SOUTHWEST JORDAN VALLEY GROUND WATER CLEANUP PROJECT
STATE OF UTAH NATURAL RESOURCE DAMAGE TRUSTEE

FINDINGS AND CONCLUSIONS
AUGUST 31, 2004

I. PURPOSE

The purpose of this document is to describe how the Joint Proposal, Project Agreement, 3-Party Agreement, and the associated documents and reports, collectively referred to as the Project, address the requirements and options within the August 21, 1995, Consent Decree entered in Civil Action No. 86-C-0902G in the United States District Court for the District of Utah (Consent Decree).

II. INTRODUCTION

In August 2003, Kennecott Utah Copper Corporation (Kennecott) and the Jordan Valley Water Conservancy District (District or JVWCD) submitted a proposal to the Natural Resources Damage Trustee for the State of Utah (Trustee) to construct and operate a groundwater extraction and treatment project with groundwater remedial functions that will provide treated, municipal quality water to the public in the Affected Area of the southwestern Jordan Valley (Project) as defined in the Consent Decree. The document, Proposal to the Utah State NRD Trustee and USEPA CERCLA Remedial Project Manager for a Groundwater Extraction and Treatment Remedial Project in the Southwestern Jordan Valley (Joint Proposal) describes how Kennecott and the District propose to extract and treat sulfate contaminated ground water and provide municipal quality drinking water pursuant to requirements of the Consent Decree. In conjunction with the Joint Proposal, Kennecott and the District submitted a 3-Party Agreement and a Project Agreement (Implementing Agreements) to specify how the Joint Proposal would be implemented.

The Joint Proposal and Implementing Agreements include the following components:

- A plan to provide a minimum of 8235 acre feet per year (afy) of municipal quality drinking water to the public in the Affected Area;
- Construct and operate two reverse-osmosis water treatment plants and associated extraction wells and pipeline;
- Contain the spread of groundwater contamination and remove contamination from the deep (Principal) aquifer in Affected Area;
- Derive funding for the Joint Proposal from the Natural Resource Damage Trust Fund, with additional funding provided by Kennecott and the District; and
- Integrate the CERCLA remedial response for the acidic core and elevated sulfate portions of the Zone A plume with the Natural Resource Damage provisions of the Consent Decree.

The Trustee, in considering the Project for the Affected Area, advertised and hosted a public comment period from September 2, 2003 to November 21, 2003, and June 18, 2004 to August 2, 2004. The Joint Proposal and Implementation Agreements were provided to the public for review and comment. The Trustee is providing a Comment Response Summary of those comments and responses in conjunction

with this Findings and Conclusions document and the Trustee's decision regarding the Joint Proposal and Implementing Agreements.

The Consent Decree details requirements and options regarding natural resource damages and settlement of the damage claim. Following are the clauses and requirements for activities pursued by or proposed by Kennecott and JVWCD under the Consent Decree and findings and conclusions regarding how the Joint Proposal and Implementing Agreements meet the Consent Decree terms.

III. FINDINGS AND CONCLUSIONS

The Consent Decree, in Section V, identifies specific actions to be performed by Kennecott, in full and complete satisfaction of the State's NRD claim against Kennecott. In reaching a decision regarding the Joint Proposal, Project Agreement, and 3-Party Agreement to implement the NRD cleanup program for the Affected Area, the Trustee has evaluated whether the terms of the Consent Decree are being fulfilled. Following are Findings and Conclusions regarding each of the applicable terms of the Consent Decree.

Consent Decree Section V.A – Remedial Investigation and Feasibility Study

"Kennecott agrees to conduct and complete the RI/FS in accordance with the work plan approved by the State and by the Environmental Protection Agency ("EPA") on March 8, 1995 or any amendments subsequently approved and agreed to by Kennecott, the State and EPA. Kennecott, the State and the District all reserve the right to contest any remedial decision by EPA which results from or follows the completion of the RI/FS." (Consent Decree Section V.A)

FINDINGS:
Upon signing the December 13, 2000, Record of Decision for Operable Unit No. 2 (ROD), drafted by the Environmental Protection Agency Region VIII (EPA), both DEQ and EPA agreed that the Remedial Investigation and Feasibility Study (RI/FS) were complete. At the same time, both EPA and DEQ recognized that the unfinished studies listed in the FS could be deferred to the Remedial Design (RD) activities. The statement in the ROD (page 9), *"The RI/FS document was submitted in 1998 although additional experiments relating to remedial design (RD) are on-going and will be completed during RD,"* memorialized this deferment.

