APPENDIX J
CONCEPTUAL SITE MODEL
## CONCEPTUAL SITE MODEL – MUNITIONS AND EXPLOSIVES OF CONCERN
### Hammond Bombing and Gunnery Range
#### Tangipahoa Parish, Louisiana

<table>
<thead>
<tr>
<th>Subsite/Range</th>
<th>Acreage*</th>
<th>Suspect Past DoD Activities</th>
<th>Potential MEC Presence</th>
<th>MD/MEC Found Since Closure</th>
<th>Previous Investigation/Clearance Actions</th>
<th>Post-DoD Land Use and Current Land Use</th>
<th>Potential Receptors</th>
<th>Potential Source and Receptor Interaction</th>
<th>Field Sampling/Qualitative Reconnaissance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BOMB TARGET #1</strong> (Bomb Target A)</td>
<td>649</td>
<td>Practice bombing</td>
<td>Bomb, 100-lb., General Purpose, AN-M30 (1)</td>
<td>Small pieces of WWII era HE bomb fragments (2)</td>
<td>INPR Site Visit, 1995 (3)</td>
<td>Forestry and recreation (4)</td>
<td>Commercial/industrial workers, recreational users and site visitors</td>
<td>YES</td>
<td>Presence of potentially hazardous MEC is confirmed or suspected and site is accessible to receptors</td>
</tr>
<tr>
<td><strong>MULTIPLE USE TARGET</strong></td>
<td>649</td>
<td>Practice bombing, and aircraft rocket and gunnery practice</td>
<td>Bomb, 100-lb., practice, M38A2 (1)</td>
<td>Numerous pieces of rusted M18 bombs, portions of M1A1 spotting charges, and expended .50 caliber projectiles (2)</td>
<td>INPR Site Visit, 1995 (3)</td>
<td>Residential, forestry, and recreation (4)</td>
<td>Residents, commercial/industrial workers, recreational users and site visitors</td>
<td>YES</td>
<td>Presence of potentially hazardous MEC is confirmed or suspected and site is accessible to receptors</td>
</tr>
<tr>
<td><strong>BOMB TARGET #2</strong> (Bomb Target B)</td>
<td>3,108</td>
<td>Practice bombing</td>
<td>Bomb, 100-lb., practice, M38A2 (1)</td>
<td>Sand-filled bomb MD, tail fins, suspension lug bands and parts of M1A1 spotting charges (2)</td>
<td>INPR Site Visit, 1995 (3)</td>
<td>Forestry and recreation (4)</td>
<td>Commercial/industrial workers, recreational users and site visitors</td>
<td>YES</td>
<td>Presence of potentially hazardous MEC is confirmed or suspected and site is accessible to receptors</td>
</tr>
<tr>
<td><strong>RIFLE RANGE</strong></td>
<td>999</td>
<td>Small arms training</td>
<td>Small arms ammunition, general (2, 3)</td>
<td>Expended .30 caliber projectiles (2)</td>
<td>INPR Site Visit, 1995 (3)</td>
<td>Residential, forestry, and recreation (4)</td>
<td>Residents, commercial/industrial workers, recreational users and site visitors</td>
<td>NO</td>
<td>Potential presence of small arms ammunition only, though site is accessible to receptors</td>
</tr>
<tr>
<td><strong>GUNNERY RANGE</strong></td>
<td>640</td>
<td>Aircraft gunnery practice</td>
<td>Small arms ammunition, .50 cal, machinegun (2)</td>
<td>None</td>
<td>INPR Site Visit, 1995 (3)</td>
<td>Residential, forestry, and recreation (4)</td>
<td>Residents, commercial/industrial workers, recreational users and site visitors</td>
<td>NO</td>
<td>Potential presence of small arms ammunition only, though site is accessible to receptors</td>
</tr>
<tr>
<td><strong>REMAINING LAND</strong></td>
<td>N/A</td>
<td>Non range-related areas</td>
<td>N/A</td>
<td>Expended .50 caliber projectile (2)</td>
<td>N/A</td>
<td>Residential, forestry, and recreation (4)</td>
<td>Residents, commercial/industrial workers, recreational users and site visitors</td>
<td>NO</td>
<td>Potential presence of small arms ammunition only, though site is accessible to receptors</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>31,112</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Number represents actual acreage for each individual subsite/range and includes area outside the project boundary. Total acreage, accounts for overlap of subsites/ranges and is limited to the project boundaries.

