# Scoping Summary Report

in support of the
Environmental Impact Statement

## Kennecott Utah Copper LLC Tailings Expansion Project

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Corps of Engineers
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Bountiful, Utah 84010

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# Contents



# Tables

# 1.0 Introduction

Kennecott Utah Copper LLC (Kennecott) has requested authorization to affect waters of the United States through its proposed Tailings Expansion Project (TEP) in Salt Lake County about 10 miles west of Salt Lake City near the community of Magna, Utah. Kennecott has submitted a Clean Water Act (CWA) Section 404 individual permit application to the United States Army Corps of Engineers (USACE) Bountiful Regulatory Field Office, which will be the lead federal agency responsible for completing an Environmental Impact Statement (EIS) and issuing a Record of Decision (ROD) for this request.

## 1.1 Scoping Process

Scoping, which is the first step in the National Environmental Policy Act (NEPA) process, is an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action. During scoping, members of the public and agency representatives provide input to identify potential issues, subjects that should be studied closely, and possible solutions. Information gathered during scoping also helps to determine needs, objectives, resources and associated constraints, potential alternatives, and any additional requirements for developing criteria for screening and alternatives. This scoping summary report is a tool to ensure that the analytical efforts of the study are focused on the appropriate issues.

## 1.2 Project Description

USACE will prepare an EIS for the proposed TEP near Magna, an unincorporated community in Salt Lake County. Kennecott has applied for a Department of the Army permit under Section 404 of the CWA to fill approximately 721 acres of waters of the United States, including wetlands, to expand its existing tailings impoundment and to construct an additional tailings storage facility and related infrastructure on a 1,992-acre parcel. The basic project purpose is mine tailings storage. The overall project purpose is to increase tailings storage capacity for future mine life extensions. The proposed action involves two phases that would provide the necessary tailings storage capacity to extend the life of the mine through 2039.

# 2.0 Public Scoping

Public scoping is the key component to the environmental review process. USACE relies on public comments to help identify issues as well as to help gauge public sentiment about the proposed action. Because the project could be of interest to a wide range of people, USACE used a combination of methods to notify the public about the meetings.

## 2.1 Meeting Notifications

Although the official scoping period for the EIS was initiated with the Federal Register notice on June 11, 2011, USACE assumed that the general public would not be aware of the meetings without additional outreach to communities in the project region and other interested parties. The following methods were used to notify the general public of the public meetings.

### 2.1.1 Public Notice

On June 10, 2011, USACE issued a Public Notice to individuals on its current public notice list. This notice was sent by e-mail and U.S. mail and was also posted on USACE's website (www.spk.usace.army.mil/pub/outgoing/co/reg/pn/200901213-NOI-PN.pdf). The public notice mailing list includes local citizens, local governments, state and federal agencies, and parties that have a general interest in USACE actions but might not have a presence in the project region.

### 2.1.2 Notice of Intent

USACE filed a Notice of Intent (NOI) in the Federal Register (Vol. 76, No. 113, page 34211) on June 13, 2011, to prepare an EIS for the Kennecott TEP. USACE's intention to conduct a public scoping meeting in June 2011 was announced in the published NOI. Public meetings were held on June 21 in Magna, June 22 in Salt Lake City, June 29 in West Jordan, and June 30 in Stansbury Park (which is in neighboring Tooele County) and are discussed in detail in Section 2.2, Meeting Format.

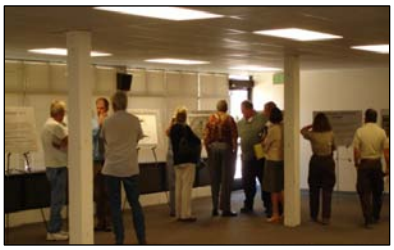
### 2.1.3 Advertisements

Display advertisements and legal notices were published on June 12, June 15, and June 19, 2011, in the print and online editions of *The Salt Lake Tribune* and *Deseret News*, and a legal advertisement was published in the June 16 and June 23 editions of the *Magna Times*. In addition, the display advertisement was posted on the Salt Lake County and Tooele County websites as well as on USACE's website.

## 2.2 Meeting Format

The meetings were semiformal with a 15-minute presentation given once during the evening. In addition, informational boards, maps, and handouts were available for review. About 75 people attended the four meetings. The following sections describe each individual meeting.

### 2.2.1 Meeting on June 21, 2011, in Magna



This meeting was held at the Webster Community Center at 8952 West 2700 South in Magna, Utah. The meeting was held from 6:00 p.m. to 8:30 p.m., and about 30 people attended the meeting during this time. John Urbanic gave a short presentation at 6:30 p.m. describing the environmental process that will be used for this EIS. EIS team representatives were stationed at boards around the room and were available to answer questions from the public. In addition, a stenographer and Spanish-speaking interpreter were available to assist in taking oral comments. The Magna meeting provided an opportunity for people living closest to the existing tailings impoundment to learn about the project.

### 2.2.2 Meeting on June 22, 2011, in Salt Lake City

This meeting was held at Westminster College at 1840 South 1300 East in Salt Lake City, Utah. The meeting was held from 6:00 p.m. to 8:30 p.m., and about 25 people attended the meeting during this time. John Urbanic gave a short presentation at 6:30 p.m. EIS team representatives were available to answer questions before and after the presentation. A stenographer and Spanish-speaking interpreter were available to assist in taking oral comments. The Salt Lake City meeting provided an opportunity for people living in the northeastern part of the Salt Lake City metropolitan area to learn about the project.

### 2.2.3 Meeting on June 29, 2011, in West Jordan

This meeting was held at the Hampton Inn at 3923 W. Center Park Drive in West Jordan, Utah. The meeting was held from 6:00 p.m. to 8:30 p.m., and about 13 people attended during this time. John Urbanic gave a short presentation at 6:30 p.m. Project representatives were available to answer questions throughout the evening. A stenographer and Spanish-speaking interpreter were available to assist in taking oral comments. The West Jordan meeting provided an opportunity for people living in communities south and southeast of the existing tailings impoundment to learn about the project.

### 2.2.4 Meeting on June 30, 2011, in Stansbury Park

This meeting was held at Stansbury Park High School at 5300 N. Aberdeen Lane in Stansbury Park, Utah. The meeting was held from 6:00 p.m. to 8:30 p.m., and about seven people attended during this time. John Urbanic gave a presentation at 6:30 p.m. and then answered questions from the attendees. Project representatives were available throughout the evening to answer any additional questions. A stenographer and Spanish-speaking interpreter were available to assist in taking oral comments. The Stansbury Park meeting provided an opportunity for people living in communities west of the existing tailings impoundment to learn about the project.

# 3.0 Agency Scoping

## 3.1 Agency Coordination

It is important to coordinate with local, state, and federal agencies that oversee the management of resources in the project area. Since these agencies oversee impacts and issue permits for impacts to resources under their jurisdiction, it is important to include them in the initial scoping activities. In this way, issues are identified early so they can be properly considered and, if necessary, avoided, minimized, or mitigated as the project progresses.

NEPA specifies that the lead agency should identify potential cooperating agencies early in the EIS process. Concurrent with the development of the Notice of Intent, USACE identified potential cooperating agencies for the project. The regulations that implement NEPA define a *cooperating agency* as "any federal agency other than the lead agency which has jurisdiction by law or special expertise with respect to any environmental impact involved in a proposal (or a reasonable alternative) for legislation or other major federal action significantly affecting the quality of the human environment."

State agencies and local governments can also act as cooperating agencies under NEPA (42 U.S. Code 4331(a), 4332(2)). Typically, these agencies are those that have jurisdiction over many resources or large areas that could support such resources in a project area that could be affected by certain actions of the project. These agencies are contacted early in the scoping process and are asked to team on the project as cooperating agencies.

On June 22, 2011, USACE mailed invitation letters to the following federal agencies, state agencies, and local governments and agencies to request their participation as cooperating agencies:

- U.S. Environmental Protection Agency – Richard Clark, Wetland Coordinator
- U.S. Fish and Wildlife Service – Nathan Darnall, Ecologist and Migratory Bird Coordinator
- Federal Highway Administration – Edward Woolford, Environmental Program Manager
- Governor's Public Lands Policy Coordination Office – John Harja and Judy Edwards (Director of the Resource Development Coordinating Committee)
- Utah Department of Transportation – Jason Davis, Region Director
- Utah Division of Air Quality – Joel Karmazyn
- Utah Division of Oil, Gas and Mining – Paul Baker
- Utah Division of Water Rights – Kent Jones, State Engineer
- Utah Division of Water Quality – Bill Damery
- Utah Division of Wildlife Resources – Mark Farmer, Habitat Manager
- Salt Lake County, Department of Public Works – Patrick Leary, Director
- Salt Lake City, Department of Public Utilities – Jeff Niermeyer, Director

As a matter of practice, federal agency representatives also review the Federal Register notice and may choose to notify USACE of their desire to participate or decline participation in the EIS process.

To date, the following agencies have accepted the request to act as a cooperating (and participating) agency during the EIS process:

- U.S. Environmental Protection Agency
- U.S. Fish and Wildlife Service
- Federal Highway Administration
- Governor's Public Lands Policy Coordination Office
- Utah Department of Transportation
- Utah Division of Air Quality
- Utah Division of Oil, Gas and Mining
- Utah Division of Water Rights
- Utah Division of Water Quality
- Utah Division of Wildlife Resources
- Salt Lake County, Department of Public Works
- Salt Lake City, Department of Public Utilities

## 3.2 Agency Scoping Meeting

Federal and state agency representatives were invited to attend an agency scoping meeting and were invited to provide comments regarding possible concerns or considerations for the resource areas under their authority. The cooperating agency invitations were sent to federal, state, and local agencies on June 22, 2011 and invited the recipients to attend an agency scoping meeting and project site tour on August 9, 2011. The purposes of the scoping meeting were to introduce attendees to the project and to request comments from the agencies regarding the scope of the Kennecott TEP EIS.

The meeting was also held to gain information from each agency on the resource(s) under its jurisdiction in the study area that could be affected by the project, identify any issues that should be analyzed in the EIS, and determine if project construction would require any other permits or approvals. The agency scoping meeting was held at the offices of HDR, Inc. in Salt Lake City in the morning, and the site tour was conducted by Kennecott in the afternoon.

Representatives of the following agencies attended the agency scoping meeting:

- U.S. Fish and Wildlife Service
- Federal Highway Administration
- Governor's Public Lands Policy Coordination Office
- Utah Department of Transportation
- Utah Division of Air Quality
- Utah Division of Oil, Gas and Mining
- Utah Division of Water Quality
- Utah Division of Wildlife Resources
- Salt Lake County
- Salt Lake City

# 4.0 Government-to-Government Coordination

This section will be completed at a later date.

# 5.0 Comments Received and Summary of Issues

## 5.1 Public Comments Received

The public was given a variety of ways to make comments on the scope of the EIS. During the public scoping meetings, participants could leave a hand-written comment form or dictate their comments to a stenographer. After the meetings, they could either mail in their comments or e-mail their comments to the USACE project manager. As of July 11, 2011, USACE received a total of 60 comment forms, comment letters, comment e-mails, and oral comments.

Table 1 below summarizes the comments received during the initial comment period, which ended on July 11, 2011. USACE will continue to accept comments throughout the EIS preparation period. The EIS issues and concerns taken from the comments are grouped by resource discipline.

In addition to formal comments, several people made comments to staff during scoping meetings.

## 5.2 Agency Comments Received

The following agencies submitted comments during the initial scoping period:

- U.S. Fish and Wildlife Service
- Governor's Public Lands Policy Coordination Office
- Salt Lake City, Department of Community and Economic Development, Planning Division
- Salt Lake City, Department of Public Utilities

## 5.3 Summary of Comments

Table 1 summarizes the EIS comments received during the scoping period. The table indicates whether the comment was submitted by a member of the public, a nongovernmental organization (NGO), or a government agency (agency).

**Table 1. Summary of Scoping Comments**

| General | |
|---|---|
| Public | Why wasn't this scoping meeting in Magna published more? |
| Public | This mine is being more respectful toward the environment than all the other large firms we've lived near. |
| Public | It is impossible to evaluate the future of the tailings expansion without the knowledge of KUC's [Kennecott Utah Copper] future mining operation. |
| Public | Make sure KUC is being responsible to all aspects of the environment. |
| Public | Why did KUC go for approval of the mine expansion prior to expanding the tailings? |
| Public | KUC needs a more open communication process so residents are aware of the potential dangers and can take steps to protect themselves. |
| Public | I'm concerned about the mine in general. Every piece of the mine seems to violate one EPA [U.S. Environmental Protection Agency] rule or another. |
| Public | Why is someone who works for Rio Tinto even allowed to be on the Division of Air Quality Board, much less be the head of the Board? |
| Public | The mine should implement air quality improvement technologies but not be allowed to move more ore. This would result in the needed reduction in pollution. |
| Public | The mine is trying to stay open and inflict great harm on the valley for another 15 years +. |
| Public | I find a conflict of interest with Rio Tinto employees serving on the board of the DAQ [Utah Division of Air Quality]. |
| Public | This expansion should be stopped. |
| Public | Our lives, economy, and well being depend on a healthy environment, not merely the profitability of a single corporation. |
| Public | Please do not allow Kennecott to expand their existing tailings impoundment and to construct an additional storage facility and related infrastructure. |
| Public | It is surprising to me that we would consider doing this when KUC already brings so much destruction. |
| Public | Please put people before profits. |
| Public | KUC needs to be a better citizen, and expanding the mine is not doing that. |

**Table 1. Summary of Scoping Comments**

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| Public | Quality-assurance requirements for this permit application should be considered. |
| Public | Oppose or deny the KUC tailings expansion. The claim by Rio Tinto of the stability of the tailings is dubious at best but really lies. |
| Public | Accept our support for comments submitted by Friends of Great Salt Lake, Earthworks, Utah Clean Air Alliance, Sierra Club Utah Chapter, and other public-interest organizations engaged in this process. |
| Public | Many issues come to mind as sufficiently important to require full analysis in the Tailings Expansion EIS. We look forward to the progress of your work. |
| Public | It's documented that Kennecott has tried to hide the dangers of the tailings pond. Its just plain fact. Studies are done but are funded by Kennecott. How can that not have influence on the studies? Kennecott has money and influence everywhere you go. The more I look, the more I think Rio Tinto owns Salt Lake City. Go to the zoo....'donated by Rio Tinto, watch local television.....'sponsored by Rio Tinto'. How much money is given to the Magna Community Council? As much as I would like to believe that Kennecott is all about trying to help Magna, the communities they are in.....I sometimes wonder if putting money into the right places is just their way of securing the ok with anything they want to do. Its really feels like big money vs. the rights and safety of the residents of the Salt Lake Valley, especially us in Magna. |
| Public | The only winner here is Rio Tinto. They would have a cheap and easy way to dispose of their waste vs. sending it somewhere safe. Residents of the Salt Lake Valley lose, especially Magna residents. The inhabitants of the wetlands lose. Air quality certainly won't improve. Ground water certainly won't get better. Kennecott should be finding a way to remove what is currently dumped in our community.....not finding ways to add more. Allowing a company to do more of something that to this day is not safe does not compute in my brain. The only benefactor of tailings pond expansion is Rio Tinto. Everyone else suffers. |
| Public | Provided historical documentation on Salt Lake County Tailings Impoundment Study and Factsheet on Kennecott Tailings 1988. |
| Public | While there is a history of instability in ownership, leadership, the tailings impoundment and the economy (is it mining or is it land development?), one stable factor has been KUC employee Paula Doughty. I have known her to be involved in KUC environmental concerns for at least 17 years. Doughty told DNews in 2008 there were no concerns with Green Meadows today. The reason being that the south impoundment has been retired. "It no longer holds water." She also stated in regard to the south impoundment, "It was not built as an engineered dam to hold materials. The opposite is true of the north impoundment, where...the dam has been built to the highest state and federal standards." |
| Public | While I admire businesses that contribute to the communities in their area, I wonder at what point it becomes a conflict of interest. As one of the five elected members of the 26-member Magna Community Council from 1/17/85-6/9/87 I represented 1/4 of the population of Magna. I always wondered why we, as a council, were not allowed to address the environmental issues concerning Kennecott, especially at a time when they were having such a detrimental effect on Magna. It wasn't until years later that I found out that the annual $4000 operating budget that the MCC had was donated by Kennecott. Will a relatively new grant of $11,545 which came directly from Kennecott for "Presentation equipment" now present a conflict of interest? |
| NGO | We request the Corps consider the following in their analysis of affected environments: surface water, transportation, groundwater, air quality, geology, noise, soils, vegetation, land use, riparian and wetland areas, visual resources, wildlife, migratory birds (in addition to other wildlife), special-status species including state and federally listed threatened, endangered, and candidate species, and bald and golden eagles, cultural resources/paleontology, socioeconomics, aquatic biological resources, and hazardous materials. |
| NGO | The National Audubon Society endorses and supports the scoping comments from Western Resource Advocates regarding the proposed expansion of the Kennecott Tailings Impoundment. |
| NGO | The Utah Chapter of the Sierra Club wishes to sign onto the comments made on behalf of FRIENDS of |

