

# **Responsiveness Summary**

Draft Final Feasibility Study Heglar Kronquist Site CSID 1135 FSID 645

Public Comment Period January 18 through March 19, 2012

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

April 2012



# Heglar Kronquist Site Draft Final Feasibility Study Responsiveness Summary

The Washington Department of Ecology (Ecology) conducted a public comment period from January 18 through March 19, 2012 for the Draft Final Feasibility Study (FS) prepared for the Heglar Kronquist Site. The Draft Final/final FS is required in Agreed Order No.6557 issued under the authority of the Model Toxics Control Act (MTCA). The Draft Final FS presents remedial alternatives applicable to the Site and a recommended alternative.

The purpose of this Responsiveness Summary is to document Ecology's responses to comments sent to Ecology during the public comment period. Ecology would like to thank all who provided comments.

In order to address comments relating to the monitoring requirements under the proposed Alternative 2, the following revision will be made in the draft final FS Report:

On Page 47, Section 6.1.4, Point of Compliance Monitoring, a sentence will be added to the end of the second paragraph that says: "Monitoring requirements will be reevaluated after year 5 and during the periodic reviews."

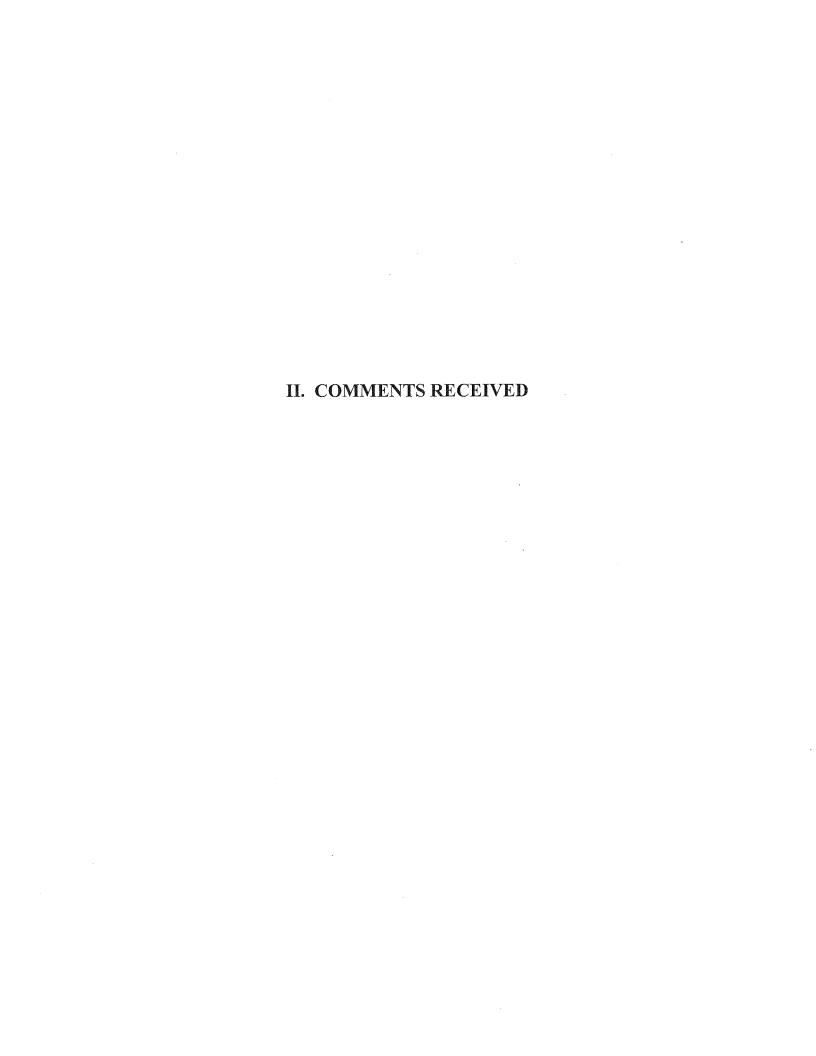
With this revision, the Feasibility Study is final.

The Responsiveness Summary is organized as follows:

- I. Index of comments received during the public comment period.
- II. Comments (copies of the original e-mails and letters are included in this summary)
- III. Responses to comments.

# I. Index of Comments Received (These comments as attached are listed in the order of receipt by Ecology.)

- 1. E-mail from George Amend sent on January 17, 2012.
- 2. Letter from Dr. Dexter R. Amend received January 18, 2012.
- 3. E-mail from Rick and Serina Dettwiler sent on January 18, 2012.
- 4. Letter from Charles J. Hunter dated 1-16-12, received by Ecology on January 23, 2012.
- 5. E-mail from resident (anonymous) sent on January 24, 2012.
- 6. E-mail from Cris Currie and Nora Searing sent on February 7, 2012.
- 7. E-mail from Calvin Hudlow sent on February 12, 2012.
- 8. E-mail from Mike Petersen, The Lands Council, sent on February 15, 2012.
- 9. E-mail from Mary Kay Gerards sent on February 16, 2012.
- 10. E-mail from Tony Lombardo sent on February 16, 2012.
- 11. E-mail from Michael and Laura Klingback sent on February 19, 2012.
- 12. Letter from Rod Feyk dated 2-13-12 and received February 22, 2012.
- 13. E-mail fromVickie (Ashley) Esarey, Maureen Ashley, and Crystal Ashley sent on March 01, 2012.
- 14. E-mail from Scot and Gwyn Burden sent on March 7, 2012.
- 15. E-mail from Mr. George H. Nauert sent on March 13, 2012.
- 16. E-mail from Nancy Murray sent on March 14, 2012.
- 17. E-mail from Cris Currie and Nora Searing sent on March 16, 2012.
- 18. E-mail from John I, and Carol A. Ellis sent on March 16, 2012.
- 19. E-mail from resident (anonymous) sent on March 19, 2012.
- 20. E-mail from Kelly and Jeneen Espe sent on March 19, 2012.



[BLANK PAGE]

From: Sent:

To: Subject: Attachments: George Amend [georgeamend@me.com] Tuesday, January 17, 2012 10:37 AM Bala, Teresita F. (ECY) Kronquist Heglar Comments Kronquist-Heglar Comment.docx

Please Confirm receipt.

George B. Amend

Teresita.

Thank you for taking my call this AM. I have two comments to share.

1. I believe that either alternative will work to some degree or another. However, if Alternative two is chosen, what impact, if any, will the diversion of surface water away from the pit have on the available water in the table. In particular, should we anticipate a significant reduction of flow from the springs located at the back of the stock pond

Question: If Alternative two is chosen, will consideration of the location of drainage swales and their impact/contribution on the sub-surface water table be taken into account?

Having lived with the impacted water table at the stock pond since the original "capping" of the pit, I am not convinced that either Alternative 1 or Alternative 2 will result in a "cleansing" of the water table in a short period of time. This pond provided irrigation for years but was shut down due to the contamination and its impact on the fields and trees irrigated.

2. As we discussed this AM, it has occurred to me that the sediment located at the bottom of the stock pond and other areas downstream may pose a potential risk due to their exposure over the years to the contamination from the pit. Periodic flooding and annual spring runoff moves soil with the water which may introduce contaminates back into the drainage following either Alternative remedy.

Question: Would it not be prudent to at least examine the sediments in the stock pond and immediate area to ascertain the potential for reintroducing contamination into the drainage?

My thanks for the attention to detail taken by DOE, Kaiser, and Exponent in this matter.

George B. Amend

# 2012 letter to department of Ecology State of Washington

RECEIVED

DEPARTMENT OF ECOLOGY EASTERN REGIONAL OFFICE

Comments on Heglar Kronquist site 4601 N. Monroe Street Spokane WA 99205-1295

Dear evaluator

I'm a Physician living across the Kronquist road from the site; I have some points to make in response to your report of January 2012.

There is little medical or scientific evidence of any significant contaminants coming from the Heglar-Kronquist site impacting health. The report states that drinking water is not impacted by the site (P3-p8)

The restriction on drilling wells on property 1000 ft from the site strongly impacts the property values. The restriction is significant and is not considered in the report although it may amount to thousands of dollars the restriction is not necessary if dinking water in the area is not impacted. The restriction should be removed.

It is admitted that those chemicals found in surrounding wells could come from precipitation runoff from local farmland and salt from homes use of salted well water. Surface ground water is uncontrollable.

The removal of trees on the ground, which control soil runoff and loss, have no provable impact on the environment of the land fill, other than benefit They should not be removed. They are there to improve the area and are not a detriment.

Because of these suggestions I believe the decision over the site should be either nothing be done or at least you select a variation of alternatives for the fill with least damage to the property.

Furthermore, to designate the site, as one like toxic sites should be taken away, because there has never been shown the site has significant toxic substances related to it. The MTCA designation with its regulations should not be made. The site, after testing has not been found to be detrimental to human health.

Deerse R. amondon ?.

Sincerely yours

Dexter R. Amend M.D. 12624 E.Kronquist Rd. Mead WA 99021.

011612

From:

rick dettwiler [fordyfords@yahoo.com]

Sent:

Wednesday, January 18, 2012 7:33 PM

To: Subject: Bala, Teresita F. (ECY)

**ubject:** HK Site

Teresita, I have a concern and a question about the Heglar Kronquist Site. First, yes I see that there will be more coverage over the site to prevent water penetration down into the old land fill. But what about water that would be running through it and under it from the higher ground to the east. Are they going to dig down to a lower level then the old land fill on the east side of the site and block water from running under and through? It should be looked at. Example, water levels this past Spring of 2011 were at the highest levels that they had been in years. An old hand dug well on Madison Rd that had been dry since 1949 filled up with water and the cover over the well fell in. Plus each Spring, springs pop up all over along that hill side. So water is most likely running through and under that site as well. Also, what ever is decided to do to the site will Kronquist Rd remain open at all times? We use that road every day and I would hope that will be....

