BRETT L. TOLMAN (#8821), United States Attorney
DANIEL D. PRICE (#2646), Assistant United States Attorney
185 South State Street, Suite 300
Salt Lake City, UT 84111
(801) 524-5682 (PHONE) (801) 325-3269 (FAX)
daniel.price2@usdoj.gov

JEREL ("JERRY") L. ELLINGTON (*Pro hac vice*)
Senior Counsel, Environmental Enforcement Section
United States Department of Justice
1961 Stout Street, 8th Floor
Denver, CO 80294
(303) 844-1363 (PHONE) (303) 844-1350 (FAX)
jerry.l.ellington@usdoj.gov

Attorneys for the United States of America

MARK L. SHURTLEFF (#4666), Utah Attorney General
FRED G NELSON (#2383), Assistant Attorney General
160 East 300 S, 5th Floor
Salt Lake City, Utah 84114
(801) 366-0285 (PHONE) (801) 366-0292 (FAX)
fnelson@utah.gov

Attorneys for the State of Utah

IN THE UNITED STATES DISTRICT COURT
DISTRICT OF UTAH, CENTRAL DIVISION

UNITED STATES OF AMERICA, and STATE OF UTAH, *Plaintiffs,* vs. KENNECOTT UTAH COPPER CORPORATION, *Defendant*	Case No. 2:07-cv-00485-DAK Judge Dale A. Kimball

MEMORANDUM IN SUPPORT OF MOTION TO ENTER AND APPROVE CONSENT DECREE

TABLE OF CONTENTS

I. INTRODUCTION

The United States of America, on behalf of the U.S. Environmental Protection Agency ("EPA"), and the State of Utah (the "State"), on behalf of the Utah Department of Environmental Quality ("UDEQ"), (jointly the "Governments") submit this Memorandum in support of their Joint Motion requesting the Court approve and enter the Consent Decree lodged with this Court on July 9, 2007 (the "Decree") under which Kennecott Utah Copper Corporation ("KUCC")[1/] will complete the cleanup of contaminated ground water comprising the "Zone A" portion of Operable Unit 2 ("OU2") of the Kennecott South Zone Site as described below. After considering the written comments on the lodged Decree, and the oral comments made during a public meeting conducted by EPA and UDEQ, the Governments remain satisfied that the Decree is fair, adequate and reasonable, and consistent with the goals of the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), 42 U.S.C. §§ 9601 - 9675.

II. STATEMENT OF THE CASE

On July 9, 2007, the Governments filed a joint Complaint (Docket # 1) pursuant to Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607, and simultaneously lodged the Decree (Docket # 3) with KUCC. The United States seeks: (1) reimbursement of costs incurred by EPA and the Department of Justice for response actions at the OU2 portion of the Kennecott South Zone Site together with accrued interest; and (2) performance of response actions addressing the Zone A portion of OU2 consistent with the National Contingency Plan, 40 C.F.R. Part 300 (as amended)

[1/] References to KUCC herein shall include its corporate predecessors.

("NCP"). The State seeks a declaration of KUCC's liability for costs that UDEQ may incur in the future in overseeing response actions pursuant to Section 107 of CERCLA, 42 U.S.C. § 9607, and for the performance of response actions pursuant to the Utah Hazardous Substances Mitigation Act, UCA Section 19-6-301 *et seq.*, or UCA Section 19-6-115 of the Utah Solid and Hazardous Waste Act. The Complaint also seeks reimbursement of past costs incurred by EPA and the Department of Justice for other operable units at the Kennecott South Zone Site and the Kennecott North Zone Site.

The Decree requires KUCC to implement EPA's remedial decision for the Zone A plume as described in a Record of Decision (the "OU2 ROD") issued on December 13, 2000. As described in the OU2 ROD the Zone A plume (for purposes of the CERCLA remedial action and as referred to in this Memoranda) is comprised of: (a) that portion of the ground water plume predominantly having sulfate concentrations greater than 1,500 parts per million ("ppm") which is the subject of active remediation; and (b) that portion of the ground water plume predominantly having sulfate concentrations less than 1,500 ppm (but greater than 500 ppm) which is the subject of monitored natural attenuation. The Zone A plume also has an acidic "core area" with sulfate concentrations predominantly exceeding 5,000 ppm. The Zone A plume is sometimes referred to as the "acid plume" or the "CERCLA plume."

A map is attached as Appendix A to the Decree (and also as Ex. A to this brief) depicting the 1,500 and 5,000 ppm sulfate isoconcentration lines of the Zone A plume as of 2005. A copy of the OU2 ROD, and the "Explanations of Significant Differences" or "ESDs" dated June 2003 and June 2007 which describe changes in and clarify the implementation of the remedy, are collectively

attached as Appendix B to the Decree, and are also attached as separate exhibits to this brief (Exs. B, C, and D). Citations to the exhibits will first reference the exhibit and original page number, followed by three digit bate-numbered page in brackets.[2/]

The remedial action requires, among other things, that: (1) the Zone A plume be contained; (2) the Zone A plume be diminished in size by the active pumping and treatment of extracted ground water from the core area until the concentration of sulfates falls below 1,500 ppm (the CERCLA health-based clean-up standard), pH levels are raised, and the concentrations of arsenic, barium, cadmium, copper, flouride, lead, selenium, and nickel fall below their respective State primary drinking water standards throughout the Zone A acid plume; and (3) following active treatment, the natural attenuation of the Zone A plume be monitored until the States' primary drinking water standard of 500 ppm is achieved.

There is another plume of ground water contamination, referred to as the "Zone B" portion of OU2 (also sometimes referred to as the "sulfate plume" or "NRD plume"), that is being addressed separately pursuant to a prior settlement of the State's claim for natural resource damages. The State's NRD settlement also addresses areas of the Zone A plume where sulfate concentrations are greater than 500 ppm. The State filed a lawsuit against KUCC in 1986 seeking natural resource damages for injuries to ground water impaired by releases of hazardous substances from KUCC's past mining operation and the past diversion of the flow of Bingham Creek. That action was resolved by a consent decree among the State and its Trustee for the State's natural

---

[2/] For the Court's convenience, the exhibits accompanying this brief have been consecutively bate-numbered.

resources, the Salt Lake County Water Conservancy District, and KUCC which was approved by this Court on August 21, 1995 (the "NRD CD"). The history of the proceedings regarding the State's claim for natural resource damages for both the Zone A and Zone B plumes is set forth in *Utah v. Kennecott Corp.*, 801 F. Supp. 553 (D. Utah 1992), *appeal dismissed*, 14 F.3d 1489 (10th Cir.), *cert. denied*, 513 U.S. 872 (1994) ("*Kennecott I*"), and *Utah v. Kennecott Corp.*, 232 F.R.D. 392 (D. Utah 2005) ("*Kennecott II*"). KUCC is currently implementing certain work in settlement of the State's NRD claims (the "NRD Project").

There is a considerable overlap between the CERCLA remedial action and the NRD Project. The CERCLA remedial action addresses the environmental cleanup of contaminated ground water comprising the Zone A plume to protect human health and the environment from exposure to dangerous levels of such contaminants. The NRD Project addresses the same contaminated ground water – as well as outlying areas of the Zone A plume where sulfate concentrations exceed 500 ppm, as well as the Zone B plume – from the perspective of restoring, replacing, or acquiring the equivalent of such natural resources for which the State is trustee. While it is most common for NRD issues to be addressed after the completion of CERCLA remedial actions (or the formal selection of a remedy), in this case the NRD issues were resolved first, and then the CERCLA remedial actions were coordinated with the NRD settlement related activities (discussed below).

The United States published notice of the lodging of the present Decree in the Federal Register on July 19, 2007, and solicited public comments. *See* 72 Fed. Reg. 39640. The State additionally published notice in local newspapers and solicited public comments on the lodged Decree. The public comment period expired on August 20, 2007. The United States and the State

received two sets of comments on the Decree (Exs. F & G). Two individuals, Thomas A. Belchak and Reynaldo B. Pinacate ("Proposed Intervenors"), filed a Motion for Permissive Intervention (Docket # 10) on August 20, 2007 (the "Motion to Intervene"). Proposed Intervenors stated their objections to the Decree in their Motion to Intervene, which the Governments are treating as written comments on the Decree. Proposed Intervenors also requested a public meeting by way of another filing (Docket # 5). EPA and UDEQ held a public meeting on August 29, 2007, at which time Proposed Interveners and others appeared and commented on the lodged Decree. A transcript of the public meeting is appended as Ex. H. By Order dated November 30, 2007, the Court denied the Proposed Intervenor's Motion to Intervene (Docket # 15). Mr. Belchak submitted various documents to the agencies after the public hearing.

III. STATEMENT OF ISSUES

A. WHAT IS THE APPLICABLE SCOPE AND STANDARD OF REVIEW TO BE APPLIED BY THE COURT?

B. SHOULD THE COURT APPROVE AND ENTER THE LODGED CONSENT DECREE?

IV. STATEMENT OF FACTS

A. ADMINISTRATIVE BACKGROUND.

On January 18, 1994, EPA proposed listing the Kennecott South Zone Site on the National Priorities List ("NPL"), set forth at 40 C.F.R. Part 300, Appendix B. *See* 59 Fed. Reg. 2568. The "South Zone" site is located in southwestern Salt Lake County, Utah, and covers all or portions of the municipalities of West Jordan, South Jordan, Riverton, Herriman, and unincorporated Salt Lake County. The South Zone site is composed of historic mining sites in the Bingham Canyon

and other areas, surface areas contaminated by mining wastes which migrated from source areas downgradient, and subsurface areas (ground water) contaminated by acid leachates from the mining district. Ex. B at 6 [013]. OU2 was designated to address ground water contamination. *Id.* An OU2 "study area" was designated for site investigation and characterization as depicted on Figure 1 to the OU2 ROD. *Id.* at 7 [014].

EPA also proposed listing on the NPL the Kennecott North Zone Site, an area approximately ten miles to the north of the South Zone site. Ex. B at 13 [020]. The South Zone and North Zone sites were, however, technically managed as one site because KUCC continues to mine ore and process minerals using both zones, and they are functionally connected by pipelines, roads, and rail lines. *Id.* For example, tailings produced by KUCC's Copperton Concentrator in the South Zone are slurried by a several mile pipeline to the North Tailings Impoundment (Operable Unit 15) in the North Zone site, near the Great Salt Lake. *Id.*

Because the overall site is so large, a step-wise cleanup strategy was implemented by EPA, the State, and KUCC. That strategy was generally outlined in a site-wide Memorandum of Understanding ("MOU") that EPA, the State, and KUCC executed in 1995. *Id.* The MOU set forth a cooperative framework for managing, investigating, and cleaning up the South Zone and North Zone sites. The enforcement history leading up to that MOU is summarized in the chronology set forth in the OU2 ROD, Ex. B at 10 - 11 [017 - 018].

