

FINAL MEETING SUMMARY

Community Environmental Working Group

“Striving for Continuous Environmental Improvements at Intel”

Date: August 15, 2018
Time: 5:15–7:00 p.m.
Location: Corrales Senior Center

Members Attending

John Bartlit, NM Citizens for Clean Air & Water (by phone)
 Mike Williams, NM Citizens for Clean Air & Water

Hugh Church, American Lung Association in New Mexico
 Sarah Chavez, Intel
 Dennis O’Mara, Corrales resident, Corrales Residents for Clean Air and Water

Non-Members Attending

Lynne Kinis, Corrales resident, Corrales Residents for Clean Air and Water

Marcy Brandenburg, Corrales Residents for Clean Air and Water
 Toner Mitchell, Trout Unlimited

Jessie Lawrence, Facilitator

CJ Ondek, Recorder

HANDOUTS

- CEWG Draft Agenda
- June Draft Meeting Summary
- Action-Item Progress Report
- July and August EHS Activity Reports

- Email from Heidi Krapfl, NMDOH
- Email from Dr. Andy Rowland
- Draft email to NM National Guard

PROPOSED AGENDA

- Welcome, Introductions, and Brief Items
- Trout Unlimited
- Standing Agenda Items
- NMDOH ALS Report

- New Mexico National Guard Testing
- Future Agenda Items Prioritization
- Action Item Progress Report Review
- Adjourn

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 Prepared or presented by: CJ Ondek & Jessie Lawrence
 Prepared for: CEWG
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WELCOME, INTRODUCTIONS, ANNOUNCEMENTS, BRIEF ITEMS

Jessie Lawrence opened the meeting by asking for introductions. John Bartlit joined the meeting by phone. Ms. Lawrence said that since Mr. Bartlit was joining by phone she would take the lead throughout the meeting agenda. All agreed.

Agenda—Revisions and Approval

No comments.

Meeting Summary—Revisions and Approval

- Lynne Kinis said she wanted to follow up on some comments made in the June Meeting Summary. In the last bullet on page 3, Dennis O'Mara asked why Intel couldn't have waited a few hours to start the equipment without the thermal oxidizers being online after the power outage, and Sarah Chavez responded that she would ask that question. Ms. Kinis asked Ms. Chavez to share the answer she received. Ms. Chavez said she had planned to address this question in the Action Item Progress Report section, but she also would respond here. She said Intel looked at the data on how long it took the equipment to become "fully operational" and the time to repair the thermal oxidizer. After looking at this data Intel determined production would be limited. She used the following example to explain "fully operational." If you were vacuuming and accidentally pulled the vacuum cleaner plug out of the electrical socket, you could plug it back in and the vacuum cleaner would immediately start up and become "fully operational" again. Semi-conductor equipment was different. It was more like having an old car that you wanted to get up and running. You would have to check the fluids, the oil, etc. and it might take you a few hours or a few days to get it up and running and become fully operational. It didn't happen immediately. Therefore, Ms. Chavez said, because it would take time to become fully operational, Intel decided to restart the thermal oxidizers.
- Lynne Kinis said there was no recognition of the community's safety in that response. Marcy Brandenburg agreed and said it was all about production and not about obligation to the community. Ms. Chavez said that was fair, and Intel had looked at the impact of equipment being down in the 2005 risk assessment and took that information into consideration.
- Sarah Chavez said she also had information on the unabated emissions that occurred during the downtime as well as how that number was calculated, and asked if she should address that issue here or wait until the Action Item Progress Report. Jessie Lawrence requested that it be addressed during the Action Item Progress Report, but she could do a quick answer here. Ms. Kinis responded that it was fine to wait until later. Ms. Brandenburg asked why it couldn't be addressed now since the topic was the Meeting Summary. Ms. Lawrence responded that the topic was actually "Meeting Summary revisions/edits and approval" and not comments on the discussion. Ms. Kinis said her

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comments were actually follow ups. Ms. Chavez said follow ups were intended to be discussed during the Action Item Progress Report.

