KELLY AFB
TEXAS

ADMINISTRATIVE RECORD
COVER SHEET

AR File Number 3334

KELLY AIR FORCE BASE
COMMUNITY INFOFAIR
&
RESTORATION ADVISORY BOARD MEETING

Tuesday, 19 January 1999
Winston Elementary School Cafeteria
2500 S. General McMullen

COMMUNITY INFOFAIR

Pre-Meeting Poster Displays – Success Stories Basewide Cleanup Schedule Site S-1 Interim Remedial Action Soils Site S-8 Groundwater Closure Plan Monitored Natural Attenuation	**5:30-6:30 p.m.**	**Kelly AFB Staff**

RAB MEETING

I. Welcome A. Introductions B. Administrative Topics 1. RAB Member Packets 2. RAB Action Items/Responses C. Vote on Minutes from 28 October 1998 Meeting D. Vote on new Community Co-chair 1. Two minute opportunity for each nominee to address RAB E. Vote on RAB application – TSgt Kent Iglesias	**6:30-7:00 p.m.**	**BGen Murdock**
II. Community Statements A. Four Minutes Per Speaker	**7:00-7:20 p.m.**	**All Attendees**
III. Public Involvement Opportunities	**7:20-7:40 p.m.**	**Dick Walters**
IV. Break	**7:40-7:55 p.m.**	**All Attendees**
V. Subcommittee Update – TRS	**7:55-8:10 p.m.**	**Dr. Lené**
VI. Base Conversion Agency Update	**8:10-8:30 p.m.**	**Pat McCullough**
VII. BCT Update	**8:30-8:40 p.m.**	**TNRCC/EPA**
VIII. Summary and Closing A. Collect Agenda Items for Next RAB Meeting B. Review Action Items For Next RAB Meeting C. Announce Date, Time, Location for Next RAB Meeting 1. Date - 20 April 99	**8:40-9:00 p.m.**	**BGen Murdock**

5:30 to 6:30 p.m.: Poster board displays on Environmental Topics. Kelly AFB environmental personnel will be on hand to answer your questions. For more information call Dick Walters or Ron Scharven at 925-1815.

File:
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Kelly Air Force Base Restoration Advisory Board Meeting
19 January 1999 6:30 p.m.
Winston Elementary School

Members/Alternates present:

Public members:

Brig. Gen. Robert M. Murdock
RAB Installation Co-Chair
Mr. Edward Weinstein
SAWS
Mr. Gordon Banner
TNRCC
Ms. Laura Stankosky
EPA
Mr. John A. Jacobi
TDH
Mr. Sam Sanchez
Metropolitan Health District
Mr. Nicolas Rodriguez, Jr.
BMWD

Community members:

Dr. Gene Lené
RAB Community Co-Chair
Mr. Sam Murrah
Mr. Paul Person
Mr. Mark Puffer
Mr. Carl Mixon
Mr. Paul Roberson
Greater Kelly Development Corp
Mr. Mr. Armando Quintanilla
Mr. George Rice
Ms. Tanya Huerta
Mr. Allan Hagelthorn

Members Absent Without Alternate:

Mrs. Yolanda Johnson (death in family)
Mrs. Dominga Adames
Ms. Annalisa Peace
Mr Juan Solis, Sr.

Item I: Call to Order

Brig. Gen. Robert M. Murdock called the meeting to order at 6:35 p.m.

Item II: Administrative Topics

A. BGen. Murdock announced the resignation of community co-chair Damian Sandoval.
   1. On behalf of the RAB, Gen. Murdock offered to draft a letter to Mr. Sandoval thanking him for his service to the RAB. The RAB agreed. Gen. Murdock said he would provide RAB members a draft of the letter for review
B. The General introduced Mr. Pat McCullough, Senior Representative for the Base Conversion Agency at Kelly AFB and explained his role in regards to the RAB.
C. RAB members introduced themselves.
D. Review of Action Items
   1 BGen. Murdock reviewed the list of action items from the last meeting He directed members to the materials package, which detailed the response for each action item. He highlighted a few of the action item responses.
      a. He noted that minutes from past Base Closure Team (BCT) meetings had been mailed to RAB members and that members will continue to receive BCT meeting minutes in the future. He added that the minutes will also be available in the Information Repositories and placed in the Administrative Record.

b. BGen. Murdock said training can be made available to RAB members, funded through the Technical Assistance for Public Participation (TAPP) grant.

2. In response to one of the action items, Mr. George Rice said he had previously stated the Air Force's statements regarding the contamination's impact to the Edwards Aquifer were false and contradict the Air Force's own documents. He said he had asked for a reason why the Air Force would make such statements. He said Air Force's response was merely a restatement of the Air Force's previous statements. He said he did not understand why the Air Force would respond that way
   a. BGen. Murdock asked if the item in question could be discussed after the meeting and left as an open agenda item for the next meeting. Mr. Rice agreed, and the discussion was tabled.

E. Review of Minutes
   1. The October 28, 1998 minutes were accepted, with one change of a typographical error (roll to role).

F. Election of new Community Co-chair
   1. The RAB community members nominated Dr. Gene Lené to replace Mr Sandoval as community co-chair No other nominations were received, and Dr. Lené was named co-chair by acclamation.

G. New member application
   1. Mr. Kent Iglesias was introduced as a candidate to fill one of the three vacancies on the board. Mr. Iglesias, who is an Air Force member who lives at Kelly AFB, said he was looking forward to being on the RAB and would commit whatever time was necessary to serve the community.
      a. He was accepted without objection.
   2. BGen. Murdock said there were still two vacancies on the board that he was anxious to fill. He said he has contacted city council members and asked them to nominate citizens from areas that were either not represented or underrepresented.
      a. BGen. Murdock said he would make the formal letter of request available to RAB members when it was completed.

Item III: Community Comments

A. The floor was opened for community statements. No community members made statements.

B. Mr Armando Quintanilla asked for more information about the recent chemical spill that was reported in the media and supposedly had killed fish in Leon Creek He was concerned that the RAB had not been informed of the spill, as dictated in the RAB Charter.
   1. BGen. Murdock said, as previously agreed, that spills that are deemed as reportable by law would be reported to Mr. Carl Mixon, who represents the Local Emergency Planning Committee. Mr. Mixon would then give a report to the RAB Gen. Murdock said the recent spill was not of a reportable quantity, which was why the RAB was not formally informed.
      a. Mr. Mixon agreed the spill had been reported properly, and that the quantity was not a legally reportable quantity.
   2. Mr. Larry Bailey, Kelly AFB, gave a brief report about the recent spill. He said the chemical was detected in a stormwater outfall. The chemical was a solvent used to clean parts. The product was a citrus-based cleaner that replaced far more hazardous

chemicals. He said the base was currently investigating how the chemical got from the shops where it is used to the stormwater outfall.

3. Mr. Gordon Banner, Texas Natural Resource Conservation Commission (TNRCC) representative, said the State also investigated the spill. While there were a few dead fish found in the concrete basin separating the outfall and Leon Creek, they determined the chemical probably did not reach Leon Creek and found no dead fish in the creek.

Item IV: Public Involvement Opportunities

A. Mr. Dick Walters, Kelly AFB, gave a presentation on upcoming public involvement opportunities. See attached slides. At the conclusion of his presentation, Mr. Banner announced that TNRCC would be holding a public meeting for sites E-3, S-8, SA-2, and SD-1 on January 28th, at 6:00 p.m. at Dwight Middle School.

B. In regards to Site S-8, Mr. Rice asked if the Class 3 Modification meant any additional public involvement requirements
   1. Mr. Banner said that while public meetings are required for all the sites, a Class 3 Modification carries some additional public involvement requirements.

C. Mr. Quintanilla asked that executive summaries of closure documents be made available to RAB members for review. He said he does not have time to go the library to review the documents and receiving executive summaries would be more convenient and would allow RAB members to review more documents.
   1. It was taken as an action item.
   2. Dr. Lené suggested that executive summaries could be made available on the Kelly AFB environmental web site for those with computers.

D. Ms. Tanya Huerta asked who decides what documents get reviewed and commented on
   1. BGen Murdock said this is an issue for the Technical Review Subcommittee (TRS) to address and bring to the RAB.

A short break was taken.

Item V: Subcommittee Update – TRS

A. Dr. Lené gave a brief report of the last three TRS meetings Highlights are as follows:
   1 **November 98 meeting:**
      a. Presentation on monitored natural attenuation
      b. Presentation on groundwater reinjection
      c. Spills: TRS agreed to receive spill reports for RAB
      d. Members agreed to focus more on the document review and reporting back to the RAB.
      e. Agreed to synchronize meeting dates with BCT meetings for convenience
   2. **December 98 meeting:**
      a Presentations on passive in-situ remediation techniques, including phytoremediation
      b. Report on status of Agency for Toxic Substances and Disease Registry's (ATSDR) public health assessment
      c. TAPP contractors will review ATSDR's report, Zone 4 OU-2 Workplan, and the Basewide Remedial Assessment when they are available.
      d. TAPP grant Use of TAPP for training and reapplying for another TAPP for FY 99
   3 **January 99 meeting:**
      a. Kelly AFB environmental web site

b. Site S-4 update
c. TRS membership issues. Mr. Quintanilla nominated as TRS member The matter was to be decided by the RAB Co-Chairs.
d. Develop mission statement for TRS. Get back to original mandate

B. The next TRS meeting was announced for February 9th, at 6:30 p.m. at St. Mary's University. Topics include reviewing the Zone 4 Groundwater Decision Document and the Focused Feasibility Study for Site S-1.
C. BGen. Murdock said he would concur with Mr. Quintanilla's nomination to the TRS. Dr. Lené agreed According to the charter, Mr. Quintanilla was then added as a TRS member
D. Dr. Lené said he is looking for additional TRS members and asked anyone interested in joining the TRS to contact him.

Item VI: Base Conversion Agency Update

A. Mr. McCullough, Base Conversion Agency (BCA), gave a presentation regarding the mission of BCA, its role in the closure of Kelly AFB and what it's doing about the cleanup.
B. Mr. McCullough emphasized that the San Antonio Air Logistics Center commander is in charge of the base until the ALC officially closes. At this time, BCA works in support of the Air Logistic Center's mission. He said in his experience, redevelopment works best when there is one voice for the community, and that voice is the Greater Kelly Development Corporation (GKDC)
C. Mr. McCullough extended an invitation to RAB members to attend BRAC Training scheduled for 16-18 Feb 99.
D. Mr. Adam Antwine, also of BCA, detailed the environmental concerns of BCA in regards to cleanup and ensuring future tenants do not create additional problems He said BCA's environmental funding for the base has been $20-30 million per year since 1996.
E. Questions and Comments
   1. Mr. Quintanilla asked if they would deal with contamination off base. Mr. McCullough reaffirmed the Air Force's position to deal with contamination it has caused no matter where it is
   2. Mr. Rice asked if BCT meeting materials can be made available to RAB members. Mr. McCullough said it was not his decision to make. It must be a decision of the BCT. He said he will bring the question to the BCT for consideration.
   3. Mr. Quintanilla asked what role BCA played, if any, in the recent lease-back of the RED HORSE property. Gen. Murdock said that the RAB is to discuss restoration issues; therefore, the RAB is not the proper forum to discuss the RED HORSE issue.
      a. Mr. Paul Roberson, GKDC representative, said contrary to news reports, no decision has been made regarding the RED HORSE issue. They received the Air Force's proposal on January 15th , and are reviewing it. He said for the proposal to be accepted, it must make technical sense, allow for public comment, and be reviewed and approved by the GKDC board. He announced a public meeting on February. 10th, to allow public comment on the proposal.
      b. Mr Quintanilla asked if BCA will have a role in the decision. Mr. McCullough said no, not at this time. Mr. Quintanilla asked for a copy of all leases made. Mr McCullough said it is a matter of public record and he could get a copy.

Item VII: BCT Update

A. BGen. Murdock said since most of the questions regarding the BCT Report had already been discussed during the course of the meeting, there would be no formal report. However, he referred members to Item B in the Action Items, outlining the response to Mr. Rice's inquiry as to why RAB members were not permitted to be a part of the BCT.

B. Questions and Comments

1. Mr. Quintanilla said since off-base contamination issues are discussed at the BCT meetings, the community should be represented. He said not allowing the RAB to have a representative on the BCT violates the Environmental Justice Executive Order, which requires the community to be involved in the decision-making process.
2. Mr. Rice stated he believed that RAB members should be able to attend BCT meetings, even if just to observe. However, in lieu of that, he requested that BCT materials be made available to RAB members.
3. BGen. Murdock said it was the BCT members' decision to not include RAB members.
4. Ms. Tanya Huerta asked if other BCTs across the country have open meetings? BGen. Murdock said he did not know, but would find out.
5. Mr. Roberson said the underlying concern here is the public's opportunity to comment and participate in decisions. He said all decisions are brought before the public. He said if decisions were being made in secret, that would be a problem that should be addressed.
6. Mr. Quintanilla said that documents are being withheld by the BCT. BGen Murdock asked which documents. Mr. Quintanilla said he did not know, but has filed a request through the Freedom of Information Act to find out
7. Maj. Tom de Venoge, Kelly AFB, said this issue was discussed at the last TRS meeting. He said the BCT receives draft documents at the same time as the regulators and the RAB.
8. Mr. Banner noted that he finds it ironic that RAB members are saying that they don't have enough time to review the documents they are getting, yet they say they're not getting enough documents.
9. Mr. Sam Sanchez, San Antonio Metropolitan Health District representative, said the TRS has not looked at a lot of documents, but given the time constraints of the members, it is doing a good job. He said the TRS relies on the presentations given by the Air Force and its consultants.
10. Mr. Quintanilla asked for the action item: Find out if RAB members can get BCT materials.

Item VIII: Summary and Closing

A Agenda Items for the Next RAB Meeting

1. Mr. Quintanilla asked for presentations on:
   a. Site D-10
   b. Possible Contamination under Bldg. 375
   c. Kelly's top five environmental priorities.
   d He also asked what Kelly AFB's role will be in ATSDR's training of local citizens and health care professionals preceding the release of the Public Health Assessment.
2. In regards to BCT materials, Mr. Banner said the BCT will take up the question at its next meeting and report to the RAB.

Minutas de la Reunión de la
Junta Consejera para la Restauración (RAB) de la Base Aérea Kelly
19 de enero de 1999, 6:30 p.m.
Winston Elementary School

Miembros de la Junta y alternos presente:

Miembros del Público:

Brigadier General Robert M. Murdock - Presidente de la Junta representando la Fuerza Aérea
Sr. Edward Weinstein - SAWS
Sr. Gordon Banner – TNRCC
Ms. Laura Stankosky - EPA
Sr. Sam Sánchez - Metropolitan Health District
Sr. John A. Jacobi - TDH

Miembros de la Comunidad:

Dr. Gene Lené - Presidente de la Junta representando la Comunidad
Sr. Paul Person
Sr. Mark Puffer
Sr. Paul Roberson – Greater Kelly Development Corp.
Sr. Armando Quintanilla
Sr. George Rice
Sr. Sam Murrah
Sr. Nicolás Rodríguez, Jr – BMWD
Sr. Carl Mixon – Bexar County Fire Marshall
Ms. Tanya Huerta

Miembros ausentes sin representación de alternos:

Sra. Yolanda Johnson (Pérdida de un familiar)
Sr. Juan Solís, Sr.
Sra. Annalisa Peace
Sra. Dominga Adames

TEMA I: Apertura de la Reunión

El Brigadier General Robert M. Murdock llamó la reunión al orden a las 6:35 p.m.

Minutas de la Reunión de la
Junta Consejera para la Restauración (RAB) de la Base Aérea Kelly
19 de enero de 1999, Winston Elementary School

TEMA II: Temas Administrativos

A. El Brigadier General Robert M. Murdock anunció la renuncia del Sr. Damian Sandoval - Presidente de la Junta representando la Comunidad.

1. El BGeneral Murdock se ofreció, en nombre de la Junta, a preparar un borrador para una carta dándole las gracias al Sr. Sandoval por sus servicios a la Junta. El BGeneral dijo que le proveerá copia del borrador de la carta a la Junta solicitando sus comentarios. Los miembros de la Junta estuvieron de acuerdo.

B. El BGeneral presentó al Sr. Pat McCullough, Representante principal de la Agencia de Conversión en la Base Aérea Kelly y explicó la labor que éste desempeña en la Junta.

C. Los miembros de la Junta hicieron una autopresentación.

D. Discusión sobre los temas de acción

1. El BGeneral Murdock repasó la lista de los temas de acción de la reunión anterior. Le pidió a los miembros que buscaran en el paquete que les fue entregado que contiene un documento en que se detalla la respuesta a cada tema de acción. Habló sobre algunos de los temas de acción y la correspondiente respuesta.
    a. Apuntó que las minutas de reuniones anteriores del Comité para el Cierre de la Base, (Base Closure Team), (BCT) fueron enviadas a los miembros de la Junta y que continuarán recibiendo estas minutas en el futuro. Añadió que las minutas estarán disponibles en el "Information Repository" y en el Récord Administrativo.
    b. El BGeneral Murdock dijo que se le puede proveer entrenamiento a los miembros de la Junta usando los fondos donados por "Technical Assistance for Public Participation (TAPP).

2. En respuesta a uno de los temas de acción, el Sr. Rice dijo que anteriormente él había dicho que los comentarios de la Fuerza Aérea sobre el impacto de la contaminación en el Acuífero Edwards eran falsos y contradecían los propios documentos de la Fuerza Aérea. Dijo que él preguntó cuál era la razón para que la Fuerza Aérea haga esos comentarios. Dijo que la respuesta de la Fuerza Aérea simplemente era una repetición de sus comentarios anteriores. Dijo que él no comprende porqué la Fuerza Aérea responde en esa forma.
    a. El BGeneral Murdock preguntó si era posible discutir este tema después de la reunión y mantenerlo como un tema de acción pendiente. El Sr Rice estuvo de acuerdo y la discusión fue pospuesta.

E. Repaso de las minutas

1. Las minutas de la reunión del 28 de octubre de 1998 fueron aceptadas en su totalidad después de corregir un error tipográfico (roll to role).

F. Elección del Presidente de la Junta representando la Comunidad.

1. Los miembros de la Junta representando la comunidad nominaron al Dr. Gene Lené para reemplazar al Sr. Sandoval como Presidente de la Junta representando la Comunidad. No hubo más nominaciones y el Dr. Gene Lené fue nombrado Presidente por aclamación.

G. Solicitud para nuevos miembros de la Junta

1. El Sr. Kent Iglesias fue presentado como candidato para llenar una de las tres vacantes en la Junta. El Sr. Iglesias, quien es miembro de la Fuerza Aérea y vive en la Base Aérea Kelly, dijo que desea pertenecer a la Junta y se compromete a dedicar el tiempo que sea necesario para servir a la comunidad.
   a. Fue aceptado sin objeciones.

2. El BGeneral Murdock dijo que todavía había dos vacantes en la Junta las cuales estaba ansioso por llenar. Dijo que le pidió a los Miembros del Concilio de la Ciudad que nominaran ciudadanos de áreas que no están representadas o no tienen suficiente representación.
   a. El BGeneral Murdock dijo que escribirá una carta formal al Concilio y la pondrá a disposición de los miembros de la Junta cuando esté lista.

TEMA III: Presentación por la comunidad

A. Se invitó a los miembros de la comunidad a presentar sus comentarios. No hubo comentarios de los miembros de la comunidad.

B. El Sr. Armando Quintanilla solicitó más información sobre el reciente derrame de agentes químicos publicado en la prensa en que se decía que supuestamente había matado peces en Leon Creek. Dijo que le preocupa que la Junta no fue informada como se estipula en la Constitución de la Junta.

1. El BGeneral Murdock dijo que, según acordado anteriormente, los derrames que por ley son necesarios reportar, serán reportados al Sr. Carl Mixon, que representa el Comité Local para Planes de Emergencia. El Sr. Mixon los informará a la Junta. Dijo que la Junta no fue informada porque no era necesario reportar la cantidad del derrame.

a. El Sr. Mixon dijo que el derrame fue debidamente reportado, y pero que legalmente no era necesario reportar la cantidad derramada.

2. El Sr. Larry Bailey, de la Base Aérea Kelly, dió un breve informe del derrame reciente. Dijo que el agente químico fue encontrado en una de las salidas de agua pluvial. El solvente era de la clase que se usa para limpiar piezas. El producto era de base citrosa y es usado para reemplazar agentes químicos mucho más peligrosos. Dijo que al presente se está investigando cómo el agente químico llegó desde el punto de uso a la salida de agua pluvial.

3. El Sr. Gordon Banner, representando a Texas Natural Resource Conservation Commission (TNRCC), dijo que el estado también investigó el derrame. Aunque se encontraron algunos peces muertos en el estanque de concreto que separa la salida de agua pluvial de Leon Creek, se determinó que el agente químico probablemente no llegó hasta Leon Creek donde no se encontraron peces muertos.

TEMA IV: Oportunidades para la participación del público

A. El Sr. Dick Walters, de la Base Aérea Kelly, hizo una presentación sobre algunas oportunidades en que el público puede participar. Vea anexo. Después de la presentación, el Sr. Banner anunció que TNRCC estará celebrando reuniones públicas para las áreas E-3, S-8, SA-2 y SD-1 el 28 de enero a las 6:00 p.m. en Dwight Middle School.

B. Con relación al área S-8, el Sr. Rice preguntó si "Modificaciones Clase 3" se refieren a un requerimiento de más envolvimiento público.

1. El Sr. Banner dijo que mientras se requieren reuniones públicas para todas las áreas, una clasificación de "Modificaciones Clase 3" conlleva requerimientos de más envolvimiento público.

C. El Sr. Quintanilla pidió que el resumen ejecutivo de los documentos de cierre lesean entregados a los miembros de la Junta para éstos revisarlo. Dijo que él no tiene tiempo para ir a la biblioteca a repasar estos documentos. Los miembros de la Junta podrán revisar más documentos si se les entrega el resumen ejecutivo.

1. Esta petición fue añadida a los temas de acción.

2. El Dr. Lené sugirió que el resumen ejecutivo puede ponerse en la página ambiental de la Base Aérea Kelly en el internet para uso de aquellos que tienen computadora.

D. Ms. Tanya Huerta preguntó quién decide sobre los documentos que deben revisarse y hacer comentarios.

1. El BGeneral Murdock dijo que éste es un tema que debe ser considerado por el Subcomite Técnico (TRS) y presentar sus recomendaciones a la Junta.

Receso

Se tomó un breve receso.

TEMA V: Reporte del Subcomite Técnico - TRS

A. El Dr. Lené dió un breve reporte sobre las tres últimas reuniones del TRS, las partes más sobresalientes fueron:

1. **Reunión de noviembre del 1998**:
   a. Presentación sobre atenuación natural observada.
   b. Presentación sobre reinyección de agua al acuífero.
   c. Derrames – El Subcomité aceptó recibir, en nombre de la Junta, los reportes sobre derrames.
   d. Los miembros del Subcomité estuvieron de acuerdo en concentrar sus esfuerzos en el repaso de documentos y reportar a la Junta.
   e. Se acordó sincronizar las reuniones del Subcomité y del BCT para mayor conveniencia.

2. **Reunión de diciembre del 1998**:
   a. Presentación de las técnicas sobre remediación pasiva (in situ), incluyendo fitoremediación.
   b. Reporte del estudio de "Agency for Toxic Substances and Disease Registry" (ATSDR) sobre la salud del público.
   c. Cuando la documentación esté disponible, los contratistas de TAPP revisarán el reporte de ATSDR, el plan de trabajo para la Zona 4 OU-2 y el Estudio de Remediación para toda la Base.
   d. Fondos de TAPP: Uso de los fondos de TAPP para entrenamiento y solicitud de fondos de TAPP para el año fiscal 1999.

3. **Reunión de enero del 1999**:
   a. La página ambiental de la Base Aérea Kelly en el internet.
   b. Información sobre el área S-4
   c. Temas sobre membresía del Subcomité Técnico: El Sr. Quintanilla fue nominado para miembro del TRS. Este asunto fue dejado para que los Presidentes lo decidan.
   d. Desarrollo de un documento sobre la misión de TRS. Regreso al mandato original.

B. Se anunció que la próxima reunión del Subcomité será en St. Mary's University el 9 de febrero a las 6:30 p.m.. Entre los tópicos a considerarse están el "Decision Document" del agua subterránea en la Zona 4, y el "Focused Feasibility Study" para el área S-1.

C. El BGeneral Murdock dijo que está de acuerdo con la nominación del Sr. Quintanilla para el Subcomité Técnico. El Dr. Lené estuvo de acuerdo. De acuerdo con la Constitución, el Sr. Quintanilla fue añadido a la lista de miembros del TRS.

D. El Dr. Lené dijo que está en busca de más miembros para el TRS y si hay alguien interesado(a) que se ponga en contacto con él.

TEMA VI: Reporte sobre las actividades de "Base Conversion Agency"

A. El Sr. McCullough, de "Base Conversion Agency" (BCA), hizo una presentación sobre la misión de BCA, sus responsabilidades en el cierre de la Base Aérea Kelly y que están haciendo sobre la limpieza.