At the time the OU2 ROD was signed, the North Zone and South Zone sites had been divided into a total of 22 operable units (today there are 24). Ex. B at 13 [020]. In general, CERCLA removal authorities were first used to address surface wastes and control sources of on-

going releases or threatened releases of hazardous substances to down-stream areas or ground water. The OU2 ROD describes those operable units and summarizes the work completed in those areas. *See* Ex. B at 8 - 10 & 13 - 18 [15 - 017 & 020 - 025]. In addition, some of the source control work was constructed by KUCC as a best management practice, and then permitted by the State under permits covering KUCC's on-going mining operations. Some of the facilities were also constructed to comply with the settlement of the State's NRD lawsuit. One of those projects concerned KUCC's "Eastside Collection System" (Operable Unit 12).

As already indicated, EPA with the concurrence of the State issued a formal record of decision selecting a remedial action for the OU2 Site in December 2000. The OU2 ROD (Ex. B): (a) describes the CERCLA site investigation and remedy selection and cleanup process, and the relationship of that process to the prior settlement of the State's related claim for natural resource damages and the work that KUCC is obligated to complete as part of that settlement; (b) describes the nature and extent of the ground water contamination designated as OU2, and the risks of such contamination to human health and the environment; (c) summarizes the mining history of the Bingham canyon area, and the sources of the ground water contamination designated as OU2; (d) describes KUCC's active mining operation and relevant State environmental permits, and the coordination between such activities and requirements with the CERCLA cleanup process; and (e) describes the remedial action objectives, and the specific remedial actions that EPA, with the concurrence of the State, selected to address such ground water contamination, as well as a response to the public comments on EPA's proposed remedial action plan. The ESDs (Exs. C and D) describe the changes or clarifications to the selected remedy and the reasons therefore. The

OU2 ROD and ESDs coordinate the CERCLA remedial work with the NRD project.

B. NRD PROJECT.

The NRD CD required KUCC to complete various source control measures, including the "Bingham Canyon cut-off system," within 24 months after entry of the NRD CD. Complimenting such requirements, KUCC proposed upgrading the Eastside Collection System as a best management practice to control the source of acid mine drainage from the waste rock dumps. The Utah Department of Environmental Quality/Division of Water Quality accepted KUCC's proposal as a source control measure. KUCC completed construction of such improvements before UDEQ/DWQ issued Permit No. UGW350010 – Kennecott Bingham Canyon Mine and Water Collection System in 1998. That permit requires KUCC to prevent migration of acid mine drainage from the waste rock dumps as well as alluvial flow from the Bingham Canyon active mine site.

As set forth in the recitals to the Decree now before the Court, the NRD CD required KUCC to establish a trust for the benefit of the State natural resource trustee "to restore, replace or acquire the equivalent of the lost resource." KUCC was required to fund the trust by a cash payment of $9 million and a $28 million irrevocable letter of credit ("ILC") escalating annually. The NRD CD provided that KUCC could receive a reduction in the amount of the ILC by providing treated ground water to a municipal and industrial water purveyor in a manner that met specific requirements of the crediting provisions. If KUCC were to fail to provide treated ground water for such beneficial use meeting the specific crediting provisions, the amount in the Trust Fund would be disbursed to the State natural resource trustee. KUCC was also required to

complete certain source control measures to prevent the potential recontamination of the ground water (notably the Bingham Canyon Cut-off Wall and more than twenty smaller cut-off walls). Such source control measures were implemented by KUCC and subsequently permitted by the State of Utah Ground Water Protection program (described in more detail below). Such source control measures are commonly referred to as the "Eastside Collection System."

As further provided in the recitals to the Decree, the State, through its Trustee for Natural Resources, KUCC, and the Jordan Valley Water Conservation District ("JVWCD" or the "District"), the successor to the Salt Lake County Water Conservancy District, entered into an agreement dated August 31, 2004 (referred to as the "3-Party Agreement") regarding a project for the development and construction of a ground water extraction and treatment system (referred to as the "NRD Project"). The 3-Party Agreement, requires KUCC to build and operate a reverse osmosis ("RO") plant to treat sulfate water from that portion of the Zone A plume having sulfate concentrations greater than 500 ppm (which has already been constructed and is operating as set forth in Part H below), and also fund the construction of a similar RO plant to be owned and operated by the JVWCD to treat water from the Zone B plume. It is expected that under the NRD Project the Zone A and Zone B water treatment plants will deliver treated water to a purveyor of municipal and industrial water serving the affected communities for approximately 40 years.

C. SOURCES OF OU2 GROUNDWATER CONTAMINATION.

The OU2 ROD provides relevant information as to the sources of the OU2 ground water contamination. As set forth in the OU2 ROD, the Eastside Collection System (also referred to as the "Eastside Leachate Collection System") was originally constructed decades ago to collect

acidic, metal laden waters flowing from the toe of waste rock dumped as a byproduct of the copper mining operation in Bingham Canyon and eventually the Bingham Canyon Mine, and send the collected leachates to a central recovery plant where copper could be recovered. In 1965, that system was expanded to collect the flow resulting from the active leaching of the waste rock dumps and route such flow to KUCC's so-called Large Bingham Reservoir for storage prior to recovery of the copper at a precipitation plant located shortly upstream of that facility. After recovery of the copper, the acidic waters were recycled back to the top of the waste rock dumps. The Large Bingham Reservoir, which was unlined, was used from 1965 until 1991. It was determined to be the major contributor to the ground water contamination; another suspected source of the ground water contamination included the underflow of the acid rock drainage from the waste rock dumps that was not collected by the original Eastside Collection System. Ex. B at 8 - 9, 15 & 22 - 23 [015 - 016, 022, & 029 - 030].

As further set forth in the OU2 ROD, KUCC retired the Large Bingham Reservoir in 1991, and removed the sludges, tailings, and soils underlying the Large Bingham Reservoir as one of the first CERCLA removal actions undertaken in the area in 1992-1993. A new triple-lined reservoir, having three separate basins and an integrated leak detection system, was constructed in 1994-1995. The new facility is used to retain potential acid rock drainage which is intercepted and prevented from leaving the KUCC mine property boundary by the reconstructed and upgraded Eastside Leachate Collection System. *Id.* at 22-23 [029-030].

KUCC reconstructed and upgraded the Eastside Leachate Collection System to include a series of barrier or "cutoff" walls imbedded into bedrock to intercept the underflow through the

alluvium. Such improvements were completed by KUCC to meet the requirements of the NRD CD, with additional performance standards for monitoring the effectiveness of such controls being incorporated into the UDEQ/DWQ Permit No. UGW350010 – Kennecott Bingham Canyon Mine and Water Collection System in 1998. NRD ¶ V.C. at 9; Declaration of Rebecca Thomas, Remedial Project Manager for EPA (attached as Exhibit I and referred to as "Thomas Decl.") ¶ 14.

D. TECHNICAL INVESTIGATIONS.

Technical investigations regarding ground water contamination in the Southwest Salt Lake Valley aquifer began in 1983, with a structured "five-year study" commencing in 1986 in response to the State's natural resource damage claim. Pursuant to the MOU, in 1995 KUCC began a Remedial Investigation/Feasibility Study ("RI/FS"), one of the processes set forth in the National Contingency Plan ("NCP") at 40 C.F.R. § 300.430, to investigate and characterize contamination at a site and associated risks, and to evaluate and compare remedial alternatives. KUCC completed an RI/FS Report on March 16, 1998. The OU2 ROD describes the ground water sampling strategy and the extent of the sampling to determine the lateral and vertical extent of the contamination, the movement of ground water contamination over time, and impacts and potential impacts on all private wells as well as various water uses. In addition, modeling of potential future ground water migration was completed. Studies of water treatment alternatives continued through the use of pilot plants constructed by KUCC both to facilitate the CERCLA remedy selection process, and also to test potential means to address provisions of the NRD settlement between KUCC and the State. Ex. B at 9 - 12, 21, & 33 [016 - 019, 028, & 040]. As set forth in the OU2 ROD, the remedial investigation revealed that the OU2 ground water contamination consists of two separate

and discrete plumes of contamination. As a result, the OU2 site was then divided into two "zones" for administrative purposes, designated as Zone A and Zone B. Ex. B at 19 [026].

For purposes of the CERCLA remedial action, the Zone A plume includes an area of ground water contamination having concentrations of sulfate predominantly exceeding 1,500 ppm that also contains elevated levels of various dissolved metals and has an average pH of 3.5. The plume emanates from an acidic "core area" where sulfates predominantly exceed 5,000 ppm. At the time the OU2 ROD was signed the Zone A plume was approximately 5 square miles in size, and the acid "core area" was approximately 2 square miles in size. The Zone A plume has also been referred to as the "acid plume" or the "CERCLA plume," and is often referenced as having both a sulfate portion and an acid portion. Ex. B at 2 [009]. The Zone A plume is immediately east of Copperton as depicted on Ex. A. "Zone B" includes a plume of sulfate impacted ground water located east of the Zone A plume and is generally characterized by lower average sulfate concentrations (less than 1,500 ppm), neutral pH, water, and low metals concentrations. The Zone B plume has been referred to as the "sulfate plume" and the "NRD" plume. Ex. B at 27 [034].

The OU2 ROD describes the major source of the Zone A plume as leakage from the Large Bingham Reservoir. The OU2 ROD indicates that during the period of time that the Large Bingham Reservoir was used (from 1965 until 1991), an estimated 9.5 - 16 billion gallons of highly contaminated waters characterized by low pH, high metals, and sulfates escaped into the underlying ground water. Another source of the Zone A plume described in the OU2 ROD was the Bingham Creek alluvial underflow that occurred before the Eastside Collection System was reconstructed and upgraded as described above. Other less significant sources or potential sources

of the Zone A plume were described in the OU2 ROD as including: (1) another, smaller unlined pond, known as the Cemetery Pond, that KUCC used as a lime treatment basin from 1984 - 1987 to treat acid waters from the Bingham Canyon Mine; (2) another unlined pond, known as the Small Bingham Reservoir with a capacity of approximately 4% of the adjacent Large Bingham Reservoir which was also used to retain mine dump leachates from 1965 - 1988; and (3) some historic mine drainage tunnels in the Lark area. Ex. B at 8 - 10, 19 - 20, 22 - 24, & 27 - 29 [015 - 017, 026 - 027, 029 - 031, & 034 - 036].

The OU2 ROD describes the South Jordan Evaporation Ponds as the major source of contamination of the Zone B plume. As set forth in the OU2 ROD, the South Jordan Evaporation Ponds were constructed by KUCC in the 1930s in low spots south of Bingham Creek that were converted into evaporation ponds. The flow of Bingham Creek was diverted by KUCC to these ponds to prevent the flow of contaminated waters further downstream and into the Jordan River. Waste water that flowed from copper precipitation launderers in or near Bingham Canyon was also diverted to the ponds via so-called "Tailwater Ditches" periodically from the late 1930s to the 1960s. The South Jordan Evaporation Ponds were initially not lined, and the water was not treated. While some evaporation occurred, most of the captured water migrated into the underlying ground water. During the 1980s, KUCC lined several of the ponds with clay, and added lime to neutralize the pH of the water before discharge. KUCC retired the ponds from service in 1986. The ditches (Tailwater Ditches and Evaporation Pond Canal) leading to the South Jordan Evaporation Ponds from Bingham Creek and mining operation around Copperton were designated as operable unit 7 of the South Zone site. The ditches were cleaned up as part of the removal action addressing the

contamination of the Bingham Creek drainage (designated as operable unit 1) that was completed in 1992. From 1994 to 1997, KUCC removed waste rock (previously used to construct the dikes and embankments of the ponds) and sludges in the ponds pursuant to an administrative order on consent issued by EPA with the concurrence of the State. Ex. B at 13 - 18 [020 - 025].

