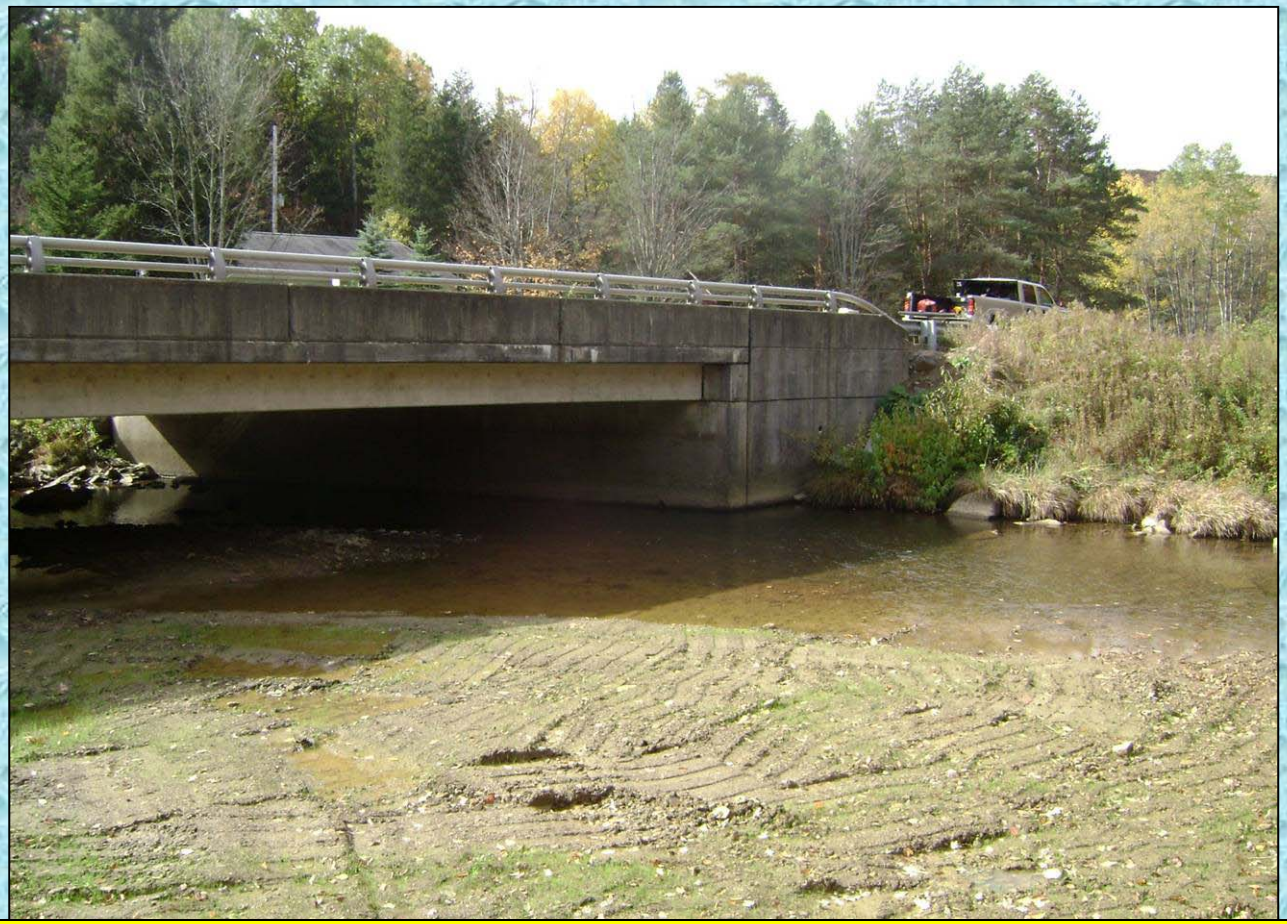
Bridge-Mounted
6-inch Articulating Arm
Dry Fire Hydrant
Corydon Township, Pennsylvania

Facts & Figures…

- This DFH was designed and installed by Mark Davis and Greg Dods of GBW Associates, LLC.
- It is the second bridge-mounted DFH installed in Corydon Twp. by GBW Associates, LLC.
- The DFH is constructed of 6-inch PVC pipe and uses all Kochek fittings: a 6-inch NST suction head, a 6-inch full-time swivel, and a 6-inch teardrop strainer.
- The articulating arm was needed due to the height of the guardrail.
- A lowering and retrieval system was installed to help lower and raise the articulating arm.
- The installation was designed for use with the Corydon Twp VFD's new vacuum tanker in addition to a traditional pumper.
- The cost of this installation was funded through a State grant.

