

***Air Force Real Property Agency***  
***Air Force Center for Environmental Excellence***

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***Integrity - Service - Excellence***

**Williams AFB Restoration  
Advisory Board**



**04 November 2003**

**Arizona State University East Campus Union**

**7001 E. Williams Field Road #330**

**Mesa, AZ**

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# *Agenda*

<b>I</b>	<ul style="list-style-type: none"><li>■ RAB meeting convenes at 7:00 p.m.</li><li>■ Welcome &amp; Introductions</li><li>■ Meeting Goals</li></ul>	<b>Mr. Bill Lopp</b>
<b>II</b>	<ul style="list-style-type: none"><li>■ Community Co-Chair Welcome</li></ul>	<b>Mr. Len Fuchs</b>
<b>III</b>	<ul style="list-style-type: none"><li>■ Update on Williams Cleanup Program</li></ul>	<b>Mr. Bill Lopp</b>
<b>IV</b>	<ul style="list-style-type: none"><li>■ Overview of above ground treatment system for thermal enhanced extraction</li></ul>	<b>Dr. Bo Stewart</b>
<b>V</b>	<ul style="list-style-type: none"><li>■ Old Business<ul style="list-style-type: none"><li>- Questions from last RAB</li><li>- Charter Subcommittee report</li><li>- Website</li><li>- RAB tour of cleanup sites</li><li>- Information Repository</li></ul></li></ul>	<b>Mr. Lopp</b> <b>Mr. Doug Karas</b>



# ***Agenda (Contd.)***

<b>V</b>	<b>■ Old Business (contd.)</b> <ul style="list-style-type: none"><li>- Technical Assistance for Public Participation (TAPP) Program</li><li>- Health/human impact from cleanup sites</li></ul>	<b>Mr. Lopp Mr. Doug Karas</b>
<b>VI</b>	<b>■ Meeting Wrap-Up</b> <ul style="list-style-type: none"><li>- Review of next meeting action items</li><li>- Call for next meeting agenda items</li><li>- Next meeting proposed for Tuesday, February 3, 2004 – 7:00 to 9:00 p.m.</li></ul>	<b>Mr. Lopp</b>
<b>VII</b>	<b>■ Adjourn at 9:00 p.m.</b>	<b>Mr. Lopp</b>



# *Welcome & Introductions*

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## ■ **Former Williams AFB BRAC Cleanup Team**

- Mr. William Lopp, AFRPA BEC
- Mr. Mike Wolfram, RPM USEPA Region 9
- Mr. Frank Smaila, RPM ADEQ

## ■ **Air Force Real Property Agency**

- Mr. Doug Karas, Community Relations



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# ***Meeting Goals***

- **Update on Williams cleanup program**
- **Provide TEE cleanup system overview**
- **Answer questions from last RAB**
- **Report progress on Charter**
- **Website progress**
- **Schedule additional tours of cleanup sites**



# *Welcome to RAB members*

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Presented by Mr. Len Fuchs,  
RAB Co-Chairman

## ■ **Community Co-Chair Welcome**



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# *Update on Williams Cleanup*

Presented by Mr. Bill Lopp,  
BEC



# *Update on Williams Cleanup (Contd.)*

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- **Work completed in FY03 includes:**
  - Conceptual Site Model for the former fuel storage area (ST012)
  - Engineering design of the thermal enhanced extraction system
  - Ongoing groundwater monitoring at:
    - Former pesticide/paint storage area (SS017)
    - Landfill 4 (LF004)
    - Former fuel storage area (ST012)
    - Former base service station (Bldg 760)



