UNCERTAINTIES FOR WHICH SAMPLING IS NOT REQUIRED

No.	Uncertainty	Recommended Resolution	Type of information required	Responsibility/ due date	Importance H, M, L
1.	Does legal definition of withdrawn property match actual use?	Resolve survey information.	Survey data from BLM public land order compared to site survey.	Jacobs check on survey	M
2.	For land AF will relinquish to DNR or BLM, what cleanup criteria would be acceptable?	1) Find alternate precedent 2) Promulgated requirements; land acquisition guidance 3) Input from BLM and/or DNR, DEC	1) AF/BLM experience 2) Cleanup/ closure documentation and TBD requirements; ICs not acceptable 3) BLM land-use planning for Lots 3 & 4; DNR's needs, (land-use based) for Lot 1	AF before WP	H
3.	For land AF will relinquish to GSA, what cleanup criteria would be acceptable?	Input from GSA	GSA requirements for transfer	AF before WP	H
4.	For land AF will relinquish to BLM for transfer to ANCSA tribe, what cleanup criteria would be acceptable?	Input from ANCSA corporation	Understand no ICs as part of title through BLM, but would depend on ANCSA to accept via MOU.	AF before WP	M
5.	For land not under AF control, what are the cleanup requirements?	Coordinate action with land owner	Cleanup/restoration criteria	AF before WP	H
6.	What is the best approach for Area C, Maintenance Yard, and WAC site? Will these withdrawn lands be	1) Cost-benefit decision for AF	1) past action information (what is left behind, esp for Area C) 2) Does a groundwater pathway exist for the lower sites? Does migration to GW need to be addressed?	AF to determine desirable exit strategy, Jacobs to	H

	maintained by the AF or will land transfer occur?		Use existing data to establish a CSM for groundwater for the lower and upper sites separately 3) Use existing data to establish a CSM for site • E.g. for Area C show that surface samples are highest concs using existing data • flow direction, potential exposure pathways, likely users, permafrost, 2 groundwater interface samples in test pits) 4) Regulatory requirements for removal and documentation (solid waste regulations for closure) 5) Indirect costs 6) Does the desired cleanup level match with AF policy? 7) Boundary between Area C and Maintenance Building need to be examined	compile details of cost-benefit analysis. Depending on selection, use information to build sampling uncertainty tables	
7.	Are metal concentrations at the site above background levels?	Establish background level	Use Army Corps site for background levels to compare existing data against. If values are below background, no further action is required for detected exceedences above Method 2. If values are above background, path forward for handling these concentrations needs to be developed.	Jacobs	M

8.	Can cleanup actions be taken in FY07 for non-POL sites?	What are the reporting/ documentation requirements to allow cleanup next year (and into the future)?	Determine CERCLA requirements for reporting TCRA-extended field work. Coordinate w/ EPA to understand Region 10 requirements	AF	M
9.	Can the landfill at the WAC be closed and transferred from AF ownership?	Determine what the state closure requirements are	Do the known landfill characteristics allow for closure? What is the timeframe for closure? Consider landfill closure in the cost-benefit analysis.	Jacobs or AF to determine State permitted landfill closure requirements	M

GENERAL MEETING NOTES

Land Transfer Options

- AF acquired land use in one of three ways: right-of-way, withdrawn, or acquired (purchased). Land use was revised as either right-of-way or unavailable during a BLM 3E evaluation in the 1980s. Access road has already passed on to native corporation.

- Right-of-way properties fall under an entitlement portion of federal law, wherein a ANCSA native corporation can select to obtain the tracts via BLM. ANCSA corporation could select and receive all but withdrawn properties (likely to happen by 2009 based on ANCSA Lands Accelerations Act). Cannot transfer property with institutional controls through BLM under ANCSA but could reach a separate Memorandum of Agreement with future land owner prior to formal transfer. Transfer activities will occur thru BLM with concurrence from corporation.

