

ac2475

Adrian Cobo-Marin Individual Contribution

- The new SRSF weir system has removable weirs that fit into slots in the concrete. We need an appropriate materials that is strong enough to resist the hydrostatic forces, easily removed, and low cost. Select a material for the SRSF weir system and demonstrate that it works well.
- Make a hydraulic working scale model of the SRSF weir system for two filters to demonstrate how the weir system is used to set the flow to the filter during backwash. This could be fabricated using 3-D printing or from sheets of PVC. The hydraulics of this system are sufficiently complicated that explaining how it works is difficult and thus we need a working model for demonstration.
- Installing the sedimentation tank inlet manifold is difficult and awkward because there is no good place to stand and the inlet manifold needs to be supported while the connection is made to the pipe coming through the floc weir. Invent a inlet manifold connection to the pipe coming through the floc weir that provides support to the inlet manifold during installation and that allows a mostly water tight connection. The support could be a stainless steel sheet that protrudes from the bottom of the pipe that is embedded in the floc weir. The stainless steel sheet could be held in place with a hose clamp. The challenge would be devising a somewhat waterproof connection that could be added after the inlet manifold is in place. It is important that this connection can be done without moving the inlet manifold axially because the other end of the inlet manifold will be against the far end of the sedimentation tank.