# *Update on Williams Cleanup (Contd.)*

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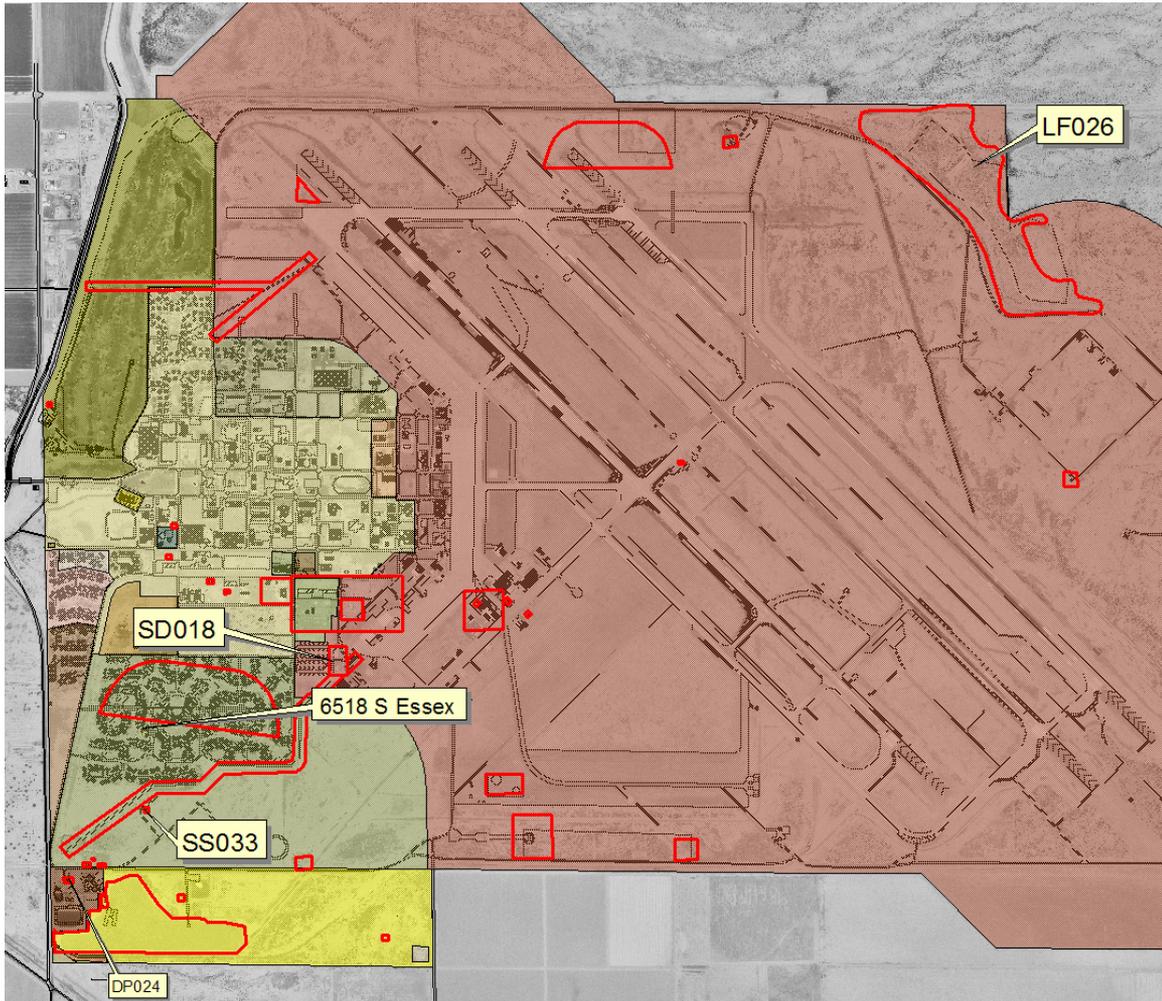
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- **FY04 Cleanup Program Validated**
  - Thermal Enhanced Remedial Action at Site ST012 (Former Fuel Storage Area)
  - Long Term Monitoring at Former Landfill 4, Base Service Station, and Pesticide/Paint Storage
  - Bullet Fragment Removal
- **Availability of funds contingent on passage of a Department of Defense appropriations bill**
- **Current work is proceeding under contracts awarded in FY03**