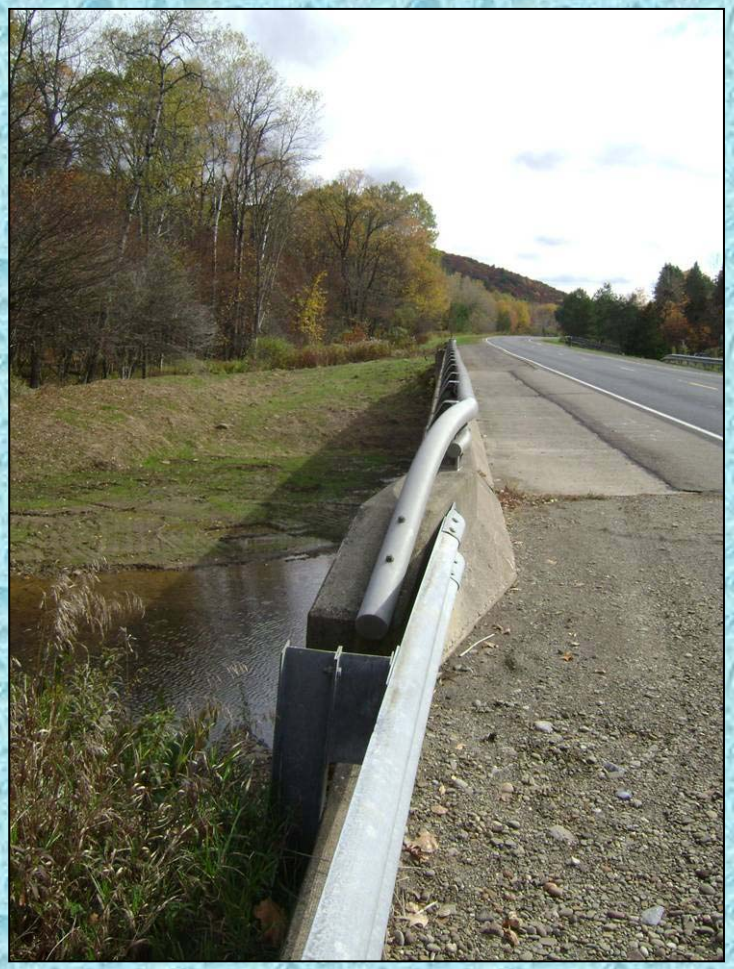
Corydon Dry Hydrant Installation



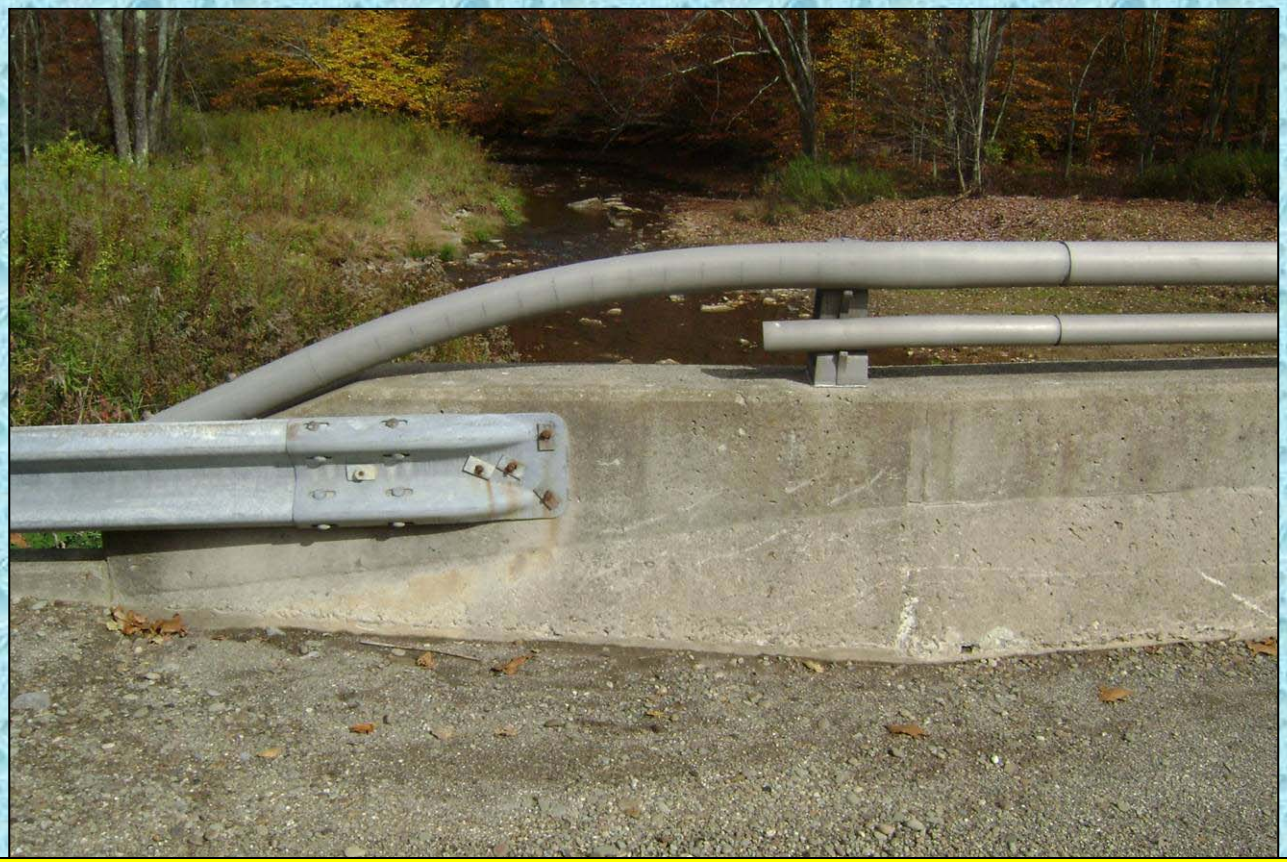
This state-owned bridge spans a trout stream in the Alleghany National Forest in McKean County, Pennsylvania.

Corydon Dry Hydrant Installation

- Because of the double-rail guard rail, the suction head had to be placed at one end of the bridge.
- Permission was not received to remove any part of the guard rail system and with the height of the rail higher than a FD pumper's intake, an air pocket could be created - thus causing drafting problems.

