



TECHNICAL MEMORANDUM

South Reach Archaeological Resources: Desktop Review
Portland and Multnomah County, Oregon

David V. Ellis

May 3, 2019

Introduction

The purpose of this memorandum is to inform the Bureau of Planning and Sustainability's River Plan / South Reach planning process of precontact human activity in the project area, the existence of any known archaeological resources, and the potential for future discovery of such resources. The findings below may be useful as the City considers potential resource protection tools, future cultural programs and other plan proposals for the South Reach.

Our study consisted of a review of SHPO records of archaeological surveys and related studies in the South Reach study area and previously recorded archaeological resources. From these data, we have created two paper maps and two GIS databases, one each for surveys and resources. In addition, we have developed a "sensitivity model" for the South Reach study area. The model—described in more detail below—defines the relative potential for the presence of precontact archaeological resources.

Surveys and Archaeological Resources

The South Reach area has been the subject of relatively little archaeological research in the past. There are no federal lands within the South Reach boundaries and there have been few projects that have triggered federal requirements for surveys (e.g., projects requiring federal permits or with federal funding). SHPO records list only 11 surveys over the past 44 years, 9 of which were conducted since 2000. It should be noted, however, that it's possible some surveys have been conducted in the South Reach area but the reports have not been submitted to the SHPO. Many of the surveys in the South Reach area were for small footprint projects and therefore addressed very limited areas. Only four of the surveys included subsurface probing, which is strongly recommended by the SHPO and is a standard practice for most surveys. However, subsurface probing is less

common in more urban environments due to the large number of paved surfaces and the presence of many underground utilities.

Where surveys extended outside of the South Reach boundaries, our map shows the survey area up to 500 feet from the South Reach boundaries to provide a broader context for that survey.

Very few archaeological resources have been recorded in the South Reach area, and the few that have been recorded are all historic-period archaeological sites. All four sites were identified during either surveys or construction monitoring for the new Sellwood Bridge. Three of the sites (35MU263, 35MU264, and 35MU274) have been determined to not be eligible for listing on the National Register of Historic Places (NRHP). The fourth site, 35MU258, is currently listed as unevaluated; i.e., its significance is presently undetermined.

We have included in the mapping and GIS data three sunken vessels or possible vessels on the riverbed at the lower end of Ross Island that were recorded in a 2009 hydrographic study (David Evans and Associates 2009). These features were noted in the study report and are in the SHPO GIS database but have not been assigned official archaeological site numbers. It's possible that similar features or artifacts may be present on the riverbed elsewhere with the South Reach boundaries. Historic-period and modern debris is common on riverbeds, and precontact artifacts that have eroded out of archaeological resources along the riverbank may also be present.

As noted below, there are unconfirmed reports of precontact artifacts encountered on Hardtack Island during mining operations. We are not aware of any similar finds but discoveries by private individuals on private or City lands are unlikely to be reported. In addition, given the urban character of much of the South Reach area, most previous surveys have had few or no opportunities for exploratory subsurface probes, which is the most effective means of encountering precontact archaeological resources.

Sensitivity model

The sensitivity modeling for the South Reach area is based on an integration of several variables. We began with a review of the probability model developed in 2004-2005 for the Portland Harbor Superfund data analysis study. That mapping defined probability for the Willamette River shoreline from its mouth to Willamette Falls and addressed the potential for both precontact and historic-period archaeological sites. That modeling also attempted to account for the effects of modern development in considering whether archaeological deposits would be extant (Ellis et al. 2005:96-99).

For the South Reach modeling, we found the Portland Harbor model was an initial guide but needed more focused and refined research than was possible for the 2004-2005 model. This included

- Review of the GLO surveyor's notes describing landscape features and vegetation when mapped in the 1850s (the Portland Harbor modeling used only the GLO survey maps, not the surveyors' fieldnotes);
- Reviewing landforms using LiDAR imagery; and
- Reviewing current landscapes and terrain using Google Earth (Google Earth was used in the Portland Harbor model but the current version has more advanced features than available in 2004-2005).

