

Pillow

The pillow collects oils and hazardous liquids that may enter the drywell. This helps to prevent contamination of storm water that percolates back into the aquifer.

Fabric

Fabric is placed at the bottom of the drywell and helps prevent foreign soil and debris from entering the gravel pack thus regular replacement of this fabric helps increase the life span of the drywell.

Liner Gaps

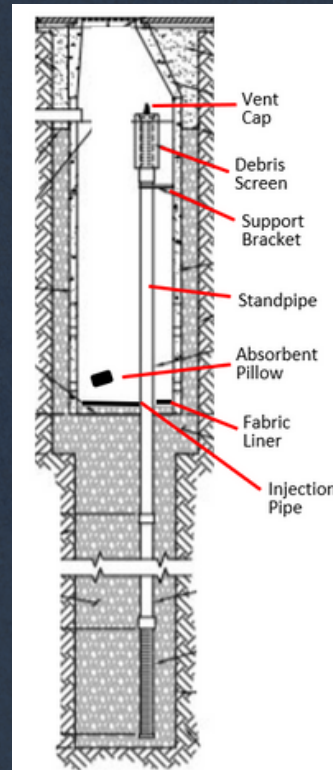
Drywells have stacked, precast, concrete liners. These liners, even when installed correctly, may shift over time.

When these liners shift a gap may occur. This gap exposes the drywell to the soil around the drywell that may begin to migrate into the drywell chamber. As this dirt shifts or moves into the drywell it can cause subsidence or sink holes to occur in the landscape.

Maintenance of Drywells

Maricopa County Drainage Policies and Standards. Excerpt: Standard 6.10.13 Drywells : "It shall be the owner's, or owner's representatives', responsibility to clean and maintain each dry well to ensure that each remains in proper working order. Under no condition shall the regular maintenance schedule exceed 3-years. Drywells that cease to drain a retention basin with 36-hours shall be replaced or refurbished by the owner or his representative. Maintenance requirements shall be written in the CC&R's for subdivisions where dry wells are used to drain retention basins."

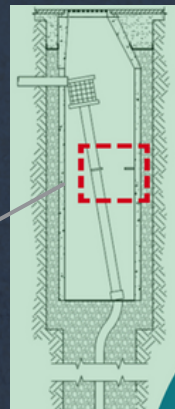
Drywells



Support Brackets

Brackets are required for drywells that use highway pipe to keep the standpipe straight to prevent clogging.

The bracket is broken so the standpipe is leaning and function is compromised.



Debris Screen/Filter

A debris screen serves multiple purposes; keeps debris from entering the standpipe, helps avoid clogging of the standpipe, and ensures that water percolating back into the ground is debris free which prolongs the life of the drywell.



Broken, rusted or missing debris screens are not only bad for the environment, they can also cause irreversible damage to the drywell which could lead to the need for total replacement of the drywell.

Metal debris screens rust and require more maintenance than PVC screens. There is no advantage to a metal debris screen. Metal debris screens can be replaced with PVC screens.

Vent Cap

Drywells that use metal debris screens have a vent cap to allow the air to escape. This is another piece that can fail. Drywells that have a quality PVC debris screen will not have a vent cap. Metal screens should be replaced with PVC screens.

Standpipe/Injection Pipe

The standpipe is medium connecting the debris screen and the injection pipe. The standpipe takes on the filtered water and directs it to the injection pipe for percolation into the ground.

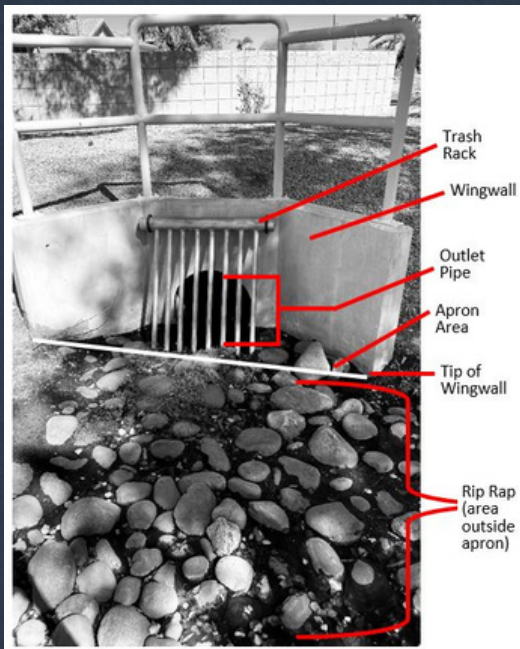
Concrete Collars

Cracked concrete collars can cause lids to shift as well as becomes a tripping hazard. Because cracked or broken collars put a community's safety at risk, they should be repaired as soon as possible.



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Headwalls



Outlet

The first three feet into the pipe is considered the outlet. Often there will be a trash rack attached at the outlet of the pipe.

Trash Rack

Trash rack, grate, and barrier are all names for a metal piece that is attached to the outlet of the headwall to prevent trash, leaves, and debris from spilling out of the headwall into the apron and surrounding landscape. These barriers also work to keep wildlife and children out of the outlet pipe.

Apron

The apron is the area immediately in front of the outlet of the headwall. This area is usually either concrete or rip rap. If the concrete or rip extends further than 2- 3 feet it is not usually considered part of the apron. From wingwall tip to wingwall tip is a good way to define apron.

ADEQ - the Arizona Department of Environmental Quality

Proper maintenance of storm water structures is required to manage runoff, provide flood control, ensure water quality protection, minimize problems with mosquitoes, and more.

Culverts

Culverts usually run under roads or trails to direct water under them.

Inlet

The inlet is the opening of the pipe that takes on the water. This is the upstream side of the culvert.

Outlet

The outlet is the opening of the pipe that the water exits the structure. This is the downstream side of the culvert.



Catch Basins/Bubblers

Catch basins and bubblers look similar, a concrete box with a grate covering the surface of the box. How they function determines if it's a catch basin or bubbler. Location of the storm structure can also be a clue as to whether it is a catch basin or bubbler.



Catch basin are storm drain inlets installed along the street curb, in parking lots or in retention basins. They are designed to take on water and have a pipe that directs into a drywell, bubbler, or retention basin. If a catch basin has standing water, it is usually an indication that there is a clog and needs maintenance. Catch basins are usually located at street level.

Bubblers are usually connected to some type of catch basin and may be connected to a drywell interceptor chamber. As their name suggests, bubbler boxes are designed to outfall water from a catch basin. You may see them "bubbling" water out from the top of the grate. It is okay for bubblers to have some standing water. They are designed this way. Bubblers are usually located at a low point such as the bottom of a retention basin.

Catch Basins and Bubblers play a large role serving as a filter to block debris from going into the drywell. When they are not functioning properly that drywell will get dirty and cleaning of the drywell is more expensive.