**Table 1. Summary of Scoping Comments**

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| | Great Salt Lake, Utah Audubon Council, Utah Waterfowl Association, Utah Airboat Association, Utah Rivers Council, League of Women Voters of Salt Lake, League of Women Voters of Utah, Western Wildlife Conservancy, Physicians for a Healthy Environment, Maunsel B. Pierce M.D. and Bruce Waddell USFWS Retired, that were submitted on our behalf by Rob Dubuc, Attorney for FRIENDS, Western Resource Advocates. |
| Agency | It is important to recognize that saline lakes worldwide are negatively affected by water diversions, mining, pollution, introduction of exotic species, and other anthropogenic disturbances (Williams 2002). These activities and stressors change the character of saline lakes, alter limnology, reduce biodiversity, and irreversibly degrade the values (e.g., ecological, economic, recreational, aesthetic, cultural, and scientific) of saline lakes (Williams 2002). |
| **Alternatives** | |
| Public | Possibly avoid the whole project in the south area, instead of swirling it into the new impoundment area. Could they pipe it back into the existing hole that they are mining out of in the first place? |
| Public | The Corps may find that an alternative such as hauling the new tailings to underground storage elsewhere is a reasonable alternative. |
| Public | The position that any alternative needs to be financially feasible for the proponent is not a tenable position for the health of Utah's citizens, which must be the Corps' primary mission. |
| Public | Consider what other alternatives there are for disposing of the tailings that are currently in the facility as a requirement for an increase in the output of the mine, as well as alternatives for the disposal of new tailings. This includes transporting tailings to a desert location. Such a study should include the environmental impact of such an operation and the cost benefit. |
| Public | On the opportunity side, we have developed many different analyses of renewable energy and other 'clean jobs' development opportunities on and around Kennecott's lands. Wind energy is an obvious potential, possibly reaching several hundred megawatts of potential. Solar energy may take any of the following forms:<br>• Photovoltaic and concentrating photovoltaic farms, particularly on the tailings impoundments subsequent to closure, and around the Bingham Mine waste rock dumps<br>• Solar thermal electricity generation through multiple technologies, possibly amounting to more than a gigawatt of generation if tailings and the mine are included (latter possibly using solar concentrating or 'heliostat' systems on a very large scale, utilizing pit topography and altitude)<br>• Salt gradient solar ponds, a type of passive, thermal storage pond that creates and stores hot water at roughly the same temperature range as medium-temperature geothermal facilities |
| Public | How could Kennecott request a permit to extend tailings deposition from the north TSF onto a portion of the south TSF? How unconscionable. After all the grief this tailings impoundment has caused Magna and Kennecott, how could they propose to reactivate it? |
| Public | While it is one thing to increase expansion to the north, Phase 2 is quite another story as it states: Kennecott would extend tailings deposition from the north TSF onto a portion of the existing south TSF. The steps that are being taken to protect Magna from the dangers of seismic activity are not event expected to be completed until 2018, or even 2029. Yet Kennecott is coming back in now and requesting a permit that will allow them to create the same old problem of instability all over again. If a permit is granted now to allow reuse of the south impoundment to extend mining from 2028 through 2039, a whole new generation of unsuspecting residents could buy into Green Meadows not knowing that the ever-rising mountain to their north is a pile of mining waste that can blow and envelop their homes in tailings when there are scheduled and unscheduled shutdowns. |
| Agency | Because the proposed project will result in the loss of about 721 acres of wetland, playa, and other water habitats near the Great Salt Lake, the EIS should evaluate a range of alternatives, including on-site and off-site alternatives that would result in fewer impacts to important migratory bird habitat and waters of the United States. |

**Table 1. Summary of Scoping Comments**

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| NGO | For non-water-dependent projects such as this one, it is presumed that a practicable alternative exists that does not involve aquatic sites, and the burden to clearly demonstrate otherwise is on the applicant. Id. § 230.10(a)(3); *Resource Inv's, Inc. v. United States Army Corps of Eng'rs*, 151 F.3d 1162, 1167 (9th Cir. 1998). "Practicable" is defined at 40 CFR [Code of Federal Regulations] § 230.10(a)(2) as "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes." The presumption for a non-water-dependent project that a practicable alternative exists requires that an applicant make a persuasive showing concerning the lack of alternatives. *Sylvester v. United States Army Corps of Eng'rs*, 882 F.2d 407, 409 (9th Cir. 1989) (internal citation omitted). Finally, a permit may not be issued "unless appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem." 40 CFR § 230.10(d). |
| NGO | An EIS must provide detailed explanation and "rigorous analysis" of "all reasonable alternatives" and comparative analysis of the environmental impacts of all alternatives considered. 40 CFR § 1502.14. |
| NGO | The Corps must rigorously evaluate all reasonable alternatives, determine their viability, and place that information in the record. The final decision to grant or deny the permit should be informed by the record produced through such scientific analyses. |
| NGO | EPA regulations note that dredged or fill material should not be discharged into an aquatic ecosystem unless it can be demonstrated that such actions will not have an unacceptable adverse impact. 40 CFR § 230.1. Additionally, no discharge of dredged or fill material will be permitted if there is a practicable alternative that would have less impact on the aquatic ecosystem. 40 CFR § 230.10(a). In keeping with this, the Corps has indicated that it will consider a less-damaging alternative for that portion of the expansion proposed to occupy waters of the United States. Because KUC's proposal is a non-water-dependent project, the presumption is that such a practicable alternative exists. This presumption holds unless clearly demonstrated otherwise. Indeed, the Army Corps may not issue a Section 404 permit unless the agency has independently verified all relevant information and provided detailed, clear, and convincing information proving that an alternative with less adverse impact is impracticable. |
| NGO | In 1995, environmental analysis associated with possible alternatives to expansion of the impoundment was conducted through the EIS process. Aspects of this analysis are relevant to the current expansion proposal and should be considered by the Corps. Specifically, a review of the alternatives suggested in that analysis should be analyzed. Additionally, as one of several practical alternatives to the proposed destruction of the wetlands, the Corps should consider deposition of the tailings in the abandoned Barneys Canyon and/or Melco Gold mines west of the Copperton Concentrator. |
| NGO | The Corps' analysis must include a thorough and independent consideration of all less-damaging, practicable alternatives to the proposed project, including those that do not involve discharge into the waters of the United States and do not involve special aquatic sites. |
| NGO | If this process is done as thoroughly as was explained to me at a recent Corps [Army Corps of Engineers] public hearing, the Corps may find that the tailings cannot be expanded anywhere near the Wasatch Front and that an alternative such as hauling the new tailings to underground storage elsewhere is a reasonable alternative. |
| NGO | While I heard a Corps comment at the public presentation that any alternative needs to be "financially feasible" for the proponent, this is not a tenable position for the health of Utah's citizens, which MUST be the Corps's primary mission. The Corps must keep in mind that the KUC operation emissions already harm or kill about 2,000 people per year according to epidemiological medical research. Additionally, Rio Tinto, the parent company of KUC, is one of the most profitable mining companies; money can be no excuse for polluting. |
| **Scope of Analysis** | |
| Public | Why are you not including the mine in the EIS? |
| Public | The biggest problem is the disjointed approval process. The Corps has the responsibility to look at every aspect of the project. |

**Table 1. Summary of Scoping Comments**

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| Public | The EIS should include the entire scope of the study in order to ensure the safety and well-being of the citizens of Salt Lake City and the Utah area. |
| Public | Determine both temporary and permanent impacts. |
| Public | Determine direct impacts—impacts that would be caused by the proposed action and would occur at the same place or time. |
| Public | Determine indirect impacts—impacts that could be caused by the proposed action but at a later time or farther away. |
| Public | The Corps should consider this contamination in the EIS. |
| Public | Concerned about the mine operation. Please include the entire mine operation in the EIS. |
| Public | Concerned that we haven't seen the whole picture of what is proposed with this expansion project. |
| Public | I would like to see the total mine operation included in the EIS. How do we know the possible health effects of the mine's total operation? |
| Public | Consider the entire scope of the mine in the EIS. |
| Public | Can you revisit some of the things that aren't going too well with the current facility in this EIS? |
| Public | I'm wondering if there needs to be a study also done on the mining operation itself. |
| Public | The EIS should answer this question: If there was no KUC mine currently in the valley and a mining company approached the Corps to request a permit to open a mine of the size and scope of the KUC mine, would the people of this state allow the mine to come into production, in light of what they can see is the result of the mine's historical operations? |
| Public | KUC hasn't got a great record of updating their equipment to prevent more pollution from being dumped into this community. |
| Public | Cornerstone is one of the macro-scale factors that simply must be integrated into this evaluation. Without the Cornerstone Mine expansion, tailings expansion would not take place. The Corps and consultants must fully evaluate Cornerstone, with all its impacts, water, air, material, economic, culture, on the region as integral to the proposed action. |
| Public | The Cornerstone Mine expansion will be triggered by tailings expansion. As a consequence, the entire catalog of mine expansion impacts must be evaluated as integral variables in this tailings expansion project. Air quality impacts, particularly, must be analyzed exhaustively. Air quality degradation as a consequence of the Mine's expansion threatens to jeopardize Salt Lake County's, and the Wasatch Front's, air quality compliance with Clean Air Act criteria pollutants. $PM_{2.5}$ and $PM_{10}$ [particulate matter], particularly, are problematic for the region. If the Mine expansion precludes alternative economic development, and the displacement of more nearly sustainable growth with Kennecott's relatively dirty jobs (by far the most pollution-producing jobs in the region), then Kennecott's tailings expansion can be argued to be the predominant constraint to growth in the region's near future. The tailings expansion EIS must analyze this impact on regional economic growth. |
| Public | Please list for the public the 'ARARs,' the 'Applicable, Relevant and Appropriate Requirements' for the proposed tailings expansion and the 'Cornerstone' Bingham Mine expansion. I.e., what is the summary list of permits, regulatory and administrative actions necessary in order for Kennecott to be able to proceed with this increase of the rate of mining, whether it is viewed as a "project" or not? |
| Public | The applications for all the necessary permits for (1) constructing a new impoundment, the Northeast TSF on adjacent Kennecott property to the east of the North TSF and (2) extending tailings deposition from the North TSF onto a portion of the existing South TSF must be considered (and permitted or not permitted) separately as they are two entirely different situations. |
| NGO | An analysis should be done on non-deposition of tailings. Could the tailings be used in a building material such as autoclaved aerated concrete (AAC)? The tailings are a suitable size and chemistry to become the mineral filler in AAC. Kennecott could make AAC, using alumina extracted from groundwater treatment. |

**Table 1. Summary of Scoping Comments**

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| NGO | KUC's proposal is directly associated with, and is necessary for, what the company refers to as its Cornerstone Project. Cornerstone is KUC's plan for expanding the life of the Bingham Canyon Mine through 2039 and beyond. According to the company, the Cornerstone Project will require it to update about 25 of the 70 existing environmental permits currently associated with its operations, including several associated with the tailings impoundment. The expansion will extend the southern wall of the Bingham Canyon Mine (Mine) an additional 1,000 feet and will increase the depth of the mine by 300 feet. The amount of material that will be processed by the Mine will increase from 197 million tons per year to 260 million tons per year and will disturb approximately 565 acres per year.<br>Not addressed in the public notice, but required to be considered in the environmental analysis, is the origin of the waste streams that contribute to the tailings. These waste streams are associated with almost every aspect of the mining operation and will be integral to the Cornerstone Project. See January 2011Ground Water Quality Discharge Permit Statement of Basis. Specifically, the waste streams include:<br>• Copper tailings from the Copperton Concentrator;<br>• Slag tailings from the slag concentrator at the smelter;<br>• Power plant ash slurry;<br>• Smelter process waters;<br>• Wastewater effluent slurry from the hydrometallurgical plant at the smelter;<br>• Mine leach water and meteoric contact water that have been partially treated in the tailings pipeline;<br>• Wastewater effluent concentrate from the reverse-osmosis treatment of acid/metals sulfate-contaminated waters;<br>• Neutralization of acid-mine contaminated waters;<br>• Barneys Canyon mine pit dewatering and heap leach pad draindown waters;<br>• Construction, maintenance, and lunchroom trash; and,<br>• Treated effluent from the sewage treatment plant. |
| NGO | Further, Corps regulations require that KUC include a statement in its Section 404 application that describes how impacts to waters of the United States are to be avoided or minimized. 33 CFR § 325.1(d)(7). In this context, the application must include either a statement showing how anticipated impacts are to be compensated for or why such compensation should not be required. Id. However, nothing in the scoping material provided to the public indicates that KUC's application includes this material. Therefore, to the extent that KUC's application was not in compliance with § 325.1, the Corps was obligated within 15 days of receipt of the application to request this information from KUC and was further required to withhold public notice until these deficiencies were corrected. 33 CFR § 325.2(a)(1) & (2). Additionally, we request that the Corps fully address, and provide a detailed explanation of, KUC's proposal to mitigate each of the impacts listed below. It is insufficient for the Corps to merely mention that mitigation measures will be enacted or to label the impact insignificant. |
| NGO | In line with that, the U.S. Environmental Protection Agency (EPA) also requires a complete analysis of the purpose and need for the proposed project, 40 CFR § 1502.13, along with a full and fair analysis of all reasonable project alternatives. 42 USC [United States Code] § 4332(2)(C)(iii), (E); 40 CFR § 1502.1. |
| NGO | In considering the proposed project, including the connected action of the expansion of Kennecott's mining operations, the Corps must consider the direct, indirect, and cumulative impacts on air quality of:<br>• The existing tailings impoundment;<br>• The proposed expanded tailings impoundment;<br>• Other existing mining activities; and<br>• Other proposed, expanded mining activities. |
| NGO | According to the Corps presentations which are published at the Corps website, these actions need to be used to:<br>• Determine both temporary and permanent impacts;<br>• Determine direct impacts—impacts that would be caused by the proposed action and would occur at the same place or time; |