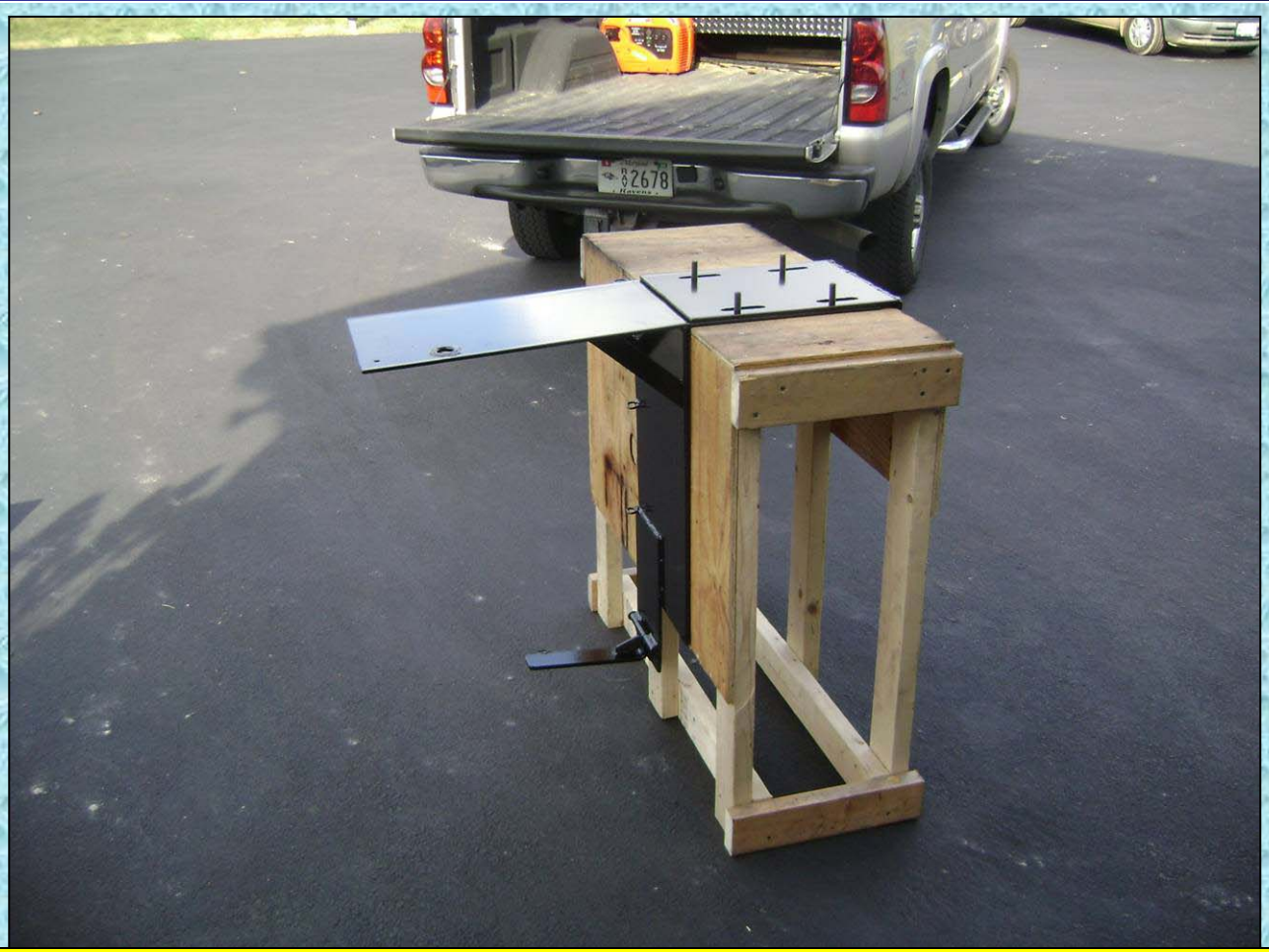


Corydon Dry Hydrant Installation



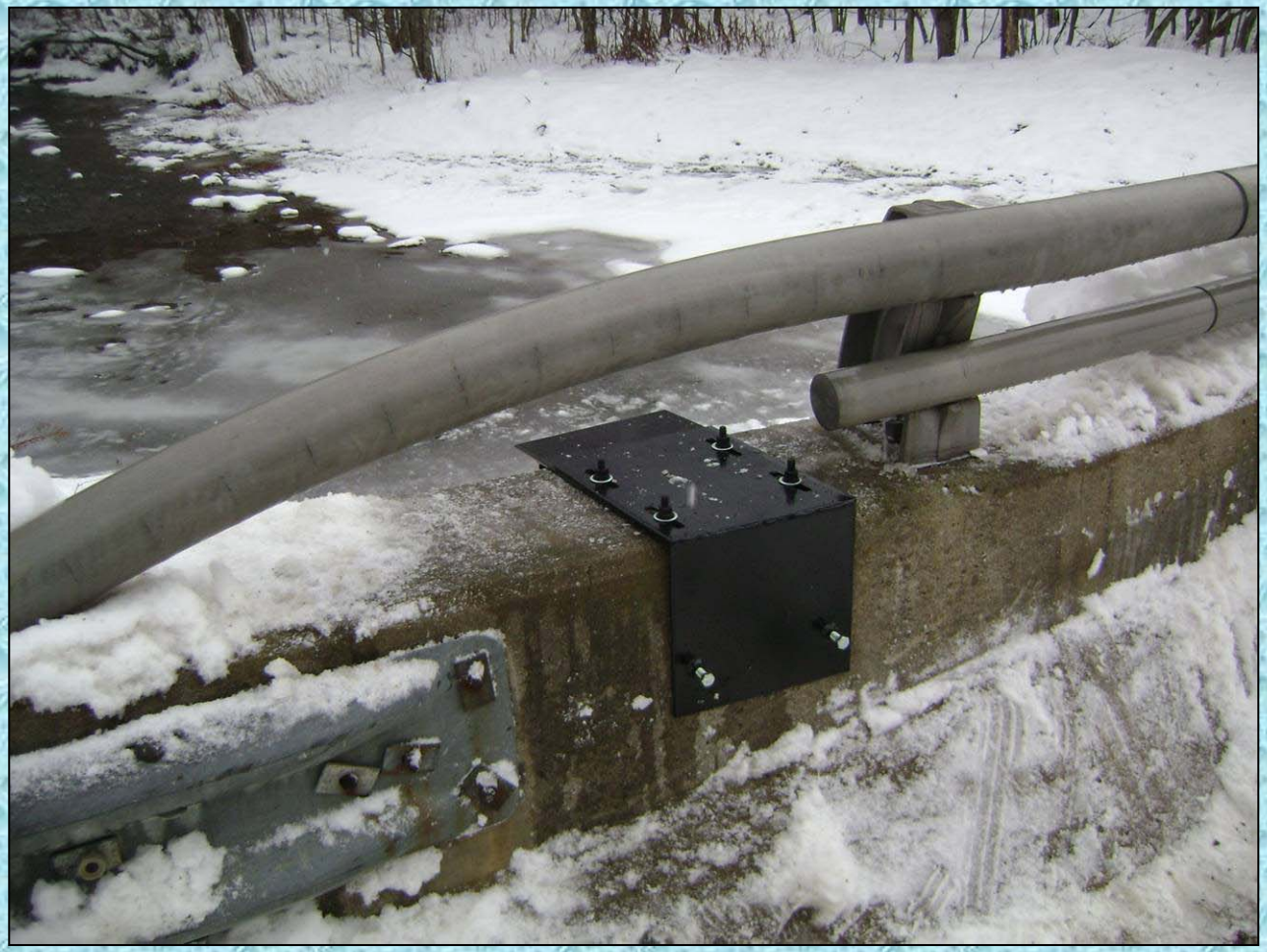
With space an issue on the guardrail, the decision is made to use the 10-inch gap at the end of the bridge.

