

**South Branch Root River nr Carimona, CSAH12**

**STATION ID: H43-067-001**

**NWS ID: CMAM5**

**USGS ID: 05384030**

**EquIS ID: S004-839**

**LOCATION:**

<b>Lat:</b> 43.660163°	<b>UTMX:</b> 568184.6	<b>Township:</b> Carimona					
<b>Long:</b> -92.154357°	<b>UTMY:</b> 4834476.4	<b>PLS:</b> TWP	RNG	SEC	Q	QQ	
		102	11W	4	SE	SE	

**County:** Fillmore (23)

**Drainage area (acres):** 85,178

**Driving directions:** From Preston, MN: Take US52 north 1 mile to the intersection of MN16 and US52. Travel west on MN16 for 3 miles then travel south on CR11 for 1 mile. Continue on CSAH12 0.4 miles to bridge.

**Cooperation:** Minnesota Department of Natural Resources (MNDNR) and Minnesota Department of Agriculture (MDA).

**History:** Site established as a replacement for South Branch Root River near Forestville (H43067002). MNDNR began monitoring in 4/2/2009.

**GAGE:** Data logger, automated sampler, rain bucket and associated telemetry system are operated by MDA.

**CHANNEL AND CONTROL:** Lower flow control is a rock riffle approximately 150 feet downstream of bridge. High and moderate flow control is the channel.

**DISCHARGE MEASUREMENTS:**

**High flow:** High and moderate flow measurements can be taken 50-60 feet upstream of bridge with a tagline.

Extreme high flow measurements can also be taken with caution from the downstream side of bridge due to turbulence caused by the bridge piers and backwatering on the right bank side.

**Low flow:** Wading measurements can be taken approximately 130 feet downstream of bridge, upstream of riffle.

**Diversions, Impoundments, Additional flow inputs:** No surficial diversions, impoundments, or additional inputs; however, flow in this reach is known to be augmented with groundwater inputs.

**REFERENCE MARKS:**

**B.M. 1:** Disk in Fillmore County Bridge #23538 in the downstream right bank (southeast) wing wall.

Elevation: 29.79 feet assumed datum (997.96 feet NGVD29). Surveyed by Fillmore County, unknown date.

**R.M. 1:** Lower beveled edge of chiseled square on downstream (east) side of jersey barrier.

Elevation: 32.01 feet assumed datum (1000.18 feet NGVD29). Surveyed on 11/2/2022 by MNDNR.

**R.M. 2:** Wire weight checkbar on downstream (east) side of bridge, approximately 3 feet right of radar.

Elevation: 30.93 feet assumed datum (999.10 feet NGVD29). Surveyed on 11/2/2022 by MNDNR.

**R.M. 3:** Chiseled square on upstream left bank abutment (northwest). Established on 9/26/2018 by MNDNR.

Elevation: 28.40 feet assumed datum (996.57 feet NGVD29). Surveyed on 11/2/2022 by MNDNR.

**R.M. 4:** Spike in tree on downstream left (northeast) bank, 20 feet from river, 30 feet from road. Spike is 1 foot off ground on stream side of tree. Established on 9/26/2018 by MNDNR.

Elevation: 19.61 feet assumed datum (987.78 feet NGVD29). Surveyed on 11/2/2022 by MNDNR

**Primary Reference:** R.M. 2 (30.93 ft assumed datum)

**Gage zero:** 968.17 feet NGVD29

**\*\*\*NOTE:** Permission has been obtained from upstream landowner to access stream if needed for measurements. Please stay within reasonable distance from the bridge. \*\*\*