



Responsiveness Summary
Draft Final Remedial Investigation Report
Heglar Kronquist Site

Public Comment Period June 13 through August 5, 2011

Prepared by
Washington State Department of Ecology
Eastern Regional Office
Toxics Cleanup Program
Spokane, WA

August 2011

Heglar Kronquist Site Draft Final Remedial Investigation Report Responsiveness Summary

The Washington Department of Ecology conducted a public comment period from June 13 through August 5, 2011 for the Draft Final Remedial Investigation Report prepared for the Heglar Kronquist Site. The draft final Remedial Investigation Report presented results of investigations conducted to determine the extent of contamination at the site. A public meeting was held on July 28, 2011, at the Mt. Spokane High School to provide information and answer questions on the findings of the investigations.

The purpose of this Responsiveness Summary is to document Ecology's responses to comments sent to Ecology during the public comment period and submitted during the public meeting.

Ecology would like to thank all who provided comments. Ecology has responded to the comments and taken certain actions related to some comments. However, no changes to the actual draft final Remedial Investigation Report are necessary based on the comments received.

The Responsiveness Summary is organized as follows:

- Index of comments received during the public comment period.
- Comments.
- Responses to comments.

Index of Comments Received

(These comments as attached are listed in the order of receipt by Ecology.)

1. E-mail from John Ellis sent on July 11, 2011.
2. E-mail from Nancy Murray sent on July 12, 2011.
3. Comment from an anonymous attendee during the public meeting on July 28, 2011.
4. E-mail from Crystal Ashley sent on August 4, 2011.
5. E-mail from Vickie Esarey sent on August 10, 2011. (This e-mail, originally sent on August 3 was not received by us and had to be resent.)

Bala, Teresita F. (ECY)

From: John_Ellis@genpt.com
Sent: Monday, July 11, 2011 2:18 PM
To: Bala, Teresita F. (ECY)
Subject: Heglar Kronquist site

Teresita,

My name is John Ellis and my wife and I live at 12912 Peone Road which is directly West of the Heglar site. I would like to state that our arsenic level tested the highest of the seven wells that Nancy Murray mentions in her email to you and we are very concerned about the effect this is having on us and our surrounding neighbor's.

The Department of Ecology need's to have this site cleaned up and have the dross removed and the soil remediated now, so that we all do not have to further damage our health while this issue is being debated.

I can be reached at 509:385-3047.

Best Regards,

John & Carol Ellis

Bala, Teresita F. (ECY)

From: Nancy [Nancyk622@yahoo.com]
Sent: Tuesday, July 12, 2011 12:06 PM
To: Bala, Teresita F. (ECY)
Subject: Fw: Comment letter from Nancy Murray (Heglar Kronquist)

July 12, 2011

Teresita Bala
WA Department of Ecology
teresita.bala@ecy.wa.gov

Comments regarding the Heglar Kronquist Site:

In the public meeting to be held later this month, please clarify and explain the adverse effects of the site, and how the contaminants to air, water, and environment, are effecting the plants, animals and humans in the area. Also, please clarify what was found in the contents of the dross in the landfill, particularly arsenic levels, and whether these contaminants have been or are being remobilized.

I believe we should work toward a solution to the adverse effects that the Heglar Kronquist site is having in our neighborhood. These negative effects include contamination of air, water, the land, and environment, and our property values. I believe the solution should be to remove the contents of the land fill to an area designated for such waste disposal.

In March of 2010, I submitted 7 laboratory water tests for my home and 6 of my neighbors, showing elevated arsenic levels, two of which were extremely high. These findings have never been addressed. I am told that this presence of arsenic is believed to be a natural occurrence in the ground. If these elevated arsenic levels are natural in the ground, how widespread is this natural occurrence? The 7 residences which submitted their results are in a small area close to the dump site.