B. El Sr. McCullough enfatizó que el comandante de San Antonio Air Logistics Center (ALC) estará a cargo de la base hasta que ALC cierre oficialmente. Al presente, BCA trabaja ayudando la misión de ALC. Dijo que basado en su experiencia, el desarrollo de una base trabaja mejor cuando hay una sola representación de la comunidad, y esa representación es Greater Kelly Development Corporation (GKDC).

C. El Sr. McCullough extendió una invitación a los miembros de la Junta a asistir a un entrenamiento de BRAC del 16 al 18 de febrero de 1999.

D. El Sr. Adam Antwine, también de BCA, explicó en detalles las preocupaciones ambientales de BCA en relación al programa de limpieza y para asegurar que los futuros ocupantes no causen problemas adicionales. Dijo que los fondos ambientales de BCA han sido de $20 a 30 millones por año desde el 1996.

E. Preguntas y comentarios

1. El Sr. Quintanilla preguntó si ellos considerarán la contaminación fuera de la base. El Sr. McCullough reafirmó que la posición de la Fuerza Aérea es tratar la contaminación causada por ellos sin importar donde se encuentre.

2. El Sr. Rice preguntó si los documentos de las reuniones de BCT pueden ponerse a la disposición de los miembros de la Junta. El Sr. McCullough dijo que esa no es decisión suya. Es una decisión del BCT. Dijo que traerá esa pregunta a la consideración de BCT.

3. El Sr. Quintanilla preguntó cuál fue la participación de BCA, si alguna, en la reciente transacción de renta de la propiedad de RED HORSE. El BGeneral Murdock dijo que el interés de la Junta es discutir temas sobre restauración. Por lo tanto, no es propio discutir temas sobre RED HORSE.
   a. El Sr. Roberson, representante de GKDC, dijo que contrario a los reportes en las noticias, no ha habido decisión alguna sobre RED HORSE. GKDC recibió la propuesta de la Fuerza Aérea el 15 de enero y están estudiándola. Dijo que para que la propuesta sea aceptada, debe ser técnicamente aceptable y recibir comentarios del público. Finalmente debe ser aprobada por la Junta de GKDC. Anunció una reunión pública para el 10 de febrero para recibir comentarios del público sobre la propuesta.

   b. El Sr. Quintanilla preguntó si BCA participará en la decisión El Sr. McCullough dijo que en este momento no. El Sr. Quintanilla pidió una copia de todos los contratos de renta aceptados hasta este momento. El Sr. McCullough dijo que estos eran récord público y él puede obtener una copia.

TEMA VII: Reporte sobre las actividades de BCT

A. El BGeneral Murdock dijo que debido a que la mayoría de las preguntas relacionadas con el reporte de BCT fueron discutidas durante la reunión, no habrá un reporte formal. Pero, le señaló a los miembros de la Junta el Tema B, entre los Temas de Acción, donde se responde a la pregunta que el Sr. Rice hizo sobre la participación de la Junta en la composición de BCT.

B. Preguntas y Comentarios

1. El Sr. Quintanilla dijo que debido a que la contaminación fuera de la base es un tema discutido en las reuniones de BCT, la comunidad debe estar representada. Dijo que el no permitir que la Junta tenga un representante en BCT viola la orden Ejecutiva de Justicia Ambiental que requiere que la comunidad participe en el proceso de decisiones.

2. El Sr. Rice dijo que él cree que los miembros de la Junta deben asistir a las reuniones de BCT, aunque sea como observadores. Pero, de no ser posible, pidió que los documentos de las reuniones de BCT se pongan a la disposición de los miembros de la Junta.

3. El BGeneral Murdock dijo que fue dicisión de los miembros de BTC de no incluír los miembros de la Junta.

4. Ms. Tanya Huerta preguntó si otros BCT en los Estados Unidos celebran reuniones abiertas al público. El BGeneral Murdock dijo que no tiene conocimiento, pero que tratará de averiguar.

5. El Sr. Roberson dijo que la preocupación principal en esta reunión es la oportunidad del público de hacer comentarios y participar en las decisiones. Dijo que todas las decisiones son presentadas al público. Dijo que si las decisiones se hicieran en secreto, esto sería un problema que debía ser considerado.

6. El Sr. Quintanilla dijo que hay documentos que BCT no ha publicado. El BGeneral Murdock preguntó cuáles eran los documentos. El Sr. Quintanilla dijo que él lo desconoce, pero que ha sometido una solicitud bajo el "Freedom of Information Act" para averiguarlo.

7. El Mayor Tom de Venoge, de la Base Aérea Kelly, dijo que este asunto fue discutido en la última reunión de TRS. Dijo que los miembros de BCT reciben borradores de documentos al mismo tiempo que los reguladores y la Junta.

8. El Sr. Banner apuntó que encuentra irónico que los miembros de la Junta dicen que no tienen suficiente tiempo para repasar los documentos que reciben, sin embargo dicen que no reciben suficientes documentos.

9. El Sr. Sam Sánchez, representante de San Antonio Metropolitan Health District, dijo que el TRS no ha revisado una gran cantidad de documentos debido a las limitaciones de tiempo de sus miembros, pero que el Comité está haciendo un buen trabajo. Dijo que TRS depende de las presentaciones de la Fuerza Aérea y sus consultores.

10. El Sr. Quintanilla pidió que se incluya entre los temas de acción : Averiguar si los miembros de la Junta pueden obtener documentos de BCT.

TEMA VIII: Resumen y cierre

A. Temas para la agenda de la próxima reunión de la Junta.

1. El Sr. Quintanilla solicitó presentaciones sobre los siguientes temas:
   a. Area D-10
   b. Posibilidad de contaminación bajo el edificio #375.
   c. Las cinco principales prioridades ambientales de la Base Aérea Kelly.
   d. También preguntó cuál será la participación de la Base Aérea Kelly en el entrenamiento por ATSDR de los ciudadanos y profesionales del cuidado de la salud, después de la publicación del Estudio de Salud Pública.

2. En relación al material de BCT, el Sr. Banner dijo que BCT considerará la pregunta en su próxima reunión y reportará a la Junta.

B. Temas de acción para la próxima reunión de la Junta:

TEMA	PETICIONARIO	ACCION
1	BGen. Murdock	Preparar un borrador para, en nombre de la Junta, enviarle una carta de apreciación al Sr. Damian Sandoval para ser firmada por los Presidentes.
2	Sr. Rice	Considerar nuevamente en la próxima reunión de la Junta la contestación del tema relacionado con la contaminación del Acuífero Edwards.
3	Sr. Quintanilla Ms. Huerta	Solicitud de la Junta del resumen ejecutivo de documentos técnicos sometidos para comentarios públicos y también en el futuro.
4	Sr. Quintanilla Sr. Mixon	Solicitud para que se incluya el resumen ejecutivo en la página del internet.
5	Sr. Rice	Solicitud para que BCT considere proveer a la Junta todo el material considerado en las reuniones de BCT.
6	Sr. Quintanilla	Que AFBCA prevéa a los miembros de la Junta una lista de las propiedades "retenidas" de transferencia o designadas para volver a alquilarse a la Fuerza Aérea.

C. Se decidió celebrar la próxima reunión de la Junta el 20 de abril de 1999, en South San High School.

1. También se anunciaron reuniones tentativas para el 20 de julio y el 19 de octubre.

D. El Sr. Quintanilla dijo que él opina que el tiempo entre reuniones es muy largo.

E. La reunión concluyó a las 9:15 p.m.

Mociones/Resoluciones

A. Mociones

1. Moción para que se envié una carta de apreciación al Sr. Sandoval en nombre de la Junta.
   - *Fue aprobada por unanimidad.*

2. Moción para permitirle al Sr. Jacobi, el parlamentario de la Junta, llevar a cabo la elección del Presidente de la Junta representando la Comunidad.
   - *Fue aprobada por unanimidad.*
3. Moción para nombrar por aclamación al Dr. Lené como Presidente de la Junta representando la Comunidad
   - *Fue aprobada por unanimidad.*
4. Moción para aprobar las minutas de la reunión de la Junta del 29 de octubre de 1998.
   - *Fue aprobada por votación levantado la mano.*
5. Moción para aceptar al Sr. Iglesias en la Junta.
   - *Fue aprobada por unanimidad.*

Anexos (Distribuídos a los miembros de la Junta durante la reunión)

1. Paquete con material de "Kelly AFB Restoration Advisory Board"
   - Reunión de la Junta el 19 de enero de 1999
2. Presentación de oportunidades para la participación del público
3. Minutas de la reunión de TRS del 15 de diciembre de 1998
4. Presentación de BCA y un paquete con información

Kelly AFB
Restoration Advisory Board

Materials Package

For the

January 19, 1999

RAB Meeting

Index

Kelly Air Force Base Restoration Advisory Board Meeting
28 Oct 1998 6:30 p.m.
Dwight Middle School

Members/Alternates present:

Public members:

Brig. Gen. Robert M. Murdock
RAB Installation Co-Chair
Mr. Edward Weinstein
SAWS
Mr. Gordon Banner
TNRCC
Ms. Laura Starkisky
EPA
Mr. John A. Jacobi
TDH
Mr. Trinidad Almaguer (Mr. Sanchez's alt.)
Metropolitan Health District

Community members:

Mr. Damian Sandoval
RAB Community Co-Chair
Mrs. Yolanda Johnson
Ms. Annalisa Peace
Mr. Mark Puffer
Dr. Gene Lené
Mr. Paul Roberson
Greater Kelly Development Corp.
Mr. Armando Quintanilla
Mr. George Rice
Mr. Sam Murrah
Mr. Juan Solis, Sr.
Mr. Paul Person
Mrs. Dominga Adames

Members Absent Without Alternate:

Mr. Nicolas Rodriguez, Jr. BMWD
Mr. Carl Mixon
Mr. Willie Jones, Jr.

Item I: Call to Order

Brig. Gen. Robert M. Murdock called the meeting to order at 6:35 p.m.

Item II: Administrative Topics

A. RAB members introduced themselves.

B. Mr. Damian Sandoval, community co-chair, thanked Kelly AFB for putting on the pre-RAB poster session. He said this valuable addition was a cooperative effort between the Air Force and the RAB.

C. Mr. Sandoval notified the RAB that he had changed employers. He has left the Texas Department of Transportation and now works for Unitech. He said Unitech has contracts with the Air Force through the Air Force Center for Environmental Excellence, including some work with Kelly AFB. His work responsibilities, however, will be with bases in the Pacific region and not Kelly AFB. He asked the RAB to decide whether he should remain the community co-chair.

1. The RAB unanimously agreed that Mr. Sandoval should continue as RAB community co-chair, with the stipulation that he should inform the board if his work situation changed and required him to work with Kelly AFB. Mr. Sandoval agreed.

D. General Murdock reviewed the action items from the last meeting and the Air Force's responses. See attachment.

1. Items not covered in the attachment:

a) Mr. Armando Quintanilla stated that the draft ATSDR Report was not sent to the RAB for review, as the RAB requested. The draft report was sent instead to Kelly AFB Environmental staff, which questioned certain air modeling conclusions. He said that based on Kelly AFB's comments, ATSDR then withdrew the draft report and currently has submitted the draft for peer review. Mr. Quintanilla said the RAB should have been provided an opportunity to comment on the draft report and the Air Force should have provided it to the RAB.

(1) General Murdock said the draft report is not the Air Force's to release to anyone. Release of the draft report is up to ATSDR. The General reported ATSDR said the draft report would not be ready for public comment until after the first of the year. Mr. Quintanilla agreed that is what ATSDR told him.

(2) Mr. Sandoval asked why the RAB was not included in the review of the draft report. He said the perception is that ATSDR sent the draft report to Kelly AFB and that Kelly AFB did not like the draft report and sent it back. Mr. Sandoval said he would send a letter to ATSDR asking for an explanation.

b) A RAB member requested for information about public involvement activities sponsored by TNRCC. Mr. Gordon Banner, TNRCC representative, said his agency provided a pamphlet to each RAB member explaining the process.

c) Mr. George Rice asked for an explanation regarding the denial of Mr. Sandoval's request to attend BCT meetings. General Murdock said it was the BCT's view that attendance by a RAB member was not appropriate. One reason was that the location, duration, and associated expense connected with the meetings would be too great a burden on the RAB representative and his employer. Mr. Sandoval asked if the BCT would reconsider the issue and allow a RAB representative to sit in on relevant portions of the meetings when they are held in San Antonio. He also requested to receive meeting minutes. General Murdock will pass the request to the BCT.

E. Approval of Meeting Minutes (29 July 1998)

1. Mr. Sandoval thanked the Air Force for getting the minutes distributed in a timely fashion. He asked if it would be possible to get the member packets in advance. General Murdock said since additions and changes are being made to the packets even up to the day of the meeting, it would be extremely difficult. However, he would try to accommodate the request.

2. Mr. Quintanilla asked for a couple of corrections to the minutes. He said Mr. Alan Hagelthorn could not be the alternate for Mr. Paul Person. Mr. Person said that the statement in the minutes was not intended to suggest Mr. Hagelthorn would have two votes and for that reason, it was incorrect for him to be designated as Mr. Person's alternate. Mr. Person also stated that he would find another alternate.

3. Mr. Quintanilla said the statement by Ms. Mary Kelly, Kelly AFB Legal Office, was incorrect regarding the Air Force's position on paying RAB members' training expenses. He said the Air Force paid for his travel expenses when he recently attended a training session.

a) Ms. Kelly said the minutes were correct as written because they accurately summarized what she said on the subject of funding. Further, the funding of Mr. Quintanilla's recent trip was a special case. She introduced Mr. Patrick Haas, Air Force Center for Environmental Excellence, to explain the special circumstances. Mr. Haas said Mr. Quintanilla was invited to attend the conference in question to provide input, not to receive training. The conference was co-sponsored by the Department of Energy, the Environmental Protection Agency, and the Department of Defense. Funding for conference attendees was channeled through AFCEE. No Kelly AFB funds were used.

b) General Murdock suggested that Kelly look to other agencies as possible funding sources for future RAB member training. Mr. Rice asked General Murdock to provide the RAB with a concise policy statement. General Murdock agreed to provide that.

4. The minutes from the 29 July 1998, RAB meeting were approved, as revised by the deletion of the reference to Paul Person's alternate.

F. RAB Member Elections

1. Ms. Tanya Huerta was presented to the RAB for inclusion on the Board. She briefly introduced herself to the Board. Her nomination was unanimously accepted.

G. TRS Administrative Business

1. Because of his dual duties as RAB co-chair and TRS chair, Mr. Sandoval submitted his resignation from the chairmanship of the TRS.

a) His resignation was accepted.

b) Dr. Gene Lené was nominated as the new TRS chair. His nomination was accepted unanimously by the RAB.

c) Mr. Ed Weinstein, San Antonio Water Systems, was nominated to serve on the TRS. His nomination was accepted unanimously.

H. RAB Term Limits

1. Mike McGhee explained to RAB members that to comply with the provision in the new charter that RAB community members would serve staggered two-year terms, it was necessary for the community members to draw lots to determine whether their current terms would end at the conclusion of 1999 or 2000. Half the lots were for an additional one-year, the other half for an additional two-years.

The results of the drawing were as follows:

Term ending 12/31/1999	Term ending 12/31/2000
Mrs. Johnson	Mr. Sandoval
Ms. Peace	Dr. Lené
Mr. Rice	Mr. Murrah
Mr. Solis	Mr. Quintanilla

Mr. Puffer	Mr. Hagelthorn
Mr. Jones	Mr. Mixon
Mr. Person	Ms. Huerta
	Mrs. Adames

I. Mr. John Jacobi, Texas Department of Health volunteered to accept the roll as Parliamentarian for the RAB. He was accepted unanimously by the RAB members.

Item III: Community Comments

A. Mr. Larry Davies, San Antonio Alliance for Democracy and Jobs for Justice, said the community wants the Air Force to stop covering up what is happening and move forward with cleaning up the neighborhoods. He said he attended some RAB meetings several years ago and has seen no significant change in attitude by the Air Force.

B. Mr. Phillip Doyle, representing the Committee for Environmental Justice Action, made a statement against the use of monitored natural attenuation as a cleanup method. He said he and his group would do all they can to ensure the Air Force takes active measures to cleanup the contamination as quickly as possible.

Item IV: Report – Natural Attenuation Conference

A. Mr. Quintanilla reported on the Monitored Natural Attenuation Conference, co-sponsored by the Department of Energy, the Department of Defense, and the Environmental Protection Agency, held in September 1998. Mr. Quintanilla attended the conference. (See attached slides for the outline of his report). He said the conference attendees saw natural attenuation as another "do nothing" alternative. Likewise, the Air Force's effort to raise the drinking water standard for TCE to 50 parts per billion is also viewed as a "do nothing" alternative.

B. Questions/Comments

1. Mr. Rice said the RAB has repeatedly asked the Air Force for its plans to clean up the neighborhoods, but it has never produced a plan. Mr. Rice said he believes the Air Force is planning to walk away from the contamination after the base closes.

2. Mr. Quintanilla said he asked Mr. Tad McCall about the Air Force's plans to use natural attenuation. He said Mr. McCall told him that it was unlikely, but not impossible, that natural attenuation would be used to clean up contamination in residential areas.

3. Ms. Huerta asked when the base was officially closing, and what was the status of the clean-up schedule. She was told the base was officially closing July 13, 2001. Mr. Mike McGhee, Kelly AFB, said that the law allows that the base can be closed without all the cleanup systems in place. However, the property deed can only be transferred when the cleanup systems are in place, operating, and proving to be effective.

4. Mr. Juan Solís commented that it was his understanding the contamination must be cleaned up before the property could be transferred. Mr. McGhee told him that the treatment systems must be in place and operating successfully before property could be transferred by deed. Once the cleanup systems are operating successfully, completely cleaning up the site would take several years.

5. Mr. McGhee said the base is still on track to meet its goal of all clean-up systems in place by the end of 2000, but that target may change if conditions change.

C. The Air Force was asked to make a presentation at the next RAB regarding the clean-up timeline, property transfer, and lease requirements.

A short break was taken.

Item V: Kelly Clean-up Program Documents

A. Mr. William Ryan, Kelly AFB, gave a presentation on upcoming opportunities for community involvement. See attached slides.

B. Questions/Comments

1. Mr. Rice asked if there was a plan in place to clean up off-base contamination at Zone 3. Ms. Leslie Brown, Kelly AFB Legal Office, said that the Air Force could not answer specific questions regarding Zone 3 due to Mr. Quintanilla's lawsuit.

2. Ms. Huerta said it was important that the questions be answered. Ms. Brown said that the Department of Justice, which is handling the case, must review and approve all answers given to questions that may be related to the lawsuit. She said she has submitted questions to the DOJ and hopes to have approved answers soon.

3. Mr. Quintanilla said Kelly AFB is trying to hide something. He said his lawsuit is only about his small piece of property. He said the other 20,000 people that live around him would like answers. He asked where was the environmental justice?

4. Mr. Sandoval said that two consultants have been hired through the TAPP—one for groundwater matters and another for health-related matters. They are now waiting for documents to review.

Item VI: GKDC Activities Update

A. Mr. Paul Roberson, Greater Kelly Development Corporation, gave a presentation regarding status of the redevelopment program at Kelly. See attached slides.

1. He presented RAB members with a copy of the GKDC's environmental policy. See attached.

a) Mr. Quintanilla complimented GKDC's handling of environmental issues.

b) Mr. Roberson said environmental issues are discussed frequently in GKDC Board meetings. He said the meetings are open to the public. He will provide the RAB with GKDC Board meeting agendas.

Item VII: Edwards Well Contamination

A. Mr. Rice gave a presentation regarding the Air Force's contamination of the Edwards Aquifer. See attached slides.

1. Before his presentation, he informed the Board that he was a candidate for a seat on the Edwards Aquifer Authority Board.

2. He said the purpose of his presentation was to show that the Air Force has been intentionally dishonest in regards to its statements regarding contamination of

the Edwards Aquifer. He said the Air Force should have reported to the public that it had contaminated drinking water and the Edwards Aquifer.

B. Questions/Comments

1. Mr. Doyle asked if any wells are still active and how can the integrity of these wells be ensured. Mr. Rice said most of the wells are newer wells and should not be a problem, but there could be many unknown wells that could still pose a threat to the aquifer. He said that's why it's important to clean up the shallow aquifer as quickly as possible.

C. Major Gargiulo, Kelly Bioenvironmental Engineering Flight, gave a presentation on Kelly's Safe Drinking Water Program and the background of Water Well 313. In summary, he said the wells compiled with the Safe Drinking Water Act. He also stated contamination levels detected in 1986 were most likely the result of cross contamination between sampling and analytical equipment and switched samples. See attached slides.

D. Questions/Comments

1. Mr. Sandoval asked Mr. Jacobi what was the policy at the time of the discovery of contamination in 1986. Mr. Jacobi said the Air Force appears to have acted properly and there is no evidence of a permanent problem. He said since contamination was not found in any other wells, there was no apparent impact to the aquifer.

2. Mr. Rice asked General Murdock to provide a written explanation as to why the statements regarding contamination of the aquifer were made. He said people who made the statements either knew they were false or should have known.

3. Major Gargiulo said the Air Force did not knowingly make false statements.

4. Mr. Sandoval asked Mr. Rice when would he remove responsibility from the Air Force for a mistake that happened more than 10 years ago one, which appears to have had no impact.

   a) Mr. Rice stated that if the Air Force would apologize, he would say nothing more about the matter.

5. Mr. Sandoval said he believed the RAB was spending too much time on a subject of little consequence.

6. Mr. Quintanilla said the Responsiveness Summary, in which the false statement appeared, should be corrected.

7. Ms. Huerta commented that the zone displays did not have any values marked.

   a) Mr. McGhee said the displays were very basic and staff was on hand to answer any questions people had.

Item VIII: Summary and Closing

A. Dr. Lené announced the dates for the next TRS meetings. The meetings will be held 17 November, 15 December, and 12 January. All meetings will be held at St. Mary's University at 6:30 p.m.

B. Mr. Sandoval encouraged RAB members to continue to take information discussed in the meeting back to the communities.

C. The next RAB meeting was scheduled for 19 January 1999, at Dwight Middle School. The election for the community co-chair will be held at that meeting.

The meeting was adjourned at 10:05 p.m.

Motions/Resolutions

Motions

1. Motion was made to have Mr. Sandoval continue as Community Co-Chair.
   - Approved by a show of hands.
2. Motion was made to approve the 29 July 1998 RAB minutes.
   - Approved by a show of hands.
3. Motion was made to add Ms. Huerta to the RAB.
   - Passed unanimously.
4. Motion was made to make Dr. Lené the TRS Chairman.
   - Passed unanimously.
5. Motion was made to add Mr. Weinstein to the TRS.
   - Passed unanimously.
6. Motion was made to make Mr. Jacobi the RAB parliamentarian.
   - Passed unanimously.

Action Items

	Requester	Action
1.	Mr. Sandoval	Damian will draft letter to ATSDR and bring to TRS meeting
2.	Mr. Rice	Ask BCT for rational behind decision not to allow RAB Co-Chair to attend.
3.	Mr. Sandoval	RAB requests all BCT minutes.
4.	Mr. Sandoval	Are BCT minutes in the information repository and administrative record?
5.	Mr. Sandoval	AF should try to get RAB packets to RAB members 2-3 days before RAB meeting.
6.	Gen. Murdock	The AF will look at other government agencies that sponsor training activities which RAB members could attend.
7.	Mr. Rice	Request specific policy guidance on RAB training.
8.	Mr. Sandoval	Request presentation on property transfer requirements.
9.	Mr. Sandoval	Request presentation on clean up schedule.
10.	Mr. Sandoval	Request DOJ point of contact for Mr. Sandoval and Ms. Huerta.
11.	Ms. Huerta	Request a copy of data slide from Major Gargiulo's presentation.
12.	Mr. Quintanilla	Wants to know how many monitoring wells were at Kelly in 1986 and how many were sampled.
13.	Mr. Rice	Will the Air Force answer in writing why the statement was made in 1995 in the responsiveness summary (page 11).

Attachments (provided at the meeting to all RAB members).

1. Glossary Booklet
2. Environmental Update
3. Acronyms Fact Sheet
4. Environment Laws
5. EM Division Project Managers
6. State Risk Reduction Rules
7. Flood Damage Report to TNRCC
8. RAB Meeting Minutes (29 July 98)
9. RAB Application of Ms. Tanya Huerta
10. Talking Paper on AFFF Incident (10 Sept 98)
11. Talking Paper on IWCS Leak (27 Dec 97)
12. WPI Memoranda on Quintana Road
13. Zone Maps
14. Summary of Well 313 Issue
15. Re-Use of Treated Groundwater Position
16. Institutional Controls/Monitored Natural Attenuation Positions
17. Summary of 1592 Tank Demolition
18. Public Involvement Opportunities Under RCRA and CERLA/IRP
19. Upcoming Public Involvement Opportunities
20. 29 July 98 RAB Action Items/Responses
21. TNRCC Pamphlet – Public Participation in Permitting
22. 22 Sep 98 TRS Minutes

28 October RAB Action Item/Response

Item: A

Description: Letter to ATSDR.

Requestor: Mr. Quintanilla

OPR: Mr. Sandoval

Action: Mr. Sandoval said that he would send a letter to the ATSDR asking for an explanation as to why the ATSDR Report was not sent to the RAB for review.