# Update on Williams Cleanup (Contd.)

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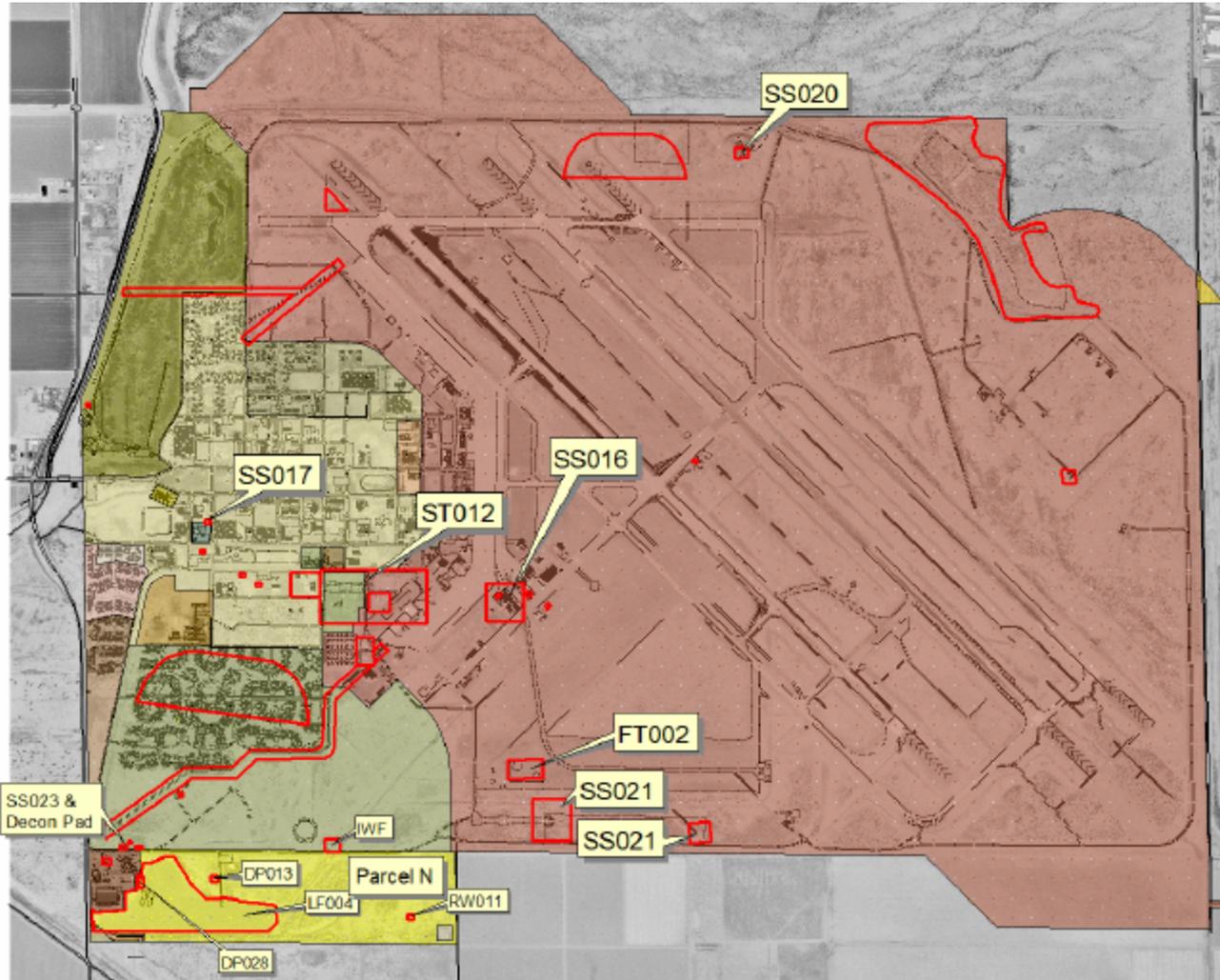


Property Transfer:  
Properties for  
transfer in January  
2004



# Update on Williams Cleanup (Contd.)

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Property Transfer:  
Remaining  
properties for  
transfer



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# ***TEE cleanup system overview***

Presented by Dr. Bo Stewart,  
Praxis Engineering

- **Thermal Enhanced Extraction (TEE) Above Ground Treatment System**

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**ST012 Thermal  
Enhanced Extraction**



