200 Area End State Workshop
August 10 - 11
Central Plateau Uses and Activities

Group 1 – Facilitator - Gariann Gelston

Area of discussion goes all the way to River – but not including riparian area. Does include ground water plume area.

Core zone size – lots of "open space" in there. Does this make more than one core zone?

Surface and near surface areas. What could be done there?

Are there just two types of institutional controls, surface and ground water? No, could be many kinds and ranges. Depends what is being controlled and size of areas, e.g., buffer zone around core zone.

For institutional controls, keep information in useable form – think about future access to information. Need to plan for or information could be lost if in wrong formats.

An active presence is helpful.

What criteria will be used to define boundary between core zone and area outside core zone (buffer zone) and between buffer zone and beyond? Is it a bright line? Surface lines and ground water lines may differ. Could move in or shrink over time.

For risks, need inventory information. Characterization needed over next 50 years – this effort will involve workers and pose risks.

What is the "institution" for institutional controls? Based on time frames – federal entity while waste is there.

Clarify – will core zone always be a "hot zone"? Yes, based on current plans and thinking, don't put waste there, e.g., ERDF, if it's not staying.

Don't like assuming it will always be a hot zone. Agree could change with future technology.

What failed with institutional controls at other sites. Example at Hanford, cut communication cable – "forgot" where it was.

Basic CERCLA – self-fulfilling? Assume it can't be cleaned up? Not really, develop remedial action objectives and screen based on what can be done. 5 year reviews after final Record of Decision, so revisited.

Likely to be mining tomorrow for what is waste today?

For consequences part of risk equation – what are the number of people impacted? Will have maximum institutional controls to 2050. Hiking and biking is different from farming and other activities. The number of people and their intent should be factored in.

Aspirin analogy – 100 at once harmful, 1-2 a day may extend life expectancy. What is harmful radiation dose today based on linear no-threshold may not be correct science in future.

Is beyond a 50 year span consideration legitimate? Aren't these interim decisions that may change? Think about what happened 50 years ago. Not really an end, what we know now will change.

True, but need goals. Suffering from lack of goal – we know these are assumeptions but goal helps workers, budget focus.

This is evolutionary process. Need to map out by agency who leads the charge.

Key concern – finality of decisions based on shrinking budget. It's OK to take longer to get more cleanup. Don't preclude more cleanup.

DOE has mission until when? Undetermined, but useful for public to know for decision context. Public input might change if known. Must have continued public involvement.

Interim may be final by default if no future organization is assured.

Nez Perce and Confederated Tribes of the Umatilla – Concern – hopefully or should assume federal control if not safe to use an area or ground water. Federal government works for tribes benefit by treaty.

Technology will develop and likely improve. Also social change – could be different structure in future.

If surface is as clean as 100 Area, what about release of BC controlled area from control? EPA thinks need to address hot spots to determine clean.

"No drilling" does not apply to drilling for characterization needs.

Unrestricted use will not happen in 50 years - based on 1) length of active cleanup; 2) length of active controls; 3) when active controls end. No dates.

Nuclear Park outside core zone – should actively seek?

Human occupation leads to more activities and then unrestricted.

Goals must be clear. Don't give up cleanup. How clean do we think it will be versus how clean can it be?

Should buffer zone outside core zone be same as "extension of' 100 Area?

Where is the capping material going to come from?

Should look at security force exposure scenario.

200 Area is also Manhattan Project. Add to B Reactor to preserve history. A Visitor's Center?

Day care center for industrial workers? 10 CFR 61 criteria contemplates golf course.

Should have list of "don'ts" – no farming, grazing.

Define/Clarify "unrestricted" – for surface use means ground water could be contaminated. For exposure assumptions need the big picture first.

Alternative energy uses – solar farm.

Like Brownfields approach, e.g. BC controlled area?

Cleanup standard also needed – risk based - over whole time line.

Is oil exploration possible? Could be, there is natural gas. A natural gas power plant?