Response:

Temporarily on hold due to the resignation of Mr. Sandoval. This matter was addressed by Dr. Fowler, ATSDR, at Congressman Rodriguez's Community Forum on 14 Dec. 98. Minutes from the Community Forum will be provided to RAB members.

28 October RAB Action Item/Response

Item: B

Description: Rationale behind decision not to allow RAB civilian co-chair to attend BCT meetings.

Requestor: Mr. Rice

OPR: Kelly AFB

Action: Mr. Rice asked for an explanation regarding the denial by the BCT to allow Mr. Sandoval to attend the BCT meetings.

Response:

A. **Review of Guidelines.** The relationship between the RAB and the BCT at closing installations is referenced in the RAB Implementation Guidelines (Guidelines) promulgated in 1994 by the Department of Defense and the Environmental Protection Agency. The Guidelines are attached as Appendix A to the Kelly AFB Charter.

Membership. The Guidelines at Part II discuss the selection of government members. The following statement is included:

> "In the case of closing military installations, the Base Realignment and Closure (BRAC) Cleanup Team (BCT) will be a member of the RAB. The BCT consists of representatives from the DoD service, EPA, and the state."

Role of the BCT Members on the RAB. The Guidelines at Part IV addresses the Roles and Responsibilities of the BCT members on a RAB at a closing installation as follows:

> "1. The BCT should maintain a close working relationship with other members of the RAB.
>
> 2. The BCT should provide timely and accurate information to the RAB."

Membership on the BCT includes Kelly AFB, TNRCC and EPA. In addition to the community representation at RAB meetings, TNRCC and EPA are included as members of the RAB and TRS. One or more of the Air Force representatives on the BCT, although not RAB members, are also available at RAB and TRS meetings. Furthermore, the TRS and BCT members have agreed to synchronize dates for the regularly scheduled monthly TRS and BCT meetings to facilitate attendance of BCT members at TRS meetings. This existing cross membership and attendance allows

opportunity for the concerns of the community RAB members to be brought to the attention of the BCT.

B. Request to Attend BCT Meetings.

In response to the RAB's request to have representation at the BRAC Cleanup Team (BCT) meetings, the members of the BCT have determined that it would be best to maintain the makeup of the BCT as it is today. BCT members carefully weighed the request, and spent considerable time deliberating the benefits and drawbacks of such participation.

The BCT meets monthly for two days to serve very specific policy and technical peer review functions. Discussions at these meetings are preliminary, pre-decisional and part of the deliberation process of the agencies involved. BCT members expressed their understanding and appreciation of the RAB's request to attend meetings, and they unanimously agreed that it would be important to continue to share with the RAB the issues and outcomes from the meetings.

As a result, the BCT will continue to send meeting minutes to RAB members in a timely manner for review prior to the next RAB meeting. The minutes will also be provided in the information packets at the RAB meeting. To further facilitate close communication between the community members of the RAB and the BCT members, the RAB may wish to devote a portion the TRS meetings to ask question regarding the BCT minutes and provide discussion of BCT minutes as an item in TRS updates to the RAB.

28 October RAB Action Item/Response

Item: C

Description: All BCT minutes.

Requestor: Mr. Sandoval

OPR: Kelly AFB

Action: Mr. Sandoval asked that the RAB receive all BCT minutes.

Response:

BCT Minutes will be mailed out to RAB members in a timely fashion, following all BCT meetings. July meeting minutes have already been provided to the RAB. Minutes from the September, October, and November meetings of the BCT were mailed out to all RAB members on 3 Dec 98. The BCT minutes from the December BCT meeting were mailed to RAB members on 22 Dec. 98.

28 October RAB Action Item/Response

Item: D

Description: BCT minutes in information repository and administrative record.

Requestor: Mr. Sandoval

OPR: Kelly AFB

Action: Mr. Sandoval asked if the BCT minutes were in the information repository and administrative record.

Response:

Minutes will be maintained in the main San Antonio Public Library and at the Kelly AFB Library.

28 October RAB Action Item/Response

Item: E

Description: RAB packets to RAB members before RAB meeting.

Requestor: Mr. Sandoval

OPR: Kelly AFB

Action: Mr. Sandoval asked if it was possible for RAB members to get the RAB packets 2 to 3 days prior to the RAB meeting.

Response:

Yes, steps will be taken to ensure that RAB members receive RAB meeting packets prior to the RAB meeting.

28 October RAB Action Item/Response

Item: F

Description: Other government agencies that sponsor training activities.

Requestor: BGen Murdock

OPR: Kelly AFB

Action: General Murdock said that the Air Force will look at other government agencies that sponsor training activities which RAB members could attend.

Response:

RAB Training

Edwards Aquifer Authority can do a special briefing or presentation for the RAB, if desired, to cover the aquifer, the recharge zone, etc.

TNRCC

TNRCC staff are sending the Clean Texas 2000 catalog of training materials on pollution prevention, recycling, waste reduction, etc., for review by RAB members.

TNRCC's Community Relations Advisor informs us that their Community Advisory Panels (CAPs) have a training session soon after the CAP is formed. Materials are specific to the facility involved and created by the project management team for the facility. This is usually all morning on a Saturday and is what Kelly did when the RAB was originally formed.

TNRCC Federal Facilities Team arranged waiver of fees and reservation of quotas for RAB members to attend the seminar on Texas Risk Reduction Rules last year. This may be repeated for other TNRCC programs of interest to RAB members.

TNRCC also sponsors an April event each year, the Environmental Trade Fair, which is open to the public. The Federal Facilities staff know of no other training relevant to RAB issues.

EPA

EPA tailored its presentation from the Seminar on Monitored Natural Attenuation and presented it for the RAB and community stakeholders on 28 Oct 98. This can be repeated when other interesting and relevant areas are addressed by EPA.

EPA Community Involvement and Outreach Information Center (703) 603-8780 is a resource for training and community involvement materials.

RAB members with specific interests and access to the Internet may also consult: http://www.epa.gov/regional/statelocal/training.htm. Members without computer access to the Internet may contact Dick Walters at 925-1815 to arrange to use a computer on-base or at a local library.

HAZ-ED Program . There are Superfund sites and many other hazardous waste sites in every state. Every community generates hazardous waste. The Federal Superfund Program, administered by the U.S. Environmental Protection Agency (EPA), investigates and cleans up hazardous waste sites throughout the United States. Part of this program is devoted to informing the public and involving them in the process of cleaning up hazardous waste sites from beginning to end. Haz-Ed was developed to assist EPA's efforts. Haz-Ed assists educators in teaching 7th through 12th grade students about hazardous waste, environmental issues surrounding site cleanup, and the Federal government's Superfund Program.

Air Force Research Lab, Brooks

Environmental and occupational health staff have agreed to repeat their previous training on environmental risk at the RAB's convenience.

These are the training opportunities we were able to locate. The search, however, will continue for materials that will assist RAB members in fulfilling their role in the cleanup program.

28 October RAB Action Item/Response

Item: G

Description: RAB training guidance.

Requestor: Mr. Rice

OPR: Kelly AFB

Action: Mr. Rice requested specific policy guidance on RAB training.

Response:

The official position of the Air Force is set forth in a letter from Chief of the Environmental Division, Headquarters Air Force, in a letter dated 30 Oct. 98, a copy of which is attached. The letter states the Restoration Advisory Board (RAB) section of the Defense Environmental Restoration Program (DERP) statue and other legal authorities, provides funding for technical assistance training for citizen ARB members. Funding for the technical assistance training is available through the TAPP grant program only. The Kelly Air Force Base RAB has applied for and has been awarded a TAPP grant for Fiscal Year 1998.

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON DC

30 OCT 1998

MEMORANDUM FOR ALMAJCOM/CEV HQ USAFA/CEV HQ AFDW/CEV
ANG/CEV HQ AFCEE/CC

FROM: HQ USAF/ILEV
1260 Air Force Pentagon
Washington, DC 20330-1260

SUBJECT: Funding for Restoration Advisory Board Members (RAB) Training and Related Travel Expenses

The RAB section of the Defense Environmental Restoration Program (DERP) statute and other legal authorities, provides funding only for technical assistance training for citizen RAB members. This training is intended for interpretation and understanding of scientific and engineering issues related to the cleanup program. Funding for the technical assistance training is available through the Technical Assistance For Public Participation (TAPP) grant program. TAPP funding is not available for "leadership" or policy training/conferences. Information concerning the TAPP program, training criteria, and procedure for applying for TAPP grants is available on the Internet at http://www.dtic.mil/environdod/rab/.

There is no authority in the RAB statute for Environmental Restoration Account (ERA) funds to pay for travel and subsistence expenses for citizen RAB members to attend TAPP or other training. The Air Force does not have authority to send citizen RAB members out of the local area to attend training for educational purposes. ERA funds can pay for local training not involving travel, long distance training where RAB member agrees to assume their own travel costs, or bringing the training to the local area. ERA funds can be used to fund technical training for citizen RAB members, but cannot be used for any travel or subsistence expenses associated with the training.

If you or the members of your staff has any questions, please contact our POC, Mr. Johnny Davis, HQ USAF/ILEVR, at DSN 332-0767, (703) 602-0767, or Email: johnny.davis@pentagon.af.mil

Teresa R Pohlman

TERESA R. POHLMAN
Chief, Environmental Division
DCS/Installations & Logistics

cc:
HQ AFCEE/ER
HQ AFCEE/EQ

28 October RAB Action Item/Response

Item: H

Description: Property transfer requirements.

Requestor: Mr. Sandoval

OPR: Kelly AFB

Action: Mr. Sandoval requested that the Air Force make a presentation at the next RAB regarding the clean-up timeline, property transfer and lease requirements.

Response:

AFBCA will have a presentation at the 19 Jan. 99 RAB and discuss property transfer and lease requirements. EM will present information on cleanup timelines during the Infofair proceeding the 19 Jan. 99 RAB. Also reference letter from TNRCC (attached) on this subject.

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

Protecting Texas by Reducing and Preventing Pollution

October 15, 1998

Mr. Peter R. Buchler, Executive Vice President
and General Counsel
MQS Inspection, Inc.
5858 Westheimer, Suite 625
Houston, Texas 77057

Certified Mail Z 707 661 171
Return Receipt Requested

Re: Kelly Air Force Base

Dear Mr. Buchler:

The Texas Natural Resource Conservation Commission (TNRCC) recognizes that private companies seeking to lease property at Kelly Air Force Base (Kelly AFB) in San Antonio, Texas are concerned about potential environmental liability associated with that lease. This letter is intended to alleviate such concern.

The TNRCC expects all present and future tenants at Kelly AFB to conform with applicable environmental requirements. Companies are concerned that by leasing and operating property as a tenant of the local redevelopment authority (the Greater Kelly Development Corporation, GKDC) they might become liable for existing environmental contamination at Kelly AFB. This letter is intended to assure both GKDC and prospective GKDC tenants that it is not the policy of the TNRCC to pursue owners or operators for environmental contamination which they did not either cause, suffer or allow.

It is the view of the TNRCC that the Air Force is ultimately responsible for remediation of all contamination which it has caused or contributed to at Kelly AFB. To the extent a GKDC tenant at Kelly AFB neither contributes to previously existing contamination nor interferes with the progress of remedial action, then that tenant will not be held accountable by the TNRCC for any previously existing contamination at Kelly AFB.

I hope this letter responds satisfactorily to your concerns. Should you have any additional comments or questions, please do not hesitate to contact Ms. Cathy Remmert of the Corrective Action Section at 512-239-2556.

Sincerely,

Ronald R. Pedde, P.E., Director
Remediation Division

RRP/gb

cc: Mr. Larry Bailey, Director, Environmental Management, Kelly AFB
Mr. Michael Carrillo, Environmental Protection Agency Region VI, Dallas
Mr. Thomas Edwards, Office of Texas Attorney General, Austin

28 October RAB Action Item/Response

Item: I

Description: Clean-up schedule.

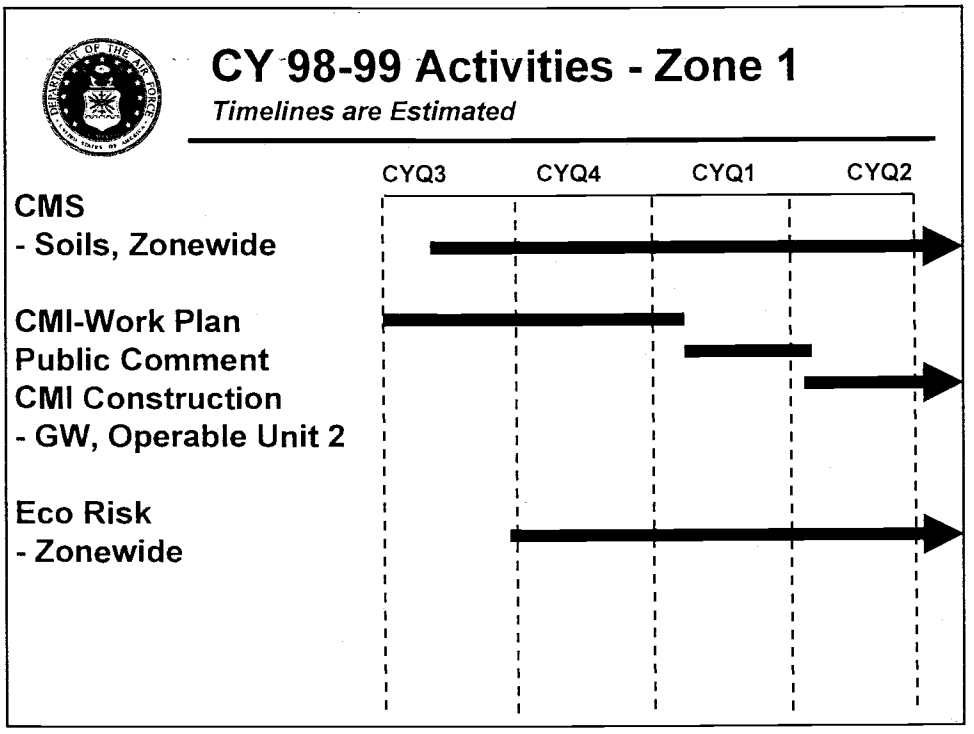
Requestor: Mr. Sandoval

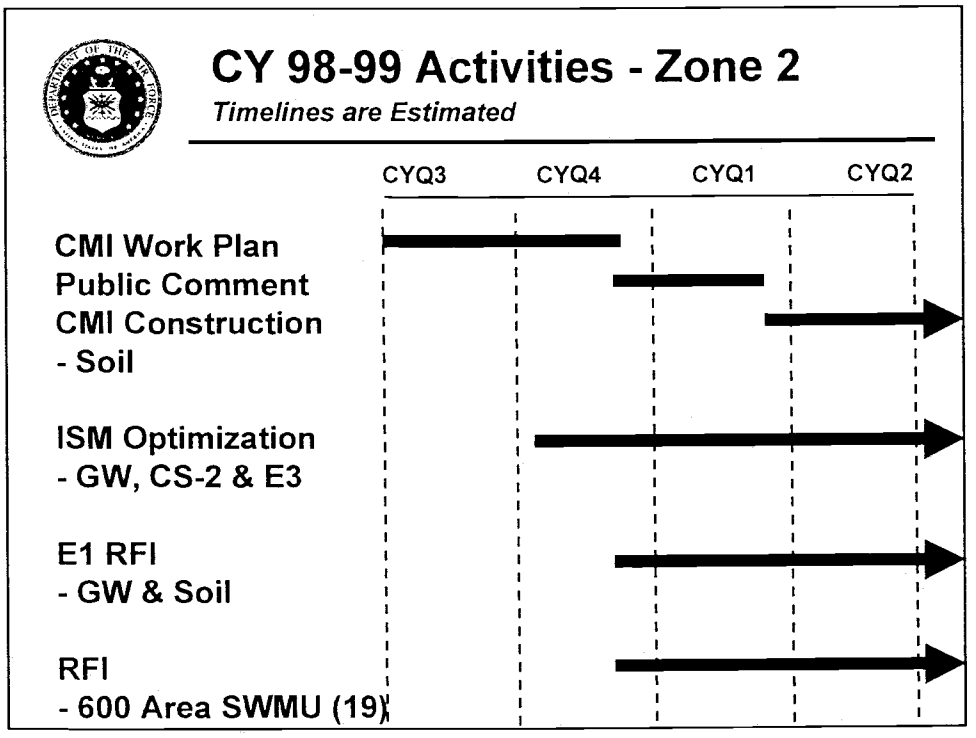
OPR: Kelly AFB

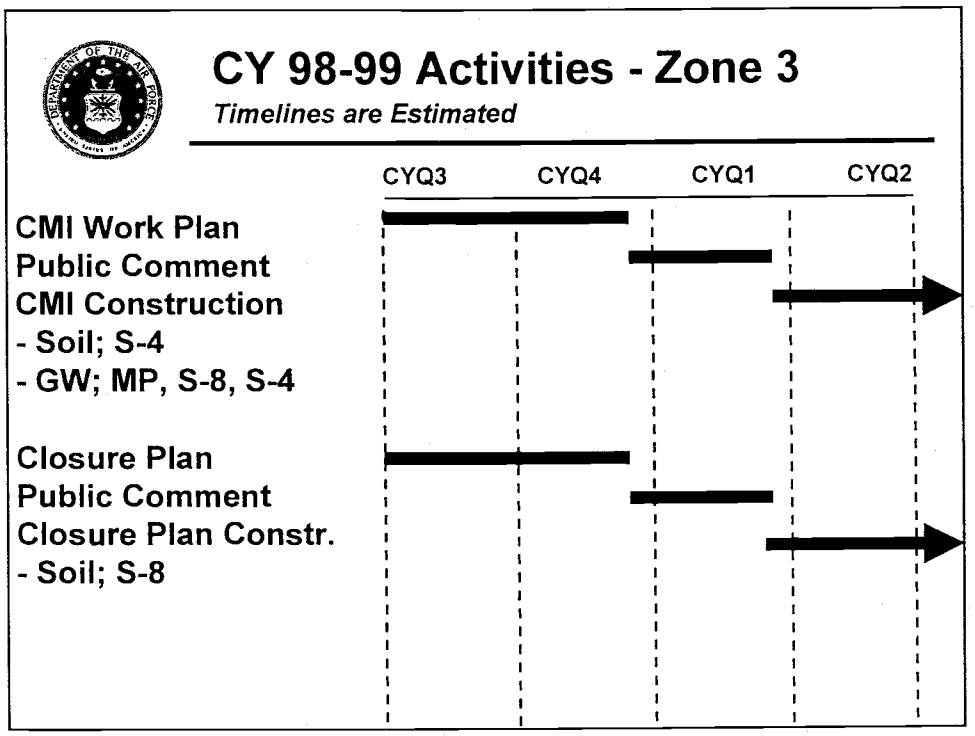
Action: Mr. Sandoval requested that the Air Force do a presentation on the clean-up schedule.

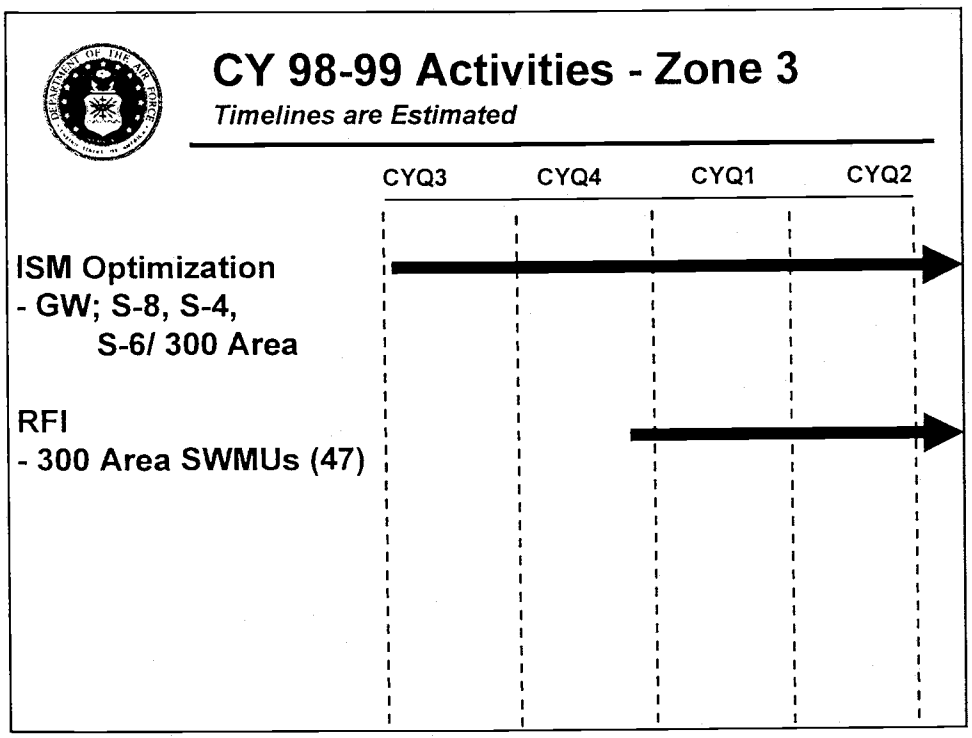
Response:

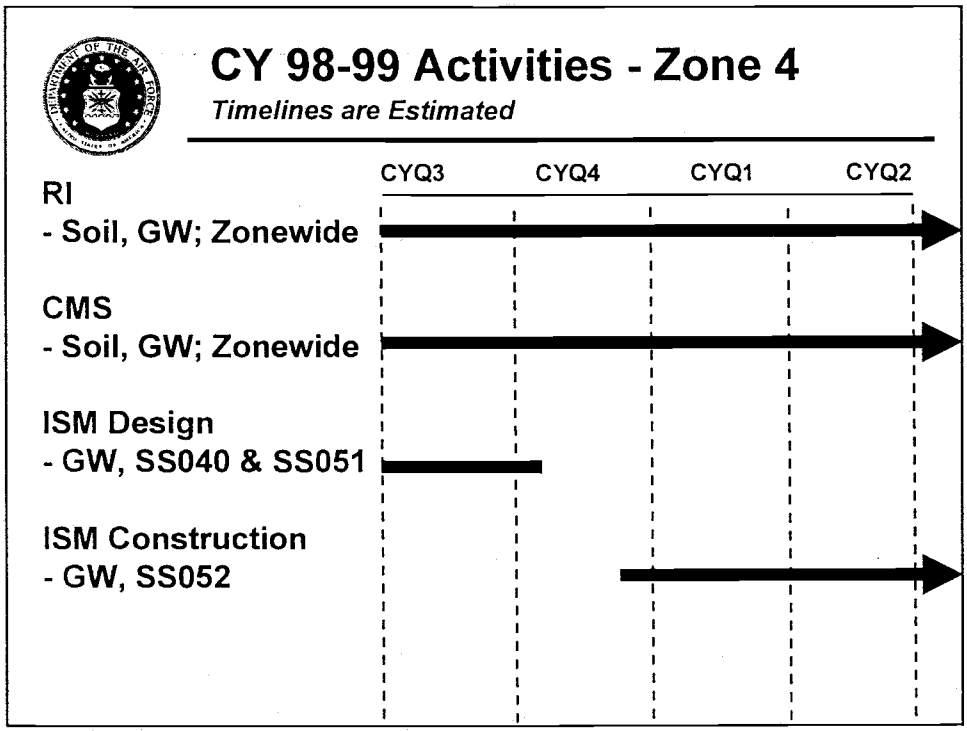
A poster session will be held as part of the info fair proceeding the 19 Jan. 99 RAB in lieu of a presentation. Mr. Ryan, Kelly AFB, also provided a cleanup schedule at the 29 July 98 RAB and that schedule is attached.