- Lynne Kinis said she had several more comments to make on the Meeting Summary and wasn't sure when the appropriate time was to discuss them. For example, on page 4, last bullet, Ms. Chavez mentioned, "Intel had emergency generators used to keep safety systems in place, such as emergency lighting." Ms. Kinis asked what these systems had to do with her or the community's safety, and if those generators were used to start the thermal oxidizers. Ms. Chavez said the generators were NOT used for thermal oxidizers but for Intel's internal safety systems.
- Lynne Kinis said she commended Dennis O'Mara's *Corrales Comment* letter to the editor, and his comment on page 5, third bullet, "You can't prove a negative," and that he wanted "Intel to prove a positive, that it was safe for people near the plant to be breathing the emissions." Ms. Kinis said his comment should be "driven home," and that Mr. O'Mara was "wonderful."

Other Announcements

- John Bartlit said he had a general idea for the CEWG to promote their mission statement and actions more consistently within the Rio Rancho Intel community. For example, although everybody knew they had to recycle, signs were everywhere reminding people to recycle. He proposed that the CEWG do something similar, such as posting a notice at a gathering place, the entrance to the cafeteria, for example, that listed the CEWG's mission and recent accomplishments. Another possibility would be electronic communications to Intel employees. He suggested coming up with a slogan or asking Dennis O'Mara's wife Carolyn to design a poster. He suggested mimicking the same kind of communication commonly used in industry to remind workers to take certain actions. The CEWG as a group needed to design the poster that included art and copy. He didn't know the best way to proceed, and whether to approach Intel first for permission.
- Jessie Lawrence asked the members present if they supported this idea. Dennis O'Mara suggested adding the idea as an agenda item for further exploration. The group agreed.

ACTION ITEM: Jessie Lawrence will add John Bartlit's idea as a future agenda item for further discussion.

- Dennis O'Mara said Jeff Radford wrote an article about Intel's power outage in the July 7 issue of the *Corrales Comment*. He said he was dissatisfied with NMED's and Intel's public responses as relayed in this article. He said he was moved to write a letter to the editor expressing this dissatisfaction.

- Dennis O'Mara reminded the group about an article on the semi-conductor industry that Fred Marsh had sent to him, and that he sent via email for CEWG members to read in the hopes they might want to discuss it further.

Public Comment

- Marcy Brandenburg commented that she received permission from the Board of Realtors to pursue educating the 4,000 to 5,000 realtors in the broader Albuquerque area about the hazards of living near manufacturing facility sites. She was exploring how to deliver this education, most likely through continuing education that gives them the knowledge they needed to convey to clients. Right now, realtors have forms in a purchase agreement package that clients must sign off on. Realtors address the issues highlighted in the form with their clients, and clients sign the form indicating that the realtor provided this information. The hazards of living near a manufacturing facility would be indicated similarly on a form, with the realtor providing the information and the client acknowledging that they received it. Ms. Brandenburg said she was hoping that within the next year it would be a mandatory class.
- Marcy Brandenburg said that property disclosures changed through time. The goal was to get to the place where people recognized that they were not just buying a house but also buying a community—the crematorium up the road, the tree farm nearby that sprayed pesticides, etc. Younger people were beginning to understand this and become more concerned about the surrounding community. She emphasized that the class was general about hazardous materials, dumps, sewage plants, and manufacturing facilities and not about Intel per se. It was the responsibility of realtors to provide the information but clients did with it what they wanted to.
- Marcy Brandenburg said she met with the Rio Rancho mayor who told her that Rio Rancho had an evacuation plan when in fact they did not. She suggested meeting with the mayor to clarify this issue.
- John Bartlit asked if there was a potential for realtors to utilize the CEWG Web site, which had 14 years of information for people to explore. Marcy Brandenburg said realtors were not allowed to steer but could provide information options for people to conduct their own research, so that might be possible. She said educators could provide links to more information when the realtors received their training.