Institutional controls: monitoring; information preservation; transfer of controls (will controls change based on transfer?). Decision document needs to be clear on institutional controls as component of remedy for communication about plans and what institutional controls are in remedy.

Is Long Term Stewardship the same as institutional controls? DOE Legacy Management will carry out what institutional controls require. EPA is reviewing institutional control issues at headquarters level.

Policy should be maximize engineering controls and minimize institutional controls – but use a graded approach.

Group 2 – Facilitator – Susan Leckband

Stabilizing and Monitoring – not cleaning up, just moving within same area. Will find new problems.

Surface – BC controlled area size is due to hot spots. Also, remember tumbleweed path goes east to River. This may not be risk free.

Surface cleanup (e.g., to 3 feet deep) – still must consider other contamination below, e.g., tanks. Will it affect overall footprint?

Do you want kids riding bikes in BC controlled area? Will you be able to find all contamination? Need approximately 1 mile buffer zone around core zone. Just restrict core zone access until 2150 timeframe.

Not important now to shrink the buffer zone – maybe do it later. Will not prevent future cleanup.

Do not exclude ground water from discussion. Try to restore. Is this beyond 2050? 2150?

What are the possible scenarios that have not been considered?

How does configuration from cleanup affect the answer, e.g., caps and facility demolition?

Think about in chunks, e.g., center of core zone.

What proposed activities would trigger more characterization, cleanup, if there was interest in these uses?

What if institutional controls fail and there is no money available to address, say after 2150? Good intentions will not be met.

Personnel being present helps institutional controls, e.g., industrial activity.

US Ecology lease ends in 2064. Will need monitoring for 100 years and active care for 30 years. Is a trust fund available?

If institutional controls fail, what protection for resulting activities is needed?

Area is mostly pristine – opinions on preservation and conservation and recreational use vary.

Not a broad enough spectrum of community represented here. Other opinions needed.

Multi-use is OK, but location is important. Don't put in clean area right next to contaminated area.

Exclude some uses outside the core zone. No farming and irrigation. No industry because industry needs water.

Three dimensional issue. Any surface uses with water will impact beyond the use area.

Outside of core zone expect recreational development. Trails - same as 100 area assumptions after 100 years and beyond.

What uses are economically viable outside the core zone. Area goes all the way to the River, so some uses may be viable there. Range of facilities, but rustic/minimal. Boat landing, not industrial.

What is mineral extraction potential? Gas wells in past. After 2150 exploration holes. Wind farms after 2050? Other renewable energy uses? LIGO vibration issues?

Monument controls part of institutional controls because discourages other activities.

A buffer zone is also part of institutional controls for core zone. Waste management support industries may be potential around the core zone.

In core zone, extra cleanup to locate non-waste management industries not cost effective. So direct support activities preferred if there is less cleanup.

Look at technologies that may be available.

Enable industries that need open space or remote facility – still must balance amount of cleanup needed against risks during cleanup.

Amateur astronomy – no light pollution. Also possible use in core zone after 2150.

Foresee ground water use. Should it be made a resource for future – 2050? 2150? Could be treated (by industry) when needed for use. Also, need institutional controls if can't be cleaned.

No new water available now in Benton County for use.

What will it take for good long term institutional controls? Industry presence may enhance (ring around the core zone). Won't need additional core zone cleanup.

Land use – include full tribal use ASAP outside the core zone. Accept idea that core zone may not be available. Enclose everything that can't be used, as long as not deeded out of federal or state government. Cleanup buffer zone and eliminate controls to allow tribal use. Cleanup core zone if tribal use is anticipated. Institutional controls wont last – think long term.

Less cleanup equals less land use options. More cleanup equals less institutional controls.

Could be possible that people will walk on surface in core zone sometime in future.

Nice to be able to take down fences.

Make core zone inhospitable. Eliminate infrastructure: no roads, water.

