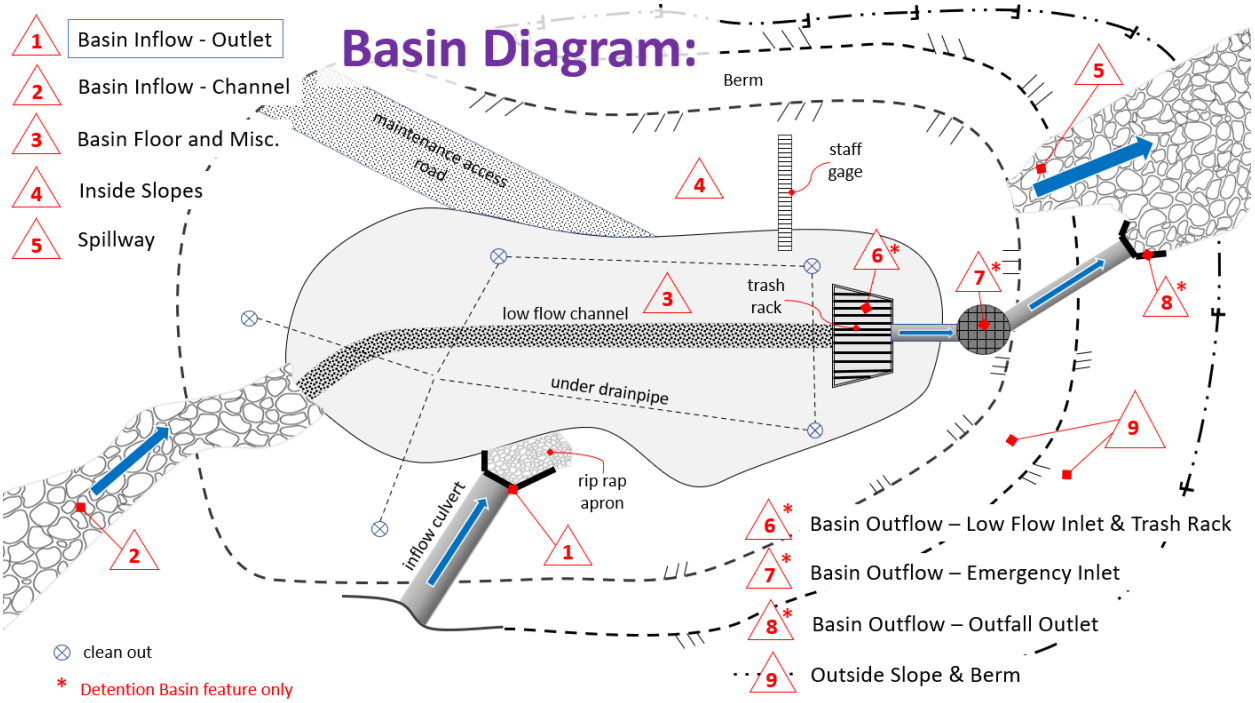
Basin Elements and Descriptions



Component Descriptions

Understanding these component definitions will assist you in maintaining and monitoring the functionality of the basin on your property. The following provides further information on basin components, as identified in the diagram above:

1. **Basin Inflow Outlet:** These pipes are responsible for carrying stormwater and directing it into the basin. They serve as conduits for the surface water to enter the basin. Various types of conveyance channels include v-ditches, flat-bottom channels, curb and gutter systems, valley gutters, among others.

2. **Basin Inflow Channel:** Basin channels are stormwater conveyance features crucial for directing surface water into the basin. These channels come in various forms, including v-ditches, flat bottom channels, curb and gutter systems, and valley gutters. V-ditches are shaped to efficiently collect and guide water, while flat bottom channels offer stability and smooth flow. Curb and gutter systems, commonly seen in urban areas, consist of curbs alongside pavements to direct water into the gutter. Valley gutters, on the other hand, are sloped channels often found in urban landscapes, directing water along streets or between properties.

3. **Basin Floor and Miscellaneous Features:**

   Maintenance Access Ramp: Provides access for maintenance activities within the basin.

   Low Flow Basin Floor Ditch: Designed to handle low flow volumes of water within the basin.

   Underdrain Systems: Assist in draining excess water from the basin.

   Flat Bottom Floor: The main surface area of the basin floor.

   Miscellaneous Features: Other components contributing to the functionality of the basin.

4. **Inside Slopes:** All basins are designed with a depressed central area, resulting in interior side slopes (like the walls of a bathtub). Well-maintained slopes are essential for holding water in the basin.

5. **Spillways:** These are points of overflow relief for the basin when it reaches its capacity. Spillways can come in various forms such as concrete-lined channels, riprap-lined ditches, or low points in an adjacent sidewalk.

6. **Basin Outflow – Low Flow Inlet & Trash Rack:** Unique to detention basins, this is a pipe inlet located on the basin floor with a trash rack designed to prevent clogging.

7. **Basin Outflow – Emergency Inlet:** These are vertical pipes or manholes equipped with anti-debris clogging inlets. They are positioned at the same elevation as the basin water surface when at full capacity. In detention basins, these inlets often connect to the low flow inlet pipe.

8. **Basin Outflow – Outfall Outlet:** This is where the low flow inlet and emergency inlet discharge from the basin. Refer to the attached aerial photo for the location of this outfall outlet pipe.

9. **Outside Slope and Berm:** Not all basins will have this feature. If the basin retains water above the surrounding adjacent ground level, then outside slope and berm features will be present. Berms typically have a constant flat top width and are included wherever there is an outside slope along the basin. The steepness of the slope and width of the berm can vary.