Corydon Dry Hydrant Installation



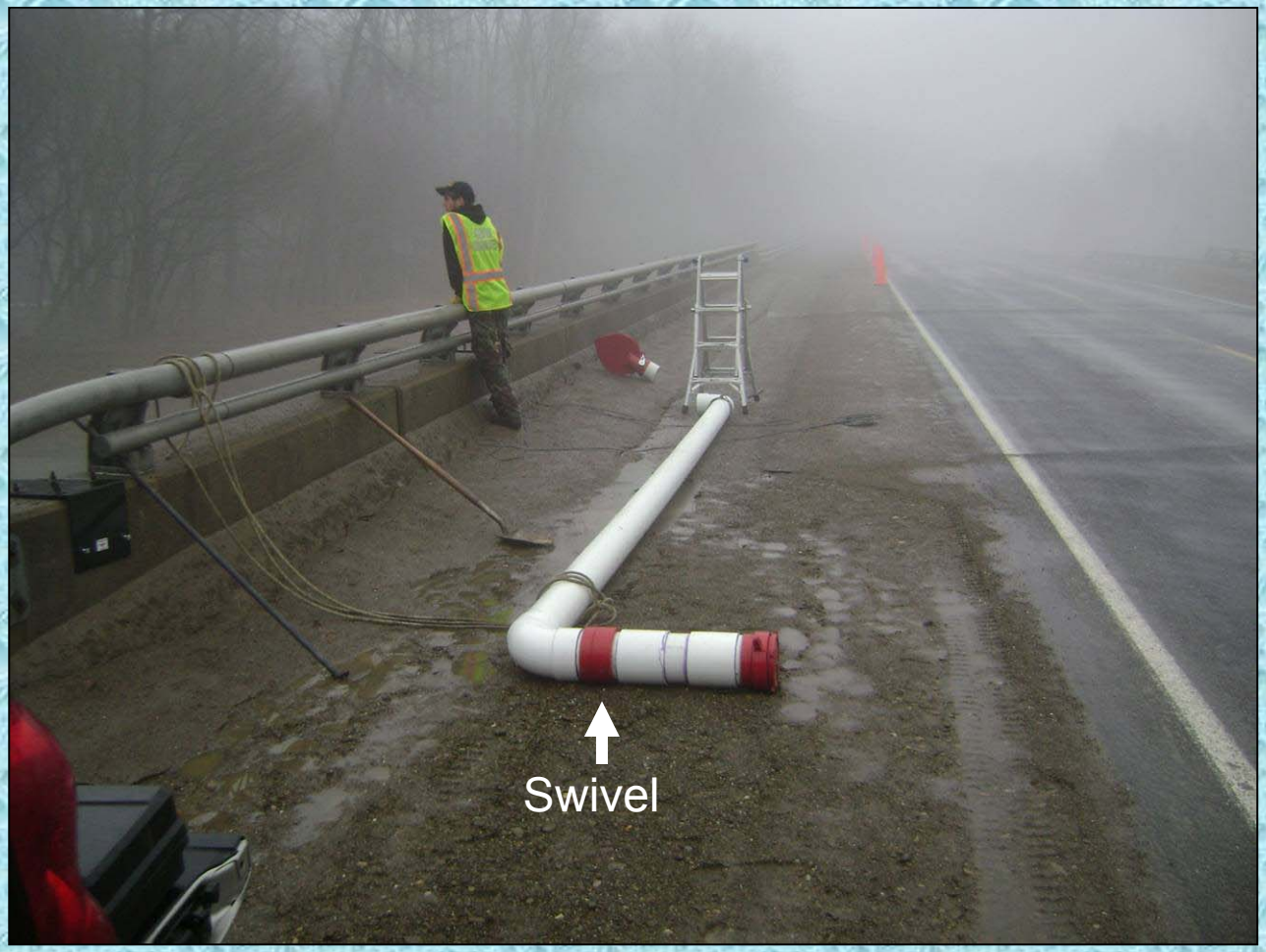
A two-piece mounting bracket was needed – again due to the double-rail guard rail system.

