

Technical Memo

TO: Douglas Brugger, EI, CFM; DNRC Floodplain Engineer
Steve Story PE, CFM; DNRC Water Bureau Chief

FROM: Gunnar Getchell PLS, CFedS; Survey Manager
Luke Carlson PE, CFM

DATE: 12/29/2021

JOB NO.: 1447.055 (WO-MM-207)

RE: Teton Countywide Survey – Pickup Survey

CC: Ken Salo PE, Morrison-Maierle

Urgent For Review Please Comment Please Reply For Your Use

1. Introduction

In November 2021, Morrison-Maierle was tasked with providing additional survey support for the Teton Countywide Survey Project. The pickup survey request transmitted to Morrison-Maierle included field investigation for 25 total field locations, 14 locations and two (2) general areas in the Muddy Creek watershed, one (1) location in the Spring Creek watershed, and eight (8) locations in the Teton River watershed. The pickup survey request included 17 additional Type 2, six (6) Type 3 hydraulic structures, and two (2) general areas where Type 3 structure investigation was requested for any field-identified hydraulic structures. The first general area is a 1.4 mile structure investigation along Miller Colony Farm Road beginning approximately 0.65 miles west of the intersection with Blackleaf Road. The second general area is a 0.2 mile stretch of a local access road north of the Bynum Reservoir beginning at the intersection with Bynum Reservoir Road. The additional survey effort also includes project management, coordination with mapping partners, field investigation, QA/QC, and transmittal of additional data to Montana DNRC and to Mapping Partners as directed.

During the field investigation Morrison-Maierle collected field survey data for 11 Type 2 and four (4) Type 3 hydraulic structures. The additional survey request included one (1) location which was collected as a Structure Inventory (SI) field investigation in the original project deliverables. Crossing information for Blackleaf Road culvert crossing of Mill Creek is named MIL_010_SI in the original Teton Countywide Survey Data Capture data set. Two (2) structures were identified along the embankment feature of interest in the Spring Creek watershed. No hydraulic structures existed within the two (2) general areas requested for investigation. The remaining discrepancy between hydraulic structure data planned for investigation and field collected is due to structures identified during the field work. Eight (8) of the requested locations were field investigated where hydraulic structures do not exist (Table 1).

Table 1: Pickup Survey Locations Where No Hydraulic Structure Exists

Count	Structure Name	Planned Survey Type
1	MUD192T3	Type 3
2	MUD193T3	Type 3
3	MUD203T2	Type 2
4	MUD205T2	Type 2
5	MUD207T3	Type 3
6	TET164T2	Type 2
7	TET165T2	Type 2
8	TET168T2	Type 2

All field investigation locations have been included as a shapefile and a google earth file for reference in the Supplemental_Data folder of the Pickup Survey data package. The structure spatial file includes an attribute field noting the type of structure (e.g. culvert). The attribute field includes “Does not exist” for all locations where the hydraulic structure did not exist in the field.

2. Data Collection

Morrison-Maierle personnel collected structure dimensions, sketches, and photos of all the hydraulic structures found during the pickup survey. Data was collected using conventional (tape measure) and GNSS CenterPoint RTX methods. Dimensions between points collected using CenterPoint data were computed in the field and noted on the sketches.

3. Information for Next Mapping Partner

Supplemental information included a list of potential structures that were field investigated and short comments for each structure.

A survey report detailing the survey approach and methodology has been included in the Task Documentation folder of the original survey submittal. The pickup survey effort conformed to the practices, procedures and approach documented for the previously completed project deliverables.