As stated in the *Kennecott Utah Copper Final South Facilities Groundwater Remedial Design Work Plan* (August 6, 2001), Kennecott was required to report on the results of the investigations deferred from the FS to the RD (page 1), including the following: 1) Effects of potential discharges on the Great Salt Lake; 2) Characterization of extracted and treated water; 3) Additional treatability studies; 4) Containment and delivery system optimization; 5) Additional modeling; 6) Definition of delivery options; and 7) Delineation of institutional controls. The studies deferred have been completed.

CONCLUSION:
The Trustee finds that, to the extent the completion of the RI/FS is related to the implementation of the Joint Proposal, Project Agreement, and 3-Party Agreement, the requirements of Section V.A. of the Consent Decree have been met.

Consent Decree Section V.B – Low pH/Heavy Metals Plume

"Kennecott Agrees to drill a well or wells into the low pH/heavy metals plume within 24 months of the entry of this Decree, at a location or locations agreed to by the Trustee, to equip that well or wells to pump at a rate of at least 1,000 gallons per minute, and to pump the water from the plume to the leach water handling system at the waste rock disposal areas for evaporation. This measure will result in removal of at least a rolling average of 400 acre feet of water on an annual basis over a fiver year period

from the low pH plume which will remove contaminants from the aquifer and help to contain that plume. Kennecott shall continue operation of the extraction well unless it is determined by the Trustee, EPA, or other applicable authority that pumping is causing spread of the plume, or unless an alternative action of equivalent benefit is undertaken to remove contaminants from the aquifer and help contain the plume." (Consent Decree Section V.B)

FINDINGS:
Kennecott has reported to the Trustee on the progress of the extraction program twice. Excerpts from the letters are provided below.

A Kennecott letter to the Trustee, dated January 28, 2002, states:
"An extraction well is completed in the core of the low pH/heavy metals plume (acid plume). A dual-wall, high-density polyethylene (HDPE) pipeline conveys plume water to the Eastside leach collection system or process water system (as allowed by UDEQ). Extraction of plume groundwater commenced in August 1997. Through 21 August 2001 (four complete years of operation), 1173.6 acre-feet of acid water have been extracted. A total of over 85,402 tons of sulfate has been removed by pumping on this well, the plume containment wells (K60 replacement, K109) and sulfate extraction well.

"As part of the NRD settlement with the Trustee, KUCC has committed to pump 400 acre-feet per year (on a five-year rolling average) from the acid extraction well. Year five ends August 21, 2002. As of January 1, 2002, KUCC is approximately 542 acre-ft in deficit [of] our commitment. A new pump is scheduled to be installed during 2002 that will have the capability of pumping up to 1800 gpm. Provided scaling issues in the tailings pipeline are appropriately managed and permitted discharge from the tailings impoundment continues, KUCC will be able to meet the pumping commitment by the required date. Assuming 542 acre-ft remain to be extracted, a continuous pumping rate of approximately 526 gpm will be required to meet KUCC's obligation."

A follow up letter from Kennecott to the Trustee, dated August 26, 2002, states:
"An extraction well is completed in the core of the low pH/heavy metals plume (acid plume). A dual-wall, high-density polyethylene (HDPE) pipeline conveys plume water to our process water system for treatment. Extraction of plume groundwater commenced in August 1997. Through 21 August 2002 (five complete years of operation), 2203.0 acre-feet of acid water have been extracted. A total of over 136,595 tons of sulfate has been removed by pumping on this well, the plume containment wells (K60 replacement, K109) and sulfate extraction well.

"As part of the NRD settlement with the Trustee, KUCC committed to pump 400 acre-feet per year (on a five-year rolling average) from the acid extraction well. Year five ended August 21, 2002. As shown above, KUCC has met and exceeded this requirement. Pumping of the acid well continues at rates higher than 400 ac-ft per year and designs are currently being engineered to install the second acid extraction well."

The Joint Proposal describes project elements which are outlined in the CERCLA Record of Decision and reconfirmed in the draft "Explanation of Significant Differences" dated June 23, 2003 (Appendix B, Joint Proposal), including "withdraw and treat the heavily contaminated waters from the core of the acid plume in Zone A." (Joint Proposal Section 3.2)

The Joint Proposal includes the commitment to continue to extract acid core contaminants:
"KUCC plans to operate its acid plume extraction wells 1146 and 1202 and possibly other acid extraction wells. KUCC is required as part of the Consent Decree to extract 400 afy annually

from the acid plume. KUCC intends to exceed this requirement in order to remove the majority mass of the acid plume as quickly as possible (see Appendix D). However, the extraction rate from these wells will be constrained by the capacity of KUCC's existing water rights and the safe yield of the aquifer. KUCC's existing water rights (Section 7.2) will allow for extraction of 2020 afy from the acid wells.

