**Task:** Tie the starting end of the AquaDam to an anchor-point. Black seatbelt is used to tie the AquaDam to the Excavator in the picture at right.

**Consequence of Failure:** Open starting end of the AquaDam slips down the bank, possibly reducing achievable height of the main body of the unit.

**Task:** Control Lines (white rope in picture) are laid beneath the AquaDam, back over the AquaDam, tied to the anchor point at the start end, with the other end of the rope held by a person, to control the rate that the AquaDam unrolls.

**Consequence of Failure:** AquaDam unrolls in an uncontrolled manner, subject to influence from surrounding water flow.

**Task:** Identify high- and low-ground – Start the dam at high ground. Avoid low ground where possible.

**Consequence of Failure:** Possible reduction in achievable AquaDam height, controllable water depth, or both.

**Task:** Elevate the open end of the outer sleeve of the AquaDam higher than the filled elevation of the main body of the AquaDam, using berm, bank, or “Starter AquaDam”.

**Consequence of Failure:** Reduction in achievable AquaDam height, controllable water depth, or both.

**Task:** Use 2”x6” boards, 1-3ft in length, to form temporary bracing along the downhill side of the AquaDam, prior to and during filling. The dam will resist down-slope movement when full, but may require the bracing support during the filling process.

**Consequence of Failure:** Unintended lateral/downhill movement of the AquaDam during installation process.
Task: Fill both sides of the AquaDam at the same time and rate – the stability of the AquaDam depends on (2) equalized internal columns of water.

Consequence of Failure: Unintended movement (-leaning, rolling) or in extreme cases, burst inner tubing.

![Two blue-color hoses are used to fill the two AquaDam inner tubes](image1)

Task: Make a Turn – The AquaDam must not be filled above surrounding water level. Pull the material of the AquaDam on the inside edge of the turn, to get slack into the inside of the turn, re-orienting the AquaDam roll. Turn down the pump(s) filling the side of the AquaDam along the inside of the turn to help form this turn.

Consequence of Failure: AquaDam installation along unintended/undesired alignment.

![One turn has been made, and another is about to be made](image2)

Task: Stop pumping when AquaDam is full. AquaDam is full when design height is achieved at lowest point along path of dam.

Consequence of Failure: AquaDam will fill to design height, at the lowest spot along its path. If it is over-filled, sections of AquaDam on elevated ground will continue to fill, exerting additional pressure on the AquaDam at the lowest point along its path. The AquaDam will burst not long after exceeding its design height. Under-filling is acceptable; Over-filling is not an option.

![6ft tall men, 10ft, 16ft, and 21ft tall AquaDam (foreground to background)](image3)