In addition to incorporating more or newer data into the current model, the South Reach model differs from the earlier model in that we do not address the potential for historic-period archaeological resources. We have followed the Portland Harbor model in defining three probability zones: high, moderate, and low. There were well-defined criteria for high and low probabilities, with moderate probability serving as a default designation for areas that did not meet the high or low criteria. It is possible to assign a quantitative value to these designations but it is important to consider the limited data presently available and therefore the rather arbitrary basis for the quantification.

In general, high sensitivity areas can be considered to have a greater than 70% likelihood of precontact archaeological resources; low sensitivity areas as less than 20% likelihood. Moderate sensitivity thus spans a range from 20 to 70% potential. It is important to bear in mind that (1) there remains a potential for archaeological resources even in low sensitivity areas; and (2) the percentages are those for the entire mapped areas and not for any specific locations within those areas. Revisiting the Portland Harbor model also led to redesignating Hardtack Island from moderate to high sensitivity, while retaining the moderate sensitivity designation for the rest of the Ross Island complex. The Ross Island is low in elevation (<40 feet) and has been substantially altered by aggregate mining. An archaeological survey by Portland State University in 1974 of portions of the island found no evidence of archaeological resources and concluded such resources were unlikely to be present. However, that survey also reported that precontact artifacts had been found on Hardtack Island in the past (Bogue et al. 1974). This led us to redefine the island as high sensitivity.

A more focused analysis also led to a more significant shift of the left bank of the river immediately above the Sellwood Bridge from low to moderate sensitivity. This stretch of the river is characterized by steep bluffs, with little low ground along the river. This was the basis for the low probability designation in the Portland Harbor model. We revisited this designation after noting that several tributary streams flow into the Willamette in this area from River View Cemetery and the

River View Natural Area. Although the steep slopes would have likely discouraged precontact use of the inland area, the tributaries are sources of cold water to the Willamette, providing refugia around their mouths for salmonids during hot weather (City of Portland 2015:11-12). This stretch of the river could therefore have served as an attractive fishing area for precontact people, especially during summer and fall runs when river levels are lower and its waters are warmer.

Conclusions

Our review of SHPO records has provided a basic overview of previous archaeological fieldwork and research in the South Reach area. On the surface—as indicated by the map of previous surveys—it would appear that a considerable portion of the South Reach area has been surveyed. Some of the surveys, however, are decades old and many do not meet current SHPO standards. That most surveys have consisted of only pedestrian survey with no subsurface probing severely constrained the potential archaeological resources, especially precontact resources that may have little or no surface presence. It is therefore not surprising that three of the four known archaeological resources are historic-period artifact scatters observed during monitoring of construction activity.

These data therefore have limited utility in developing a policy or approach to addressing precontact archaeological resources in the South Reach area. The only resource-specific guidance that can be offered is for 35MU258, a historic-period archaeological site that remains unevaluated. Should any City project have the potential of direct or indirect impacts to this site or the immediate area, appropriate research and fieldwork should be undertaken to determine if this site is a significant resource.

The sensitivity model has been prepared as a potential general guide for planning purposes. It is important, however, to emphasize that the model is based primarily on environmental features considered likely to have influenced precontact use or occupation by Native peoples. Direct references to Indians in the South Reach area are absent in written accounts by European American explorers, fur traders, missionaries, travelers, and settlers. The only exception is a reference to Indians gathering wapato at Oaks Bottom by Catholic missionary Father Francis Blanchet in 1841 (Bagley 1932:99, 100). In a list of Indian place names collected from two men with European American fathers and Indian mothers (the two men were cousins through their mothers), Lyman (1900:323) included “Na-ka-poulth” as the name for Oaks Bottom, described as a place where “the Indians dug wapatoes.” A review of ethnographic literature for the South Reach area (Drucker 1934; Gatschet 1877; Gatschet et al. 1945; Jacobs 1958, 1959) found no references to locations in the South Reach area. Although far from exhaustive, Zenk’s (2008) description of Native place names in the Willamette Valley has no names in the South Reach area.