E. PUBLIC PARTICIPATION PROCESS.

EPA and the State established a public participation process that is described in the OU2 ROD. Ex. B at 12 [019]. Community participation for OU2 began in 1992 when a Technical Review Committee was formed which included scientists and engineers from federal agencies, state agencies, local county and municipal governments, water purveyors, environmentalists, and citizens groups. The committee met over 24 times to review work plans, evaluate progress reports, and discuss issues regarding the treatment alternatives. Future water use needs and land use trends were also discussed. A Technical Assistance Grant was awarded to a citizens group, Herriman Residents for Responsible Reclamation. Representatives of that citizens group were also active participants in the Technical Review Committee. The Technical Review Committee continues to meet regarding the implementation of the OU2 ROD.

The RI/FS reports concerning OU2 and a CERCLA "proposed plan" of remedial action were made available to the public at the City Recorder's Office in West Jordan City Hall, the UDEQ offices in Salt Lake City, and at the Superfund Records Center at EPA Region VIII in Denver, Colorado commencing on August 1, 2000. OU2 ROD, Ex. B at 12 [019]. Notice of the availability of these documents was published in the Salt Lake Tribune and the Deseret News on July 31, 2000. A public comment period on the proposed plan for remedial action was held from

August 1, 2000 to August 30, 2000. City councils were briefed by EPA and UDEQ officials, and a site tour for local elected officials and the media within the Salt Lake Valley was held on July 26, 2000. An open house was held at the UDEQ offices which gave citizens the opportunity to talk to EPA and UDEQ project principals. A public hearing was held on August 9, 2000 in the City Council Chambers of West Jordan City Hall. EPA and UDEQ considered all the comments they received in selecting a remedial decision, and prepared a summary of the public comments and response to the public comments that is included in the OU2 ROD. Ex. B at 94 - 117 [101 - 124].

F. REMEDIAL ACTION DECISION.

The OU2 ROD states the agencies' remedial action objectives. Those objectives were to:

1. Minimize or remove the potential for human risk (by means of ingestion) by limiting exposure to ground water containing chemicals of concern exceeding risk-based concentrations or drinking water Maximum Contaminant Levels. . . .

2. Minimize or remove the potential for environmental risk (by means of [preventing the] flow of ground water to the Jordan River to receptors of concern) . . . .

3. Contain the acid plume and keep it from expanding. . . .

4. Remediate the aquifer over the long term. . . .

5. Return ground water to beneficial use. . . .

Ex. B at 54 - 55 [061 - 062]. Of the six remedial alternatives identified in the RI/FS report, the agencies selected alternative 5 as the remedial action for the Zone A plume. A summary of the agencies' reasons for selecting alternative 5 is set forth in the OU2 ROD. Ex. B at 80 - 83 [087 - 090].

The selected remedy included the following major elements (among other provisions):

- Installation of a barrier well containment system to collect contaminated waters

(primarily sulfate laden) at the leading edge of the plume to prevent further migration of the plume.

- Approval of the treatment of waters extracted from barrier wells using reverse osmosis to meet primary and secondary drinking water standards (and by which KUCC could receive credit under the 3-Party Agreement for building and operating an RO plant to treat leading edge water of the Zone A plume);

- Installation of a well or wells in the core area of the Zone A plume and the active pumping to prevent the highly acidic waters from migrating to the barrier wells and to "pull back" and diminish the plume over time;

- Pretreatment of highly acidic waters from the extracted water from the core area by nanofiltration ("NF") to allow for subsequent treatment at the reverse osmosis ("RO") plant to meet the requirements of the NRD settlement as discussed above;

- Disposal of NF and RO water treatment concentrates into KUCC's tailings slurry pipeline or mineral processing circuits (pre-mine closure), such tailings being slurried to KUCC's large tailings facility known as the "North Tailings Facility" near the Great Salt Lake;

- Restricting use of existing wells or drilling new wells to prevent exposure to the public of untreated contaminated ground water and interference with the selected remedy (such "institutional controls" to be implemented and managed by the Utah State Engineer);

- The installation and maintenance of a monitoring system to track the movement of the plume, the progress of active remediation, and measure the progress of natural attenuation of the sulfate contamination within the Zone A plume and down gradient of the barrier wells; and

- Monitoring the operational effectiveness and maintenance of source control measures required under the State ground water protection permit to assure ground water is not recontaminated (i.e., requirements that leachates from the waste rock dumps be collected and the effectiveness of the Eastside Collection System be monitored for possible leaks).

Ex. B at 1 - 3, 56 - 62, & 65 - 67 [008 - 010, 063 - 069, & 072 - 074].

The Zone B ground water plume emanating from the South Jordan Evaporation Ponds is being addressed separately as part of the NRD settlement between KUCC and the State. Ex. B at

9, 24, & 27 - 28 [016, 031, & 034 - 035]. As set forth in the OU2 ROD:

> For purposes of clarifying agency authority over the cleanup operations of this action, the agencies plan on using a joint CERCLA and State NRD approach. The cleanup strategy presented within the text of this ROD is concerned primarily with the acid plume in Zone A, under CERCLA authority. EPA maintains the right to intervene in the cleanup of the sulfate plume in Zone B, if it is not addressed sufficiently by the State NRD action.

Ex. B at 2 [009]. *See also* Ex. B at 28 [035], n. 2.

G. REMEDIAL DESIGN AND ESDs.

Subsequent to the selection of the remedy for the Zone A plume, KUCC began design work and conducted treatability studies to refine treatment parameters, flows, and project planning. Ex. C at 1 [138]. That led to refinements of the remedy as documented in the June 2003 ESD (attached as Ex. C). In June 2007, EPA issued a second ESD, endorsed by the State, which described further refinements or clarifications of the remedy. The two ESDs addressed the following components of the remedial action.

- The handling of water extracted from the core area of the Zone A plume was modified to permit KUCC to send such water directly to KUCC's slurry pipeline for so long as mining continues, with the metals precipitating out of solution to be deposited as solids in the North Tailings Impoundment along with other tailings solids. This change was based upon a study showing that the low pH of such water will be neutralized by the buffering capacity of the tailings slurry, which can be augmented by adding lime if needed.

- The requirement of the OU2 ROD to establish institutional controls regarding the use of existing wells or drilling new wells was recognized as having been implemented by the Ground Water Management Plan for the Salt Lake Valley in June 2002.

- Pursuant to the June 2007 ESD, KUCC was provided the option of managing untreated water extracted from the Zone A barrier wells for KUCC's industrial needs or other use acceptable to EPA and UDEQ consistent with the quality of the water and with the previous decision documents. Treating the barrier well water at

the Zone A RO water treatment plant to obtain credit under the NRD Project/3-Party Agreement was recognized as an acceptable use.

- It was clarified that the source control measures comprising the Eastside Leachate Collection System and related performance standards were being administered pursuant to the State ground water protection permit, with such measures to be periodically reviewed as part of the CERCLA remedy review process and additional CERCLA response actions being required if such measures are ineffective.

- The following three performance standards were established to measure and demonstrate the effectiveness of the remedy:

    1) A minimum extraction rate of 1200 acre-feet per year on a five-year rolling average for highly acidic water from the core of the Zone A plume (to assure steady progress in the diminishment of the plume);

    2) Compliance points along the northern, eastern, and southern boundaries of the Zone A plume were established to measure ground water quality and assure that the Zone A plume of contamination is being contained; and

    3) Final cleanup levels were defined to transition from the period of active remediation (pump and treat) to monitored natural attenuation of the Zone A plume.

- Treatment levels for the Zone A RO plant were noted as having been superseded by the requirements of a Utah Division of Drinking Water permit.

Ex. C at [140 - 141]; Ex. D at [143 - 146].

While formal public comment is not required when an ESD is issued (*see* Section 117(c) and (d) of CERCLA, 42 U.S.C. § 9617(c) & (d); 40 C.F.R. § 300.435(c)(2)(i)), the public was provided notice and the opportunity to comment on the refinements to the remedy listed under the June 2007 ROD. EPA published a notice in the Deseret News and Salt Lake Tribune newspapers describing the second ESD (which referenced and described the changes from the first ESD). Ex. D at [147]. EPA and the State received extensive comments. EPA and the State prepared a responsiveness summary describing all comments they received and the agencies' response to such

comments, a copy of which is attached as an exhibit to this Memorandum. Many of the comments on the Decree are the same as those previously submitted on the ESDs or the proposed plan that preceded the issuance of the OU2 ROD.

H. STATUS OF THE IMPLEMENTATION OF THE OU2 ROD.

Considerable work implementing the OU2 ROD has already been completed, including the following:

- KUCC submitted a Final Remedial Design for Remedial Action Report in May of 2003, which EPA approved, in consultation with UDEQ, on July 22, 2003.
- KUCC completed construction of the following components of the OU2 ROD and Final Design for Remedial Action, for which EPA, in consultation with UDEQ, on June 7, 2007 issued a certificate of completion to KUCC: (i) installation of barrier wells at the leading edge of the Zone A plume; (ii) installation of extraction wells within the core area of the Zone A plume; and (iii) installation of the piping and related infrastructure connecting the various components of the selected remedy.
- KUCC completed construction of the RO Plant to treat water extracted from the barrier wells.
- KUCC has commenced operation and maintenance activities.

See South Facilities Groundwater Construction Completion Report, December 2006 (Ex. J) at 2-1 & 2-5; and Acceptance of Construction Completion Report dated June 7, 2007 (Ex. K).

In June 2002, the Utah Division of Water Rights ("UDWR") established a Ground Water Management Plan for the Salt Lake Valley ("SLV Ground Water Management Plan") which implemented the OU2 ROD's institutional control requirement (a copy of which is attached as Exhibit J). The SLV Ground Water Management Plan requires applications to be filed with the Utah Division of Water Rights for new points of diversion (wells) or change applications for current points of diversion within an area around the Zone A and B plumes to assure that the

proposed location will not impair the environmental cleanup or restoration of either plume. Rebecca Thomas, Remedial Project Manager for EPA, describes how that plan also addresses the draw down of the aquifer associated with the implementation of the groundwater cleanup by KUCC. Exhibit I, Thomas Decl. ¶¶ 12 - 17.

Easements have been established for the placement of monitoring wells, extraction wells, and infrastructure for the implementation of the remedial action for that portion of the Zone A plume in the vicinity of the master planned community of Daybreak. Decree ¶ O. at 9. The Decree further requires KUCC to established a well drilling restriction over the lands they own around the Zone A plume to further the institutional control requirement of the OU2 ROD. Decree ¶ 28 and Appendix D (to the Decree).

The remaining operation, maintenance, and replacement ("OM&R") activities to be completed include the continued operation and maintenance, and as necessary replacement, of remedial action components necessary to contain and eliminate the Zone A plume as described in the OM&R Plan (Appendix C to the Decree) until final cleanup standards are met.