TROUT UNLIMITED INFORMATION

Toner Mitchell from Trout Unlimited, a nation-wide NGO that focused on creating cold water fisheries, addressed the CEWG about Trout Unlimited's work in general and Intel's support of its work. In regards to the editorial in the *Albuquerque Journal*, Mr. Mitchell said neither the

Journal nor the Rio Rancho paper reached out to him for comments to use in the editorial. Mr. Mitchell said he would explain what was happening in the Rio Grande basin specific to Intel.

- Mr. Mitchell said that since 2000 several volunteer groups in New Mexico had been focusing on improving the watershed of Comanche Creek, which was a tributary to the Rio Costilla and located in the Valle Vidal unit of the Carson National Forest near the Colorado border. This area had a legacy of logging, grazing and mining that adversely impacted the watershed. As a result the watershed had a lot of head cutting in tributaries that weren't previously tributaries but were originally cattle trails and formed by capturing water run off. Since 2000, the Quivira Coalition, a strong restoration group, had been conducting workshops to train volunteers to create log and rock structures to lift the riparian water table and allow the Comanche to access its flood plain more directly, which created more flood plain irrigation. Trout Unlimited has been partnering with Quivira since 2009.
- Mr. Mitchell said in 2014 their effort received support from the Coca Cola Foundation via the National Forest Foundation to do more intensive and expensive work lifting Comanche Creek and its tributaries. Coke's involvement was based on their commitment to replace in the landscape a liter of water for every liter they consumed making their product, while Trout Unlimited was interested in improving the habitat of the cutthroat trout. Coke had a consultant develop an equation to calculate the number of liters needed to return to the landscape versus letting it run off. This project had great benefit to downstream irrigation communities, which was important to Trout Unlimited. Their New Mexico program was founded on the conservation idea to contribute to local rural economies. Another benefit was for the New Mexico state fish, the Rio Grande cutthroat trout, which was close to being an imperiled species. The restoration work was filling riparian areas and spreading laterally, with a lot more ground water storage from snowmelt, rain and overbank flows, which allowed for cooler water that the cutthroat desperately needed in their habitat.
- Mr. Mitchell said that since the Valle Vidal had such a long history of this kind of work being done on the land, they were unable to get adequate data collection. They passed the mark of getting baseline data several years ago because they had already worked in so many tributaries. They did have water temperature data that showed the water was getting cooler. They also had visual and anecdotal information from cattle grazers showing they were able to use their allotments more productively. It was a great experience for many reasons and a springboard for more projects among public land users and conservation groups. The project was delivering benefits to the Rio Grande cutthroat trout. The Valle Vidal was the largest contiguous habitat left, so they needed to protect and restore this area.

- Mr. Mitchell said in 2018 Intel joined the project as a corporate funding partner, which would allow them to do more work, finish a stretch of the main stem Comanche and wrap up the project. The NM Game and Fish Department was able to leverage corporate support and triple the funding to do more work on the uplands. Mr. Mitchell said they were hoping to duplicate this project in other parts of New Mexico and Southern Colorado. John Bartlit asked if Intel's participation was entirely financial. Mr. Mitchell said it was purely financial, and because the project had such a long history and was a logistical circus, it was necessary for the corporate partners to stay in their respective places.

STANDING AGENDA ITEMS

EHS Report

Jessie Lawrence said they would cover both July and August EHS Reports.

