Lincoln Park Citizens' Update

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Providing information on the Lincoln Park/Cotter Superfund Site and related groundwater cleanup in sections of Lincoln Park

Colorado Department of Public Health and Environment

This newsletter is sent periodically by the Colorado Department of Public Health and Environment, to all known residences in the Lincoln Park area potentially affected by the historically contaminated groundwater from the Cotter Mill site It notifies the residents of Lincoln Park that they live near the Lincoln Park Superfund Site and provides updated information about cleanup and radioactive materials license activities. Residents in the area may have varying levels of groundwater contamination. Some concentrations exceed levels for uranium and molybdenum considered safe for drinking. It is generally advisable for residents to connect with the community water system, or to have their wells tested prior to use as a household water source. Residents may contact Phil Stoffey, On-Site Coordinator, toll free at 1-888-569-1831 ext. 3452, with questions about water quality near their property.

Licensing and Inspection Update– by Phil Egidi

Since the State Health Department issued the revised radioactive materials license for the Cotter Mill in December 2004, numerous changes have occurred at the Cañon City facility. The license allows for the continued milling of uranium and some specific alternate feeds. It does not allow for direct disposal of the material from the Maywood, New Jersey Superfund site. It tightened dose (exposure) reporting schedules and put an increased emphasis on security and safety. It also called for updates to plans for dewatering the tailings impoundment, evaluation of dry placement of tailings, and interim closure of the Secondary Impoundment (mill waste pond).

Cotter initially challenged more than 50 of the conditions in the new license. This would have made for very long, drawn-out hearings. Both parties realized that we could resolve many of the challenged conditions through discussion and negotiation--changing a phrase here, clarifying something there. We broke the issues down into three categories – easy, moderate and difficult, as a starting point. By the time of the hearings in September 2005, all of the issues were resolved, except four or five items that went to hearing (i.e., Maywood soils, authorized impoundment capacity, updates to the plans discussed above).

While Concerned Citizens Against Toxic Waste, Inc. (CCAT) were a party to the hearings, they didn't challenge any specific license conditions. The old license remains in effect when the new license is challenged, and the new license is in limbo during this time. CDPHE agreed to move forward by incorporating the updated license conditions into a series of legal instruments called Orders on Consent while the few items that were disputed went through the appeals process.

Both parties signed these Orders as a means of recording what had been challenged and what had been agreed to. Until the appeals process is completed, the Consent Orders together essentially are the license that Cotter is to follow.

The disputed portions of the license went before Administrative Law Judge Richard Dana. Judge Dana has a long history with the Cotter site, having presided over the original Consent Decree and Remedial Action Plan in 1988. Judge Dana issued his decision in April 2006. He decided that there was a sufficient case made against direct disposal, based on potential negative impacts to the community, so disposal of Maywood soils would not be allowed. He also determined Cotter needed to generate the plans CDPHE had requested, but that there was insufficient data to stop their use of the impoundment while improvements to the detection monitoring system were put in place.

He did state, "The doubts raised justify the additional study and evaluation that Cotter and CDPHE have already agreed to and support the exercise of some caution in the way the impoundment may be used."

In order to make the whole thing easier to manage, a revised Order on Consent was signed in August 2006 consolidated the earlier Orders and added administrative updates, including Judge Dana's determinations.

Cotter is still challenging the direct disposal/Maywood decision, and CCAT is still objecting to continued use of the impoundment and the mill. The Executive Director of the State Health Department is reviewing these challenges at the time of this writing. We hope to see a final decision in the near future.

For more information: The Lincoln Park/Cotter web site address is:

www.cdphe.state.co.us/hm/cotter/

Most documents and much correspondence are available there, and hard copies of key documents are available at the Information Repository maintained at the Royal Gorge Regional Museum and History Center, 612 Royal Gorge Blvd. in Cañon City.