I. SUMMARY OF DECREE'S TERMS.

The parties to the Decree are the United States, on behalf of EPA, the State of Utah, by and through UDEQ, and KUCC (and is binding upon its successors and assigns). Decree at 11 & 17. The Decree specifically covers the "OU2 Site," which is defined to mean "that portion of OU2 of the Kennecott South Zone Site incorporating the areal extent of the Zone A plume of groundwater contamination for which EPA selected a remedial action by the OU2 ROD." Decree at 17. Such plume is "expected to diminish over time as the remedy is implemented" and as such EPA (or as

applicable UDEQ) may approve modifications to the depiction of the OU2 Site as part of the formal periodic review process provided by the Decree. *Id.*

KUCC is obligated to finance and perform all activities required by the Decree, the OU2 ROD (defined to include the original ROD as refined by the ESDs), the OM&R Plan, the Closure Transition Plan, and any other plans, standards, specifications, or schedules which are to be developed by KUCC and approved by EPA (or as applicable UDEQ) pursuant to any requirement of the Decree (in short, "Work"). Decree at 16 & 20. The OM&R Plan is a statement of work for implementing the OU2 ROD during the period of time prior to mine closure. While the parties contemplate that KUCC will be engaged in active mining for many years to come, at some time in the future such activities will cease and the mine will be closed. The Decree anticipates such a scenario and provides for the replacement of components of the remedial action that may be necessitated by the transition from active mining to mine closure. The OM&R plan requires KUCC to prepare a "Closure Transition Plan," to be approved by EPA in consultation with UDEQ, describing any changes to the implementation of the remedy that will be necessary to transition from a mining to post-mining scenario (such as the use of the tailings slurry pipeline for treatment and disposal of extracted core water and water treatment plant concentrates). Decree at 13, 16, & 25 - 26.

KUCC is required to implement activities under the OM&R Plan within 10 days after the effective date of the Decree. Decree at 24. The "effective date" of the decree is the date that it is approved and entered by this Court. Decree p. 89. As a matter of good faith, KUCC has been performing the work required under the OM&R plan since the Decree was lodged, and in part to

further its commitments under the MOU and the NRD Project/3-Party Agreement. KUCC is required to continue all work until the final Cleanup Levels are achieved. Decree at 24. "Cleanup Levels" is a defined term, and means the levels of contaminants of concern as set forth at pages 87 - 89 of the OU2 ROD and clarified in the June 2007 ESD. Decree at 13. "Active" remediation (i.e., pumping to extract contaminated ground water) of the Zone A plume is required until the sulfate level falls below 1500 ppm and metals concentrations are reduced to the respective primary drinking water standards established by the State of Utah; thereafter monitored natural attenuation of the Zone A plume is required until the sulfate level falls below 500 ppm. *Id.*

KUCC is required to reimburse the United States for all response costs incurred by the United States (principally EPA) in the past (through November 15, 2005) at the OU2 Site, and any other operable units at the Kennecott South Zone Site or Kennecott North Zone Site (not previously recovered under other settlements), and also all response costs incurred by the United States in the future (after November 15, 2005) related to work at the OU2 Site.[3/] Decree at 14, 15, 18, 20, and 51 - 56. The United States will be reimbursed $5,007,200 for its past response costs. Decree at 51. The Decree provides for the imposition of "stipulated penalties" in the event KUCC fails to comply with specific requirements of the Decree. Decree at 65 - 72. Because the Decree is

---

[3/] The Decree provides that UDEQ's activities will be paid pursuant to the Site Specific Enforcement Agreement ("SSEA") and a cooperative agreement between EPA and UDEQ. Decree ¶ 56 at 56. For example, EPA may advance funds to UDEQ for the performance of oversight of KUCC's performance of work. Those funds would be recovered from KUCC by EPA. The Decree also recognizes that some of KUCC's work would be to comply with applicable permits issued by the State, and that the State collects fees for the administration of such programs. Such fees would be recovered by the State separately, and not under the Decree. *Id.*

expected to be in effect for a long time, the stipulated penalties are provided in "2006 Dollars" which will escalate on an annual basis by a set formula. Decree at 12 - 13. KUCC must pay a substantial sum if it were to abandon work at the OU2 Site. Decree at 79 - 80.

The Decree provides for the remedy to be formally reviewed at least every five years to assure the remedial action is protective of human health and the environment as required by Section 121(c) of CERCLA, 42 U.S.C. § 9621(c). If EPA, in consultation with UDEQ, determines the remedy or OM&R activities being implemented are not protective of human health and the environment, EPA may select further response actions in accordance with CERCLA and the NCP. Decree at 28. KUCC is required to undertake such further response actions, subject to certain comment and dispute resolution rights. *Id.* The public will have such rights as provided by the statute to comment on any further response actions proposed by EPA. *Id.*

In an effort to improve long-term efficiency, the Decree addresses the future roles of EPA and UDEQ. Decree at 29 - 30. Notwithstanding UDEQ's day-to-day oversight of KUCC's performance of work, EPA retains all its decision-making authority as required by the statute, and the State retains its rights under federal and state law. Decree at 30.

The Decree provides that KUCC will provide financial assurance for operation and maintenance of the remedy and replacement of treatment facilities at the time of mine closure ("OM&R"). Decree at 43 - 46. Financial assurance is calculated as the net present value of a rolling 40-year, nominal-dollar cash flow model of OM&R costs using a seven percent annual discount factor and mid-term discounting. Decree at 43. The value of financial assurance will be reviewed and adjusted on a periodic basis. *Id.* The Decree further provides that KUCC shall

provide a minimum of ten percent (10%) of the required financial assurance in the form of a surety bond, irrevocable letter of credit or fully-funded trust. Decree at 44.

The Decree includes a covenant not to sue by the United States pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), and Section 7003 of RCRA, 42 U.S.C. § 6973, relating to (a) the OU2 Site and (b) for "Work" that KUCC completes. Decree at 72 - 73. Such covenant not to sue is subject to "standard" reservations and "reopeners" as required by the statute. Decree at 73 - 77. The decree also includes an additional covenant not to sue pursuant to Section 107 of CERCLA for "past costs," which is a defined term and includes those past costs incurred by EPA for several operable units at the larger Kennecott site. Decree at 18. As mentioned above, KUCC is paying all those costs as a requirement of the Decree. The State provides similar covenants to KUCC. Decree at 77 - 80. KUCC in return provides similar reciprocal covenants not to sue both the United States and the State for matters addressed in the Decree. Decree at 80 - 83. KUCC is provided statutory contribution protection for the matters addressed in the Decree. Decree at 83 - 84. The Decree clarifies that the "matters addressed" do not include "any rights or liabilities created by or applicable to the NRD Consent Decree between KUCC and the State. . . ." Decree ¶ 94 at 84. Nor does the Decree affect any rights of a third party regarding the quantity or quality of water from a well they may have within or near the OU2 Site. *Id.*

The Decree includes numerous other provisions addressing such matters as access to property to monitor work (Decree at 32 - 37); reporting requirements (Decree at 37 - 38); agency approval of plans and submissions by KUCC (Decree at 38 - 41); the process for KUCC's

certification of the completion of work and the agencies acceptance of such certifications and termination of the Decree (Decree at 46 - 50); emergency response (Decree at 50 - 51); dispute resolution (Decree at 60 - 65); retention of records and access to information (Decree at 87); the Court's retention of jurisdiction to enforce the Decree and resolve disputes (Decree at 89); and future "nonmaterial" modifications of work plans, schedules, etc., not requiring the approval of the Court, and those modifications of work plans or the Decree that would alter the basic features of the selected remedy which would require the approval of the Court (Decree at 91).

V. ARGUMENT

A. THE COURT'S ROLE IS TO ASSURE THAT THE LODGED DECREE IS FAIR, ADEQUATE AND REASONABLE, AND NOT ILLEGAL, A PRODUCT OF COLLUSON, OR AGAINST THE PUBLIC INTEREST.

In *United States v. Colorado*, 937 F.2d 505 (10th Cir. 1991), the Tenth Circuit explained a district court's obligation in reviewing a consent decree:

> Because the issuance of a consent decree places the power of the court behind the compromise struck by the parties, the district court must ensure that the agreement is not illegal, a product of collusion, or against the public interest. The court also has the duty to decide whether the decree is fair, adequate, and reasonable before it is approved.

Id. at 509. *See also Kennecott I*, 801 F. Supp. at 567 citing *United States v. Cannons Eng'g Corp.*, 899 F.2d 79, 85 (1st Cir. 1990). This standard is consistent with the legislative history of the SARA Amendments,[4] which provides that a court's role in reviewing a Superfund settlement is to "satisfy itself that the settlement is reasonable, fair, and consistent with the purposes that CERCLA

[4] CERCLA was enacted in 1980 as Public Law 96-510. It was amended extensively in 1986 by the Superfund Amendment and Reauthorization Act of 1986 ("SARA").

is intended to serve." *Id.* A district court is generally not entitled to change the terms of a consent decree, and must approve or deny a consent decree as a whole. *United States v. Colorado*, 937 F.2d at 509 - 10.

The scope of a district court's review of a proposed consent decree is also limited. While a court "should not blindly accept the terms of a proposed settlement," *United States v. North Carolina*, 180 F.3d 574, 581 (4th Cir. 1999), the court's inquiry need not be all-encompassing:

> [A] trial court approving a settlement need not inquire into the precise legal rights of the parties nor reach the merits of the claims or controversy. In fact, it is precisely the desire to avoid a protracted examination of the parties' legal rights that underlies entry of consent decrees.

Bragg v. Robertson, 83 F. Supp. 2d 713, 717 (S.D. W. Va. 2000)(citations omitted) *aff'd*, 248 F. 3d 275 (4th Cir. 2001). *Accord United States v. Comunidades Unidas Contra la Contaminacion*, 204 F.3d 275, 281 (1st Cir. 2000); *North Carolina*, 180 F. 3d at 581; *Cannons*, 899 F.2d at 84.

A district court's review of a CERCLA consent decree should entail a certain degree of deference. As the Supreme Court has stated:

> [S]ound public policy would strongly lead us to decline . . . to assess the wisdom of the Government's judgment of negotiating and accepting the . . . consent decree, at least in the absence of any claim of bad faith or malfeasance on the part of the Government in so acting.

Sam Fox Publ'g Co. v. United States, 366 U.S. 683, 689 (1961).

There are several reasons for conducting a deferential review of the lodged Decree. One reason is the general principle that settlements are to be encouraged. *United States v. North Carolina,* 180 F.3d at 581. In order to accomplish prompt and effective cleanup of hazardous sites, Congress mandated that "whenever practicable and in the public interest," settlements should be

encouraged and facilitated under CERCLA. 42 U.S.C. § 9622(a). *See Cannons*, 899 F.2d at 84 ("it is the policy of the law to encourage settlements"). The Court's discretion in reviewing and approving settlements should be exercised to further the strong public policy favoring the voluntary settlement of litigation. *Id.; see also Van Bronkhorst v. Safeco Corp.*, 529 F.2d 943, 950 (9th Cir. 1976) (settlements of disputes clearly in the public interest); *United States v. City of Jackson*, 519 F.2d 1147, 1151 (5th Cir. 1975) (a settlement agreement is a "highly useful tool for government agencies, since it maximizes the effectiveness of limited law enforcement resources" by permitting the government to obtain compliance with the law without lengthy litigation).