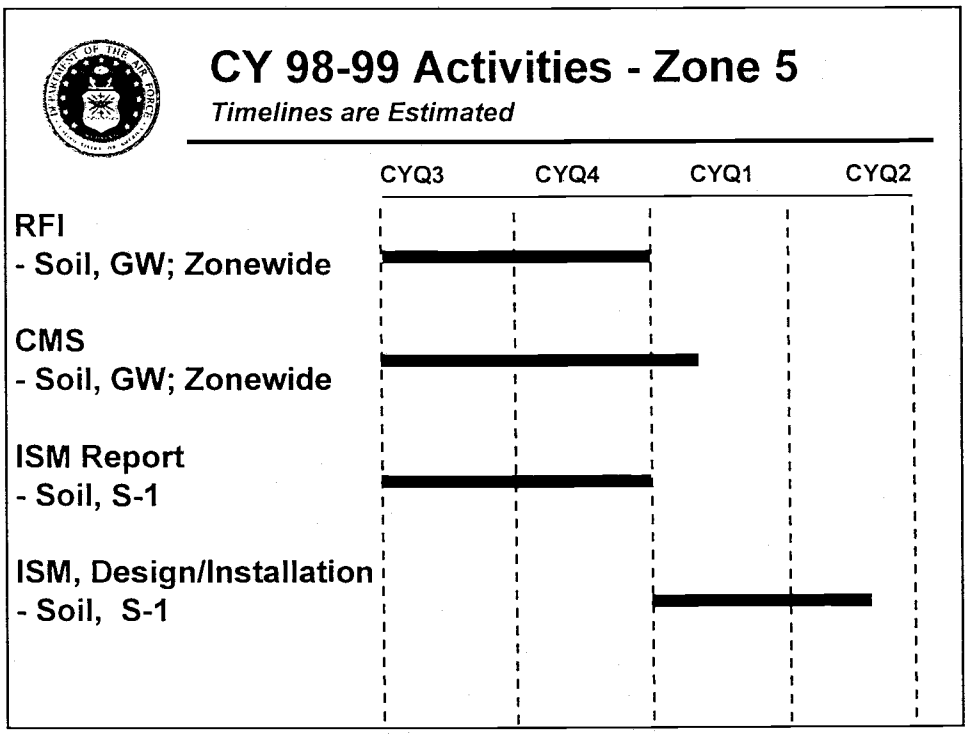

CY 98-99 Activities - Zone 1
Timelines are Estimated
CYQ3
CYQ4
CYQ1
CYQ2
CMS
- Soils, Zonewide
CMI-Work Plan
Public Comment
CMI Construction
- GW, Operable Unit 2
Eco Risk
- Zonewide


CY 98-99 Activities - Zone 2
Timelines are Estimated
CYQ3
CYQ4
CYQ1
CYQ2
CMI Work Plan
Public Comment
CMI Construction
- Soil
ISM Optimization
- GW, CS-2 & E3
E1 RFI
- GW & Soil
RFI
- 600 Area SWMU (19)


CY 98-99 Activities - Zone 3
Timelines are Estimated
CYQ3
CYQ4
CYQ1
CYQ2
CMI Work Plan
Public Comment
CMI Construction
- Soil; S-4
- GW; MP, S-8, S-4
Closure Plan
Public Comment
Closure Plan Constr.
- Soil; S-8

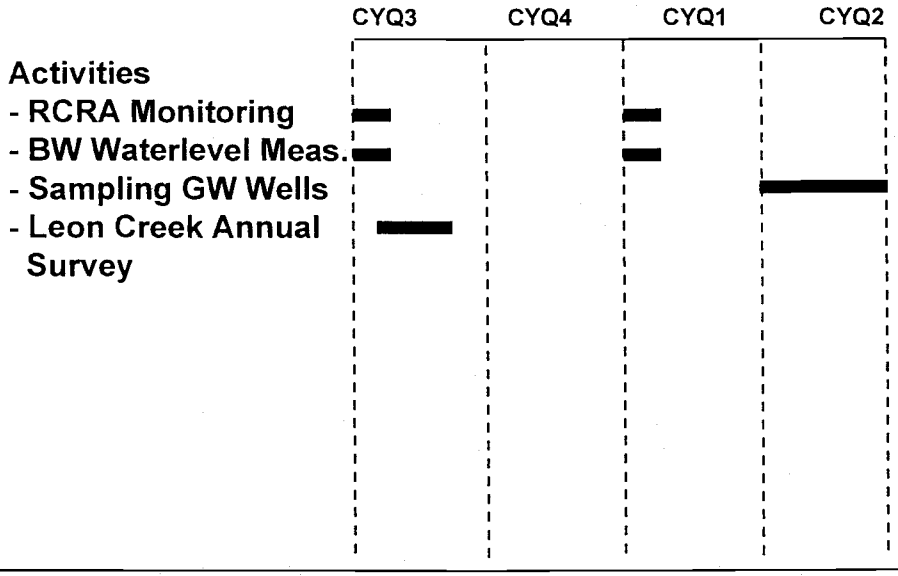

CY 98-99 Activities - Zone 3
Timelines are Estimated
CYQ3
CYQ4
CYQ1
CYQ2
ISM Optimization
- GW; S-8, S-4,
S-6/ 300 Area
RFI
- 300 Area SWMUs (47)


CY 98-99 Activities - Zone 4
Timelines are Estimated
CYQ3
CYQ4
CYQ1
CYQ2
RI
- Soil, GW; Zonewide
CMS
- Soil, GW; Zonewide
ISM Design
- GW, SS040 & SS051
ISM Construction
- GW, SS052

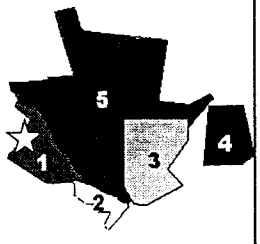

CY 98-99 Activities - Zone 5
Timelines are Estimated
CYQ3
CYQ4
CYQ1
CYQ2
RFI
- Soil, GW; Zonewide
CMS
- Soil, GW; Zonewide
ISM Report
- Soil, S-1
ISM, Design/Installation
- Soil, S-1

CY 98-99 Activities - B.R.A.

Timelines are Estimated



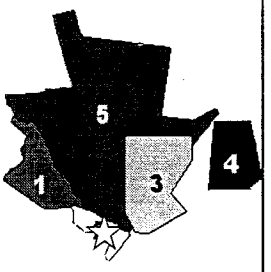
FY 98 Clean Up Status - Zone 1



- Performing field work to collect soil and groundwater data for Soil Feasibility Study
- Designing Groundwater Remedial system for Operable Unit 2. System to be installed in FY 99

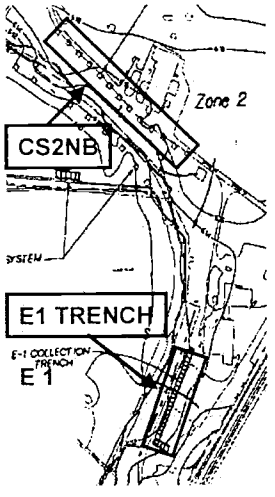
FY 98 Clean Up Status - Zone 2

- Soil Sites S-9, E-3, FC-2, and D-10
- Technology:
  - Excavation and off base disposal of impacted soils, backfilling of excavated areas
  - Construction of type 1 soil cap
  - In Situ Soil Venting
  - Soil Vapor Extraction
- Schedule:
  - D-10: Sep - Dec 98
  - S-9, E-3, FC-2: Nov 98 - Jun 99
- Summary: Field work in support of this projects consists of soil borings, well drilling, soil excavation, and capping.

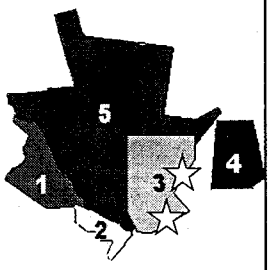


FY 98 Clean Up Status - Zone 2

- Groundwater Sites: CS2NB & E3
- Technology: Pump and Treat
- Schedule:
  - Sep 98 Submit ISM Optimization Work Plan
- Summary: ISM Optimization to begin at these sites when work plan submitted.
- Activities: Includes electrical imaging, installation of soil borings, monitoring wells, and recovery wells, conducting pump tests, and installation of piping to treatment plant.



FY 98 Clean Up Status - Zone 3



Sites: Soils S4 and S8

- Technology
  - In situ treatment of organic contaminants by soil venting
  - Capping
- Schedule: Oct 98 - Jun 99
- Summary: Field work in support of this project will require soil borings, SVE well drilling and installation, soil excavation, and concrete caps.

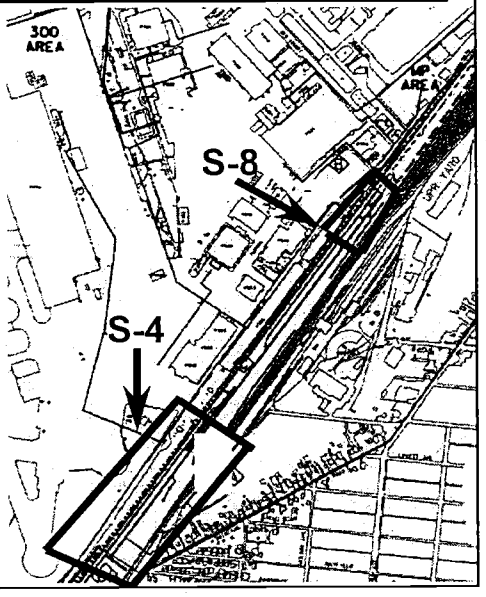
FY 98 Clean Up Status - Zone 3

Site S-4 -Groundwater

- Technology: Pump & Treat
- Schedule: Jul 97 - Jun 99
- Summary: ISM currently being optimized
- Activities: Includes electrical imaging, installation of soil borings, monitoring wells, and recovery wells, conducting pump tests, and installation of piping to treatment plant.

Site S-8 -Groundwater

- Technology: Pump & Treat and Bioslurper System
- Schedule: Jul 97 - Dec 99
- Summary: ISM currently being optimized
- Activities: Includes electrical imaging, installation of soil borings, monitoring wells, and recovery wells, conducting pump tests, and installation of piping to treatment plant. Install Bioslurper system.



FY 98 Clean Up Status - Zone 3

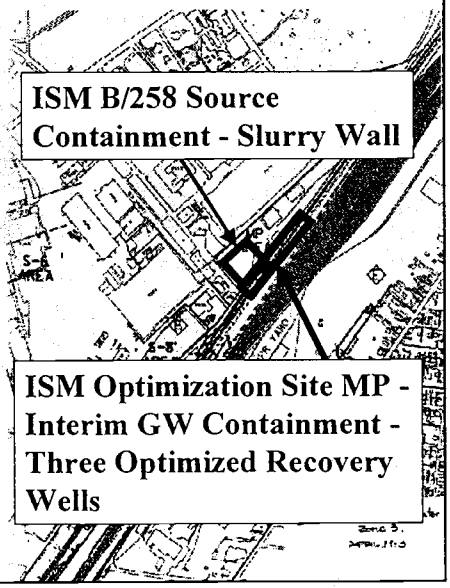
Site MP

- ISM Optimization: Pump & Treat
  - Completed March 98

B/258 SWMU

- ISM Installation: Slurry Wall
  - Design started
  - Construction: Early 99

- Summary: Field work will include additional monitoring wells, soil borings, and groundwater monitoring for CMI. Slurry Wall installation to begin early next year.



FY 98 Clean Up Status - Zone 4

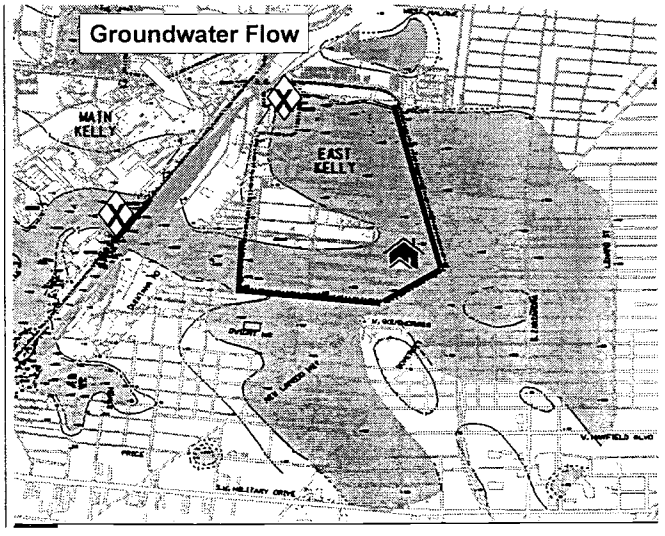
- Focused Feasibility Studies (FFSs) are being completed for 3 Areas
  - SS040 - the southern boundary of E. Kelly (complete)
  - SS051 - (down gradient) at the eastern installation boundary (complete)
  - SS051- (source) in the northwestern corner of E. Kelly (pending further data)
- Interim Stabilization Measures (ISMs) to contain further off base migration of contaminated groundwater and address source control.
- Design is anticipated to be complete in the Fall of 98 with construction complete Fall 99.

FY 98 Clean Up Status - Zone 4

TCE IN SHALLOW GROUNDWATER

■ **Interim Response Actions**

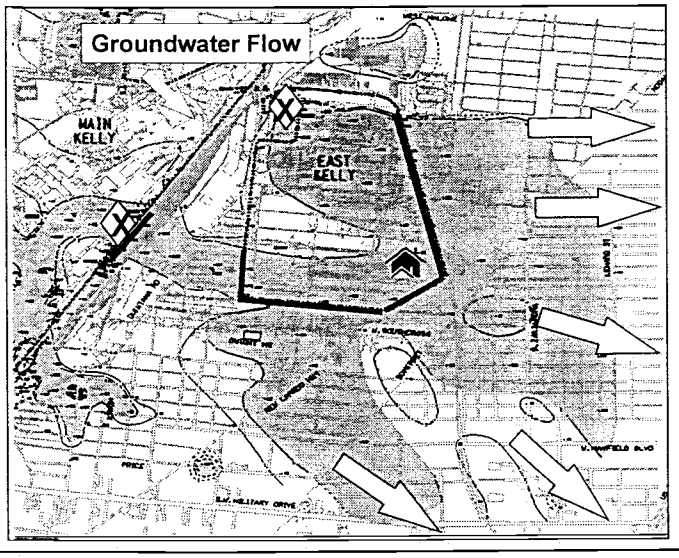
- Source control - Eliminate continued contaminant contribution to shallow groundwater
- Containment at base boundary - Stop movement of contaminated groundwater off base



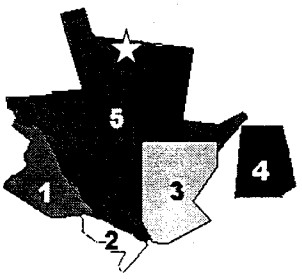
FY 98 Clean Up Status - Zone 4

TCE IN SHALLOW GROUNDWATER

■ **Continued off base investigation of extent of contamination**



FY98 Clean Up Status - Zone 5



- The Draft Zone 5 Feasibility Study (FS) is under review by Kelly AFB personnel. Final Draft FS/CMS to be submitted Jan 99.
- Additional field work will be performed in the next 3 months to delineate the extent of groundwater plumes in the North and Northeast portions of the base.

Site S-1

- Interim Stabilization Measure (ISM)
- Technology
  - In situ treatment of organic contaminants by soil venting
  - Source Removal
- Schedule:
  - ISM Design - Fall 98
  - ISM Implementation - Spring 99

28 October RAB Action Item/Response

Item: J

Description: DOJ point of contact

Requestor: Mr. Sandoval

OPR: Kelly AFB/Legal

Action: Mr. Sandoval requested that Legal provide a Department of Justice point of contact for Mr. Sandoval and Ms. Huerta.

Response:

Leslie Brown, Attorney-Advisor for Kelly AFB, contacted Mr. Sandoval and Ms. Huerta on 30 October, 1998, and gave them the requested information.

Information Document Requests

Description: Data slide from Maj. Gargiulo's presentation.

Requestor: Ms. Huerta
OPR: Kelly AFB/Major Gargiulo

Action: Ms. Huerta requested a copy of the data slide from Major Gargiulo's Edwards Well presentation.

Response: The requested data slide was mailed to Ms. Huerta on 2 December 1998 and is attached.

Description: Monitoring wells at Kelly in 1986.

Requestor: Mr. Quintanilla
OPR: Kelly AFB

Action: Mr. Quintanilla wants to know how many monitoring wells were at Kelly AFB in 1986 and how many were sampled.

Response: The information concerning the monitoring wells and locations are attached.

Description: Written answer to 1995 Responsiveness Summary statement.

Requestor: Mr. Rice
OPR: Kelly AFB
Action: Mr. Rice wants to know if the Air Force will answer in writing why the statement was made in 1995 in the Responsiveness Summary (page 11).

Response: This matter was addressed in a 23 Oct 98 letter from SAF/MIQ and is attached. Copies of this letter were made available at the 14 Dec 98 Community Forum with Congressman Rodriguez.

Safe Drinking Water Act (SDWA) Amendments (1986)
Maximum Contaminant Level Effective Dates

Effective 1 Jan 86

Metals		Organics	
Arsenic	Mercury	Endrin	2,4-D
Barium	Nitrate	Lindane	2,4,5-TP Silvex
Cadmium	Selenium	Methoxychlor	
Chromium	Silver	Toxaphene	
Lead	Flouride	Camphene	

Phase I Rule (effective 9 Jan 89)

Benzene	1,1 – Dichloroethylene
Carbon Tetrachloride	1,1,1-Trichloroethane
1,2-Dichloroethane	Trichloroethylene
Para-Dichlorobenzene	Vinyl Chloride

Phase II Rule (effective 30 Jul 92)

Inorganics	Organics	Pesticides and PCBs	
Asbestos	o-Dichlorobenzene	Alachlor	Ethylene Dibromide
Barium	Cis 1,2-Dichloroethylene	Aldicarb	Heptachlor
Cadium	Trans 1,2-Dichloroethylene	Aldicarb sulfoxide	Heptachlor epoxide
Chromium	1,2-Dichloroproane	Aldicarb sulfone	Lindane
Mercury	Ethylebenzene	Atrazine	Methoxychlor
Nitrate as N	Monochlorobenzene	Carbofuran	Polychlorinated Biphenyl
Nitrite as N	Styrene	Chlordane	Pentachlorophenol
Total Nitrate/Nitrite	**Tetrachloroethylene**	Dibromochlropropane	Toxaphene
Selenium	Toluene	2,4-D	2,4,5-TP (Silvex)
	Xylenes		

Phase V Rule (effective 17 Jan 94)

Inorganics	Organics	Pesticides
Antimony	Dichloromethane	Dalapon
Beryllium	1,2,4-Trichlorobenzene	Dinoseb
Cyanide	1,1,2-Trichloroethane	Diquat
Nickel	Benzo{a}pyrene	Endothall
Thallium	Di[2-ethylhexayl]adipate	Endrin
	Di[2-ethylhexyl]phthalate	Glyphosate
	Hexachlorobenzene	Oxamyl (Vydate)
	Hexachlorocyclopentadiene	Picloram
	2,3,7,8-TCDD (Dioxin)	Simazine

IRP Wells in Existance in 1986

Site(s)	Well Designation	Date Drilled	Sampled			
CS-1						
(D-3, D-5, D-6, D-7, SA-1, E-2)	A	10/13/83	Y			
	C	10/17/83	Y			
	D	10/13/83	Y			
	E	10/18/83	Y			
	G	10/18/83	Y			
	H	10/18/83	Y			
	EE	10/31/83	Y			
	GG	11/1/83	Y			
	CS1-1	2/6/86				
	CS1-2	2/5/86	Y			
	CS1-3	2/7/86				
	CS1-4	2/20/86	Y			
	CS1-5	4/8/86	Y			
Total	**13**		**11**			
D-4						
	I	10/19/83	Y			
	J	10/20/83	Y			
	K	10/20/83	Y			
	L	10/20/83	Y			
	D4-1	1/30/86	Y			
	D4-2	1/30/86	Y			
Total	**6**		**6**			
FC-2						
	FC2-1	1/23/86	Y			
	FC2-2	1/24/86	Y			
	FC2-3	1/28/86	Y			
Total	**3**		**3**			
D-2						
	Q	10/25/83	Y			
	S	10/24/83	Y			
	T	10/25/83	Y			
	U	10/24/83	Y			
	V	10/25/83	Y			
	DD	10/25/83	Y			
	D2-1	2/21/86	Y			
Total	**7**		**7**			
E-1						
	AA	11/8/83	Y			
	BB	11/2/83	Y			
	CC	10/26/83	Y			
	E1-1	2/4/86	Y			
	M1	Apr-85				
	M2	Apr-85				
	P1	Apr-85				
	P2	Apr-85				
	P3	Apr-85				
	P4	Apr-85				
	P5	Apr-85				
	P6	Apr-85				

Source: Installation Restoration Program Phase II - Confirmation /Quantification Stage 2, Vol 1
Feb 88
Doc 614

IRP Wells in Existance in 1986

Site(s)	Well Designation	Date Drilled	Sampled
	P7	Apr-85	
	P8	Apr-85	
	P9	Apr-85	
	I1	Dec-84	
	I2	Apr-85	
	I3	Apr-85	
	I4	Apr-85	
	TO-01	Dec-84	
Total	**20**		**4**
E-3			
	W	10/27/83	Y
	1	10/27/83	Y
	Z	10/27/83	Y
	E1	10/27/83	
Total	**4**		**3**
S-1			
	QQ	11/16/83	Y
	RR	11/16/83	Y
	VV	11/22/83	Y
	S1-1	2/11/85	Y
	S1-2	2/12/86	Y
	S1-3	2/16/86	Y
	S1-4	2/13/86	Y
Total	**7**		**7**
S2			
	S2-1	4/4/86	Y
Total	**1**		**1**
S-4			
	NN	11/14/83	Y
	OO	11/15/83	Y
	PP	11/15/83	Y
	S4-1	3/31/86	Y
	S4-2	4/1/86	Y
	S4-3	4/1/86	Y
	S4-4	4/2/86	Y
Total	**7**		**7**
S-6			
	S6-1	2/10/86	Y
	S6-2	2/14/86	Y
	S6-3	2/18/86	Y
	S6-4	2/18/86	Y
Total	**4**		**4**
Green Worm (S-8)			
	JJ	11/8/83	Y
	KK	11/9/83	Y
	SS	11/17/83	Y
	TT	11/17/83	Y
	UU	11/21/83	Y
	GW1	4/2/86	Y
	GW2	4/3/86	Y

Source: Installation Restoration Program Phase II - Confirmation /Quantification Stage 2, Vol 1
Feb 88
Doc 614

IRP Wells in Existance in 1986

Site(s)	Well Designation	Date Drilled	Sampled			
Total	**7**		**7**			
Sludge Lagoon						
	SL1	8/15/80				
	SL2	8/14/80				
	SL3	8/14/80				
	SL4	8/12/80				
	SL5	8/18/80				
	SL6	8/25/80				
	SL7	8/15/80				
Total	**7**		**0**			
Grand Total	**86**		**60**	**Total # of Wells Sampled**		
1. Method EPA 601						
2. Method 608						
3. Method EPA 602						

Source: Installation Restoration Program Phase II - Confirmation /Quantification Stage 2, Vol 1
Feb 88
Doc 614

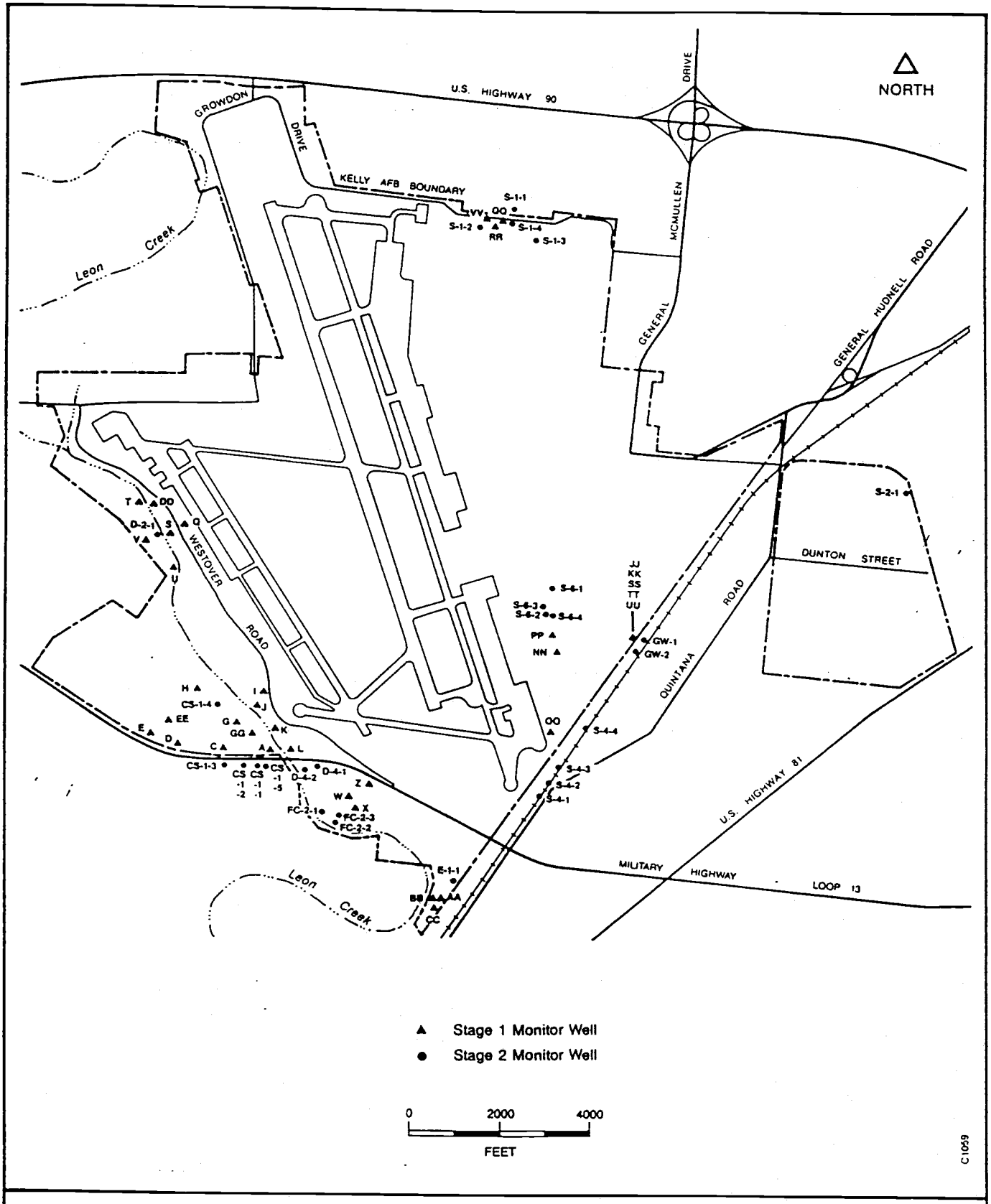


Figure 2. Locations of IRP Monitor Wells, Kelly AFB, Texas

DEPARTMENT OF THE AIR FORCE
WASHINGTON, DC.