Corydon Dry Hydrant Installation



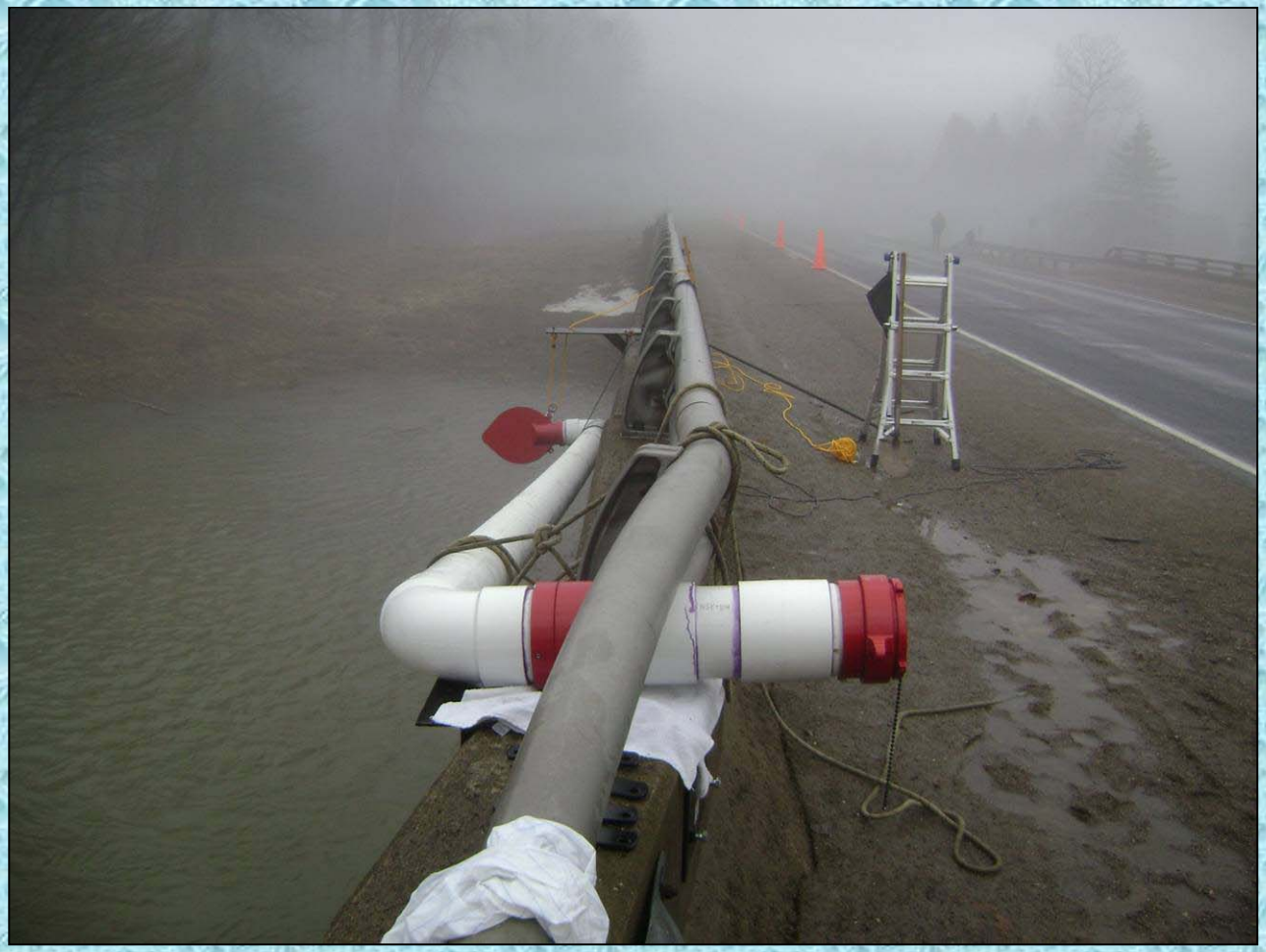
The suction head mounting bracket was installed first.

Corydon Dry Hydrant Installation



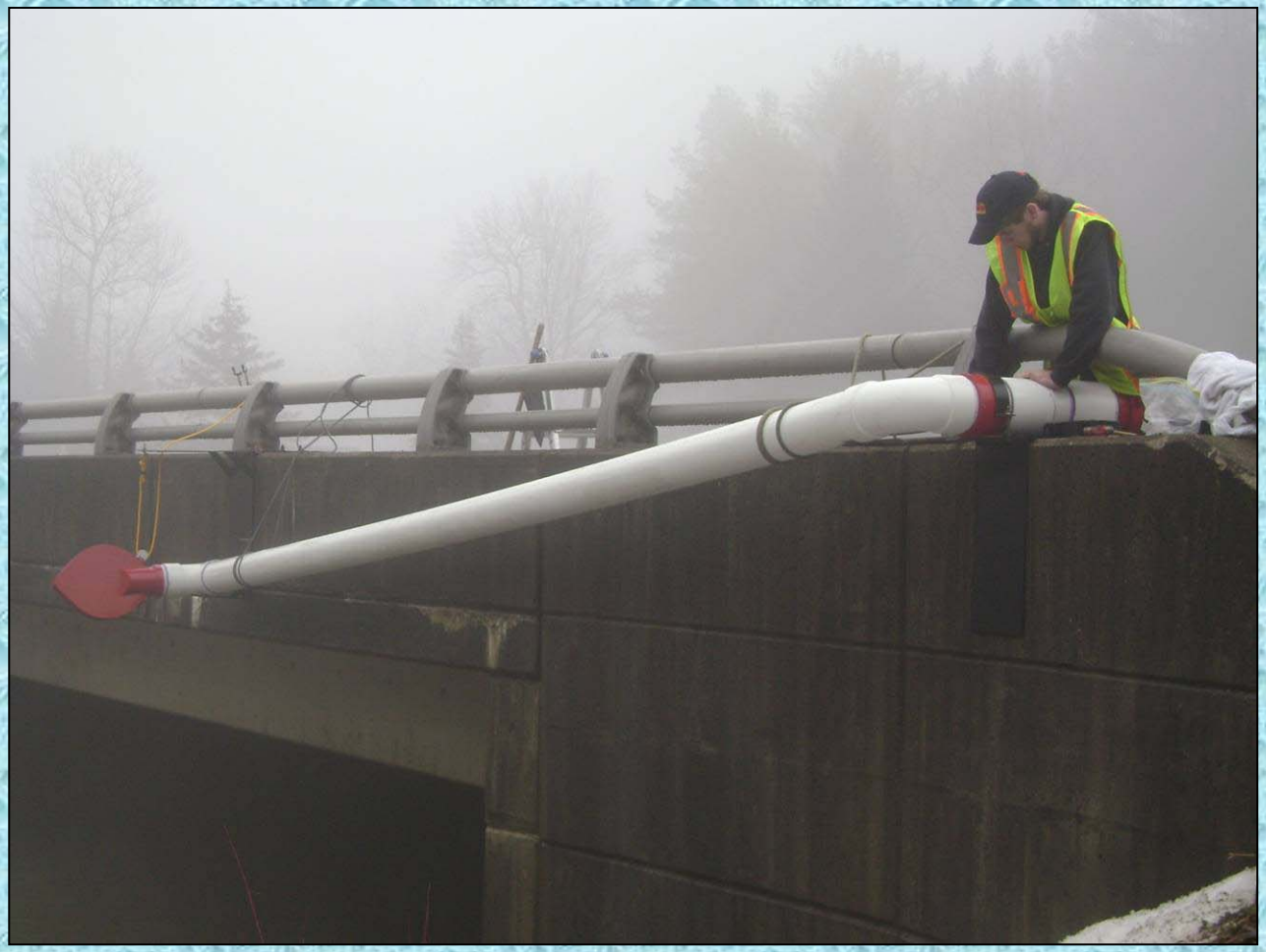
Next, the articulating arm was assembled.

