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SUBJECT: Willamette Falls Legacy Project: Archaeology Issues and Potential

The Willamette Falls Legacy Project represents an unparalleled opportunity to contribute to knowledge about the prehistory and history of one of the most significant places in the Pacific Northwest through archaeological research and recovery efforts during redevelopment of this industrial waterfront site. This site has long been a setting for human activities, beginning with Native American occupation in the prehistoric period, continuing with Euro-American use for residential, commercial, and industrial purposes in the 19th and early 20th centuries, and ending as an industrial complex in use as recently as 2011. The more recent activities are documented in historical records, at least to some extent, and are reflected as well in the industrial buildings that still stand on the site.

Archaeology enters the picture, and becomes the major mechanism for learning about the past, when written records are unavailable, or where historical accounts are lacking in detail. Thus, archaeology has a major role to play in documenting, reconstructing, and interpreting the legacy of human occupation and activity for the entire span of prehistoric Native American occupation, and for at least the first hundred years or so of Euro-American settlement and development, at Willamette Falls.

Because the property has been privately held since 1829, and intensively developed as an industrial site since that time, no archaeological investigations have yet been conducted. Although a variety of sources—previous archaeological investigations at sites adjacent to falls, Native American folklore and ethnographic accounts, and historical narratives and records—point to the property at Willamette Falls as a “high potential” area for archaeology, the specific details of the archaeological record on the property are yet to be revealed.
The objective of archaeological investigations is to determine if prehistoric or historical archaeological sites eligible for inclusion on the National Register of Historic Places (NRHP) are present and whether they may be affected by the proposed redevelopment. Such studies ensure compliance with federal regulations including Section 106 of the National Historic Preservation Act (NHPA), if applicable, and with Oregon state laws requiring identification and protection of archaeological resources.

The main issues in regards to archaeology revolve around (1) how to identify significant archaeological remains below the ground surface, especially during the course of demolition and construction of new developments on the site; (2) how to determine which archaeological remains can be set aside and preserved for investigation at a later date and/or for interpretation of the site to the public; and (3) how best to go about recovering archaeological remains subject to destruction to maximize information recovery and interpretive potential.

**Importance of Archaeological Monitoring**

Archaeological sites and, in particular Indian burials, are protected under Oregon state law (ORS 97.740–97.760, 358.905–358-955, and 390.235), and by federal regulations where federal funds or permits are involved (e.g., 36 CFR 800). Disturbance of graves is specifically prohibited, even through accidental discovery and even if reviewing agencies have concurred that a specific project is in compliance with applicable state and federal regulations.

Most archaeological survey reports conclude with a recommendation to the following effect: “If archaeological resources are inadvertently encountered during the course of construction, all earth disturbance in the vicinity of the find should be halted immediately in accordance with state and federal laws. A qualified archaeologist should be consulted to investigate and evaluate the discovery and to recommend subsequent courses of action in consultation with SHPO and the appropriate tribes.”

For projects where buried archaeological resources are likely, there are two major shortcomings in this approach: (1) the determination that archaeological resources have been encountered is made by someone (often the operator of heavy machinery) not trained in archaeology, often leading to destruction of the resources; and (2) there is a delay between the time the discovery is reported to SHPO and when an archaeologist arrives on the scene to evaluate the find. In the event that the existence of an archaeological resource is verified, a further delay occurs before a State of Oregon archaeological permit is granted and archaeological investigations can begin.

Although monitoring by an archaeologist is not specifically mentioned in the ORS requirements, archaeological monitoring has become a standard recommendation and practice in situations where the discovery of archaeological remains is anticipated. As elsewhere, but particularly at Willamette Falls, the importance of having an archaeologist
on-site to monitor during demolition and construction excavations cannot be emphasized too strongly. Decisions as to whether structural remains and/or artifacts exposed during these activities are important, and worth stopping excavation for, cannot be left up to the excavator operator or any other non-archaeologist.

ORS 358.920 states that “a person may not excavate, injure, destroy or alter an archaeological site or object or remove an archaeological object located on public or private lands in Oregon....” Based on the known earlier use by Native Americans, and the overwhelming documentary information pertaining to occupation and development by Euro-Americans in the historic period, the Willamette Falls Legacy project area in essence represents one extensive archaeological site awaiting documentation. Accordingly, it would be part of due diligence for any organization or developer to have an archaeological monitor in place during ground-disturbing activities to ensure compliance with the ORS requirements.