- Unavailable lands, withdrawn lands: formal process to excess lands. Secretarial (DOI) Public Land Order required to relieve USAF of responsibility for withdrawn land. Notice of Intent to Relinquish – NEPA requirements and working w/ BLM office. BLM makes determination as to whether they can accept land. For pass-through properties, BLM does strongly consider what the receiving owner requirements. If not suitable, then could send on to GSA for disposal. GSA may have more flexibility for land disposal. Formally withdrawal lands are not available for selection under ANCSA. However, if filed interest on withdrawn land, legal mechanisms in place to facilitate transfer created by Land Accelerations Act. BLM would encourage this to prevent federal lands surrounded by public interest.

- Properties at this site may go to the following entities:
    - Unalakleet ANCSA corporation for SE property (landfill /Area B), Lot 5;
    - DNR filed state interest at Lot 1,
    - BLM to determine if Lot 1 (if DNR decides not to pursue property) and Lots 3 and 4 fit into their management strategy considering multiple use sites (distance for management, needs). BLM generally does not want gain ownership of small sites in the middle of other lands.
    - GSA may accept lands not suitable for BLM transfer; (possibly Lots 1, 3 and 4)

Area A

- The trip to complete Area B resulted in the discovery of an area designated Area A. Drums w/ product in them (partially buried) were removed and soil samples indicated soil contamination remained.
- The area is thought to be a historical staging area for Area B.
- Area A is not located on Air Force controlled property. Cleanup levels could be determined by landowners. Coordination w/ land owner is critical and ICs may not be an option.
- Plan to delineate through excavation because there is a known need for remediation.
- Is groundwater an issue? Depends on if groundwater is encountered during the removal action.

Area B and Landfill

- Drums were discovered on slope of known, un-permitted landfill. Drums were removed in 2002 and soil samples indicated soil contamination remained. Area designated as Area B.
- In lot determined to be unused by BLM survey; ANCSA filed an interest on lot.
- Area B is adjacent the landfill. It was noted as a potential source based on the discovery of four drums. During the removal, two of the drums were found to be leaking, the other two were full. The soil beneath the two leaking drums required removal. The soil had high hits of DRO (also sampled for BTEX, DRO, and PCBs. PCB results were < 1 ppm).
- The landfill was not permitted. There is no information on types of wastes in the landfill. The landfill content assumptions have been based on what's been found around it.
- Possible exit strategies for B and the landfill include 1) ICs w/ the AF maintaining the property, 2) MOU w/ tribe to allow land transfer through BLM, 3) acceptance of land as-is by tribe.
- What kind of ICs would have to be implemented here? Is there incentive for the tribe to take ownership? What are the proper procedures for landfill closure? If AF maintains ownership: capping, fencing, no permitting, and ensure that all contamination is "controlled." Coordination needed with tribe if land is transferred.
- Fate and transport concerns remain. No information on impacts to groundwater. Visual inspection of slope for impact to river via possible seeps. If seeps are identified, then sampling may be required.

Area C

- During the removal at Area A, local landowners led AF to an area w/ no vegetation growth near the vehicle maintenance yard (Area C). The area was sampled and results showed high concentrations of PCBs. Likely source area: the former drum storage area associated w/ the Vehicle Maintenance Yard
- The area was and is currently used for hunting and berry picking. A time critical removal action was coordinated w/ EPA and planned for the following season to remove PCB contaminated soil.
- 2004. Major cleanup needed in Area C, and the area w/o vegetation was found to be the hotspot. In all, 1.3 M lbs of soil, vegetation, gravel removed; totaling 808 drums w/ PCB-containing materials removed. The field season was planned to encompass Areas A, B, and C, but due to extent of C, only C was excavated. Excavation is this area continued as resources allowed. Stockpile of 36 cy on unexcavated area, stockpile covered into excavation and backfilled on top, then fenced. 2004 figure shows areas w/ above 1 ppm PCBs remaining.
- 2005. Removed stockpile, additional soils to depth of previously found contamination along road, and 1/3 of hot spot excavation below geo-textile. Timeframe did not allow for additional work. Excavation left open with perimeter fencing until sample results returned; results required additional capping w/ geo-textile. Final highest results: depth to groundwater at 6 ft. 2005 figure shows excavation based on 2004, worked from the lower concentrations to hotspot. Area requires further excavation to get it within the direct contact rule of 1 ppm to 15 ft bgs. Remaining areas of high concentration at Area C are on AF controlled land.
- No contamination outside of current fenced area except some areas under fence above 1 ppm, where the contamination is above 50 ppm.
- Deeper soil contamination could be controlled with ICs to protect direct contact. Contamination extent (vertical to groundwater/bedrock and horizontal) has to be understood is in order to implement a remedy.
- All initial samples were surface samples. DEC would be satisfied on areal extent being determined through surface samples that if the data pattern confirms that the surface is the most impacted.
- Are there other COCs? Possible strategy to address PCBs, then sample for DRO/VOCs during confirmation sampling.
- Options for AF, 1) delineate all up front, or 2) removal action based on current information using PCBs as driver and confirming extent of other COCs with confirmation samples. There may be a risk for having to do additional removal, if results do not come back during field season.
- Can the area be managed statistically using area wide 95^{th} UCL concentrations?
- What are the impacts to cost based on TSCA requirements (volume above 50 ppm)?