Corydon Dry Hydrant Installation



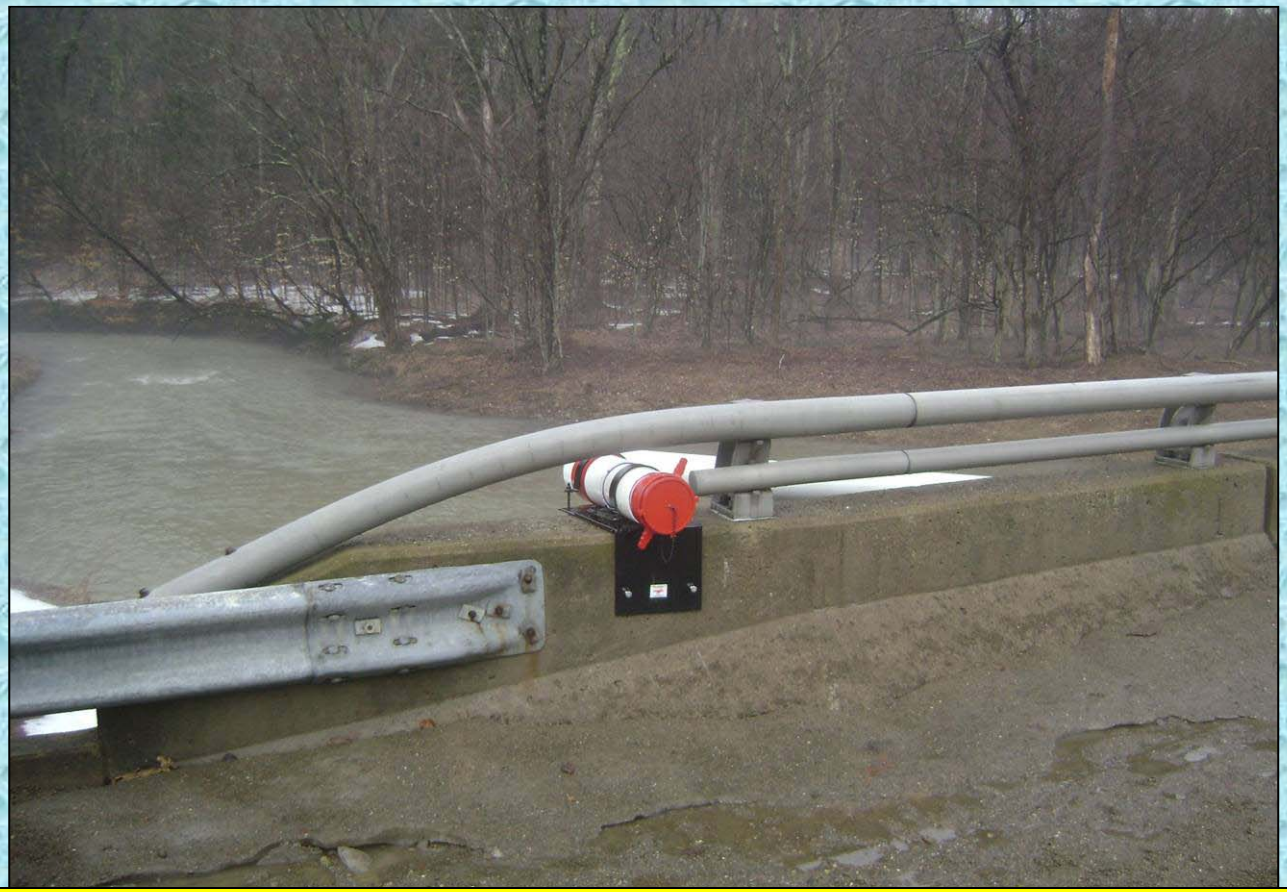
The arm was maneuvered into position and then secured in place.

Corydon Dry Hydrant Installation



Final adjustments were made and the pipe was secured.