OTP Plan Approved – by Jeff Deckler

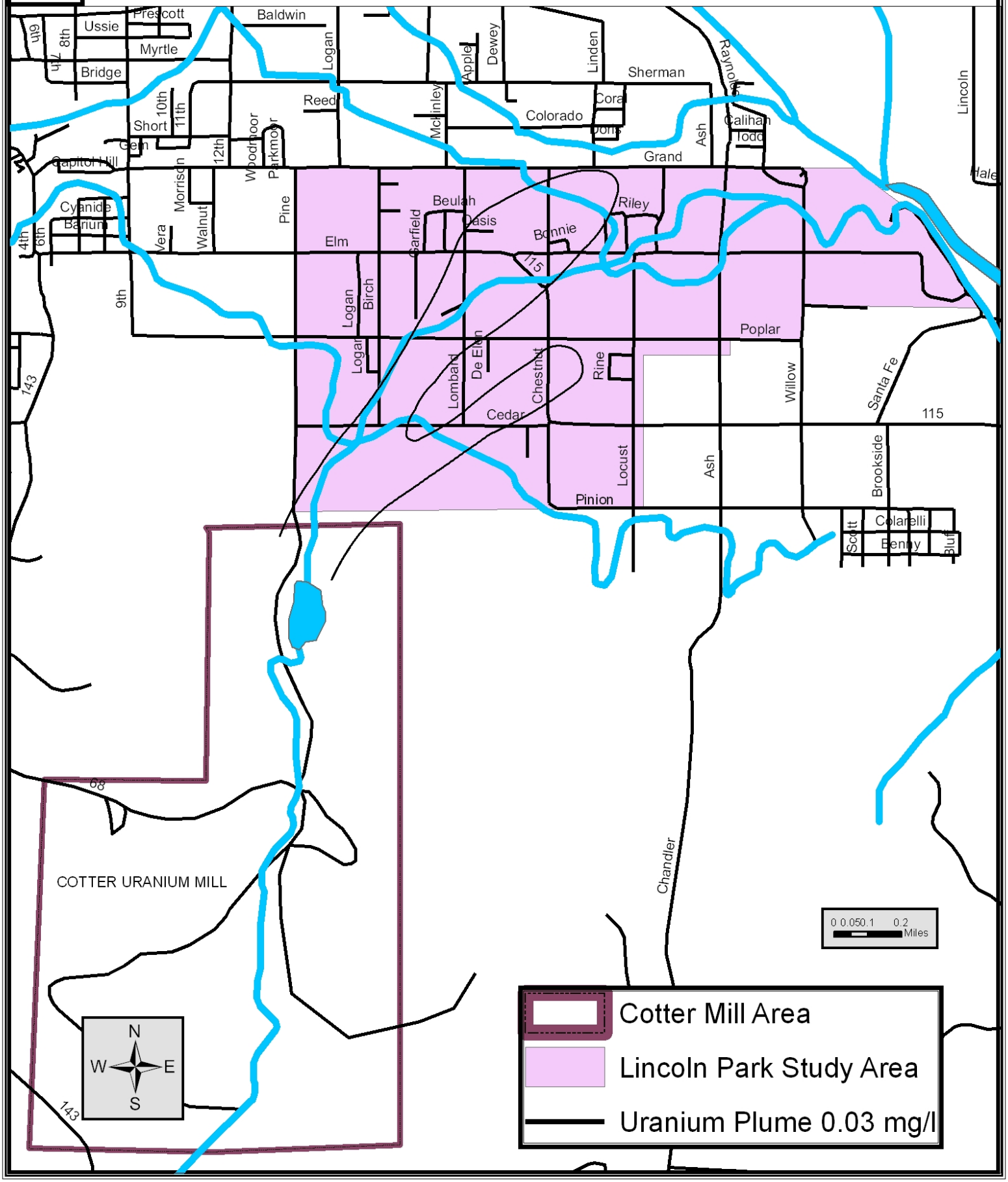
CDPHE and EPA have approved a general plan to excavate contaminated soils from the Old Tailings Ponds. This cleanup effort, which is designed to remove a continuing source of groundwater pollution, will result in excavation of all soils that exceed 27 parts per billion (ppb) uranium or 86 parts per billion molybdenum. It is estimated that 400,000 cubic yards of material will be removed and placed in the Primary Impoundment on site. CDPHE will coordinate this cleanup with the approval of the final decommissioning plan for the area, to ensure that additional soils do not need to be excavated later for other constituents.

Public meetings on this plan were held in February, May and June 2005. Responses to the comments received are included in the decision document, which is posted on the CDPHE Cotter web page. CDPHE also intends to provide the public with information concerning the cleanup designs when they are developed.

Colorado Department of Public Health and Environment

Hazardous Materials & Waste Management Division

Cotter Mill & Vicinity



Local Vegetables are Safe

by Jeff Deckler

In 1998 the Colorado Department of Public Health and Environment performed a risk assessment to determine the health risks to the residents of Lincoln Park from the Cotter Mill site. As part of that investigation, the Department sampled 60 vegetables (43 irrigated with contaminated water), and found that "there were no samples in which any chemical exceeded the estimated level of potential health concern." [1] Generally, the greatest risk (up to a 1-in-10,000 increased risk of getting cancer) was due to arsenic, which is believed to be naturally occurring and not related to the mill. Therefore, it is not Cotter's responsibility to remove it. The conclusion of the risk assessment was that eating locally grown vegetables would not pose a significant health risk.