**Aboveground Systems**

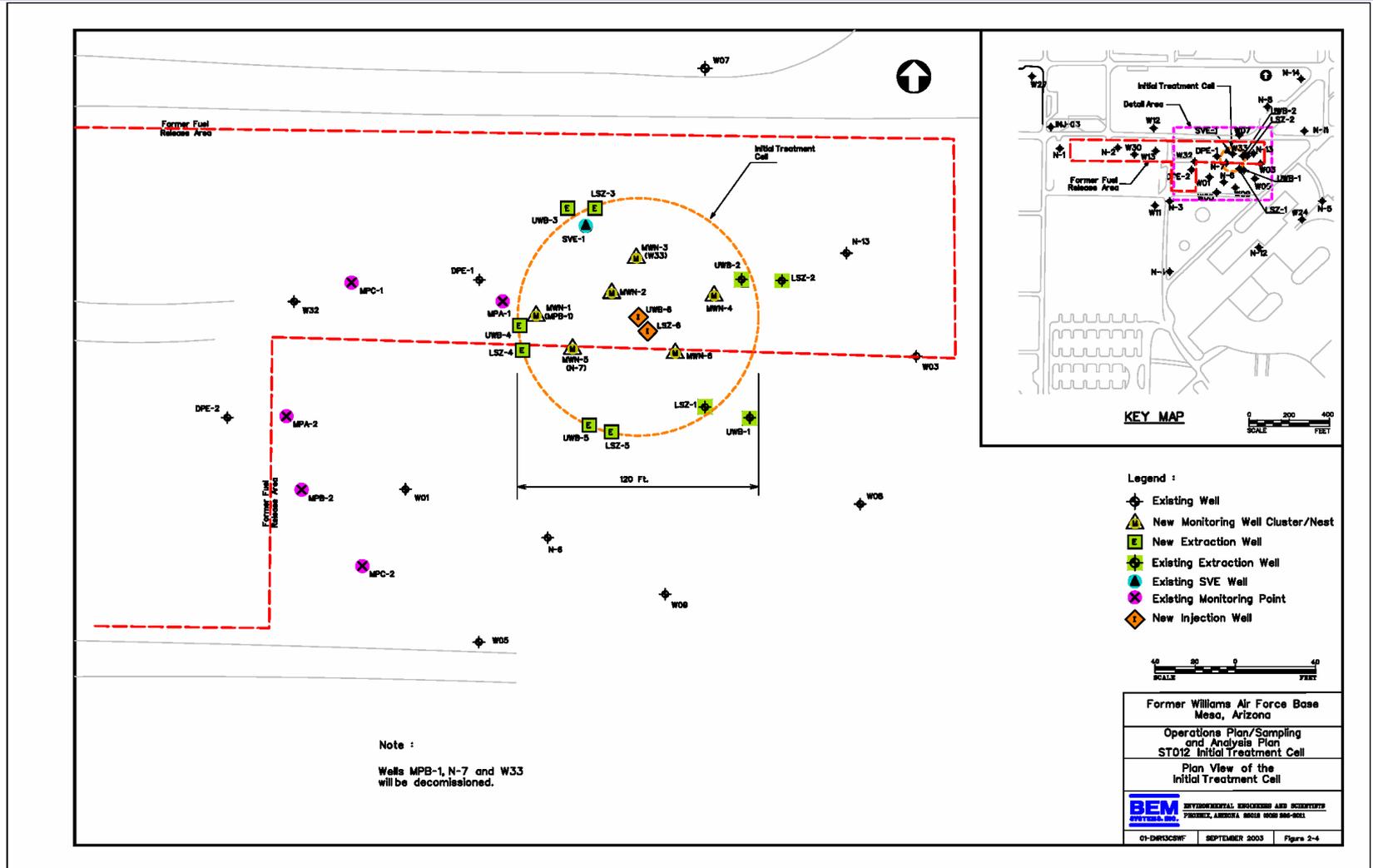
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# Site Map