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**Source**
1 = INPR (1996)
2 = ASR (2003)
3 = ASR Supplement (2004)

**INPR = Inventory Project Report**
**ASR = Archives Search Report**
**DoD = Department of Defense**
**HE = High explosive**
**MD = Munitions Debris**
**MEC = Munitions and Explosives of Concern**
**MIS = Multi-Incremental Sample**
**QR = Qualitative Reconnaissance**
**SI = Site Inspection**
**TBD = To be determined**
**AOI = Area of Interest**
CONCEPTUAL SITE EXPOSURE MODEL

MRS Name: BOMB TARGET #2 MRS03, HAMMOND BOMBING AND GUNNERY RANGE

Completed By: Liz Murrell, PARSONS  Date Completed: December 9, 2008

SOURCE

PRIMARY SOURCE

SOURCE MEDIA

- Munitions
- Constituents

- Soil

MC Detection:
No MC metals > Background
No explosives detected

EXPOSED MEDIA

- Surf. Water/Sediments
- Surface Soil (0-2 ft)
- Subsurface Soil (2-15 ft)
- Groundwater

RELEASE MECHANISM

- Uptake by Biota
- Erosion/Runoff
- Leaching

EXPOSURE MECHANISM

EXPOSURE ROUTES

- Ingestion as DW
- Incidental Ingestion
- Dermal Contact
- Inhalation (Dust)

HUMAN & ECOLOGICAL RECEPTORS

CURRENT/FUTURE

- Residents
- Construction Workers
- Commercial or Indust. Workers
- Visitors or Rec. Users
- Ecological Receptors

FUTURE

- Residents
- Workers

Pathway not present (w/ reason)

Complete Pathway
Incomplete Pathway
Potentially Complete Pathway, Not Quantitatively Assessed
Receptor Not Present
CONCEPTUAL SITE EXPOSURE MODEL

MRS Name: RIFLE RANGE MRS04, HAMMOND BOMBING AND GUNNERY RANGE

Completed By: Liz Murrell, PARSONS  Date Completed: December 9, 2008

SOURCE

PRIMARY SOURCE

SOURCE MEDIA

- Surf. Water/ Sediments
- Soil

INTERACTION

RELEASE MECHANISM

- Uptake by Biota
- Erosion/ Runoff

EXPOSURE MEDIA

- Surf. Water/ Sediments
- Surface Soil (0-2 ft)
- Subsurface Soil (2-15 ft)
- Groundwater

EXPOSURE ROUTES

- Ingestion as DW
- Incidental Ingestion
- Dermal Contact
- Inhalation (Dust)

RECEPTORS

HUMAN & ECOLOGICAL RECEPTORS

CURRENT/FUTURE

No source of biota for human ingestion

No direct release

Munitions Constituents

MC Detection: No MC metals > Background
No explosives detected

Pathway not present (w/ reason)

MC Detection: No MC metals > Background
No explosives or perchlorate detected

HUMAN RECEPTORS

 Residents

 Construction Workers

 Ecological Receptors

 Ecological Residents

 Ecological Workers

 Visitor or Rec. Users

 Commercial or Indus. Workers

 FUTURE

No MC metals > Background
No explosives or perchlorate detected

- Complete Pathway
- Incomplete Pathway
- Potentially Complete Pathway, Not Quantitatively Assessed
- Receptor Not Present