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Title of Report: DAMAGE ASSESSMENT FOR THE BEAR CREEK SITE, 45KI839, KING COUNTY, WASHINGTON

Date: OCTOBER 1, 2014

County (ies): KING Section: 11 Township: 25N Range: 5E E/W Quad: BELLEVUE NORTH Acres: 2

CD submitted? ☑ Yes ☐ No

Does this replace a draft? ☑ Yes ☐ No

Archaeological Sites Found or Amended? ☑ Yes ☐ No

TCP(s) found? ☑ Yes ☐ No

REPORT CHECK LIST

Report should contain the following items:

- Clear objectives and methods
- A summary of the results of the survey
- A report of where the survey records and data are stored
- A research design that:
  - Details survey objectives
  - Details specific methods
  - Details expected results
  - Details area surveyed including map(s) and legal locational information
  - Details how results will be feedback in the planning process

Please submit reports unbound. Please be sure that any electronic version of a report submitted to DAHP has all of its figures, graphics, appendices, attachments, correspondence, cover sheet, etc., compiled into one single PDF file. Please check that all digital files display correctly when opened. Thank you!
The lack of a serious discussion of monitoring and the protocol for monitoring in the pre-construction meeting was one of several oversights. The failure to have the lead archaeological monitor at that meeting was another as was the failure to have the lead archaeological monitor or another supervisor check-in daily with both the Project Inspector and site supervisor.

The lack of USACE cultural resource and Tribal representatives at the pre-construction meeting contributed to the events that led to the damage. They would have emphasized the significance of the site and the need to ensure that it was not damaged outside of the Resource Recovery Area.

Removal of stakes marking the Resource Recovery/Preservation boundary during final monitoring produced confusion that led to the mechanical excavation of the Area B damage. The setback grade stakes were misidentified as the boundary line and the intent of the verbal directive to clean the area up was not understood.

The lack of crisp, clear archaeological monitoring requirements, written in contract language, in the Mitigation Plan and in Appendix F of the special provisions resulted in the lead monitor’s decision to let the contractor dictate whether they would remove resource materials to the north boundary of sample blocks that extended north of the Resource Recovery Area.

The use of imprecise language that has more than one interpretation led to the misunderstanding between the consulting parties and SWCA about where EUs were allowed. This includes language such as “excavation is focused,” “construction project footprint where direct impacts to the archaeological deposit will occur,” or “project footprint.” Project footprint, for example, is the entire project, not just the Resource Recovery Area.

Archaeological work in the Resource Preservation Area led the contractor to the incorrect assumption that the boundary of that area with the Recovery Area was a flexible line. That assumption contributed to their decision to excavate north in Areas A and C.

The lack of means to continually educate the workforce about the importance of the site and to respect the avoidance of the Resource Preservation Area contributed to the events that led to the impacts. One meeting, held prior to construction, was insufficient to meet its goal of avoiding damage to the site.

The failure to have at least one of the archaeological consulting parties read the plans at the 90% complete stage led to misunderstandings in terminology and an Appendix F in the special conditions with language that is confusing to non-archaeologists.

The lack of the specific mention of the areas being archaeologically monitored in the daily work records of the archaeological monitor on 8/28 does not allow this investigation to reach a firm conclusion about whether or not the damage in Area C was monitored or whether sample blocks 89, 74, or 77 were archaeologically monitored to their north edges.

**RECOMMENDATIONS**

Attachment IX contains all recommendations received during this investigation. The recommendations below were drawn from some of those recommendations as well as from the findings and conclusions presented above.
FENCE THE RESOURCE PRESERVATION AREA

Completely fence the specific area that is to be preserved and include a note in the plans that entry is only allowed to lay down the geotextile cloth and to place resource materials from the Resource Recovery Area. Distinguish between the Resource Protection Area and the Resource Recovery Area to clearly delineate each area. Include permits conditions or a requirement for the contractor to contact the owner (in this case the City) if there is a perceived need to work in or enter the Resource Preservation Area. Inform the contractor at the pre-construction meeting that a request to work in that area for any reason not already allowed by the contract provisions and plans will require regulatory approval. Hire a professional land surveyor to check the stakes on the Preservation Area weekly to ensure that no one disrespects it or goes beyond that point.

ENHANCE ARCHAEOLOGISTS UNDERSTANDING OF CONSTRUCTION

Ensure archaeologists understand how construction works and consider the needs of construction when negotiating construction limitations. Plan under the assumption that accidents can happen. The physical area for the construction was small but the work required large, heavy equipment. Consider the scope and complications of the construction methods or needs. Visit the project site when developing a preservation plan to ensure the plan is grounded in reality and takes into account the potential for error.

Designate a consulting party, preferably an archaeologist, to review the actual construction plans at 90 percent design if avoidance of part or all of a cultural resource is required. The goal of the review is to ensure that the relevant stipulations of the MOA and mitigation plan are captured in the plans. Of the 15 archaeologists interviewed for this assessment none reviewed the plans although two said they had glanced at them. The plans for this project have detailed drawings and notes related to the resource preservation area. Most details are accurate; a few merits breakdown of the map to clarify details. Inaccurate plans have unintended consequences.

Use the same vernacular in the MOA/Mitigation Plan and the construction plans. The Mitigation Plan uses “construction project footprint” and later “project footprint,” “footprint,” and “construction footprint” (SWCA 2013a:44-51) that are imprecise. Appendix F (“Archaeological Plan”) of the contract provisions uses “construction project footprint,” “project footprint,” and “resource area.” Elsewhere in the contract provisions and in the plans, the area of the project where the site is located is called the “Resource Recovery Area” and the “Resource Preservation Area.” Use of different terms for the same thing risks misunderstandings and mistakes.