Thank You, Rick & Serina Dettwiler

TERESITA BALA WA, DEPARTMENT ECOLOGY 4601 N. MONROE ST SPOKMIE, WA 99205-1295

RECEIVED

JAN 23 2012

DEPARTMENT OF ECOLOGY EASTERN REGIONAL OFFICE

IN REVIEWING HE REPORT MID ATTENDING ONE
MEETING LAST FAIL I AM CONVINCED THERE IS
NO PROBLEM WITH SITE NO 645 AMP CREAM UP
SITE 1/35. DIGING MYO THAT SITE WOOLD CREATE
MORE EXPOSURE THAN IS PRESENTLY EXPERENCED.
THERE IS PROBABLY MORE CONSTANTINATION FROM
FARM LAND, OF NITRATES, THAN FROM THE SITE,

TO DOEITHER OF THE ALTERNATIVES WOULD BE A TOTAL CUASTE OF MONEY EVEN IF KHISER WOULD BE PAYING FOR IT, CONTINUE MONETORINE THE SITE FOR ANY CHANGE. I LIVE WITH IN CALE MILE OF THE SITE AND I DON'T SEE ANY PROBLEM.

DINCERELY

CHARLES J. HUNTER 13102 E. FARWELL RD. SPOKAME, WA. 99217

927-0218.

From:

Sent: Tuesday, January 24, 2012 4:33 PM

To:

Bergin, Carol (ECY); Bala, Teresita F. (ECY)

Subject:

Heglar Kronquist Site

Received the January 2012 "flier summary".

I have a feeling it would be good to "talk" - because the consensus up here is that "this has been a bunch a crap" - and went "through with the process" for nothing.

I know that we have the availability to "comment" before February 16th - with this said - many comments have been made in the past .......and i am not sure that "commenting" will change anything.

We (as a neighborhood) - feel that it has been conveyed that there are so many "unknowns". And with "unknowns" - we feel we will be in this same spot years from now.

Bottom Line Carol - we need help (in the way of assistance). And again, from the consensus, you (as Public Involvement) - may be our first step. There has been discussion to get the Spokane Alliance Involved as well as other "interest groups" that are concerned about the wetlands.

Let me know if this is possible - and as we did "years" ago - I will rally the troups.



P.s. - was just informed last week - that there "may be" another Kaiser Site within a mile of the Heglar Kronquist Site. Can this be true? -

From:

Cris Currie [criscurrie@igc.org]

Sent:

Tuesday, February 07, 2012 6:58 PM

To:

Bergin, Carol (ECY)

Subject:

Heglar-Kronquist Comment

#### Carol:

This is our comment so far regarding the Heglar Kronquist Site. Between the 2 options presented in the January Update, we would prefer Alternative 2. We are concerned that Alternative 1 would be too disruptive and cause too much air pollution as the material is disturbed and removed. It would also result in hundreds of dump trucks going past our homes and being on the road carrying this waste, some of which could easily leak out. It is also not realistic, given the high expense, that Alternative 1 will be chosen. Thanks. Cris Currie and Nora Searing

From: Sent: Bus Hudlow [busski@air-pipe.com] Sunday, February 12, 2012 8:31 PM

To:

Bergin, Carol (ECY)

Subject:

Kronquist Site

I live 1/2 MI. South of the site, all of my life. All of the wells in this farming area of Foothills and Pleasant Prairie have increased

nitrate levels over the years, from nitrate fertilizer, we are told. If the drinking water is O.K. in the area, then I think Alternative #2

with the mentioned improvements should keep the problem under control. Keeping in mind we need 'plan B',in case #2 doesn't work.

Calvin Hudlow

12715 N. Madison Rd, Spo. 99217

From:

Mike Petersen [mpetersen@landscouncil.org]

Sent:

Wednesday, February 15, 2012 4:31 PM

To:

Bala, Teresita F. (ECY)

Subject:

Helgar Kronquist

#### Teresita,

The Lands Council has looked at the 2 alternative for the Heglar Kronquist Site remediation. While Alt 1 would remove the problem permanently, it is more than 10 times the cost, and I think as long as the cap improvements and monitoring under Alt 2 are done with care it should suffice for now. If the materials were of a more toxic nature, such as PCB's, we would likely suggest a more aggressive cleanup.

Thank you,

Mike Petersen Executive Director The Lands Council 25 West Main Ave. Suite 222 Spokane, WA 99201 509-838-4912 www.landscouncil.org

Thanks to all of you who helped on Reforest Spokane Day! WE DID IT!

From:

Mary Gerards [mkaygerards@msn.com]

Sent:

Thursday, February 16, 2012 12:11 PM

To:

Bergin, Carol (ECY)

Cc: Subject: Tom Rector Kaiser Aluminum Disposal Site Clean Up

Dear Ms. Teresita Bala,

As a person living near the Heglar Kronquist site, I am extremely concerned about the cleanup options proposed by Kaiser Aluminum and Chemical Corp. As stated in your January 2012 Department of Ecology mailer, "Toxics Cleanup Program," "Chemicals associated with aluminum dross may be harmful to human health..." Of course, I am greatly concerned about the contamination of our soil and water. The only feasible option is Alternative # 1: Removal of waste, off-site disposal, dispersion/dilution, and compliance monitoring. Kaiser was allowed to create a toxic dump in our neighborhood, and now they must clean it up to insure the health and safety of those of us living nearby, and generations to come. Although I appreciate having been giving options around the cleanup of this site, it is unacceptable to consider any other option other that #1.

Sincerely,

Mary Kay Gerards

From:

Wendy Lombardo [twlombardo@yahoo.com]

Sent:

Thursday, February 16, 2012 7:59 PM

To: Subject: Bergin, Carol (ECY) heglar kronguest site

My name is Tony Lombardo and I live at 13921 N Downing Rd. I would like to put my vote in for bringing in public water in lieu of clean up . I have spoken with Whitworth Water in the past and it cost them aprox 1 million dollars to build a new water tank system, my concern is that my property is possibly within the 1000' boundary of the red shaded area shown on the site map. I was told by the county that drilling a new well on my site could be in question. I understand that there would be some cost to property owners for hooking into public water and feel it would be a win win for kaiser for cost and to the homeowner as they would maintain value. This should be considered so no one is compromised.

Thanks 509-995-9755

From:

Michael Klingback [mklingback@gmail.com]

Sent:

Sunday, February 19, 2012 12:25 PM

To: Subject: Bergin, Carol (ECY) Heglar Kronquist Site

Hello,

I am writing to comment on the cleanup alternatives presented for the Heglar Kronquist site. Kaiser recommends alternative no. 2 which of course is no surprise since it is the cheapest alternative and the waste site does not sit in the backyard of their corporate executives with no chance of harming the health of their families. Kaiser will continue to press to do the least amount possible only taking into consideration their financial obligation and the minimum amount that the Department of Ecology will agree to minimize any future liability on their behalf.

As for people living with the threat of contamination of a basic necessity for living, drinking water, we see the priorities as being different. Kaiser will never be able to give a 100 percent guarantee that alternative no. 2 will never fail putting human health at risk for diminished quality of life or possibly death. Kaiser also will not be able to guarantee 100 percent that the resources and ability will always be in place to address any future needs for environmental protection from the site not knowing possible conditions or costs. While still not protecting the greater environment, at the very least an amendment to this alternative should be added that everyone in the entire affected or possibly future affected area be provided with public water with absolutely no cost to the homeowner. This at least would give the guarantee of safety to human health that Kaiser cannot give with their willingness to only do the minimum.

Kaiser is the one who contaminated the land, and Kaiser is the one who should restore the land to its original state. Therefore, alternative no. 1 is in the best interests of the community that the Department of Ecology is charged to protect leaving no future threat to human life or the greater environment. I hope that the Department of Ecology will make every effort to use the authority granted to them to accept nothing less than a solution that fully protect the threat to human health and life not only for the present but for the future.

Michael and Laura Klingback

10719 E Moffat Rd

Mead Wa 99021

2-13-12



FEB 22 2012

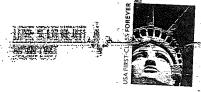
DEPARTMENT OF ECOLOGY EASTERN REGIONAL OFFICE

As a child graving up on 0. 4505 Evergreen Rd for recall those delapsedated uncovered dump trucks spewing dust driving past over house to parts unlendern. Man of live on 12815 D. Madison Rd. close to the toxic dump site where those trucks went full of black dross and chemicals. I personally don't want a "band aid" cap on the site. Kaisee needs to buck up and remove all such material and return the site to orinsh. Don't tell me they don't have the money, I see them wasteing it all the time. Die been employed at Kaiser for almost 35 years in the water treatment dept 'Kaiser can put the mess in there yard not mine! They had the money to dump it, they have the money to dump it, they have the money to dump it, they have

Red Feyl

ROD FEYK 12815 N Madison Rd Spokane, WA 99217 总是对各种特别 李纳 经规则

CIAN DIVID AND



CAROL BERGIN DEPT. OF ECOLOGY 4601 N. MONROEST. SPOKANE, WA.

HEGLAR

iiiilaaliiiaalii 199795-1295

Pleolar Kronduist Responsiveness Summary April 2012

From: Sent:

Crystal Ashley [crys2life@yahoo.com] Thursday, March 01, 2012 8:20 PM

To: Cc: Bala, Teresita F. (ECY) VICKIE ESAREY; Reen; me

Subject:

Heglar-Kronquist Findings Response

To the <u>Heglar-Kronquist</u> findings team at Dept. of Ecology:

Pursuant to the 2011 Feasibility Study, we believe that the TOTAL removal of the Kaiser dross is the only acceptable cleanup option offered. This will most fairly address the future safety and the real estate value of our land.

In the absence of this, we see problems that cause us to question Option 2.

- 1. Will the five-year monitoring plan after the project is complete conclude the state's involvement? Will any agency monitor the site, after 10, 20, 30 years or more, to determine that there is no further new damage from leaking contaminants?
- 2. Could other alternatives be considered at this time, or are the choices narrowed only to these two considerably different approaches? If these options are on either end of a continuum, what were the

middle-range alternatives which were considered and rejected?