"If necessary, additional extractions may be made by KUCC to contain and contract critical portions of the acid and highly elevated sulfate plume to protect human health and the environment. These extractions would require transfer of additional water rights to the remedial area." (Joint Proposal Section 5.2*)*

CONCLUSION:
The Trustee finds that, to the extent the extraction of the low pH/heavy metals plume water is related to the Joint Proposal, Project Agreement, and 3-Party Agreement, the requirements of Section V.B of the Consent Decree have been met and can reasonably be expected to continue to be met.

Consent Decree Section V.C – Additional Source Controls

"Kennecott agrees to complete additional source control measures within 24 months of the entry of this Decree, described as the completion of the eastside collection system and the Bingham Creek cutoff system, in accordance with Kennecott's application for and in compliance with a Utah Groundwater Discharge Permit." (Consent Decree Section V.C)

FINDINGS:
Construction began on the Eastside Collection System in 1996. A ground water protection permit was issued by the Division of Water Quality and took effect on May 3, 1999. As part of the Eastside Collection System, the Bingham Canyon Cutoff wall was constructed in 1995. The Large Bingham Reservoir was reconstructed in stages, with the last stage (Zone 2) completed in 1995. A permit for the reconstruction, as well as for groundwater discharges, was provided to Kennecott by the DEQ Division of Water Quality on May 3, 1995.

CONCLUSION:
The Trustee finds that, to the extent the additional source control measures relate to the Joint Proposal, Project Agreement, and 3-Party Agreement, the requirements of Section V.C of the Consent Decree have been met.

Consent Decree Section V.D.1 – Natural Resource Damage Claim Trust Fund

"Kennecott shall, within fifteen days following the date of entry of this Decree:

1. Pay to the Trustee in cash the sum of nine million dollars ($9,000,000) which the Trustee shall place in the Trust Fund to be administered by the Trustee and which shall be expended only to restore, replace, or acquire the equivalent of the surface or ground water resources for the benefit of the public in the Affected Area as provided by Section 107(f) of CERCLA, 42 U.S.C. § 9607 (f). Allocation of the right to use surface or ground water resources by the public shall be by the Utah State Engineer pursuant to Utah water law." (Consent Decree Section V.D.1)

FINDINGS:
The $9.0 million cash portion of the settlement was provided to the Trustee by Kennecott on September 5, 1995. The cash portion of the Trust Fund is managed by the State Treasurer under a separate PTIF account. Since its establishment, it has been earning interest at the PTIF rate, which has fluctuated between 6.0% to 1.5%.

As provided in the Joint Proposal (Section 9.0), this cash portion of the Trust Fund will be used for operation and maintenance of the Lost Use treatment facility operated by JVWCD to produce municipal quality drinking water. The water will be provided to municipalities in the Affected Area for the benefit of the public.

Under the terms of the Consent Decree, JVWCD commits to provide a minimum of 1,235 acre feet per year of municipal quality drinking water, representing the lost use component of the groundwater cleanup. If JVWCD does not operate the Lost Use shallow groundwater facility, it will continue to deliver at least 1,235 acre feet of water per year from its other sources to the Affected Municipalities for the remainder of the Operational Period. (Joint Proposal, Section 10.3)

Section VI of the 3-Party Agreement recognizes the use of the cash portion of the Trust Fund for the Lost Use Facility. The Project Agreement recognizes the role of the Lost Use Facility in providing municipal quality drinking water for the benefit of the Public in the Affected Area.

In the Project Agreement, Section 7 details the role of the Lost Use Facility in providing municipal quality drinking water in the Affected Area.

CONCLUSION:
The Trustee finds that the Joint Proposal, Project Agreement, and 3-Party Agreement provide for use of the cash portion of the Trust Fund consistent with the terms of the Consent Decree and in a manner that will restore, replace or acquire the equivalent of the surface or ground water resource for the benefit of the public in the Affected Area.

Consent Decree Section V.D.2 – Natural Resource Damage Claim Trust Fund

"*Kennecott shall, within fifteen days following the date of entry of the Decree:*

2. Provide to the Trustee an irrevocable letter of credit in the amount of twenty-eight million dollars ($28,000,000) substantially in a form acceptable to the Trustee which shall be held by the Trustee as part of the Trust Fund. For purposes of this paragraph 2, the Trustee has determined that the unit cost of producing municipal quality water from groundwater I n the Affected Area is $4000 per acre foot in 1995 dollars and that $28 million is sufficient to construct a facility that will provide 7000 acre feet per year of municipal quality water." (Consent Decree Section V.D.2)

FINDINGS:
Within 15 days of entry of the Consent Decree, Kennecott was required to provide the Trustee with an Irrevocable Letter of Credit (ILC) in the amount of twenty-eight million dollars to be held by the Trustee as part of the Trust Fund. The Trustee arrived at the $28.0 million figure by calculating the unit cost of producing municipal quality water from ground water in the Affected Area assuming $4,000 per acre foot in 1995 dollars. Pursuant to this determination, the $28.0 million was judged sufficient to construct a facility that would provide 7000 acre-feet per year of municipal quality drinking water.

