# Watershed Characteristics Report Marias R nr Shelby

Publisher: nwcc\_nrcs

Comments: Generated by the final test release of BAGIS Pro Basin Analysis Report Tool Local file path: E:\NWCC\BasinAnalysisReport\_AOIs\selected\_AOIs\marias\_r\_nr\_shelby\_10312010 Exported on October 5, 2022 at 7:42 PM (UTC-08:00) Pacific Time (US & Canada) For more information see the Basin Analysis Reports Users Manual at <u>https://nwccnrcs.hub.arcgis.com/documents/basin-analysis-reports-users-manual</u>

The boundary of a basin is the watershed delineated upstream of the stream gage station listed below:

Streamgage station: 06099500:MT:USGS

Streamgage station name: Marias R nr Shelby

Delineated drainage area: 2723.88 square miles

Annual runoff ratio: 17.75% (Annual runoff ratio is calculated as the volume of potential annual runoff from precipitation divided by the normal annual runoff observed at the stream gage.)

Elevation range: 3099.45 to 9479.79 feet

SITE (Delete "S")

SNOTEL Sites: 3; within basin: 2; within a 5 Kilometers buffer distance outside of basin: 1 (See AUTOMATED SITES REPRESENTATION map)

Snow Courses: 2; within basin: 1; within a 5 Kilometers buffer distance outside of basin: 1 (See SNOW COURSE SITES REPRESENTATION map)

Network Representation Analysis SITE (Delete "S")

Site representation definition: within 5.642 miles planar radius, with 500 feet above and below site elevation. Percent of total basin represented by automated site(s): 3% (See AUTOMATED SITES

REPRESENTATION map) Percent of total basin area represented by snow course site(s): 1% (See SNOW COURSE SITES REPRESENTATION map) Percent of total basin area represented by both automated and snow course site(s): 3% (See ALL SITES REPRESENTATION map)

# Potential Site Location Analysis

Potential site location meets the following criteria: Delete "S"

- on federal non-wilderness or tribal land, AND
- on deciduous, evergreen, and mixed forested land, AND
- within 300 Feet of access roads

SNOLITE Sites: X; within basin: X; within a 5 Kilometers buffer distance outside of basin: X (See AUTOMATED SITES REPRESENTATION map) Coop Pillow Sites: X; within basin: X; within a 5 Kilometers buffer distance outside of basin: X (See AUTOMATED SITES REPRESENTATION map)

> Report generated using BAGIS Pro – A tool maintained by the NRCS National Water and Climate Center (NWCC) and Center for Spatial Analysis & Research (CSAR), Geography, Portland State University

#### Data sources:

## Snow Water Equivalent (SWE)

SWE Data Source - Averaged daily SNOw Data Assimilation System (SNODAS) Snow Water Equivalent (SWE) from 2004 to current water year data. See https://www.nohrsc.noaa.gov/ for more information. Clipped from: http://bagis.geog.pdx.edu/arcgis/services/DAILY\_SWE\_NORMALS/ Clipped on: October 5, 2022

#### Precipitation

30-year (1991-2020) monthly/quarterly/annual average precipitation data created by the PRISM Climate Group. See https://prism.oregonstate.edu/ for more information.

Clipped from: http://bagis.geog.pdx.edu/arcgis/services/BAGIS\_PRISM\_1991\_2020/ Clipped on: October 5, 2022

#### **Active SNOTEL sites**

Active SNOTEL sites data hosted on Natural Resources Conservation Service (NRCS) National Water and Climate Center (NWCC) Air and Water Database (AWDB). See

https://www.nrcs.usda.gov/wps/portal/wcc/home/dataAccessHelp/webService/webServiceTutorial/ for more information. Clipped from: https://services.arcgis.com/SXbDpmb7xQkk44JV/arcgis/rest/services/stations\_SNTL\_ACTIVE/FeatureServer/0 Clipped on: October 5, 2022

#### **Active Snow Course sites**

Active Snow Course sites hosted on Natural Resources Conservation Service (NRCS) National Water and Climate Center (NWCC) Air and Water Database (AWDB). See

https://www.nrcs.usda.gov/wps/portal/wcc/home/dataAccessHelp/webService/webServiceTutorial/ for more information. Clipped from: https://services.arcgis.com/SXbDpmb7xQkk44JV/arcgis/rest/services/stations\_SNOW\_ACTIVE/FeatureServer/0 Clipped on: October 5, 2022

#### Access Roads - for Potential Site Location Analysis

USFS FSTopo Transportation Line 2020 version. See

https://data.fs.usda.gov/geodata/edw/edw\_resources/meta/S\_USA.FSTopo\_Transport\_LN.xml for more information. Clipped from:

https://services.arcgis.com/SXbDpmb7xQkk44JV/arcgis/rest/services/USFS\_FSTopo\_Transport\_LN/FeatureServer/0 Clipped on: October 5, 2022

### Public Land Ownership – for Potential Site Location Analysis

Federal non-wilderness and tribal land data based on the 2020 USGS Protected Areas Data (PAD) version 2.1. See https://www.usgs.gov/programs/gap-analysis-project/science/pad-us-data-overview for more information. Clipped from: https://services.arcgis.com/SXbDpmb7xQkk44JV/arcgis/rest/services/Public\_and\_Tribal\_Lands/FeatureServer/0 Clipped on: October 5, 2022

#### Land Cover – for Potential Site Location Analysis

2019 NLCD Land Cover. See https://www.mrlc.gov for more information. Clipped from: http://bagis.geog.pdx.edu/arcgis/rest/services/BAGIS\_Databin/NLCD\_2019\_land\_cover/ImageServer Clipped on: October 5, 2022

#### **Station Runoff Volume**

Average Annual Naturalized Runoff Volume (1991-2020) data retrieved from Natural Resources Conservation Service (NRCS) National Water and Climate Center (NWCC) Air and Water Database (AWDB) by NWCC in 2022.

Add DEM source