- 3. If the site were certified safe, would property owners be able to drill contaminant-free wells within 1000 feet after that five-year period cited in your study?
- 4. Would Kaiser be willing to buy all of the contaminated property within the 1000-foot plume around the dross site?

We will appreciate your responses, to rectify this serious compromise of our family's homestead and heritage, as well as the properties of our neighbors on Peone Prairie.

Yours truly,

Vickie (Ashley) Esarey Maureen Ashley Crystal Ashley

From:

Gwyn B [gwyncb@msn.com]

Sent:

Wednesday, March 07, 2012 9:29 PM

To:

Bergin, Carol (ECY)

Subject: Attachments: Heglar Kronquist site comments Heglar Kronquist comments.pdf

Carol

We understand that the comment period was extended to March 16, 2012 and have some comments to make regarding the Heglar Kronquist site. I have attached the pdf file with our comments.

Thanks, Scot & Gwyn Burden March 7, 2012

Carol Bergin WA Department of Ecology 4601 N. Monroe St Spokane, WA 99205-1295

#### Dear Carol:

We live near the Heglar Kronquist dump site and are raising our family here, along with many other families. In the nearly 20 years since we moved onto our acreage, the prairie has continued to grow as more families build and move to the area. This growth will continue and since there is not a community water well, these families are all drilling wells for water. We drink the water from these wells, we wash our clothes and water our gardens from these wells. Our pets and livestock also drink the water. Wildlife drinks water from the nearby streams.

We already know that the toxic materials can get into the water supply (reason it was capped in the first place) and we know the cap can be disrupted as it has been in the recent past. There is only a limited water supply and with ever increasing population, it is recipe for disaster to leave the hazardous materials in a site that could be compromised in the future. We read about problems getting worse when things are not done right and we have no reason to believe this hazardous site will be different.

The guidelines for acceptable levels of toxins has changed over the years and will continue to change as more is learned on how they affect us. There is test equipment today that measures levels that could not even be detected 25 years ago. There are families in the impact area with health problems already that certainly could be connected with the materials from the dump site. It is not worth the tremendous risk to our health, our pets, our livestock or the wildlife, not now and certainly not in the future.

We strongly urge you to completely remove all the materials, both the toxic and surrounding to eliminate this liability and transport it to a facility that is equipped to safely handle it. The risk to our health and the environment is too great to ignore. Additional capping is nothing more than putting the problem off to the next generation, at even greater costs and risks than today.

Sincerely,

Scot & Gwyn Burden 11209 East Taylor Road Mead, WA 99021

From:

George Nauert [georgenauertddsps@yahoo.com]

Sent:

Tuesday, March 13, 2012 11:18 AM

To: Subject:

Bergin, Carol (ECY) Kronquist Kaiser Site

To: Carol Bergin Dept of Ecology

I think Nancy Murray & Kim Predisik posed reasonable questions to be answered and considered. Currently, no evidence of any serious water contamination from Kaiser exists, but the potential exists. A new cap over the Kaiser site is indicated regardless. I can't see Kaiser removing the dumping waste because of the cost. The Amend property has excellent water source potential. They would need to be consulted. Some springs there show no contamination at all. Neighborhood water sources are not unheard of. The cost of a local development vs more expense tieing into adjacent water district could be researched as an option by probably a homeowner group. Maintaining water quality and controlling cost are both important to our neighborhood and would provide more assurance of water quality, especially if Kaiser agrees to cover the cost.

George H. Nauert Downing Road

From:

Nancy [nancyk622@yahoo.com]

Sent:

Wednesday, March 14, 2012 10:54 AM

To:

Bergin, Carol (ECY)

Cc: Subject: Bala, Teresita F. (ECY); Hibbler, Michael A. (ECY) Heglar Kronguist disposal site comments/questions

March 13, 2012

Carol Bergin, and Teresita Bala Mike Hibbler (Section Manager for Toxic Cleanup) Department of Ecology 4601 N. Monroe St. Spokane, WA 99205-1295

Regarding: Heglar Kronquist Disposal Site Comments/Questions

Please address the following questions/concerns as well as the questions contained in the body of this letter. Thank you.

- 1. What are the issues involved in removing the dross from the area?
- 2. What happens to the void created by the removal of dross?
- 3. Does it get backfilled?
- 4. Will the contamination issue end with dross removal?
- 5. For capping the site, will any contaminants enter into drainages in the area?
- 6. What is the life expectancy of a cap?
- 7. What happens if the cap fails over time?
- 8. What methods of on-going control monitoring will there be in either solution?
- 9. Will monitoring wells in the vicinity be maintained and monitored?
- 10. Who will be responsible for this monitoring and maintaining?
- 11. Is there an on-going obligation should either method fail?
- 12. Is any bond required for maintaining and monitoring as assurance that either method works?
- 13. What elements (in particular, sodium, chlorine, aluminum, potassium, and fluorine), mobilized from the dross, could pose a problem in ground water?
- 14. How will either of the remedies affect ground water recharge?
- 15. Will directing surface water away, as runoff, in the capping remedy, affect recharge of aquifers for existing water wells?
- 16. Have the waters that drain to the wetlands on the Peone Praire and form the Feryn Conservation Area bird and wildlife sanctuary been tested for contaminants?
- 17. Was Kaiser asked to remove the dross material from the Heglar Kronquist site many years ago to stop contamination in the area?
- 18. Why is the list of contaminants for the Trentwood clean-up different than Heglar Kronquist contaminants when the dross waste came from the same source?
- 19. How can you know for sure exactly what chemicals and contaminants are in the contents of the Heglar Kronquist site? Even with the testing done, how could all areas of 55,000 cu. yds. and down to 50 feet deep be tested?
- 20. How much has it cost to do all this research, evaluations, and drilling of monitoring wells so far?

Nearly 4 years have been spent doing studies and evaluations. You say in your newsletter that the disposal site *is not affecting drinking water*. Is this really an accurate statement? Haven't there been problems in the past? Haven't wells been re-drilled or made deeper because they became contaminated from the disposal site? Why did Kaiser

purchase a 12.44 acre piece of land down the street from the Heglar Kronquist disposal site, parcel No. 46033.9047, on Kronquist Rd., in 1997? Why have you imposed a 1,000 ft. setback restriction for drilling new wells if there is not a concern about drinking water?

I believe the best solution is to remove this toxic waste to a facility designed to safely contain it. <u>The cost should not be considered in lieu of the welfare of the neighborhood</u>. I believe a new cap is just a temporary fix, if that. Those pipes are still going to leach out ammonia smell like they always have. And what if the toxic chemicals eventually filter into the aquifers that connect to our wells? How can you or anyone guarantee that this won't happen, or even that it hasn't happened, or that it isn't happening right now? There is no way that you can. And what assurance is there that anything will be done to correct a problem that may turn up, even with ongoing monitoring?

I realize there are guidelines that you have had to follow by law, so now 4 years have passed, and it is time for the right resolution for our neighborhood. Wasn't there a discussion years ago (per documents in the archives) that Kaiser should remove the contents of the Heglar Kronquist site? If so, why didn't your Department of Ecology predecessors enforce that decision?

As the principals who make up the current staff of the Dept. of Ecology, please make this a moral decision, an ethical decision, a decision that first and foremost has to be for the health, safety and welfare of the landowners and their families, and the wildlife and family pets who swim in and drink from the streams and ponds that may carry polluted waters which drain from the disposal site area. People choose to live in a country setting where they can have open space, gardens, animals, play areas for their children. They do not want to be subjected to pollution in the air and from the ground water, and risk their health with the possibility of toxic chemicals entering their drinking water systems at some time in the future. A residential neighborhood is no place for a toxic disposal dump site. How would you feel if it was close to where you live? What decision would you make for your own family and neighborhood? You may consider this to be a business decision, part of your job, and dealing with a big business entity may make it more of a challenge. At the same time, please open your hearts to the personal, humane side of this issue, and put the people who make up our neighborhood number one. This is really the most important part of your job. We are trusting you to make the right decision with us and for us now, and for future generations who will inherit this land and live here.

Sincerely,

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

From:

Cris Currie [criscurrie@igc.org]

Sent:

Friday, March 16, 2012 11:10 AM

To: Cc: Bala, Teresita F. (ECY) Bergin, Carol (ECY)

Subject:

Heglar Kronquist Comment

#### Teresita:

We would like to offer our support for the idea that the Heglar Kronquist site be recapped <u>and</u> that it continue to be monitored forever. We also think it would be a very good idea to require Kaiser to pay for connecting Whitworth Water to the site and to pay for any homeowner connections that might be necessary in the future due to contaminants from the site. Thank you.

Cris Currie Nora Searing 11203 E. Heglar Road Mead, WA 99021

From:

Carol Ellis [hikecamp@msn.com]

Sent:

Friday, March 16, 2012 10:40 PM

To: Subject: Bergin, Carol (ECY) Heglar Kronquist Site

ATTN: Carol Bergin

WA Department of Ecology

Our home is located at 12912 N. Peone Rd., and we have followed the Remedial Investigation and Feasibility Study at the Heglar Kronquist site from its origination. Results from the investigation have prompted two alternatives as (reasonable?) cleanup options for the site: Alternative 1, and Alternative 2. The first would cost approximately \$20,064,000. The second approximately \$1,787,000. In our opinion what it all boils down to is that Kaiser Aluminum, between the years of 1969-1974, operated the "site" as a disposal area for aluminum black dross, a by-product from processing aluminum materials. The dross disposal was then stopped in 1974 because <u>already</u> chemicals harmful to both human health and the environment were discovered to be associated with this dump site.

Although we all now have the results of the Remedial Investigation, we pose the question: just how sure can we be that it was thorough enough, and of it's accuracy? (How often does the Food and Drug Administration approve a new drug, only to find 10 years later that it has caused this or that health issue, or even death?) The fact remains that the DUMP SITE still remains, and until the 55,000 cubic yards of black dross are removed and shipped to a permitted and secure landfill we feel Kaiser and the Department of Ecology are not thinking of the health of this community and wildlife, but only of their pocket book. You can not put a price tag on life, and that's what this issue is all about. No one REALLY knows what will happen 50 -100 years from now, but I wouldn't want it on my conscience. It really is a moral/ethical issue at this point. It should never have been allowed in the first place, and now is the perfect opportunity to turn a wrong into a right.