The model has the potential to be used in several different ways. First, it can be used just as a general guide for planning purposes, indicating those areas within the South Reach with a potential for precontact archaeological resources. Another use of the model would be to help delineate resource protection measures for proposed development projects involving ground disturbance in the South Reach. Those procedures could range from requiring archaeological surveys well in advance of any construction activity to archaeological monitoring during construction to developing an inadvertent discovery plan (IDP) in areas defined as having a moderate to high potential for archaeological resources depending on the horizontal and vertical extent of disturbance. The use of an IDP may be sufficient for addressing construction in those areas defined as having low sensitivity for archaeological resources. The model could also be applied to proposed ground disturbance by private parties requiring City permits (e.g., grading permits). How this is framed would be contingent on the City's legal authority to attach conditions to address archaeological resources on such permits. The City could minimally reference the state law (ORS 358.920) that prohibits disturbing archaeological sites and ORS 97.740, which prohibits disturbing Indian graves.

A tiered approach is another option that has been applied with modest success in Clark County, Washington, as well as in the Cities of Vancouver, Camas, and Washougal and as in the Columbia River Gorge National Scenic Area. These agencies, of course, operate in different statutory and regulatory environments than the City of Portland, but the tiered approach may still be a useful model. This approach typically defines scales of development that intersect with probability or sensitivity designations. For example, proposed development/construction that involves substantial horizontal and vertical ground disturbance in areas defined as having a moderate to high potential for archaeological resources would require an archaeological survey, while projects with minimal ground disturbance in low potential areas may require only an IDP. There can be varying levels of specificity in defining both the scale of ground disturbance and how potential effects to archaeological resources are addressed. (A link to the City of Vancouver's ordinance as an example: https://www.cityofvancouver.us/sites/default/files/fileattachments/vmc/titles_chapters/020.710.pdf).

Finally, given the very preliminary character of the South Reach sensitivity model, it is critical that the model be revisited at regular intervals and updated as new data become available. Given that most surveys are conducted to meet state and federal requirements, the associated reports are unlikely to be provided to the City but would be on file at the SHPO. The City should consider developing an agreement with the SHPO for sharing information relevant to the South Reach area. However, knowing SHPO's reluctance to participate in such an agreement, the City may need to contract with an appropriate firm or individual for updating the model. Initially updating the model every five years would be an appropriate interval.

References Cited

- Bagley, Clarence B. (editor)
1932 *Early Catholic Missions in Old Oregon*. 2 vols. Lowman and Hartford Company, Seattle, Washington.
- Bogue, Robert, Ruth McGilvre, and Roger Wiggin
1975 *Report on Archeological Reconnaissance of Ross Island, Multnomah County, Oregon, June 1974*. Department of Anthropology, Portland State University, Oregon. SHPO Report No. 622. On file, Oregon SHPO, Salem.
- David Evans & Associates, Inc.
2009 OPR-N338-KR-08 *Columbia River, Oregon. Survey: H11854 Descriptive Report*. David Evans & Associates, Inc., Portland, Oregon. SHPO Report No. 22741. On file, Oregon SHPO, Salem.
- Drucker, Philip
1934 Clackamas Chinookan Ethnographic Fieldnotes. Manuscript No. 4516(78), on file, National Anthropological Archives, Smithsonian Institution, Washington, D.C.
- Ellis, David V.
1977 *An Assessment of the Cultural Resources to be Affected by the Proposed Southeast Relieving Interceptor Project, City of Portland, Oregon*. Department of Anthropology, Portland State University, Oregon. SHPO Report No. 312. On file, Oregon SHPO, Salem.
- Ellis, David V., Jason M. Allen, and Yvonne Hajda
2005 *Cultural Resource Analysis Report for the Portland Harbor Superfund Site, Portland, Oregon*. Submitted to the Lower Willamette Group. Archaeological Investigations Northwest, Inc., Report No. 1611, Portland, Oregon.
- Fulton, Terri P., and Philip A. Fulton
1998 *Supplemental Site Investigations for the FTV Western Build, Oregon*. Northwest Archaeological Associates, Inc., Seattle, Washington. SHPO Report No. 16745. On file, Oregon SHPO, Salem.
- Gatschet, Albert S.
1877 Texts, Sentences, and Vocables of the Atfálati Dialect of the Kalapuya Language of Willamette Valley, Northwestern Oregon. Manuscript No. 472-a. On file, National Anthropological Archives, Smithsonian Institution, Washington, D.C.
- Gatschet, Albert S., Leo J. Frachtenberg, and Melville Jacobs
1945 Part III. Kalapuya Texts. In *Kalapuya Texts*, edited by M. Jacobs, L. J. Frachtenberg, and A. S. Gatschet, pp. 143–369. University of Washington Publications in Anthropology, Vol. 11. University of Washington Press, Seattle.
- Gauthier, Tara
2015 *Lower Willamette River Ecosystem Restoration General Investigation Study – June 2015*. U.S. Army Corps of Engineers, Portland District, Portland, Oregon. SHPO Report No. 27468. On file, Oregon SHPO, Salem.