Kennecott provided the Trustee with the ILC on September 5, 1995. The Trustee is the beneficiary under the ILC. As required by the Consent Decree, the irrevocable letter of credit increases at a rate of 7 percent annually

Morgan Guaranty Trust Company issued the original ILC. On August 25, 1999, Kennecott provided a substitute ILC through Wachovia Bank, N.A. The ILC portion of the Trust Fund is subject to reduction in accordance with the terms of the Consent Decree, as more fully discussed below.

CONCLUSION:
The ILC provided by Kennecott was established consistent with the requirements of Section V.D.2 of the Consent Decree.

"The letter of credit shall be adjusted as follows:
a. Increased annually by 7 percent of the then current amount of the letter of credit." (Consent Decree Section V.D.2.a)

FINDING:
The value of the Irrevocable Letter of Credit, provided in accordance with Section V.D.2 of the Consent Decree, has been increased annually by 7 percent of the then current total amount.

The initial ILC, established in accordance with Section V.D.2, and its associated 7 percent interest rate, will not be retained under the Joint Proposal. Two new ILCs, Zone A ILC and Zone B ILC, will be managed consistent with Section V.D.2.b.i-iv and Section V.D.4, respectively.

CONCLUSION:
The Joint Proposal, Project Agreement and 3-Party Agreement, will establish two new ILCs which are not subject to the 7 percent interest rate associate with the initial ILC under the Consent Decree.

"The letter of credit shall be adjusted as follows:
b. If Kennecott provides and delivers municipal quality water through treatment of contaminated water to a system of a purveyor of municipal and industrial ("M&I") water in a manner acceptable to the Trustee, and" (Consent Decree Section V.D.2.b)

FINDINGS:
The Joint Proposal, Project Agreement, and 3-Party Agreement and the supporting studies and operations support the finding that Kennecott can provide municipal quality water through treatment of contaminated water.

Under the terms of the Joint Proposal, Project Agreement, and 3-Party Agreement, Kennecot will deliver treated water to JVWCD.

"i) The water is accepted by a purveyor of M&I water (other than Kennecott) with the water right to put the water to beneficial use, and the purveyor is obligated to pay to Kennecott no more than the operation and maintenance costs the purveyor would have incurred absent the contamination up to $49 per acre foot in 1995 dollars. Kennecott's agreement with the purveyor may contain such other non-financial terms and conditions as Kennecott and the purveyor may negotiate, and" (Consent Decree Section V.D.2.b.i)

FINDINGS:
JVWCD is a purveyor of municipal and industrial water and has presented the proposed project to the Trustee together with Kennecott. Under the terms of the Project Agreement discussed in Section 13.4 of the Proposal, JVWCD agrees to accept the treated water produced from the Zone A Plant, deliver it to the public in the Affected Area, and pay to Kennecott, as avoided operation and maintenance costs, $49 (1995 dollars) for each acre foot of treated water delivered to it.

Based on the information regarding water right provided by JVWCD in conjunction with the Joint Proposal, Project Agreement, and 3-Party Agreement, JVWCD has the water right to put the water to beneficial use.

CONCLUSION:
The Joint Proposal, Project Agreement, and 3-Party Agreement meets the requirements of Section V.D.2.b.i of the Consent Decree.

"ii) The Trustee determines that the extraction of contaminated water will proportionately prevent or reduce the spread of aquifer contamination. Such extraction shall be deemed to proportionately prevent or reduce the spread of aquifer contamination if it has the result of (a) ratably providing the same quantity of municipal water and (b) ratably capturing the same mass of sulfates as the methodology utilized by the State to determine the unit cost of producing treated water. In making the determination the Trustee shall consider the underlying basis for the Trust Fund as described in the Supporting Document, consistency with CERCLA, and any other measures taken by Kennecott that have a containing effect, and" (Consent Decree Section V.D.2.b.ii)

FINDINGS:
Data from existing extraction of the acid core plume and studies and modeling of the deep (principal) aquifer supports the determination that the Joint Proposal will prevent and reduce the spread of contamination.

