

EXHIBIT 9-C



Memorandum

To:
cc: Dave Stoldt, MPWMD General Manager; Chris Cook, Cal-Am Director of Operations, Monterey Division
From: Jonathan Lear, Water Resources Division Manager
Date: May 15, 2023
Subject: Damage to Seaside Middle School Deep Well (MPWMD ID:260) during routine maintenance

This memo is to document the damage to the installed pump in the Seaside Middle School Deep (SMS Deep) well, located at the Seaside Middle School site, which occurred during installation of a new Rugged Read cable and water level logger. Quarterly water levels and water quality samples are required at this well for the monitoring and reporting of the ASR program.

On 1/27/2023 MPWMD staff noticed that the In-Situ Rugged Read cable that connects to the installed water level logger was malfunctioning and likely required repairs.

On 1/30/2023, an attempt was made to remove the cable from the well. Due to how the well and sounding tube was installed, the water level logger could not be removed from the well without lifting the pump and pump string. Due to the weight of the pump string and pump, this could only be accomplished with the use of a crane.

On 2/17/2023 MPWMD staff mobilized with a truck-mounted auto crane to lift the pump and pump string and remove the malfunctioning logger and cable. It was found that the cable was malfunctioning. The cable was removed, and the logger was temporarily reinstalled on a hanging wire so that water level data collection would resume while the cable was under repair. The pump and pump string were reinstalled with no issues. The cable was submitted to the manufacturer for repairs.

On 5/3/2023, MPWMD staff remobilized with a truck-mounted auto crane to again lift the pump and pump string and reinstall the repaired cable. While the pump and pump string were successfully lifted and the cable reinstalled initially, it was found that excessive tension was being placed on the newly repaired cable and the pump was again lifted and cable adjusted to remove the tension. During the second adjustment, when the pump string and pump were being lowered, the eye bolt holding the pump caught on the edge of the plastic casing. This movement caused the PVC pump string to flex and immediately break. This dropped the pump string and sounding tube down the well.

The SMS Deep well is completed at the surface with an exterior steel casing for protection of the

well head and an interior plastic casing, which is the actual well casing (Figure 1).

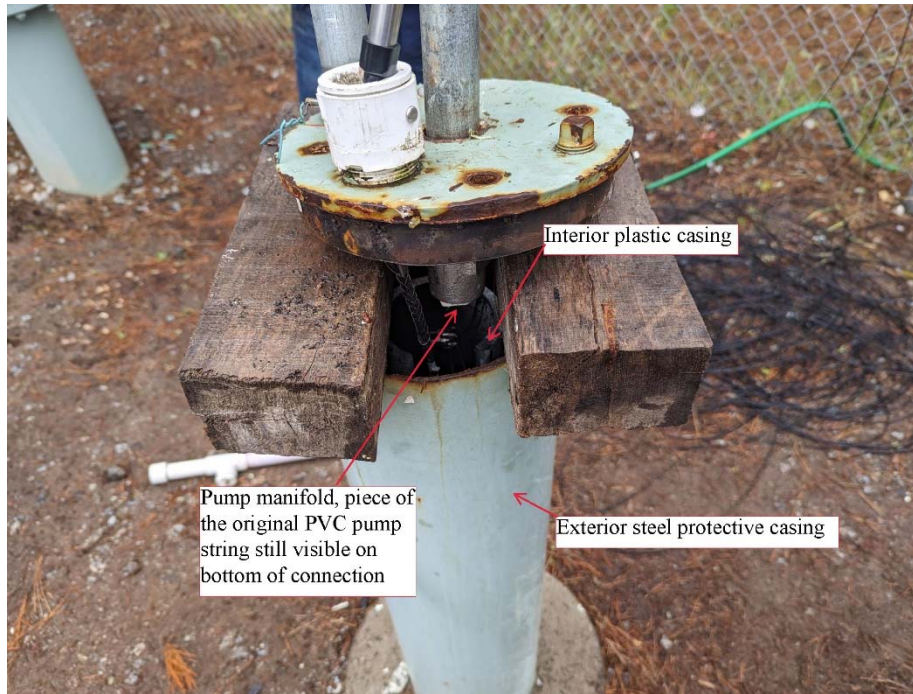
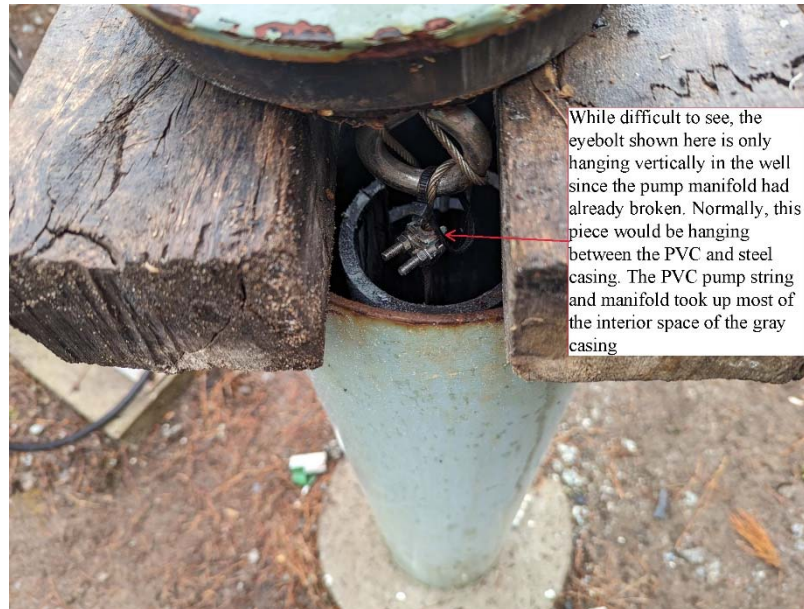


Figure 1) Showing the layout of the SMS Deep well after the pump had broken

The pump manifold connects to the top of the steel casing through a flange, visible in Figure 1 at the top of the photo. The pump manifold is what connects the top of the well to the pump string and sounding tubes, each one-inch PVC pipe within the interior 4-inch PVC casing. It also suspended the electrical wiring to operate the well.

Also suspending the pump is a braided steel cable strung through an eyebolt, visible in Figure 2. The braided steel cable is connected directly to the pump and stops it from dropping in case of breaks to the pump string or pump manifold. The eyebolt is bolted directly into the top flange, between the interior plastic casing and exterior steel casing. Due to clearance issues between the interior PVC casing and exterior steel casing, the eyebolt cannot be suspended directly over the pump, which would be ideal.



As MPWMD Staff lowered the pump for the second time, the eyebolt struck the interior plastic casing, increasing tension on the braided cable as the pump was lowered. Since the eyebolt had to be hung between the interior and exterior casing and not vertically over the pump, this caused a flex in the pump string and sounding tube. The combined weight and flexing of the pump, PVC pump string, and sounding tube snapped the manifold connection nearly instantly, despite a spotter.

Due the weight and complexity of removing the PVC and pump, a driller with more specialized tools will need to be mobilized to the site for removal and resetting the pump. During the mobilization of the drillers, MPWMD will ask for suggestions about how to prevent this from happening again, including cutting down the internal PVC casing or changing how the eyebolt hangs inside of the casing.