Another reason for granting deference in reviewing a consent decree is the deference owed to an administrative agency acting in the area of its expertise.

> [W]here a government agency charged with protecting the public interest has pulled the laboring oar in constructing the proposed settlement, a reviewing court may appropriately accord substantial weight to the agency's expertise and public interest responsibility.

Bragg, 83 F. Supp. 2d at 717. Finally, deference should be granted to the proposed Decree as an official act of the Attorney General,[5/] who has the "exclusive authority and plenary power to control the conduct of litigation in which the United States is involved, unless Congress specifically authorizes an agency to proceed without supervision of the Attorney General." *United States v.*

[5/] The lodged Decree was signed by the acting Assistant Attorney General whose authority derives from CERCLA, which authorizes the President to enter into settlement agreements. 42 U.S.C. § 9622(a). The President has delegated his authority for the "conduct and control of all litigation arising under [CERCLA] to the Attorney General." Exec. Order No. 12580 § 6(a), 52 Fed. Reg. 2923 *reprinted* at 42 U.S.C. § 9615 (*quoted in Hercules*, 961 F.2d at 800). Finally, the Attorney General has delegated his authority regarding environmental matters to the office of the Assistant Attorney General for the Environment and Natural Resources Division.

Hercules, Inc., 961 F.2d 796, 798 (8th Cir. 1992) (citing 28 U.S.C. § 516, *FTC v. Guignon*, 390 F.2d 323, 324 (8th Cir. 1968)). This authority places considerable discretion in the hands of the Attorney General to decide whether, and on what terms, to enter into a settlement. *Hercules*, 961 F.2d at 798 (citing *Swift & Co. v. United States*, 276 U.S. 311, 331-32 (1928)); *United States v. Associated Mile Producers, Inc.*, 534 F.2d 113, 117 (8th Cir. 1976).

In sum, if the Decree is fair, adequate and reasonable, and not illegal, the product of collusion or against the public interest, it ought to be approved. Moreover, in determining whether to approve the Decree the Court should defer to the expertise of EPA and the State in protecting human health and the environment, and to the expertise of the Attorney General and the Utah Attorney General in controlling government litigation, assessing litigation risk, and determining settlement terms that are in the public interest.

B. THE LODGED DECREE IS FAIR, ADEQUATE AND REASONABLE AND IS NOT ILLEGAL, A PRODUCT OF COLLUSION, OR AGAINST THE PUBLIC INTEREST.

1. The Lodged Decree is Fair.

Determining whether a consent decree is fair involves both procedural and substantive components. *Cannons,* 899 F.2d at 86; *United States v. Telluride Co.*, 849 F. Supp. 1400, 1402 (D. Colo. 1994); *Kennecott I*, 801 F. Supp. at 567.

To measure procedural fairness, a court should gauge the candor, openness, and bargaining balance of the negotiations that led to the consent decree. *Id. See also United States v. Hooker Chem. & Plastics Corp.*, 607 F. Supp. 1052, 1057 (W.D. N.Y.) (court should look to such factors as "the good faith efforts of the negotiators, the opinions of counsel, and the possible risks

involved in litigation if the settlement is not approved") *aff'd*, 776 F.2d 410 (2d Cir. 1985; *United States v. Rohm & Haas Co.*, 721 F. Supp. 666, 680-81 (court should consider whether the settlement reflects a "reasonable compromise"). Substantive fairness flows from procedural fairness. *Telluride*, 849 F. Supp. At 1402. "Substantive fairness 'introduces into the equation concepts of corrective justice and accountability: a party should bear the cost of harm for which it is legally responsible.'" *United States v. ASARCO, Inc.*, 814 F. Supp. 951, 954 (D. Colo. 1993) (quoting *Cannons*, 899 F. 2d at 87).

The lodged Decree is substantively fair in that KUCC, the corporate successor to the entities that caused or substantially contributed to the contamination of concern, is obligated under the terms of the lodged Decree to finance and complete the entire environmental cleanup of the Zone A plume. In addition, KUCC is required to reimburse the United States all of its past response costs associated with OU2 (as well as all other operable units at the Kennecott South Zone Site and Kennecott North Zone Site not previously recovered or compromised), and pay for all future costs of overseeing KUCC's performance of work pursuant to the requirements of the Decree (as well as provide adequate financial assurance for the performance of such work). In short, the responsible party is bearing the full cost of the environmental harm for which it is liable, in a cooperative matter with both the State (under the NRD Decree), and the United States and the State (by the lodged Decree).

As set forth above, the Zone B plume is not addressed by the lodged Decree, but rather is being addressed as part of the prior NRD settlement. The Decree, however, does not settle or resolve any CERCLA liability KUCC may have to the United States for the Zone B plume. In

short, the United States has taken, for purposes of possible CERCLA remedial actions for the Zone B plume, a "wait and see" approach. To date there has not been a need for EPA to step in and require any further CERCLA remedial actions be taken to address the Zone B contamination beyond the steps being taken to restore the Zone B plume pursuant to the requirements of the NRD Decree. Again, the approach taken in the lodged Decree as it concerns the Zone B plume is also substantively fair.

An important component of the overall strategy for remediating the ground water contamination in OU2 is that potential sources of recontamination must be controlled. The NRD Decree previously addressed this concern, and KUCC upgraded the Eastside Collection System through the installation of a series of barrier walls embedded into bedrock subsequently accepted and covered under a State ground water protection permit. In addition, such system is being monitored for potential leaks as part of the Utah Ground Water Protection Permit. The June 2007 ESD clarifies that EPA considers such measures complimentary to the overall remedy, but that KUCC's compliance with the state permits, and the adequacy of such controls, will be reevaluated periodically as part of the CERCLA remedial process. After these reevaluations, if necessary the CERCLA remedial process will be activated to assure the efforts to cleanup the contaminated ground water have not been in vain. Such rights are reserved by the United States in the lodged Decree. This approach is also substantively fair.

The substantive fairness of the lodged Decree is perhaps the best measure of the procedural fairness of the settlement in this case. Nevertheless, to specifically address the matter of procedural fairness, the settlement was reached though arms-length negotiations in a protracted

process that took several years because of the complexity of the matters being addressed. Throughout the negotiations the United States and the State were represented by counsel from the Department of Justice, EPA, the Utah Attorney General's office, and UDEQ with expertise in environmental law generally, and CERCLA specifically, as well as technical staff, including the remedial project managers for the OU2 Site, having years of experience and knowledge about the OU2 Site. Similarly, KUCC was represented by experienced in-house and retained counsel, as well as environmental managers and staff level personnel responsible for the environmental cleanup of the OU2 Site. Once the terms of the proposed Decree were fully negotiated between counsel, the resulting Decree was reviewed and approved by (1) responsible officers and directors of KUCC; (2) senior management of the EPA and the Environmental Enforcement Section of the U.S. Department of Justice who had not participated in the settlement negotiations; (3) the Acting Assistant Attorney General of the Environment and Natural Resources Division of the U.S. Department of Justice; and (4) senior management of the UDEQ and the Utah Attorney General's Office. For all these reasons, the lodged Decree is procedurally fair.

2. The Lodged Decree is Adequate and Reasonable.

There are four factors relevant to determining whether a consent decree is adequate and reasonable. First and most importantly, a court must consider "whether the consent decree is in the public interest and upholds the objectives of the [relevant statute]." *Telluride*, 849 F. Supp. at 1402. Other relevant factors are "(1) whether the [consent] decree is technically adequate to accomplish the goal of cleaning the environment, (2) whether it will sufficiently compensate the public for the costs of remedial measures, and (3) whether it reflects the relative strength or

weakness of the government's case against the environmental offender." *Id.* (citing *Cannons*, 899 F. 2d at 89-90).

The lodged Decree is in the public interest because it provides for the long-term and final cleanup of the Zone A plume by KUCC, and provides for the United States to be reimbursed for all unpaid past response costs as well as all future response costs associated with the oversight of KUCC's performance of work under the Decree.[6] *Accord Meghrig v. Kfc W.*, 516 U.S. 479, 483 (1996); *United States v. Friedland,* 173 F. Supp. 2d 1077, 1088 (D. Colo. 2001). In addition, the Decree coordinates the CERCLA cleanup with activities KUCC is required to perform pursuant to the provisions of the NRD Decree and the requirements of permits issued by the UDEQ – while reserving the possibility of CERCLA response actions if necessary.

The lodged Decree also satisfies the other three *Telluride* criteria. First, the lodged Decree is technically adequate to accomplish the goal of cleaning up the Zone A plume, and reserves the possibility of implementing CERCLA response actions in the unlikely event the restoration of the Zone B plume pursuant to the NRD Settlement/3-Party Agreement is determined not to be protective of human health and the environment. Second, the lodged Decree sufficiently compensates the public because it provides for the reimbursement of 100% of the United States principal past response costs and 100% of its future response costs (the only limitation being that such costs cannot be incurred "inconsistent with the NCP"). Third, the lodged Decree reflects the strength of the Governments' case.

---

[6] As set forth above, the State's future costs would either be covered by funding by EPA pursuant to the SSEA or a cooperative agreement, and recovered by the United States, or the payment of permit fees by KUCC to UDEQ.

3. The Decree is Not Illegal, a Product of Collusion, or Against the Public Interest.

The lodged Decree is lawful because it was entered pursuant to the statutory authority delegated to officials of the U.S. Department of Justice. Section 122(a) of CERCLA, 42 U.S.C. § 9622(a), provides that "[w]henever practicable and in the public interest . . . the President shall act to facilitate agreements . . . that are in the public interest and consistent with the National Contingency Plan in order to expedite effective remedial actions and minimize litigation." Moreover, public officials of the United States are entitled to a presumption that their actions and decisions are not illegal or a product of collusion. *See United States v. McKinley County*, 941 F. Supp. 1062, 1066 (D.N.M 1996) (citing *United States v. Chem. Found. Inc.*, 272 U.S. 1, 14-15 (1926)). Even absent such presumption, however, the fact that KUCC is required to finance and complete the cleanup of the Zone A plume and pay all associated past and future response costs shows that the settlement is not a result of collusion between the United States (or the State) and KUCC. While there has been some factually unsupported suggestion by one set of public comments that KUCC is obtaining a "sweet-heart" deal as a result of the lodged Decree, this is not the case. Such comment will be responded to below. Similarly, some public comments suggest that the settlement is not in the public interest, but as will be explained below, these comments address private interests as opposed to the public interest, and such private interests are not impaired by the lodged Decree.

The lodged Decree is in the public interest for the reasons set forth in the preceding section of this memoranda explaining why the settlement is adequate and reasonable.

C. THE PUBLIC COMMENTS DO NOT PROVIDE A BASIS TO DISAPPROVE THE DECREE.

The United States and the State received written comments on the lodged Decree and oral comments at a public meeting.[7] Two proposed intervenors also submitted comments by way of a Motion for Permissive Intervention (Docket # 10). The comments are summarized below, followed by the response of the United States and the State to such comments. Taken as a whole, the comments do not indicate that the Decree is unfair, inadequate or unreasonable, a product of collusion, or against the public interest.