With a base volume of treated municipal quality water of 3500 acre feet per year, the required reduction of (dry weight) sulfate that must be produced each year from the proposed Zone A treatment operation is 9,156,000 lbs of sulfate per year. The production requirement of treated municipal quality water for the proposed Zone A operation is half (3500 acre feet) of the total production requirement (7000 acre feet). The required sulfate production value was calculated as follows, given:

- Conceptual extraction and treatment system would remove approximately 2,616 lbs. sulfate per acre foot produced, for each year of operation. (Source – NRD Supporting Document, page 41-42).
- Proposed production amount: 3500 acre feet per year (Source – Joint Proposal)
- Required sulfate production calculation: (3500 acre-feet/year) x (2,616 lbs/acre foot per year) = 9,156,000 lbs/year

The current proposal for the Zone A treatment facility could produce approximately 11,907,000 lbs per year of dry weight sulfate. This value was determined by the following calculation, given:

- Based upon feed water characteristics (1500 mg/l sulfate) the Zone A facility will produce a net sulfate quantity of 1250 mg/l in the waste stream.
- 1,250 mg/l sulfate equates to 1.25 g/l of sulfate.
- The Zone A operation should produce 3402 lbs/acre foot of sulfate per year, as calculated by the following formula: (1.25 g/l) x (3.79 l/gal) x (1 lb./454 grams) x (326 gal/acre foot) = 3402 lbs/acre foot
- Proposed sulfate production calculation: (3500 acre-feet/year) x (3402 lbs./acre-foot per year) = 11,907,000 lbs of sulfate per year.

A comparison of the "Extracted Acre Feet per Year" to the "Pounds (lbs) Extracted Per Year" demonstrates that the "Pounds Per Acre Foot" produced since extractions began in Zone A removes a sufficient quantity of sulfate per acre-feet to exceed the conceptual extraction quantity of 2,616 lbs. sulfate per acre-foot produced. Kennecott will continue to specifically account for the amount of sulfate the treatment process produces each year as part of its annual reporting requirement.

Kennecott provided proposed design and pilot testing information to the Trustee.

CONCLUSION:
The Joint Proposal, Project Agreement, and 3-Party Agreement meet the requirements of Section V.D.2.b.ii of the Consent Decree.

"iii) The Trustee determines that the municipal quality water is a sustainable water supply (40 or more years) and" (Consent Decree Section V.D.2.b.iii)

FINDINGS:
Kennecott has modeled water table drawdown along with the thickness of the principal aquifer for those areas where planned extractions of sulfate-contaminated water is to occur. Using the planned extraction rates of 1100 gpm each in wells K60 (#1193) and K109 (#1200), and an extraction rate of 1000 gpm for well #1147, modeling indicates a drawdown or lowering of the water table of approximately 70-80 feet in the area at year 2047.

The existing water levels at wells #1193 and #1200 are approximately 435 and 400 feet below ground surface (bgs) respectively. A drawdown of an additional 70 feet would result in a water level of 505 feet bgs at #1193 and 470 feet bgs at #1200 compared to the base of the principal aquifer of approximately 1080 feet in #1193 and 800 feet in #1200. Based upon these numbers, the principal aquifer would be able to produce the volume of water for the 40-year period required under the terms of the Consent Decree.

In addition to this requirement, under the agreements discussed in Section 13.4 of the Joint Proposal, municipal quality water also will be provided from the Zone B Facilities or other sources available to the District for at least forty years. The model for Zone B indicates that a drawdown of less than 20 feet in year 2047 is expected. Water levels are currently in the 100 to 150 feet range. The deep wells that the District plans to install in the sulfate-contaminated zone are to be completed at 500-600 feet bgs, well below any anticipated drawdown affects.

CONCLUSION:
The Joint Proposal, Project Agreement, and 3-Party Agreement meet the requirements of Section V.D.2.b.iii of the Consent Decree.

"iv) Kennecott demonstrates that its project does not increase materially the Trustee's unit cost to produce the remainder of the 7,000 acre feet per year of municipal quality water (an underlying assumption of this Decree is that at least 7,000 acre feet per year is available in the area, and the cost of acquiring water rights is not a factor to be considered by the Trustee in making this determination), then the letter of credit shall be reduced ratably by an amount equal to the water provided based on the $4000 per acre foot unit cost in 1995 dollars. A partial reduction shall be made at the time the treatment facilities are deemed by the Trustee to be complete and operational based on the portion of the $4000 per acre foot unit cost in 1995 dollars that represents capital costs in accordance with the Supporting Document for this Decree. Further reductions for operation and maintenance shall be made based on established obligations to provide water or as water is provided up to a maximum of 7,000 acre feet per year." (Consent Decree Section V.D.2.b.iv)

FINDINGS:
As more fully described below, the project proposed by Kennecott and JVWCD will produce in excess of 7000 acre feet per year of municipal quality water.

Furthermore, if the project outlined in the Joint Proposal does not go forward with regard to the Zone B treatment facilities (which is to produce 3500 acre feet), the costs for the Zone A Plant

(producing the other 3500 acre feet) demonstrate that the remaining 3500 acre feet can be produced with the amount attributable to the Zone B ILC. If reductions to the Zone B ILC have occurred so that the District is obligated to deliver at least 1750 acre feet per year, the balance of the Zone B irrevocable letter of credit remains for the Trustee's use to restore, replace or acquire the equivalent of the remaining volume of water.