**Table 1. Summary of Scoping Comments**

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| | • Determine indirect impacts—impacts that could be caused by the proposed action but at a later time or farther away; and<br>• Determine cumulative impacts—incremental impacts caused either directly or indirectly by the proposed action combined with past, present, and reasonably foreseeable future actions in the area. |
| NGO | Concerned about the direct and indirect impacts the proposed project's construction, operation, maintenance, and decommissioning will have on migratory birds, wildlife, and people of the Salt Lake region. |
| NGO | The EIS should consider direct, indirect, temporary, and permanent environmental consequences. |
| **Air Quality** | |
| Public | Increases in dust pollution in the Wasatch Valley airshed are unacceptable. I hope your rules prohibit particulate escape. |
| Public | How will they control the dust? The dust in the past has been awful. I don't think this will be good for the residents of Magna. |
| Public | The environmental effects impact nearly two million people, and this approval whatever permitted pollution levels will be set in concrete for the life of this project. |
| Public | How will changes in air quality related to the proposed action affect water quality of the Great Salt Lake and other water bodies in the region? |
| Public | Will air quality impacts have any impact to lake-effect snow and local precipitation patterns? |
| Public | How will potential for increases in dust storms affect snowmelt rates in the local mountains, thereby affecting water availability? |
| Public | What kind of guarantees are we going to have that we are not going to have a dust issue like we had in the past? |
| Public | Opposed to the expansion and want to see the cleanup of the current mining process, not dump anything into the Great Salt Lake, and close down the coal-fired power plant and reduce air emissions. |
| Public | The mine expansion seems unethical to me. Rio Tinto is polluting beyond acceptable limits in our valley. Their desire to expand the mine to maximize profits. They claim that despite the expansion they will use latest technologies to keep pollution the same, despite a 32% increase. |
| Public | What's evaporating into the air? |
| Public | Dust control. Watering is ineffective. Would like to see staged revegetation. |
| Public | I strongly oppose this expansion. Currently, when the wind blows from the south, the tailings dust obscures the visibility along I-80 [Interstate 80] to 20 feet or less. About half of the working residents of Tooele County commute along this route daily, in addition to all the other travelers along the only east-west route to and from Salt Lake City, Wendover, and northern Nevada. Increasing this toxic eyesore not only increases visibility risk to travelers but forces us to inhale more toxic dust every time we travel this route. |
| Public | I have breathing problems and when we have red air-quality days I must stay indoors and often get sick. I feel we need to change to sustainable energy. |
| Public | I am most concerned about this proposed expansion. I am a year-round bike commuter, so I am forced to breathe the toxic air here during the winter. |
| Public | This expansion will only serve to exacerbate the deadly air. |
| Public | I am strongly opposed to this expansion. There is no safe level of additional toxins acceptable for the air that I, as a living being, require to breathe for my very survival. Do not allow this deadly expansion to occur. |

**Table 1. Summary of Scoping Comments**

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| Public | I am concerned about a few of the aspects and consequences of this proposed expansion: lead amounts, the pollution that will result, especially in a place with such bad air quality already. |
| Public | I am deeply concerned about the air quality and water quality impacts of the proposed Kennecott pit expansion. |
| Public | Emissions from Kennecott mining are already a major cause of pollution in the Salt Lake Valley, and the pit expansion is expected to increase emissions dramatically. |
| Public | The effects of the Kennecott pit expansion should be considered in context of other pollution sources. |
| Public | Determine baselines for: the current inventory from all sources for the six criteria air pollutants in the eight counties (Salt Lake, Utah, Tooele, Weber, Juab, Davis, Weber, and Cache), the current inventory for all HAPs (hazardous air pollutants) from all sources in the eight counties. |
| Public | Develop projections for all pollutants noted (ozone, $PM_{10}$, $PM_{2.5}$, lead, arsenic, mercury, zinc, and cyanide), including growth projections and proposed tailings and the increases expected from the entire expansion of the mine (the pit, additional power, the Moly autoclave processing and discharge, the additional concentrator, and production increases at the smelter) for the eight counties. |
| Public | The Corps must keep in mind that the KUC operation emissions already harm or kill about 2,000 people yearly, according to epidemiological medical research. |
| Public | I oppose the expansion of the KUC mine. We need to combat the horrendous air quality of our state and to limit the growth of polluting industry. |
| Public | The KUC mine already produces 30% of our air pollution. |
| Public | Kennecott has been polluting our water and air for far too long. Please do not allow for the expansion of the tailings to occur. |
| Public | Air quality is getting worse and health consequences particularly in children. |
| Public | Will the mine expansion make the winter inversion worse? |
| Public | Concerned about the tremendous amount of dust that is blowing off of the berms that are along I-80. The watering program is not adequate. |
| Public | I am concerned about the contamination, the air and there must be a great deal of toxicity in the soil, in the berm because nothing grows on the berm. |
| Public | KUC needs to do a better job of controlling the dust and air pollution coming off their tailing pond. |
| Public | The Corps should determine how many tons of dust are annually leaving the tailings being blown northward by the southern winds and the impact of those tailings on properties to the north. |
| Public | Determine how far these tailings reach and the impact on the soils and the air quality in the areas northward, as well as southward, in areas where people aren't even aware that the dust is reaching them. |
| Public | Determine what the impact of that blown dust is when the winds reverse and come from the north bringing dust back toward the Salt Lake Valley and the impact on air quality. |
| Public | Look closely at the air quality impact on I-80, on driving conditions during storms, in severe wind storms when visibility can be reduced to just a few yards and what would an increase in this condition cause on the safety of travel on I-80. |
| Public | Consider the economic cost to the valley of decreased air quality, which could cause an increase in medical problems. |
| Public | Consider the cost of reclamation that will be associated with an increase in the tailings area and related infrastructure when the life of the mine has terminated. How will those costs be met? |
| Public | Consider all of the increased air quality and water quality outputs that will come from an increase in the size of the operations of the KUC mine when added to the other inputs, when added to the other air and water inputs that are coming from other sources in the valley. |

**Table 1. Summary of Scoping Comments**

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| Public | How can they contain it with the winds we have? The water cannons don't seem to do the job now. |
| Public | How much is going to migrate from the ponds and build up the [Great Salt] lake? When the water goes down, it's going to create another big dust bowl on the north side of I-80. |
| Public | Take into consideration the Corps' responsibility to the American people, citizens of Utah, and future generations. This expansion will poison our already toxic air, water, and Great Salt Lake and affect the health of thousands without consequence. |
| Public | The expansion will bring profit to their parent company, Rio Tinto, while leaving the local community to deal with the environmental and economic consequences due to the decimation of our air, water, and quality of life. |
| Public | I am extremely opposed to any expansion to the tailings because of the known danger of the pollution that will be added to the air and water in Utah. |
| Public | Many people in Salt Lake County are suffering with health issues related to the tailings. A friend has MS [multiple sclerosis] and her doctors believe this illness is related to her living near the tailings. |
| Public | Utah residents are already breathing enough of that mountain, and our groundwater and waterways are already too polluted from the already existing tailings. |
| Public | Opposed to any expansion to the tailings because of the known danger of the pollution it will add to the air, because the tailings will be unstable and they will cause further pollution to the Great Salt Lake. |
| Public | I cannot stand the risks to my health and that of my family that this mine poses. You poison our air. |
| Public | In dry climate regimes, as may become more likely in the episodically severe variations of a climate-changed West, institutional controls become critical to the prevention of air quality disasters. This set of scenarios must be analyzed thoroughly, regardless of the extent of tailings expansion. Tailings have been deposited in the Magna Impoundment for many decades, back to the beginnings of the industrial-scale Kennecott froth-floatation processes, at least to the late 1920s or early 1930s. Early tailings were less technologically separated between pyritic, acid-generating materials and more inert constituents of the porphyry host rock. Large zones of the tailings are capable of producing acidic, metals-rich waters. The past 15 years of acid/metals plume transfer from the south may have accelerated the tendency for acidification of tailings, as much by transfer of the iron oxidizing bacterial cultures as by direct acid material translocation. This is a critical issue for future tailings water quality management, given that acid waters are capable of dissolving any or all of the mass of metals compounds precipitated and absorbed in tailings. Kennecott has chosen, deliberately, to load tailings with the chemical contamination of a century of mining and beneficiation. The consequences of that loading must be accounted for in all future planning. In addition, the re-mining and processing of metals-bearing tailings may be beneficial, in the general scheme of things. By reducing the acid generation potential of old tailings, the likelihood of tailings acidification may be proportionally reduced. |
| Public | The Cornerstone Mine expansion will be triggered by tailings expansion. As a consequence, the entire catalog of mine expansion impacts must be evaluated as integral variables in this tailings expansion project. Air quality impacts, particularly, must be analyzed exhaustively. Air quality degradation as a consequence of the mine's expansion threatens to jeopardize Salt Lake County's, and the Wasatch Front's, air quality compliance with Clean Air Act criteria pollutants. $PM_{2.5}$ and $PM_{10}$, particularly, are problematic for the region. If the mine expansion precludes alternative economic development, and the displacement of more nearly sustainable growth with Kennecott's relatively dirty jobs (by far the most pollution-producing jobs in the region), then Kennecott's tailings expansion can be argued to be the predominant constraint to growth in the region's near future. The tailings expansion EIS must analyze this impact on regional economic growth. |
| Public | There is a long history of air quality problems with the tailings pond and Kennecott's disregard for the impact on the public. No matter how hard they try, there will always be dust blowing from the tailings. Kennecott cannot control mother nature. Watering helps.....but does not eliminate the problem. This will only add to the Salt Lake Valley air quality problem which we all know is one of the worst in the country. Not to mention the heavy metals and just plain dust that can't be good for anyone close by. (Magna |

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| | residents) Kennecott is one of the worst air polluters in the country. After years of nightmare dust blowing into Magna and covering everything....Kennecott quit using the southeast corner and re-vegetated and kept the dust to a minimum. Now, they plan on raising the height of the tailings pond and eventually utilizing the south east corner again. Why would this be allowed? Why would Magna residents have to live through this nightmare all over again? There is a new generation of people in Magna that are unaware of the nightmare that awaits them. Is it not Kennecott's responsibility to notify each and every person affected of what is coming their way if this is allowed or will it be kept quiet again for the residents to deal with after it's too late? I am guessing the latter. I wonder who looks after the general public and the generations to come. |
| Public | How close is the nearest residence to the proposed Northeast TSF? There has been a history of tailings blowing over and limiting the visibility for drivers on I-80. What assurances are there that this will not occur again in the future from the existing North TSF and the proposed new Northeast TSF? In scheduled or unscheduled shutdowns in the usage of the northern TSF's what assurances are there that blowing of dryer tailings will not completely obscure the visibility along I-80 and in other areas and violate PM 10 standards as they have historically? |
| Public | While it is one thing to increase expansion to the north, Phase 2 is quite another story as it states: Kennecott would extend tailings deposition from the north TSF onto a portion of the existing south TSF. The steps that are being taken to protect Magna from the dangers of seismic activity are not event expected to be completed until 2018, or even 2029. Yet Kennecott is coming back in now and requesting a permit that will allow them to create the same old problem of instability all over again. If a permit is granted now to allow reuse of the south impoundment to extend mining from 2028 through 2039, a whole new generation of unsuspecting residents could buy into Green Meadows not knowing that the ever-rising mountain to their north is a pile of mining waste that can blow and envelop their homes in tailings when there are scheduled and unscheduled shutdowns. |
| NGO | The Kennecott mine is located in a non-attainment area for $PM_{10}$ as well as $PM_{2.5}$ and is in an area that will almost certainly be designated as not attaining the 8-hour standard for ozone. Of critical importance is that Kennecott's mining activities, including the tailings impoundment, have been identified as significant source of particulate emissions as well as other criteria pollutants. This means that the proposed action, which will almost certainly increase $PM_{10}$ and $NO_x$ [nitrogen oxide] emissions, will further cause or contribute to violations of National Ambient Air Quality Standards (NAAQS), thereby adding to a serious public health crisis in the Salt Lake Valley. |
| NGO | It should also be noted that $PM_{2.5}$ has been linked to the aerial deposition of mercury into Great Salt Lake in recent sampling by the State. |
| NGO | Moreover, EPA recently proposed to disapprove Utah's request to redesignate the Salt Lake County, Utah County, and Ogden $PM_{10}$ non-attainment areas as attainment and to disapprove other associated SIP [State Implementation Plan] revisions. This means that these areas are still non-attainment areas for $PM_{10}$ and that EPA has determined that air quality in the Salt Lake area is not meeting health-based standards. |
| NGO | Finally, both EPA and Kennecott admit that the company's $PM_{10}$ air quality monitor records air quality only every 3 days and is not located in the area that measures the highest impact. This means that the current air quality monitor does not accurately reflect ambient air quality near the mine. |
| NGO | Importantly, air quality impacts must be addressed in terms of impacts to human health, sensitive vegetation, wetland function and health, and water quality, as well as other environmental impacts. |
| NGO | In assessing air quality impacts, the Corps should consider EPA analysis of and proposed action relative to Utah's $PM_{10}$ SIP and comments on the Kennecott Approval Order. The agency should also consider that Utah has failed to properly consider the Kennecott Mine and Tailings Pile as a major source, as defined by the Clean Air Act, when properly aggregated with the Kennecott Smelter. See 40 CFR Parts 51 and 52. Finally, the Corps may not conclude that regulation of Kennecott mining activities will be mitigated or eliminated by regulation under the Clean Air Act. This is because regulation of these activities and others in the Salt Lake Valley has not brought air quality in the valley into compliance with national standards. Moreover, various loopholes in the relevant regulations (particularly dealing with fugitive dust) and monitoring failures mean that the Clean Air Act is not functioning to protect human |

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| | health and the environment from air pollution generally, or from the adverse effects of Kennecott's existing and proposed mining operations specifically. |
| NGO | Wasatch Front counties have historically experienced and are currently experiencing some of the worst air quality in the nation, and many are having attainment problems with the Clean Air Act for ozone, $PM_{10}$, and $PM_{2.5}$. The largest single source of the six criteria air pollutants is the KUC mining operation, including the current tailings deposits. |
| NGO | *Forbes* business magazine recently rated Salt Lake City as one of the 10 most toxic cities in the nation using data from the national Toxic Release Inventory (TRI). The largest contributor to this condition is the KUC mining operation, particularly the tailings. |
| NGO | As the largest source of major toxics, KUC reported these numbers to the Utah Division of Air Quality in 2008 in percentages compared to the total emissions in the state, in part for example: 93% lead and lead compounds, 98% arsenic and arsenic compounds, 76% of mercury and mercury compounds, 65% of zinc compounds, and 100% of cyanide compounds. |
| NGO | The Corps must also understand that one or more of the six criteria pollutants are increasing as noted by Utah DAQ [Division of Air Quality] numbers from 2002–2008 for Salt Lake, Utah, Tooele, Weber, Juab, Davis, Weber, and Cache Counties. These reports, attainment issues, inventories, and trends tell us that the area may not be able to afford additional toxics. |
| NGO | Before the ACOE considers any action, including a no-action alternative, the following needs to be conducted, all of which should be paid for by KUC but conducted by independent parties:<br>1. Determine baselines for:<br>a. The current inventory from all sources for the six criteria air pollutants in the eight counties noted herein; and,<br>b. The current inventory for all HAPs (hazardous air pollutants) from all sources in the eight counties noted herein.<br>2. Develop projections for all pollutants noted above including growth projections and proposed tailings and the increases expected from the entire expansion of the mine (the pit, additional power, the Moly autoclave processing and discharge, the additional concentrator, and production increases at the smelter) for the eight counties noted herein.<br>3. Sampling:<br>a. Obtain air samples of criteria and HAP pollutants during 30 days of the summer and 30 days of the winter using existing portable technology. These samples can be used to verify current monitors.<br>b. Water sample: obtain water samples of the entire current tailings areas, areas in the west valley that are known to be polluted by KUC operations to determine the extent, direction, and discharge of water. These samples must include the lakebed of the Great Salt Lake (GSL) as well and ground and surface waters feeding the GSL. |
| **Climate** | |
| Public | "PREPARING FOR A CHANGING CLIMATE: The Potential Consequences of Climate Variability and Change, Rocky Mountain/Great Basin Regional Climate-Change Assessment," U.S. Global Change Research Program, Dr. Fred H. Wagner, Principal Author and Editor, Utah State University, 2003. This report is imperative material for inclusion in the Corps EIS for the tailings expansion. |