Signed by 2 US citizens wanting to keep America alive and beautiful,

John I. and Carol A. Ellis

From:

Sent:

Monday, March 19, 2012 3:55 PM

Bala, Teresita F. (ECY); Bergin, Carol (ECY)

Subject:

Heglar/Kronquist Site - Facility ID #645, Clean-up Site #1135



March 19, 2012

#### Terisita and Carol;

I address you both, because you both were at "our neighborhood's" first gathering across the <u>Heglar/Kronquist</u> Site - almost 4 years ago. Thanks for all you have done during this time to get the Feasibility Study done. I know that there is a lot of YEARS of bureaucracy that accompanies such a project like this; however, with the fortitude given us as neighbors, and with the Dept. of Ecology's assistance, the end result will be the one that is not only the "best" choice for the situation, but the "right" choice for all concerned.

At the beginning, I was more concerned for the neighbors below us. Now, after all the reports I have read, and studies pondered over; I am concerned for ALL involved in this matter (a mile within the site). After talking to the neighbors who have been a part of this situation, these are a few of my concerns:

- Concerned to be provided Clean Water
- Concerned that "no one really knows" what the future holds for the site while also.......
- Concerned with the 1000 foot setback for new wells; when in fact it is stated in your report that "drinking water is not impacted by site related contaminants"
- Concerned that Kaiser and the Dept. of Ecology "DROPPED THE BALL" on this site long ago.
- Concerned that no matter what is decided, what guarantee is their that Kaiser and Ecology won't "drop the ball" again.
- Concerned that the cap has been "un repaired" for TOO LONG.
- Concerned that it will take years before anything is done.
- CONCERNED

With these concerns, which are many of the neighbors concerns, (whether voiced or not) - these are my recommendations after all we have learned about this site:

1. REMOVE THE DROSS! - this was the EPA's recommendations years ago (before it was initially capped) "While it is our opinion these interim measures will improve the current situation, we do not consider this
a permanent solution" - "we also request that an evaluation of removal of the dross be

undertaken. We

regard this as a final solution to this problem....." - James L. Malm EPA

# WHETHER REMOVED OR "RE CAPPED" the following:

- 2. Whether "re-capped" or "removed" a long standing order that the monitoring of domestic wells, streams, and wetlands within 1 mile radius should be instituted. (and that the neighbors are supplied this information to make sure that there is never a "dropped ball" again.)
- 3. Fresh water, in the form of WHITWORTH WATER, should be in place to to be "tapped" into, if in fact, it

is found that the contaminants from this site do "contaminate our wells"

Note: - an initial proposal by <u>Whitworth</u> Water has shown that this area can be provided at a estimated cost of \$5 million dollars.

4. If, in fact, the wells become contaminated - Kaiser Aluminum should have in place a "bond" that would be used to pay for "tapping" into this water source from Whitworth Water, as well as, monies that would pay for the monthly charge of supplying such water.

#### Teresita and Carol,

Knowing that this "project" has a long history is what bothers me the most.

If we don't do this right, than we leave a mess for our children to deal with 30 years from now; as long as I have a "voice", I will do everything not to let that happen - (i hope your with us in this cause). We (neighbors, Dept. of Ecology, Kaiser) are getting a "do-over" - we better get it right this time; and set in rules that will not let the "Ball to get Dropped" - it is your responsibility; it is Kaiser's responsibility; and it OUR responsibility.

I look forward continuing a expeditious "solution" to the problem. And as always, please do not hesitate to call me with any questions.

Sincerely,



From:

Kelly and Jeneen Espe [kespe@msn.com]

Sent:

Monday, March 19, 2012 8:37 PM

To:

Bergin, Carol (ECY)

Subject:

kaiser cleanup

#### Hello,

We would like to throw in our comments for the Kaiser cleanup at the Heglar and Kronquist location. We understand there are at least two alternatives to this clean up and we both would like to see the #1 option which is the complete removal of the contaminated soil.

Not sure what the protocol is but that is our 2 cents worth.

Thank you for your time

Kelly and Jeneen Espe 9322 E. Greenleaf Drive Mead, Wa. 99021

[BLANK PAGE]

# III. ECOLOGY'S RESPONSES TO COMMENTS RECEIVED DURING THE PUBLIC COMMENT PERIOD FOR THE DRAFT FINAL FEASIBILITY STUDY REPORT JUNE 13 TO AUGUST 5, 2011

[Note: Quoted comments are provided exactly as submitted.]

#### Overview

The cleanup of the Heglar Kronquist Site is being conducted under the Model Toxics Control Act (MTCA) which is the regulation that governs the cleanup of sites in the state of Washington. MTCA was passed by Washington voters in November 1988. Kaiser Aluminum & Chemical Corporation, LLC (Kaiser), named the PLP (Potentially Liable Person) under MTCA, has accepted responsibility for the Heglar Kronquist Site. Kaiser is now known as DCO Management, LLC.

In March 2009, Kaiser signed an Agreed Order which required the completion of a Remedial Investigation (RI) and Feasibility Study (FS) for the Site. The Agreed Order is a legally binding administrative order and describes the site activities that must be completed by Kaiser under Ecology's oversight to ensure that all tasks meet the MTCA requirements. Public comment for the Agreed Order was conducted from February 9 through March 11, 2009 and a public meeting was conducted on February 17, 2009. Ecology issued a Responsiveness Summary on March 26, 2009 addressing the comments received during the public meeting and during the comment period.

The RI was conducted from 2009 through 2011. This RI consisted of field activities and data assessment in order to define the extent of contamination contributed by the landfill. It also included health and ecological assessments to determine current and potential exposure pathways at the Site. The Draft Final Remedial Investigation Report was made available for public review and comment from June 13 through August 5, 2011 and a public meeting was held on July 28, 2011. Ecology issued a Responsiveness Summary in August 2011 responding to comments received during the public meeting and comment period.

The FS was completed in November 2011. The public comment for the draft final FS Report was conducted from January 18 through March 19, 2012. This draft FS report evaluated cleanup remedies that are applicable to the Site and evaluated two applicable remedial alternatives for the Site. Alternative 1 which involves removal of the dross is a permanent remedy while Alternative 2 is a containment remedy. This Responsiveness Summary is to address the comments received during this public review and comment period.

Ecology will conduct an independent evaluation of the two alternatives presented in the FS Report using the required MTCA criteria and will select the remedy in a draft Cleanup Action Plan (DCAP). The DCAP will be made available for public review and comment.

Ecology received a wide range of comments including support for and opposition to the recommended remedy; comments on specific elements of the proposed alternatives in the FS; and concerns on the continued protectiveness of the cleanup actions after implementation, especially on Alternative 2.

Before addressing each of the individual comment letters or e-mails, Ecology believes it is important to provide some clarification on **key requirements** of the MTCA process on remedy and implementation. These MTCA elements include the following:

- Ecology is required under MTCA to ensure that cleanup actions are protective of human health and the environment. This is an important requirement for any actions that Ecology will select for the Site.
- The selected remedy must use permanent solutions to the "maximum extent practicable." A disproportionate cost analysis is conducted to make this determination using several criteria identified under MTCA. This analysis involves comparing the costs and benefits of alternatives and selecting the alternative whose incremental costs are not disproportionate to the incremental benefits. Protection of human health and the environment is not sacrificed on behalf of cost.
- MTCA has several provisions to ensure that human health and the environment continues to be protective even after implementation of the cleanup actions. For example, if Alternative 2 is selected, the "protection after cleanup" requirements will include:
  - o **Institutional controls**. These are measures undertaken to limit or prohibit activities that may interfere with the integrity of the cleanup action. Institutional controls may include: restrictions of how the site, land, ground and surface water may be used, maintenance requirements for engineered controls like a landfill cap, etc.
  - o **Financial Assurance.** Sites using engineering containment systems may be required to post a bond or other financial instrument to guarantee that the containment system is maintained as long as the contamination is present at the site.
  - Occidentational monitoring. Monitoring must be conducted at each site to confirm the long-term effectiveness of the cleanup action once cleanup standards and other performance standards have been attained.
  - o **Periodic Review.** Where institutional controls or financial assurance are required, Ecology will conduct a review of the site at least every five years to ensure the continued protection of human health and the environment. Ecology will also publish a notice of any periodic review in the Site Register and provide an opportunity for public review and comment.

# I. Responses to comments submitted by George Amend sent by e-mail on January 17, 2012

Comment 1: "I believe that either alternative will work to some degree or another. However, if Alternative two is chosen, what impact, if any, will the diversion of surface water away from the pit have on the available water in the table. In particular, should we anticipate a significant reduction of flow from the springs located at the back of the stock pond."

**Response:** It is not anticipated that there will be a significant effect on the water table including the springs as a result of an enhanced cap. The current cap is already diverting surface water from the landfill to the existing drainage and swales. The enhanced cap will reduce surface water infiltration through the dross. Therefore this will increase the amount of surface water on top of the landfill to be redirected to the drainages and swale; this increase is not expected to be significant.

**Comment 2:** "Question: If Alternative two is chosen, will consideration of the location of drainage swales and their impact/contribution on the sub-surface table be taken into account?"

**Response:** The locations of the drainage ditches and swales will be chosen to prevent impacts on the groundwater table in the area. The landfill drainage ditches will be designed so that they will collect surface water during rain and melting snow events and redirect that water away from the cap to nearby unlined drainage features/swales. The redirected water will be allowed to naturally infiltrate into the shallow groundwater near the landfill, similar to what is presently occurring.

Comment 3: "Having lived with the impacted water table at the stock pond since the original "capping" of the pit, I am not convinced that either Alternative 1 or Alternative 2 will result in a "cleansing" of the water table in a short period of time. This pond provided irrigation for years but was shut down due to the contamination and its impact on the field and trees irrigated."