Jacobs, Melville

1958 *Clackamas Chinook Texts*. Vol. 1. Folklore, and Linguistics Publications No. 8, Research Center in Anthropology, Indiana University, Bloomington.

1959 *Clackamas Chinook Texts*. Vol. 2. Indiana University, Research Center in Anthropology, Folklore, and Linguistics Publications No. 11, Bloomington.

Lyman, Harry S.

1900 Indian Names. *Oregon Historical Quarterly* 1(3):316–326.

Musil, Robert R.

2001 *Archaeological Survey and Discovery Probing Along the Sellwood Interceptor Upgrade Project Alignment, Portland, Oregon*. Heritage Research Associates, Inc., Eugene, Oregon. SHPO Report No. 17798. On file, Oregon SHPO, Salem.

2010 *Archaeological Discovery Probing at the Oak Bottoms Wildlife Refuge Enhancement Project, City of Portland, Multnomah County, Oregon*. Heritage Research Associates, Inc., Eugene, Oregon. SHPO Report No. 25821. On file, Oregon SHPO, Salem.

2017 *Archaeological Survey Along the Willamette River at the Oaks Bottom Wildlife Refuge, City of Portland, Multnomah County, Oregon*. Heritage Research Associates, Inc., Eugene, Oregon. SHPO Report No. 29461. On file, Oregon SHPO, Salem.

Oliver, Liz

2015 *Oaks Bottom Wildlife Refuge Tidal Restoration Project Staging Area*. U.S. Army Corps of Engineers, Portland District, Portland, Oregon. SHPO Report No. 29462. On file, Oregon SHPO, Salem.

City of Portland

2015 *River View Natural Area Management Plan*. Portland Parks & Recreation and Environmental Services, City of Portland, Oregon.

Sharp, Nancy D., Terri P. Fulton, Philip A. Fulton, and Kenneth E. Juell

1998 *Cultural Resources Inventory of the Proposed FTV Western Build. Part 1: Oregon, Volume I*. Northwest Archaeological Associates, Inc., Seattle, Washington. SHPO Report No. 16744. On file, Oregon SHPO, Salem.

Walker, Cam, Judith A. Chapman, and Elizabeth J. O'Brien

2015 *Archaeological Phase I Survey for the Springwater Trail Gap: SE Umatilla to SE 13th Ave, Portland, Multnomah County, Oregon*. Archaeological Investigations Northwest, Inc., Portland, Oregon. SHPO Report No. 27431. On file, Oregon SHPO, Salem.

Wilt, Julie

1998 *Results of an Archaeological Survey of the Preferred Alternative (Alternative D Refined)*. CH2MHILL, Portland, Oregon. SHPO Report No. 23363. On file, Oregon SHPO, Salem.