In 2005, Concerned Citizens Against Toxic Waste (CCAT) reopened this issue. The risk assessment acknowledged that vegetables grown on (unsampled) properties— with higher groundwater contamination than those measured in the study —could have higher metals levels in the vegetables. Maximum contaminant levels measured in groundwater were up to 10 times higher than the levels found on properties that donated produce to the study. However, the risk assessment also compared produce irrigated with contaminated water with produce irrigated with clean water. No statistical difference was found. The values found in produce were also consistent with the normal range found in the research literature. Lastly, in summarizing the uncertainties in the analysis due to various factors, including variable groundwater contamination levels and variable individual produce results, the report concluded, "it is not thought that the available data are likely to have substantially underestimated the potential risks via this pathway."[2]

<u>New EPA study</u>

In response to this renewed concern, EPA recently performed a modeling exercise to determine whether any contaminant levels in water or soil could theoretically create contamination levels in vegetables that would be harmful. This report supports the conclusion that eating locally grown vegetables would not pose a significant health risk. Calculations performed using values established in scientific literature indicated that soils and groundwater contamination in Lincoln Park would need to be many times higher to create a problem with vegetables. For soils, the report calculates a value of 2100 parts per million (ppm) uranium would need to be present to cause a health risk, while a Canadian study calculates a level of 34 parts per million would be needed. Levels in Lincoln Park are approximately 1.5 parts per million. For groundwater, the report calculates that a level of nearly 100 parts per million would pose a hazard, while the highest current measurement in Lincoln Park groundwater is approximately .065 parts per million. Dr. Richard Graham of EPA presented his report at the November 16, 2006 Community Advisory Group (CAG) meeting in Cañon City

The referenced literature indicates that uranium and molybdenum, the primary indicator chemicals of contamination from the mill, are not readily absorbed into the fruits and vegetables, but rather stay in the soil or are bound by the plant roots. When finalized, CDPHE will post this EPA report on our web site.
In addition, EPA is offering to sample vegetables irrigated with contaminated groundwater. Contact Richard Graham at 303-312-7080 if you would like your vegetables sampled.

Residents may contact Phil Stoffey with questions about water quality near their property.

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[1] Supplemental Human Health Risk Assessment. Lincoln Park Superfund Site, Cañon City, Colorado. Phase III Evaluation, Baseline Human Health Risks in 1994-1996. Roy F. Weston, Inc. January 1998.

[2] Ibid.

Personnel Changes –

by Phil Egidi

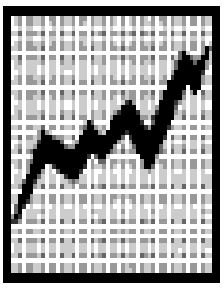
Cotter has an entirely new management team. The new President of Cotter, Amory Quinn, is a Vice President of General Atomics, the parent company of Cotter. Quinn is taking a much more hands-on approach with this team than they did with the previous management team. Steve Landau, former Manager of Environmental Affairs, has moved on to other challenges. John Hamrick is Mill Manager, and has also assumed Steve's duties for the near term. Preston Nieson (geologist) has retired, but will consult for Cotter on some projects. Cotter has furloughed most of their hourly staff, and maintains a workforce of about 35.

At CDPHE, Marion Galant has given up her office and management role for part time community involvement duties of four sites, including Cotter. She will be available two days a week, Tuesday and Thursday.

Except for one week per month in the Denver office, which varies as projects require, Phil Egidi (CDPHE Cotter Project Manager) has transferred to the Grand Junction office. He still handles Cotter and all his previous other duties. He is now closer to family and home in Hotchkiss. His phone number in Grand Junction is (970) 248-7162. You can leave messages on either the Grand Junction or Denver.

Why Does Cotter Evaluate Their Own Data? – by Jeff Deckler

A frequently-voiced concern at public meetings is that Cotter takes its own environmental samples and performs the laboratory analyses on those samples. For some local residents, this equates to "the fox guarding the hen house," and they do not trust any data reported by Cotter. Residents have repeatedly asked CDPHE to take over the sampling program.



CDPHE does not have the resources to do this at Cotter, or the hundreds of other facilities we regulate. Because of this resource limitation, CDPHE requires all facilities to perform their own sampling and analysis. The state performs various activities to verify that these data are accurate. EPA follows the same approach. This is the routine way in which sampling is handled.

To make sure that a facility's sampling and analysis is accurate, CDPHE exercises the following oversight: First, the department reviews and approves sampling plans and procedures and laboratory procedures to ensure that the sampling is occurring in the right places, using the right protocols, and that the lab is also analyzing the samples using the right protocols. We then perform periodic (albeit infrequent) audits of field and lab procedures, to make sure facility personnel are following the approved procedures.