Response: The existing cap was constructed on the landfill in approximately 1984. Site data taken from one spring that discharges to the stock pond showed the concentration decreasing from 900 mg/L in January 1984 to 470 mg/L in January 1985. Chloride concentrations in the spring water continued to decrease until 1986 where the concentrations have been hovering around 140 to 300 mg/L which can still exceed the state standard of 250 mg/L. These data indicate that the cap installed in 1984 prevented the majority of the surface water from infiltrating the dross; however, infiltration through the dross is still being allowed by the present cap. The enhanced cap under Alternative 2 would prevent most, if not all, of the surface water from infiltrating through the dross. Improvements in water quality would be expected within a couple of years. However, this expectation would be confirmed through monitoring of groundwater and surface water.

Comment 4: "As we discussed this AM, it has occurred to me that the sediment located at the bottom of the stock pond and other areas downstream may pose a potential risk due to their exposure over the years to the contamination from the pit. Periodic flooding and annual spring runoff moves soil with the water which may introduce contaminates back into the drainage following either Alternative remedy.

Question: Would it not be prudent to at least examine the sediments in the stock pond and immediate area to ascertain the potential for reintroducing contamination into the drainage?"

**Response:** Ecology agrees that sediments can be a potential source for recontamination at many sites, particularly by contaminants that have attached to soil. But because of the nature of the contaminants at this Site, we believe that there is no need to investigate the sediments. Both chloride and nitrates are very highly soluble in water. As such, they are always present in water and not expected to be in the sediments.

# II. Responses to comments submitted by Dr. Dexter R. Amend in a letter received on January 18, 2012

**Comment 1:** "There is little medical or scientific evidence of any significant contaminants coming from the Heglar-Kronquist site impacting health. The report states that drinking water is not impacted by the site (P3-p8)."

Response: The primary groundwater contaminants from the dross are chloride and nitrate. Chloride is not normally a hazard to human health. The standard used in determining concern is a Secondary Maximum Contaminant Level (MCL) which is based on taste. Still, chloride degrades the quality of the groundwater. Nitrate is a health hazard and has a drinking water standard referred to as an MCL at 10 mg/L. The dross contributes to the elevated nitrates in the groundwater in the area; the agricultural activities in the area also are sources of the nitrate in the groundwater. Drinking water in the area is not currently being impacted by the chloride and nitrate. However, chloride and nitrate exceed the state standard in shallow groundwater as described in the RI Report.

**Comment 2:** "The restriction on drilling wells on property 1000ft from the site strongly impacts the property values. The restriction is significant and is not considered in the report although it may amount to thousands of dollars the restriction is not necessary if drinking water in the area is not impacted. The restriction should be removed."

**Response:** This restriction is required under a Water Resources Regulation, Chapter 173-160 WAC, Minimum Standards for Construction and Maintenance of Wells. This applies to all landfills. Thus, this restriction cannot be removed. However, under this regulation, a variance may be granted if documentation is provided that demonstrates that the construction and operation of the well adjacent to the landfill will not further degrade the environment and will not cause a public health risk. The draft FS Report shows this

1000-ft set back based on the current Kaiser property boundary. We are still evaluating if this property boundary is the appropriate one to use in defining this 1000-ft set back.

**Comment 3:** "It is admitted that those chemicals found in surrounding wells could come from precipitation runoff from local farmland and salt from homes use of salted well water. Surface ground water is uncontrollable."

**Response:** We agree that contaminants can come from other sources like surface water due to the agricultural uses in the area. However, studies show that the dross is a source of elevated chloride and nitrate in groundwater in the area.

**Comment 4:** "The removal of trees on the ground, which control soil runoff and loss, have no provable impact on the environment of the land fill, other than benefit. They should not be removed. They are there to improve the area and are not a detriment."

**Response:** If an enhanced cap is constructed, the trees on the southern boundary of the landfill will have to be removed. Root systems of trees have been shown to disturb or destroy landfill covers; thus the need to remove the trees.

**Comment 5:** "Because of these suggestions I believe the decision over the site should be either nothing be done or at least you select a variation of alternatives for the fill with least damage to the property."

**Response:** The dross still continues to leach some contaminants to shallow groundwater that results in concentrations exceeding state standards for chloride and nitrate. Some actions will have to be undertaken to prevent this leaching so it will not degrade the groundwater in the area. The alternatives considered will improve, not damage, the property.

**Comment 6:** "Furthermore, to designate the site, as one like toxic sites should be taken away because there has never been shown the site has significant toxic substances related to it. The MTCA designation with its regulations should not be made. The site, after testing has not been found to be detrimental to human health."

**Response:** As noted in our March 26, 2009 Responsiveness Summary, the process for addressing this Site has actually moved beyond the ranking. We are now moving towards remedy selection. This Site may become eligible for delisting from the Hazardous Site List if certain requirements are met.

## III. Responses to comments submitted by Rick and Serina Dettwiler sent by e-mail on January 16, 2012

Comment 1: "....I see that there will be more coverage over the site to prevent water penetration down into the old land fill. But what about water that would be running through it and under it from the higher ground to the east. Are they going to dig down to a lower level then the old land fill on the east side and block water from running under

and through? It should be looked at. Example, water levels this past Spring of 2011 were at the highest levels that they had been in years. An old hand dug well on Madison Rd that had been dry since 1949 filled up with water and the cover over the well fell in. Plus each Spring, springs pop up all over along that hill side. So water is most likely running through and under that site as well."

**Response:** The RI showed that the dross is above the water table and not in contact with groundwater. Surface water from the east along the hill side will be directed to drainage ditches and swales such that it will not flow on top of the landfill area.

**Comment 2:** "Also, what ever is decided to do to the site will Kronquist Rd remain open at all times? We use that road every day and I would hope that will be..."

**Response:** Any remedy implemented will include site-specific plans to prevent or minimize the disturbance in the area including Kronquist Road.

### IV. Responses to comments submitted by Charles J. Hunter in a letter dated 1-16-12 and received by Ecology on 1-23-12.

**Comment 1:** "In reviewing the report and attending one meeting last fall I am convinced there is no problem with the Site No. 645 and cleanup site 1135".

**Response:** There is a problem with this Site in that contaminants are leaching from the black dross into the groundwater resulting in chloride and nitrate which exceeds state standards. The state's cleanup law, the Model Toxics Control Act, requires that exceedances to state standards be addressed.

**Comment 2:** "Diging into that Site would create more exposure than is presently experienced."

**Response**: Ecology acknowledges that the excavation of the dross may result in more exposure than what is presently occurring. If Alternative 1 is chosen Ecology will work with Kaiser to monitor and minimize any potential exposures that might occur during the removal. This includes gases that might be generated during the removal, issues involving transportation of the dross, and possible increased leaching of the contaminants to groundwater which might depend on the weather. These and other potential exposures termed as "short-term risks" will be considered in our selection of the site cleanup action.

**Comment 3:** "There is probably more contamination from farm land, of nitrates, than from the site."

**Response:** The farm lands in the area are definitely sources of nitrates in the groundwater. However, the dross in the landfill also contributes to some of the nitrates in the groundwater near the landfill area.

**Comment 4:** "To do either of the alternatives would be a total waste of money even if Kaiser would be paying for it. Continue monitoring the Site for any change."

**Response:** Under MTCA, Kaiser will have to address the leaching of the contaminants from the dross in the landfill to groundwater. Ecology will have to select an action that is "permanent to the maximum extent practicable"; this is determined through a Disproportionate Cost Analysis. Monitoring will be an important part of the cleanup action.

# V. Response to comment submitted by a resident (anonymous) sent by e-mail on January 24, 2012

**Comment:** "I have a feeling it would be good to talk – because the consensus up here is that "this has been a bunch of crap" – and went "through with the process" for nothing".

I know that we have the availability to "comment" before February 16<sup>th</sup> – with this said – many comments have been made in the past......and I am not sure that "commenting" will change anything."

We (as a neighborhood) – feel that it has been that there are so many unknowns". And with "unknowns" – we feel we will be in the same spot years from now."

**Response:** The Remedial Investigation conducted by Kaiser at the Site provided us with scientific information regarding the effect of the dross on the groundwater in the area. Ecology is not clear about the "unknowns" that are referred to in the comment. Ecology is confident that this study has provided enough information with regards to the impact of the landfill to the area so we can move forward with remedy selection.

# VI. Response to comment submitted by Cris Currie and Nora Searing sent by e-mail on February 7, 2012

Comment: "....Between the 2 options presented in the January Update, we would prefer Alternative 2. We are concerned that Alternative 1 would be too disruptive and cause too much air pollution as the material is disturbed and removed. It would also result in hundreds of dump trucks going past our homes and being on the road carrying this waste, some of which could easily leak out. It is also not realistic, given the high expense, that Alternative 1 will be chosen."

**Response:** Ecology acknowledges your preference for Alternative 2. Ecology acknowledges that the excavation of the dross may result in more exposure than what presently occurs. Ecology will work with Kaiser to monitor and minimize any potential exposures that might occur during the removal. This includes gases that might be generated during the removal, issues involving transportation of the dross, and possible increased leaching of the contaminants to groundwater which might depend on the weather. These and other potential exposures termed as "short-term risks" will be

considered in our selection of the site cleanup action. Cost is also included in the remedy selection.

# VII. Response to comment submitted by Calvin Hudlow sent by e-mail on February 12, 2012

Comment: "I live ½ MI. South of the site, all my life. All of the wells in this farming area of Foothills and Pleasant Prairie have increased nitrate levels over the years, from nitrate fertilizer, we are told. If the drinking water is O.K. in the area, then I think Alternative #2 with the mentioned improvements should keep the problem under control. Keeping in mind we need 'plan B', in case #2 doesn't work."

Response: Ecology acknowledges your support of Alternative 2. The Remedial Investigation showed that drinking water wells are not impacted by the dross. Regardless of what remedy will be chosen, Ecology will make sure that human health and the environment will be protected. If Alternative 2 involving an enhanced cap is chosen, the requirements for protection after cleanup will ensure that the cap will be maintained and that monitoring will be required (see "protection after cleanup" requirements discussed in the Overview). Under MTCA, if future monitoring shows that Alternative 2 is not working, Ecology will have the authority to make Kaiser conduct additional actions; the removal option will be reevaluated again.

