



150 N Patrick Blvd., Suite 180
Brookfield, WI 53045

T 262.879.1212
TRCcompanies.com

January 7, 2021

Kevin Westhuis
Utility Director
City of River Falls Municipal Utilities
222 Lewis St.
River Falls, WI 54022

Subject: **Phase I Archaeological Survey of the Shoreline at the Junction Falls Development, River Falls Hydroelectric Project (FERC #10489), Pierce County, Wisconsin**
TRC Project No. 350165
WIARC No. 262

Dear Mr. Westhuis:

The River Falls Hydroelectric Project (Project) is owned and operated by the City of River Falls Municipal Utilities (RFMU). The Project consists of two developments, the Junction Falls Development, which includes Lake George, and the Powell Falls Development, which includes Lake Louise. The Project is licensed by the Federal Energy Regulatory Commission (FERC). RFMU proposes to relicense the Junction Falls Development and decommission the Powell Falls Development with dam removal. Issuance of a new license for the continued operation and maintenance of the Junction Falls Development is defined as an undertaking and is, therefore, subject to the provisions of Section 106 and its implementing regulations at 36 CFR Part 800. Section 106 directs federal agencies to consider the effects of their undertakings on any resources that are listed, or eligible for listing, in the National Register of Historic Places (NRHP). The Cultural Resources Study is outlined in RFMU's River Falls Revised Study Plan (RSP) submitted on June 11, 2019 and FERC's Study Plan Determination dated July 11, 2019.

The first objective of the Cultural Resources Study (Study) was to determine the Area of Potential Effect (APE). The proposed APE includes the approximate FERC Project boundary and areas of potential land disturbance from Powell Falls decommissioning and removal activities. The proposed APE was divided into two parts, the Junction Falls APE and the Powell Falls APE. This distinction was made because the Junction Falls Development is proposed to be relicensed and the Powell Falls Development is proposed to be decommissioned with dam removal. The Wisconsin State Historic Preservation Office (SHPO) and FERC requested that the APE be divided in this way to facilitate Project review. On October 2, 2019, the Licensee sent a letter to the Wisconsin SHPO and tribes requesting review and comment on the proposed Project APE. The Wisconsin SHPO concurred by letter (October 10, 2019). No other responses were received.

The second part of this Study includes the Phase I Archaeological Survey, which is detailed in this report. The APE is shown on Figures 1 - 5. The APE is in Section 1, T27N, R19W in River Falls Township (Figure 1).

LITERATURE AND ARCHIVES RESEARCH

Literature and archives research were conducted prior to beginning archaeological fieldwork. The Wisconsin Historic Preservation Database (WHPD) does not show any archaeological sites in or adjacent to the Junction Falls APE. The 1947 Wisconsin Land Economic Inventory (WLEI) does not show any cultural or topographic features in the Junction Falls APE (Figure 2). The 1939 aerial shows the City of River Falls and the Project as it existed at that date (Figure 3). The 1848 GLO map shows the Kinnickinnic River, but nothing of cultural significance (Figure 4). The Junction Falls APE has not been surveyed for archaeological sites in the past. The Junction Falls APE as shown on the GLO (Figure 4) is at the correct location. The 1848 GLO was sketched 172 years ago and not specifically surveyed; therefore, the 1848 river alignment does not conform completely to modern map depictions.

Two earlier archaeological surveys were conducted within the Junction Falls APE. A 1984 survey for the Division Street bridge alternative project was limited to the floodplain due to construction disturbance from Division Street and urban development. Nothing of archaeological interest was found and no additional archaeological work was recommended (Barth 1984). A 2015 survey for a trail project along the north bank of the Kinnickinnic River from Heritage Park to Division Street, noted areas of disturbance from urban development. Nothing of archaeological interest was found and no additional archaeological work was recommended (Hodgson 2015).

