very labor intensive, therefore economically unfeasible

P2C

Posting Procedures:

The posting requirements in this draft are not acceptable with regard to ditch bank applications. The alternative requirements discussed in our teleconference on September 11, 2007 are more manageable. Adding notification of terrestrial management of ditch banks to our public notice publication is acceptable. Posting of vehicles is currently used by the District and is the most practical for our facilities. District facilities are currently posted for no trespassing. These are not public access areas. The requirement to post all facilities being sprayed is impractical and not necessary.

S1.C1

Ditch Bank Applications:

The East District would like to have the option to have NPDES permit coverage for the application of terrestrial herbicides within the prism of the ditch banks. The ability to opt "in" or "out" would allow us the opportunity to seek coverage under separate permit(s) while retaining coverage in the interim. We have concerns that the Aquatic Plant and Algae Management permit does not fit well with irrigation facilities. Additional research into that process is necessary.

Response: Ecology removed all of the ditch bank pesticide language from the permit. It is important to note that applying pesticides to a wet ditch bank is not a terrestrial application. Applicators need to use pesticides that are labeled for this use. Anyone applying pesticides to ditch banks when there is water in the ditch needs coverage under either the Aquatic Noxious Weed Control NPDES Waste Discharge General Permit or the Aquatic Plant and Algae Management General Permit. See <http://www.ecy.wa.gov/programs/wq/pesticides/index.html> for more information on these permits.

Comment: Point of compliance (1)

Section C-4 A. There continues to be concern over determination and management of natural vs. altered drainages; especially, I believe, where re-aligned salmonid bearing waters of the state are concerned. Consistent with the state's obligation for protection of aquatic resources, we suggest that the point of compliance in this sub-section be specifically determined by Ecology. Currently, it appears to be left up to the applicants interpretation.

Response: The point of compliance is a difficult issue. The additional studies required by the permit will help determine the appropriate point of compliance for the next permit. Any decision on a point of compliance for "natural waters" is ultimately Ecology's decision, though the courts will likely make the final call on any contested issues. We encourage the commenter to resubmit this broad policy issue during the public comment period.

Comment: Point of compliance (2)

C4. C.4 The extended period to conduct an economic and engineering analysis concerning possibly moving the point of compliance seems to be a fair compromise. As we have mentioned in past meetings this winter the Roza Irrigation District and the Sunnyside Valley Irrigation District are going to construct a fish barrier at the current point of compliance. This will prevent fish access up Sulphur Creek Wasteway. We also have serious concerns with moving the point of compliance in Snipes Creek Wasteway. We will be doing an analysis on that wasteway.

C4.C.4 The extended period for an economic and engineering analysis appears to be a fair compromise to a disputed requirement to move the point of compliance upstream in specific cases. In the case of Sulphur Creek Wasteway, we question moving the point of compliance and the need for the analysis because of the scheduled construction of a fish barrier at the current point of compliance. The permitting process is complete and the construction is scheduled to be complete before the beginning of the next irrigation season

Response: Comment noted.

Comment: Point of Compliance (3)

C4.B.4. Crab Creek at Red Rock Coulee site. This is named incorrectly and should actually be called the DCC1 wasteway at Crab Creek. The latitude and longitude are incorrect at this site. The current latitude and longitude would place our compliance site approximately 1/4 mile below our discharge into Crab Creek. The actual end of the DCC1 where it discharges into the Crab Creek the latitude and longitude are: N46.5049048 and W119.3512482. This area is not conducive to collecting a sample due to access difficulties, i.e. bad roads, gates and structures which inhibit our ability to access that area safely. Therefore the sampling site should be at the following latitude and longitude:

N46.5118227
W119.355281

The numbers are correct, he just didn't put them in the right format, here they are.

N 46°51' 18.227", W 119° 35' 52.810"
N46° 50' 49.048", W119° 35' 12.482"

I thought I knew what happened when I saw that the bearings were in decimal format so I just checked them on the GIS and confirmed it, I didn't actually drive out there again but I'm sure they are accurate.