- Sarah Chavez said she needed to add a neighborhood complaint from August 14th to the EHS Report. The complaint came in after midnight in Zone 2 and described the odor as a highly perfumed bubble bath. Ms. Chavez said nothing had changed at the Intel site to account for this odor, and Intel couldn't get a person on the ground to walk the perimeter because the complaint was made hours after the odor was experienced. She said she would add the complaint to the September EHS report.
- Dennis O'Mara asked about the update to the 2016 Greenhouse Gas report on the July EHS Report. Sarah Chavez said Intel had to redo a specific calculation based on a change that the EPA requested.
- Lynne Kinis asked what chemical was used for the weed control application on July 24. Sarah Chavez apologized for not providing Dennis O'Mara with her action item on obtaining landscaping chemicals (SDSs) sooner. She had sent the email to Mr. O'Mara this morning. Mr. O'Mara said landscaping herbicides and pesticides could be "pretty nasty" and have implications for health. He asked that Ms. Lawrence forward this email to all members. Ms. Chavez said Intel applied these chemicals to the landscaped part of the property only.

ACTION ITEM: Jessie Lawrence will forward the list of landscaping chemicals used by Intel to the group and send to Lynne Kinis by USPS.

- Lynne Kinis said the east slope work should be done in the spring. Sarah Chavez said Intel did quarterly walks as well as after big rain events to check for water retention and look for runoffs, etc., but because of the heavy rain at the end of July, they checked the area again. The requirement for Rio Rancho was to slow and minimize water runoff, which was the purpose for the hay bales. It required ongoing maintenance which is what is currently

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being done. Ms. Kinis said they should clean out the retention pond regularly so that it could retain water.

LEPC Update:

Dennis O'Mara reported on the July LEPC meeting. He said he had three things to report. The first was that at the meeting they were still waiting to learn who would be appointed to replace the late Dave Bervin. Many things were being deferred until the replacement was named, including reviewing and updating the LEPC operations plan. Second, Mr. O'Mara recommended a standing agenda item for a brief report on any chemical incidents in Sandoval County during the quarter prior to each meeting. Third, he also strongly urged that the LEPC compose a letter to all current or potential Tier 2 report organizations to remind them of their obligation to report on Tier 2 chemicals that they were holding and using. Right now there was no solid method for determining whether these organizations were actually reporting. There also needed to be some kind of communication and effort to identify those organizations that should be reporting but weren't yet doing so.

UNM Cancer Study:

Dennis O'Mara said Dr. Chuck Wiggins assured him that the Cancer Report would be presented to the Cancer Concern Board on August 24 to clear the work for publication. He was willing to come to a CEWG meeting to present and discuss the findings. John Bartlit asked if the CEWG should actively invite Mr. Wiggins to the CEWG meeting. Mr. O'Mara said to wait until they actually published a final report.

Regulatory Engineering: *No update.*

NEW MEXICO DEPARTMENT OF HEALTH (NMDOH) ALS REPORT

- John Bartlit said he had several phone call discussions with Dr. Andrew Rowland, an epidemiologist at UNM, who appeared very cooperative and interested in helping out with providing information. Dr. Rowland was also communicating with Dr. Will Athas who might also be available to participate. Mr. Bartlit suggested having a panel discussion that included Heidi Krapfl. He said Dr. Rowland was interested in participating.
- Jessie Lawrence asked the group if they wanted to pursue a panel discussion. Dennis O'Mara said he liked the panel discussion idea and would like to invite some of his contacts who had reviewed the report, although they would have to participate remotely. Mr. O'Mara said a key piece of information on ALS was missing and he had been stymied with trying to track it down. Getting this information should open up discussions in a positive way, he said.

- Jessie Lawrence asked if it made sense to start reaching out to potential panel participants. John Bartlit said he would reach out to Dr. Rowland with the specific request. Dennis O'Mara said he too would reach out to his contacts about participating. Mr. Bartlit said Heidi Krapfl would be a possible participant and/or the person who actually wrote the report. Mr. O'Mara said he knew that several people contributed to the report, though Ms. Krapfl is listed as the study author. Mr. Bartlit said NMDOH should be invited to participate on the panel. Mr. O'Mara suggested that he and Mr. Bartlit communicate during the week to strategize on the panel makeup and composing an invitation. Mr. O'Mara suggested that having other experts on the panel might be a draw for Heidi Krapfl to commit to participating.