# VIII. Response to comment submitted by Mike Petersen of the Lands Council sent by e-mail on February 15, 2012

**Comment:** "The Lands Council has looked at the 2 alternative for the Heglar Kronquist Site remediation. While Alt 1 would remove the problem permanently, it is more than 10 times the cost, and I think as long as the cap improvements and monitoring under Alt 2 are done with care it would suffice for now. If the materials were of a more toxic nature, such as PCB's, we would likely suggest a more aggressive cleanup."

**Response:** We acknowledge your acceptance of Alternative 2. Ecology agrees that the cost of implementing Alternative 1 is very high. In addition to the cost, Alternative 1 will result in short-term risks associated with the removal and transportation of the dross. Alternative 2 is a containment remedy. If chosen, Ecology will have to ensure the continued protection of human health and the environment as required in MTCA.

# IX. Response to comment submitted by Mary Kay Gerards sent by email on February 16, 2012

**Comment:** "As a person living near the Heglar Kronquist site, I am extremely concerned about the cleanup options proposed by Kaiser Aluminum and Chemical Corp. As stated in your January 2012 Department of Ecology mailer, "Toxics Cleanup Program," "Chemicals associated with aluminum dross may be harmful to human health..." Of course, I am greatly concerned about the contamination of our soil and water. The only

feasible option is Alternative #1: Removal of waste, off-site disposal, dispersion/dilution, and compliance monitoring. Kaiser was allowed to create a toxic dump in our neighborhood, and now they must clean it up to insure the health and safety of those of us living nearby, and generations to come. Although I appreciate having been giving options around the cleanup of this site, it is unacceptable to consider any other option other that #1."

**Response:** We acknowledge your support of Alternative 1 that involves the removal of the materials. The remedial investigations conducted at the Site have provided the extent of the impact of the dross contaminants in groundwater. The purpose of the remedial action that will be undertaken is to address the contamination. Ecology will choose a remedy based on the criteria required under MTCA. Regardless of what remedy will be chosen, Ecology will ensure that it is protective of human health and the environment, and will continue to be protective.

### X. Response to comment submitted by Mr. Tony Lambardo sent by email on February 16, 2012

Comment: "...I would like to put my vote in for bringing in public water in lieu of cleanup. I have spoken with Whitworth Water in the past and it cost them approx 1 million dollars to build a new water tank system, my concern is that my property is possibly within the 1000' boundary of the red shaded area shown on the site map. I was told by the county that drilling a new well on my site could be in question. I understand that there would be some cost to property owners for hooking into public water and feel it would be a win win for Kaiser for cost and to the homeowner as they would maintain value. This should be considered so no one is compromised."

Response: The 1000-ft setback shown in the draft FS Report is based on the current Kaiser property boundary. Only a very small portion of your property falls inside of this 1000-ft setback. However, Ecology is still evaluating if this is the appropriate boundary to use under the regulations. Since investigations show drinking water is not being impacted by the dross constituents, Ecology does not have the authority to make Kaiser provide for drinking water to the area. As such, bringing in public water supply to the area is not an option that can be considered in the remediation process. However, Ecology is required under MTCA to address the contamination resulting from the dross to prevent potential future impacts to groundwater including drinking water.

#### XI. Responses to comments submitted by Michael and Laura Klingback sent by e-mail on February 22, 2012

Comment 1: "....Kaiser recommends alternative 2 which of course is no surprise since it is the cheapest alternative and the waste site does not sit in the backyard of their corporate executives with no chance of harming the health of their families. Kaiser will continue to press to do the least amount possible only taking into consideration their financial obligation and the minimum amount that the Department of Ecology will agree to minimize any future liability on their behalf.

As for people living with the threat of contamination of a basic necessity for living, drinking water, we see the priorities as being different. Kaiser will never be able to give a 100 percent guarantee that alternative no.2 will never fail putting human health at risk for diminished quality of life or possibly death. Kaiser also will not be able to guarantee 100 percent that the resources and ability will always be in place to address any future needs for environmental protection from the site not knowing possible conditions of costs. While still not protecting the greater environment, at the very least an amendment to this alternative should be added that everyone in the entire affected or possibly future affected area be provided with public water with absolutely no cost to the homeowner. This at least would give the guarantee of safety to human health that Kaiser cannot give with their willingness to only do the minimum.

Kaiser is the one who contaminated the land, and Kaiser is the one who should restore the land to its original state. Therefore, alternative no. 1 is in the best interests of the community that the Department of Ecology is charged to protect leaving no future threat to human life or the greater environment. I hope that the Department of Ecology will make every effort to use the authority granted to them to accept nothing less than a solution that fully protect the threat to human health and life not only for the present but for the future."

Response: This cleanup is being implemented under the authority of MTCA. Kaiser by entering into a MTCA Agreed Order is required to meet the requirements of the regulation. Ecology will make sure that the remedy chosen for the Site is protective of human health and the environment, and will continue to monitor effectiveness. A containment remedy like Alternative 2 would have certain requirements (see Overview, Page III-2) to ensure continued protectiveness. As for the public water supply, Ecology does not have the authority under MTCA to make Kaiser provide for public water in the area because investigations show drinking water wells are not being impacted by the dross landfill. Kaiser's responsibility under MTCA is to prevent the transfer of dross contaminants to groundwater. This will address the contamination in the shallow groundwater and surface water defined in the RI and the potential for drinking water to be impacted with dross related contaminants will be eliminated.

# XII. Response to comment submitted by Rod Feyk sent by mail on February 22, 2012.

Comment: "....I personally don't want a "band aid" cap on the site. Kaiser needs to buck up and remove all such material and return the site to orinal. Don't tell me they have don't have the money. I see them wasteing it all the time. I've been employed at Kaiser for almost 35 years in the water treatment dept. Kaiser can put the mess in there yard not mine! They had the money to dump it, they have the money to clean it up."

**Response:** Ecology acknowledges your preference of Aternative 1 which involves the removing of the dross in the landfill. Ecology will choose the remedy at the Site using the criteria required under the regulation. Cost is only one of the factors in the selection

of remedy. Regardless of what remedy is chosen, Ecology is responsible to ensure that the cleanup action is and will continue to be protective of human health and the environment.

### XIII. Responses to comments submitted by Vickie (Ashley) Esary, Maureen Ashley, and Crystal Ashley sent by e-mail on March 01, 2012.

Comment 1: "Pursuant to the 2011 Feasibility Study, we believe that the TOTAL removal of the Kaiser dross is the only acceptable cleanup option offered. This will most fairly address the future safety and the real estate value of our land."

**Response:** We acknowledge your preference of Alternative 1. Ecology will choose the remedy at the Site using the criteria required under the regulation. Regardless of what remedy is chosen, Ecology is responsible to ensure that the cleanup action is and will continue to be protective of human health and the environment. Whichever cleanup action is taken, the elevated concentrations of chloride in the groundwater/surface water inside your property will eventually meet state standards and will be clean. In the event the remedial action chosen is proven ineffective, Ecology does have the authority to make Kaiser conduct additional work to address the problems.

**Comment 2:** "In the absence of this, we see problems that cause us to question Option 2.

1. Will the five-year monitoring plan after the project is complete conclude the state's involvement? Will any agency monitor the site, after 10, 20, 30 years or more, to determine that there is no further new drainage from leaking contaminants?

Response: The five-year monitoring plan will not conclude Kaiser's and Ecology's involvement. Please see proposed change in the report (see bold type in the middle of Page i) to clarify the monitoring requirements. MTCA provides "protection after cleanup requirements" (see Overview, Page III-2) that will ensure continued inspection and maintenance of the cap, and appropriate monitoring. This monitoring will be overseen by Ecology. As you can see, MTCA provides for institutional controls, financial assurance, confirmational monitoring and periodic review requirements to ensure the continued protection of human health and the environment. If Alternative 2 is the selected remedy, Kaiser will be responsible to meet these protection requirements.

2. Could Other alternatives be considered at this time, or are the choices narrowed only to these two considerably different approaches? If these options are on either end of a continuum, what were the middle-range alternatives which were considered and rejected?

**Response:** Other alternatives are not being considered at this time. The draft final Feasibility Study (FS) Report discusses the technologies and process options that are applicable to the Site. The technologies and process options evaluated in the FS included Institutional Controls, Engineering Controls, Waste Removal, Disposal,

Treatment, and Groundwater Barrier Technology. The two alternatives proposed in the FS Report are those that were determined to be the most effective and implementable at the Site. (See Section 3 of the draft final FS for a discussion of other options evaluated.)

3. If the Site were certified safe, would property owners be able to drill contaminantfree wells within 1000 feet after that five-year period cited in your study?

Response: This 1000-ft setback is a requirement under a Water Resources Regulation, Chapter 173-160 WAC, Minimum Standards for Construction and Maintenance of Wells. This regulation applies to all landfills regardless of whether there is contamination or not. This restriction cannot be removed even after cleanup standards are met. A variance may be granted if documentation is provided that demonstrates that the construction and operation of the well adjacent to the landfill will not further degrade the environment and will not cause a public health risk. The draft FS Report shows this 1000-ft setback based on the current Kaiser property boundary. We are currently evaluating if this property boundary is the appropriate one to use in defining this 1000-ft set back.

4. Would Kaiser be willing to buy all of the contaminated property within the 1000-foot plume around the dross site?"

**Response:** That would be Kaiser's decision. Ecology does not have the authority to make Kaiser purchase properties within this 1000-ft setback.

# XIV. Responses to comments submitted by Scot & Gwyn Burden submitted by e-mail on March 7, 2012.

Comment 1: "We already know that the toxic materials can get into the water supply (reason it was capped in the first place) and we know the cap can be disrupted as it has been in the recent past. There is only a limited water supply and with ever increasing population, it is recipe for disaster to leave the hazardous materials in a site that could be compromised in the future. We read about problems getting worse when things are not done right and we have no reason to believe this hazardous site will be different."