- Area C is considered to be in Lots 3 & 4, therefore withdrawn.
  Cleanup options:
  1) cleanup for BLM – use Method 2,
  2) transfer to GSA
  3) Risk-based/ plausible end-use – AF maintains ownership
  4) No action/ICs remain in place, AF maintains ownership – Risk-based Methods w/ ICs

  AF to do the cost comparison as to what the most desirable outcome is.
  Does CERCLA require a RA? No, have to consider ARARs.

Groundwater

- Groundwater not understood for this site, but not typically an issue for WACs. Before it can be determined if a cleanup is done to levels for the protection of groundwater, DEC needs a more complete CSM for site groundwater. If default to ingestion/inhalation criteria based on a determination that GW not impacts, a deed restriction is needed for the site to prevent future removal of soil to an area that might cause GW impacts. There are no current groundwater wells at the site. North Creek is local drinking water source, not groundwater directly. No seeps have been seen, but need to confirm site-wide. Permafrost is present. Include groundwater triggers in the field decision logic to determine where and when groundwater sampling is needed. Use to make choices on what data is needed based on field information. Make best attempt to use discreet samples rather than wells during characterization, if needed.

SO0001 Vehicle Maintenance Building

- Federally-owned land, designated as unavailable to entitlement claims. Same options for land transfer options as Area C. SO0001 may involve Lots 3, 4 and 5. FMF is located next to Area C.
- Five pits, three samples each during SI; test pit samples were sampled for full suite. Test pits at the site were dug from 2 to 15 ft bgs. Test pit found only high levels of DRO only found in upper 6 inches in an area used for parking by near-by residents.
- Metals above Method 2: As, Cr. Could compare to analogous site background, compare to USACE background study to determine if further action needed for metals.
- Need to determine if delineation of soil concentrations to migration to groundwater criteria is needed Groundwater at 6 ft and soil contamination extends to GW, so groundwater contamination possible.
- Potential source areas: 1) former UST area 2) outfall, and 3) drum removal area not addressed in Area C. AF use and/or contamination may have extended past the lot boundary.

- UST Area.
  - Contaminated soils were found at depth of groundwater in the test pit at the UST area.
  - One well point at UST location. Combine that information into overall groundwater CSM. Possible resulting scenarios: 1) If the sample is clean, then no problem. 2) If it's not what is the cleanup/concern level? And would the groundwater extent need to be known? At this point, DEC would like to know extent to confirm possible receptor pathways even if the groundwater is determined to not be impacting drinking water.
  - COCs – DRO/RRO, GRO, BTEX, PAHs
  - Some question as to whether direct push work for the site, even to 6 feet.
- Maintenance Building Drain Outfall.
  - Ordnance compounds in outfall. Outfall is on Lot 5, which is to be conveyed to tribe. It was the only sample at site w/ explosives detected.
  - The contamination was found in the upper six inches and was not found in the lower samples. The upper number only exceeded the protection of groundwater number.
  - The contamination was agreed by all to not be an issue given the way that the sample was collected, by depth. Exceedance of groundwater number okay since deeper samples were ND.
- Former Drum Area not sampled previously.
  - Unless there is evidence of overlap sampling and/or removal with Area C, then characterization needs to occur in the area. Could sample after removal or do a sampling grid to understand site. The area is about 120 x 120 ft. DEC recommends multi-incremental composite sampling, details to be worked out in Work Plan. Can also use field screening w/ confirmatory. Use field dynamics for sampling initial grids, be prepared to intensify sampling based on delineating to 1 ppm, so we can know where to plan to do an excavation. COCs: DRO, PCBs