I have found that people in my neighborhood are totally unaware of the dangers to their health from even low levels of arsenic, which is a carcinogen and accumulates in the body over a period of time. There was a proposal by the Environmental Protection Agency to change the arsenic standard to 5ppb but the Federal Government would only agree to 10ppb. There is a debate whether this standard is health based or based on economic feasibility. The National Academy of Sciences has recommended changing the standard to 3 ppb. The 7 water tests submitted had levels ranging from 11.5 to 56.6 ppb. There is definitely a safety and health issue present, which should be addressed.

What kind of support may be available to extend Whitworth public water to this area? Whether contamination is from the dump site or natural in the ground, the health and safety of residents in this area is at risk.

Sincerely,

Nancy Murray
11314 E. Taylor Rd.
Mead, WA. 99021

COMMENT FORM
HEGLAR KRONQUIST SITE
Comments Accepted June 13 through August 5, 2011

1000 Foot set-back zone
It seems that in general that the
set-back should be measured from
the perimeter of the dump site.
Property Size is not the issue.
It is the size & location of the
dump site.

YOUR NAME: Anonimous Thought
ADDRESS/CITY/STATE/ZIP CODE _____
TELEPHONE NO. _____

Put comments in box or mail to: Ms. Teresita Bala
WA Department of Ecology
Toxics Cleanup Program
4601 North Monroe
Spokane, WA 99205-1295
Phone 509/329-3543

or e-mail tbal461@ecv.wa.gov

Bala, Teresita F. (ECY)

From: Crystal Ashley [crys2life@yahoo.com]
Sent: Thursday, August 04, 2011 1:31 PM
To: Bala, Teresita F. (ECY)
Subject: Comments re: investigation of Heglar /Kronquist site

To: Teresita Bala, Dept. of Ecology, Spokane

Regarding Parcel #46041.9039, Heglar Kronquist dross site

Thank you for your presentation at the public forum July 28 regarding the Kaiser dross on Heglar Road.

My sisters and I made the long trip to Spokane from Olympia for that meeting because we care dearly about the heritage of this land, which we inherited from our ancestors. Though we happen to have an attachment to our 124-year history here, the fact is that each and every landowner in this contamination zone has the same right to the natural, precious land they invested in, and chose to steward.

Our father was a loyal employee of Kaiser Aluminum for several years prior to WWII. This land was symbolic of his long history on Peone Prairie, yet Kaiser has rendered it useless, toxic and without sales value.

We expect Kaiser to accept full responsibility for restoration of these soil and water resources to their pristine original condition. Cost should be fully borne by the Kaiser corporation for:

- total removal of all 55,000 + cubic yards of Heglar Kronquist dross,
- all filtration of effected soil and water, for any existing or future well water installations, and
- restoration of these parcels to current EPA clean water standards.

Only then will our rights be upheld to bequeathe this valuable land to Ashley descendents, again.

Thank you for your time regarding this serious matter.

Yours,
Crystal Ashley,
2302 Lilac St. SE
Lacey, WA 98503-3446

Bala, Teresita F. (ECY)

From: VICKIE ESAREY [jvesarey@wildblue.net]
Sent: Wednesday, August 10, 2011 11:10 PM
To: Bala, Teresita F. (ECY)
Subject: My Heglar/Kronquist comments

From: VICKIE ESAREY <jvesarey@wildblue.net>
To: <teresitabala@ecy.wa.gov>
Date: Wed, 10 Aug 2011 22:53:42 -0700
Subject: My Heglar/Kronquist comments

I sent the following comments on August 3 and left on a boat trip. Now, a week later I discover you didn't get them.

Final-Recipient: rfc822:teresitabala@ecy.wa.gov
Action: failed
Status: 5.1.1
Diagnostic-Code: smtp;550 5.1.1 RESOLVER.ADR.RecipNotFound; not found

I sent you this message on August 3 and went on boat trip. Only now I see you didn't receive it. I looked up the correct address on the ecology home page.