Zenk, Henry

2008 Notes on Native American Place-names of the Willamette Valley Region. *Oregon Historical Quarterly* 109(1):6–33.

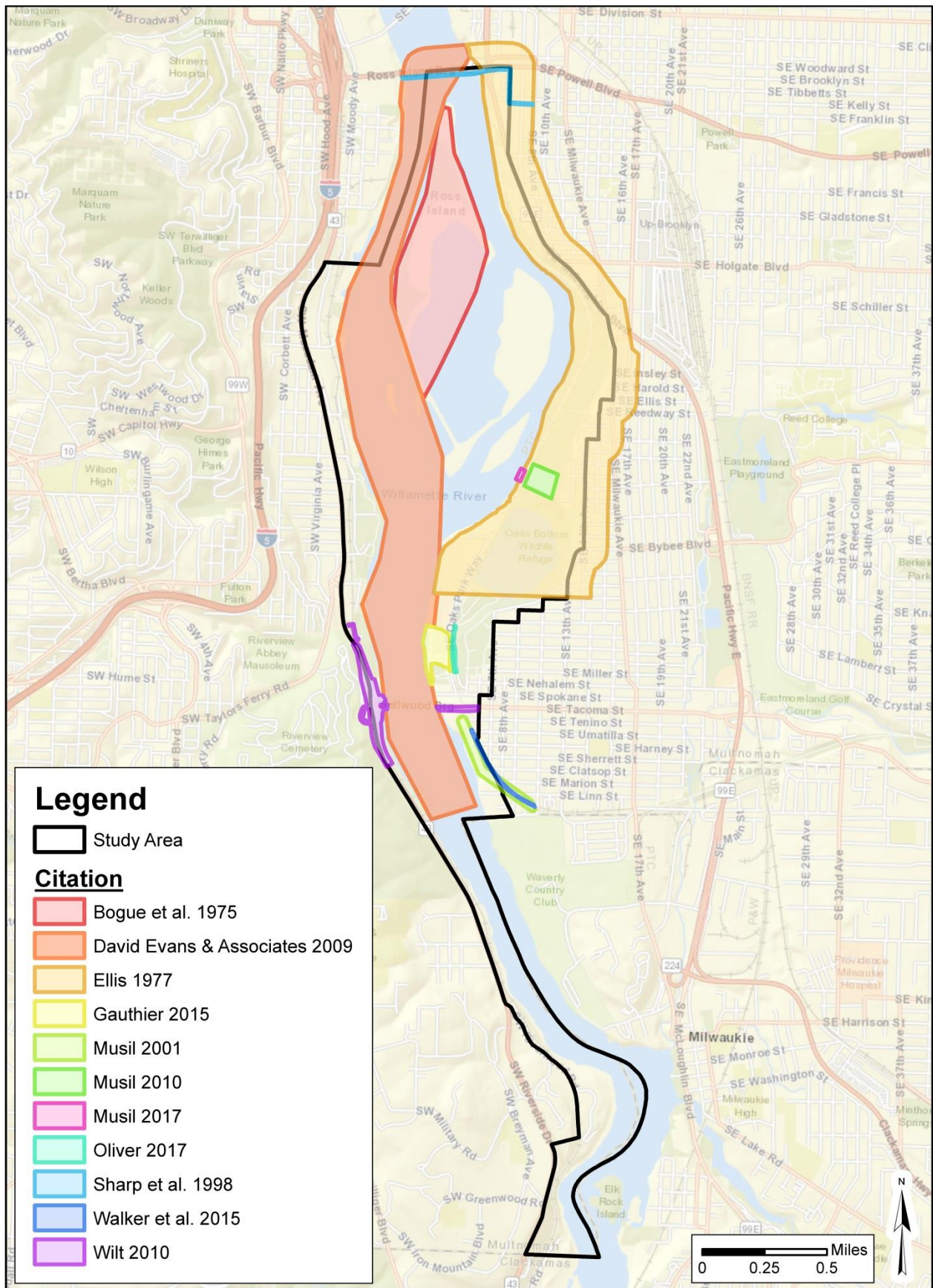


Figure 1. Previous surveys within the study area.