ACTION ITEM: John Bartlit and Dennis O'Mara will communicate to strategize on the ALS panel composition and invitation.

NEW MEXICO NATIONAL GUARD TESTING

- Dennis O'Mara said he had obtained a couple more potential contacts at the National Guard. He met these Guard members—a sergeant and captain— at the LEPC, and they seemed interested in the CEWG's project. They asked to be copied on all communication with Sgt. DePalma.
- Jessie Lawrence said she attempted to draft specific questions for the National Guard, and if the group approved, she would send the question list and the Citizen Protocol to the three contacts.
- Marcy Brandenburg said she was concerned about Intel's involvement. She believed the Guard should conduct the testing independently. Ms. Chavez said Intel wouldn't be involved, but they needed to provide background context as well as to learn about the Guard's process for collecting data to make sure it was compatible for the CEWG and community's needs. Their equipment had some limitations that the CEWG needed to learn about.
- Mr. O'Mara said that in his recent communication with the Guard Sgt., he learned that the Guard had more sophisticated equipment to test for low-level concentrations of chemicals. The captain said if they knew what they were looking for they could get to the parts per billion level.
- Sarah Chavez said they were trying to learn the Guard's capabilities, detection limits, equipment, process and procedures. The CEWG suggested times and weather conditions in which to not test, locations to test in, and how many times to test over several months. Intel

would not be notified when the actual testing would take place. Marcy Brandenburg expressed concern about Intel's being able to manipulate emissions during this period. Ms. Chavez said Intel could not control what came out of their stacks during any testing. Mike Williams said they were communicating optimal conditions in which to collect the samples. Ms. Chavez said they were trying to set it up so that the Guard would be more likely to get samples. Ms. Brandenburg asked why Intel wanted to get the Guard to "collect something. That sounded scary." Ms. Chavez said if the Guard sampled when the wind was blowing the other direction, then the sample was meaningless. the goal was to get the best data they could get. They could not dictate when the Guard sampled but only provide general guidance such as not sampling during certain weather conditions, i.e., cloudy days or high wind.

- Dennis O'Mara added that they didn't completely know the Guard's capabilities. The Guard was set up to attend to disasters, and the CEWG was asking them to do something different from their normal operations. However, this gave the Guard an opportunity to test their capabilities and equipment. John Bartlit said the CEWG needed to understand ahead of time the limitations of the Guard's equipment as they used it in their normal practice, so that the CEWG did not promise to look for something that was beyond the limits of the equipment. That would be damaging to the whole process and everyone's credibility. The CEWG was also careful to understand and make known the instrument limitations in planning the silica study.
- Jessie Lawrence said she would send the email to all three Guard contacts with the question list and protocol. Dennis O'Mara asked to add to the email a line that said she was following up on a conversation Mr. O'Mara had with the captain and sergeant at the LEPC meeting so that it won't be a shock to Sgt. DePalma that suddenly others were also involved.

ACTION ITEM: Jessie Lawrence will send the email to all three Guard contacts with the question list and protocol and reference Mr. O'Mara's conversation at the LEPC with the captain and sergeant.

REVIEW ACTION ITEM PROGRESS REPORT

- Jessie Lawrence said both of her action items, #14 (emailing protocol document and questions to the Guard) and #15 (future agenda items), had been addressed.
- Sarah Chavez said she already updated on #9, landscaping chemicals. On #10, Intel did not have a kangaroo rat infestation; they had not seen anything that would indicate an infestation. She said she addressed #11 earlier. On #13, Ms. Chavez said Intel notified the community emergency managers about the May 21 power outage at 10 pm on the 21st.