Office Of The Assistant Secretary

23 OCT 1998

SAF/MIQ
1660 Air Force Pentagon
Washington, DC 20330-1660

Mr. Armando C. Quintanilla
710 Prince Avenue
San Antonio, TX 78211-3420

Dear Mr. Quintanilla

Ms. Sherri Goodman, Deputy Under Secretary of Defense for Environmental Security, asked me to respond to your letter regarding the water quality issues at Kelly Air Force Base. I have asked the appropriate Air Force offices to research the issues you raised and the responses are attached.

Let me assure you that the Air Force is fully committed to protecting public health and the environment. I know that your participation, along with others in the community, is essential if we are to reach mutual solutions to the issues. I appreciate your participation in Kelly's Restoration Advisory Board and hope that, together, we can find the best community-based solutions to contamination there. If you have any questions, please contact Ms. Marilyn Null of my staff at 703-693-7705.

Sincerely

THOMAS W.L. MCCALL, JR.
Deputy Assistant Secretary
of the Air Force
(Environment, Safety and
Occupational Health)

Attachment:
Responses to Questions

Responses to Questions

Question: *What is being done to ensure that this will never happen again?*
Reply: Kelly Air Force Base (AFB) has taken a number of steps to ensure existing Edwards Aquifer wells on Kelly AFB property are either in sound condition or properly sealed in accordance with all relevant industry standards. Kelly AFB has voluntarily inspected old Edwards Aquifer wells on base property that are no longer in use to ensure they are properly abandoned and cannot serve as an open conduit from the surface to the Edwards Aquifer.

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Question: *Why did Kelly AFB in the responsiveness summary of public comments, in its answer to a question about the Edwards Aquifer state that contaminants did not enter the Edwards Aquifer? Note: The public meeting was held July 27, 1995 at Price Elementary School. Answer to the question is attached in the Responsiveness Summary.*

Reply: We have reviewed the Responsiveness Summaries for Groundwater Zone 3 Site and Groundwater Zone 2 Site, and cannot locate the statement you describe. However, the following statement was included in both documents:

> "Edwards wells used for Kelly AFB drinking water are routinely tested and results provided by the Texas Natural Resource Conservation Commission. Nothing in these tests or in any of our environmental studies indicates that activities at Kelly AFB have had an impact on the Edwards Aquifer."

That statement, published in 1995, was correct and is still correct today. Kelly AFB staff continues to ensure that old wells or other pathways are sealed properly to protect the Edwards Aquifer.

MONITORED NATURAL ATTENUATION CLEAN-UP METHOD?

TNRCC Presentation
Congressman Rodriguez's
Public Forum
Kelly AFB Environmental Issues
December 14, 1998

Gordon Banner
Texas Natural Resource Conservation Commission, Austin
Project Manager, Kelly AFB Zones 4 and 5
Telephone: 512-239-5914; E-mail: gbanner@tnrcc.state.tx.us

Other TNRCC Staff Here for Questions:

Abbi Power
TNRCC Region 13 Office, San Antonio
Project Manager, Kelly AFB Zone 3
Telephone: 210-403-4064; E-mail: apower@tnrcc.state.tx.us

Gary Beyer
TNRCC Austin
Project Manager, Zones 1 and 2 & Leon Creek
Telephone: 512-239-2361; E-mail: gbeyer@tnrcc.state.tx.us

Parker Wilson
TNRCC Legal Division, Austin
Telephone: 512-239-0580; E-mail: pwilson@tnrcc.state.tx.us

PUBLIC INPUT ON RCRA CLOSURE PLANS SITES S-8, E-3, SA-2 AND SD-1

- Plans are for closure of Soils On-Base
- TNRCC Recently Extended Public Comment Period to January 29, 1999
- Plans available for review at SA Central Library, TNRCC SA and Austin Offices, St. Mary's U.
- Send Comments to: Ata-ur-Rahman MC-127, TNRCC Corrective Action Section, PO Box 13087, Austin TX 78711-3087

Community Wants to Know:

1. What exactly is "natural attenuation"? How could it be a reliable clean-up method?

2. What kind of monitoring would be done in the natural attenuation process? What would happen if over a few years the contaminant levels were unchanged? Would other clean-up methods be employed? What would those be?

3. In how many bases has natural attenuation been employed?

4. How many of those efforts were successful? How long did it take?

5. Where were these bases located? Were they located away from populated areas? Were any ever located in the heart of heavily populated areas, such as Kelly?

What exactly is "natural attenuation"?

Natural Attenuation is an Environmental Process

- Occurs on its own, without human help, typically at all contaminant plumes

- Includes Physical, Chemical or Biological Processes:

    - Dispersion: Mixing due to Groundwater Flow
    - Dilution from Rain Fall Added to Groundwater
    - Sorption: Sticking to Soil Grains
    - Volatilization: Going from Groundwater to Soil Air
    - Biodegradation: Breakdown by Micro-Organisms
      ➜ Key to Natural Attenuation of Contaminants

Natural Attenuation Processes Work to Varying Degrees of Effectiveness to Reduce:

- Amount
- Toxicity
- Mobility
- Volume
- Concentration

➜ Reducing Amount Mostly Done by Biodegradation, Less by the Physical Processes

Biodegradation of Solvents: "Reductive DeChlorination"

- Anaerobic Environment = Low Dissolved O_2 in Groundwater★
- Electron Acceptor: the Solvent itself
- Electron Donor: Carbon Source (Organic or Human)★
  - Organic = Naturally in Soils or Groundwater
  - Human = Fuel Spill, Landfill Leachate
- ■ Microbes Help Electrons Go From the Donor to the Acceptor
  - ☼ Get Energy in the Process
- ■ Solvent Loses Chlorine Atoms and Gets Hydrogen Atoms.

★ Process Slows/Stops if O_2 too high or Carbon too low
  ★ O_2 Better Electron Acceptor than Solvents.

➜ Fuel Spills are Often Biodegradable (>80% of Cases):
O_2 is Dominant Acceptor & Fuel = Carbon Source = Donor

How could NA be a reliable clean-up method?

- The Clean-Up Method is Called "Monitored Natural Attenuation" ("MNA")

- Not For Every Site
  - Very Site Specific: Down to Parts of Plumes
  - Many Factors in MNA Decision: Not only NA

- Step One: Sample for NA Parameters: DO, Nitrate, Iron, Sulfate, Methane, Alkalinity, Oxidation-Reduction Potential, Hydrogen, pH, Temp., Conductivity, Cloride, Breakdowns

EPA: "In general, the level of site characterization necessary to support a comprehensive evaluation of NA is more detailed than that needed to support active remediation."

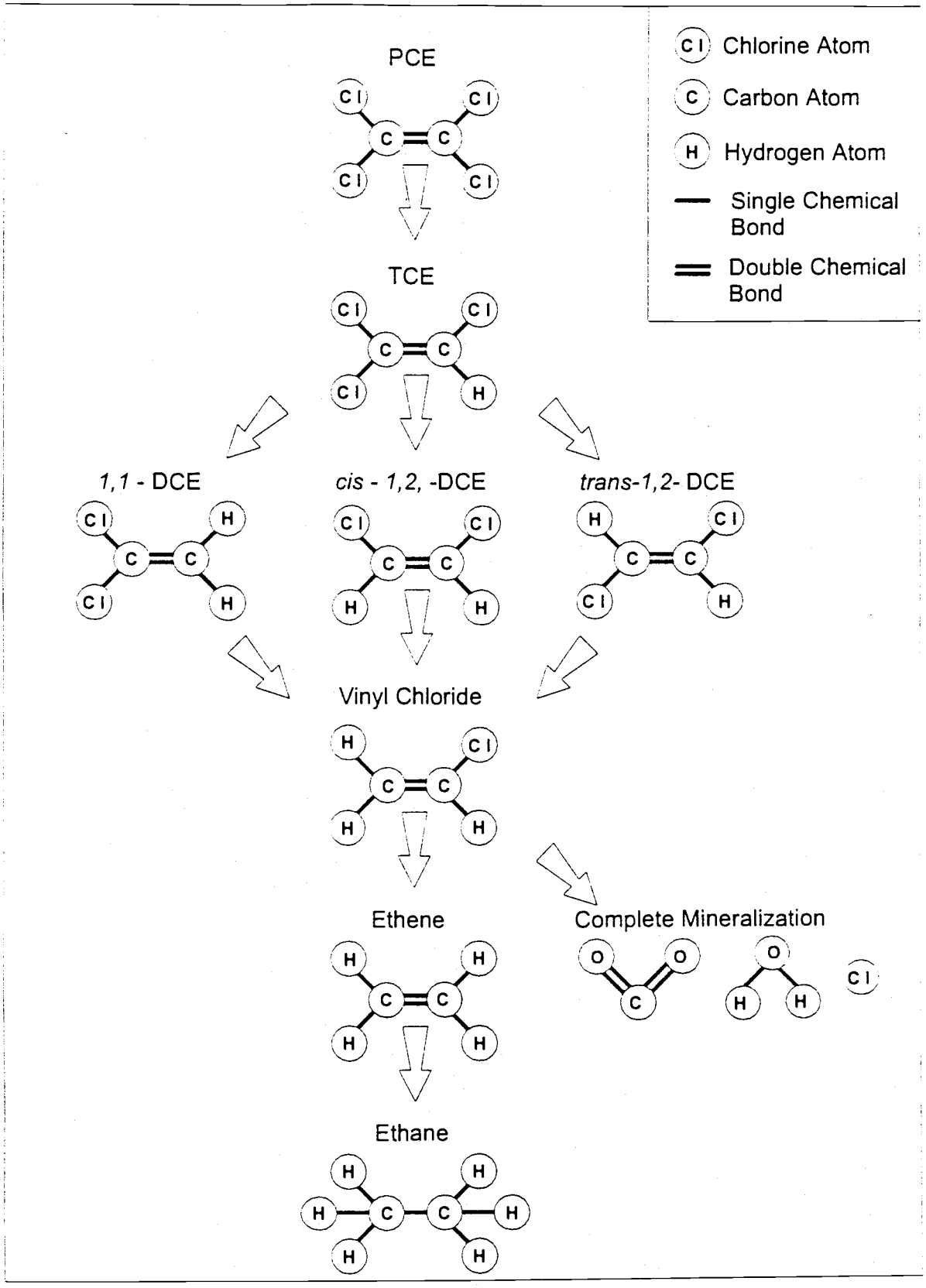

Figure 2.2 *Reductive dehalogenation of chlorinated ethenes.*

Site Characterization for NA generally warrants "quantitative understanding of source mass; GW flow; contaminant phase distribution & partitioning between soil, GW & soil gas; rates of biological & non-biological transformation; and an understanding of how all of these factors are likely to vary with time." (EPA)

- Collect/Evaluate Data ☞ Screening Process
  (Refer to Flow Charts)

- Screening Process ☞ Propose[+] MNA as Method

✝Not a Method Until Approved by Regulators
✎ Screening Process Must be Well Documented

Page 9

All Proposals for MNA as a Clean-Up Method Must Include Plans To:

I. Remove, Treat, and/or Control **Plume Source**

II. **Monitor Plume** Until After Clean-Up Levels Met

III. Establish **Backup Remedies** if NA Not Working

Page 10

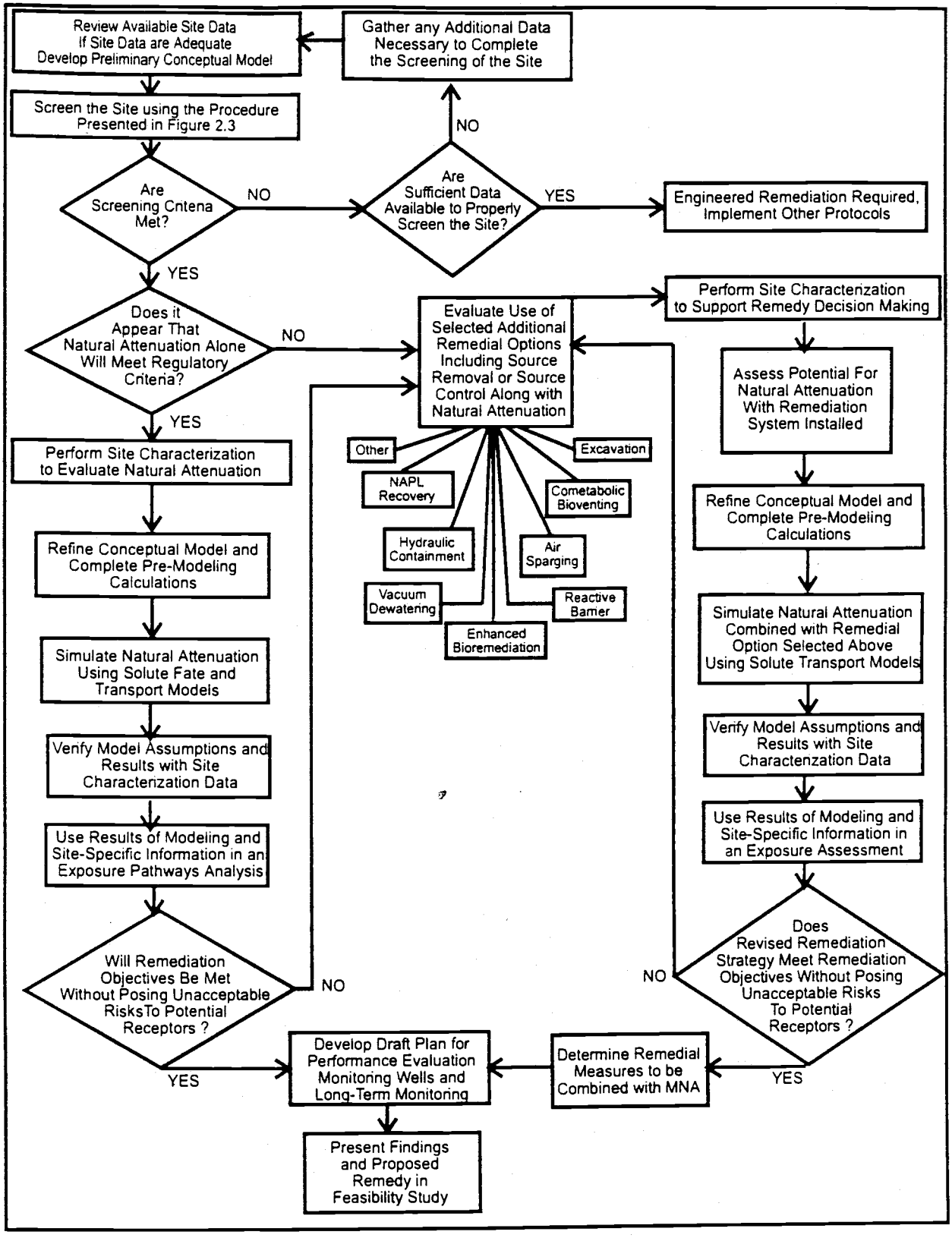

Figure 2.1 Natural attenuation of chlorinated solvents flow chart.

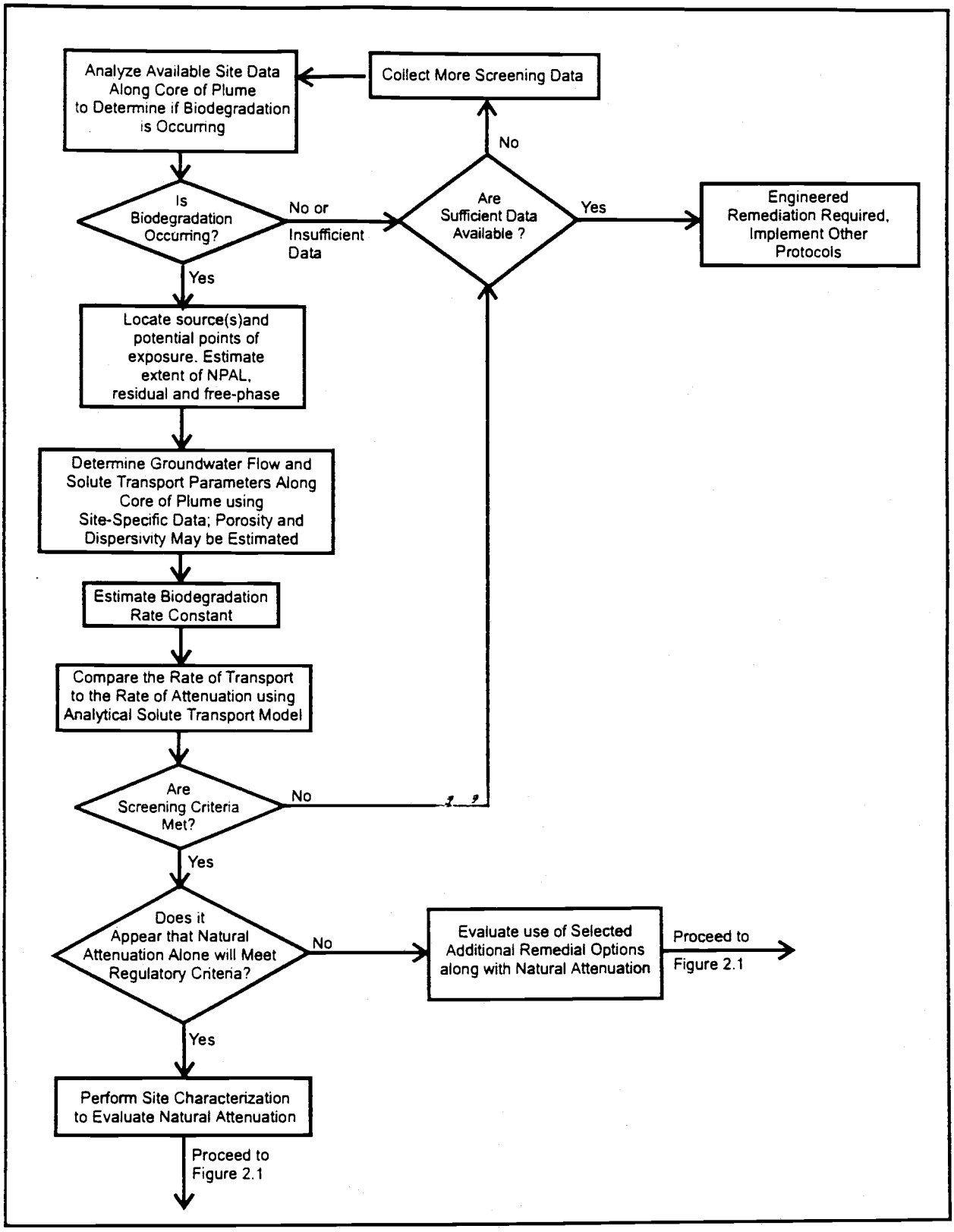

Figure 2.3 *Initial screening process flow chart.*

I. Remove, Treat, and/or Control **Plume Source**

* Non-Aqueous Phase Liquids ("NAPL")
  = Liquids not mixed with water

- "Free-Phase" = Pooled
  - ❑ Floaters **L**ighter than Water ("**L**-NAPL")
  - ❒ Sinkers **D**enser than Water ("**D**-NAPL")

- "Residual" = Smeared on Soils

➠ When NAPL Dissolves it Creates a "Plume"

II. **Monitor Plume** Until After Clean-Up Levels Met

- Show Natural Attenuation Working as Expected
- Identify any Potentially Toxic Breakdown Products
- See if Plume is Growing
- Make Sure No Unacceptable Impacts to Receptors
- Detect New Releases or Changes in Environmental Conditions that Could Slow Down NA
- Show Institutional Controls are Working, if any
- Prove Clean-Up Is Done

✓ What kind of monitoring would be done in the natural attenuation process?

III. Establish **Backup Remedies** if NA Not Working

- Enhanced NA: Add Carbon to Speed up Biodegradation
- Pump and Treat Groundwater
- Air Sparging
- Dual-Phase Extraction

✓ What would happen if over a few years the contaminant levels were unchanged?
✓ Would other clean-up methods be employed?
✓ What would those be?

Other "Triggers" for Backup Remedies, besides Unchanging Contaminant Levels:
See Bullets on Previous Overhead

The Standards for Any Proposed Remedies (Not just MNA) at RCRA Corrective Action Sites, like Kelly

- Protect Human Health and the Environment
- Attain Media Cleanup Standards Set by TNRCC and EPA
- Control the Source
- Comply with Standards for Waste Management
- Other Factors Considered by Regulators:
  - Long-term reliability and effectiveness
  - Reduction in toxicity, mobility or volume
  - Short-term effectiveness
  - Ease of Installation and Cost

Source: EPA's *Resource Conservation & Recovery Act Corrective Action Plan* ("RCRA CAP"), Directive 9902.3-2A, May 1994

How many bases have used natural attenuation?
How many of those efforts were successful?
How long did it take?
Are the bases located in urban or rural areas?

■ No Single Database with All MNA Decision Info

- **Brooks AFB**: • Small Plume Off-Base, shrinking due to NA
  • Some residential and commercial land use
  • On-Base treated by Dual-Phase Extraction
  • MNA Off-Base 8 years Approved

- **Dyess AFB:** • 3 Plumes, On-Base Only
  • MNA & Source Control Nearly Approved
  • No Clean-Up time estimated; On-Base only

- **E Systems**, Greenville • On-Site Only
  • MNA 20 yrs & Source Control Approved

✈ AFCEE Examined 17 Chlorinated Solvent Plumes at 13 AFBs
- AFCEE Recommending (Bases' Decision):
  ♢ MNA Alone at 1 Plume (10 years)
  ♧ MNA With Active Methods at 10 Plumes (6 to 30 years)
  ♤ MNA Not Part of Remedy at 6 Plumes

Air Force Facility	City
♧ Altus AFB	Altus, Oklahoma
♤ Cape Canaveral AS	Cape Canaveral, Florida
♧ Cape Canaveral AS	Cape Canaveral, Florida
♧ Charleston AFB	Charleston, SC
♢ Columbus AFB	Columbus, Mississippi

♧ MNA With Active Methods (6 to 30 years)
♤ MNA Not Part of Remedy

Air Force Facility	City
♧ Fairchild AFB	Spokane, Washington
♧ Hill AFB (2 Plumes)	Salt Lake City, Utah
♧ MacDill AFB	Tampa, Florida
♧ Myrtle Beach	Myrtle Beach, SC
♤ Offutt AFB (2 Plumes)	Omaha, Nebraska
♧ Randolph AFB	San Antonio, Texas
♤ Shaw AFB	Sumpter, South Carolina
♤ Tinker AFB (2 Plumes)	Oklahoma City, Oklahoma
♧ Westover ARB	Chicopee, Massachusetts

- Similar Information for Navy, Army or Private??

Excellent Sources of Information on NA and MNA:

EPA's September 1998 Guidance: *Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water* 250 pages
Pub. No. EPA/600/R-98/128
www.epa.gov/ada/reports.html

EPA's November 1997 Directive: *Use of Monitored Natural Attenuation at Superfund, RCRA Corrective Action, and Underground Storage Tank Sites* 34 pages
www.epa.gov/OUST/directiv/d9200417.htm
800-424-9346

DEPARTMENT OF THE AIR FORCE
WASHINGTON, DC.

Office Of The Assistant Secretary

23 OCT 1998

SAF/MIQ
1660 Air Force Pentagon
Washington, DC 20330-1660

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TWL McCall

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That statement, published in 1995, was correct and is still correct today. Kelly AFB staff continues to ensure that old wells or other pathways are sealed properly to protect the Edwards Aquifer.

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS SAN ANTONIO AIR LOGISTICS CENTER (AFMC)
KELLY AIR FORCE BASE, TEXAS

13 February 1998

SA-ALC/CC
100 Moorman St., Ste 1
Kelly AFB, TX 78241-5808

Hon. Howard W. Peak
Mayor of San Antonio
P.O.Box 839966
San Antonio, TX. 78283

Dear Mayor Peak

It has always been our practice to provide information to the public about our efforts to protect human health and the environment – especially our efforts to clean up the impact of past activities. Consistent with that practice, I would like to share with you a past occurrence that I recently learned about.

While reviewing documents describing the closure of several Kelly Air Force Base Edwards Aquifer wells, base environmental staff came across a seven year old report. The report indicates that an underground horizontal pipe was discovered, during routine well maintenance, to be connected to a Kelly AFB well casing... thus providing a conduit into an on-base Edwards well. The horizontal pipe, which was found in 1989, was located about 30 feet below the surface. The report indicates that the pipe may have contained concentrations of PCE above drinking water standards. PCE (called perchloroethylene and also known as tetrachloroethylene) is used as a cleaning solvent. Again, the Edwards well, one of several that supplied water for the base, was out of service for maintenance when the pipe was found.

