Bear Creek Burial Grounds Focused Feasibility Study and Proposed Plan

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April 9, 2008

Burial Ground Operations

- **Operated from 1955-1993**
- **Received waste from Y-12,ORNL,K-25 and other sources**
- **Primarily uranium metal turnings and fines and industrial wastes contaminated with uranium; other important waste constituents include thorium, technetium, beryllium, metals, and asbestos**
- **Liquid industrial wastes, acids, bases, waste oils, coolants and solvents**
- **Compounds constituting a potentially shock sensitive hazard disposed in Walk in Pits**

Photo of burial grounds in operation

Photo of burial grounds in operation

Burial Grounds Closure

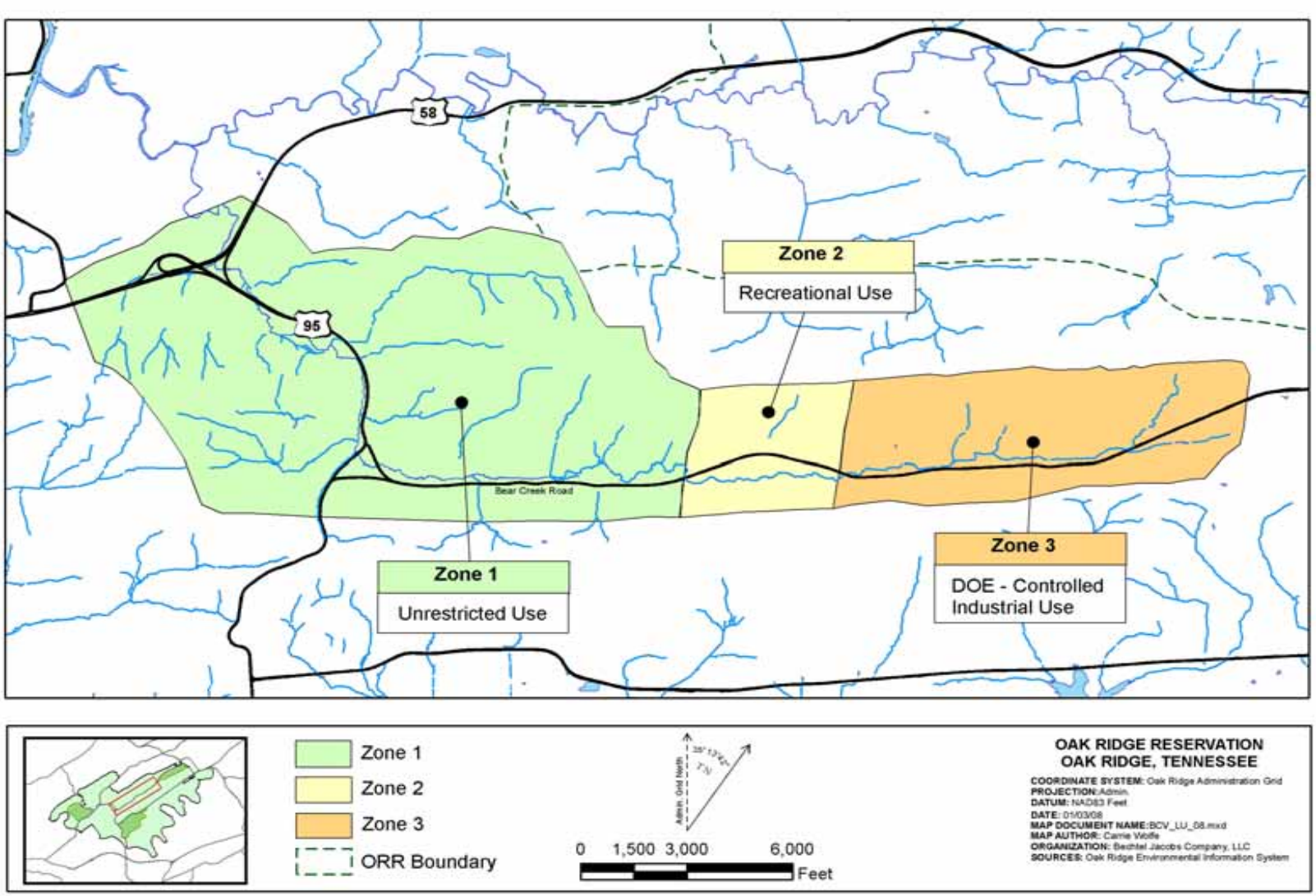
Burial Grounds Closure

Burial Grounds Today

Chronology of CERCLA events in Bear Creek Valley

- **1983-1990 – RCRA site closures in BCV – S-3 Ponds, OLF,BCBG units A (N&S), C-west, walk in pits and oil retention ponds**
- **November 21, 1992 – FFA signed**
- **1992-1996 – 12 CERCLA Operable units identified at Y-12**
- **1996-1998 Watershed approach for Bear Creek Valley**
- **1998 – Bear Creek Valley Phase 1 ROD**
- **2008 – Phase 2 Focused Feasibility Study & Proposed Plan for Bear Creek Burial Grounds**