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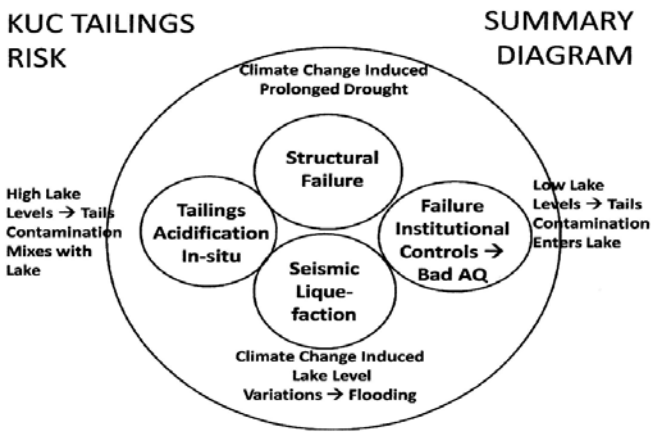
| Public |  <br>In the diagram above, the region is depicted as ranging from prolonged drought to much greater precipitation than during the historic period documented thus far. The report projects that much higher temperatures are likely, particularly in winter, resulting in total loss of snowpack within a century or so, possibly much less. This is further projected to create possible flooding around the perimeter of the Great Salt Lake as less water is used of what was formerly 'metered out' from snowpack. Instead of lingering through spring and summer, allowing capture behind dams and in reservoirs and soils, precipitation falling as rain and warm snow is likely to run off rapidly, filling the [Great Salt] Lake to a higher proportion of gross regional precipitation than previously. |
| Public | Flooding may rise dramatically. As Dr. Wagner was heard to state in a radio interview soon after the report's release, regarding Great Salt Lake water levels, "All bets are off." The implications of lake level for hydrogeology of the tailings impoundments are profound. Hydrological exchange occurs between tailings and groundwater below. In high lake level years and in high runoff years from the mountains above, it is likely that the hydrological gradient is upward, artesian, causing the lake's waters to mix from below with 'process waters' circulated through the tailings. In prolonged dry periods, on the other hand, tailings waters are likely to penetrate downward and outward, reaching into the waters of the Great Salt Lake—carrying whatever is in them. (Please find also the attached comments on Kennecott's groundwater discharge permits, one of them covering the tailings and related North Zone facilities, the other covering the Bingham Mine and South Zone facilities, but both integrally part of a water management system unified by the Magna Process Water Reservoir and the Magna Tailings impoundment (all phases).) |
| NGO | The Corps must analyze how climate change may alter Great Salt Lake resources in the future and exacerbate the effects of this project. |
| Agency | Additional considerations include the potential impacts of rising [Great Salt] lake levels and climate change on the performance of the [Inland Sea Shorebird] Reserve and whether all functions and values of the impacted waters can be mitigated at the Reserve. |
| **Cultural Resources** | |
| NGO | Congress enacted the National Historic Preservation Act (NHPA) in 1966 because it found that "historic properties significant to the Nation's heritage [were] being lost or substantially altered, often inadvertently, with increasing frequency[.]" 16 USC § 470(b)(3); see *Nat'l Mining Ass'n v. Slater*, 167 F.Supp.2d 265, 271 (D.D.C. 2001) (reversed on other grounds; see also *Nat'l Mining Ass'n v. Fowler*, 324 F.3d 752 (D.C.Cir. 2003). |
| NGO | The shores of Great Salt Lake are rich in prehistoric archaeological sites. To serve the public interest in "the preservation of this irreplaceable heritage," Congress declared as the goal of the Act, the maintenance and enrichment of this "vital legacy" for future generations of Americans. 16 USC |

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| | § 470(b)(4); see *Southern Utah Wilderness Alliance v. Norton*, 326 F.Supp.2d 102, 108 (D.D.C. 2004). |
| NGO | The NHPA accomplishes its purposes by "requir[ing] each federal agency to take responsibility for the impact that its activities may have upon historic resources . . . ." *City of Grapevine v. Dep't of Transp.*, 17 F.3d 1502, 1508 (D.C.Cir. 1994). Specifically, a federal agency "shall, prior to the approval of . . . any license . . . take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register." NHPA, § 106, 16 USC § 470f. An undertaking is any "project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including . . . those requiring a federal permit, license or approval." 36 CFR § 800.16(y). |
| NGO | Section 106 also requires that the agency afford the Advisory Council on Historic Preservation (Advisory Council) "a reasonable opportunity to comment" on the undertaking. 16 USC § 470f. |
| NGO | The Advisory Council has promulgated regulations setting forth how federal agencies must comply with Section 106. See 36 CFR § 800. First, an agency official "shall make a reasonable and good faith effort" to identify historic properties that may be affected by the undertaking, and evaluate whether these properties are eligible for the National Register [of Historic Places]. 36 CFR § 800.4(b)(1) & (c); see 36 CFR § 60.4 (criteria for assessing eligibility). The agency will next assess the possible effects of the undertaking on any eligible historic properties found, 36 CFR §§ 800.4(d)(2), 800.5(a), and determine whether any effects will be adverse. 36 CFR § 800.5. "An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register . . . ." 36 CFR § 800.5(a)(1) (emphasis added). If the agency finds potential adverse effects, it must seek ways to avoid or mitigate those adverse effects. 36 CFR § 800.6. If the agency is unable to resolve the adverse effects of the undertaking, it must obtain comments by the Advisory Council and consider these in any decision to approve the undertaking. 36 CFR § 800.7. |
| NGO | Importantly, at each step, Section 106 requires consultation and communication among agency officials, the relevant State Historic Preservation Officer (SHPO), affected tribes, and other interested persons, including the public. See 36 CFR § 800.2; see also *SUWA v. Norton*, 326 F.Supp.2d. at 108. The purpose of this consultation is to involve agency officials and other interested parties together in the identification of "historic properties potentially affected by the undertaking, [the] assess[ment of] its effects and [the] seek[ing of] ways to avoid, minimize or mitigate any adverse effects on historic properties." 36 CFR § 800.1(a); see also *SUWA v. Norton*, 326 F.Supp.2d. at 108. |
| NGO | Section 106 requires the agency to document its compliance with the process sufficiently "to enable any reviewing parties to understand" the basis of agency "determination, finding, or agreement" under the regulations. 36 CFR § 800.11(a); see also, e.g., § 800.11(d) (documentation requirements for finding of no historic properties affected); § 800.11(e) (documentation requirements for finding or no adverse effect or adverse effect). |
| NGO | The area of the [Great Salt] Lake on which KUC proposes to expand its tailing impoundment must be analyzed for any possible impact on archaeological sites. There is ample evidence of historic sites along the shorelines of the lake dating back to the Late Prehistoric period (post–A.D. 1300). These sites have been linked to the Northwestern Band of the Shoshone Nation. |
| NGO | Given that it is possible that any ground disturbance in the areas bordering the current impoundment may encounter cultural resources significant for their scientific value and significant to the heritage and religious values of living Native American peoples, the Corps must make a concerted effort to seek input from the state's Native American peoples in order to make certain that the EIS includes adequate analysis of the impact of the proposed projects on cultural resources. So that the Terms of Reference (TORs) for the EIS include and adequately cover issues important and relevant to Native Americans and their cultural resources, their full and effective participation in the scoping process is critical. |
| **Cumulative Impacts** | |
| Public | Determine cumulative impacts—incremental impacts caused either directly or indirectly by the proposed action combined with past, present, and reasonably foreseeable future actions in the area. |

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| Public | What will be the cumulative effect of this increase upon the air quality and water aquifers of the valley? |
| Public | Consider the past damages that have resulted from environmental impacts to the residents of the Tooele Valley, lawsuit payouts, and damages for which compensation had not been awarded to the residents of the valley. |
| Public | At what point has sufficient damage to an area accumulated that would warrant cessation of the activities that are causing the damage? |
| Public | The EIS should consider the past environmental impacts on Tooele Valley, the land, water, and residents. |
| NGO | The EIS should consider the following cumulative effects: other mining activity in the Great Salt Lake and watershed, including potash mining, urban development and population growth, climate change. |
| NGO | Pursuant to 33 CFR § 320.4, the Corps must consider the cumulative impacts of the proposed activity and its intended use on the public interest. For activities involving Section 404 permits, such as KUC's proposal, the Corps may not issue the discharge permit unless the discharge complies with the Environmental Protection Agency's (EPA) Section 404(b)(1) guidelines. 33 CFR § 320.4(a)(1). |
| NGO | With regard to the aquatic environment, the Corps must consider the significant cumulative adverse impacts that the proposed project will have on special aquatic sites and ecosystem values under 40 CFR § 230.10(d). To that end, the Corps must make factual findings that quantify and qualify the short- and long-term effects of the planned project on "the physical, chemical, and biological components of the aquatic environment." 40 CFR § 230.11. |
| NGO | "Suspended particulates in the aquatic ecosystem consist of fine-grained mineral particles . . . and organic particles." 40 CFR § 230.21. The discharge emanating from KUC's proposal could result in changing levels of suspended particulates, at the expense of ecosystem health. 40 CFR § 230.21(b). Therefore, in analyzing KUC's proposal, the Army Corps must evaluate the "extent and persistence" of any resulting individual and cumulative adverse impacts to the physical and chemical characteristics of the aquatic ecosystem—including changes in suspended particulates resulting from discharge from the tailings impoundment into the [Great Salt] Lake. Id. |
| NGO | The Corps must also consider both the past and the future cumulative impacts of not only KUC's proposal, but the entirety of the Cornerstone Project. These impacts include many years of impact to groundwater, surface water, and air quality, as well as the various impacts resulting from significant land disturbance. |
| NGO | To adequately and effectively determine the individual, cumulative, and indirect impacts of KUC's proposal, the Corps must base its analysis on the total amount of wetlands impacted by industrial activity within and on the periphery of the [Great Salt] Lake. |
| NGO | [Evaluate] the cumulative effects of past, present, and future discharges of dredged or fill material. As indicated by the relevant regulations, "the cumulative effect of numerous such piecemeal changes can result in major impairment of the water resources and interfere with the productivity and water quality of existing aquatic ecosystems." 40 CFR § 230.11(g)(1). For that reason, the Corps must determine the secondary effect on the aquatic ecosystem that will result from KUC's proposal. |
| NGO | The Corps must evaluate the "extent and persistence" of any resulting individual and cumulative adverse impacts to the physical and chemical characteristics of the aquatic ecosystem. 40 CFR § 230.21(b). More specifically, the Corps must determine the negative impacts of the planned project on water "clarity, color, and odor," as well as a reduction in or elimination of the "suitability" of [Great Salt] Lake waters for aquatic organisms, recreation and aesthetics. 40 CFR §230.22(b). |
| NGO | The Corps' cumulative analysis must be based on a predetermined geographical area. |
| NGO | The analysis should address the cumulative habitat loss from the proposed, existing, and reasonably foreseeable wetland loss within the Great Salt Lake ecosystem, including the cumulative impacts of industrialization of lake resources. |

**Table 1. Summary of Scoping Comments**

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| **Economics** | |
| Public | Money can be no excuse for polluting. |
| Public | The Cornerstone Mine expansion will be triggered by tailings expansion. As a consequence, the entire catalog of mine expansion impacts must be evaluated as integral variables in this tailings expansion project. Air quality impacts, particularly, must be analyzed exhaustively. Air quality degradation as a consequence of the Mine's expansion threatens to jeopardize Salt Lake County's, and the Wasatch Front's, air quality compliance with Clean Air Act criteria pollutants. $PM_{2.5}$ and $PM_{10}$, particularly, are problematic for the region. If the Mine expansion precludes alternative economic development, and the displacement of more nearly sustainable growth with Kennecott's relatively dirty jobs (by far the most pollution-producing jobs in the region), then Kennecott's tailings expansion can be argued to be the predominant constraint to growth in the region's near future. The tailings expansion EIS must analyze this impact on regional economic growth. |
| Public | On the opportunity side, we have developed many different analyses of renewable energy and other 'clean jobs' development opportunities on and around Kennecott's lands. Wind energy is an obvious potential, possibly reaching several hundred megawatts of potential. Solar energy may take any of the following forms:<br>• Photovoltaic and concentrating photovoltaic farms, particularly on the tailings impoundments subsequent to closure, and around the Bingham Mine waste rock dumps<br>• Solar thermal electricity generation through multiple technologies, possibly amounting to more than a gigawatt of generation if tailings and the mine are included (latter possibly using solarconcentrating or 'heliostat' systems on a very large scale, utilizing pit topography and altitude)<br>• Salt gradient solar ponds, a type of passive, thermal storage pond that creates and stores hot water at roughly the same temperature range as medium-temperature geothermal facilities |
| **Engineering** | |
| Agency | There is ongoing discussion on the proper size for the Westside open-channel drainages that would need to be relocated if the proposal is accepted. When introducing flooding potential to an area not currently affected and reducing the natural attenuation of flooding, the Public Utilities position will be to generously size the relocated ditches to reduce the future impact to these properties. |
| **Geochemistry** | |
| Public | What is in the tailings pond? |
| Public | What chemicals are in there? |
| Public | Determine the composition of the tailings that are coming out of the mine and that are being deposited along I-80. What is the difference between the elements in their elemental state and the elements in their refined state? |
| Public | What is in the existing tailings? Is there anything harmful? What kind of concern do I have with my family riding through that dust twice a day? |
| Public | It is in the tailings and water recirculation circuit that mixing will occur along whatever gradient prevails at the moment. Selenium, the 'contaminant of concern' for the Great Salt Lake ecosystem, dominated by migratory shorebirds and waterfowl, is deadly for nearly all this wildlife population of millions of birds each year. Within this generalized dynamic of climate change, the major possibilities that must be evaluated include:<br>• In dry climate regimes, as may become more likely in the episodically severe variations of a climate-changed West, institutional controls become critical to the prevention of air quality disasters. This set of scenarios must be analyzed thoroughly, regardless of the extent of tailings expansion. Tailings have been deposited in the Magna Impoundment for many decades, back to the beginnings of the industrial-scale Kennecott froth-floatation processes, at least to the late 1920s or early 1930s. Early tailings were |

**Table 1. Summary of Scoping Comments**

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| | less technologically separated between pyritic, acid-generating materials and more inert constituents of the porphyry host rock. Large zones of the tailings are capable of producing acidic, metals-rich waters. The past 15 years of acid/metals plume transfer from the south may have accelerated the tendency for acidification of tailings, as much by transfer of the iron oxidizing bacterial cultures as by direct acid material translocation. This is a critical issue for future tailings water quality management, given that acid waters are capable of dissolving any or all of the mass of metals compounds precipitated and absorbed in tailings. Kennecott has chosen, deliberately, to load tailings with the chemical contamination of a century of mining and beneficiation. The consequences of that loading must be accounted for in all future planning. In addition, the re-mining and processing of metals-bearing tailings may be beneficial, in the general scheme of things. By reducing the acid generation potential of old tailings, the likelihood of tailings acidification may be proportionally reduced. |
| NGO | KUC portrays the clay beneath both the current impoundment and the proposed expansion as impermeable and thus sufficient to protect against possible groundwater contamination. However, the clay under the impoundment is neither homogenous nor continuous, especially in the impacted wetland area. Springs occur in the wetlands from time to time, and it is therefore probable that contaminated water from the impacted wetlands will leak out of the impoundment area and into local groundwater aquifers. There are indications that a groundwater plume, contaminated with selenium, exists along the south shore of Gilbert Bay adjacent to KUC's operations. The presence of such a plume suggests that the assumption of impermeability is not necessarily true. Because of this permeability, and specifically while KUC is re-watering the entire tailings impoundment, KUC will add head and mass to the tailings, and huge flows from the impoundment area will occur into the [Great Salt] Lake, both downward and laterally, through the collection ditch and Outfall 012. These downward flows will be progressively greater the lower the lake's water level falls. As this occurs, the contaminated groundwater will interact with the water that flows into the lake, and many soluble elements will mix with lake water. Specifically, contamination from selenium, manganese, and aluminum could result. The applicant has not demonstrated that the impoundment is adequately controlling contaminants such as selenium and should be required to both monitor leakage from past, present, and future impoundments and to protect against future contamination of groundwater sources. The Corps should analyze the flow-through nature of the impoundment as a conduit for transport of contaminants to Great Salt Lake, especially for selenium, manganese, and aluminum. |
| NGO | KUC's discharge of selenium changes the chemistry of the waters of Great Salt Lake, at the very least, on a local level. Although dramatic increases of selenium and mercury were documented by the U.S. Fish and Wildlife Service in eared grebes feeding on brine shrimp, these changes and the impacts they may have on the biota of the lake have never been analyzed or investigated further. Changes to water chemistry, both due to KUC's current discharge and the impacts of continued or increased discharge, should be addressed, particularly as these changes impact algae, brine shrimp, and water birds. |
| **Geotechnical** | |
| Public | [Concerned about] outright structural failure due to 're-watering' of tailings in the course of their placement. The abandoned Magna Tailings Impoundment embankment was recently evaluated and judged to be stable by virtue, substantially, of the dewatered state of this 9-square-mile impoundment. As new tailings are place on top of the old, regardless how relatively shallow that layer is anticipated to be, there will be many years in which the entire tailings impoundment will be saturated again, and therefore subject to liquefaction. Seismic failure will occur at a much smaller seismic threshold than would be the case were the impoundment dry. |
| NGO | A huge amount of weight would be placed in the tailings pond with the proposed expansion. This additional weight could have an impact on any springs or underground water that would be directly underneath the proposed expansion. An analysis of what these impacts might be should be conducted. |
| NGO | What might the impacts of the increased weight of the tailings pond be in this area? |
| NGO | With so much additional weight being added to this area, would it cause underground water to surface in other areas? And, if so, where would this likely occur? |