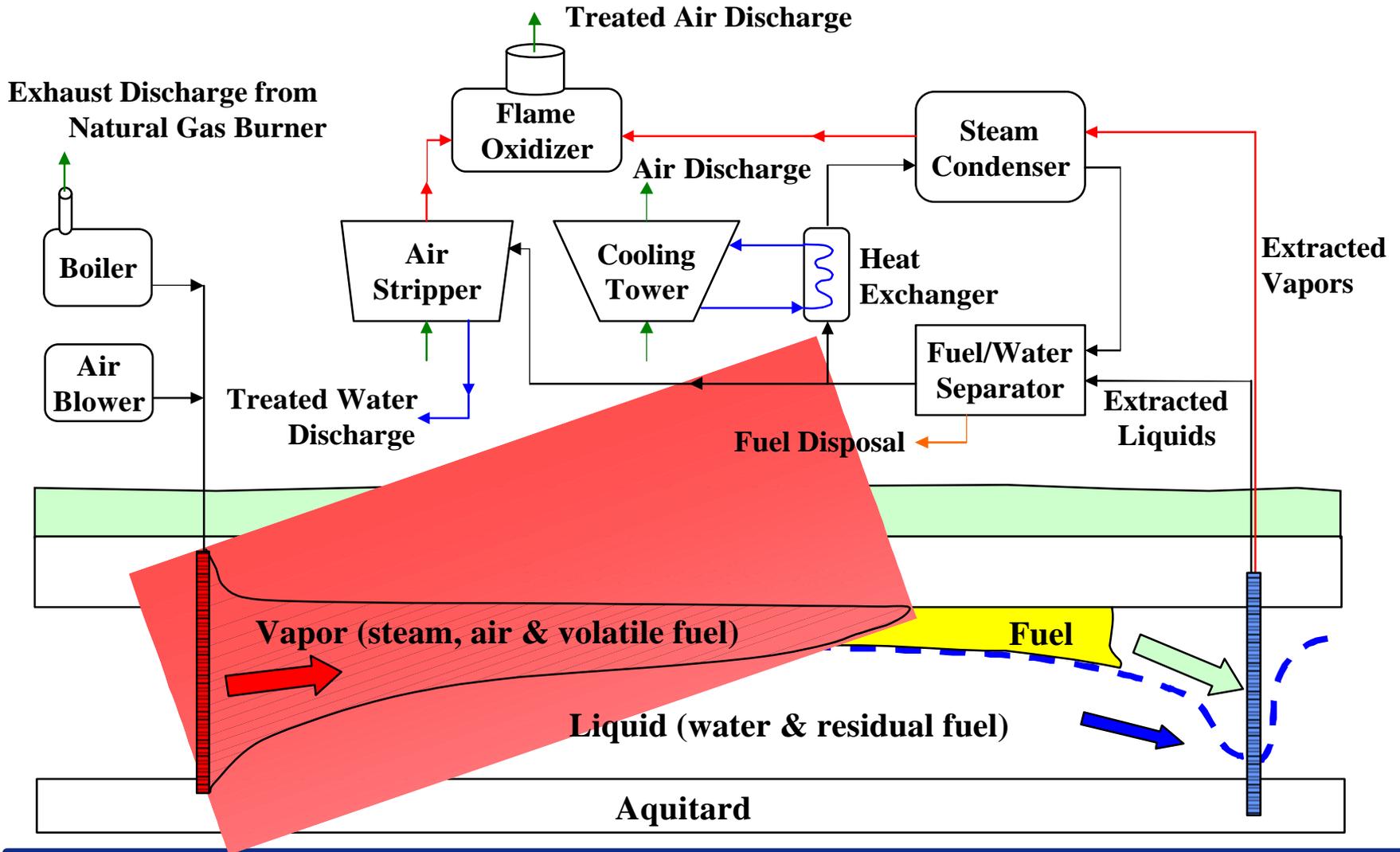


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# TEE Process Flow Diagram

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# ***Operational Discharges and Emissions***

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- **Vapor Emissions to Atmosphere**
  - **Boiler Natural Gas Burner Exhaust**
  - **Treated Air from Flame Oxidizer**
  - **Cooling Tower Exhaust**
- **Treated Water Discharge from Air Stripper**
- **Fuel to Disposal from Oil / Water Separator**
- **Noise**