Corydon Dry Hydrant Installation

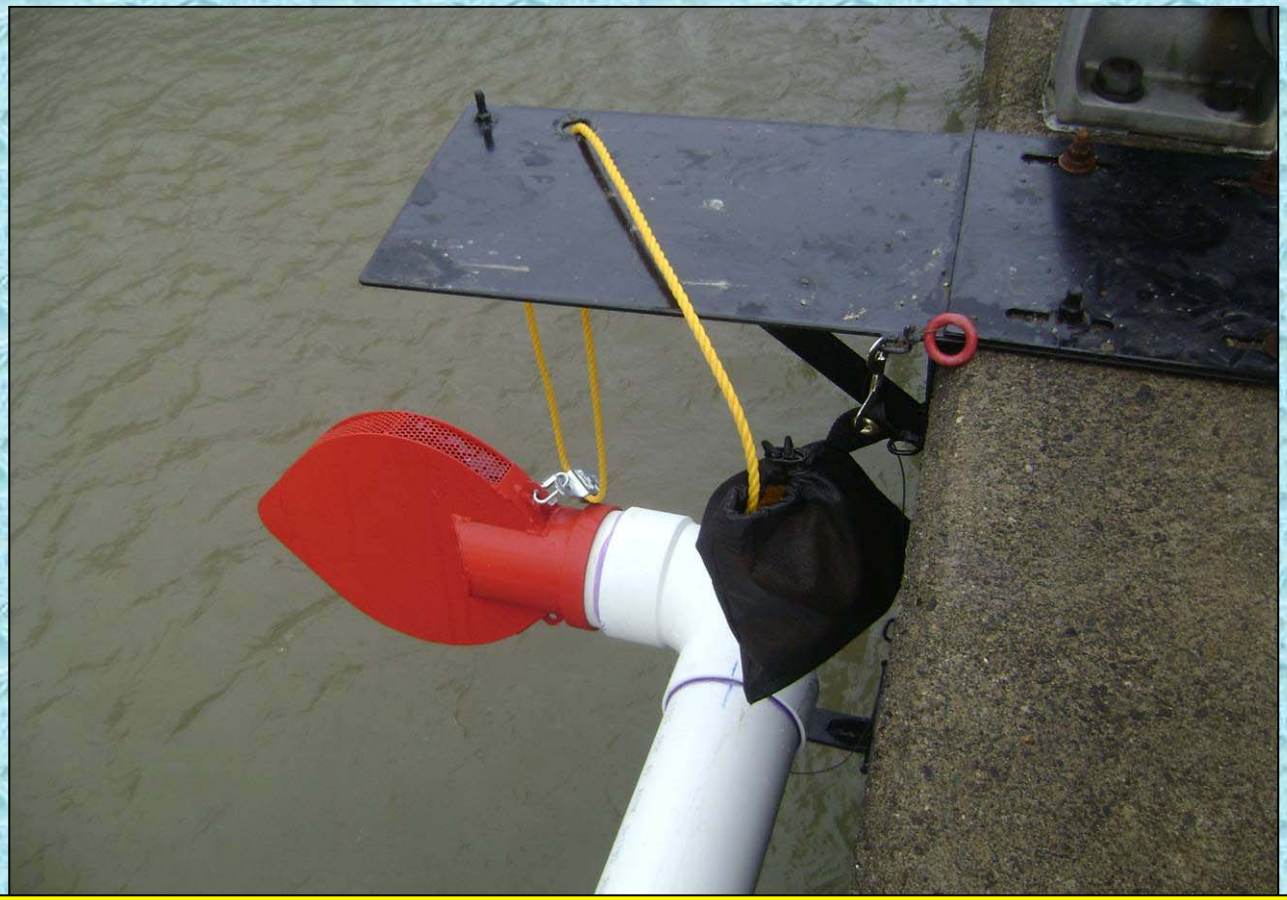


The suction head is low enough to prevent air pockets when connected to a pumper and is recessed enough to prevent snow plow damage.

Corydon Dry Hydrant Installation

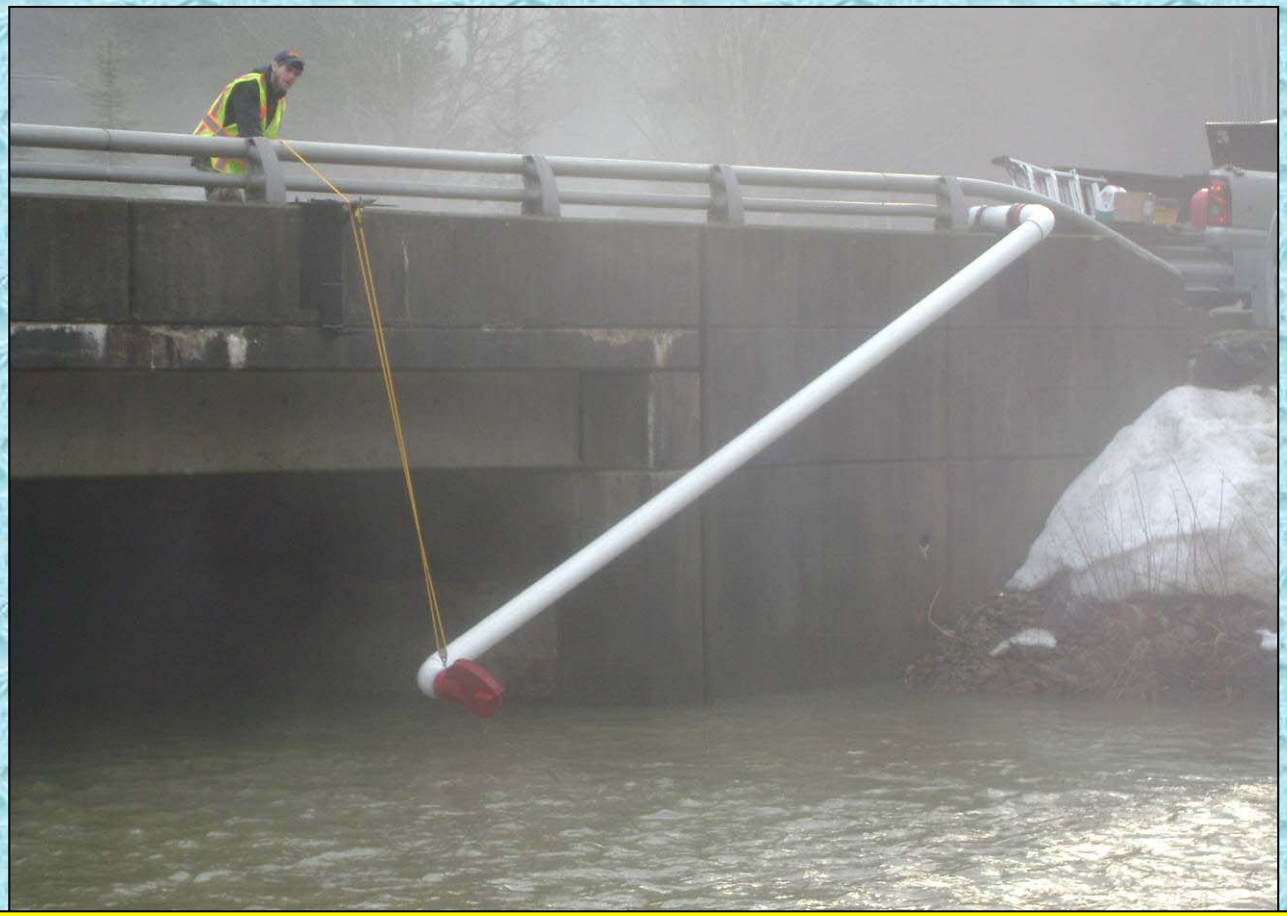
- The angle of the bridge wall made the installation a bit tricky but the length of pipe allowed the set-up to work without much need for adjustment.