**Table 1. Summary of Scoping Comments**

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| NGO | Will there be a continued need to work to stabilize and monitor the area? If so, how much would this cost and how would this be paid for? |
| **Groundwater** | |
| Public | The West Jordan Water District has just received permits to pump, and clean to potable standards, water from the highly poisoned aquifer below old Kennecott tailings placements. This water is highly polluted and will be cleaned using a state-of-the-art ion exchange and membrane system. The highly polluted effluent wastewater from this process, especially highly contaminated with selenium, was just now permitted for discharge and disposal into the Jordan River. |
| Public | Concerned about the possibility of groundwater contamination. I don't know if the tailings ponds contaminate our drinking water. |
| Public | Consider the impact on the water tables of the amount of water that is currently and projected to be pumped onto the tailings in order to control dust. |
| Public | The Corps is entering a situation much more complex than the Kennecott Tailings Modernization project of the mid-1900s. This is due to factors such as the following aspects of water contamination, all of which must be considered in the current Tailings Expansion project evaluation:<br>• Settlement of the 'Natural Resource Damage Claim' filed by the State of Utah in 1986 for damages to groundwater and aquifer values in the Southwest Jordan Valley.<br>• 'Joint Settlement Agreement' is complex, and arguably runs counter to the Consent Decree . . . That contamination from groundwater be disposed or managed within the 'mining impact area' in Kennecott's South Zone. This restriction was violated through the NRDI Trustee's acceptance, supported by EPA, of translocation of groundwater contaminants to the Magna Tailings Impoundment via the Concentrator Tailings Pipeline, a transfer that was instituted in 1996 and continues today. |
| Public | Flooding may rise dramatically. As Dr.Wagner was heard to state in a radio interview soon after the report's release, regarding Great Salt Lake water levels, "All bets are off." The implications of lake level for hydrogeology of the tailings impoundments are profound. Hydrological exchange occurs between tailings and groundwater below. In high lake level years and in high runoff years from the mountains above, it is likely that the hydrological gradient is upward, artesian, causing the lake's waters to mix from below with 'process waters' circulated through the tailings. In prolonged dry periods, on the other hand, tailings waters are likely to penetrate downward and outward, reaching into the waters of the Great Salt Lake—carrying whatever is in them. (Please find also the attached comments on Kennecott's groundwater discharge permits, one of them covering the tailings and related North Zone facilities, the other covering the Bingham Mine and South Zone facilities, but both integrally part of a water management system unified by the Magna Process Water Reservoir and the Magna Tailings impoundment (all phases).) |
| NGO | KUC portrays the clay beneath both the current impoundment and the proposed expansion as impermeable and thus sufficient to protect against possible groundwater contamination. However, the clay under the impoundment is neither homogenous nor continuous, especially in the impacted wetland area. Springs occur in the wetlands from time to time, and it is therefore probable that contaminated water from the impacted wetlands will leak out of the impoundment area and into local groundwater aquifers. There are indications that a groundwater plume, contaminated with selenium, exists along the south shore of Gilbert Bay adjacent to KUC's operations. The presence of such a plume suggests that the assumption of impermeability is not necessarily true. Because of this permeability, and specifically while KUC is re-watering the entire tailings impoundment, KUC will add head and mass to the tailings, and huge flows from the impoundment area will occur into the [Great Salt] Lake, both downward and laterally, through the collection ditch and Outfall 012. These downward flows will be progressively greater the lower the lake's water level falls. As this occurs, the contaminated groundwater will interact with the water that flows into the lake, and many soluble elements will mix with lake water. Specifically, contamination from selenium, manganese, and aluminum could result. The applicant has not demonstrated that the impoundment is adequately controlling contaminants such as selenium and should be required to both monitor leakage from past, present, and future impoundments and to protect against future contamination |

**Table 1. Summary of Scoping Comments**

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| | of groundwater sources. The Corps should analyze the flow-through nature of the impoundment as a conduit for transport of contaminants to Great Salt Lake, especially for selenium, manganese, and aluminum. |
| NGO | Specifically, how much water is on the surface or underground at the proposed expansion site? |
| NGO | Would springs be likely to relocate to other areas, and, if so, where? |
| NGO | Would underground water be moved to other locations? And, if it would be moved, what would this impact be? |
| Agency | Previous investigations of contaminants in the wetlands and open waters of the Great Salt Lake found some of the highest concentrations of metals at the south shore of the lake near the existing tailings impoundment and water-quality discharges (Waddell et al. 2009). The proposed project may increase contaminant concentrations or loadings due to several factors, including a larger tailings impoundment with greater volume of material; influences on groundwater or artesian springs; new design processes that produce higher concentrations or discharge higher loadings; and alteration of existing processes. |
| **Health and Safety** | |
| Public | To this very day, the tailings pond has not met safety standards (although I believe they have improved). Adding more area and raising height will only reverse any progress in that regard. I believe the residents of Magna have a lot to be concerned with. |
| Public | Concerned about the expansion project continuing to add health problems to our community. |
| Public | Blowing dust is causing a safety and health problem. |
| Public | I strongly oppose this expansion. Currently, when the wind blows from the south, the tailings dust obscures the visibility along I-80 [Interstate 80] to 20 feet or less. About half of the working residents of Tooele County commute along this route daily, in addition to all the other travelers along the only east-west route to and from Salt Lake City, Wendover, and northern Nevada. Increasing this toxic eyesore not only increases visibility risk to travelers but forces us to inhale more toxic dust every time we travel this route. |
| Public | I have breathing problems and when we have red air-quality days I must stay indoors and often get sick. I feel we need to change to sustainable energy. |
| Public | I am most concerned about this proposed expansion. I am a year-round bike commuter, so I am forced to breathe the toxic air here during the winter. |
| Public | Determine baselines for: the current inventory from all sources for the six criteria air pollutants in the eight counties (Salt Lake, Utah, Tooele, Weber, Juab, Davis, Weber, and Cache), the current inventory for all HAPs (hazardous air pollutants) from all sources in the eight counties. |
| Public | The Corps must keep in mind that the KUC operation emissions already harm or kill about 2,000 people yearly, according to epidemiological medical research. |
| Public | Air quality is getting worse and health consequences particularly in children. |
| Public | Look closely at the air quality impact on I-80, on driving conditions during storms, in severe wind storms when visibility can be reduced to just a few yards and what would an increase in this condition cause on the safety of travel on I-80. |
| Public | Consider the economic cost to the valley of decreased air quality, which could cause an increase in medical problems. |
| Public | Many people in Salt Lake County are suffering with health issues related to the tailings. A friend has MS [multiple sclerosis] and her doctors believe this illness is related to her living near the tailings. |
| Public | Take into consideration the Corps' responsibility to the American people, citizens of Utah, and future generations. This expansion will poison our already toxic air, water, and Great Salt Lake and affect the health of thousands without consequence. |

**Table 1. Summary of Scoping Comments**

| Land Use | |
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| Public | Salt Lake City is planning an expansion of residential housing, a village shopping center, and some industrial development in an area on both sides of I-80 just to the east of planned expanded tailings area. Doubts about the compatibility of the residential village and the tailings expansion. |
| Public | What approaches or what advances have been made to get Salt Lake City's permission or conditional use for the proposed expansion? |
| Public | The bottom line is safety. We would paraphrase the Kennecott sign that looms in our view to read: "It's our safety - Think about it." |
| Agency | Salt Lake City is concerned about (1) the tailings expansion project and its potential impacts on the entry gateway to the city on the west, (2) the impact on future residential development north of I-80, and (3) the loss of potential industrial development area south of I-80 due to the elimination of industrial-use areas from tailings expansion itself and impacts on the transportation grid and development patterns and due to interruption to the existing natural drainage courses both on-site and on adjacent properties. |
| Agency | The expansion area that lies within Salt Lake City boundaries is an area designated for manufacturing land use. The Salt Lake City manufacturing districts are intended to provide appropriate locations for manufacturing, fabrication, processing, packaging, distribution, storage, shipping, and other transportation activities contributing to the economic base of the city; to enhance employment opportunities; to encourage the efficient use of land; to enhance property values and the tax base; to improve the design quality of industrial areas; and to help implement adopted plans. (See Northwest Quadrant Community Zoning Map.) |
| Agency | The specific zoning classification for the area within Salt Lake City is the M-1 Manufacturing Zoning District. The purpose of the M-1 light manufacturing district is to provide an environment for light industrial uses that produce no appreciable impact on adjacent properties and desire a clean, attractive, industrial setting. This zone is appropriate in locations that are supported by the applicable master plan policies adopted by the City. This district is intended to provide areas in the city that generate employment opportunities and to promote economic development. The uses include other types of land uses that support and provide service to manufacturing and industrial uses. Safe, convenient, and inviting connections that provide access to businesses from public sidewalks, bike paths, and streets are necessary and should be provided in an equal way. Certain land uses are prohibited in order to preserve land for manufacturing uses. |
| Agency | The Salt Lake City manufacturing districts do not recognize mining or the related tailings activity as an authorized use within the manufacturing districts. The proposed expansion would require modification of the City's Zoning Ordinance to allow mining tailings facility uses. Modification of the zoning districts must be consistent with the City's Master Plan. |
| Agency | The adjacent area immediately north of lnterstate 80 is currently zoned Agriculture–AG. This is a holding zone that was set in place at the time of annexation until a master plan is developed and set in place. The AG zoning district allows single-family development on 10,000-square-foot lots. (See Northwest Quadrant AG Zoning Map.) |
| Agency | The Northwest Quadrant Master Plan Future Land Use Map shows that future residential uses are anticipated north of I-80 that may be impacted by the tailings expansion. These impacts could come from fugitive dust and significant visual impacts by an increased tailings facility's height as well as the expansion of the facility toward 7200 West Street. |
| Agency | Salt Lake City is in the process of developing a master plan for the Northwest Quadrant area. The tailings expansion project area lies within this master plan area. The draft Northwest Quadrant Master Plan has been reviewed by the Salt Lake City Planning Commission and forwarded to the Administration and Salt Lake City Council for consideration prior to adoption. |
| Agency | Salt Lake City's leaders are looking to the Northwest Quadrant to significantly contribute to the City's overall effort of meeting the needs of the residents of Salt Lake City, from open-space amenities to new, vibrant, mixed-use neighborhoods as well as support for future industrial development within existing |

**Table 1. Summary of Scoping Comments**

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| | designated areas. A draft of the Northwest Quadrant Master Plan is available at: http://www.slcgov.com/CED/planning/documents/MasterPlans/NWQMasterPlan files/NWQ MasterPlan PC%20Recommendation.pdf. |
| Agency | Current city policy and zoning recognizes the area for manufacturing and industrial development and does not support tailings facility expansion into the area. |
| Agency | The draft Northwest Quadrant Master Plan identifies a portion of the subject tailings expansion areas for natural area and industrial land uses. |
| **Mitigation** | |
| Agency | How can this project be done with no net pollution? |
| Agency | Mitigation should be as close to in-place and in-kind as possible. KUC's proposal to use credits related to the Inland Sea Shorebird Reserve is insufficient because those credits would not fulfill the type of in-place and in-kind mitigation needed to replace the higher-elevation and more-natural wetland system that the proposal would impact. Even if these credits exist—and an inventory should be conducted to ensure that they do, in fact, exist—the applicant must demonstrate why taking these wetlands is necessary. Further, it is inappropriate and premature to discuss mitigation measures prior to demonstrating avoidance and minimization under Section 404. Such an approach implies that approval of the destruction of the wetlands is a foregone conclusion. |
| Agency | At this [Northwest Quadrant Master Plan] Plan's inception, city leaders established that the plan must help the City create an environment that fosters an enhanced quality of life for Salt Lake City residents. Fulfilling these goals will be challenging. Nevertheless, city leaders, technical and advisory committees, stakeholders, and the public are motivated by the challenge of creating a sustainable community in an economically viable fashion and are committed to a successful outcome. This plan is guided by the following direction:<br>• Ensure that the City responds effectively to citizens' social, environmental, and developmental concerns;<br>• Achieve rational and logical patterns of growth; and<br>• Maintain a desirable level of environmental quality. |
| Agency | A significant portion of the Northwest Quadrant will form a hierarchy of natural systems; create a green edge to Salt Lake City; buffer the Great Salt Lake and Bailey's Lake; and create an internal greenway system within the developed portion of the Northwest Quadrant. Natural areas, consisting of the most sensitive resources, are characterized by restricted human access and impact and form the core of the environmental framework. |
| Agency | The draft master plan proposes a natural area adjacent to the existing tailings pond with industrial and manufacturing uses between the natural area and extending east past 7200 West to 5600 West Street. This area is depicted in the Future Land Use Map for the Northwest Quadrant Master Plan. (See Northwest Quadrant Future Land Use Map.) |
| **NEPA** | |
| NGO | The National Environmental Policy Act (NEPA) requires federal agencies to prepare an Environmental Impact Statement (EIS) prior to taking major federal action. 42 USC §§ 4321-4370(d). In the present instance, the Army Corps considers the issuance of a Section 404 permit for the KUC Tailings Expansion to be a major federal action. |
| NGO | The purpose of NEPA is to require agencies to consider environmentally significant aspects of a proposed action, and, in so doing, inform the public of the environmental concerns and considerations that affected the agency's decision-making process. |
| NGO | In conducting the EIS, the Corps must create an administrative record that demonstrates that it followed NEPA procedures. As part of these procedures, the Corps is required to take a "hard look" at the environmental consequences of KUC's proposal, including all actions connected to the proposal. 40 CFR |

**Table 1. Summary of Scoping Comments**

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| | § 1508.25(a)(1). |
| NGO | In this case, almost all aspects of the mining operation contribute to the tailings waste streams. Therefore, the Corps must incorporate into the EIS a detailed analysis of all of the environmental impacts of Kennecott's Cornerstone Project, because the tailings expansion proposal would not proceed but for the Cornerstone expansion. Id. As discussed in detail below, this analysis must include impacts from the Cornerstone Project associated with air quality, water consumption, surface water quality, groundwater quality, and land disturbance. |
| **Operations** | |
| Public | Consider the quality control of the material of the tailings that are being deposited in the tailings area. What quality-control procedures are in place to maintain a consistent output of the tailings that are being buried, and what reporting mechanisms are in place, and what procedures are being used to monitor the tailings that are being excreted? |
| **Permitting Requirements** | |
| Public | Consider what historical commitments were made by KUC when they obtained the permits to increase the tailings in 1995. What have they done to live up to their commitments? Who do they report to? Who oversees those commitments? |
| **Reclamation** | |
| Public | I am aware that Kennecott Utah Copper has a zero-dollar-amount bond for its excavation site. You informed me they are bonded for tailings cleanup. I do not believe KUC is sufficiently bonded. Please make sure the amount set aside for cleanup is sufficient. |
| Public | As they use and fill the existing north impoundment area and start to use and fill the new impoundment area, could they accelerate the fill at the west end of the north and finish that, then revegetate the area, and then step another section toward their new impoundment area and then raise that up, etc., rather than leaving the whole thing open to blowing dust? |
| Public | Consider the amount of the reclamation bond that should be required for KUC to post prior to any further expansion of their operation. |
| NGO | The EIS should consider the impacts of the proposed project's decommissioning and land reclamation. |
| NGO | At the completion of the project, what will the likely vegetation be on the tailings pond, and what types of wildlife will likely be there? |
| NGO | What will be the likely uses of the tailings pond after the project is completed? |
| **Recreation** | |
| NGO | Further, since clean water is necessary to protect human recreation in and around the [Great Salt] Lake, the Corps must analyze the impact of the proposed expansion on the continued availability of recreation opportunities. |
| **Seismic** | |
| Public | How will liquefaction be affected? |
| Public | Seismic stability; if there is a huge earthquake, what's going to be the outcome from that? |
| Public | The I-80 corridor is also at risk for at the least lengthy closure, and at the worst destruction, from any failure of the retention dams, be it from earthquake, shoddy construction, accident, or whatever. Increasing the size increases the likelihood not only of failure but also the destruction of this major roadway. Please deny this expansion, and for[ce] KUC to deposit their waste someplace where failure and toxic exposure will not affect such a large amount of people and property. |