From: VICKIE ESAREY <jvesarey@wildblue.net>
To: <teresitabala@ecy.wa.gov>
Date: Wed, 3 Aug 2011 01:14:28 -0700
Subject: Heglar-Kronquist site
Dear Ms. Bala,

I attended your informational meeting about the Kaiser dross and studied the online documents you provided.

My sisters and I inherited the last 34 acres of our family's presence on Peone Prairie which began in 1887 with a 160 acre homestead. Our grandparents and our father were very fond of the Ashley Head-of-the-Spring which formed Ashley's Creek. For those many years the creek provided water for cattle and, along its shores, even mint leaves to line a fishing creel. The knowledge that the spring and the top elevation of the creek, have been significantly damaged by the seepage from Kaiser's landfill is a serious disappointment to us.

I believe that for your group to decide to remove the dross from the site would have the best result for our property. I know you will consider that option at the end of the feasibility study. I am certain the idea will prove feasible because I feel the data you presented showed clearly that removal would be the best option for all affected property owners.

Thank you for providing such complete access to the data.

Sincerely,

**ECOLOGY'S RESPONSE TO COMMENTS
DURING PUBLIC COMMENT PERIOD
JUNE 13 TO AUGUST 5, 2011**

**I. Responses to comments submitted by Mr. John Ellis sent by e-mail on
July 11, 2011**

Comment 1. "I would like to state that our arsenic level tested the highest of the seven wells that Nancy Murray mentions in her email to you and we are very concerned about the effect this is having on us and our surrounding neighbor's."

Response: Results of the investigations conducted during the Remedial Investigation showed that the dross in the landfill is not contributing to the presence of arsenic in the domestic wells. These results were presented and discussed during the public meeting. Although the source of the arsenic is not known, it is possible that the higher arsenic levels in the prairie aquifer from which you draw your water are naturally occurring.

Ecology realizes that this may be a public health concern and has consulted with WA Department of Health and Spokane Regional Health District about the arsenic. Questions and concerns about arsenic levels in groundwater and domestic wells should be directed to the local Spokane Regional Health District (Mike LaScuola at 509/324-1574 or mlascuola@spokanecounty.org) and the State of Washington Department of Health (Rhonda Kaetzel at 360/236-3357 or rhonda.kaetzel@doh.wa.gov). These agencies can provide information on what you can do.

Comment 2. "The Department of Ecology needs to have this site cleaned up and have the dross removed and the soil remediated now, so that we all do not have to further damage our health while this issue is being debated."

Response: This site is undergoing cleanup under the authority of the Model Toxics Control Act (MTCA), which is the State of Washington's cleanup law. Ecology must follow the process as outlined in this law. The Remedial Investigation is a step in the process that determines the extent of the contamination. Now that we have this information, cleanup options can be evaluated in the Feasibility Study (FS). The FS will identify cleanup actions that are applicable to the site and will evaluate these actions based on criteria identified under MTCA. After the FS, Ecology will choose one or more of the options and present them in a draft Cleanup Action Plan. Removal may be a cleanup option that is considered. The draft Cleanup Action Plan will be made available for public comment.

II. Responses to Comments submitted by Nancy Murray sent by e-mail on July 12, 2011

Comment 1. “In the public meeting to be held later this month, please clarify and explain the adverse effects of the site, and how the contaminants to air, water, and environment, are effecting the plants, animals and humans in the area. Also, please clarify what was found in the contents of the dross in the landfill, particularly arsenic levels, and whether these contaminants have been or are being remobilized.”

Response: Results of the investigations were presented during the public meeting on July 28. These results included the following:

- The dross contributes to chloride and nitrate contamination in shallow groundwater and surface water in an intermittent drainage ditch. However, nearby drinking water wells, which draw water from below the shallow groundwater zone, are not impacted by this contamination. Data analysis also shows that the levels of chlorides and nitrate in the groundwater and surface water meet EPA recommendations for livestock, aquatic or crop species.
- Results show very low concentration of arsenic in the dross. Based on groundwater data collected, the dross is not a source of arsenic in groundwater.
- Air is not being impacted by the dross in the current capped landfill.