**Native Americans at Willamette Falls**

Falls on major rivers were perhaps the single most desirable setting for Native American settlements in prehistoric times. Anadromous fish congregating below falls awaiting favorable river conditions for moving upstream could be easily taken by Native fishermen. Some of the earliest evidence of prehistoric peoples in the Pacific Northwest has been found at archaeological sites at falls on the Columbia River, most notably at the Fivemile Rapids site near The Dalles, where the record of occupation extends back 10,000 years. A similar very long record of Native American occupation may be in evidence at Willamette Falls.

Prehistoric settlements at falls served as important trading centers for Native Americans. The best documented of these trading centers was at The Dalles, where evidence of intense long-distance trade dates at least as far back as 3,000 to 4,000 years ago. Next to The Dalles, Willamette Falls is often cited as the second most important trading center in the Pacific Northwest. Currently, petroglyphs carved into bedrock are the only physical evidence attesting to the presence of Native Americans on the Willamette Falls Legacy property (recorded with SHPO as archaeological site 35CL236). Willamette Falls is mentioned prominently in the oral literature of Native peoples. Archaeological evidence of Native American activity almost certainly will be found during redevelopment.

**Euro-Americans at Willamette Falls**

The Willamette Falls Legacy Project also presents an exceptional opportunity to obtain new information about the long record of Euro-American settlement and develop at Willamette Falls through historical archaeology. In 1829 Dr. John McLoughlin of the Hudson’s Bay Company constructed the first permanent water-powered sawmill in Oregon Territory on this site. Oregon City was founded in the same year, incorporated in 1844, and served as the capital of Oregon Territory from 1848 to 1851. The original
street grid is still discernible among the industrial structures and buildings covering the site today. Residential structures on this site, including hotels and houses, including John McLoughlin’s home, were among the earliest constructed in an urban context in Oregon.

By the mid-19th century, both sides of the main commercial corridor, Main Street, were lined with various water-powered industrial facilities including saw and flour mills powered by small timber dams and millraces cut into bedrock. Among these early industries was the three-story Oregon City Woolen Mill, established in 1865. The stacked basalt masonry walls from this mill are among the oldest remaining built resources on the property. The earliest settlement and development, from 1829 to the 1880s, is poorly documented in the historical record, and archaeology can make substantial contributions to our understanding of how development proceeded on this site.

By the turn of the 20th century, various industries lined Main Street west of 4th Street extending out to the enlarged Willamette Falls Dam, constructed from 1889 to 1890 to power hydroelectric development. Detailed information on the location and size of these industries shown on Sanborn Fire Insurance maps (available from 1888, 1892, 1900, 1911, and 1925) can be used to identify and interpret archaeological remains associated with late 19th and early 20th century activity and occupation on this site.

**Geoarchaeological Investigations**

Structures and pavements associated with the most recent industrial complex cover most of the ground surface on the property. In similar urban and industrial contexts elsewhere, archaeological deposits containing artifacts and cultural features have been found in well preserved condition sealed below concrete and asphalt surfaces. Little is currently known about the nature, depth, and age of deposits on the property in which archaeological resources may potentially be found.

Efforts to identify strata buried deep below the ground surface that may potentially contain evidence of human occupation thousands of years old require an integration of archaeology and geology, generally referred to as the geoarchaeological approach. Before any ground disturbing activities are conducted, geoarchaeological investigations, which typically involve trenching and coring, are recommended to obtain baseline information on the deposits that can be used in planning future archaeological investigations.

Historical records document periodic inundation of the property to varying extents by Willamette River flood waters. The elevation of the 1996 flood (51.00 ft) is being used as a guide for future development. Archaeological remains may potentially be found anywhere on the property, but they may be more likely to be preserved in the portion of the site above this elevation.
Archaeological Field Investigations

Archaeological investigations in urban and industrial settings require different procedures and techniques than those employed at conventional archaeological sites where manual excavations are the norm. As a result of repeated episodes of construction and demolition over time, archaeological deposits commonly accumulate to considerable depths in these settings. As well, the presence of often massive stone, brick, and concrete structural remains severely limits use of manual excavations until these remains have been removed. Accordingly, there is a long history of the employment of mechanical equipment in urban and industrial archaeology for removal of recent structural remains, building debris, and introduced fill material to expose buried archaeological deposits.