Comments concerning the Great Salt Lake ecosystem and North Tailings Facility. David H. Becker of Western Resource Advocates, attorneys for Friends of the Great Salt Lake ("Friends") (Ex. F.), and Ivan Weber ("Weber") (Ex. G) commented on the agencies' decision allowing liquid concentrates from the reverse osmosis or "RO" plant treating Zone A sulfate water extracted from the leading edge as well as the "core" area of the Zone A plume to be added to KUCC's slurry pipeline transporting mill tailings from the Copperton Concentrator to the large tailings impoundment near the Great Salt Lake (the "North Tailings Impoundment"). Friends and Weber commented that under the agencies' remedial decision: (i) contaminants are merely being moved from one location to another and are not being permanently removed from the environment (Friends comments, Ex. F. at 2 - 3 & 8 - 10 [195 - 196 & 201 - 203]; Weber comments 1 & 7, Ex. G at 1 - 2 [208 - 209]; (ii) those contaminants may at some time in the future be discharged into the Great Salt Lake endangering a unique ecosystem (Friends comments, Ex. F. at 3 - 7 & 10 - 12 [196

---

[7] The full text of the comments, as well as a transcript of the public meeting, are appended as Exhibits F - H.

- 200 & 203 - 205]; Weber comments 4, 10, & 12, Ex. G at 2 - 3 [209 - 210]; (iii) the UPDES discharge permit which allows the discharge of decant water from the North Tailings Facility into the Great Salt Lake is being "legitimized" (Weber comment 5, Ex. G at 2 [209]; and (iv) the North Tailings Impoundment is "precarious and temporary" in nature in a dynamic and unpredictable basin" and may result in a catastrophic level of contamination of the Great Salt Lake and dependent ecosystems for which KUCC or its parent corporation should provide a multi-billion dollar bond (Weber comments 6 & 11 at Ex. G at 2 - 3 [209 - 210].

Response to comments concerning the Great Salt Lake ecosystem and North Tailings Impoundment. The comments directly concern the remedy selected by the OU2 ROD, as refined and clarified by the ESDs. Neither Friends nor Weber submitted comments to EPA or UDEQ regarding the agencies' published proposed remedial action plan for the Site prior to the selection and documentation of the remedy in the OU2 ROD. While Friends submitted comments on the ESD that the agencies finalized in June 2007, Weber did not. Many of Friends' comments on the Decree and the ESD are the same. *See* Ex. E. at [150 - 153, 160 - 162, & 169 - 186]. EPA and UDEQ prepared a Comment Response Summary responding to Friends' comments on the June 2007 ESD. *Id.* The following summarizes the agencies' technical response as set forth in the Comment Response Summary.

KUCC demonstrated, through full-scale testing, that the acid plume water can be neutralized in the tailings pipeline (relying on excess neutralization capacity of the tailings and if necessary lime amendments). *Ex.* E [160]. Metals are precipitated out of the water and will be deposited in a stable solid form in the tailings impoundment. *Id.* The decant water from the

tailings facility can either be reused in KUCC's milling process or discharged into the Great Salt Lake "if in compliance with Kennecott's UPDES discharge permit." *Id.* EPA and UDEQ determined that the North Tailings Impoundment "is a suitable long-term repository for the solid treatment residuals and that disposal in this area permanently removes contaminants from the environment and prevents threats to human health or the environment." *Id.* The agencies provided eight technical justifications for their determinations. *Id.* at [160 - 162]. Such technical analysis included the following:

- Metals and other solutes in the liquid concentrates from the RO plant and the acid/metal-laden waters extracted from the "core" area of the Zone A plume are removed from solution by neutralization of the acidic flows. At near neutral pH, Al and Fe precipitate as hydroxides, sorbing other metals and metalloids. Approximately 10% - 20% of the sulfate is also removed from solution by precipitation of gypsum. Removal rates of Al, Cu, Fe, and Zn are > 99%; Mn is removed at a rate of approximately 60%. As such, the five major metals (Al, Cu, Fe, Mn, and Zn) in the waters added to the tailings slurry pipeline account for only 2% of the same total metals deposited in solid form by the tailings solids. I.e., 98% of these primary metals being deposited in the North Tailings Impoundment are attributable to the tailings derived from the current mining operations.

- The hydroxides and sulfate solid phases (referred to in the preceding subparagraph) will not leach metals and metalloids into the environment so long as the North Tailings Impoundment does not undergo acidification.

- Extensive monitoring of the North Tailings Impoundment has shown that the tailings are predominantly net neutralizing. Thus it is highly unlikely the tailings will become acidic. Under the OM&R Plan KUCC is required to regularly monitor the material in the tailings pipeline to ensure that its neutralization characteristic is not adversely impacted by the input of the Zone A plume water or water treatment plant concentrates.

- The location of the North Tailings Impoundment is highly suitable for both the disposal of tailings as well as the solid residuals from the liquid concentrates of the RO plant and the acid/metal-laden waters extracted from the "core" area of the Zone A plume. An Environmental Impact Statement shows that the tailings facility is located over a 10 - 20 foot thick lacustrine clay unit that prevents water from the

impoundment from impacting underlying ground water that would eventually discharge into the Great Salt Lake. Additional, the ground water gradient at this location is upward, providing further assurance that waters from the impoundment will not impact ground water. Any water seeping from the tailings facility is collected by a ditch that must be managed by KUCC in accordance with permits issued by UDEQ.

- The North Tailings Impoundment was constructed according to an engineered design approved by the Utah Division of Water Rights, the State agency that regulates dam safety, to assure that the impoundment is gravitationally and seismically stable and can serve as a permanent repository. In addition, KUCC is required to conduct extensive monitoring of the tailings facility under various State permits used to regulate the mining operations.

- Discharges of decant water from the North Tailings Impoundment to the Great Salt Lake is permitted pursuant to a UPDES discharge permits that imposes numeric limits on the metals. KUCC has complied with its UPDES discharge permit limits since beginning to implement the OU2 remedy (except for one excursion in one month that was unrelated to the OU2 remedial activities).

As set forth by Ms. Thomas, EPA continues to be of the position that the use of the slurry tailings pipeline as a treatment system to neutralize the pH of the water removed from OU2, and the deposition of small amounts of metals precipitating out of such water in the slurry pipeline into the North Tailings Impoundment, is appropriate. The concerns about the North Tailings Impoundment being unstable and a "catastrophe waiting to happen" are speculative and contradicted by existing data, and ignore the role of various state regulatory programs. Furthermore, Friends' concern that the long-term management of the metals being added to the North Tailings Impoundment will increase the potential threat of a release to the Great Salt Lake needs to be put in context. The additional amount of metals precipitating out from the water extracted from the Zone A plume (either untreated water or treatment concentrates) is, as indicated above, 2% of the total metals in the slurry pipeline and as such is *de minimis* in comparison to the

total amount of solids (including metals) being directed to the North Tailings Impoundment. Ex. I, Thomas Decl. ¶¶ 6 - 10.

The larger issue implicit in Friends' comments concerns the eventual closure and reclamation of the North Tailings Impoundment. That will be addressed under applicable Utah law by the Utah Division of Oil, Gas and Mining, and is far beyond the scope of the present settlement or this proceeding. As to the commenters' concerns about the UPDES discharge permit issued by UDEQ to KUCC, such comments should be directed to UDEQ at such time that the permit is subject to renewal. These matters are not, in any event, addressed by the lodged Decree.

Comments regarding modifications of the remedy or financial assurance. Friends commented that "even if the short-term handling of the contaminants in the North Tailings Impoundment is regulated by state permitting of the impoundment, the long-term handling of those contaminants – after KUCC ceases mining operations ('post-mining') is inadequately defined in the ROD, the Decree, and the [OM&R Plan]." Ex. F. at 3 [196]. Friends commented that the remedy might be modified in the future to allow for the direct discharge of contaminants from the OU2 cleanup into the Great Salt Lake unless the Decree is changed to specifically preclude this from ever happening. Friends similarly commented that the financial assurance requirements of the Decree could be reduced in the future. Friends further commented that any future modifications of the remedy or financial assurance requirements should be subject to public participation and the approval of the Court. Ex. F at 3, 10 - 14 [196, 203 - 207].

Response to comments regarding modifications of the remedy or financial assurance. As set forth above, the lodged Decree contemplates that the ground water cleanup may continue well

into the future and after KUCC ceases its mining operation. The Decree requires KUCC to prepare a "Closure Transition Plan" prior to mine closure which would address any changes in any components of the remedial action plan that may be required so that the cleanup of the Zone A plume would continue after active mining ceases. *See* Decree at 13 (definition of "Closure Transition Plan") & Appendix C to the Decree (OM&R Plan). The agencies must approve such a submittal. Decree ¶¶ 34 - 39 at 38 - 41. If the ground water has not achieved final cleanup levels for contaminants of concern by the time of mine closure, active pumping of the Zone A plume must continue post-mining. *See* Decree ¶¶ 10 & 11 at 24 - 26. Accordingly, the Closure Transition Plan would have to address an alternative to the addition of the liquid concentrates from the RO plant or the waters extracted from the core area of the plume into KUCC's tailings slurry pipeline. KUCC is required to complete, replace, or upgrade any existing facilities, or build any new facilities, that may be required pursuant to an approved Closure Transition Plan. Decree at 18 - 19 (definition of "Replacement Activities") & ¶ 10.b. at 24.

The Decree allows for EPA, UDEQ, and KUCC to agree in writing to modify, and without the Court's approval: schedules for the completion of work, and technical work requirements set forth in the OM&R Plan or Closure Transition Plan. Decree. ¶ 108 at 91. Such a provision is necessary to allow the agencies and KUCC to address routine construction administration type matters without imposing upon the Court's docket. But that provision is followed by paragraph 109 which provides that "[n]o material modification shall be made to the OM&R Plan, the Closure Transition Plan, or other work plan to be approved in the future pursuant to any requirement of this Consent Decree, without written notification to and written approval of the United States, the

State, KUCC, and the Court, if such modifications fundamentally alter the basic features of the selected remedy within the meaning of 40 C.F.R. § 300.435(c)(2)(B)(ii)."[8/] Thus the Decree already addresses Friends' concern that any fundamental change in the remedy be subject to public notice and comment, and the approval of this Court.

The Decree also allows for the Parties, without the Court's approval, to agree in writing to changes to Appendix E which describes the methodology, scope, and assumptions necessary to calculate the amount of financial assurance KUCC is required to provide. Decree ¶ 108 at 91. The Governments respectfully disagree with the comment that any changes the parties may all agree to in writing must be subject to public notice and comment or the Court's approval. Friends has cited no statutory or regulatory requirement that KUCC must provide financial assurance – and there are none. The financial assurance terms in the Decree were required by the Governments in the exercise of their discretion, and were negotiated with KUCC. The Governments remain satisfied that the financial assurance provisions and the processes by which the amount of financial assurance may be adjusted over time as the remedy is implemented are reasonable and adequate, accommodating not only the likelihood of needing to adjust the amount downward as the cost of implementing the remedy over time declines, but also the possibility of needing to adjust the amount upward to address unexpected circumstances.