Response: The latitude/longitude the commenter provides (N46° 50' 49.048", W119° 35' 12.482") matches the decimal degrees in the permit. As section C4.D allows, a permittee is always free to move their point of compliance upstream. Ecology does not feel that it is necessary to do this in the permit. If the commenter has a reason why this should be done, the commenter should resubmit the comment during the public comment period. Since USGS topo maps identify the water body as "Red Rock Coulee", both names are now included in the permit.

Comment: Copper build-up over time

Section S-1 B. Consistent with my earlier letter (September 8, 2006), we continue to be concerned that the use of copper herbicides not result in degradation of sediments downstream of the POC. Our specific experience with repeated applications of copper for algae treatments in lakes, for instance, indicates that sediment accumulations can build up to levels well above those detrimental to aquatic resources. Such a condition, we believe, is not consistent with the intent of a short-term modification. In irrigation canal usage, cumulative risk of this buildup occurring is increased by the long-term annual and in-season frequency of repeated copper herbicide applications (e.g. every few weeks during irrigation seasons). We recommend that actions to acquire needed information to assess this risk downstream of treatment areas be initiated through additional monitoring requirements in the revised permit or through Ecology's commitment to provide an independent assessment during the period of the permit.

Response: Ecology is planning to conduct a very small study to address the copper issue this fall (study copper in the receiving rivers). While it falls short of meeting the goals the comment sets out, it is a start. More details will be provided shortly.

Comment: Copper limits and compliance schedule

Section S1. B.9. Per my September 8, 2006 letter, we continue to support Ecology's earlier proposal (Draft #2, August 8, 2006) to move forward with an instantaneous copper limit of 25 ug/l. The proposed 5 year compliance schedule for copper in this section and the proposed interim instantaneous levels (100 ug/l in 2008 and 2009, 75ug/l in 2010 and 50ug/l in 2011) are not consistent with the immediate need for protection of aquatic life. We are especially concerned with exposures of salmonid smolts (including for salmonids listed under the Endangered Species Act). This risk is further exacerbated by the frequency of potential exposures (every few weeks during annual irrigation seasons). And, of course, current water quality criteria for copper are based on a maximum exposure of one time in three years.

Response: Ecology agrees that the interim levels in the compliance schedule are not protective of aquatic life. The purpose of the compliance schedule is to give the permittees time to reach the lower limits in the new permit.

Comment: Copper limits

The changes that have been made in the new permit on the limitations of copper, reducing a limitation of 25 ug/l as a daily average, to 25 ug/l Maximum Instantaneous Concentration will require frequent and continuous treatments

It is uncertain that control of the aquatic pests at these concentration levels can even be achieved.

Wenatchee Reclamation District will work diligently at meeting compliance, but control of our aquatic pests may have to be addressed at a later time when these issues are known.

Response: We understand the amount of work necessary to meet the new limits. We also encourage permittees to look at methods of limiting discharges in order to meet the limits.

Comment: Copper mixing zones

The original intent of the permit appears to be shifting. The original intent of the permit was for applying chemicals into irrigation water to treat and control aquatic plants in irrigation ditches, laterals and canals. Because surface irrigation water ultimately all returns to the rivers, lakes, creeks, etc., the permit allows for discharge into natural water bodies. In WAC 173-201A-400 Mixing Zones, there is language which addresses allowances to exceedances from the numeric criteria in the case where the exceedance is clearly necessary to accommodate important economic or social development in the area in which the waters are located. Since our irrigation delivery systems are located in rural agricultural communities, it is an important economic accommodation to allow water to reach the farm units. In the past Ecology has seemed reluctant to allow this in the NPDES permit, but it could be an allowable alternative in the general permit if one of the permit holders could use a mixing zone and meet the criteria. They should not need an individual permit for this, it should be included in the general permit as a viable option for those who would qualify depending upon their receiving body of water.