Under the proposed project, at the time the Zone A Plant (proposed under Section V.D.2.b of the Consent Decree) is complete and operational, Kennecott is obligated to produce 3500 acre feet per year from the plant for the forty year period. Only at this time do the reductions to the Zone A ILC begin. These obligations are set forth in the 3- Party Agreement, which is discussed at Section 13.4 of the project proposal.

The District's commitment with regard to the Zone B Facilities (proposed under Section V.D.4 of the Consent Decree) is to produce 3500 acre feet per year from the facilities or other sources available to the District for a forty-year period, whether or not the Zone B Facilities reach complete and operational status. The District's commitment is incremental. (See discussion of the 3- Party Agreement at Section 13.4 of the Project Proposal.) The District commits to deliver 1750 acre feet per year of water for 40 years when Kennecott has reimbursed the District for Zone B construction costs equal to one-half of the Zone B ILC. At this time, the Zone B ILC will be reduced by 50 percent. Further reductions to the Zone B ILC will occur consistent with increases in reimbursements made by Kennecott and increases in the District's commitments for water delivery. The District's commitment to deliver water will be 3500 acre feet per year for 40 years when Kennecott has reimbursed the District for construction costs equal to the full amount of the Zone B ILC. At that time, the Zone B ILC will be reduced to zero.

CONCLUSION:
The provisions of the Joint Proposal, Project Agreement, and 3-Party Agreement meet the requirements of Sections V.D.2.b.i, ii, iii, and iv of the Consent Decree.

Consent Decree Section V.D.2.c –Natural Resource Damage Claim Trust Fund

"c. If the Record of Decision ("ROD") issued by the EPA at the completion of the RI/FS mandates or EPA otherwise requires Kennecott to treat and provide water at a lesser quality (i.e., water of a quality with sulfates between 250 to 500 mg/l and total dissolved solids between 500 to 1000 mg/l), and the manner of providing water is acceptable to the Trustee and the conditions of paragraph 2 (b)(i-iv) are met, the letter of credit shall be reduced at one half the rate described in paragraph 2(b). There will be no reduction in the amount of the letter of credit for water produced with concentrations greater than 500 mg/1 sulfate and 1,000 mg/l total dissolved solids." (Consent Decree Section V.D.2.c)

FINDING:
The December 13, 2000 Record of Decision did not require Kennecott to treat and provide water of lesser quality, i.e., water with sulfate concentrations above 500 mg/l and a TDS concentration above 1000 mg/l.

CONCLUSION:
The criteria under Section V.D.2.c are not applicable and a reduction under this option has not been considered.

Consent Decree Section V.D.2.d.i -iv – Natural Resource Damage Claim Trust Fund

"d. If Kennecott provides and delivers municipal quality water through extraction or collection of water to a purveyor of M&I water in a manner acceptable to the Trustee; and

i) The water is accepted by a purveyor of M&I water (other than Kennecott) with the water right to put the water to beneficial use, and the purveyor is obligated to pay Kennecott no more than the operation and maintenance costs the purveyor would have incurred absent the contamination up to $49 per acre foot in 1995 dollars. Kennecott's agreement with the purveyor may contain such other non-financial terms and conditions as Kennecott and the purveyor may negotiate, and

ii) The Trustee determines that the extraction or collection of water, which may include intercepting upgradient recharge to the aquifer, will proportionately prevent or reduce the spread of aquifer contamination. Such extraction or collection shall be deemed to proportionately prevent or reduce the spread of aquifer contamination if it has the result of (a) ratably providing the same quantity of municipal water and (b) ratably capturing the same mass of sulfates as the methodology utilized by the State to determine the unit cost of producing treated water. In making the determination the Trustee shall consider the underlying basis for the Trust Fund as described in the Supporting Document, consistency with CERCLA, and any other measures taken by Kennecott that have a containing effect, and,

iii) The Trustee determines that the municipal quality water supplied by extraction or collection is a sustainable water supply (40 or more years); and

iv) Kennecott demonstrates that its project to extract or collect water does not increase materially the Trustee's unit cost to produce the remainder of the 7,000 acre feet/year of municipal quality water (an underlying assumption of this Decree is that at least 7,000 acre feet per year is available in the area, and the cost of acquiring water rights is not a factor to be considered by the Trustee in making this determination),

then the letter of credit shall be reduced by $100 per acre foot in 1995 dollars (up to a maximum of 7,000 acre feet per year for 40 years) for each year the municipal quality water is provided." (Consent Decree Sec. V.D.2.d)

FINDING*:*
The Joint Proposal under consideration by the Trustee provides for treatment of contaminated groundwater, as defined in Section V.D.2.b of the Consent Decree, not extraction or collection of water as defined in this Section.