The horizontal pipe was found by a video camera inspection of the inside of the 1,450-foot deep well. The video also showed the well, constructed in 1910, to be in generally poor condition, with a one-foot gap in the casing at 590 feet below the surface of the ground. A temporary plug was quickly put in place so that no water could enter the well from the horizontal pipe. Subsequently the well was filled and sealed in compliance with regulatory well closure requirements. The historical report was completed in 1991, after the well had been properly sealed and all required documentation had been submitted to the Texas Water Commission and the Edwards Underground Water District.

Although the report provided a generalized description of events in 1989, it did not contain enough information to determine how much water the horizontal pipe had contained. A quick analysis of water in the pipe, performed while the pipe was accessible, did not provide certifiable data about the levels of PCE present in the pipe. According to the report, the initial analysis indicated that the level in the 1989 sample may have been as high as 50 parts per billion. The drinking water standard for PCE is 5 parts per billion. No validation samples were taken before the well was plugged in order to block any possible flow from the pipe.

Notably, the Texas Department of Health performs certified laboratory analysis of drinking water on the base at regular intervals. TDH tested water from this Edwards well in April 1988, before it was closed, and found the PCE level in the initial sample to be one-half part per billion

Before the well was taken out of service, the water distribution system on Kelly combined water from that well with water from other on-base Edwards wells. Records of drinking water tests conducted during the time in question showed that water reaching the system's end users met all health and safety requirements.

While we acknowledge our surprise at finding this report, we do not back away from our belief that we are doing the right thing to preserve the Edwards Aquifer. Our wellhead protection program, our effort to go back and re-investigate old well closures, and our active cleanup program have prevented near-surface contaminants from reaching our precious Edwards Aquifer. I can assure you that every effort we can apply to continue our effective protection of the Edwards Aquifer will be applied. The Air Force and its people will do whatever it takes to retain our confidence in a safe, healthy drinking water source for our workers, our residents and our community.

I have enclosed a brief set of questions and answers, and our envisioned response IF queried by the media, to give you further details of this 1989 event. If you need more information about the report, please contact either my Vice Commander, BGen Leroy Barnidge, 925-6914; or, Mr Larry Bailey, 925-3100, ext 228.

Sincerely

JAMES S. CHILDRESS
Major General, USAF
Commander

Kelly AFB Well #2 Information Paper

Kelly Air Force Base officials have disclosed the recent discovery of a seven year old report indicating that an underground horizontal pipe was connected to an on-base well casing and therefore capable of providing a conduit into one of Kelly's Edwards wells. The horizontal pipe, which was found in 1989, was located about 30 feet below the surface. The report indicates that the pipe may have contained concentrations of PCE above drinking water standards. PCE (called perchloroethylene and also known as tetrachloroethylene) is used as a cleaning solvent. The Edwards well, one of several that supplied water for the base, was out of service for maintenance when the pipe was found.

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Notably, the Texas Department of Health performs certified laboratory analysis of drinking water on the base at regular intervals. TDH tested water from this Edwards well in April 1988, before it was closed, and found the PCE level in the initial sample to be one-half part per billion above the drinking water standard. As s required by public law, a second confirmation sample was analyzed by a certified laboratory in September 1988. The confirmation sample indicated that NO PCE was detectable in the well.

Before the well was taken out of service, the water distribution system on Kelly combined water from that well with water from other on-base Edwards wells. Records of drinking water tests conducted during the time in question showed that water reaching the system's end users met all health and safety requirements.

-end-

QUESTIONS AND ANSWERS ON 1989 EDWARDS WELL EVENT

Where did the water in the pipe come from?

The pipe connected to the well was about 30 feet below the surface. The pipe had been in place for at least 70 years. The contractor's report hypothesized that portions of the pipe had deteriorated and allowed shallow underground water to enter from the soil around it.

How old was this well?

The well was drilled in 1910 for agricultural irrigation. It was connected to the domestic water system sometime after the base was established in 1917. The horizontal pipe was installed as a connection to the potable water distribution system.

Does this report mean that Kelly has in fact polluted some portion of the Edwards Aquifer?

Certified laboratory analyses of the Kelly water system indicate that water in the Edwards Aquifer beneath the base meets all the standards of the Safe Drinking Water Act. We do not believe this recently discovered report contains enough reliable information to reach any conclusion. The report does serve as a reminder that measures to protect Edwards wells from contamination are essential to preserve the quality of the regional drinking water source.

What has Kelly done to protect its Edwards Aquifer wells?

At Kelly, drinking water wells are sampled on a regular basis. In the past 18 months, Kelly has also re-investigated Edwards wells that were "closed" decades ago to ensure the method of closure meets today's more stringent criteria. As a result, four old Edwards wells were resealed in accordance with current state and federal standards.

Use of Monitored Natural Attenuation
EPA's Policy for CERCLA, RCRA, UST Sites
Draft Interim Final - November 1997
U.S. EPA OSWER Directive 9200.4-17

Definition of Natural Attenuation - Naturally-occurring processes that act to reduce the mass, toxicity, mobility, volume or concentration of contaminants, and more specifically, the processes that occur without human intervention. The result of natural attenuation is a decrease in risk posed to human health and the environment.

Processes of Natural Attenuation - Include a variety of physical, chemical or biological processes that act without human intervention: biodegradation, dispersion, dilution, adsorption, volatilization and chemical or biological stabilization or destruction of contaminants. Although non-destructive processes are included in what is considered natural attenuation (i.e., dispersion, dilution, adsorption and volatilization), EPA prefers to rely on processes that degrade, ultimately destroying, contaminants.

EPA's Position Regarding Use of Monitored Natural Attenuation as a Remedy - Since 1985, EPA has been selecting Monitored Natural Attenuation as a remedy or as part of a remedy to address ground water contamination. Based on site-specific circumstances, Monitored Natural Attenuation may be selected only where its use will be fully protective of human health and the environment, and where it will meet site remediation objectives within a timeframe that is reasonable compared to other alternatives. EPA does not, however, consider Monitored Natural Attenuation a "presumptive" (first-line of defense) remedy or a "walkaway" (do nothing) remedy. With the selection of Monitored Natural Attenuation as a remedy or as part of a remedy, there is a belief based on technical information that the remedy will be effective in addressing site contamination.

Monitored Natural Attenuation as a Remedy - Monitored Natural Attenuation refers to a site clean up approach that relies on naturally-occurring processes to achieve site-specific remedial objectives within a time frame that is reasonable compared to that offered by other alternatives (eg. extraction or collection of contaminated ground water). The selection of Monitored Natural Attenuation to address ground water contamination does not mean that the ground water has been written off and will not be cleaned up. Rather, with the selection of Monitored Natural Attenuation as the remedy or part of the remedy, it means that natural attenuation is expected to effectively reduce contaminants in the ground water to concentrations protective of human health in a time frame comparable to that which could be achieved with other alternatives.

Usually, clean up of ground water includes a combination of remedial approaches. These approaches may include combinations of source control, containment, and treatment. In fact, EPA expects that a Monitored Natural Attenuation remedy will be most appropriate when used in conjunction with action remediation measures (eg. source control along with extraction and treatment of highly contaminated ground water).

Components of a Monitored Natural Attenuation Remedy - Fundamental components of a Monitored Natural Attenuation remedy include controlling the sources of the ground water contamination and remedy performance monitoring. Source control can include removal, treatment, or containment (eg. slurry walls, interception collection trenches, or pumping wells to control movement of ground water) of the contaminated soils and ground water. Controlling of the sources of contamination is the most effective means of ensuring that the site-specific objectives will be met with a Monitored Natural Attenuation remedy. The monitoring portion of a Monitored Natural Attenuation remedy is critical to ensuring that the remedy is performing as expected, i.e., that concentrations of the contaminants are decreasing as expected and where expected. Furthermore, the monitoring of a Monitored Natural Attenuation remedy is required as long as concentrations of contaminants in the ground water remain above the site-specific clean up goals.

Monitoring programs should be designed to accomplish the following: demonstrate that natural attenuation is occurring according to expectations; identify any potential toxic transformation products resulting from biodegradation; determine if a plume is expanding; ensure no impact to downgradient receptors; detect new releases of contaminants to the environment that could impact the effectiveness of the monitored natural attenuation remedy; demonstrate the effectiveness of institutional controls that were put in place to protect potential receptors; detect changes in environmental conditions that may reduce the effectiveness of any natural attenuation processes; and verify attainment of clean up goals.

Remedy Contingency - In the event that a remedy fails, is not performing as expected, or there is a change in a site's circumstances (eg. change in land use or ground water use), a contingency remedy should be implemented. A contingency remedy is a clean up approach or technology specified in the remedy decision document for a site that functions as a "backup" remedy. The remedy decision document should specify "trigger(s)" (eg. lack of decrease in concentrations detected over a certain period of time) indicating what is consider remedy failure or poor performance. The contingency remedy may specify an alternate technology or it may simply call for modification and enhancement of the selected approach or technology. Because of the lack of certainty associated with naturally-occurring processes over which man has no control, one or more contingency remedies should be identified that could meet the site-specific remedial objectives.

Technical Protocol for Evaluating Natural Attenuation of Chlorinated Solvents in Ground Water, EPA/600/R-98/128 September 1998

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202-2733

Kelly Air Force Base Town Hall Meeting
December 14, 1998

1) ***Would the EPA be open to naming the contaminated area in and around Kelly AFB as a Superfund site?***

Kelly AFB (KAFB) has been the subject of numerous investigations under the Superfund Site Assessment Program and Resource Conservation and Recovery Act (RCRA). No final ranking score has been completed for KAFB; therefore, the base cannot be transferred to the National Priorities List (NPL) at this time. Transfer to the NPL would not speed up the cleanup process. The Texas Natural Resource Conservation Commission (TNRCC) is actively pursuing corrective action with Kelly AFB under the authority of RCRA. The TNRCC has issued a RCRA permit, which directs cleanup through the Corrective Action requirements of the 1984 Hazardous and Solid Waste Amendments to RCRA. EPA is also actively participating in environmental investigation and restoration of those properties targeted for transfer and reuse. Since the RCRA program at TNRCC will address the same concerns to which Superfund would respond, EPA has deferred taking any further Superfund action at this time.

2) What exactly is "natural attenuation," and how could it be a reliable clean-up method?

Natural Attenuation refers to the naturally-occurring processes that act to reduce the mass, toxicity, mobility, volume or concentration of contaminants, without human intervention. More specifically, natural attenuation is the name for the normal and natural activities that are at work within the soil and ground water that can destroy or lessen the harm caused by contaminants when they have been released to the environment. These naturally-occurring processes include biodegradation, dispersion, dilution, adsorption, volatilization, and chemical or biological stabilization or destruction of contaminants. Biodegradation means that normal, naturally-occurring bacteria turn the contamination into things that cause less or no harm, or into other natural or normal things (e.g. salts, dioxide carbon). Dispersion and dilution means that contamination spreads out, creating a larger area with smaller concentrations of contaminants. Adsorption means that the contaminants (usually metal contamination) stick to soil particles. Volatilization means that the contamination changes from a liquid in soil or ground water to a gas in soil or in the air. Although non-destructive process are included in what is considered natural attenuation (i.e., dispersion, dilution, adsorption and volatilization), EPA prefers to rely upon processes that degrade, ultimately destroying, contaminants.

Monitored Natural Attenuation refers to an approach that relies on naturally-occurring processes to meet cleanup goals at a site within a timeframe that is reasonable compared to the timeframe for the use of other alternatives (e.g. pumping and treating the contaminated ground water). The selection of Monitored Natural Attenuation to address ground water contamination does not mean that the ground water has been written off and will not be cleaned up. Rather, with the selection of Monitored Natural Attenuation as the remedy or part of the remedy, it means that the natural-occurring processes are expected to effectively reduce ground water contaminants to levels that are protective of human health.

Basic components of a Monitored Natural Attenuation remedy include control of the source(s) of the ground water contamination and regular monitoring of the ground water. Source control can include removing the contaminants, cleaning the contaminated groundwater, or stopping the spread of contamination (e.g. slurry walls, interception collection trenches, or pumping wells to control movement of ground water). Source control of the contamination is the most effective means of making sure that the cleanup goals selected for the contamination site will be met with a Monitored Natural Attenuation remedy. The monitoring portion of a Monitored Natural Attenuation remedy is the key to making sure that the contaminant levels are decreasing as expected and where expected. Furthermore, the monitoring of a Monitored Natural Attenuation remedy is required as long as concentrations of contaminants in the ground water remain above the clean-up goals.

At this time, the investigation into contamination at Kelly AFB is ongoing, therefore the evaluation of alternatives to address ground water contamination is ongoing. Determining the appropriate mix of remediation methods at a site can be a complex process; therefore, all viable cleanup approaches or technologies to address contamination must be evaluated. In order to select one alternative (e.g. Monitored Natural Attenuation) over another, it must be demonstrated that the selected remedy will be protective of human health and the environment.

3) ***What kind of monitoring would be done in the natural attenuation process, and what would happen if over a few years the contaminant levels were unchanged? Would other clean-up methods be employed? What would those be?***

As stated above, the key to a Monitored Natural Attenuation remedy is monitoring. Performance monitoring of any cleanup approach or technology is necessary in order to evaluate its effectiveness and to ensure protection of human health and the environment. For a Monitored Natural Attenuation remedy, performance monitoring is of even greater importance and is required as long as contaminant levels in the ground water remain above the cleanup goals. The monitoring will confirm that natural attenuation is occurring as expected and will verify that cleanup goals have been met.

In the event that a remedy fails, is not performing as expected, or if there is a change in a site's circumstances (e.g. change in land use or ground water use), a contingency remedy should be implemented. A contingency remedy is a cleanup approach or technology specified in the

remedy decision document for a site that functions as a "backup" remedy. The remedy decision document should specify "trigger(s)" (e.g. contaminant concentrations are not decreasing as expected over a certain period of time) indicating what is considered remedy failure or poor performance. The contingency remedy may specify an alternate technology or it may simply call for modification and enhancement of the selected approach or technology.

Usually, cleanup of ground water includes a combination of remedial approaches. These approaches may include combinations of source control, methods that stop the spread of contaminants, and cleaning the contaminated ground water. In fact, EPA expects that a Monitored Natural Attenuation remedy will be most appropriate when used in conjunction with active remediation measures (e.g. source control along with the pumping and cleanup of highly contaminated ground water).

Combined questions 4, 5, and 6.

4) In how many bases has natural attenuation been employed?

5) How many of those efforts were successful? How long did they take?

6) Where were these bases located? Were they located away from populated areas? Were any ever located in the heart of heavily populated areas, such as Kelly?

EPA reviewed their "Superfund Public Information System" database for Superfund sites where Monitored Natural Attenuation was chosen as the remedy or part of the remedy. These sites included approximately 40 industrial sites or businesses, approximately 25 industrial and municipal landfills, 3 farms that had illegal dumping, two Department of Energy (DoE) sites, and eight U.S. Air Force (USAF) bases. As the cleanup for these Superfund sites is ongoing, the success of the remedies has not yet been determined. The length of time listed in the database where a contingency remedy would be used if Monitored Natural Attenuation was not performing as expected varied from 2 to 30 years. Of the eight USAF bases and two DoE sites listed, four are located in or near residential areas. Approximately one-third to one-half of the non-military sites in the database are also located in or near residential areas.

EPA does not currently have a convenient remedy database for sites that are not Superfund sites. Discussions with the USAF indicate that Monitored Natural Attenuation has been selected or has been recommended as a remedy at a number of bases. USAF bases where Monitored Natural Attenuation has been selected as a remedy include Keesler AFB in Mississippi, Goodfellow AFB in Texas, and Brooks AFB in San Antonio, Texas. Keesler AFB is located in a residential and light commercial area and Brooks AFB is located in a light residential area. Brooks AFB is using a technology called soil vapor extraction to cleanup the source of the contamination and Monitored Natural Attenuation for the remainder of the contamination. The cleanup time estimated for this remedy is 12 years for the source control and 8 years for the Monitored Natural Attenuation remedy to reach cleanup goals.

7) ***What role does EPA play in cleanup? Is it in charge in terms of seeing that the USAF complies with its obligations to clean up the affected areas inside Kelly and outside the gates in the contaminated neighborhoods, or will it defer compliance to TNRCC?***

At KAFB, where the RCRA Corrective Action Process is in place, TNRCC is the implementing regulatory agency for enforcing the cleanup requirements of the permit. EPA oversees the State's implementation of the RCRA program. EPA has a responsibility to assure remedies are in place and operating properly. Section 120(h)(3) of CERCLA/Superfund requires that the Air Force demonstrate to EPA that all response actions necessary to protect human health and the environment have been taken. The USAF cannot transfer any property which EPA does not agree has been cleaned up. EPA Region 6 serves on the BRAC Cleanup Team (BCT) where the USAF and TNRCC are also represented. The BCT has the responsibility to emphasize cleanup actions that facilitate reuse and redevelopment of property. As partners in the BCT, EPA Region 6 and the TNRCC work together to assure compliance issues are addressed appropriately.

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Responses to Frequently Asked Questions

San Antonio Air Logistics Center
Kelly Air Force Base

For presentation at the Community Forum, December 14,1998

Q. What guarantee is there that the Air Force won't simply close the base and leave all its contamination right here in our area?

A. As far as the cleanup is concerned, the law requires it, the Air Force is committed to it, and the Environmental Protection Agency and Texas Natural Resource Conservation Commission will play a significant role in it. Federal and state regulators, not the Air Force alone, will help determine when the job is done.

Already, the Air Force has invested about $134 million in the Kelly environmental cleanup program. Environmental cleanup funds will continue to be spent until the job is done.

The Air Force will continue to meet its obligation, as required by law and Air Force policy, to clean up contamination at Kelly AFB regardless of the realignment or reuse of the facility. The Air Force cannot -- and will not -- simply fence some areas and walk away. The law mandates that the cleanup will be done and that the Air Force will pay for it. TNRCC and the EPA, along with the Air Force, will determine when the cleanup goals are met.

Your guarantee is the Federal law that forbids the transfer of government property until an approved cleanup system is installed and its effectiveness is demonstrated to the satisfaction of the Administrator of the U.S. Environmental Protection Agency. The obligation is set forth in the Comprehensive Environmental Response, Compensation and Liability Act, Section 120(h)(3) and 42 United States Code 9620(h)(3). The Kelly environmental cleanup is also supervised by the state regulatory agency (the Texas Natural Resource Conservation Commission).

Q. I've heard that there is, or was at one time, a well on Kelly that was polluting the Edwards Aquifer?

A. You may have heard a rumor that Kelly has a well that is polluting the Edwards Aquifer. ago where we found a well that had a pipe out the side of it that used to go to a pump. The pipe had developed leaks and contaminated water was getting into the pipe and going into the well. As soon as the Air Force found it, the well was taken out of service and sealed. Although the Air Force used this well, it was actually an old one that had been drilled to irrigate the farm that was here before the base and it was about a quarter mile deep.

Although it was reported at the time and the reports are still on file, the workers who knew about it had gone to other jobs and other locations, so we were surprised when a member of the community brought it to our attention late last year. We immediately searched the records and our commander sent a letter to the EPA, the Texas Natural Resource Conservation Commission, Judge Krier, Mayor Peak and other officials to inform them of it.

Two very important questions were raised about the incident. First, was the drinking water at Kelly safe to drink while the pipe was leaking, and second, was there any measurable effect upon the Edwards Aquifer?

Water from this well mixed with water from several other wells in a storage tank before it went to users on the base. Using formulas for dilution, even if water from only one other well had mixed with this well's output, the result would have been water that met the strict limits of the Safe Drinking Water Act. The bottom line is that the safety of Kelly's drinking water was not compromised by this leaking well.

It is difficult to determine what, if anything, may have left the bottom of the thousand-foot pipe to go into the Edwards Aquifer. Water from a companion well less than fifty feet away was tested and did not show any contamination in the water coming back out of the Edwards Aquifer. In summary, if contamination did go down into the Edwards Aquifer from the leaking well the contamination didn't show up in water coming out and the Edwards water quality was not impacted even in the small area directly surrounding the leaking well.

It's important to know that no one's drinking water was affected by this leaking well and that the Air Force acted quickly and properly as soon as it was discovered. Kelly staff is available to discuss the issue further for those who have other questions about the incident or the base's continuing efforts to protect the Edwards Aquifer.

Q. What is the Air Force's response to the rumors and stories such as the recent article about solvents released to the ground from the "Green Worm" in the 1970s?

A. A critical part of the Installation Restoration Program process involves personal interviews with people who may have first-hand historical information that could assist us in the environmental cleanup of past spills, leaks or other contamination sites. Former employees, such as Mr. Phillip Keil Sr., are often aware of information that may not be contained in any existing records. As a follow-up to his newspaper disclosures, we invited Mr. Keil to visit Kelly on November 30, 1998. He walked the ground where this equipment once stood and shared his recollection of spots where cleaning solvents were released. His memory served to reinforce things we already knew from more than a decade of studying the former "Green Worm" location, which we now call Site S-8. No matter how the contamination got there, we know about it and we are far along the pathway to complete cleanup of the site.

The site was identified in 1984 and an interim cleanup system was installed there in 1990. The system uses a dozen recovery wells to capture contaminated groundwater from the site. The basis for the newspaper article was the submission of a closure plan for the cleanup of soil at this site. The commitments made to the Texas Natural Resource Conservation Commission in that closure plan and its companion Corrective Measures Implementation Work Plan for Groundwater, which was submitted to TNRCC on Dec. 9, 1998, will carry out the cleanup of Site S-8 to meet the regulatory standards.

While Mr. Keil's insight did not yield any additional information that will alter the current remediation plans, we are always interested in hearing these stories from former workers. Learning more about the circumstances of the past can help us better understand and address the contamination we've found and measured through the cleanup process.

It is important for all of us to remember that the contamination in the shallow groundwater does not pose a threat to the public health as it is not a drinking water source nor are there exposure pathways that bring people into contact with it. It's equally important to know that the Air Force's commitment to environmental cleanup continues until all our sites and the areas affected by them have been brought into compliance with state and federal standards. This is a legal obligation and it is the regulators -- and not the Air Force -- who will determine when those standards have been met.

Q. What role will natural attenuation have in the Air Force's final cleanup plan for off-base areas?

A. Monitored Natural Attenuation is a valid solution, but it is only one option of the few available methods for dealing with groundwater contamination. There are many factors that suggest Monitored Natural Attenuation may be a suitable alternative worthy of consideration. First, this water is not drinking water. Second, no one comes into contact with this underground water in a way that would be harmful. Third, the amount of dissolved solvents in the water is very low in relative terms. And finally, Air Force sampling in past years gives a clear indication that the process is already at work and may have a significant effect in some areas.

Despite the solid reasons to consider Monitored Natural Attenuation, the final choice for a cleanup system can't be made today. More information is needed and several steps must be completed to help make the best decision for the situation. Those steps are clear and logical.

First, the on-base sources from which contamination comes must be cut off. We have already installed more than a dozen separate systems to achieve this. Nevertheless, sites such as the former metal plating shops location and the industrial sewer on East Kelly that leaked years ago are still dissolving contaminants into the shallow underground water. Plans for those sites and a few others must be put in place to shut off any further contamination from the base.

Second, when those on-base sources are cut off, we must sample the shallow underground water over an extended period to see what happens. It would be very good news if we find that natural processes can reduce the level of contamination once nothing new is being added to overload the ecosystem. It would be very bad news if we found that other sources outside Kelly's fence exist and that they are adding to the contamination. That possibility would mean that no matter how well the on-base sites are cleaned or how long the off-base cleanup operated, it would be difficult to determine the effectiveness of the Kelly cleanup systems.

Once we've cut off on-base sources and had time to observe what happens to off-base contamination, the foundation will exist for an informed, logical decision about appropriate cleanup systems. It's quite likely that the final answer will be somewhere between the extremes. Natural processes might do much of the job, while active intervention may be needed in areas where the level of contamination is too much for natural processes to deal with effectively. Unfortunately, we don't know what the best choice will be. We have to work through the process to find out where the path leads.

Q. What part will so-called "natural processes" play in Kelly's environmental cleanup program?

A. All environmental cleanup involves natural processes that range from sunlight to evaporation to the bacteria that see pollution as a food source. The best solutions invariably involve natural processes that allow the contamination to be treated where it is rather than bringing it to the surface where people live and work and children play.

When nature alone may not be sufficient, we look for ways to stimulate nature and speed up the processes. Bioventing sends air down to bacteria and fungi to keep them healthy and active. Soil vapor extraction and air sparging through underground water are examples that use the physical movement of air to increase the evaporation rate and draw out chemicals.

Finally, there are those remedies that use technology to imitate nature. An example is our Ultraviolet Oxidation Process at Kelly's Groundwater Treatment Plant. Ultraviolet light from sunlamps focuses energy on the molecules of chemicals in the water and breaks them down. Another technology on the base is an air stripper that creates a "waterfall" by bubbling air upward in a cylinder where water is flowing down. As the air passes through the water, the chemicals in the water evaporate out to a filter or a flare where they are captured or destroyed.