INCLUDE NON-ARCHAEOLOGICAL CONSULTANTS IN THE MOA NEGOTIATIONS

Project proponents and their non-archaeological consultants, the landscape architect or engineer developing the plans, must be actively involved in the development of the Mitigation Plan/MOA to ensure that there is clarity in the language in the plans and follow through in the field.
INCLUDE THE RIGHT PEOPLE AND THE RIGHT TOPICS AT THE PRE-CONSTRUCTION MEETING

There is evidence that the importance of the site, the need to avoid impacts to the Resource Preservation Area, and the need to respect the monitoring protocols were glossed over in the pre-construction meeting to discuss other important topics. Make the time at the meeting to thoroughly discuss the cultural resource issues. If the project has been controversial or has a high profile, have the lead archaeological monitor attend the meeting. Include time on the agenda for the tribes to attend and speak if the resource is of grave importance to their heritage. The Muckleshoot oral historian could have spoken of the significance of the site from their cultural perspective (that perspective is non-archaeological). No one can adequately express that importance for them. The federal agency should be at the pre-construction meeting to be sure that their intent for the resource is fully and precisely communicated.

EDUCATE THE WORKFORCE

Ensure the contractor, and the contractor’s crew and subcontractors, know the project is governed by the stipulations of a MOA and the requirements of the USACE permit related to the archaeological site. Hold a general meeting of all parties (archaeologists, the contractor’s supervisors and crew, and project inspectors) to discuss schedules and where the archaeologists would be working. Since contractor crews rotate in and out of construction projects, new arrivals must also be informed, either through meetings, signage, or other appropriate means. One possible means of educating the workforce is a requirement for brief daily meetings with all crews to reinforce the restrictions. Give equipment operators working with archaeological monitors clear and firm instructions on what they can/cannot do and where they can/cannot work.

DEVELOP ACCEPTABLE METHODS FOR WORK NEAR SENSITIVE CULTURAL RESOURCES AND PROTOCOLS FOR INADVERTENT DAMAGE

Develop allowable practices for work adjacent to sensitive cultural resources to provide guidance to designers, project inspectors, and contractors. Clear guidelines are needed to differentiate work methods used in sensitive areas from those customarily used for construction. Mitigation Plans, MOAs, and 404 permits are typically written to allow a certain type of activity that would otherwise not be allowed. Construction contracts and industry standards typically define a quality standard or desired outcome and allow flexibility in the means and methods for contractors.

Where cultural resources are within the APE of a construction project, development of the means and methods to handle the resource is done separately from the development of the plans and created for each project as a unique situation. The means to handle the resource need to be developed as an integral part of the plans. Since there are common elements in all projects with sensitive cultural resources, these can be used to form general special provisions for contracts and establish consistency among projects and among regulatory agencies.

The development of these provisions should also establish a protocol for inadvertent damage to the cultural resource that would be included in the MOA. Provisions exist for inadvertent discovery in 36 CFR 800 [the regulations detailing how the Section 106 process is to flow] and in most MOAs, but no provisions exist for inadvertent damage.
The MOA and the 404 permit are Redmond’s contract with the USACE. They contain cultural resource requirements that deal with design issues, construction, and monitoring. The plans and special provisions must clearly depict how the contractor is to do the work and how inadvertent damage will be handled.

**PROVIDE ADVANCE NOTICE OF DAMAGE ASSESSMENTS**

Make the stipulation for a damage assessment under WAC 25-48-043 a stipulation of the MOA, and do the assessment immediately after the damage occurs. Impacts to archaeological sites in construction zones are not uncommon. By including language requiring the project proponent to conduct a full damage assessment under state law, the project proponent is aware in advance of potential additional monetary burdens if such impact occurs.

**IMPROVE CULTURAL RESOURCE UNDERSTANDING FOR PROJECT INSPECTION STAFF**

Project Inspectors understand the means, methods, and sequencing of construction and receive training to learn to identify other environmental resources. They should receive training to understand the sequencing of the archaeological work and understand the boundaries of that work within the construction project. Their daily notes should reflect the progress of that work.

Require a full-time inspector when there is a sensitive resource. The City’s Project Inspector was on-site two hours daily. A full-time inspector would have the capacity to know the archaeological monitor had finished their work and know a track-hoe operating in the Resource Protection Area was not authorized and have the authority to halt the activity.

The archaeologist must interact with the Project Inspector. The City told the archaeological firm that the Project Inspector would assist them, but interviews indicate interaction was minimal. Inspectors understand where and why activities are taking place within the project. They can anticipate where communication is needed to avoid impacts.

**INCLUDE INDEPENDENT OVERSIGHT OF THE ARCHAEOLOGICAL WORK**

Hire an independent archaeologist to do compliance oversight of the implementation of the Mitigation Plan and the progress of the excavations. This requires that the Mitigation Plan and MOA are explicit about the physical area available for archaeological excavation and monitoring. This independent advisor would report to Redmond and would help field inspectors understand and apply the requirements of the MOA, the Mitigation Plan, and the part of the 404 permit that applies to the cultural resource.

**SUMMARY OF SITE RESTORATION ACTIONS**

Phase I of the Lower Bear Creek Rehabilitation project was completed in the fall of 2013. Therefore, there are no additional restoration actions to be taken. Restoration was completed as part of the final weeks of construction during Phase I. Costs for these actions were included in the Phase I costs; the only additional costs for restoration are included in the estimates of costs in the