CONCLUSION:
The criteria for Section V.D.2.d.i-iv are not applicable, and a reduction under this option has not been considered.

Consent Decree Section V.D.2.e – Natural Resource Damage Claim Trust Fund

e. If the ROD mandates or EPA otherwise requires Kennecott to replace water of a lesser quality (250 to 500 mg/l sulfate and 500 to 1000 mg/l total dissolved solids) by extraction or collection and the provision of water is in a manner acceptable to the Trustee and the conditions of paragraph 2(d)(i-iv) are met, then the letter of credit shall be reduced by $50 per acre foot in 1995 dollars (up to a maximum of 7,000 acre feet per year for 40 years) for each year the water is provided. There will be no reduction in the amount of the letter of credit for water produced with concentrations greater than 500 mg/l sulfate or 1,000 mg/l total dissolved solids. (Consent Decree Section V.D.2.e)

FINDING:
Kennecott is not required to replace water of a lesser quality.

CONCLUSION:
This provision does not apply to the Joint Proposal under consideration by the Trustee.

Consent Decree Section V.D.2.f – Natural Damage Claim Trust Fund

f. If Kennecott provides water in accordance with Section VD2 it will be eligible only for: i) reduction in the then current amount of the letter of credit, or ii) if the letter of credit has been converted to cash, reimbursement of funds resulting from conversion of the letter of credit. No other portion of the Trust Fund is subject to adjustment or credit. Kennecott shall receive credit on the basis of quantity and quality of water provided and not on the basis of Kennecott's costs.

FINDING:

Part of the Joint Proposal will provide water in accordance with Section V.D.2. Under the Joint Proposal, Project Agreement, and 3-Party Agreement, Kennecott would receive credit based on the quantity and quality of water.

In the Joint Proposal before the Trustee, Kennecott and the District propose that the current ILC be divided in half to provide funding for the two water treatment plants, as defined in the 3-Party Agreement (paragraph II.A). One half, referred to as the Zone A ILC, is applicable to the Zone A treatment plant which will be built and operated by Kennecott. This plant will produce 3500 acre feet per year of municipal quality drinking water, which will be distributed to the public in the Affected Area through an agreement with the JVWCD. The other half, referred to as the Zone B ILC, is applicable to the Zone B treatment plant, which will also produce 3500 acre feet per year of municipal quality drinking water, but will be built and operated by the JVWCD. Under the proposal, these new ILCs (each equal in value to half of the value of the initial ILC) would be subject to reduction as the water treatment plants are built and operated.

Reductions in the two new letters of credit would be governed by different sections of the Consent Decree. Kennecott will seek full reduction of the Zone A ILC pursuant to the criteria established under Section V.D.2.b.i-iv of the Consent Decree.

Reductions in the Zone B ILC would be governed by Section V.D.4 of the Consent Decree, which authorizes the Trustee to spend the proceeds from the letter of credit that are "*not allocated for Kennecott projects*" to "*restore, replace or acquire the equivalent*" of the injured ground water resource. The Zone B plant will be built and operated by JVWCD. Accordingly, the specific criteria for "*Kennecott projects*" in Section V.D.2.b. do not apply to the Trustee's decision to utilize the remaining one-half of the letter of credit for the Zone B plant. The Trustee will reduce the Zone B ILC as the District commits to deliver water from the Zone B plant.

CONCLUSION:

The provisions of the Joint Proposal, Project Agreement, and 3-Party Agreement meet the requirements of and are consistent with Section V.D.2.f of the Consent Decree.

Consent Decree Section V.D.3 –Natural Damage Claim Trust Fund

"Kennecott may identify projects to seek credit or reimbursement as provided in Section VD2 above to the extent eligible funds are available in the Trust Fund." (Consent Decree Sec. V.D.3)

FINDINGS:

Kennecott and the District have identified and proposed to the State Trustee a Project that will provide 7000 acre feet of municipal quality drinking water to the public in the Affected Area via the treatment of extracted deep groundwater from the sulfate plumes in both Zone A and Zone B. As noted previously, the Zone A portion of the Proposal will address the ILC reduction requirements listed in Section V.D.2.b of the Consent Decree, while the Zone B portion of the Proposal will address the reduction requirements listed in Section V.D.4 of the Consent Decree.

Due to the selected treatment process (reverse osmosis), a percentage of water is "lost" to the concentrate stream (waste). JVWCD has proposed in the Joint Proposal to use the cash portion of the Trust Fund to produce or replace a minimum of 1,235 acre feet per year of make up water to cover the water "lost" to the concentrate stream. A total combined quantity of at least 8,235 acre-feet of municipal quality water is proposed for production and delivery to the public in the "Affected Area".