The problem with imitating nature is that it usually involves pumping the water to the surface and then treating it. "Pump and treat" solutions have been effective when the level of contamination in the water is high and the goal is to get it to a lower, safer level (for instance, reducing contamination from 1,000 parts per billion to 100 parts per billion). The systems really haven't shown themselves to be efficient when the goal has been to reduce relatively low concentrations (for example, 50 ppb or less) to meet the Safe Drinking Water Act level of 5 ppb. One rule of thumb is that a pump and treat system must remove the amount of contaminated water twenty times over before the chemicals trapped in the soil will have rinsed free and been removed. This takes many years of pumping and treatment and may not significantly shorten the time that natural processes would take to accomplish the same result.

All of us would like some simple, quick solution to the problem. The reality we face is that there isn't one. Just as it took many years or even decades for the contamination to spread through this layer of underground water, the cleanup choices will involve years as the final remedy reduces the contamination to the level that meets state and federal standards.

Q. Why are there cleanup systems on Kelly, but none have been placed off base in the neighborhoods?

A. The systems exist on-base specifically because of the Air Force's concern for the off-base neighborhoods that surround us. These "interim" systems are examples of our willingness to step back from the long process of studying, designing and installing a final cleanup to do something quickly to reduce our impact on the neighbors. We voluntarily went to the Environmental Protection Agency and the Texas Natural Resource Conservation Commission for authority to do something, even though it wasn't the final solution. And the reason we did it was to stop contamination from leaving the base and moving out beneath the neighborhoods. Because these systems are on Air Force property, we had the flexibility to move out quickly on the construction of these systems.

The water that's being pumped out by these systems doesn't go back into the ground. After it's treated, it is discharged into Leon Creek. But it's water that won't carry more contaminants beyond our fences. The benefit of these systems isn't at the on-base site, but it is clearly in the off base areas that would have received the contaminated water. Importantly, we are working with both the Greater Kelly Development Corporation and San Antonio Water System on future water reuse plans. Eventually, we expect that most or all of the treated water will find reuse application.

And where is the cleanup happening? In some instances, it is happening in those off-base areas where cutting of that flow has allowed natural processes to deal more effectively with the contamination that's already there.

This off-base benefit isn't just wishful thinking. It's supported by firm data from our monitoring wells. North Kelly Gardens is a very good example. The underground plume of benzene and chlorobenzene dissolved in the shallow layer of water used to reach almost to the homes on Bay Street. After six wells were installed in 1995 to cut off the source, the concentrations have dropped and the plume of contamination barely crosses Growdon Road and remains on Air Force property. Another dramatic example is Site S-4, where wells and a trench are dealing with jet fuel that leaked out and was discovered in 1988. Maps from 1992, 1994 and 1997 show that the jet fuel beneath the ground that used to reach out into the Quintana Road neighborhood now disappears close to the Union Pacific Railroad Yards.

By cutting the red tape to put these systems on base quickly, the Air Force has gained a head start toward its final cleanup objectives for off-base and on-base areas. The systems were placed on property that the Air Force owned for two reasons. First, that's where the sources are. Second, it's faster and easier to do the work on land you own than it is to go through a long

process to place a system on someone else's property. *Nevertheless, the primary benefit from these systems is in the neighborhoods and not on the base itself.*

Q. Will the Air Force or the Environmental Protection Agency declare Kelly a Superfund site?

A. Kelly has been evaluated several times to determine if it should be listed on the National Priorities List and become a "Superfund" site. The Air Force has five large aircraft repair depots. The other four were listed as Superfund sites, but Kelly was not. There are several reasons that Kelly hasn't been rated in the "Superfund" category.

First, despite what people may hear or read through the news media, Kelly's situation isn't as serious as the normal Superfund site. Contamination from past activities is contained above the Navarro clay layer, so that it is within 40 feet of the surface. This makes it possible to reach the contamination with treatment systems or other remedies.

Second, Kelly's environmental impact has not included any measurable effect upon the drinking water supply. Other military bases have contaminated groundwater that reaches private wells or the drinking water aquifer. In some cases, bases and posts have bought bottled water to be delivered to the neighbors. On the contrary, Kelly's efforts to protect the Edwards Aquifer have actually helped safeguard San Antonio's water supply.

Third, the primary area of contamination from the base is in the shallow layer of water that exists in the moist soil 20 to 40 feet below the surface. Twenty feet of dry Texas earth separate the people above from the contamination in the water below. Except for a few old private wells that existed before city water came to the area, there is no pathway for the water to reach the people on the surface. Because no one uses the water for their home, other than to irrigate lawns or gardens, there is no harmful contact with the contamination in the water.

Fourth, the actual amount of contamination in the water is very low. The line on the map to Kelly's southeast represents the point where the best equipment could no longer detect any of the chemicals that may have come from Kelly. Somewhere well within that line is the point at which the water no longer meets the standards of the Safe Drinking Water Act – 5 drops dissolved in a billion drops of water. But no one uses the water for drinking, bathing, cooking or laundry. The 5 parts per billion line is only "contaminated" in the sense that the State of Texas has designated this shallow layer of water as a potential drinking water source. Someday it may be needed, but today it is simply there and the state's laws require that it be protected. The line at which the amount of chemicals in the water would pose a direct health risk

from contact – getting it on your skin, using it for washing or rinsing, etc – would be even closer to the base. In some cases that line exists only inside the base itself.

All these factors have worked together to demonstrate that Kelly isn't an appropriate case for a Superfund site. Although being added to the Superfund list may appear to have some usefulness as a way to speed up the cleanup effort, it really isn't. The Base Realignment and Closure commission's decision to close the Air Logistics Center and realign the airfield to Lackland AFB has already done that. Deadlines have been set, funds have been provided, and the work is moving forward on schedule.

Candidates for the National Priorities List are reviewed more than once. It's possible that a future review may find some reason for listing Kelly as a Superfund site. For the Air Force, that designation isn't something that's being sought because it isn't needed. Kelly is receiving the priority it needs for funds, manpower and assistance to complete its environmental cleanup. San Antonio does not need a Superfund site and the Air Force has no reason to seek such a designation for Kelly.

Q. Now that you have drawn the line around the contaminated water, does this mean that all those homes are contaminated?

A. No, it does not. The contamination is located in the shallow layer of groundwater beneath those properties. This layer of water inside the line is not continuous. Some spots are dry, and no water exists there. It's also likely that there are areas where the shallow groundwater is not contaminated because of the nature of the soil around it. The line we have drawn is a general guideline. If contamination exists, we expect it to be inside the line we've delineated. Outside the line, it's unlikely that we would find contamination that has moved there from the area around Kelly.

Q. Does this line on the map mean that the Air Force takes responsibility for all contamination in this area?

A. No, it does not. Our testing can tell us what is in the shallow layer of groundwater in this area, but it cannot clearly tell us where it originated. The samples from wells in this area that showed the presence of chlorinated solvents may have come from Kelly Air Force Base, but we can't be sure. The shallow layer of groundwater has nothing above it to protect it from things that spill or leak on the surface. Along with rainwater that soaks into it, there is also the run-off from parking lots, yards, and businesses. The contaminants in the water are common in many businesses from dry cleaners to auto repair shops. Nevertheless, unless there is clear evidence of another source, our cleanup evaluates all of this particular groundwater contamination as if it comes from the base.

Q. Would you buy a house in this neighborhood?

A. People purchase property for a variety of reasons. If the only consideration is whether the air, soil, and water provide a safe environment for a family to grow and prosper, the answer is clearly yes. The contamination is located in the shallow layer of groundwater that's 15 to 20 feet below the land's surface, and you do not come into contact with it.

Q. Could this contamination be making me ill?

A. Unless you have a well on your property and are using this water for drinking, cooking, bathing, and washing, you would not experience the type of exposure that could create a risk to your health. This is not the drinking water that comes to your home. It's the groundwater underlying the soil about 15 to 20 feet beneath the land's surface. Because it cannot reach you, it should have no affect upon your health.

Q. Do you have any data to show whether there has been an effect upon the San Antonio River?

A. The Air Force reviewed information collected by the San Antonio River Authority, the Texas Natural Resource Conservation Commission and the US Geological Survey to determine if there was information regarding the quality of water in the San Antonio River east of the solvent plume. In particular, we asked for information regarding perchloroethene (PCE), trichloroethene (TCE), dichloroethene (DCE) and vinyl chloride (VC). We found that the US Geological Survey had collected data for PCE, TCE, DCE and VC from the San Antonio River, at a site downstream from the area adjacent to the solvent plume, over a several year period, most recently in September 1996. Their results indicate there was no PCE, TCE, DCE or VC detected in their samples of the San Antonio River water at this site. The Air Force has contacted the San Antonio River Authority, the Texas Natural Resource Conservation Commission and the US Environmental Protection Agency to request their assistance in developing a plan to sample the San Antonio River in this area for PCE, TCE, DCE and VC as a precaution.

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON DC

30 OCT 1998

MEMORANDUM FOR ALMAJCOM/CEV HQ USAFA/CEV HQ AFDW/CEV
ANG/CEV HQ AFCEE/CC

FROM: HQ USAF/ILEV
1260 Air Force Pentagon
Washington, DC 20330-1260

SUBJECT: Funding for Restoration Advisory Board Members (RAB) Training and Related Travel Expenses

The RAB section of the Defense Environmental Restoration Program (DERP) statute and other legal authorities, provides funding only for technical assistance training for citizen RAB members. This training is intended for interpretation and understanding of scientific and engineering issues related to the cleanup program. Funding for the technical assistance training is available through the Technical Assistance For Public Participation (TAPP) grant program. TAPP funding is not available for "leadership" or policy training/conferences. Information concerning the TAPP program, training criteria, and procedure for applying for TAPP grants is available on the Internet at http://www.dtic.mil/environdod/rab/.

There is no authority in the RAB statute for Environmental Restoration Account (ERA) funds to pay for travel and subsistence expenses for citizen RAB members to attend TAPP or other training. The Air Force does not have authority to send citizen RAB members out of the local area to attend training for educational purposes. ERA funds can pay for local training not involving travel, long distance training where RAB member agrees to assume their own travel costs, or bringing the training to the local area. ERA funds can be used to fund technical training for citizen RAB members, but cannot be used for any travel or subsistence expenses associated with the training.

If you or the members of your staff has any questions, please contact our POC, Mr. Johnny Davis, HQ USAF/ILEVR, at DSN 332-0767, (703) 602-0767, or Email: johnny.davis@pentagon.af.mil

Teresa R Pohlman

TERESA R. POHLMAN
Chief, Environmental Division
DCS/Installations & Logistics

cc:
HQ AFCEE/ER
HQ AFCEE/EQ

UNITED STATES AIR FORCE
INSTALLATION RESTORATION PROGRAM
KELLY AIR FORCE BASE
SAN ANTONIO, TEXAS

PROPOSED PLAN

Site S-1 Focused Feasibility Study

SAN ANTONIO AIR LOGISTICS CENTER
PARTNERS WITH THE ENVIRONMENT
ENVIRONMENTAL MANAGEMENT

Kelly Air Force Base, Texas
December 1998

UNITED STATES AIR FORCE
KELLY AIR FORCE BASE
SAN ANTONIO, TEXAS

PROPOSED PLAN INTERIM REMEDIAL ACTION/ INTERIM STABILIZATION MEASURES (IRA/ISM) FOR CONTAMINATED SOIL AT SITE S-1

December 1998

This **Proposed Plan** is issued by Kelly Air Force Base (AFB), San Antonio, Texas, to identify the preferred alternative for an Interim Remedial Action/Interim Stabilization Measure (IRA/ISM) to address contaminated soils at Site S-1. The purpose of the IRA/ISM is to control the source of contamination at S-1 and prevent any further impact to groundwater.

Site S-1 is included as a Solid Waste Management Unit (SWMU) in the Compliance Plan issued to Kelly AFB pursuant to the **Resource Conservation and Recovery Act (RCRA)** by the **Texas Natural Resource Conservation Commission (TNRCC)**. Site S-1 also is included in the Zone 5 Corrective Measures Study, which will be performed in accordance with Section VIII of the Compliance Plan.

The purpose of this Proposed Plan is to summarize the nature and extent of **contaminants** present at the site, to discuss the remediation alternatives considered for this site, and to solicit public comment on the preferred remediation technology. Currently, the preferred alternative consists of excavation and disposal of contaminated soils, in combination with a dual phase **groundwater** recovery and **soil vapor extraction** (SVE) system. After the public comment period has ended and all comments submitted are reviewed, the Air Force will select a final remediation approach.

The Air Force may modify the preferred alternative, or select another alternative presented in this Plan, based on new information or public comments. Therefore, the public is encouraged to review and comment on all alternatives identified in this Plan.

The Air Force is issuing this Proposed Plan on a voluntary basis in an effort to promote community involvement in base cleanup. Kelly AFB is not on the **National Priorities List**, which is the list of sites subject to government mandated cleanup under the **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)**. However, Kelly is proposing to take cleanup action on a voluntary basis and is using both

the CERCLA and RCRA process to determine what cleanup action is appropriate. Under the RCRA/CERCLA process, a Proposed Plan is a document produced for the public that summarizes the analysis of cleanup options.

The public is encouraged to review the Site S-1 Soil Focused Feasibility Study (FFS), in addition to this Proposed Plan, to gain a more complete understanding of the site and the nature of the environmental conditions there. The FFS is located in the administrative record file at the following locations:

San Antonio Central Library
(Government Documents Section)
600 N. Soledad
San Antonio, TX 78205

Hours:

Monday - Thursday	9 a.m. - 9 p.m.
Friday and Saturday	9 a.m. - 5 p.m.
Sunday	11 a.m. - 5 p.m.

Kelly AFB Library
Bldg. 1650, Room 138
250 Goodrich Dr., Ste. 6
Kelly AFB TX 78241-5823

Hours:

Monday - Thursday	8 a.m. - 7 p.m.
Friday	8 a.m. - 5 p.m.
Saturday	1 p.m. - 5 p.m.

A glossary and descriptions of the criteria used to evaluate the cleanup options appear at the end of this document. Words and phrases defined in the glossary are identified by bold lettering the first time they appear in the text.

SITE BACKGROUND

History

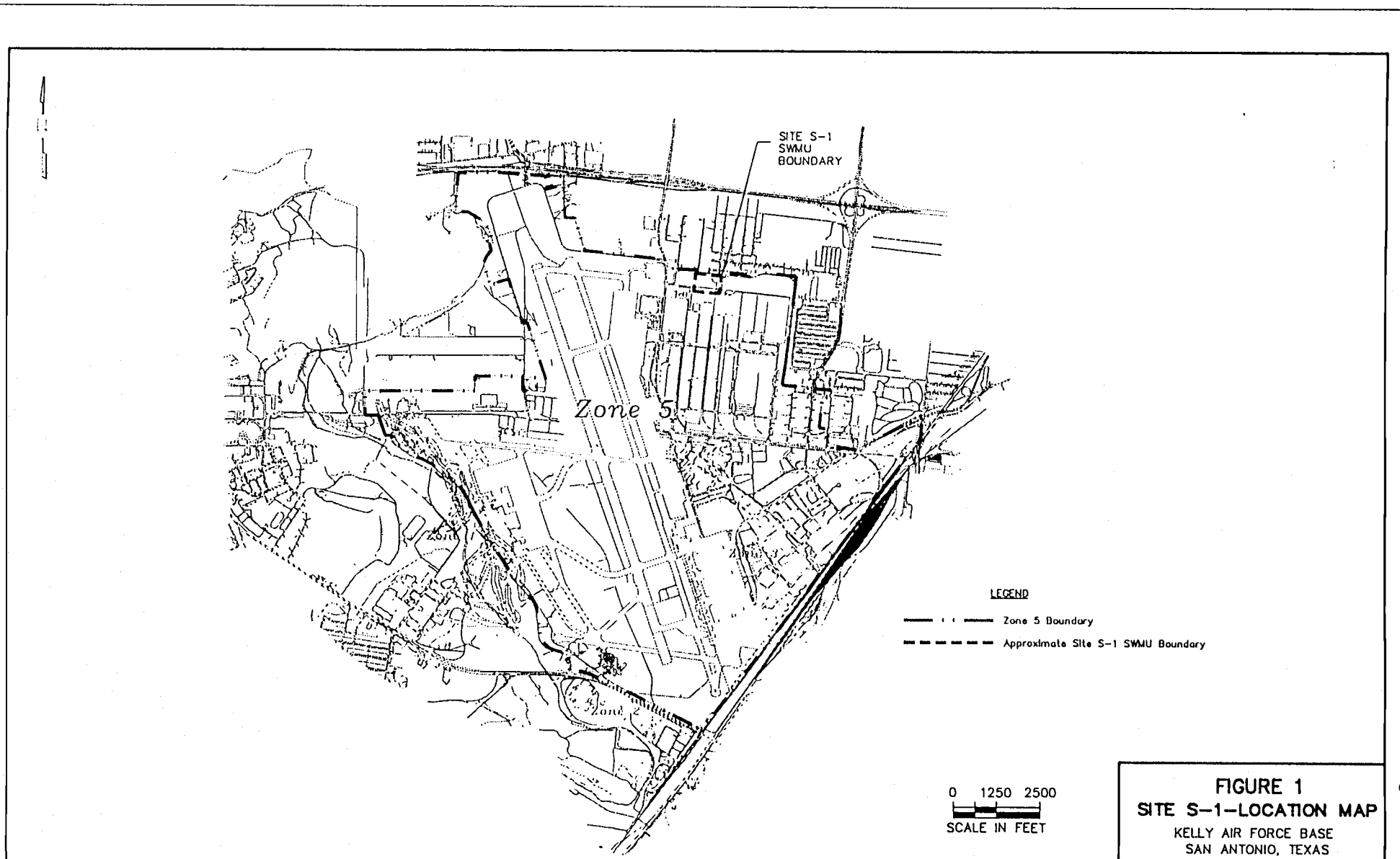
Kelly AFB is located 7 miles southwest of downtown San Antonio and was established in 1917 as an airfield for the United States military. The primary mission was to support the San Antonio Air Logistics Center (SA-ALC). In 1995, the Base Realignment and Closure (BRAC) Commission voted to close the SA-ALC at Kelly AFB, realigning a portion of the base with Lackland AFB and transferring a portion of the base to the Local Redevelopment Authority (LRA). The closure is scheduled to be completed before the end of fiscal year 2001.

Kelly AFB has been divided into five investigative zones (Zones 1 through 5) to facilitate organization of environmental studies. Site S-1 is located in Zone 5, within one hundred feet of the northern base boundary (Figure 1).

Site S-1 was formerly an intermediate storage area for wastes on their way to off-base recycling or disposal facilities. Wastes were stored at this location from the 1960s until 1973. Wastes stored at this site included solvents, carbon cleaning compounds, and petroleum, oil, and lubricants. These waste management activities are believed to have caused the contamination found at Site S-1.

Site Investigations

Soil investigations at Site S-1 encountered several organic and inorganic compounds. Three of the organic compounds were identified as contaminants of concern because they were detected in the soil at amounts exceeding the **Preliminary**



SOURCE: CH2M HILL Site S-1 Soil Focused Feasibility Study-1998

FIGURE 1
SITE S-1-LOCATION MAP
KELLY AIR FORCE BASE
SAN ANTONIO, TEXAS

DECEMBER 1998

W.O. NO.: 00628-038-006-2300

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Remediation Goals (PRGs) for soil. None of the inorganic compounds were determined to be contaminants of concern. Table 1 compares the maximum concentrations (milligrams per kilogram [mg/kg]) encountered in the soil samples and the PRGs.

Table 1
Maximum Concentrations and PRGs

Contaminant of Concern	Maximum concentration (mg/kg)	Preliminary Remediation Goal (mg/kg)
chloro-benzene	200	16.7
1,2-dichloro-benzene	1,790	106
1,4-dichloro-benzene	237	10

Site Geology

The geology at Site S-1 consists of a non-homogeneous mixture of sediments that include gravel and clay fill materials (non-native), a gravel layer (the shallow aquifer), and the Navarro clay formation. Where non-native fill is present, it is found above the gravel layer and the gravel layer normally overlies the Navarro clay.

Site Hydrogeology

The subsurface at the site consists of approximately 30 feet of unconsolidated sediments above the Navarro clay layer. The groundwater at the site is encountered in the gravel layer, above the Navarro clay, at a depth of approximately 15 to 20 feet below ground surface. The Navarro clay forms a barrier, approximately 800 feet thick, between the shallow **aquifer** and deeper aquifers. The thickness of the shallow aquifer at the site ranges from one to five feet. Shallow groundwater generally flows to the northeast in Zone 5.

Soil Contamination

The soil contamination at Site S-1 was separated into two areas due to the non-homogeneous nature of the soils and the varying contaminant concentrations. The two areas are identified as the Sump Area and the Smear Zone (Figure 2).

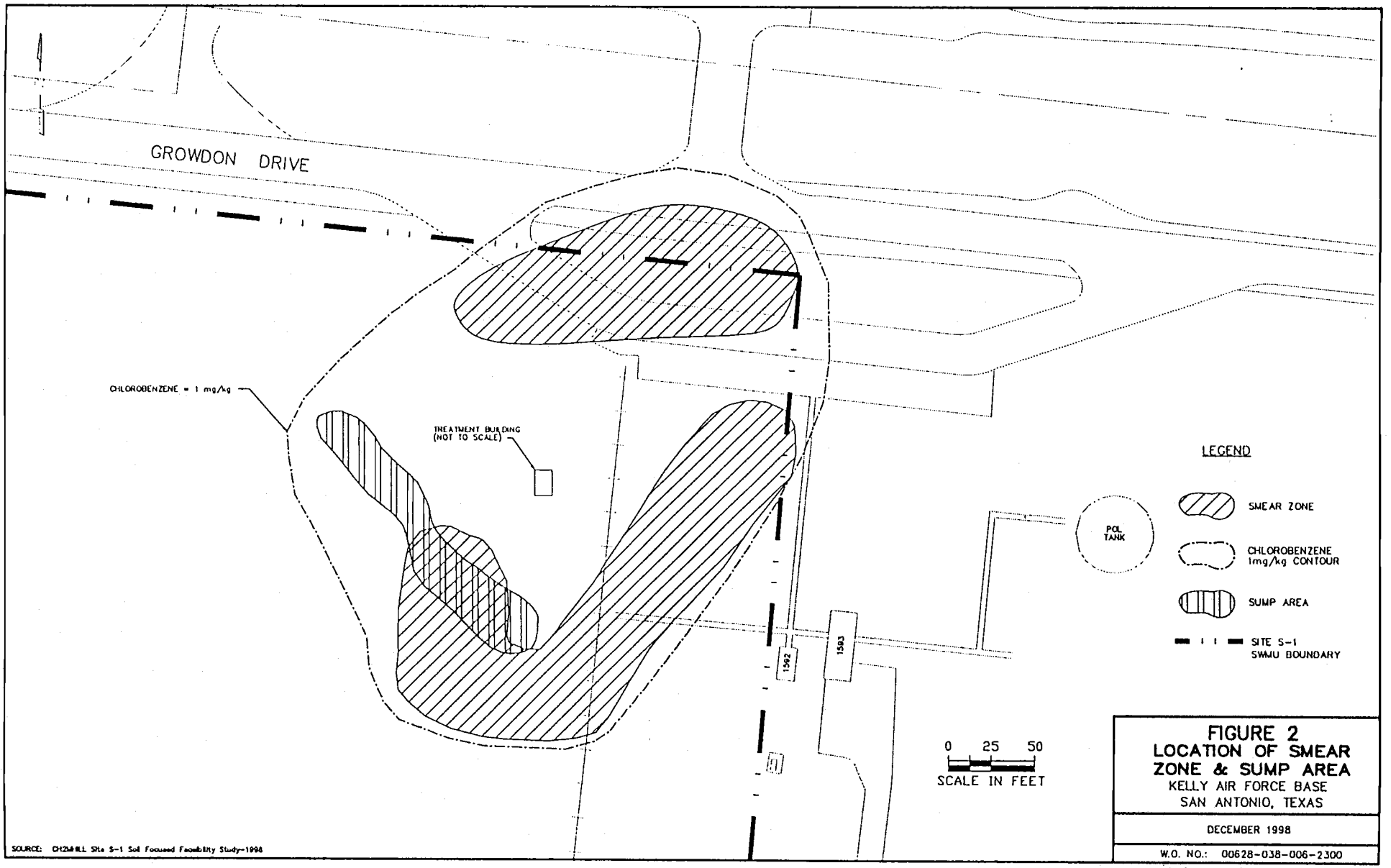
The Sump Area is an excavation where spilled material was collected during waste storage operations. In 1973, the area was re-graded, backfilled, and revegetated. The highest concentrations of chlorobenzene were detected in samples collected from this area.

The Smear Zone is an area of subsurface soil affected by the migration of contaminants. As the water table fluctuated, subsurface soil was smeared with contamination contained in the groundwater. Treating the Sump Area separate from the Smear Zone will allow for the selection of more effective remediation alternatives.

Summary of Risks

An evaluation was conducted to estimate the human health risks that could result if soil contamination at Site S-1 was not addressed. This evaluation was not a baseline risk assessment: Risk was evaluated only to determine if an IRA/ISM was warranted. The evaluation considered the effects associated with public exposure to contaminated soil via inhalation of dust particles or shallow groundwater use by local residents. Exposure routes considered for base personnel consisted of direct contact with surface soils.