**Table 1. Summary of Scoping Comments**

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| Public | [Concerned about] outright structural failure due to 're-watering' of tailings in the course of their placement. The abandoned Magna Tailings Impoundment embankment was recently evaluated and judged to be stable by virtue, substantially, of the dewatered state of this 9-square-mile impoundment. As new tailings are place on top of the old, regardless how relatively shallow that layer is anticipated to be, there will be many years in which the entire tailings impoundment will be saturated again, and therefore subject to liquefaction. Seismic failure will occur at a much smaller seismic threshold than would be the case were the impoundment dry. |
| Public | Kennecott has made claim of the years that there isn't a danger of liquefaction. They have built earthen berms between the current tailings pond and my home and Pleasant Green residential area across SR201 south of the tailings pond. Why would they do that if there is no danger? There are also seismic detectors with signs to divert local traffic is seismic activity is detected. Why? They have been caught red handed trying to hide the dangers from Magna residents. They have in the past bought up homes in Pleasant Green neighborhood and the homes on 8000 west where I live. The homes on 8000 west north of SR201 were completely destroyed and removed. Kennecott has made claims that the south east (magna) corner of the tailings pond is safe now that it is no longer in use but if this permit is given, will be using it again in the future. The current tailings pond at this very moment does not meet safety standards. How can a permit be given to create more area that won't meet safety standards and completely reverse any progress towards safety with the existing tailings pond? There have been two breaches in the tailings pond and those breaches happened with any seismic activity. The tailings pond sits near a major fault line. Studies have shown that Magna residents are in danger if a major earthquake is to happen. Recent seismic activity has been almost exactly in the area that they want to expand to. Epicenter has been 3 miles north/northeast of Magna. |
| Public | The reality of the earthquakes that are actually occurring in the proposed construction area have not been addressed. What effect would these earthquakes that area actually occurring have on the proposed construction? Seismic events that have actually occurred in the proposed construction area in the last 10 years.<br>7/8/2001 - Magnitude 3.4 - 3 miles NE of Magna Depth - 8.3 miles<br>3/18/04 - Magnitude 2.4 - 3 miles ENE of Magna Depth - 4.9 miles<br>11/16/06 - Magnitude 2.5 - 1 mile NE of Magna Depth - 3.5 miles<br>8/11/08 - Magnitude 2.3 - 4 miles NNE of Magna Depth -7.7 miles<br>9/12/09 - Magnitude 2.8 - 4 miles NNE of Magna |
| Public | While it is one thing to increase expansion to the north, Phase 2 is quite another story as it states: Kennecott would extend tailings deposition from the north TSF onto a portion of the existing south TSF. The steps that are being taken to protect Magna from the dangers of seismic activity are not event expected to be completed until 2018, or even 2029. Yet Kennecott is coming back in now and requesting a permit that will allow them to create the same old problem of instability all over again. If a permit is granted now to allow reuse of the south impoundment to extend mining from 2028 through 2039, a whole new generation of unsuspecting residents could buy into Green Meadows not knowing that the ever-rising mountain to their north is a pile of mining waste that can blow and envelop their homes in tailings when there are scheduled and unscheduled shutdowns. |
| NGO | Five submerged segments of the Great Salt Lake fault system have generated magnitude 6.8–7.2 earthquakes in the past and will do so in the future. As part of KUC's proposal, the company intends to raise the height of its current impoundment, bringing into question the stability of this structure in the event of an earthquake. Controversy over the height of the tailings impoundment in the event of a major earthquake has been an issue in the past, and the Corps must ensure that an independent engineering analysis is conducted on the safety of the expanded impoundment structure. |
| Agency | Careful evaluation is needed on buffers around the proposed tailings. There will be seismic and other reasons to not develop to the toe of the impoundment. These buffers need to be identified so that infrastructure can be properly placed to support future development. |
| **Socioeconomics** | |
| Public | We need the minerals they mine; they just need to be responsible for their actions. If they show the |

**Table 1. Summary of Scoping Comments**

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| | communities they are being proactive in environmental concerns, they should be allowed to continue to mine. |
| Public | Would rather see the minerals coming from the U.S. rather than China. |
| Public | We need the jobs and to use our own resources, oil, gas, precious metals. |
| Public | Take into consideration the community. |
| Public | Obviously, there will be even more impact on our property values….how is Kennecott going to compensate for that? They will have a convenient and less costly place to dump their sludge while Magna residents' property values plummet. Everyone knows the reputation that Kennecott brings and that is the reputation of being a big polluter. Know one wants to buy property/homes right next to that. Not to mention the skyline being that of the tailings pond. |
| **Soils** | |
| Public | Future tailings could potentially be transported to the aging pit as fill. |
| **Solid and Hazardous Waste** | |
| NGO | Records from the Utah Division of Water Quality state that Kennecott is authorized to and does deposit the following waste streams into the existing tailings pile:<br>• Copper tailings from the Copperton Concentrator;<br>• Slag tailings from the slag concentrator at the smelter;<br>• Power plant ash slurry;<br>• Smelter process waters;<br>• Wastewater effluent slurry from the hydrometallurgical plant at the smelter;<br>• Mine leach water and meteoric contact water;<br>• Wastewater effluent from the reverse-osmosis treatment of sulfate contaminated waters;<br>• Neutralization of acid-mine contaminated waters;<br>• Barneys Canyon mine pit dewatering and heap leach pad draindown waters;<br>• Construction, maintenance, and lunchroom trash;<br>• Treated effluent from the sewage treatment plant; and<br>• Other unidentified inflows.<br>Most of these waste streams are not Bevill wastes. Bevill wastes are solid wastes resulting from the extraction, beneficiation, and processing of ores and minerals that are excluded from the requirements of the EPA Hazardous—but not Solid—Waste Program under the Resource Conservation and Recovery Act (RCRA). Non-Bevill wastes are not exempt from RCRA. In the context of copper mining, particular attention must be paid to the disposal of flue dust, acid wastes, and other metal-bearing wastes, which, when comingled with exempt wastes, has been identified by EPA as "frequently resulting in environmental damage." |
| NGO | The Corps must identify and provide an in-depth analysis of the exact makeup of the waste stream inflows that are proposed for placement in the tailings impoundment. Each element and/or component of the waste stream must be analyzed to determine whether it:<br>• is a hazardous waste as defined by RCRA;<br>• is a solid waste as defined by RCRA;<br>• poses a threat to air quality, given the quantity to be disposed;<br>• constitutes a threat to human health, wildlife, water quality, or other aspects of the environment; and/or<br>• has a cumulative or synergistic effect on human health or the environment. |
| NGO | The Corps must identify and provide an in-depth analysis of the exact makeup of the existing wastes in the tailings impoundment. Each element and/or component of the existing accumulated wastes must be |

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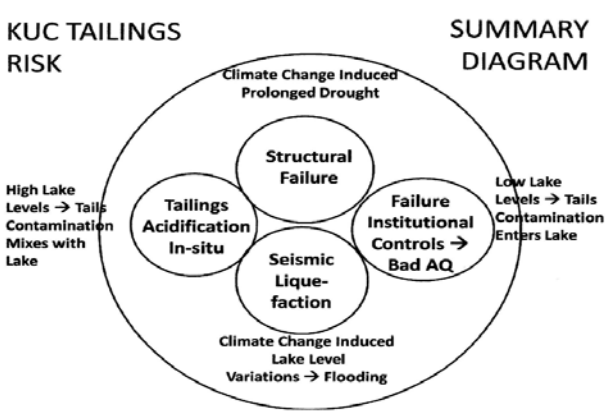
| | analyzed to determine whether it:<br>• is a hazardous waste as defined by RCRA;<br>• is a solid waste as defined by RCRA;<br>• poses a threat to air quality, given the quantity to be disposed;<br>• constitutes a threat to human health, wildlife, water quality, or other aspects of the environment; and/or<br>• has a cumulative or synergistic effect on human health or the environment. |
| NGO | The Corps must consider the fact that the State of Utah has exempted from its Solid and Hazardous Waste Program any regulation of "solid wastes from the extraction, beneficiation, and processing of ores and minerals[.]" Utah Code Ann. § 19-6-108(18)(b)(iv). In other words, not only has the State defined these mining wastes as non-hazardous, but it has also defined them as not being solid wastes and has therefore determined that these wastes are exempt from regulation under RCRA. Moreover, record requests indicate that the Utah Division of Solid and Hazardous Waste does not now regulate the existing tailings impoundment and almost certainly will not regulate the impoundment in the future. As a result, in analyzing the environmental impacts of the proposed action, the Corps may not rely on any such State regulation or oversight to mitigate or reduce the impacts of the enormous existing and proposed waste piles on public health, surface and groundwater quality, wetland integrity and function, ecosystem health, and other natural-resource values. The direct, indirect, and cumulative consequences of these impacts must all be examined in depth. |
| NGO | The Corps must acknowledge and consider that past—and even recent—mining activity, including the storage of mining and other waste in the tailings impoundment, overburden piles, and elsewhere on Kennecott property, has contaminated groundwater, surface water, and Great Salt Lake. The Corps must consider the cumulative impacts of this contamination. Moreover, the agency must examine the likelihood that wastes resulting from the proposed action and the accompanying mine expansion will likewise contaminate groundwater, surface water, and Great Salt Lake from a combination of causes associated with the impoundment areas. |
| **Surface Water Hydrology** | |
| Public |  <br>In the diagram above, the region is depicted as ranging from prolonged drought to much greater precipitation than during the historic period documented thus far. The report projects that much higher temperatures are likely, particularly in winter, resulting in total loss of snowpack within a century or so, possibly much less. This is further projected to create possible flooding around the perimeter of the Great Salt Lake as less water is used of what was formerly 'metered out' from snowpack. Instead of lingering through spring and summer, allowing capture behind dams and in reservoirs and soils, precipitation falling as rain and warm snow is likely to run off rapidly, filling the [Great Salt] Lake to a higher proportion of gross regional precipitation than previously. |
| Public | Flooding may rise dramatically. As Dr. Wagner was heard to state in a radio interview soon after the |

**Table 1. Summary of Scoping Comments**

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| | report's release, regarding Great Salt Lake water levels, "All bets are off." The implications of lake level for hydrogeology of the tailings impoundments are profound. Hydrological exchange occurs between tailings and groundwater below. In high lake level years and in high runoff years from the mountains above, it is likely that the hydrological gradient is upward, artesian, causing the lake's waters to mix from below with 'process waters' circulated through the tailings. In prolonged dry periods, on the other hand, tailings waters are likely to penetrate downward and outward, reaching into the waters of the Great Salt Lake. |
| **Transportation and Access** | |
| Public | At the time Magna formed its township, they had to get permission from Kennecott, a ROW [right-of-way], to make it connect to Saltair, and this will interrupt that access. |
| Public | Expansion of tailings pond to the east to 7200 west will block any possibility of connecting SR201 to Interstate I-80. How does a private company have the right to do that? |
| Public | Plans for development of new northeast TSF call for a 7200 W. bypass and detour off 1-80 to the South. UDOT, Salt Lake City and Salt Lake County and Kennecott Land should all be very concerned about this. Kennecott should not be allowed to build a TSF up against what should be a transportation corridor. Blocking this major transportation corridor connecting I-80 to Hwy. 201 is incredibly shortsighted. Will Kennecott once again be advised to relocate a highway, this time 7200 W., just as they were advised to relocate Hwy 201, and will they once again ignore their attorney's advice and keep it form the public as they did with Hwy 201? |
| Agency | Transportation and the Salt Lake City Major Street Plan. Relocation and railroad realignment to accommodate tailings pond expansion will impact the proposed arterial and collector street systems proposed for future industrial development for the area between Salt Lake City's western boundary and 5600 West within the area south of Interstate 80. (See Salt Lake City Street Plan.) |
| Agency | Realignment of the railroad will impact street configurations and alignments with respect to crossing the new railroad. Potential industrial and employment development will be impacted by the proposed expansion. |
| **Visual Resources** | |
| Public | Site has taken away the view to the south, and expansion will further reduce the scenic view. |
| Public | Concerned about the lack of beauty with the destruction of the Oquirrh Mountains and the tailings ponds. |
| Public | Consider the aesthetic impact of additional tailings blocking views, both north and south, and the impact on property values as a result of an increase in the KUC operation. |
| Public | Huge, ugly scar on one of the most beautiful valleys in the U.S. |
| Public | I oppose this. It wipes out views. |
| Public | Grew up in the valley. Never been in awe of the mine as a technological wonder. Has and will always be a scar on the Oquirrhs. |
| Public | This past 4th of July as I sat in front of my home watching the Magna fireworks show which I have a front seat to…..I thought……if Kennecott is allowed to expand upward, I will no longer be able to see the fireworks which presently just clear the top of the tailings pond now. The sunsets we presently enjoy will be less and less and with the possible expansion to the east.....that entire horizon will be tailings pond too. All I see to the west is a great big pile of dirt with gargantuan yellow 'Work Safe' signs. |
| Public | In 1985, the Tailings Pond (south impoundment) was 110' high, in 1988 - 160' with an expected final height of 175', in 2008 it was 220' high. The sunsets over the Great Salt Lake were increasingly blocked from our view. And now KUC proposes to raise it an additional 37-38 feet. |
| NGO | [Concerned about] the impact this expansion will have on the viewshed coming into the Salt Lake Valley from the west. Specifically, models should be developed that show the impacts on the viewshed that the |

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| | increased height of the tailings impoundment will have from various locations along the I-80 corridor and the [Great Salt] Lake's shore. |
| **Water Quality** | |
| Public | The cost of cleaning the poisoned water, which is a result of percolated compounds from the tailings, is quite high, and will be paid by the water district's citizens with some cost sharing by EPA (estimated to be well above $1 million). I do not like paying this cost for damage caused by a profitable and international company. I am afraid there will be future contamination in case of expansion. I don't want to pay those costs either. |
| Public | How will this impact the water? |
| Public | The mercury in the water. |
| Public | Water quality issues are cumulative with air quality problems caused by the Kennecott mining operation and other sources. |
| Public | Concerned about the amount of toxins Rio Tinto discharges into the [Great Salt] lake. It needs protecting. |
| Public | Great concern about the implications of expanding tailings from the proposed expanded mining operation. There is already known "leakage" of mining wastes containing toxic selenium and mercury into the Great Salt Lake. Once contaminated, this body of water, sustaining one of the great bird migration flyways, cannot be restored. This expansion will exacerbate the problem. |
| Public | A program of present baseline contamination measurements must be followed by ongoing monitoring. Strict limits must be set for each known toxic. |
| Public | What precautions can be devised to control the movement of toxics from tailings to the Great Salt Lake? |
| Public | The amount of toxic release that Rio Tinto discharges into the Great Salt Lake is too much and is contaminating water that provides a source for migrating birds. |
| Public | Concerned with the current releases of toxic substances into the Great Salt Lake and into the air. |
| Public | Consider the current releases of pollution into our environment, much less the increase that will occur when more activity is approved. Rio Tinto should be required to stop the release of toxins and clean up the toxins that the mine has released in the past before any more mining activity can be approved. |
| Public | Concerned about the amount of pollution this will cause. |
| Public | The tailings are unstable and will continue to become more unstable and will cause further pollution of the Great Salt Lake. |
| Public | KUC has not proven to be a very responsible steward of the environment in the past. Their tailings have been poisoning our water for years and are responsible for numerous health problems for people living in the areas close to them. Their poison is in our water table and eventually ends up in the Great Salt Lake. Expanding the tailings means adding more poison to our already toxic environment. |
| Public | Core concern for proposed wetlands destruction and ecological impacts on the Great Salt Lake, arguably the heart of impacts from this proposed tailings expansion. |
| Public | It is in the tailings and water recirculation circuit that mixing will occur along whatever gradient prevails at the moment. Selenium, the 'containment of concern' for the Great Salt Lake ecosystem, dominated by migratory shorebirds and waterfowl, is deadly for nearly all this wildlife population of millions of birds each year. Within this generalized dynamic of climate change, the major possibilities that must be evaluated include:<br>• In dry climate regimes, as may become more likely in the episodically severe variations of a climate-changed West, institutional controls become critical to the prevention of air quality disasters. This set of scenarios must be analyzed thoroughly, regardless of the extent of tailings expansion. Tailings have been deposited in the Magna Impoundment for many decades, back to the beginnings of the industrial-scale Kennecott froth-floatation processes, at least to the late 1920s or early 1930s. Early tailings were |