Page 6 S1. B. 4. Specifies a *Maximum Instantaneous Concentration* of 25 ug/l for Copper (dissolved). This is a large reduction from the 2002 NPDES permit where 25 ug/l for a Maximum Daily Concentration was a daily average concentration. To maintain control of the target pests more frequent or continuous treatments would be required to meet this lower concentration level

Page 7 S1. B. 9. While allowing a schedule of decreasing instantaneous concentrations over a period of four years, still a *Maximum Instantaneous Concentration* of 25 ug/l for Copper (dissolved) would have to be met by 2012

If control options are further restricted, mixing zones would have to be considered to meet compliance. The draft permit causes increased burden of cost and labor with decreasing pest control benefits. Resulting in economic hardship from the costs of compliance with the permit and the impairment to the conveyance irrigation waters.

NSID sees the need for the permit to protect the environment, but this must be balanced with the needs of irrigation and other water uses.

Response: Individual mixing zones require an analysis of each individual discharge and receiving water. As Ecology explained at the last stakeholder advisory committee meeting, mixing zones for the acute criteria are only allowed to mix with 2.5% of the receiving water (plus additional requirements). Given the requirements of a mixing zone, it is very unlikely that a mixing zone would provide any regulatory relief in this situation. If an individual permittee wants to do the additional analysis associated with a mixing zone, we will consider it. A maximum instantaneous concentration limit is in line with the character of the discharge and the requirements in the Washington State Water Quality Standards, WAC 173-201A. Ecology included the compliance schedule to give permittees additional time to make the changes needed to protect water quality.

Comment: Copper compliance schedule

We would appreciate clarification of language in a few sections. The first would be those dealing with copper holding times, next would be the 24-hour rolling average in section S2.B5, and lastly, we would prefer water bodies being used in place of water courses throughout the document.

Section S1. B.9. Appropriate sampling protocols for the use of a “rolling average” do not appear to be required to support this section. If, indeed, only two samples are required (per Section S2. A.) it is not appropriate or meaningful to calculate or represent these as an “average” statistic.

Response: Ecology made changes to the holding times and water bodies section of the permit. We did not make changes to the 24-hour rolling average language. If the permittee wants to only take two samples to calculate the average, they may do so since those two samples will be at the peak concentration. It will be to their benefit to take more samples.

Comment: DMR due dates

Table on Page 3 and Page 10

S3.A.1 & 2 Discharge Monitoring Reports – Changed from 45 days to 30 days to send DMR report to Ecology. This needs to be changed back to 45 days due to getting official lab results before the deadline. The Districts might receive an email or unofficial result, but the written confirmed results can take much longer to receive.

If you have an organization who is not complying with the 45 day requirement, then give them notice of missing reports and require them to send in at the 30 day requirement unless they have a legitimate reason as to the lateness of the report, such as lab problems or mail issues. Do not penalize everyone else who has been successfully working within the guidelines of the permit requirements.

S3.A.1 and 2 Discharge Monitoring Reports:
The requirement to shorten the deadline from 45 days to 30 days is not a change the East District agrees with. The lab turn around time is generally 10-14 days. If lab issues, such as equipment problems, come up this reporting time can be longer. The East District would like to see the reporting deadline stay at 45 days. If an irrigation district is not complying with this requirement then Ecology should deal with the offenders separately. All districts that are in compliance should not be penalized because of the few districts that do not comply.

Response: Many permittees have not been submitting their DMRs as required and many have been submitting them late. Further, Ecology has found that permittees are repeating mistakes because a problem that occurs on May 1 may not be found until the DMR is submitted on July 15. This delay of up to 75 days means that problems are not being found and corrected in a timely fashion. Ecology shortened the time from 45 days to 30 days to reduce this turn around time. Thirty days should be plenty of time to receive a result from the laboratory. (Since acrolein samples have a short holding time, the main problem is copper.) The 10-14 day lab turn-around time mentioned in the second comment should allow for sufficient time to meet the 30-day requirement. The permittees should find a laboratory that can get the results back in time and should stress how important this is to the laboratory. Most of our permits have a 15-day requirement. If there are laboratory problems, they may occur with either a 45-day or 30-day requirement, and they should be addressed as they happen.