Bear Creek Valley Land Use



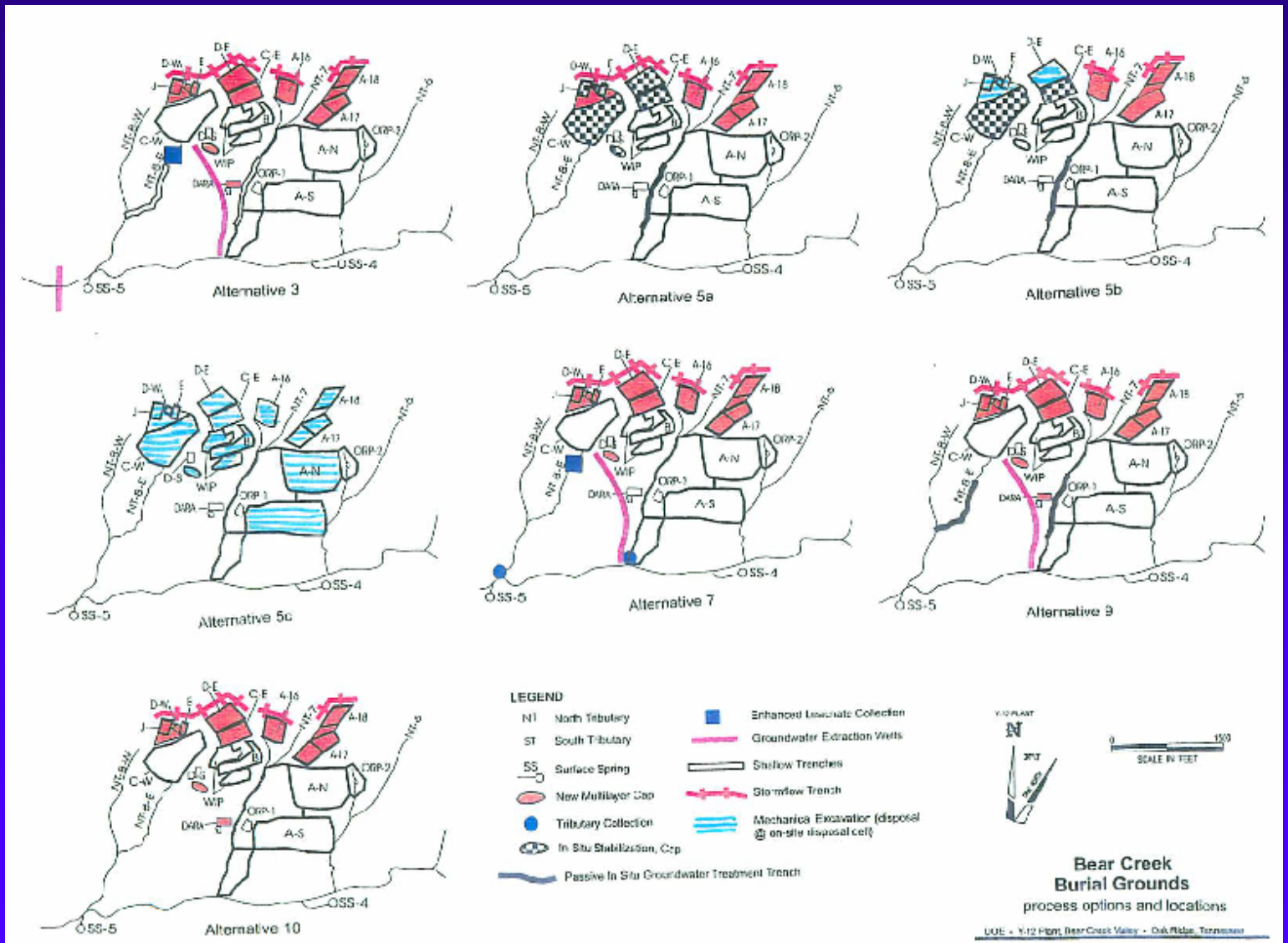
Remedy Alternatives

- **Alt 3 – Capping and aggressive SW diversion and GW collection and treatment**
- **Alt 5 – Capping and/or removal, in-situ treatment of waste, SW diversion and passive in-situ treatment of GW**
- **Alt 7 – Capping, GW and SW collection & treatment**
- **Alt 9 – Capping, SW diversion and GW mass reduction**
- **Alt 10 – Capping and SW diversion**

Remedy Alternatives

- **Alt 5a – Capping, in-situ waste treatment, SW diversion and GW passive in-situ treatment**
- **Alt 5b – Capping, excavation, in-situ treatment of waste, SW diversion and passive in-situ treatment of GW**
- **Alt 5c – Excavation of all buried waste**

Remedy Alternatives



Uranium Flux in Bear Creek Valley

- During Remedial Investigation BCBG U Flux was found to be 13% of total U flux in Bear Creek Valley
- Boneyard/Burnyard cleanup resulted in significant reduction in U flux in NT-3
- Current U flux at Bear Creek Valley Integration Point does not reflect reduction in flux at BY/BY
- An FY 07 evaluation of U flux leaving the BCBG found that the contribution from the BCBG at the BCV integration point is now 40%
- New information will be considered during the remedy alternative evaluation

TN Policy Regarding Stewardship

- **TN policy regarding financial assurance for long term stewardship issued in 1998**
- **Requires financial assurance for stewardship where waste is left in place**
- **BCBG removed from first BCV ROD as a result of this policy**
- **An interim ROD may not trigger this requirement**