In 1867 the first dam was built at Junction Falls and consisted of a rock filled timber dam used to generate power for a flour mill that was directly adjacent to the dam (City of River Falls 2018). In 1897 (Pierce County Historical Association 2020) the mill burned down, reportedly by arson fire to collect on the insurance. All that remains of the original 1867 mill is the smokestack (Pierce County Historical Society 2020, River Falls Journal 2018). In 1900, residents came together to create the River Falls Municipal Utilities and bought the Junction Falls Dam. During that same year, the Municipal Power Plant was built and provided the community with electricity and electric lighting (River Falls Municipal Utilities 2020). In 1920, the City of River Falls replaced the rock-filled timber dam with a concrete gravity dam. In 1923 a diesel generator was added but was removed sometime before 2020 (Pierce County Historical Association 2020). In 1948, a new powerhouse was built and during the early 1960s, the existing steel penstock was encased in concrete. Repairs and improvements have been made to the structures, but the penstock enclosed in concrete in the early 1960s and the powerhouse built in 1948 are still in use (River Falls Municipal Utilities 2020).

FIELDWORK

The purpose of the Phase I Archaeological Survey was to examine the shoreline of Lake George and shovel test, as needed, lands within the Junction Falls APE for archaeological sites that may be affected by Project operations. Part of the shoreline inspection requirement is to identify archaeological sites that might be affected by erosion¹. Archaeological fieldwork was conducted on July 27-30, 2020. Figure 5 depicts the Junction Falls APE with shovel test and photo locations. Photos 1-6, included in Appendix A, characterize the Project environment in the Junction Falls APE along the shoreline.

TRC Archaeologists walked the shoreline and dug shovel tests on level, unexposed areas. Exposed banks and gravel bars were inspected for artifacts except on steep banks with a greater than 25 percent slope within the Junction Falls APE. Shovel tests were dug in vegetated ground surfaces abutting the shore.

Shovel testing is the excavation of shovel holes in a systematic grid-like fashion. The tests are dug in parallel lines called transects, with an interval within and between transects that is consistent and not greater than 15 meters, the maximum suggested interval by the Wisconsin Archaeological Survey guidelines for public archaeology in Wisconsin. Shovel tests, about 35 cm in diameter, are excavated to an undisturbed natural soil horizon, in order to reveal former human occupation surfaces. The depth of shovel tests varies with terrain, but it is based on the archaeologist's substantive knowledge of local archaeology and soil sequences for the area. All soil from each hole is screened through ¼ inch mesh hardware cloth and placed back into the hole. If artifacts are found, the location is marked with a GPS waypoint and marked for possible test excavation. Lands within the Junction Falls APE were shovel tested at 15-meter intervals.

The July 2020 survey² examined the shoreline and noted that short reaches of the impoundment bank had been stabilized with riprap, landscaping, and by other means. However, much of the shoreline is stable and well vegetated with areas protected by natural slow water environments, which allow emergent and submergent vegetation to buffer the shoreline.

Shovel tests were dug, where possible, in areas with less than 25 percent slope and dry soil. Most of the land associated with the shoreline was above the river along the shoreline edge, with sand and gravel bars at the base of the sloping shoreline. Shovel test soil profiles in the northern half of the

¹ Erosion is here defined as "banks that [are] not stabilized and [are] experiencing serious sheet erosion and down-drift with material freely flowing into the flowage. Such banks [are] usually losing topsoil and vegetation. Some vegetation [may] be present at the water's edge but it [covers] less than 50% of the total shoreline." This definition of Class III erosion is provided by Great Lakes Environmental Center, Inc. of Traverse City Michigan.

² In late June of 2020, due to heavy rainfall, the Kinnickinnic River and Lake George overflowed their banks. Despite this, the Lake George shoreline experienced little visible damage.

Kevin Westhuis
City of River Falls Municipal Utilities
January 7, 2021
Page 4

Lake George impoundment, at bank top, showed an A-Horizon of very dark brown 10YR 2/2 loam (0-20cm) over a B-Horizon of dark grayish brown 10YR 4/2 mottled with grayish brown 10YR 5/2 silty sand. Shovel test profiles in the southern half of the Junction Falls APE showed patches of disturbance caused by commercial development and the development of the park facilities. Intact soil profiles in this area showed very dark brown 10YR 2/2 loam (0-20cm) over limestone bedrock. Well vegetated areas below the shoreline were tested and soil profiles showed an A-horizon of 10YR 7/2 (0-70cm) over the water table. These soils are consistent with sand and gravel bars.