Corydon Dry Hydrant Installation



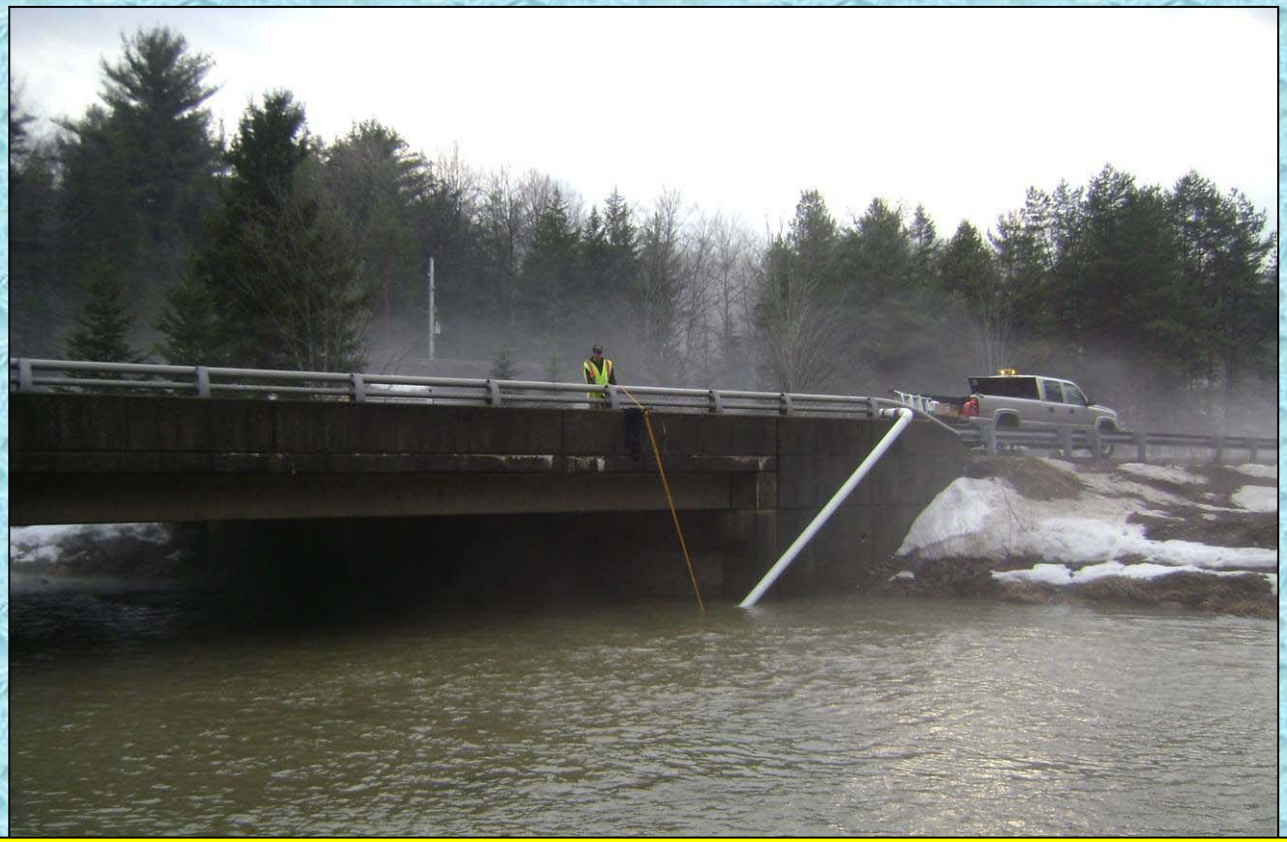
The specially designed cradle bracket holds the strainer end of the articulating arm until needed.

Corydon Dry Hydrant Installation

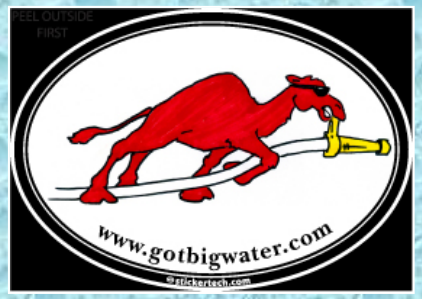


The articulating arm is being lowered into the water using the system's lowering mechanism.

Corydon Dry Hydrant Installation



Once the arm is lowered into position, the tear drop strainer rests on the rocky stream bottom – thus supporting the pipe and taking the load off of the lowering system.



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This program was developed by
GBW Associates, LLC

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