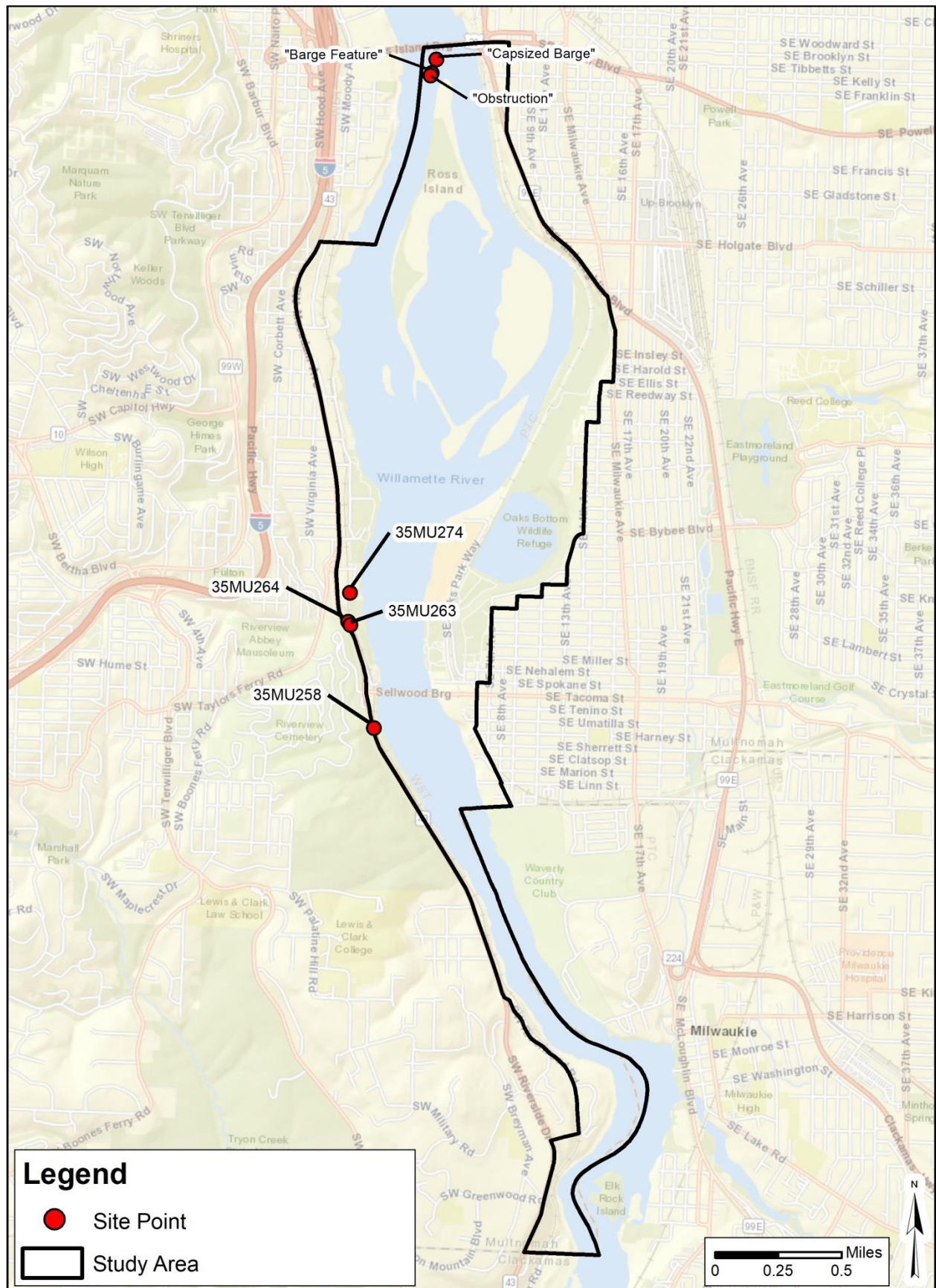


Figure 2. Previously recorded archaeological resources recorded within the study area.