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| | less technologically separated between pyritic, acid-generating materials and more inert constituents of the porphyry host rock. Large zones of the tailings are capable of producing acidic, metals-rich waters. The past 15 years of acid/metals plume transfer from the south may have accelerated the tendency for acidification of tailings, as much by transfer of the iron oxidizing bacterial cultures as by direct acid material translocation. This is a critical issue for future tailings water quality management, given that acid waters are capable of dissolving any or all of the mass of metals compounds precipitated and absorbed in tailings. Kennecott has chosen, deliberately, to load tailings with the chemical contamination of a century of mining and beneficiation. The consequences of that loading must be accounted for in all future planning. In addition, the re-mining and processing of metals-bearing tailings may be beneficial, in the general scheme of things. By reducing the acid generation potential of old tailings, the likelihood of tailings acidification may be proportionally reduced. |
| NGO | KUC portrays the clay beneath both the current impoundment and the proposed expansion as impermeable and thus sufficient to protect against possible groundwater contamination. However, the clay under the impoundment is neither homogenous nor continuous, especially in the impacted wetland area. Springs occur in the wetlands from time to time, and it is therefore probable that contaminated water from the impacted wetlands will leak out of the impoundment area and into local groundwater aquifers. There are indications that a groundwater plume, contaminated with selenium, exists along the south shore of Gilbert Bay adjacent to KUC's operations. The presence of such a plume suggests that the assumption of impermeability is not necessarily true. Because of this permeability, and specifically while KUC is re-watering the entire tailings impoundment, KUC will add head and mass to the tailings, and huge flows from the impoundment area will occur into the [Great Salt] Lake, both downward and laterally, through the collection ditch and Outfall 012. These downward flows will be progressively greater the lower the lake's water level falls. As this occurs, the contaminated groundwater will interact with the water that flows into the lake, and many soluble elements will mix with lake water. Specifically, contamination from selenium, manganese, and aluminum could result. The applicant has not demonstrated that the impoundment is adequately controlling contaminants such as selenium and should be required to both monitor leakage from past, present, and future impoundments and to protect against future contamination of groundwater sources. The Corps should analyze the flow-through nature of the impoundment as a conduit for transport of contaminants to Great Salt Lake, especially for selenium, manganese, and aluminum. |
| NGO | KUC's discharge of selenium changes the chemistry of the waters of Great Salt Lake, at the very least, on a local level. Although dramatic increases of selenium and mercury were documented by the U.S. Fish and Wildlife Service in eared grebes feeding on brine shrimp, these changes and the impacts they may have on the biota of the lake have never been analyzed or investigated further. Changes to water chemistry, both due to KUC's current discharge and the impacts of continued or increased discharge, should be addressed, particularly as these changes impact algae, brine shrimp, and water birds. |
| NGO | The EIS should include an analysis of the tailings on the water quality of the [Great Salt] lake when it rises and is again able to support a diverse freshwater biology. What degradation would the tailings introduce when awash with fresh water? |
| NGO | Also not addressed, but required to be considered, is the impact that the proposed tailings impoundment expansion will have on water quality of Great Salt Lake. During the majority of the year, excess water contained within the tailings impoundment is discharged into the lake under a Utah Pollutant Discharge Elimination System (UPDES) permit granted by the Utah Division of Water Quality (DWQ). This discharge contains significant amounts of toxic metals, such as selenium, that are harmful to the lake's ecosystem. At this time, EPA has not approved Utah's draft numeric standard for selenium for Great Salt Lake as it is likely in violation of the Migratory Bird Treaty Act. |
| NGO | The Corps must evaluate the effect of existing and proposed additional discharges of waste materials on water quality on the South Arm of Great Salt Lake. In order to accomplish this, the Corps should sample sediments in and near the vicinity of the current discharge to establish baseline data for mercury, methyl mercury, selenium, and other potential contaminants. |
| NGO | The Corps should also evaluate the potential uptake, bioaccumulation, and biomagnifications of methyl mercury, selenium, and other potential contaminants in macroinvertebrates and in birds and other species. |

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| NGO | Since water of high quality is necessary to keep the [Great Salt] Lake's ecosystem functioning properly and in a sustainable manner sufficient to ensure an ample, safe food supply for the millions of birds that depend on it, the Corps must analyze the impact of KUC's proposal on the lake. |
| NGO | The Corps must consider the following factors in addressing the cumulative and individual impacts of the proposed project on water quality:<br>• Utah's narrative water quality standard for the Great Salt Lake;<br>• Utah's selenium standard for Gilbert Bay (not approved by EPA);<br>• The achievement and protection of all designated beneficial uses of Great Salt Lake;<br>• Significant mercury and selenium contamination within the South Arm of the lake and the potential of the project to exacerbate this contamination;<br>• The groundwater plume occurring along the south shore of the lake—in the vicinity of KUC's discharge—that appears to constitute a significant, previously unknown source of selenium contamination;<br>• Potential catastrophic pollution of lake waters by an earthquake-induced spill or other contamination;<br>• Cumulative loss of wetlands and other ecosystem components that help to maintain or improve water quality; and<br>• Impacts on bird populations protected by the Migratory Bird Treaty Act. |
| NGO | The Corps must also quantify, qualify, and fully understand the impacts to water quality stemming from existing discharges into the [Great Salt] Lake and analyze these impacts cumulatively, including the total load into the lake of toxic metals such as selenium. |
| NGO | The Corps must base its analysis on up-to-date information of the existing condition of the [Great Salt] Lake. |
| Agency | The EIS should include an analysis of water quality and water flows in adjacent springs, artesian wells, playas, shallow aquifers, emergent marshes, and canals, as these serve as important resources for wildlife. |
| Agency | The EIS should evaluate the impacts of the proposed project on water quality and avian diet (e.g., invertebrates and fish), including the concentrations and loadings of contaminants in groundwater, surface water, discharge points, and receiving waters. Examples of contaminants include but are not limited to arsenic, copper, lead, mercury, selenium, and zinc. |
| **Water Resources** | |
| Public | Water sample: obtain water samples of the entire current tailings areas, areas in the west valley that are known to be polluted by KUC operations to determine the extent, direction, and discharge of water. These samples must include the lakebed of the Great Salt Lake as well as ground and surface waters feeding the lake. |
| Public | It appears that hundreds of millions of gallons of water are being used, taken from a desert aquifer. What will be the impact of the continued use of the aqua surge for this purpose, increased by additional water needs to control additional tailings dust? |
| NGO | How much water would be required for controlling dust on the expanded tailings ponds on an annual basis as well as on the basis of the life of the project? What impacts would there be to water flows into the Great Salt Lake due to the use of this water and the loss of much of this water due to evaporation? |
| **Wetlands and Riparian Areas** | |
| Public | I feel that Kennecott is re-creating old issues plus 721 acres of new ones. |
| Public | The proposed destruction of 721 acres of wetlands should be replaced with at least the same number of acres (or more) of in-kind wetlands. |
| Public | Buying mitigation credits purchased toward wetlands that are mostly shallow-water playas is not a fair replacement of the actual destroyed marsh habitat. |

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| Public | The marshes listed in the permit are some of the last wetlands left in the area. The permit should be denied based on the fact these types of marshes truly can't be re-created, so any mitigation would result in a net loss of wetlands overall. Approval of the permit should be dependent on confirmation of REPLACED wetlands. |
| Public | I oppose this. It wipes out wetlands. |
| Public | Also how is Kennecott proposing to mitigate for the destroyed wetlands? |
| Public | Preserve our wetlands. |
| Public | It is amazing that public officials are considering destroying even more wetlands. |
| Public | KUC requests filling U.S. waters/wetlands. What compensation is being provided for this take? What warranties are in place for any failures of the deposition site? |
| Public | Concerns about environmental impacts and expansion of the mine will have on our community, especially air quality and wetlands. |
| Public | I am concerned about the effect the expansion will have on the wetlands and the Jordan River. |
| Public | Core concern for proposed wetlands destruction and ecological impacts on the Great Salt Lake, arguably the heart of impacts from this proposed tailings expansion. |
| Public | Wetlands destruction must not be taken lightly around the Great Salt Lake's south shore. Others, including the Friends of Great Salt Lake, will have submitted scoping comments, which we support wholeheartedly. The proposition implied by early discussions indicates that Kennecott will replace ("mitigate") destroyed wetlands at a 1:1 ratio, or perhaps slightly more. Wetlands literature increasingly indicates that this order of magnitude of replacement is paltry, at best, likely to fail in ecological successional processes. Literature review for Great Salt Lake wetlands mitigation is an extremely important exercise, one we predict should result in a mitigation ratio of at least 5 replacement to 1 destroyed (5:1). Alternatives may exist to filling wetlands in what has been designated as the Phase I area. In the mid-1990s Tailings Modernization Project, the Barneys Canyon and Melco gold mines were still operational. Now, they are not. Located approximately 1 mile from the Copperton Concentrator, compared to 12 or more miles from the North Tailings to the Concentrator, the proximity of these large, unused pits may offset the energy requirements of pumping uphill to reach them. This alternative should be evaluated fully. |
| Public | I am very familiar with the area that Kennecott wants to expand on, as a kid I used to venture in the general area to explore and hunt waterfowl. There are many species of waterfowl, birds and of course predatory animals that prey on them. This will annihilate that area and the ecosystem. It is used for nesting; feeding and will in turn push the predatory animals into another area which will cause more problems for the human habited areas nearby. More than likely more predatory animals will be destroyed to protect livestock and property. Kennecott creating wetlands in another area does not solve the issue of the area that has been destroyed. Wetlands are a natural filtering system that keeps the ground water clean. That filtering system will be gone and on top of it literally toxic substances will be put in its place. What will the long term affects be? Will my kids/grand kids Inherit another toxic mess from Kennecott? |
| NGO | Concerns about the ability of the proposed project to allow for adequate avoidance, minimization, and mitigation of natural resources. |
| NGO | The KUC Tailings Expansion would completely destroy approximately 721 acres of waters of the United States, including wetlands, adjacent to Great Salt Lake. The local, national, and international value of Great Salt Lake, its islands, and its wetlands, including adjacent wetlands, cannot be overstated. |
| NGO | Section 404 of the Clean Water Act, 33 USC § 1344, prohibits the filling or dredging of waters of the United States without first receiving a Section 404(b) permit from the Army Corps. 33 USC § 1344(a), (d) (2007). A permit may not be issued if (i) there is a practicable alternative which would have less adverse impact and does not have other significant adverse environmental consequences, (ii) the discharge will result in significant degradation, (iii) the discharge does not include all appropriate and practicable measures to minimize potential harm, or (iv) "there does not exist sufficient information to |

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| | make a reasonable judgment as to whether the proposed discharge will comply" with the Army Corps guidelines for permit issuance. 40 CFR § 230.12(a)(3)(i)-(iv) (2010). |
| NGO | KUC's proposal, if granted, would constitute one more reduction of what can only be described as already significantly reduced wetlands surrounding Great Salt Lake. Therefore, the Corps must, at the minimum, consider individually and cumulatively the impacts of KUC's proposed and existing projects on all the values detailed in 40 CFR § 230.10(c). |
| NGO | [Concerned about] what impact the continuation of transforming the south side of the [Great Salt] Lake into a significant industrial zone, with resultant loss of wetlands, will have on the Great Salt Lake ecosystem. |
| NGO | [Concerned about] to what extent the discharge of dredge or fill material will adversely affect water birds and wildlife, as well as scenic values, recreation, aesthetics, and the public interest. |
| NGO | The Corps must analyze the impact of the planned project on "[l]ocation, structure, and dynamics of aquatic communities; shoreline and substrate erosion and deposition rates; the deposition of suspended particulates; the rate and extent of mixing of dissolved and suspended components of the water body; and water stratification." 40 CFR § 230.23(b). |
| NGO | The Corps must analyze the impact of the proposed project on changes in salinity patterns, erosion or sedimentation rates, water temperature extremes, and nutrient and dissolved oxygen balance of the aquatic ecosystem. 40 CFR § 230.24(b). |
| Agency | Playa habitat represents about 4.4% of Utah's land cover; however, most of this occurs in the "salt flats" west of the Great Salt Lake (Parrish et al. 2002). While playas represent a relatively large component of Utah's land cover, we expect playas occurring near the Great Salt Lake to be used more by migratory birds due to the variety and extent of other nearby wetlands and open water habitats. |
| Agency | The wetland acreage identified represents a substantial percentage of the wetlands and non-wetland waters occurring south of Interstate 80 (I-80) near the Great Salt Lake. Because wetlands and playas north of I-80 may become inundated with salt water during high lake levels, the wetlands and playas south of I-80 may serve as important refugia for many species of migratory birds. |
| Agency | The EIS should assess the loss of wetland and upland habitats within the proposed project location based on the context of current habitat value as well as their importance during a range of [Great Salt] lake elevations. |
| Agency | The applicant has proposed to use their existing wetlands mitigation bank credits at the Inland Sea Shorebird Reserve (Reserve) to provide compensatory mitigation for the loss of up to 721 acres of wetlands and other waters of the United States. The Reserve was created to offset the impacts of the previous tailings impoundment expansion and had unused mitigation credits (Corps 1997). |
| Agency | The EIS should include an analysis of water quality and water flows in adjacent springs, artesian wells, playas, shallow aquifers, emergent marshes, and canals, as these serve as important resources for wildlife. |
| Agency | Mitigation for the approximately 721 acres of wetland impacts is proposed to be located at the Kennecott Inland Sea Shorebird Reserve (ISSR) mitigation bank. The EIS should include information regarding the sufficiency of using the ISSR to mitigate for direct, indirect, and cumulative impacts to playas, emergent marshes, and riparian habitats. |
| Agency | It is our understanding that higher-elevation wetlands will be impacted by the proposal, and that lower-elevation banked wetlands may be used to mitigate that impact. Careful consideration should be given to the elevations of abandoned and replacement wetlands. With the regular Great Salt Lake elevation changes of about 20 feet, it is important to retain some higher-elevation wetlands that will not be inundated with higher lake elevations. These more-widely-dispersed wetlands also have an important role in flood control and water quality for the Westside drainage. |
| **Wildlife Resources** | |
| Public | Selenium is poisonous to most animals, except in very tiny doses. The Great Salt Lake is the final |