Comment: “Courses” vs. “bodies”

C4.D. change the word “courses” to water bodies

Response: The requested change was made.

Comment: Wastes and pollutants

S1.B. Change from “Residual Wastes at the Point of Compliance” to “Residual Discharges at the Point of Compliance”

S1.B.2 Change from pollutants to parameters

Response: We changed S1.B to “Discharges at the Point of Compliance”. We request that the commenter resubmit the S1.B2 comment during the public comment period and include a rationale for the requested change.

Comment: Minimum sampling frequency

S2.B.1 The draft permit specifies that minimum sampling frequency may be reduced if specified conditions are met and written approval is granted by the Department.

The District would like to have included in the permit, when they should expect written approval from Ecology. How long does Ecology have to respond to the request?

Response: The approval time from Ecology depends on the complexity of the situation and the quality of the information submitted by the permittee. We encourage any permittee requesting reduced sampling to submit that request as early as possible.

Comment: Closed canal special situation

S2.B.4 Change of language for better clarification:

In the situations where a gate is closed to maintain compliance while chemicals are passing by gate, the gate must remain closed until one of the following two options have been met:

1. According to past travel time studies, double the time it takes for the chemical to pass and clear the gate. If you choose this option then no monitoring is required.

OR

2. Keep the gate closed until assured the chemical has passed and take your required two samples at the appropriate time and then open the gate.

Response: We made changes to the section for clarification (although we were not able to simplify it to the extent recommended in the comment).

Comment: Holding water special situation (1)

Page 9 – Monitoring Requirements

S2.B2 – Change “is held and then released days or weeks later, monitoring according to the Table 1 is required” to “monitoring must still occur at least twice annually.”

Response: Ecology will approve the “monitoring must still occur at least twice manually” for the situations described in S2.B2. This is the reduced monitoring of S2.B1 that the permit refers to. The permit language is more detailed in an attempt to eliminate ambiguity in unusual situations.

Comment: Holding water special situation (2)

Comment: If treated water is either held for 6 days or consumed by delivery, FIFRA label compliance is attained and such an application would not fall under DOE jurisdiction and NPDES permit. The District requests that Section S2.B2 be deleted. This is an unnecessary burden in cost to the District and exceeds FIFRA label requirements.

Response: The comment is somewhat perplexing. ALL pesticide applications need to meet FIFRA label requirements, whether the label is in the form of an SLN or otherwise. The label

must always be followed for acrolein, copper, xylene, and the other pesticides. An NPDES permit is still required. S2.B2 is intended to reduce monitoring requirements, so eliminating it would increase monitoring requirements in some situations.

Comment: Consumed water special situation (1)

S2.B3 – This is a redundancy of S2.B2 and reinforces that S2.B2 should be deleted. If water is “consumed” and the end of the canal/spillway is dry, FIFRA label compliance is attained and such an application would again not fall under DOE jurisdiction and NPDES permit. The District requests that Section S2.B3 be deleted.

Response: S2.B2 addresses situations where treated water is held and then released to a point of compliance. S2.B3 addresses situations where treated water is consumed. Again, meeting the label (which is always a requirement) does not exempt an application from the NPDES permit. If an irrigation district always consumes water (i.e. treated water never reaches a compliance point) it does not need a permit. S2.B3 is intended to address those situations where water is consumed some or most (but not all) of the time.

Comment: Consumed water special situation (2)

S2.B4 Options discussed in this section do leave some flexibility for treatments made in some parts of our system.

Response: Comment noted.