White Alice Communication System Facility

- This site includes SO002.
- Possible land disposal options– DNR, BLM, or GSA.
- All structures gone (including foundations), landfill remains. The previous cleanup included thermal desorption and grading of surface, which may explain random pattern found in the SI characterization.
- The current sketch of the landfill may not include entire landfill area. Area needs to be surveyed
- Is there enough information so that the AF can do a meaningful alternatives analysis? Jacobs thinks that based on the current data set, $\pm$ 80% for cost estimate. Would there be any advantage to gathering additional information prior to making a

decision? A proposal could be done to show balancing factors between investing in additional information and doing the actions. This site is likely to be a CERCLA cleanup, so eventually costs have to be within +50 to -30% range.

- Possible plan: divide site into decision units (size to be decided), calculate the UCL for that area given existing data, make cleanup decision based on analysis, size factor can be the cost of disposal.
- Current CSM would support surface represents highest in concentration gradient.
- AF to consider how the other sub-sites fit into overall AF site strategy given that there is already one landfill likely to be held by AF (Area B). This is a permitted, solid waste landfill. What are the DEC closure requirements? The landfill is currently not a hazardous waste landfill, so consider the benefit of getting the hazardous materials off-site and free up that portion. The landfill is known to contain asbestos-containing materials and construction debris.
- Is there enough information to implement ICs as-is? Have to include minimum groundwater survey to ensure that all of the contamination can be "controlled."
- COCs: at this point, full suite are considered as potential for landfill.
- Groundwater: this subsite at higher elevation compared to rest of subsites, excavations went to 15 ft w/o encountering groundwater, is there potentially complete pathway for this subsite?
- Potential source areas: has the sampling been sufficient to address any subsurface contamination that may have been buried during the spreading of surface soils? Do we need more information for the alternatives analysis? Is DRO a separate issue from PCBs? Likely not, if incremental sampling is done for PCBs, also include DRO. Have to look at individual potential source areas.

Lower Pump House

- Unknown site next to big creek; potential for fuel source to be there given the equipment was out there. The well was closed, some stained soil was removed.
- The land has already been conveyed. Therefore, the property is no longer under AF control.
- Visual survey to determine evidence of site releases, but since surface has been reworked and there is the potential for UST to remain in place, need a subsurface survey as part of initial field work.

Site Summary of 2007 Actions

Site	Likely Field Action	Alternate Action	Likely Cleanup Program
Area A	Removal action		State, POL

Area B	Survey landfill Visual inspection of groundwater		State, POL
Area C	Continuation of TCRA	Sampling to delineate	CERCLA
VMY – UST area	Sampling	Cleanup	State, POL
VMY – Drum Storage Area	Sampling	Cleanup	State, POL
WAC – facilities area	Data Analysis	Sampling	CERCLA
WAC landfill	Survey	Sampling	State, solid waste
Lower Pumphouse	Survey	Sampling	State, POL

Field work check in points in decision-logic

- First four will happen next year, but may not be all in same field work window
  1. Landfills, Area B survey results
  2. Lower pumphouse survey results
  3. Groundwater visual inspection for seeps (starting w/ Area B, but including other necessary sites)
  4. Area A confirmatory results
  5. VMY drum storage area sample results
- Possible other actions depend on alternatives analysis decision, resources
  6. Area C confirmatory sample results
  7. VMY UST sample results
  8. WAC sample results

- Still need to work through how the update will be done and how the next decisions will be made – to be delineated in Communication strategy section of work plan
- Funding status – PACAF to fund this project for FY07; funding is likely to be near January; WP likely to be out in Mar-Apr timeframe.