[8/] The reference in the Decree to 40 C.F.R. § 300.435(c)(2)**(B)**(ii) should be corrected to 40 C.F.R. § 300.435(c)(2)(ii). Section 300.435(c)(2)(ii) provides that a change to a selected remedial action that "fundamentally alter[s] the basic features of the selected remedy with respect to scope, performance, or cost" shall be done by a formal modification of the record of decision, which shall be subject to a public notice and comment process. A Stipulation among the parties correcting the citation accompanies this Memorandum.

Comments regarding KUCC's past activities. Mr. Weber submitted comments regarding the past activities of KUCC (or it corporate predecessor), and suggests that the agencies do not comprehend that the ground water contaminants occurred as a result of "one of the most chemically prolific, extensive, and aggressive acid mine drainage occurrences in the planet's history." Ex. G at 1 [208]. He also comments that KUCC was "surreptitiously" pumping contaminants from the area in the vicinity of the Zone A plume since 1996, sometimes even into the Great Salt Lake by virtue of linkages among UPDES permits. He further comments that this was kept secret, and even concealed from KUCC employees or contractors such as himself when he worked for KUCC. Weber suggests such conduct was illegal, immoral, and unjustifiable. *Id.* at 2 - 3 [209 - 210]. Mr. Belchak also commented, at the public hearing, that he had a 1985 report entitled "Bingham Mountain Stormwater Management" regarding past mining activities and impacts in the area of concern, and another report dated May 1, 1981 containing "interesting data."[9/] Ex. H at 37 - 38 [275 - 276].

Response to comments regarding KUCC's past activities. CERCLA is a remedial statute, imposing strict liability upon four classes of responsible parties (set forth at 42 U.S.C. § 9607(a)(1)- (4)) to clean up, or pay for all costs of cleaning up, environmental contamination for which such responsible parties are liable. KUCC's past activities (or those of its corporate predecessors past activities), and the releases of hazardous substances that may have occurred,

---

[9/] Mr. Belchak submitted various documents to the agencies after the public hearing regarding KUCC's past activities in the area. Such materials have not changed the agencies' view as to the nature and extent of contamination at the OU2 Site, or the adequacy of the agencies' prior decisions how to address such contamination.

form the basis of KUCC's CERCLA liability to cleanup, or pay for the clean up, of the related ground water contamination. Consistent with CERCLA, the Decree requires KUCC to finance and complete the environmental cleanup of the Zone A plume, and thus addresses the consequences of KUCC's past mining activities. As to Mr. Weber's comments suggesting that KUCC may have violated the Clean Water Act or state permits, the Decree resolves no such liability, if any, that KUCC may have for violations of these or other environmental laws or permits.

Comments regarding more studies and other remedial alternatives. The Governments received several comments that the agencies should start over in their technical investigation of the ground water contamination and the remedial alternatives to address such contamination. Mr. Weber commented that the Decree fails to recognize all remedial alternatives such as biosulfide selective precipitation and several forms of evaporation and crystallization. Ex. G at 1 [208]. Mr. Weber also commented that the agencies could have selected a remedy by which the extracted water is "engineered" to match water chemistry of the Great Salt Lake allowing direct discharge to the water body for the benefit of migratory birds. Ex. G at 3 [210]. Mr. Weber further comments that the agencies did not complete a "transport and fate" analysis that would have, among other things, restricted the remedy to the mining impact site. *Id.* Mr. Weber requested the agencies to reconsider the comments previously submitted by the Sierra Club (with which Weber was apparently previously affiliated) attached to his comments. *Id.* Mr. Weber made the same general comments in person at the public hearing. Ex. H at 21 - 24 [259 - 262].

Other persons commented at the public meeting that the lodged Decree should be put on hold, and the agencies restudy the entire situation. Rod Dansie, a resident of Herriman, Utah,

commented that there should be a new review period regarding the consent decree that was put together in 1995 because the cost of the cleanup has shifted to the water users, the people in the valley have been burdened, the costs of the cleanup have gone up, and KUCC and its parent corporation Rio Tinto have made huge profits. Ex. H at 8 - 14 [246 - 252]. Mr. Dansie stated that water rates had not declined as he thought would occur as a result of the NRD settlement and that there appears to be declining amounts of available ground water to those that have wells in the valley. Mr. Dansie believes there is new information which KUCC and the District should consider in re-evaluating the allocation of water to the municipalities in the area. *Id.* at 29 - 33 & 40 [267 - 271 & 278]. He specifically stated that the "damage claim" should be put on hold until the new information is evaluated. *Id.* at 34 [272]. Arvid Bowles expressed similar concerns as Mr. Dansie, commenting that the water table appears to be diminishing. *Id.* at 46 - 48 [284 - 86].

Response to comments regarding more studies and other remedial alternatives. The Governments disagree with the comments that the ground water contamination and remedial alternatives have not been adequately studied. The 1998 Remedial Investigation/Feasibility Report considered numerous treatment alternatives, including those suggested by Mr. Weber. *See* Ex. I, Thomas Decl. ¶ 5.

Many of the comments also appear to confuse the CERCLA remedy and the NRD settlement processes. Mr. Weber's comments appear to concern both the selection of the remedy for the Zone A plume, and the prior settlement of the State's claim for natural resource damages which addressed the restoration or replacement of contaminated ground water (both the Zone A and Zone B plumes), when in fact these are separate matters. The comments of the Sierra Club

(attached to Mr. Weber's comments) were previously submitted to the State Natural Resource Trustee regarding the proposed settlement that became the 3-Party Agreement in 2004 between the State Natural Resource Trustee, the District, and KUCC (which addressed the treatment and provision of water for beneficial use for credit against the amounts in the NRD trust account). To the extent that the Sierra Club or Mr. Weber had comments on EPA's proposed plan of remedial action, they should have submitted such comments during the public comment period before a remedy was selected.

Even though Mr. Weber's comments are untimely, and the remedy selection process provided for by the NCP has been completed and an administrative record has been created, EPA and UDEQ nevertheless considered Mr. Weber's comments. The agencies do not believe that any further investigation is necessary from a technical perspective. *See* Ex. I, Thomas Decl. ¶ 8. In addition, the Decree provides that EPA may select further response actions if EPA, in consultation with UDEQ, determines the remedial action/OM&R activities are not protective of human health or the environment. (Decree ¶¶ 15 & 81 - 83 at 28 & 73 - 75). Finally, the protectiveness of the remedy is to be reviewed no less than every five years as required by the statute (Decree ¶ 14 at 28).

The comments of Messrs. Dansie and Bowles appear to confuse the relationship of the lodged Decree, which addresses the protection of human health and the environment from exposure to Zone A contamination, with the NRD Project and 3-Party Agreement, which address the provision of treated water for municipal use in the impacted area for credit towards the amount of the NRD Trust Fund (funded by KUCC by the payment of natural resource damages negotiated

in settlement of the NRD litigation). As to the concerns of Messrs. Dansie and Bowles that water rates have not been reduced and there are declining amounts of available ground water to those that have wells in the valley, such matters are beyond the scope of the Decree. The provision of treated ground water for the benefit of the affected communities is addressed by the NRD Project and 3-Party Agreement as noted in a separate action by the State of Utah.

As previously noted, institutional controls are a component of the remedy selected by the agencies to address the Zone A plume to assure that persons are not exposed to contaminated water by private wells, and that persons do not install new wells so as to interfere with the implementation of the remedial action. Irrespective of the implementation of such institutional controls, the Decree does not affect the rights a person may have regarding the quantity or quality of water within or near the OU2 Site. Decree ¶ 94 at 84. Further comments and responses regarding concerns of private well owners are set forth below.

Comments regarding the size of the plume/other allegations in the Complaint. Several persons commented that the Governments' complaint described the size of the OU2 Plume as being too small. *See* comments of Steve Homer, Ex. H at 5 [242], Dix Wilson, Ex. H at 18 - 19 [256 - 257]; Tom Belchak, Ex. H at 27 - 28 [265 - 266]; Paul Bolay, Ex. H at 28 [266]. Paragraph 22 of the Complaint states that the Zone A plume "emanates from an acidic core area which is approximately two square miles in size, covering approximately 160 acres . . . ." Mr. Belchak also suggested there were some minor factual errors in the complaint regarding the corporate history of KUCC or affiliated corporations. Ex. H at 27 - 28 [265 - 266].

Response to comments regarding the size/other allegations of the Complaint. The reference to 160 acres in the complaint was a typographical error. The core area covers an area approximately two square miles in size, and two miles equates to 1,280 acres. For further clarification, the acidic "core area" of the Zone A plume, as referenced in the OU2 ROD, is the area where sulfate concentrations are greater than 5,000 ppm. The leading edge of the Zone A plume is delineated by waters having a sulfate concentration of 1500 ppm. These areas are depicted on the map attached as Appendix A to the Decree and as Exhibit A to this brief.

The error in referring to the "core area" of the Zone A as being 160 acres instead of 1,280 acres in the Complaint does not affect the Decree, or KUCC's obligations under the Decree to finance and complete the environmental cleanup of the Zone A plume. The primary purpose of filing the Complaint was to secure the jurisdiction over KUCC in this action, which jurisdiction KUCC has consented to. Decree ¶ 1 at 11. The factual background section of the Complaint was for general informational purposes, and to plead sufficient facts to show the potential CERCLA liability of KUCC for matters addressed in the Decree.

Comments by Messrs. Belchak and Pinacate regarding their wells. Mr. Belchak commented that he dislikes the OU2 ROD's technical description of two separate plumes of contamination (Zone A and Zone B); he would like the agencies to simply address any ground water contamination attributable to copper mining. Ex. H at 26 - 27 [264 - 265]. Messrs. Belchak and Pinacate assert that they own deep water wells that are contaminated and which they can no longer use, and that their wells have been contaminated by the operations of KUCC. Motion to Intervene (Docket # 10) at 2 - 3. Messrs. Belchak and Pinacate further comment that the Decree

does nothing to protect or remediate their wells. *Id.* at 3 - 7. Mr. Pinacate also commented that there are a lot of people living in the Riverton area that have wells with water that tastes bad. Ex. H at 45 [283]. He states that his well was recently tested and showed an increase in sulfate levels from three years earlier. *Id.* at 45 - 46 [283 - 284].

Response to comments by Belchak and Pinacate regarding their wells. Based upon extensive technical data, there are two discrete plumes of ground water contamination. The Zone B sulfate plume generally contains levels of sulfate which average between 700 to 900 ppm, and is neutral for pH. The Zone A plume as is being remediated pursuant to the OU2 ROD is significantly different, containing much higher levels of sulfate and metals, and sulfate concentrations in excess of 1,500 ppm. While the remedy being implemented by KUCC under the Decree only addresses the Zone A plume as described in the OU2 ROD, the State's prior NRD settlement addressed sulfate contamination above 500 ppm in both the extended area of the Zone A plume and the entire Zone B plume. The wells of Messrs. Belchak and Pinacate are located outside the leading edge of the Zone A plume as defined in the OU2 ROD and applicable work plans, and thus are not included within the scope of the remedy being implemented by the Decree. The Decree does, however, provide for the protection of any wells near or downgradient of the Zone A plume by the remedial action components requiring the containment, reduction, and eventual elimination of the Zone A plume. Further, as stated above, the Decree does not affect any rights a third party may have regarding the quantity of quality of water within or near the OU2 Site. Decree ¶ 94 at 84.