CONCLUSION:
The Joint Proposal, Project Agreement, and 3-Party Agreement are consistent with the requirements of Section V.D.3 of the Consent Decree.

Consent Decree Section V.D.4 –Natural Resource Damage Claim Trust Fund

"4. The Trustee shall not expend funds secured by the letter of credit until the earlier of two years after the issuance of the ROD or July 1, 2000, unless the Trustee determines that there exists a direct and immediate threat to the public health or the environment which necessitates expenditures to restore, replace or acquire the equivalent of the resource. Two years after issuance of the ROD or July 1, 2000, whichever occurs first, the portion of the Trust Fund secured by the letter of credit and not allocated for Kennecott projects approved by the Trustee may, at the option of the Trustee, be converted to cash which shall be used by the Trustee to restore, replace, or acquire the equivalent of the natural resource for the benefit of the public in the Affected Area as provided under Section 107(f) of CERCLA. Kennecott shall have the right at any time to convert the letter of credit to cash which shall be used by the Trustee to restore, replace, or acquire the equivalent of the natural resource for the benefit of the public in the Affected Area as provided under Section 107(f) of CERCLA. Allocation of the right to use surface or ground water resources by the public shall be by the Utah State Engineer pursuant to Utah water law." (Consent Decree Section V.D.4)

FINDING:
No funds have been expended from the ILC established in 1995.

Kennecott and JVWCD have provided a Joint Proposal to the Trustee to restore the equivalent of the natural resource for the benefit of the public in the Affected Area.

Under the Joint Proposal, one-half of the initial ILC will be allocated to the Kennecott Zone A treatment plant. The remaining one-half of the initial ILC will be allocated to the JVWCD Zone B treatment plant to be used, under the provisions of this Section V.D.4.

The cash portion of the Trust Fund will be used to provide 1,235 acre feet per year of Lost Use water.

CONCLUSION:
The Joint Proposal, Project Agreement, and 3-Party Agreement are consistent with the requirements of Section V.D.4 of the Consent Decree.

Consent Decree Section V.D.5 –Natural Resource Damage Claim Trust Fund

"5. Kennecott shall not receive or beneficially use any of the surface or ground water resources provided to the public, and which are developed for credit or developed by expenditures of the Trustee pursuant to Section VD of this Decree." (Consent Decree Section V.D.5)

FINDING:
The water from the Zone A plant for which Kennecott is being given credit will go to the JVWCD to be provided to the public in the Affected Area, consistent with the provisions of the

Consent Decree as described above. Additionally, the water provided by "*expenditures of the Trustee*" through the Zone B and Lost Use treatment facilities will be provided to the public by JVWCD in accordance with the Consent Decree.

Questions have been raised as to whether Kennecott would receive or beneficially use water provided under the Joint Proposal, contrary to Section V.D.5 of the Consent Decree. Kennecott Land Company's Daybreak Development is located within the Affected Area. Municipal quality drinking water (culinary water) is being provided to businesses, and will be provided to residents, of Daybreak by the City of South Jordan through a contract that the City has with Jordan Valley Water Conservancy District (JVWCD). This arrangement for providing culinary water is similar to arrangements among businesses or residents and cities and JVWCD throughout the Affected Area. Furthermore, it is an arrangement that operates independent of the source of the water.

CONCLUSION:
The arrangement for providing drinking water to the Daybreak Development will not violate Section V.D.5 of the Consent Decree if the Joint Proposal is approved.

The Joint Proposal, Project Agreement, and 3-Party Agreement are consistent with the requirements of Section V.D.5 of the Consent Decree.

Consent Decree Section V.D.6 –Natural Resource Damage Claim Trust Fund

"6. Decisions of the Trustee under this section subject to judicial review shall be reviewed using an arbitrary and capricious standard." (Consent Decree Section V.D.6)

FINDING:
This provision establishes the standard for judicial review.

Consent Decree Section V.D.7 –Natural Resource Damage Claim Trust Fund

"7. Interest earned on monies in the Trust Fund shall remain in and be used as part of the Trust Fund." (Consent Decree Section V.D.7)

FINDINGS:
Interest earned on monies in both the ILC and the cash portion of the Trust Fund has remained in and will be used as part of the Trust Fund.

Upon the creation of the Zone A ILC and Zone B ILC, the Joint Proposal provides that interest earned on those ILCs will remain in and be used as part of the Trust Fund.

CONCLUSION: This provision of the Consent Decree has been complied with and management of the Trust Fund under the Joint Proposal can reasonably be expected to be in compliance.

As the State of Utah Trustee for Natural Resources, I hereby issue these Findings and Conclusions and accept and approve the Joint Proposal, Project Agreement, and 3-Party Agreement.

Dianne R. Nielson, Ph.D.
State of Utah Trustee for Natural Resource

8/31/04
Date