Comment 2. “I believe we should work toward a solution to the adverse effects that the Heglar Kronquist site is having in our neighborhood. These negative effects include contamination of air, water, the land, and environment, and our property values. I believe the solution should be to remove the contents of the land fill to an area designated for such waste disposal.”

Response: The Remedial Investigation has identified the effects of the dross on the groundwater and air in the area. Ecology is authorized by law to implement the cleanup process at the site under the Model Toxics Control Act (MTCA) and to follow the process identified in the regulations. The next step in the cleanup process is for Kaiser to prepare a Feasibility Study Report. This report will consider applicable cleanup options for the site and will evaluate the options based on criteria identified under MTCA. Removal of the dross, along with other options including capping, will be evaluated in the FS. After the FS is completed, Ecology will prepare a draft Cleanup Action Plan and choose one or more options for the cleanup. The draft Cleanup Action Plan will be made available for public comment.

Comment 3. “In March of 2010, I submitted 7 laboratory water tests for my home and 6 of my neighbors, showing elevated arsenic levels, two of which were extremely high. These findings have never been addressed. I am told that this presence of arsenic is believed to be a natural occurrence in the ground. If these elevated arsenic levels are natural in the ground, how widespread is this natural occurrence? The 7 residences which submitted their results are in a small area close to the dump site.

I have found that people in my neighborhood are totally unaware of the dangers to their health from even low levels of arsenic, which is a carcinogen and accumulates in the body over a period of time. There was a proposal by the Environmental Protection Agency to change the arsenic standard to 5ppb but the Federal Government would only agree to 10ppb. There is a debate whether this standard is health based or based on economic feasibility. The National Academy of Sciences has recommended changing the standard to 3 ppb. The 7 water tests submitted had levels ranging from 11.5 to 56.6 ppb. There is definitely a safety and health issue present, which should be addressed.”

Response: The Remedial Investigation results show that the dross is not contributing to the arsenic in the domestic wells. Most likely, this arsenic is naturally occurring. The extent of this arsenic presence is not known. Additional studies are necessary to investigate the extent of the arsenic in the area. For now, Ecology is only overseeing the cleanup under MTCA for the Heglar Kronquist site. The high arsenic found in domestic wells is a separate issue.

However, Ecology agrees that this is a public health concern. As such, we have consulted with WA Department of Health and Spokane Regional Health District about the arsenic. Questions and concerns about arsenic levels in groundwater and domestic wells should be directed to the local Spokane Regional Health District (Mike LaScuola at 509/324-1574 or mlascuola@spokanecounty.org) and the State of Washington Department of Health (Rhonda Kaetzel at 360/236-3357 or rhonda.kaetzel@doh.wa.gov). These agencies can provide information on what you can do.

Comment 4. “What kind of support may be available to extend Whitworth public water to this area? Whether contamination is from the dump site or natural in the ground, the health and safety of residents in this area is at risk.”

Response: Ecology does not have authority regarding implementation of public water systems. You may want to contact a local water district to see about getting public water. You may also want to contact your local legislative representatives for additional support or options.

III. Response to Comment from an anonymous attendee submitted during the public meeting on July 28, 2011

Comment: “1000 foot setback zone – It seems that in general that the set-back should be measured from the perimeter of the dump site. Property size is not the issue. It is the size and location of the dump site.”

Response: WAC 173-160-171 (3)(b)(vi) provides that all water wells shall not be located “one thousand feet from the boundary of a permitted or previously permitted (under chapter 173-304, 173-306, 173-351, or 173-350 WAC) solid waste landfill as defined by the permit; or one thousand feet from the property boundary of other solid waste landfills.” Since the Heglar Kronquist landfill was unpermitted, it falls under the 1000-foot setback from the property boundary. Kaiser is looking at subdividing the property for the purpose of making

the property boundary consistent with the landfill boundary. Legal issues on the subdivision of the property in relation to applicable state and local regulations are still being explored by Kaiser.