Response: Investigations show drinking water wells are not impacted by the dross. Ecology will choose a remedy that will prevent dross contaminants from impacting the groundwater in the area. The selected remedy under MTCA will be and will continue to be protective of human health and the environment. If capping is the selected option for the Site, the "protection after cleanup" requirement (see Overview) will ensure the continued protectiveness of the remedy.

Comment 2: "The guidelines for acceptable levels of toxins has changed over the years and will continue to change as more is learned on how they affect us. There is test equipment today that measures levels that could not even be detected 25 years ago. There are families in the impact area with health problems already that certainly could be connected with the materials from the dump site. It is not worth the tremendous risk to

our health, our pets, our livestock or the wildlife, not now and certainly not in the future."

**Response:** When contamination is contained on-Site and institutional controls are required to ensure the integrity of the remedy, MTCA requires Ecology to conduct a review of the Site at least every five years. This review is to assure that human health and the environment are being protected. New scientific information for individual substances or mixtures present at the Site is one of the review criteria that will be considered.

Comment 3: "We strongly urge you to completely remove all the materials, both the toxic and surrounding to eliminate this liability and transport it to a facility that is equipped to safely handle it. The risk to our health and the environment is too great to ignore. Additional capping is nothing more than putting the problem off to the next generation, at even greater costs and risks than today."

**Response:** We acknowledge your support to Alternative 1. Although removal of the materials is the most permanent solution, there are other factors that must be considered in the selection of remedy for the Site. Regardless of what remedy is chosen, it is Ecology's requirement under MTCA to ensure that the remedy is and will continue to be protective of human health and the environment.

# XV. Response to comment submitted by George H. Nauert by e-mail on March 13, 2012

Comment: ".....Currently, no evidence of any serious water contamination from Kaiser exists, but the potential exists. A new cap over the Kaiser site is indicated regardless. I can't see Kaiser removing the dumping waste because of the cost. The Amend property has excellent water source potential. They would need to be consulted. Some springs there show no contamination at all. Neighborhood water sources are not unheard of. The cost of a local development vs more expense tieing into adjacent water district could be researched as an option by probably a homeowner group. Maintaining water quality and controlling cost are both important to our neighborhood and would provide more assurance of water quality, especially if Kaiser agrees to cover the cost."

**Response:** Drinking water wells in the area are not impacted by the shallow groundwater contaminations as defined in the RI. The main goal of the cleanup at this site is to prevent the leaching of contaminants from the dross to the groundwater. By doing this the quality of the shallow groundwater impacted as shown in the RI Report is expected to improve and meet state standards. The potential for drinking water to be affected by the dross will be reduced or eliminated. Since drinking water is not being affected by the dross, Ecology does not have the authority to make Kaiser provide for a drinking water source in the area.

### XVI. Responses to questions/comments submitted by Nancy Murray sent by e-mail on March 14, 2012.

Question 1: "What are the issues involved in removing the dross from the area?

**Response:** The draft final Feasibility Study Report includes an evaluation of this removal process. Even though this process is a permanent alternative that will remove the dross from the site, there are short-term risks associated with this alternative. Preliminary estimates show that the removal project may be completed in 1 to 2 years depending on weather conditions. Short-term risks associated with this removal process during the removal period include: gases that might be generated during the removal, issues involving transportation of the dross, and possible increased leaching of the contaminants to groundwater which might depend on the weather, noise from removal activities, and disturbance to local roadways.

Questions 2 and 3: "2. What happens to the void created by the removal of the dross? 3. Does it get backfilled?"

**Response:** Alternative 1 includes the backfilling of the removal area.

Question 4: "Will the contamination issue end with dross removal?"

**Response:** With the removal of the dross, the leaching of dross contaminants to the groundwater would be permanently removed. However, during the removal period, it is expected that increased leaching of dross contaminants will occur; this increase will depend on the weather conditions. This will add to additional time for the groundwater to attenuate to cleanup level conditions.

**Question 5:** "For capping the Site, will any contamination enter into drainages in the area?"

**Response:** No. The contamination at the Site is a result of dross constituents leaching into the shallow groundwater underneath the dross. Surface runoff redirected to the drainages in the area is not contaminated.

Questions 6 and 7: "6. What is the life expectance of a cap?." 7. What happens if the cap fails over time?"

**Response:** Landfill caps have been estimated to last from 50 to 100 years depending on its function and where it is used. Under a MTCA cleanup involving a landfill cap, institutional controls that will limit or prohibit activities that may interfere with the cleanup action, as well as cap maintenance and repair will be required. If the caps fail over time, repairs will have to be conducted or other options will be considered.

Questions 8, 9, and 10: "8. What methods of on-going control monitoring will there be for either solution? 9. Will monitoring wells in the vicinity be maintained and monitored? 10. "Who will be responsible for this monitoring and maintaining?."

**Response:** Regardless of what remedy will be chosen, MTCA requires a compliance monitoring plan that will confirm that human health and the environment are adequately protected during implementation of the cleanup activities, to confirm that cleanup standards have been met, and to confirm the long-term effectiveness of the cleanup action. Compliance monitoring wells will be identified for the monitoring. For this Site, Kaiser will continue to be responsible for all these actions that are conducted under MTCA.

Questions 11 and 12: "11. Is there an on-going obligation should either method fail? 12. Is any bond required for maintaining and monitoring as assurance that either method works?"

**Response:** Regardless of what remedy is chosen, there are MTCA provisions that will require performance evaluations to make sure that the remedy works. In case of failure, Ecology has the authority to make Kaiser perform additional remedial actions as necessary. The "protection after cleanup requirements" discussed in the Overview (Page III-2) will be required if Alternative 2 is chosen. One of the requirements is a financial assurance mechanism shall be required, as appropriate. Financial assurance mechanisms may include trust funds, bonds, etc. as provided for under WAC 173-340-440 (11)(a).

Question 13: "What elements (in particular, sodium, chlorine, aluminum potassium, and fluorine) mobilized from the dross, could pose a problem in ground water?"

Response: Chlorine and fluorine are not Site contaminants. The dross contains primarily chloride salts (sodium, aluminum and potassium). These salts are very soluble in water and are leached from the dross which results in elevated concentrations of these constituents in ground water. As shown in the RI Report, the leaching from the dross results in chloride and nitrate concentrations in groundwater and surface water exceeding state standards. Nitrate exceeds a primary-health-based standard and chloride exceeds a secondary, aesthetic-based standard. Sodium exceeds EPA's recommended limit advisory. The dross also contains a low concentration of cryolite (2% aluminum sodium fluoride); however, fluoride in groundwater was detected at low concentrations that do not exceed the state standard.

Questions 14 and 15: "14. How will either of the remedies affect ground water recharge? 15. Will directing surface water away, as runoff, in the capping remedy, affect recharge of aquifers for existing water wells?"

**Response:** Neither one of the proposed remedies will affect groundwater recharge. If the dross is removed and the area backfilled, surface water will be directly infiltrated or redirected naturally to low lying areas where it will also be recharged to groundwater. If the capping remedy is implemented, surface runoff will be merely redirected, as

designed, to the drainages and swales that will be constructed and will all be eventually recharge back to groundwater.

Question 16: "Have the waters that drain to the wetlands on the Peone Prairie and form the Feryn Conservation Area bird and wildlife sanctuary been tested for contaminants?"

Response: Groundwater discharging as seeps into the pond that eventually flows to the drainage leading to the base flow of the Deadman Creek was tested during the RI. Surface water samples were also collected and analyzed along the drainage. The RI report shows the surface water areas impacted with the dross contaminants as represented by the chloride distribution. The results show that chloride concentrations in surface water exceed the state drinking water standard at the upper part of the drainage but not in the lower reaches near Deadman Creek. The RI Report includes an Ecological Evaluation based on the investigation results and shows that the spring/holding pond and drainage areas do not pose an unacceptable risk to livestock, aquatic species or crop species.

Question 17: "Was Kaiser asked to remove the dross material from the Heglar Kronquist site many years ago to stop contamination in the area?"

**Response:** Correspondences in the 1980's show that Kaiser was asked to evaluate removal of the dross but eventually was allowed to cap the landfill. These events took place prior to the existence of environmental laws that regulated the disposal of waste, landfill, and cleanups. The cap that was installed in 1984 did reduce the leaching of the salts to groundwater as shown by the decreased chloride concentrations in the down gradient spring that was monitored after installation of the cap.

Question 18: "Why is the list of contaminants for the Trentwood clean-up different than Heglar Kronquist contaminants when the dross waste came from the same source?"

**Response:** The black dross that is in the landfill was a by-product of secondary aluminum recovery/recycling process at the Kaiser Trentwood Site. The main constituents of this dross are salts mostly in the forms of chloride salts and low concentration of metals. Black dross was taken from Kaiser Trentwood for disposal at the Heglar Kronquist landfill from 1969 to 1974.

The contaminants in soils and ground water at the Kaiser Trentwood Site are not related to the dross. These contaminants are from historic releases to the ground of mostly petroleum products that were used in the plant operations. The main contaminants in soils and groundwater at the Kaiser Trentwood Site are petroleum and Polychlorinated Biphenyls (PCBs).

Question 19: "How can you know exactly what chemical and contaminants are in the contents of the Heglar Kronquist site? Even with the testing done, how could all areas of the 55,000 cu.yds. and down to 50 feet deep be tested?

**Response:** There is no way that all areas of the landfill can be tested. Even if the current cap is removed, it is not practicable to sample the entire landfill. However, a review of the site's earlier files shows there is no evidence that material other than black dross was sent to the landfill. In addition, the groundwater RI data does not indicate that other materials may be present in the landfill. All constituents that we have identified in the groundwater are attributable to the dross.

Question 20: "How much has it cost to do all this research, evaluations, and drilling of monitoring wells so far?"

**Response:** Ecology does not track costs for the project. Kaiser is responsible to perform all tasks that are required under the Agreed Order.