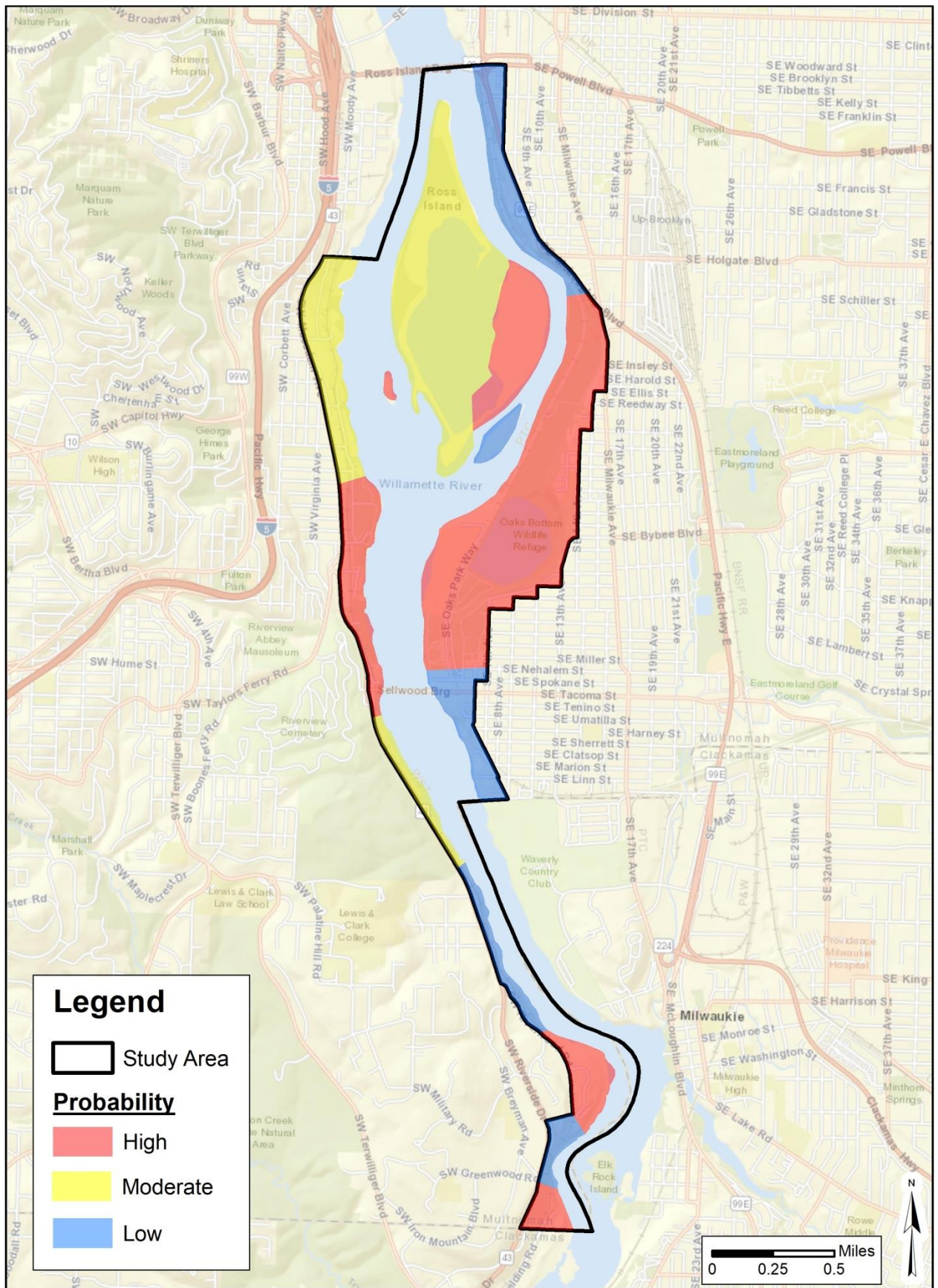


Figure 3. South Reach precontact archaeological sensitivity model.