The repeated demolition of older structures and construction of new ones in urban and industrial settings generally leads to the formation of complex archaeological deposits. In these contexts, there is less concern with recovering individual artifacts from mixed and disturbed deposits. Instead, the focus is on identifying cultural features containing discrete archaeological deposits from which assemblages of associated artifacts can be recovered. Most informative are “shaft features” such as wells, privies, cellars, and trash pits used for refuse disposal, which typically yield an abundance of artifacts from which the lifeways of past peoples can be reconstructed.

The approach implemented successfully at other historical archaeological sites involves the monitoring of mechanical excavations by small teams of archaeologists. When archaeological remains are exposed, an immediate assessment is made, and the excavator is either allowed to proceed or asked to move temporarily to another area. While excavations proceed elsewhere, the archaeological team documents the finds using traditional manual excavation methods. Depending on the number and complexity of the cultural features found, more archaeologists can be added to keep the demolition/construction excavations running smoothly.

This approach obviously places an emphasis on the understanding and cooperation of the excavation contractor. Contracts between the developer and excavation contractor should contain a clause requiring cooperation with the team of archaeologists. Demolition and construction at Willamette Falls will expose archaeological remains and, despite the best efforts of the archaeologists, delays may occur. Unless an area can be set aside and preserved, there will be only one chance to document the features exposed and recover associated artifacts before their destruction. While recognizing the needs of an excavation contractor to adhere to a schedule as closely as possible, it is essential that the archaeologists have the time to do their job correctly.

Archaeological Analysis and Curation of Artifacts

Archaeological investigations in urban and industrial sites tend to recover very large numbers of artifacts, especially when the occupants used wells, privies, and cellars for
disposing of trash. A single privy excavation may recover 10,000 artifacts. As a result of the large numbers of artifacts recovered, analysis of these materials requires a significant investment of time. While most people envision time spent in the field as the major cost element, time spent analyzing recovered materials and preparing a report on the excavations in the lab is actually the major expense in historical archaeology.

The system used in cataloguing artifact collections has important ramifications for their use by researchers in the future. It is probably only a slight exaggeration to say that every archaeological organization has developed its own artifact catalogue system. Use of SHARD (Sonoma Historic Artifact Research Database) is strongly recommended at Willamette Falls. Developed at Sonoma State University and endorsed by the Society for Historical Archaeology, this catalogue system is formatted specifically for use with mid-19th to early 20th century artifacts. Use of SHARD will allow comparison of the artifact assemblages recovered at Willamette Falls with databases from historical archaeological sites across the United States.

Archaeological investigations at Willamette Falls are expected to recover substantial collections of prehistoric and historical artifacts. These investigations will be conducted under one or more State of Oregon permits, one stipulation of which requires curation of artifact collections at the Museum of Natural and Cultural History at the University of Oregon (or another approved repository). Currently, the cost of curation is $400/ft$^3$. In view of the likelihood that artifact collections of substantial size will be recovered (e.g., potentially encompassing several hundred cubic feet), curation costs in connection with archaeological projects at Willamette Falls should not be underestimated.

**Concluding Remarks**

The Willamette Falls Legacy Project has demonstrated a commitment to high standards during the broader historic preservation process. In view of the long history of human activity at Willamette Falls, a similar commitment to high standards should be required in addressing archaeological resources encountered during redevelopment at this location. While some of the archaeological issues raised in this memorandum may seem daunting, none are insurmountable. All of these issues have been addressed at similar large-scale development projects at sensitive archaeological and historic sites elsewhere in the United States.

The Willamette Falls Legacy Project represents a unique opportunity to obtain a substantial amount of information about a place that was, and continues to be, highly meaningful to Native Americans, as well as of great importance in the history of Euro-American settlement and development in Oregon. Through the recovery and interpretation of the archaeological evidence from the various periods of human activity represented, the Willamette Falls Legacy Project can make significant contributions to Native American and Euro-American cultural history that will be valued and appreciated by later peoples long after the property has been redeveloped.