Comment 1: "Nearly 4 years have been spent doing studies and evaluations. You say in your newsletter that the disposal site is not affecting drinking water. Is this really an accurate statement? Haven't there been problems in the past? Haven't wells been redrilled or made deeper because they became contaminated from the disposal site? Why did Kaiser purchase a 12.44 acre of land down the street from the Heglar Kronquist disposal site, parcel No. 46033.9047 on Kronquist Rd. in 1997? Why have you imposed a 1,000 ft. setback restriction for drilling new wells if there is not a concern about drinking water?"

**Response:** The dross is not affecting the drinking water wells that are currently being used in the area since all the wells are installed in the deeper aquifer. The impact of the dross is in shallow groundwater, as determined and delineated in the RI Report. A shallow water well in this impacted area that was found to have high chloride concentrations was replaced with a deeper well in 1975. Ecology and Kaiser sampled this deeper replacement well during the December 2008/January 2009 private well sampling event. Results show that this well is not impacted by the dross.

Ecology does not have any documentation of why Kaiser purchased the property referred to in your above comment. This property is in the area where there is shallow groundwater contamination. However, with Kaiser purchasing this property, it eliminated the potential to install shallow water supply wells in the area.

This 1000 ft setback for landfills is a Water Resources Regulation. This is required for all landfills regardless of whether there is contamination or not. MTCA cleanup actions have to comply with all federal and state regulations, making this requirement applicable to this landfill. The 1000-ft setback identified in the draft FS is still being evaluated in terms of which property boundary is applicable to this Site.

Comment 2: "I believe the best solution is to remove this toxic waste to a facility designed to safely contain it. The cost should not be considered in lieu of the welfare of the neighborhood. I believe a new cap is just a temporary fix, if that. Those pipes are still going to leach out ammonia smell like they always have. And what if the toxic chemicals eventually filter into the aquifers that connect to our wells? How can you or

anyone guarantee that this won't happen, or even that it hasn't happened, or that it isn't happening right now? There is no way you can. And what assurance is there that anything will be done to correct a problem that may turn up, even with ongoing monitoring?"

**Response:** Ecology acknowledges your support of Alternative 1 which involves the removal of materials. Ecology will choose a remedy based on the required MTCA criteria. Cost is only one of many factors to be considered. Regardless of what remedy is chosen, it is Ecology's responsibility to make sure that it will be protective of human health and the environment. Cleanup actions conducted under MTCA will be protective of human health and the environment. If capping is the selected remedy, "protection after cleanup requirements" as discussed in the Overview will be required. In addition, Ecology also has the authority under MTCA to require for additional actions if future monitoring shows the ineffectiveness of the implemented cleanup action.

Comment 3: "I realize there are guidelines that you have had to follow by law, so now 4 years have passed, and it is time for the right resolution for our neighborhood. Wasn't there a discussion years ago (per documents in the archives) that Kaiser should remove the contents of the Heglar Kronquist site? If so, why didn't you Department of Ecology predecessors enforce that decision?"

**Response:** Those discussions took place before the cap was installed in 1984 and prior to environmental laws that regulated waste disposal in landfills and cleanups. Ecology is now conducting this cleanup under Washington's cleanup law which provides us with authority to regulate the cleanup. Under this law, Ecology is required to implement cleanup actions that are and will continue to be protective of human health and the environment.

**Comment 4:** "As the principals who make up the current staff of the Dept. of Ecology, please make this a moral decision, an ethical decision, a decision that first and foremost has to be for the health, safety and welfare of the landowners and their families, and the wildlife and family pets who swim in and drink from the streams and ponds that may carry polluted waters which drain from the disposal site area. People choose to live in a country setting where they can have open space, gardens, animals, play areas for their children. They do not want to be subjected to pollution in the air and from the ground water, and risk their health with the possibility of toxic chemicals entering their drinking water systems at some time in the future. A residential neighborhood is no place for a toxic disposal dump site. How would you feel if it was close to where you live? What decision would you make for your own family and neighborhood? You may consider this to be a business decision, part of your job, and dealing with a big business entity may make it more of a challenge. At the same time, please open your hearts to the personal, humane side of this issue, and put the people who make up our neighborhood number one. This is really the most important part of your job. We are trusting you to make the right decision with us and for us now, and for future generations who will inherit this land and live here."

**Response:** Ecology acknowledges your concerns and will insure that the selected remedy is protective of human health and the environment. The draft Cleanup Action Plan will select the remedy and justify the choice of the remedy.

# XVII. Response to comments submitted by Cris Currie and Nora Searing sent by e-mail on March 16, 2012

**Comment:** "We would like to offer our support for the idea that the Heglar Kronquist site be recapped <u>and</u> that it continue to be monitored forever. We also think it would be a very good idea to require Kaiser to pay for connecting Whitworth Water to the site and to pay for any homeowner connections that might be necessary in the future due to contaminants from the site."

**Response:** We acknowledge your support of Alternative 2 which involves the enhancement of the current cap. Alternative 2 is a containment remedy and the "protection requirements after cleanup" discussed in the Overview will be components of this alternative to ensure the continued protectiveness of the remedy.

Drinking water wells are not currently being impacted by the landfill. Therefore, Ecology does not have the authority under MTCA to require Kaiser to provide public water to the area.

# XVIII. Response to comments submitted by John and Carol Ellis sent by e-mail on March 20, 201

Comment: "..... Results from the investigation have prompted two alternatives as (reasonable?) cleanup options for the site: Alternative 1, and Alternative 2. The first would cost approximately \$20,064,000. The second approximately \$1,787,000. In our opinion what it all boils down to is that Kaiser Aluminum, between the years of 1969-1974, operated the "site" as a disposal area for aluminum black dross, a by-product from processing aluminum materials. The dross disposal was then stopped in 1974 because already chemicals harmful to both human health and the environment were discovered to be associated with this dump site.

Although we all now have the results of the Remedial Investigation, we pose the question: just how sure can we be that it was thorough enough, and of it's accuracy? (How often does the Food and Drug Administration approve a new drug, only to find 10 years later that it has caused this or that health issue, or even death?) The fact remains that the DUMP SITE still remains, and until the 55,000 cubic yards of black dross are removed and shipped to a permitted and secure landfill we feel Kaiser and the Department of Ecology are not thinking of the health of this community and wildlife, but only of their pocket book. You can not put a price tag on life, and that's what this issue is all about. No one REALLY knows what will happen 50 -100 years from now, but I wouldn't want it on my conscience. It really is a moral/ethical issue at this point. It should never have been allowed in the first place, and now is the perfect opportunity to turn a wrong into a right."

**Response:** Ecology acknowledges your frustration regarding this Site. The Remedial Investigation conducted under the Site was conducted under MTCA guidance and Ecology's oversight. Data collected during the investigations to characterize contamination in groundwater and surface water were subjected to quality assurance and quality control procedures as required under MTCA. Thus, Ecology is confident that the quality of the data collected in the RI is of sufficient quality to plan and evaluate remedial actions at the Site.

Ecology acknowledges your support of Alternative 1 which involves the removal of materials. Ecology will choose a remedy based on the required MTCA criteria. It is Ecology's responsibility to make sure that the selected remedy is and will continue to be protective of human health and the environment. In addition, Ecology also has the authority under MTCA to require additional actions if future monitoring shows the ineffectiveness of the implemented cleanup action.

# XIX. Responses to comments submitted by a resident (anonymous) sent by e-mail on March 19, 2012.

**Comment 1.** "1. **REMOVE THE DROSS!** - this was the EPA's recommendations years ago (before it was initially capped) -

"While it is our opinion these interim measures will improve the current situation, we do not consider this a permanent solution" - "we also request that an evaluation of removal of the dross be undertaken. We regard this as a final solution to this problem....." - James <u>L. Malm</u> EPA

**Response:** Ecology acknowledges your support of Alternative 1 which involves the removal of materials. Ecology will choose a remedy based on the required MTCA criteria. It is Ecology's responsibility to make sure that the selected remedy is and will continue to be protective of human health and the environment. In addition, Ecology also has the authority under MTCA to require additional actions if future monitoring shows the ineffectiveness of the implemented cleanup action.

#### Comment 2: "WHETHER REMOVED OR "RE CAPPED" the following:

2. Whether "re-capped" or "removed" - a long standing order that the monitoring of domestic wells, streams, and wetlands within 1 mile radius should be instituted. (and that the neighbors are supplied this information to make sure that there is never a "dropped ball" again.)

**Response:** MTCA provides for monitoring requirements. Ecology will identify the monitoring that will be appropriate for the selected remedy.

3. Fresh water, in the form of <u>WHITWORTH</u> WATER, should be in place to to be "tapped" into, if in fact, it is found that the contaminants from this site do "contaminate our wells"

Note: - an initial proposal by <u>Whitworth</u> Water has shown that this area can be provided at a estimated cost of \$5 million dollars.

**Response:** Drinking water wells are not currently being impacted by the landfill. Therefore, Ecology does not have the authority under MTCA to require Kaiser to provide public water to the area.

4. If, in fact, the wells become contaminated - Kaiser Aluminum should have in place a "bond" that would be used to pay for "tapping" into this water source from Whitworth Water, as well as, monies that would pay for the monthly charge of supplying such water.

**Response:** Future contamination in the wells would be an indication that the implemented remedy is not working. Ecology has the authority to require additional actions, as necessary. This may include the need to provide clean drinking water to residents, if drinking water is impacted. Ecology cannot require Kaiser to post a bond for future water supply in the area. The financial assurance (see Overview, Page III-2) that will be required under Alternative 2 is to guarantee the long-term effectiveness of the cap.

#### XX. Response to comment submitted by Kelly and Jeneen Espe sent by e-mail on March 19, 2012

**Comment:** "We understand there are at least two alternatives to this clean up and we both would like to see the #1 option which is the complete removal of the contaminated soil.

*Not sure what the protocol is but that is our 2 cents worth.*"

**Response:** We acknowledge your support to Alternative 1 which is the complete removal of the dross from the covered landfill. Ecology will select the remedy in the draft Cleanup Action Plan based on the criteria required under MTCA. MTCA requires the cleanup action to be protective of human health and the environment and that the cleanup action should be "permanent to the maximum extent practicable".