No unacceptable risks were found for ingestion or dermal contact with soil or



inhalation of dust particles. However, analytical results indicated that the shallow groundwater at the site is not suitable for use as a drinking water source.

Long-term exposure to contaminated groundwater by a residential user (i.e., drinking, cooking, bathing, etc.) would increase an individual's lifetime risk of developing cancer by a factor of 4.4 in 10,000. However, the shallow aquifer in this immediate area is not used as a drinking water source, but the TNRCC classifies it as a potential drinking water source.

Contaminants in the soil are the source of the groundwater contamination at Site S-1. Precipitation that infiltrates through the contaminated soil transports the contaminants from the soil to the groundwater (shallow aquifer). For this reason, cleanup of the soil is the primary concern at this site.

Scope of Action

Although the contaminants found in the soils underlying the site do not pose an unacceptable risk to human health, they may be leaching into the shallow aquifer and contaminating the shallow groundwater. The goal of the proposed action at the site is to reduce or eliminate the contaminants of concern in the soils to prevent further spread of contamination and to eliminate the source of contamination to the shallow aquifer.

SUMMARY OF ALTERNATIVES

The alternatives evaluated to address the remediation of subsurface soils at Site S-1 are discussed below. As indicated above, the site was separated into two remediation zones, the Sump Area and the Smear Zone. Many possible response actions were considered in developing the alternatives for each zone.

Sump Area Alternatives

Six alternatives were analyzed in detail for remediation of soils in the Sump Area. These alternatives are summarized in Table 2, which also includes the estimated time required to meet the established goals as well as conceptual cost estimates for each alternative.

Smear Zone Alternatives

Four alternatives were analyzed in detail for remediation of soils in the Smear Zone. These alternatives are summarized in Table 3, which also includes the estimated time required to meet the established goals as well as conceptual cost estimates for each alternative.

All alternatives assumed that the existing groundwater treatment system being used to control off-site migration of contaminated groundwater would remain operational and that all other institutional methods that prevent direct human contact with the contaminated soils would be continued.

Table 2
SUMP AREA ALTERNATIVES

Alternative	Technology	Time to Implement[1]	Cost[3]
1	No Action	Unknown[2]	$0
2	Monitored Natural Attenuation	Unknown[2]	$183,000
3	Capping	2 years	$281,000
4	Soil Vapor Extraction Wells	5 years	$508,000
5	Excavation and Off-site Disposal	< I year	$601,000
6	*Ex Situ* Biological Treatment	2 years	$728,000

1. Length of time to achieve remediation goals.
2. Expected to be on the order of decades.
3. Present worth value including capital costs and operating and maintenance costs, in 1998 dollars.

Table 3
SMEAR ZONE ALTERNATIVES

Alternative	Technology	Time to Implement[1]	Cost[3]
1	No Action	Unknown[2]	$0
2	Monitored Natural Attenuation	Unknown[2]	$183,000
3	Soil Vapor Extraction (SVE) Wells	5 years	$657,000
4	Dual Phase Groundwater Recovery and SVE	5 years	$756,000

1. Length of time to achieve remediation goals.
2. Expected to be on the order of decades.
3. Present worth value including capital costs and operating & maintenance costs, in 1998 dollars.

Description of Alternatives

The following paragraphs describe the alternatives evaluated for the interim stabilization of soils at Site S-1.

SUMP AREA:

Alternative 1: No Action

The "no action" alternative establishes a baseline for comparison. Under this alternative, the Air Force would take no action at the site to reduce or eliminate contaminants at Site S-1. Natural attenuation would occur over time but could not be considered an effective response without monitoring to prove that it is occurring. Local restrictions on groundwater use would remain in place, and there would be no health risk as long as no one has extended direct contact with the soils or uses the groundwater.

Alternative 2: Monitored Natural Attenuation

Under this alternative, contaminants naturally degrade and disperse over time and, eventually, concentrations would decrease to the remediation goals. Scheduled monitoring would be used to check the progress of natural attenuation and determine when the PRGs have been met.

Alternative 3: Capping

This alternative consists of placing an impermeable cap over the site. The cap would cover the area of contamination as well as an overlap around the perimeter of at least ten feet. The cap would reduce the amount of surface water that would leach into the contaminated soils and transport contaminants into the groundwater. A groundwater monitoring program also would be established to ensure that contaminants are not leaching into the groundwater.

Alternative 4: Soil Vapor Extraction (SVE)

This alternative consists of placing extraction wells at designated locations to extract contaminants from the subsurface soils in a gaseous state. This process allows movement of air in the subsurface and introduces additional oxygen into the soil to enhance biodegradation of contaminants. The removed gases are treated, if necessary, prior to release to the atmosphere. A monitoring program also would be established to evaluate the progress of the system.

Alternative 5: Excavation and Off-Site Disposal

This alternative consists of removing the contaminated soils and transporting them off-site to an approved disposal facility. Approximately 1,700 cubic yards of soil are estimated to require disposal at a Class I Landfill. Some soil may be required undergo a solidification process prior to disposal, to prevent contaminants from leaching into the groundwater beneath the landfill. The excavation will be backfilled with the uncontaminated soils that were removed, as well as additional clean fill as required.

Alternative 6: *Ex Situ* Biological Treatment

This alternative consists of establishing stockpiles of the contaminated soil at a designated location and injecting the soil with oxygen to enhance the biological degradation of the contaminants. The soil would be placed on treatment pads (preferably indoors) and covered. A monitoring program would be established to evaluate the progress of the remediation. Once the soil is remediated to acceptable levels, it would be disposed of at an approved landfill facility.

SMEAR ZONE:

Alternative 1: No Action

The "no action" alternative establishes a baseline for comparison. Under this alternative, the Air Force would take no action at the site to reduce or eliminate contaminants at Site S-1. Natural attenuation of contaminants would occur over time, but this could not be considered an effective response without monitoring to prove that contaminant degradation is occurring. Local restrictions on groundwater use would remain in place, and there would be no health risk as long as no one used the groundwater.

Alternative 2: Monitored Natural Attenuation

Under this alternative, contaminants naturally degrade and disperse over time and eventually concentrations would decrease to the remediation goals. Scheduled monitoring would be used to check the progress of natural attenuation and determine when the PRGs have been met.

Alternative 3: SVE

Extraction wells would be placed at designated locations to extract contaminants from the subsurface soil in a gaseous state, as well as introduce additional oxygen into the soil and enhance biodegradation. The removed gases would be treated if necessary prior to release to the atmosphere. A monitoring program also would be established to evaluate the progress of the system.

Alternative 4: Dual Phase Groundwater Recovery and SVE

This alternative would utilize groundwater extraction wells to remove the groundwater in conjunction with an SVE system as described in Alternative 3. The groundwater would be treated and disposed of through the existing groundwater treatment system. Use of pumping wells will lower the groundwater table and allow more of the smear zone to be exposed to the SVE treatment. The groundwater recovery wells also would be designed so they could readily be retrofitted to recover phase separated petroleum products, if necessary.

EVALUATION OF ALTERNATIVES

The EPA has established nine evaluation criteria in the RCRA/CERCLA process for evaluating remediation alternatives (Table 4). These criteria are explained below, along with discussions on how each was considered in the selection of a preferred alternative.

Table 4

EXPLANATION OF CERCLA AND RCRA EVALUATION CRITERIA

- **Overall Protection of Human Health and Environment** addresses whether or not a remedy provides adequate protection and describes how risks posed through each pathway are eliminated, reduced, or controlled through treatment, engineering controls or institutional controls.
- **Compliance with ARARs** addresses whether or not a remedy will meet all of the applicable or relevant and appropriate requirements of other federal and state environmental statutes and/or provides grounds for invoking a waiver.
- **Long-term effectiveness and permanence** refers to the magnitude of residual risk and the ability of a remedy to maintain reliable protection of human health and the environment over time once cleanup goals have been met.
- **Reduction of toxicity, mobility, or volume** through treatment is the anticipated performance of the treatment technologies that may be employed in a remedy.
- **Short-term effectiveness** refers to the speed with which the remedy achieves protection, as well as the remedy's potential to create adverse impacts on human health and the environment during the construction and implementation period.
- **Implementability** is the technical and administrative feasibility of a remedy, including the availability of materials and services needed to implement the chosen solution.
- **Cost** includes capital and operation and maintenance costs.
- **State acceptance** indicates whether, based on its review of the FS and Proposed Plan, the State concurs with, opposes, or has no comment on the preferred alternative.
- **Community acceptance** will be assessed in the Record of Decision following a review of the public comments received on the FS report and the Proposed Plan.

The preferred alternatives for treatment of subsurface soils at Site S-1 are Excavation and Off-Site Disposal of soils in the Sump Area and Dual Phase Groundwater Recovery and SVE in the Smear Zone. The excavation and off-site disposal alternative is readily implementable and will be effective in both the long and short term. The dual phase groundwater recovery and SVE system will reduce the overall risk to human health and the environment and achieve the established remediation goals.

Overall Protection. All alternatives provide some protection to human health because they include institutional methods to prevent exposure to the contaminants. Only Alternatives 4 through 6 for the sump area and 3 and 4 for the smear zone actively attempt to remediate the subsurface soils. All other alternatives rely on the existing groundwater treatment system to capture and remove contaminants from the groundwater and do not address the contaminants in the soil.

Compliance with Applicable or Relevant and Appropriate Requirements (ARARs). All alternatives would meet ARARs. Alternatives 1 through 3 in the sump area and 1 and 2 in the smear zone would meet ARARs as long as the existing groundwater treatment system remains in operation. However, alternatives 1 and 2 for both zones may not meet statewide ARARs for decades, when the groundwater concentrations of chlorobenzene, 1,2-dichlorobenzene, and 1,4-dichlorobenzene contaminants have naturally degraded to statewide acceptable levels.

Long-Term Effectiveness and Permanence. All of the alternatives would be effective in the long term because contaminant concentrations would be reduced over time, either through natural attenuation or through active treatment.

Reduction of Toxicity, Mobility, or Volume (TMV) through Treatment. Alternatives 1 and 2 for both zones do not include active treatment. Although contaminants would naturally attenuate, the rate and degree of attenuation are unknown at this time. Alternatives 3 through 6 at the sump area and alternatives 3 and 4 in the smear zone would actively reduce the contaminant levels with an expected efficiency level of at least 80%. Reducing the toxicity, mobility, and volume of the contaminants in the soil serves to eliminate it as an on-going source of groundwater contamination.

Short-Term Effectiveness. Significant impacts on workers, the community, or the environment during cleanup would not be expected for any of the alternatives. Alternatives 1 and 2 for both zones provide no short-term impacts on workers because there is no remedial construction. These alternatives would require a significantly greater length of time than the other alternatives to meet the remedial action goals and to reduce the impact to groundwater. During this time period, the contaminated soil would continue to be a source of groundwater contamination. Alternatives 4, 5, and 6

for the Sump Area and 3 and 4 for the Smear Zone would achieve the remediation objectives within approximately five years by treating or removing the contaminated soil. Alternatives 5 and 6 for the sump area pose some short-term health related risks to the construction workers, but these risks will be minimized through the use of air monitoring and emission control devices.

Implementability. None of the alternatives proposed at either of the zones are anticipated to encounter any technical or administrative problems in implementing the technologies.

Cost. Estimated costs are provided in Tables 2 and 3. The costs of all active remediation alternatives are within an order of magnitude of one another.

State Acceptance. The State of Texas strongly supports any action that would control and mitigate the contaminant levels at Kelly AFB. The State of Texas has been involved in all aspects of the development of the Site S-1 Soil FFS.

Community Acceptance. Community acceptance of the preferred alternative will be evaluated after the public comment period ends.

SUMMARY OF THE PREFERRED ALTERNATIVES

The preferred alternatives for treatment of subsurface soils at Site S-1 are Excavation and Off-Site Disposal of soils in the Sump Area and Dual Phase Groundwater Recovery and SVE in the Smear Zone.

Alternative 5 for the Sump Area consists of excavation of the contaminated soils and off-site disposal at an approved landfill facility. This alternative would be readily implementable, would comply with ARARs, be effective in the long and short term, and effectively reduce TMV.

Alternative 4 for the Smear Zone is the preferred alternative because it will lower the level of the water table at Site S-1 by removing the groundwater through pumping. The removed groundwater will be treated at the existing groundwater treatment facility. Lowering the water table to beneath the smear zone will allow more vapor extraction and biodegradation activity to take place in the soil. This alternative would be readily implementable, would comply with ARARs, be effective in the long and short term, and effectively reduce TMV.

In summary, Alternative 5 for the Sump Area and Alternative 4 for the Smear Zone would best achieve the remedial action objectives for the soils at Site S-1.

THE COMMUNITY'S ROLE IN THE SELECTION PROCESS

The Air Force is soliciting input from the community on the method proposed to remediate soils at Site S-1. A public comment period will run from **28 December 1998 to 28 January 1999,** to encourage public participation in the selection process. To submit written comments or obtain further information, contact:

Mr. Dick Walters
SA-ALC/PAE
807 Buckner, Suite 1
Kelly AFB, TX 78241-5892
(210) 925-1815

GLOSSARY

Applicable or Relevant and Appropriate Requirements (ARARs)- The federal and state requirements with which a selected remedy must comply. The requirements may vary among sites and alternatives.

Aquifer- Saturated zone beneath the earth's surface capable of producing water, as from a well.

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)- The federal law that addresses problems resulting from releases of hazardous substances to the environment, primarily at inactive sites.

Contaminants- harmful chemicals present in the environment that are not naturally occurring.

Ex Situ- Out of place; with respect to cleanup, refers to removing contaminated material from its original location and then treating it.

Groundwater- Underground water that fills pores in soil or openings in rocks to the point of saturation. Groundwater is often used as a source of drinking water via municipal or domestic wells.

Monitored Natural Attenuation- The use of natural processes to achieve cleanup goals without human intervention. An example is naturally occurring biodegradation (the breakdown of chemical compounds by native bacteria).

Monitoring- Ongoing collection of information about the environment that helps to determine the effectiveness of a cleanup action.

National Priorities List (NPL)- EPA's list of waste sites targeted for priority cleanup under Superfund.

Preliminary Remediation Goals (PRGs)- acceptable concentrations for contaminants of concern under the relevant exposure settings.

Proposed Plan- Public document that summarizes the analysis of cleanup options.

Resource Conservation and Recovery Act (RCRA) – The federal law establishing a federal regulatory program for controlling hazardous waste and establishing waste management techniques.

Soil Vapor Extraction (SVE)- A treatment method that extracts contaminants in their gaseous states by means of a vacuum system. The extracted air is then treated as necessary, prior to release to the atmosphere.

TMV – Acronym used to refer to the toxicity, mobility, and volume of a waste or a contaminant.

Texas Natural Resource Conservation Commission (TNRCC) – Environmental regulatory agency for the state of Texas.

Kelly Air Force Base Installation Restoration Program

Site S-1 Fact Sheet

December 1998

A fact sheet providing information about cleanup activities at Site S-1 in Zone 5

The purpose of this fact sheet is to describe the proposed plan for interim remedial action at Site S-1. The plan is being delivered under both the Resource Conservation and Recovery Act (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), also known as Superfund.
Although Kelly Air Force Base is not a Superfund site, the base has proposed a cleanup plan under CERCLA regulations on a voluntary basis. The following information discusses the cleanup plan and recommendations for remedial action for contaminated soil at Site S-1. The plan pertains only to remedial actions performed on the soil portion of the site.

Site S-1 History

Site S-1 was the former location of an intermediate storage area for wastes on their way to off-base recycling or disposal facilities. Wastes were stored at this location from the 1960s until 1973. Wastes stored at this site include carbon cleaning compounds and petroleum, oil and lubricants. Surplus electrical transformers were also stored at the site over a period of time. Waste management and disposal activities are believed to have caused contamination in an area referred to as the "sump area." The sump area was formerly a localized depression where leaks, spills or rainwater would collect and which may subsequently have been backfilled.

Soil Contamination

The primary contaminant of concern at Site S-1 is chlorobenzene. The highest concentrations of chlorobenzene were detected in samples taken from what is referred to as the former sump area. The soil contamination was separated into two zones at Site S-1 due to the different types of soils and varying contaminant concentrations. Chlorobenzene contamination was encountered at high concentrations in the sump area; however, it was more widespread in the "smear" zone (the depth at which the water table fluctuates and spreads the contamination through the soil). Treating the sump area separate from the smear zone will allow for the selection of more effective remediation alternatives.

Scope of Action

The contamination in the soils underlying the site does not pose a risk to human health; although, there is a possibility these contaminants may be leaching into and contaminating the shallow groundwater aquifer. The goal of the proposed action is to reduce or eliminate the contaminants in the soil and eliminate the possibility of contaminating the shallow groundwater aquifer.

Sump Area Alternatives

Six alternatives were analyzed for the sump area: capping, Soil Vapor Extraction (SVE) wells, excavation and off-site disposal, monitored natural attenuation and no action. Ex situ biological treatment, which is the process of stockpiling the contaminated soil and injecting it with oxygen to enhance the natural breakdown of the contaminants, was also considered as a remediation alternative.

Excavation and off-site disposal was chosen as the remedial action for the sump area. The estimated time of implementation is one year and will cost about $601,000. This alternative consists of removing the contaminated soil and transporting it off site to an approved disposal facility. Approximately 1,700 cubic yards of soil will be disposed of at a landfill authorized to accept and dispose of contaminated soil. The excavation will be backfilled with uncontaminated soil, as well as additional clean fill as required.

Smear Zone Alternatives

Four alternatives were analyzed for smear zone remedial action: Soil Vapor Extraction (SVE), dual phase groundwater recovery and SVE, monitored natural attenuation and no action.

Dual phase groundwater recovery and SVE was chosen as the most appropriate remediation alternative for the Smear Zone. The estimated time of implementation is five years and will cost about $756,000. This alternative would utilize groundwater in conjunction with a SVE system. SVE is a process by which contaminants are extracted from the soil in their gaseous state. The groundwater would be treated and disposed of through the existing groundwater treatment system.

CERCLA Requirements

The chosen remediation processes for both the sump area and smear zone meet CERCLA and RCRA requirements for closure. CERCLA requires the remediation processes to effectively reduce the toxicity, mobility and volume of contaminants at the site. Toxicity is the level at which a contaminant causes harmful effects to human health and the environment. Mobility is the rate at which a contaminant travels through a medium, such as soil or water, and volume stands for the amount of a substance in a given area. All three requirements will be met through the remediation processes given for both the sump area and smear zone.

MARK DAMIAN SANDOVAL
515 HOOVER STREET
SAN ANTONIO, TEXAS 78225
(210) 924-4952

November 18, 1998

Brigadier General Robert Murdock

Installation Co-chair

Board Members

Kelly Air Force Base Restoration Advisory Board

Subject: Resignation as Community Co-chair of Kelly AFB Restoration Advisory Board (RAB)

Dear Gen Murdock and Fellow RAB Members:

Effective immediately, I resign as the Community Co-chair of the Kelly Air Force Base Restoration Advisory Board (RAB)

A few weeks ago, at the RAB meeting held October 25, 1998, I advised you that I had begun employment with a company that is under contract to the Air Force for environmental consulting services. After I explained that my personal responsibilities do not include work at Kelly AFB, the RAB community members present voted that I stay on as community Co-chair until the next election in January. I was very gratified to receive that expression of confidence from my RAB colleagues. Nevertheless, after spending many more hours of introspection regarding the possibility of a perceived conflict of interest, I have decided to resign as your co-chair. I have come to the conclusion that my resignation would be in the best interest of all parties.

I am proud of the great strides the RAB has made in the past year in breaking communication and perception barriers between the community and the Air Force. The teamwork has empowered the RAB to conduct effective meetings, develop and ratify a new RAB charter, identify, solicit and obtain a Technical Assistance for Public Participation (TAPP) Grant for restoration efforts at Kelly Air Force Base.

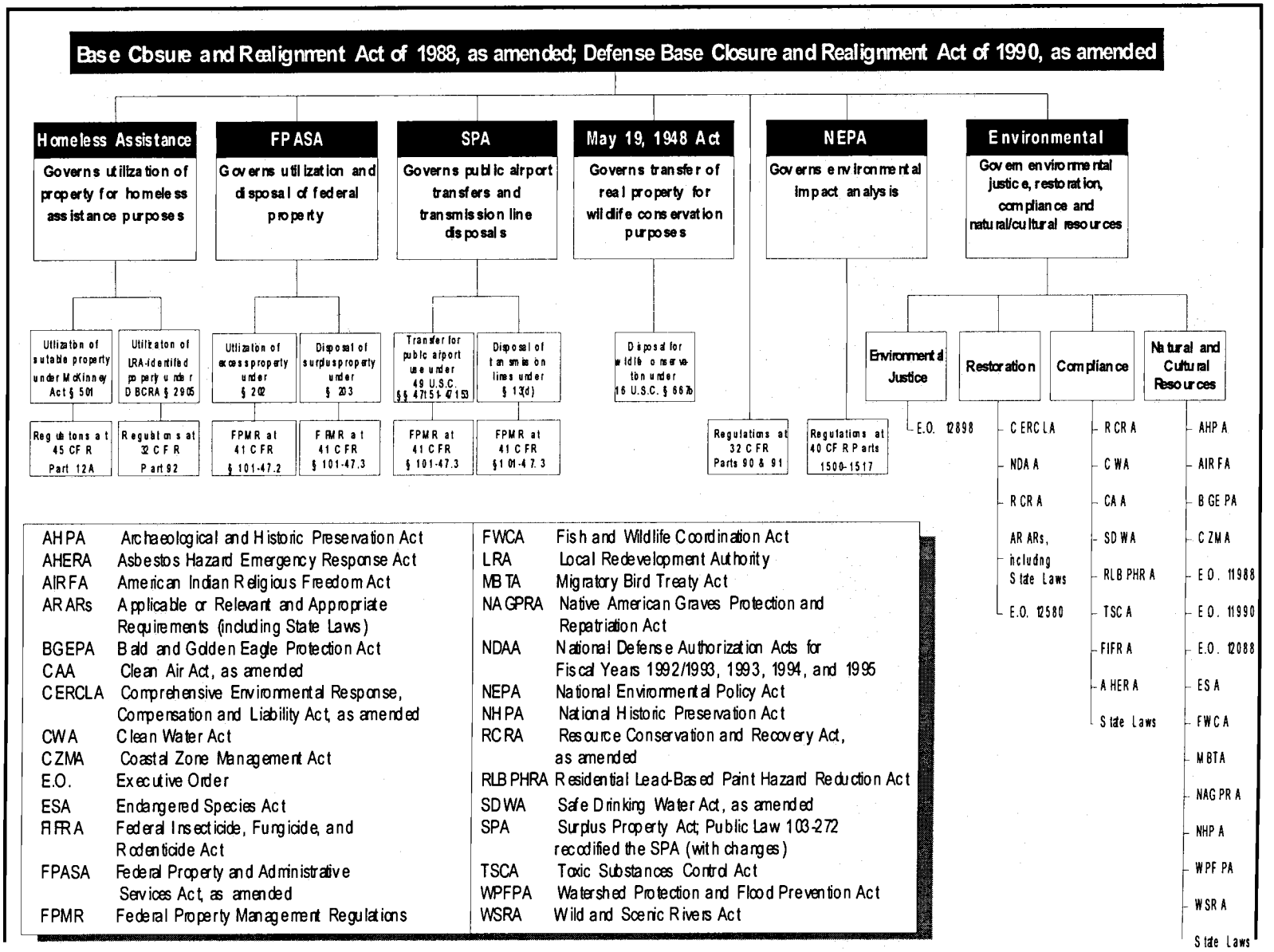
So for now, I would like to thank each and every one of you for your hard work, efforts and commitment to the process. I will be leaving with a heavy heart, but consoled that the hard work by all will continue during the final stages of restoration and property transfer at Kelly Air force Base.

Take care and God Bless,

Sincerely,

Mark Damian Sandoval

Key Laws and Regulations Affecting Base Conversion



AHPA	Archaeological and Historic Preservation Act
AHERA	Asbestos Hazard Emergency Response Act
AIRFA	American Indian Religious Freedom Act
ARARs	Applicable or Relevant and Appropriate Requirements (including State Laws)
BGEPA	Bald and Golden Eagle Protection Act
CAA	Clean Air Act, as amended
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act, as amended
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
E.O.	Executive Order
ESA	Endangered Species Act
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FPASA	Federal Property and Administrative Services Act, as amended
FPMR	Federal Property Management Regulations
FWCA	Fish and Wildlife Coordination Act
LRA	Local Redevelopment Authority
MBTA	Migratory Bird Treaty Act
NAGPRA	Native American Graves Protection and Repatriation Act
NDAA	National Defense Authorization Acts for Fiscal Years 1992/1993, 1993, 1994, and 1995
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
RCRA	Resource Conservation and Recovery Act, as amended
RLBPHRA	Residential Lead-Based Paint Hazard Reduction Act
SDWA	Safe Drinking Water Act, as amended
SPA	Surplus Property Act; Public Law 103-272 recodified the SPA (with changes)
TSCA	Toxic Substances Control Act
WPFPA	Watershed Protection and Flood Prevention Act
WSRA	Wild and Scenic Rivers Act

FINAL PAGE

ADMINISTRATIVE RECORD

FINAL PAGE