The combination of bank examination, surface collection of exposed gravel bars, and shovel testing did not yield any artifacts or archaeological sites in the Junction Falls APE.

RECOMMENDATION AND CONCLUSION

The Junction Falls APE consists of the Lake George impoundment, which was created by the construction of the Junction Falls Dam. The Junction Falls Development is licensed by the FERC and is subject to the provisions of Section 106 and its implementing regulations at 36 CFR Part 800. In July 2020, a Phase I Archaeological Resources Survey was conducted of the Lake George shoreline and lands within the Junction Falls APE. Archaeologists conducting surface observation did not encounter any areas of erosion and described the shoreline as well-vegetated and stable. The Phase I survey encountered areas of disturbance caused by recreational facilities development, but no archaeological sites or artifacts were noted. Shovel testing efforts did not encounter any artifacts.

No additional archaeological work is recommended until the time stipulated in the future Historic Resources Management Plan.

If we can provide additional assistance, I can be reached at 262-225-5105, or by email at AVanDyke@trccompanies.com.

Sincerely,

TRC



Allen P. Van Dyke
Principal Archaeologist

Attachments: 6 Photos and 5 Figures

cc: R. Klabacka-Williams, TRC
L. Brotkowski, TRC
L. Nordman, TRC

REFERENCES CITED

Barth, Robert J.

1984 *An Archaeological Survey of the Proposed Kinnickinni River Bridge Project: Division Street Alternative, City of River Falls, Pierce County, Wisconsin*. Department of Sociology, University of Wisconsin – Eau Claire. Eau Claire, Wisconsin.

Board of Commissioners of Public Lands – General Land Office Survey (GLO)

2018 General Land Office Survey Plat Maps.
<http://digicoll.library.wisc.edu/SurveyNotes/Search.html>. Accessed July 10, 2018.

City of River Falls

2018 A Brief History of River Falls: A Tradition of Industry and Education.
<http://www.rfmu.org/AgendaCenter/ViewFile/Agenda/11032016-419>. Accessed July 11

Hodgson, John

2015 *Phase I Archaeological Study for the City of River Falls Proposed Trail from Heritage Park to Division Street*. Phase I Archaeology. Madison, Wisconsin.

Pierce County Historical Association

2020 History Sites – River Falls, City of. <https://piercecounthistorical.org/history-sites-river-falls-city-of/>. Access July 15.

River Falls Municipal Utilities

2020 Hydroelectric Generation. <https://www.rfmu.org/935/Hydroelectric-Generation#:~:text=Junction%20Falls%20Dam%20was%20the,for%20a%20municipal%20power%20plant>. Accessed July 15.

Wisconsin Historic Aerial Image Finder (WHAIF)

2018 Wisconsin Historic Aerial Image Finder Photographs. <http://maps.sco.wisc.edu/WHAIFinder/>. Accessed July 10.

Wisconsin Historic Preservation Database (WHPD)

2018 Wisconsin Historic Preservation Database Site Files. <http://wisahrd.org/ASI/Welcome.aspx>. Accessed July 10.

Wisconsin Land Economic Inventory (WLEI)

2018 Wisconsin Land Economic Inventory Plat Maps.
<http://uwdc.library.wisc.edu/collections/EcoNatRes/WILandInv>. Accessed July 10.

Appendix A

Photos & Figures



Photo 1: Division Street Bridge at north end of Junction Falls APE. View to north.



Photo 2: General character of northern reach of Junction Falls APE. View to southeast.



Photo 3: Typical sloped shoreline down to vegetated gravel bar. View to southeast.



Photo 4: Gravel bar along the midsection of Lake George. View to south.



Photo 5: Typical character of south end of Lake George. View to southwest.



Photo 6: Junction Falls Dam. View to northeast.