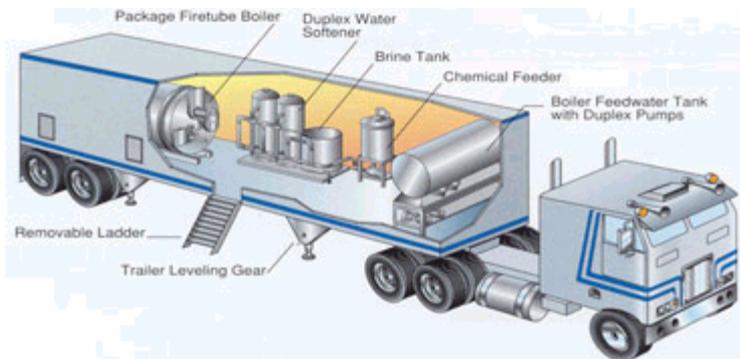


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# **Boiler**



- **Boiler will generate steam for soil heating**
- **Natural gas will be burned to create steam**
- **Similar to a mid-size school or hospital boiler**
- **The boiler discharge complies with Maricopa County Air Pollution Control Regulations and EPA requirements.**





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# *Vapor Treatment*



- **Flame Oxidizers will be used to burn fuel vapors extracted from the ground**
- **Over 99% of fuel vapors entering the unit will be destroyed**
- **Up to 700 pounds per hour (pph) of fuel will enter the unit**
- **The 99% treatment efficiency exceeds applicable Maricopa County Air Pollution Control Regulations**



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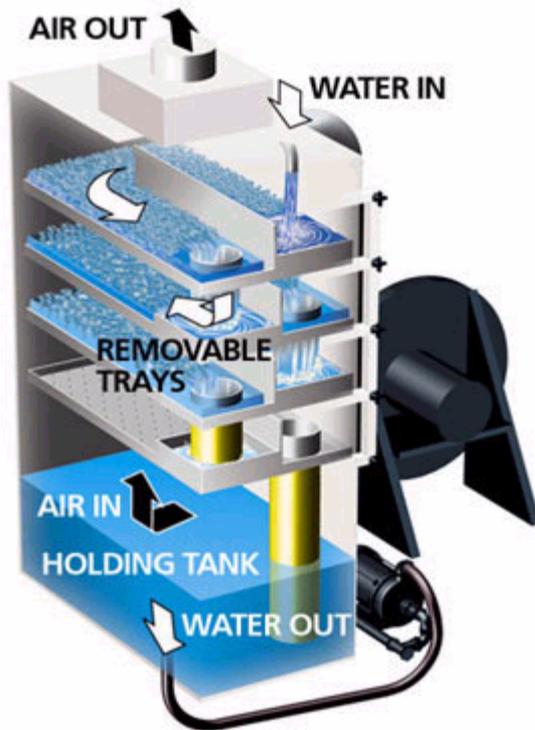
# ***Fuel Disposal***



- Liquids (i.e., groundwater and fuel) pumped from the site will pass through an fuel / water separator
- Contaminated groundwater will be sent to an air stripper for treatment
- Separated fuel will be trucked off site for recycling



# Water Treatment



- Contaminated groundwater from the fuel / water separator will be sent to an air stripper
- Water will trickle down by gravity through trays while air blows upward
- Air will strip contaminants from the water
- Contaminated air will be sent to the Flame Oxidizer for treatment
- Treated water meeting City of Mesa contaminant requirements will be discharged to the sanitary sewer system at a maximum rate of 50 gallons per minute



# ***Noise Emissions***

- **Significant noise emissions are associated with:**
  - **Air compressors**
  - **Boiler**
  - **Injection air blower**
  - **Cooling tower blower**
  - **Air stripper blower**
  - **Flame oxidizers**
- **Calculated noise emissions do not exceed 70 dB at the fence line in accordance with City of Mesa, Title IV, Chapter 12, Section 6-12-5(D3).**
- **Noise monitoring will be conducted at the fence line during system startup testing and operation.**
- **If noise levels at the fence line exceed 70 dB, shielding and other engineering controls will be installed to reduce noise levels.**



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# ***Site Safety & Security***

- **Strict access control**
- **Fencing and security lighting will surround the site**
- **24-hour / 7-day per week technical presence when boiler is operational**



- **Questions from last RAB**
- **Charter Subcommittee report**
- **Website**
- **RAB tour of cleanup sites**
- **Information Repository**
- **Technical Assistance for Public Participation (TAPP) Program**
- **Health/human impact from cleanup sites**



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# ***Meeting Wrap-Up***

- **Review action Items for next meeting**
- **Agenda Items for Next Meeting**
- **Next RAB Meeting proposed for Tuesday, 03 Feb 04; 7:00 – 9:00 p.m.**