Group 3 – Facilitator – Maynard Plahuta

Do you expect future nuclear weapon production in this area? There is no DOE weapons mission for Hanford.

Looking at whole Tri-Cities job growth projections? Will demographics be considered? If no economic growth foreseen, what will site be used for?

Site has waste management mission. Navy, US Ecology, Office of Science, Lab facilities, new missions possible.

Context should be same growth rate now assumed to continue. Feasible to do anything at Site.

Water is supplied from 100 B and D areas to 200 Area. No plans to change, but process water needs are shrinking. Water needs could impact 200 Area development.

Area compatible for chemical weapons production? "Level 3" bio lab concept being looked at?

Technology testing area for research. Utility uses – Nuclear energy.

Not clear whether core zone can be reused based on perceptions. Some industry types may want, though. US Ecology Site – attractive to nuclear related businesses.

Outside core zone, up River from reactors, resort development.

Isn't land surplus to DOE supposed to be transferred to National Monument by Presidential Proclamation?

Does land revert to Tribes? Consultation under Cultural/Historical Resources law with Tribes ongoing for transfer of jurisdiction from DOE to Fish and Wildlife Service.

Will Fish and Wildlife Service take 200 Area if contaminated? Probably not easy to do.

Through 2050 vitrification operations ongoing. What does that Risk Assessment provide for? Required safety Buffer for Waste Treatment Plant, but design meets requirements so its fence line is Buffer Zone boundary. Not so for Plutonium Finishing Plant with

holdup. As holdup removed safety buffer will shrink/go away. Still could have businesses come in, but case by case.

Does ground water limit uses? No uses now and none foreseen.

Institutional Controls: fences; signs; deed restrictions; guards; someone doing monitoring.

Who will be in charge of area outside core zone? City, police department? Legacy Management will be in charge of administering institutional controls. Open to many possible means to do this.

Is there precedent for idea of having surrounding industrial presence? Yes.

Institutional Controls: need to include education in community. Have industries that are interested in remembering, not just being there.

Use public art project to preserve memory of place – a national art initiative. Museum will help, so will architecture. Monument and Visitors Center will help.

Conservation and preservation uses – denying access is not the answer. Should minimize the need for institutional controls. If they fail, hopefully "fail well" not fail poorly.

Monuments success will bring people – inevitable to be attractive. Could fees help fund institutional controls?

Yes, but not part of Monument yet. Pressure for people to come – just question of when – need to be prepared.

Might there be mining for plutonium?

Perspective on risk – don't be cavalier.

Type of industry affects who will come.

Controls need to be substantial and "idiot proof".

Legislation in Congress now for Park Service to evaluate Manhattan Project facilities for historical value - B Reactor included.

Engineering controls must be backed up by institutional controls. But, who will be responsible. Don't see anything happening from Legacy Management office. They have started process, but for Hanford a few years away.

Is core zone just a big cap? That's one view, but could work to minimize caps. Will need material for caps – where will that come from?

Monument Environmental Impact statement has 15 year planning horizon.

Do ground water cleanup so no institutional controls needed eventually. Must find technologies for ground water cleanup. Need to do better – if we can invent the bomb, can cleanup ground water.

Make a cleanup technology mecca rather than area for weapons.

Ground water cleanup outside of core zone more important? Won't it flow down from higher elevation core zone? If cleaned up in core zone will protect outside core zone.

Pressure to use land will grow. Will be housing and roads in the future. Long-term you can't limit growth, so any use possible.

Should comment on Fish and Wildlife Service Monument Environmental Impact Statement and Comprehensive Conservation Plan that clean land should be open for use. Yes, but Refuge first priority is wildlife. Human use must be compatible.

Fish and Wildlife Service not expected to take contaminated areas. Will DOE allow all these possible land uses before transfer to Fish and Wildlife Service? No, these uses just for exposure scenario development.

Agricultural use is a driver for ground water contamination – is this still correct assumption or changing?