IV. Responses to Comments submitted by Crystal Ashley submitted by e-mail on August 4, 2011

Comment 1. “Our father was a loyal employee of Kaiser Aluminum for several years prior to WWII. This land was symbolic of his long history on Peone Prairie, yet Kaiser has rendered it useless, toxic and without sales value.”

Response: In the Ashley property, chloride that exceeds the Secondary Maximum Contaminant Level (SMCL) is found in surface water in the intermittent drainage and the shallow groundwater in the vicinity of this drainage. This SMCL is based on taste and not on a health standard. Also, slightly elevated nitrates in this property may be related to both the dross and background presence in the area. Implementation of a cleanup action that will address the source of this contamination will ultimately bring the concentrations of chloride and nitrate in groundwater on the property down to cleanup or background levels.

Comment 2. “We expect Kaiser to accept full responsibility for restoration of these soil and water resources to their pristine original condition. Cost should be fully borne by the Kaiser corporation for: total removal of all 55,000 + cubic yards of Heglar Kronquist dross,

- all filtration of effected soil and water, for any existing or future well water installations, and
- restoration of these parcels to current EPA clean water standards.”

Response: Under the Model Toxics Control Act (MTCA), Kaiser is responsible for the cost of the cleanup and Ecology’s oversight. Kaiser is cooperating with Ecology and has, under the Agreed Order, completed the Remedial Investigation (RI). Kaiser is now working on the Feasibility Study (FS) where cleanup options are identified and evaluated using MTCA criteria. Removal of the dross will be considered as an option but other remedies that include containment or capping also will be evaluated. Based on the RI data, chloride does not exceed the state standard in domestic wells that are in the impacted area. Future water well installations will have to meet the requirements of the “Minimum Standards for Construction and Maintenance of Wells” regulation, which will restrict wells from drawing water from the shallow groundwater zone. Ecology will select the cleanup option for the site after the FS is final. The draft Cleanup Action Plan will be made available for public comment. The primary goal of the remedy will be to stop dross constituents from impacting groundwater. This remedy will eventually result in groundwater meeting state standards for these constituents.

V. Responses to Comments submitted by Vickie Esarey sent by e-mail on August 10, 2011 (This e-mail was originally sent on August 3 but was not received.)

Comment 1: “My sisters and I inherited the last 34 acres of our family's presence on Peone Prairie which began in 1887 with a 160 acre homestead. Our grandparents and our father were very fond of the Ashley Head-of-the-Spring which formed Ashley's Creek. For those many years the creek provided water for cattle and, along its shores, even mint leaves to line a fishing creel. The knowledge that the spring and the top elevation of the creek, have been significantly damaged by the seepage from Kaiser's landfill is a serious disappointment to us.”

Response: One purpose of the Model Toxics Control Act, the state's cleanup law, is to restore the properties that have been contaminated by past practices that were not regulated at that time, to conditions that are protective of human health and the environment. The main goal of the cleanup remedy that will be undertaken at the site is to stop dross constituents from impacting groundwater. This will eventually result in surface water in the drainage ditch and groundwater meeting state standards or attaining background conditions.

Comment 2. “I believe that for your group to decide to remove the dross from the site would have the best result for our property. I know you will consider that option at the end of the feasibility study. I am certain the idea will prove feasible because I feel the data you presented showed clearly that removal would be the best option for all affected property owners.”

Response: The Feasibility Study will consider all available cleanup options for the site as required under MTCA. These options will be evaluated based on the criteria provided for in the regulation. Removal will be considered, as well as other options. Ecology will not choose the remedy during the FS. Although not required, Kaiser will have an opportunity to recommend an option. Once the FS is final, Ecology will write a draft Cleanup Action Plan which will identify which cleanup option will be required for the site. The draft Cleanup Action Plan will be made available for public comment.