

Status of Department of Energy's Cleanup Activities at SSFL



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Status of DOE's Cleanup

- CAG requested presentation about status of cleanup efforts
- DOE looks forward to being able to move forward with cleanup, but not until an Environmental Impact Statement has been prepared and a Record of Decision has been issued
- In addition:
 - DTSC must complete its own environmental analysis
 - DOE must develop a Soil Remedial Action Implementation Plan (cleanup plan) as required by the Administrative Order on Consent
- We are pleased that characterization is nearly complete so that we can move forward with the EIS

Radiological Soil Characterization

- DOE provided \$40 million to EPA in 2009 for the Area IV radiological characterization study—completed December 2012
- EPA collected over 3,500 soil samples for radionuclide analysis
- 500 of the 3,500 samples contained concentrations of radioactive materials that exceeded background levels, primarily Cesium-137 and Strontium 90

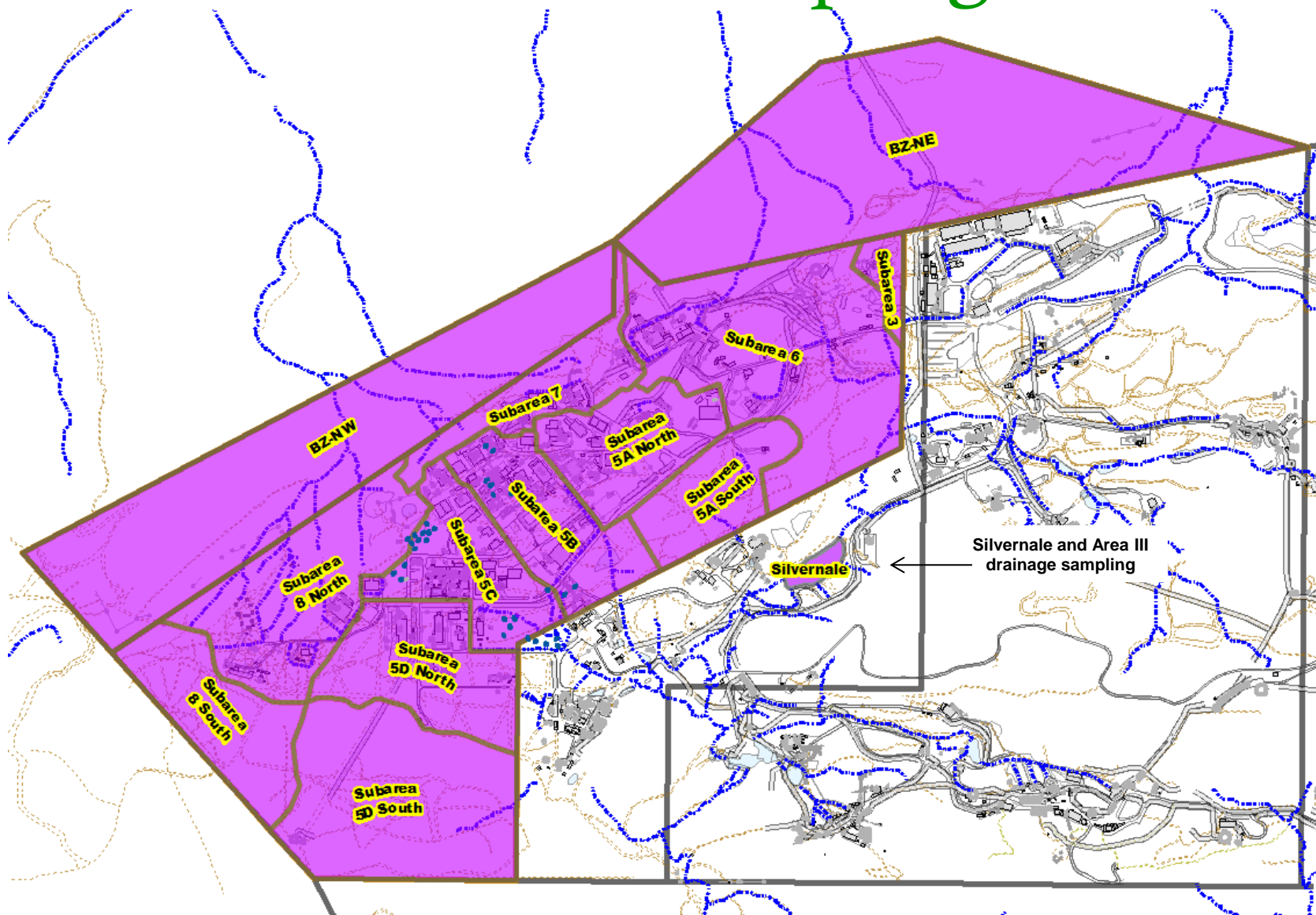
Radiological Soil Characterization

- Most of the samples that exceeded background levels were taken at locations of known contamination, such as the Radioactive Materials Handling Facility and the former Sodium Reactor Experiment
- EPA's conclusions:
 - One of the most comprehensive technical investigations ever undertaken
 - Found low levels of residual radioactive contamination in Area IV

Chemical Soil Characterization

- Phase 3 Soil Sampling completed in Area IV and the Northern Buffer Zone, December 2013
- “Go back” Phase – to fill in critical gaps in data for use in remedial planning (now that the Look-Up table values are known)
 - Will begin shortly in Subareas 5B, 5C, 3/6, and 7
 - Subareas 5A, 5D, 8, and Northern Buffer Zone will follow
- Over 10,000 samples taken to date for chemical and radiological characterization

Chemical Soil Sampling Status



Groundwater Characterization

- All groundwater wells in Area IV will be sampled for chemical and radiological contaminants of concern in early 2014
- The focus of groundwater investigations in 2014 will be on:
 - Tritium plume
 - Radioactive Materials Handling Facility leach-field
 - Former Sodium Disposal Facility

Soil Treatability Study

- Required by the Administrative Order on Consent
- Purpose - determine if any on-site alternative remedial technologies could be applied to reduce contamination adequately
- Formed a Soil Treatability Investigation Group to involve the community in the Soil Treatability Study
- Phase 1 conducted by Sandia National Laboratory, completed September 2012 – concluded with recommendations
- Phase 2 kicked off in May 2013 with California Polytechnic University and University of California, Riverside

Soil Treatability Study

- Cal Poly conducting natural attenuation, bioremediation, and phytoremediation soil treatability studies
- UC Riverside studies designed to learn more about soil particle size in relation to contamination and how to address mercury contamination
- Work plans being prepared for each study; not all approved by DTSC yet

Environmental Impact Statement

- Conducted scoping in 2008 for the EIS
- Subsequently determined additional characterization data necessary before could move forward
- Now that characterization is nearly complete, almost ready to move forward with preparation of the EIS
- In preparing an EIS, National Environmental Policy Act requires
 - Evaluation of reasonable range of alternatives for addressing the agency's purpose and need for action, including a No Action Alternative to serve as a baseline
 - Public participation throughout preparation

Environmental Impact Statement

- Conducted workshops with community in May/June 2012 to develop alternatives for consideration in the EIS – resulted in four distinct alternatives to address DOE's purpose and need
- Expect to conduct public re-scoping in first quarter of 2014

Coming Attractions

- Technical Work Group – 1st Quarter 2014 to discuss 2nd round of Go Back sampling
- Soil Treatability Investigation Group – February 2014 to provide a status update on the treatability studies
- Notice of Intent to be published in the Federal Register and public scoping for the EIS will begin in 1st quarter of 2014

Questions?