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| | repository for the selenium, which is poisonous to waterfowl in different concentrations depending on their lifecycle stage and dose. Not only is this new point-source selenium dangerous, KUC already has unused discharge permits at their north tailings area that are quite generous. That discharge will be in addition to the newly approved one. Since the Great Salt Lake is an internationally noticed bird flyway refuge, it is an inappropriate place to dump concentrated chemical refuse of any sort, but most particularly selenium.* (*Interestingly, both lack and excess of selenium will poison some fowl. The optimum amount is a tightly restricted variable.) |
| Public | Disruption of over 700 acres of Great Salt Lake wetlands is not acceptable as a side effect of pit expansion because the habitat is so valuable to wildlife. |
| Public | The health of our community including wildlife and people is threatened by an expansion. I urge rejection of the tailings expansion project. |
| Public | Do we need to damage the bird refuge even more? |
| Public | Is the project looking out for Utah citizens and wildlife? |
| Public | When the tailings blow into the [Great Salt] lake, what effect are the tailings going to have on the industry in the lake, the boat harbor, and the brine shrimp? Where is it going and what is it going to do? |
| Public | I oppose expansion of the tailings. These are toxic materials and need to be neutralized and used. Tailings on the edge of the Great Salt Lake endanger the lake and the wildlife. |
| Public | It is in the tailings and water recirculation circuit that mixing will occur along whatever gradient prevails at the moment. Selenium, the 'containment of concern' for the Great Salt Lake ecosystem, dominated by migratory shorebirds and waterfowl, is deadly for nearly all this wildlife population of millions of birds each year. |
| Public | I am very familiar with the area that Kennecott wants to expand on, as a kid I used to venture in the general area to explore and hunt waterfowl. There are many species of waterfowl, birds and of course predatory animals that prey on them. This will annihilate that area and the ecosystem. It is used for nesting; feeding and will in turn push the predatory animals into another area which will cause more problems for the human habited areas nearby. More than likely more predatory animals will be destroyed to protect livestock and property. Kennecott creating wetlands in another area does not solve the issue of the area that has been destroyed. Wetlands are a natural filtering system that keeps the ground water clean. That filtering system will be gone and on top of it literally toxic substances will be put in its place. What will the long term affects be? Will my kids/grand kids Inherit another toxic mess from Kennecott? |
| NGO | Concerned about the value of wetlands and wildlife habitats for migratory birds and wildlife in and around the Great Salt Lake. |
| NGO | Potential impacts include direct take of wildlife species, wildlife displacement, increased disturbance to wildlife, and air and water pollution. |
| NGO | Concerned about the cumulative impacts of wetland and habitat loss on migratory birds and wildlife. |
| NGO | Overall, 257 avian species use the Great Salt Lake ecosystem. Of these, 112 species are exclusively associated with the lake's varied wetland areas, while 117 species reportedly nest on the lake's periphery or on its islands. At least 33 species of shorebirds representing 2 to 5 million individuals use the Great Salt Lake annually, stopping along routes that take them elsewhere in North, Central, or South America. In addition, up to 5 million waterfowl migrate through the lake each year. |
| NGO | Pursuant to 16 USC §§ 703-718, the Corps is prohibited from approving an action that would result in the "take" of migratory birds protected under the Act unless permitted by regulations. When analyzing the impacts of KUC's proposal, the Corps must ensure that the destruction of the wetlands would not violate the terms of the Migratory Bird Treaty Act, and the applicant must address in the EIS how it will avoid the take of migratory birds. |
| NGO | Tied to these impacts is evidence of deformities found in the 2010 selenium egg-monitoring study conducted near Saltair at the outflow of Lee Creek. In that study, two out of 11 shorebird eggs showed abnormalities, although selenium levels were at the designated "no effect" level. Other contaminants were |

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| | not measured and no explanation is given, but this is clearly a worrisome finding and should be reason for more data collection to assess the presence of toxics from existing discharges. See www.deq.utah.gov/issues/GSL_WQSC/eggmonitoring.htm. It should be noted that Lee Creek has been associated with discharges from the tailings impoundment and possibly represents a hazard associated with unaccounted-for discharges from the impoundment area. |
| NGO | A full evaluation of the habitat and wildlife values of the wetlands in the proposed expansion area must be conducted. Specifically, this evaluation should include:<br>• An understanding of how these wetlands were formed.<br>• An inventory of the wetland values associated with these wetlands.<br>• An understanding of the type of higher-elevation wetlands impacted by this proposal, and how many of these types of wetlands have been lost throughout the Great Salt Lake watershed. The proposal will destroy a significant portion of a natural and intact wetland that is part of ever-diminishing upland wetlands surrounding the lake.<br>• The value of upland wetlands during high lake periods, particularly for providing bird habitat that is becoming increasingly scarce due to development pressures along the lake shoreline.<br>• The value of this area for floodplain, including an evaluation of how much impact the filling of the floodplain areas might have in flooding other nearby areas during high-water years.<br>• The value of Lee Creek and other stream channels to the ecosystem and specifically to wetland functions and values. |
| NGO | [Concerned about] to what extent the proposed expansion has the potential to impact adversely other bird life. |
| NGO | The Corps must thoroughly investigate all likely impacts of KUC's proposal on biological characteristics of the aquatic ecosystem, and must specifically address:<br>• Threatened and endangered species. § 230.30;<br>• Aquatic organisms in the food web. § 230.31; and<br>• Other wildlife. § 230.32. |
| NGO | The Corps must take a species-specific approach to habitat availability and loss. |
| Agency | The Great Salt Lake ecosystem is an irreplaceable and immitigable resource due to its location, size, and ecological features. It is the fourth-largest terminal lake in the world (Arnow and Stephens 1990). Located approximately midway through an avian migration route between northern Canada and South America and located between the arid desert to the west and rugged mountains to the east, the Great Salt Lake and its associated wetlands are a vital bird staging area in an otherwise arid region. The importance of the Great Salt Lake ecosystem to wildlife on a national and international level is well documented. |
| Agency | The Great Salt Lake is part of the Western Hemispheric Shorebird Reserve Network (WHSRN), a distinction afforded to only five areas in the lower 48 states (Manomet 2007). To meet requirements of the WHSRN, an area must support more than 20,000 shorebirds, or 5% of a flyway population. The Great Salt Lake ecosystem easily exceeds the WHSRN standards, with impressive numbers of Wilson's phalarope (500,000; largest staging concentration in the world), red-necked phalarope (240,000), American avocet (250,000; exceeds any other wetland in the Pacific flyway), black-necked stilt (65,000; exceeds any other wetland in the Pacific flyway), and marbled godwit (30,000; the only staging area in the interior U.S.) (UDWR 2008). |
| Agency | Based on this information, the EIS should specifically evaluate potential impacts to migratory birds and their habitats and establish measures to avoid and minimize impacts to migratory birds. Potential impacts of the project on migratory birds include but are not limited to:<br>• Direct take of migratory birds;<br>• Loss of habitat (e.g., direct wetland fill);<br>• Alteration of habitat, including<br>o fragmentation, |

**Table 1. Summary of Scoping Comments**

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| | o change in points of water diversion, and<br>o reductions or increases in water quantity; and<br>• Contamination of water quality and avian diet. |
| Agency | The MBTA [Migratory Bird Treaty Act] prohibits the take of migratory birds, their parts, nests, eggs, and nestlings. Executive Order 13186, issued on January 11, 2001, affirmed the responsibilities of federal agencies to comply with the MBTA. |
| Agency | Any groundbreaking activities or vegetation treatments should be performed before migratory birds begin nesting or after all young have fledged to avoid incidental take. |
| Agency | If activities must be scheduled to start during the migratory bird breeding season, take appropriate steps to prevent migratory birds from establishing nests in the potential impact area. These steps could include covering equipment and structures and use of various excluders (e.g., noise). Prior to nesting, birds can be harassed to prevent them from nesting on the site. |
| Agency | If activities must be scheduled during the migratory bird breeding season, a site-specific survey for nesting birds should be performed starting at least 2 weeks prior to ground-breaking activities or vegetation treatments. Established nests with eggs or young cannot be moved, and the birds cannot be harassed (see b., above), until all young have fledged and are capable of leaving the nest site. |
| Agency | If nesting birds are found during the survey, appropriate spatial buffers should be established around nests. Ground- disturbing activities or vegetation treatments within the buffer areas should be postponed until the birds have left the nest. Confirmation that all young have fledged should be made by a qualified biologist. |
| Agency | We recommend use of the Utah Field Office Guidelines for Raptor Protection from Human and Land Use Disturbances (Romin and Muck 2002), which were developed in part to provide consistent application of raptor-protection measures and to provide full compliance with environmental laws regarding raptor protection. Raptor surveys and mitigation measures are provided in the guidelines as recommendations to ensure that proposed projects will avoid adverse impacts to raptors. |
| Agency | Locations of existing raptor nests should be identified prior to the initiation of project activities. |
| Agency | Appropriate spatial buffer zones of inactivity should be established during crucial breeding and nesting periods relative to raptor nest sites or territories. Arrival at nesting sites can occur as early as December for certain raptor species. Nesting and fledging can continue through August. |
| Agency | The EIS should discuss where the existing power lines will be relocated. The new power lines should be designed to include structures to prevent raptor mortality. |
| Agency | The applicant's proposed project encompasses approximately 1,992 acres and will result in the fill of approximately 565 acres of wetlands and 156 acres of non-wetland waters of the United States. Wetlands represent about 0.2 % of Utah's land cover but are used by 14% of Utah's avian species as breeding habitat (Parrish et al. 2002). |
| Agency | In addition to the direct loss of migratory bird habitats, the EIS should evaluate the indirect loss and alteration of habitats. Impacts to adjacent wetlands and migratory bird habitats might result from a change in the location, timing, or amount of water. For example, the relocation of ditches may change the points of diversion (or point of delivery), thereby impacting existing wetlands. |
| Agency | Poor water quality can affect migratory birds in many ways. Examples include, but are not limited to, direct mortality; decreased hatchability; eggshell thinning; reduced nest attentiveness; increased susceptibility to diseases; reduced invertebrate prey base; shifts in the invertebrate community; changes in the vegetative composition; and changes in habitat structure and function (Walker et al. 2001; Grue et al. 2002). The effects of poor water quality may be exacerbated by other stressors such as crowding of wildlife populations due to low [Great Salt] lake levels, or the additive and synergistic effects of contaminants (Grue et al. 2002). |
| Agency | Migratory birds may also be exposed to contaminants in the water on top of the tailings impoundment; therefore, the EIS should evaluate best management practices to avoid and minimize exposure, including |

**Table 1. Summary of Scoping Comments**

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| | measures to keep birds off the tailings impoundment. |
| Agency | Federal agencies have specific additional responsibilities under Section 7 of the Endangered Species Act (ESA). Current county species lists can be obtained from our website: http://www.fws.gov/utahfieldoffice/EndSpp.html. The proposed action should be reviewed and a determination made if the action will affect any listed species or their critical habitat. If it is determined by the federal agency, with the written concurrence from the U.S. Fish and Wildlife Service (Service), that the action is not likely to adversely affect listed species or critical habitat, the consultation process is complete, and no further action is necessary. |
| Agency | Formal consultation (50 CFR 402.14) is required if the federal agency determines that an action is "likely to adversely affect" a listed species or will result in jeopardy or adverse modification of critical habitat (50 CFR 402.02). Federal agencies should also confer with the Service on any action that is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat (50 CFR 402.10). A written request for formal consultation or conference should be submitted to the Service with a completed biological assessment and any other relevant information (50 CFR 402.12). |
| Agency | Only a federal agency can enter into formal ESA Section 7 consultation with the Service. A federal agency may designate a non-federal representative to conduct informal consultation or prepare a biological assessment by giving written notice to the Service of such a designation. The ultimate responsibility for compliance with ESA Section 7, however, remains with the federal agency. |
| Agency | Your attention is also directed to Section 7(d) of the ESA, as amended, which underscores the requirement that the Federal agency or the applicant shall not make any irreversible or irretrievable commitment of resources during the consultation period which, in effect, would deny the formulation or implementation of reasonable and prudent alternatives regarding their actions on any endangered or threatened species. |
| Agency | The Great Salt Lake (GSL) and its adjacent wetlands form one of the most important bird areas in Utah and have been designated a Site of Hemispheric Importance within the Western Hemisphere Shorebird Reserve Network, providing a staging area for millions of shorebirds and wading birds. |
| Agency | Due to the temporal nature and high value of the playa wetlands surrounding the GSL, especially to avian species, DWR [the Utah Division of Wildlife Resources] is concerned about the direct loss of approximately 721 acres of wetland habitats. |
| Agency | The railroad realignment may result in the direct loss and fragmentation of playas and wetlands east of 7200 West, and may isolate the playas between 7200 West and the new railroad tracks. The isolated playa habitats are identified as being "nonimpacted," even though their water source and connectivity to adjacent habitats will be removed. We recommend that these wetlands be identified as having indirect habitat loss and fragmentation. |
| Agency | Both Lee and Kersey Creeks are located within the expansion area. The EIS should identify terrestrial and aquatic wildlife, including macroinvertebrates, that utilize these creeks. We suggest that consideration be given to designing the new channels to support aquatic functions and provide riparian habitats sufficient to support terrestrial wildlife. |
| Agency | The EIS should assess the loss of wetland and upland habitats within the proposed project location based on the context of current habitat value as well as their importance during a range of [Great Salt] lake elevations. |
| Agency | The Brighton Ditch and C-7 Ditch are proposed to be realigned. The EIS should identify where these will be relocated and address the potential wildlife impacts associated with ditch realignment. |

# 6.0 Topics for Analysis in the EIS

The EIS will describe the affected environment and environmental consequences of the no action and action alternatives with respect to the following resource categories. For ease of reading this report the categories are listed in alphabetical order.

- Air quality
- Climate (change)
- Cultural resources
- Cumulative impacts
- Economics
- Engineering
- Geochemistry
- Geotechnical
- Groundwater
- Health and safety
- Impact analysis
- Land use
- Mitigation
- NEPA
- Operations
- Permitting requirements
- Reclamation
- Recreation
- Scope of analysis
- Socioeconomics
- Soils
- Solid and hazardous waste
- Surface water hydrology
- Seismic
- Transportation and access
- Vegetation
- Visual resources
- Water resources
- Water quality
- Wetlands and riparian areas
- Wildlife resources

# 7.0 Additional Opportunities to Comment

Members of the public, NGOs, and agencies may submit comments on the proposed project at any time during the EIS process. USACE will continue to accept and consider scoping comments as it prepares the Draft EIS. When the Draft EIS is released, USACE will ask agencies and the public to comment on the contents of the document. Public, NGO, and agency comments received during the Draft EIS comment period will be considered as USACE prepares the Final EIS and ROD.

# 8.0 Summary

Kennecott is proposing to expand its existing tailings impoundment facility near the community of Magna in Salt Lake County, Utah. Kennecott has applied for a Department of the Army permit under Section 404 of the CWA to fill approximately 721 acres of waters of the United States, including wetlands, in order to implement the TEP.

USACE is preparing an EIS for the proposed action and conducted a NEPA scoping process between June 2011 and August 2011. USACE sought scoping comments through its public noticing process (June 11, 2011, through July 11, 2011); an NOI that was published in the Federal Register on June 11, 2011; advertisements in local newspapers; a series of four scoping meetings held throughout the project region; cooperating agency invitations that also asked for agency comments; and an agency scoping meeting on August 9, 2011.

The public scoping meetings were held in Magna, Salt Lake City, and West Jordan in Salt Lake County and Stansbury Park in Tooele County. The meetings were semiformal with a 15-minute presentation given once during the evening. In addition, informational boards, maps, and handouts were available for review. A total of about 75 people attended the four meetings.

The all-day agency scoping meeting on August 9 included a project information session in HDR Engineering's Salt Lake City office and a project site visit in the afternoon.

Members of the public and agency representatives provided comments at the scoping meetings by filling out a comment form or leaving an oral comment with a stenographer. People who desired more time to compose a comment or who did not attend the scoping meetings provided written comments by U.S. mail and e-mail. USACE received 50 comment letters, comment forms, comment e-mails, or oral comments from the general public; four written comment letters or e-mails from federal, tribal, state, and local agencies; and six written comment letters or e-mails from NGOs.

Scoping comments focused on numerous resources and concerns (see Table 1, Summary of Scoping Comments, and Section 6.0, Topics for Analysis in the EIS). The EIS will consider the project impacts that are related to issues identified during scoping.

USACE will continue to accept scoping comments as it prepares the Draft EIS. Agencies and the public will also be invited to comment on the contents of the Draft EIS when it is released for public and agency review.