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- Sarah Chavez reported on #12, which was how Intel calculated emissions. She said Intel tested their stacks annually and used that information to calculate their emissions. They used a rolling annual calculation formula, which calculated emissions for the month and then added the previous 11 months to get an annual rate to show they were below the permit limits. To calculate emissions during equipment downtime, Intel looked at the removal efficiency for each unit and back calculated it. For example, if the emission rate during testing was 0.1 lb/hour, and the removal efficiency was 90%, then the emission rate would be 1 lb/hour of emissions during the downtime. Intel then took the 1lb/per hour and multiplied it by the number of hours the equipment was down. So if the equipment were down for five hours, then the emissions would be 5 lbs. This calculation assumed that normal production was happening during downtime. Ms. Chavez said that all seven Intel units were down for different amounts of time. Intel looked at emission rate, removal efficiency and downtime hours and calculated 131 lbs of VOC emissions. In comparison, April's total VOC emissions reported to NMED were 16.8 tons; May's were 16.7 tons; and June's were 16.9 tons. The 131 lbs equaled .07 tons. Ms. Chavez reminded that not all Intel emissions were from thermal oxidizers. This downtime had a very small affect on Intel's rolling monthly rate and annual emissions rate, and it was small enough to not be detectable in the total VOCs reported. Ms. Chavez said this was the number that Intel reported to agencies. The unit down the longest was down seven to nine hours.
- Lynne Kinis said she could not accept one hour of unabated emissions. Dennis O'Mara said he wrote in his letter to the editor that they didn't know what the 130 lbs. actually meant and didn't know the level of toxicity or what that 130 lbs. contained. Sarah Chavez said she disagreed, that the chemicals had not changed significantly from the risk assessment, which listed the individual chemicals used in semi-conductor processing. Emission rates were higher when the risk assessment was completed, she added. Mr. O'Mara asked if Intel attempted to calculate the amount of emissions before they restarted the equipment. Ms. Chavez said yes, but she didn't know the number. Mr. O'Mara said Intel didn't have a good idea of what else was created during the process of emitting. Ms. Chavez disagreed, because for many years Intel did FTIR testing at the stacks, and if anything happened to chemicals during the process it would appear in the FTIR data. Intel knew what chemicals went in, and with the FTIR testing at the stacks they could see what chemicals came out after burning. Marcy Brandenburg said Intel didn't know what happened when chemicals met and combined in the process, and nobody did. Ms. Brandenburg reminded that the community needed a new read on VOCs, and the last was in 2004. Ms. Chavez said these chemicals were noted in the stack testing data. Ms. Brandenburg pressed for a list. Ms. Chavez said she would make it available.

ACTION ITEM: Sarah Chavez will provide a list of chemicals Intel used in their semi-conductor process.

- Lynne Kinis said what was significant to Intel was different than what was significant to the community. For example, on the kangaroo rat infestation, one resident trapped 17 kangaroo rats on her property. Animal control said the rats came from the other side of Intel. Ms. Chavez reiterated that Intel had not seen evidence of a kangaroo rat infestation.
- Mike Williams said he did not see the particular relevance to comparing the emissions downtime to the annual emissions. What were the threshold values and would they necessarily apply? Why a day instead of an hour? Some things were more important in the short term. He didn't think they had enough knowledge to know the affects. Ms. Chavez said that Intel used the standard method used to look at health risks in chemicals in both the risk assessment and FTIR. Mr. Williams acknowledged the fuzzy areas.

PRIORITIZATON OF FUTURE AGENDA ITEMS

Dennis O'Mara proposed to move to the top of the agenda priorities a review of Intel's NMED-issued emissions permit. He wanted to go through it piecemeal to see how it all fit together. He said the permit allowed Intel to emit 5.9 tons of phosgene. Why would Intel be allowed to have phosgene emissions? He wanted to understand the permit better. Jessie Lawrence said she would add this to the list of future agenda items and they would have time on the agenda to discuss this proposal further at the next meeting.

ACTION ITEM: Jessie Lawrence will add discussion of Intel's state emissions permit to the list of future agenda items and will include time for discussion of future agenda item priorities on the next meeting agenda.

ADJOURN

NEXT MEETING: September 19, 2018, 5:15 to 7 pm, Corrales Senior Center.