Comment: Consumed water special situation (3)

S2.B4 – This situation also causes the District unnecessary costs, and severely hampers the ability to operate the canals and regulate flows to protect the down-gradient facilities from excessive discharge during acrolein application and transit.

Engineering controls should have been adequately discussed in the Engineering Report submitted by the Washington State Water Resources Association—and approved by Ecology—for irrigation system operations to mitigate the effects of acrolein applications. The District requests that Section S2.B4 be deleted.

Response: If an irrigation district wants to open canals sooner than the time indicated in S2.B4 it may do so. It simply must monitor at least twice annually.

Comment: Time travel studies

Time Travel Study

There appears to be no end in sight to the travel time studies. What is Ecology's position on this issue?

S2.C

Travel time studies:

The District recognizes the importance of tracking treated water. The use of a programmable datasonde used with Rhodamine WT fluorescent dye has provided an accurate tool for measuring time of transit in determining compliance site sampling. The time and equipment required for this type of monitoring is costly. Flow variations throughout the irrigation season require constant monitoring. Travel times for every application differ with the flow.

Will travel study times be a constant requirement? At which point in time will Ecology decide the districts have enough expertise to apply aquatic herbicides responsibly?

Response: Time travel studies are essential to accurate monitoring. Without a correct time travel study, it will be impossible for the permittee to monitor at the correct time and therefore impossible for the permittee or Ecology to know how much pesticide is truly reaching the point of compliance. Irrigation districts are constantly making small changes that may affect travel times over a period of years. We believe that having a travel time that is less than five years old is important for obtaining good results and is not overly burdensome. A dye used to track a sample from application point to compliance point is a time travel study.

Comment: Fluridone treatments

S1.B.6 – Include “dry ditch” applications “only be applied to dry ditch, slow-moving”

Response: Dry ditch applications do not need coverage under the permit as there is no water present.

Comment: Posting requirements

Page 14 – P2. Posting Procedures

P2 A – Delete “Signs should be printed in both English and Spanish.”

Response: The permit is encouraging (“should”) the use of Spanish signs. Many people will understand a Spanish sign better than an English sign. Since the intent is to protect people from pesticide exposure, Ecology encourages permittees to post signs in English and Spanish.

Comment: Record retention

53.D

Records Retention:

The original NPDES permit required record retention for 3 years. Why has the new draft been extended to 5 years? It should remain 3 years.

Response: The change was made to conform to the state rule WAC 173-226 090 (2)(c). It states: “The permittee retain for a minimum of five years any records of monitoring activities and all results of those activities including all original strip chart recording for continuous monitoring instrumentation and calibration and maintenance records. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the permittee, or when requested by the department or regional administrator.”

Comment: “Pesticide” vs. “herbicide”

For the purpose of clarification, the District suggests replacing the word “pesticide” with “herbicide”. Throughout the entire draft, the new language suggests that the irrigation districts are applying “bug killer” to the waters of Washington State. EPA has given too broad a definition to the word “pesticide”. American Heritage Dictionary defines pesticide as: A chemical used to kill pests, especially insects. The definition of herbicide states: A chemical substance used to destroy or inhibit the growth of plants, especially weeds. Webster’s Dictionary states: An agent used to destroy or inhibit plant growth. For the purposes of this permit it would be more applicable to keep the word “herbicide” as it was included in the original NPDES permit language. All of the herbicides used by the irrigation districts are labeled “herbicide for aquatic use”. Trained and licensed District employees make all applications. Using such a broad definition to define and use the word pesticide as Ecology has, suggests a broader “danger” to the waters of Washington State when this is just not the fact.

Response: Permittees are controlling both plants (using herbicides) and algae (using algaecide). The existing permit did not fully recognize this fact and it could be argued that the existing permit does not allow the use of algaecides. To make the new permit more inclusive, Ecology used the broader term pesticide (which includes herbicides and algaecides). The other alternative of using “herbicide/algaecide” would make the permit difficult to read. If a lay person reads the permit, it should be clear that permittees are not applying “bug killers”.