Comments regarding impacts to water elevations in the aquifer and water rights in the area. Several persons commented that they are concerned about the use and management of ground water in the valley. Loretta Wilcox commented that their water is being taken and then sold back to them. Ex. H at 14 [252]. Dix McMullin stated at the public meeting that he is concerned about the control of the District over the provision of water in the valley, and is opposed to large entities purchasing lots of water rights and forcing smaller water users to follow their guidelines. Ex. H at 17 - 19 [255 - 257]. Mr. McMullin suggested there be an extended review of the overall situation and that persons with water rights, irrigation rights, and wells be treated fairly. *Id.* at 20 [258]. Carlynn Walker similarly commented that the future use of water by small property owners should be addressed and considered. *Id.* Mr. Dansie stated that he understood the NRD settlement would result in water being brought back to the southwest area impacted by mining, but that hasn't happened in Herriman. *Id.* at 29 - 30 [267 - 268]. Mr. Dansie is also concerned that the ground water is today being "mined" and it is impacting well owners. *Id.* at 40 - 41 [278 - 279]. Don Stallings of South Jordan commented that he would like to know more about the ground water contamination and what "is coming our way." *Id.* at 25 [263].

Response to comments regarding impacts to water elevations in the aquifer and water rights in the area. The primary focus of the CERCLA remedy is containing and reducing the acid plume of Zone A. The selected remedy includes extraction of water from the barrier wells, located along the leading edge of the Zone A plume, and from wells located in the core of the Zone A plume. These wells accomplish the remedial action objectives of containment and remediation. Ex. I, Thomas Decl. ¶ 16.

Source controls up-gradient from the contaminated aquifer are required under CERCLA and the NRD Settlement to prevent the uncontrolled release of leach water and alluvial flow water from the main drainages along the eastern front of the Oquirrh Mountains. This system collects source water filtering through the waste rock dumps, and redirects it toward KUCC's holding reservoir complex near Copperton for use in its process circuit. The aquifer continues to be recharged by precipitation that falls within the valley, the potential groundwater that flows through the bedrock aquifer of the Oquirrh Mountains and infiltration from the irrigation canals located in the valley. Ex. I, Thomas Decl. ¶ 13.

With the source control measures in place the aquifer has a finite recharge value and a certain sustainable yield without being further impacted by the continued release of acid mine drainage from the upgradient drainages. UDEQ, in consultation with the Utah Division of Water Rights ("UDWR"), estimated the sustainable yield from the aquifer comprising both Zone A and Zone B to be 7,000 acre-feet per year. The sustainable yield was estimated by UDEQ to assist in placing a value on the damage caused to the ground water in Zone A and Zone B (for purposes of the State's NRD claim). Ex. I, Thomas Decl. ¶ 14. UDWR continues to study the implications of KUCC's operations on the aquifer as well as those of other water users and has statutory authority to act on behalf of all water users. Within its June 2002 Groundwater Management Plan for the Salt Lake Valley ("SLV Ground Water Management Plan") UDWR calculated that the safe annual yield from the western region of the Salt Lake Valley aquifer is 25,000 acre-feet per year. Ex. I, Thomas Decl. ¶ 16.

Paragraph 2.3 of the SLV Ground Water Management Plan notes that applications for a change in a point of diversion or a replacement well in the area designated by UDWR as the "Southwest Remediation Area" will be critically reviewed by UDWR to avoid interfering with the ground water remediation process. Such a critical review is to occur in the area within 3000 feet of the known 250 ppm sulfate isoconcentration contour. Ex. I, Thomas Decl. ¶ 16.

KUCC must comply with state water rights law and has assigned water rights to this project to allow for extraction of water from the plume. KUCC applied for and received approval from the UDWR to move or redesignate previously held water rights for the production of process water. As a result of such redesignation, water extracted from the core area of the Zone A plume is extracted and delivered to the tailings slurry pipeline as discussed above, and water extracted from the leading edge of the Zone A plume is delivered to the RO Plant for treatment and production of municipal quality water. Ex. I, Thomas Decl. ¶ 18.

Because of the potential to cause localized changes in water elevation, KUCC is required to develop procedures to address impacts to other water rights owners, described in Section 6.0 of the OM&R Plan attached to the Consent Decree as Appendix C. Pursuant to the SLV Ground Water Management Plan, KUCC has committed to assist adversely affected water users to obtain adequate replacement water. In addressing potential impacts, KUCC will prepare an evaluation involving the water rights holder in consultation with the UDWR. Ex. I, Thomas Decl. ¶ 19.

Prior to the initiation of the remediation project in the early 1990s, KUCC began a ground water monitoring program to measure the water level elevations of the aquifer in the southwest Jordan Valley. Future monitoring data will be compared to this baseline representation to evaluate

the effectiveness of the remediation and its impact on water levels and ground water quality in the valley. Data collected through this monitoring program have shown that the aquifer has historically been over extracted and water levels continue to drop as a function of current extractions both related and unrelated to the remedy. Based on the data, it has been determined that drawdown of the aquifer in the immediate area of the Zone A plume is unavoidable and necessary to contain the contamination. In the absence of this extraction, the acid contaminated water in the core area of the Zone A plume could spread to contaminate other areas of the aquifer. Ex. I, Thomas Decl. ¶ 20.

Provision of treated ground water to be derived from the NRD Project is addressed under the NRD Joint Proposal and 3-Party Agreement. Individuals concerned about how the NRD Project is being implemented and potential impacts upon the quality or quantity of third party water rights can obtain information by calling UDEQ or accessing the following website, http://www.deq.utah.gov/Issues/nrd/index. In any event, the Decree does not affect any rights of a third party regarding the quantity or quality of water from a well they may have within or near the OU2 Site. Decree ¶ 94 at 84.

Comments of Stephen B. Homer. Stephen B. Homer, both individually and as counsel for Messrs. Belchak and Pinacate, stated his opposition to the proposed settlement as being a "sweetheart" deal for KUCC. Ex. H at 5 - 7 [243 - 245]; Motion to Intervene (Docket # 10) at 5. Mr. Homer further asserts that the regulatory agencies have been "intentionally neglectful" and deficient in failing to take adequate actions to address all ground water contamination, specifically that of his client's wells. Motion to Intervene (Docket # 10) at 3 - 5.

Response to Comments. The fairness and reasonableness of the settlement are set forth above. The lodged Decree was negotiated at arm's length over a period of several years. The United States and the State take strong exception to counsel's accusations of tortious type conduct by the agencies. There has been an abundance of technical investigations over a period of more than eight years to characterize the nature and extent of ground water contamination in and around what has now been identified as the Zone A and Zone B plumes.

Other comments. Mr. McMullin expressed concerned about home buyers purchasing homes from KUCC in areas overlying contaminated ground water not reserving legal recourse against KUCC if conditions change in the future. Ex. H at 19 [258]. Mr. Weber asked the agencies to take note that Kennecott Land Company submitted a draft land use plan, known as the "West Bench General Plan," to an office of Salt Lake County which proposes a residential and mixed land use development on the North Tailings Impoundment that Weber posits as irresponsible public endangerment. Ex. G at 2 [209]. Loretta Wilcox raised concerns at the public meeting about the quality and long-term effectiveness of the prior removal and remedial actions addressing soil contamination in the Herriman area and in the area where the Daybreak community is being developed. Ex. H at 14 - 16 [252 - 254]. She also commented that she lost two stallions from arsenic poisoning after drinking her well water for a number of years. *Id.* at 15 [253]. Mr. Dansie is concerned that the Decree is not "iron-clad." *Id.* at 12 [250].

Response to other comments. The arrangements between home buyers and KUCC (or affiliated companies) is beyond the scope of, and not in any way affected by, the Decree. As to future development, comments should be directed to the Salt Lake County office responsible for

any approval of such plans. EPA agrees that any residual contamination following mine closure and reclamation must be addressed through the use of institutional controls. Ex. I, Thomas Decl. ¶ 20. Ms. Wilcox's comments have been noted and will as appropriate be addressed during the five-year review of the protectiveness of the remedial actions that have been completed. As to her comment that two of her stallions may have died because of arsenic poisoning from drinking water from her well, her well was tested and the analytical results indicate that the well water would not have caused the deaths of the horses. Ex. I, Thomas Decl. ¶ 19. As to Mr. Dansie's comment that the Decree needs to be "iron-clad," the Governments agree and remain satisfied that the Decree is legally enforceable.

VI. CONCLUSION

The Decree is procedurally and substantively fair, adequate and reasonable, and furthers the purposes of CERCLA and is in the public interest. The Decree is not illegal, a product of collusion, or against the public interest. The Decree also does not affect or resolve any private rights. The Decree should be approved and entered by the Court.

Respectfully submitted,

RONALD J. TENPAS
Assistant Attorney General
Environment and Natural Resources Division

/s/
JEREL ("JERRY") L. ELLINGTON
Senior Counsel
Environmental Enforcement Section
U.S. Department of Justice
1961 Stout Street, 8th Floor
Denver, CO 80294
(303) 844-1363 (PHONE)
(303) 844-1350 (FAX)
Jerry.L.Ellington@usdoj.gov
BRETT L. TOLMAN
United States Attorney
District of Utah

DANIEL D. PRICE
Assistant United States Attorney
District of Utah
185 South State Street, Suite 400
Salt Lake City, UT 84111
(801) 325-3234 (PHONE)
(801) 524-6924 (FAX)
daniel.price2@usdoj.gov

Attorneys for the United States

MARK L. SHURTLEFF (#4666)
Utah Attorney General

/s/
(Signed by Filing Attorney with Permission)
FRED G NELSON (#2383)
Assistant Attorney General
160 East 300 S, 5th Floor
Salt Lake City, Utah 84114
(801) 366-0285 (PHONE)
(801) 366-0292 (FAX)
fnelson@utah.gov

Attorneys for the State of Utah

CERTIFICATE OF SERVICE

I hereby certify that on April 17, 2008, a copy of the foregoing **MEMORANDUM IN SUPPORT OF MOTION TO ENTER CONSENT DECREE** was served on the following persons by the following means:

1 - 2 CM/ECF **(Without Exhibits)**
1 Hand Delivery **(With Exhibits)**
2- 4 Mail **(With Exhibits)**
_____ Overnight Delivery Service
_____ Fax
_____ E-Mail

1. Clerk, U.S. District Court

2. Michael A. Zody
Parsons Behle & Latimer
One Utah Center
201 South Main Street, Suite 1800
Salt Lake City, UT 84111
Attorney for Defendant

3. Kenneth R. Barrett
Kennecott Utah Copper Corporation
8291 West 3595 South
Magna, UT 84044-6001
Attorney for Defendant

4. Stephen G Homer
2877 W 9150 S
West Jordan, UT 84088
Attorney for Thomas A. Belchak and Reynaldo B. Pinacate

/s/
JEREL ("JERRY") L. ELLINGTON
Senior Counsel
Environmental Enforcement Section
U.S. Department of Justice
1961 Stout Street, 8th Floor
Denver, CO 80294