Next, each data package received from the lab comes with a variety of quality control information. For example, "trip blanks" are analyzed to make sure that the lab is not contaminating the sample. Control samples of known concentration are analyzed to make sure the equipment is properly calibrated and is not reading too high or low. All of this information is reviewed to determine whether or not the lab results are accurate.

Lastly, CDPHE occasionally takes duplicate, simultaneous samples (called split samples). We analyze these samples in an independent laboratory. A comparison of these results over the past few years shows that Cotter's test results are very close to the state's laboratory reported results. Many times Cotter reports higher concentrations than the state. The conclusion drawn by CDPHE is that the environmental data reported by Cotter are accurate.

It should be noted that CDPHE has audited the Cotter laboratory and found several problems that are being addressed under the license. These problems are mentioned in another article in this newsletter. However, all the issues found in the audit relate to radiation dose analysis for worker safety. No problems have been noted with environmental sample analyses.

Sampling Results for Uranium and Molybdenum

Sample Date	Well Number	Cotter Results Uranium (mg/l)	CDPHE Results Uranium (mg/l)
3/27/2002	130	0.0149	0.013
3/18/2004	169	0.0029	0.003
3/18/2004	189	0.0476	0.048
3/18/2004	224	0.0389	0.041
9/16/2004	173	0.0383	0.026
9/16/2004	231	0.018	0.016
4/13/2005	129	0.053	0.045
8/21/2006	19	0.005	0.0061
8/21/2006	20	0.015	0.0171

Sequoyah Fuels Material on Hold –

by Steve Tarlton

In January 2006, Cotter submitted a Materials Acceptance Report (MAR) requesting that they be allowed to accept uranium-rich raffinate materials (raffinate is the portion of a liquid that remains after other components have been dissolved by a solvent) from the Sequoyah Fuels facility in Gore, Oklahoma, for processing as alternate feed. This request initiated a public comment period in January and February 2006 and a Department request for additional information sent to Cotter in March. Several exchanges between Cotter and the Department ensued. In August, both parties agreed to table the MAR until mill operations are more clearly defined and a readiness review has been completed.

Citizens' Advisory Group—the CAG

by John Dalton and Marion Galant

In July, community members expressed their desire to continue the activities of the Community Advisory Group (CAG) that was first convened in early 2005 by EPA.

A CAG is defined as "a committee, task force or board made up of residents affected by a Superfund or other hazardous waste site." A CAG provides a provides a public forum where representatives of diverse community interests can present and discuss their needs and concerns related to the site and the site clean-up process and share their views with each other, the state and EPA. They can also request presentations by experts in various clean-up processes related to the site.

At the September 21 meeting, the group approved the following Mission Statement:

> "The Lincoln Park/Cotter Superfund Site Community Advisory Group (CAG) is an independent organization of concerned citizens dedicated to examining issues related to the Site, through all available means including regulatory entities, Cotter Corporation, industry experts, and other citizens in order to share what is learned."

At the CAG meeting held November 16, the group heard Dr. Richard Graham of EPA explain a continuing study of vegetables grown in the Lincoln Park and his request to residents for samples grown using groundwater contaminated by the uranium and molybdenum plume from the Cotter Mill from this year's growing season and next. Even vegetables that have been frozen fresh—without any processing—are acceptable. Graham can be reached at Graham.Richard@EPA.gov. Clem Welch, from the Agency for Toxic Substances and Disease Registry in Atlanta, reported on his study on levels of lead in blood, particularly in young children, and of lead in indoor dust in more than volunteered 20 homes. All residents of the homes, adults and children, were asked to give blood samples. The EPA, in a complementary study, tested the lead levels in residential soils at the homes where dust was tested. Welch said that of the 100 children tested, 20 were from Lincoln Park, and no child had a significantly elevated blood lead level. Neither were the soils in their yards significantly contaminated with lead. The researcher pointed out that this was one of the larger exposure investigations nationally in the last three or four years. Copies of the study are available at the CDPHE web site and at the Royal Gorge Regional Information Center.

John Hamrick, Cotter Mill Manger, gave a brief presentation of his information on why, if there was elevated lead in the area, it could not be attributed to Cotter.

The CAG facilitator, Scott Simpson, has resigned, and the meeting was adjourned without a decision on whether or how to replace him. There is no federal or state funding available to pay a new facilitator, but the group could consider again seeking a volunteer. The group agreed to work on developing operating guidelines for CAG between now and the next meeting. The date for the next meeting was set for **Thursday, January 25, 2007** from 6:30-9:30 p.m., tentatively at the Cañon City School District Office, 101 14th St. in Cañon City. Please contact Ted Linnert at EPA, toll free, in early January to confirm the location. All are welcome.

Colorado Department of Public Health and Environment

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