

## DOCKETED

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## **Sprinkler Spray Body Material and Manufactur Quality**

See attached

*Additional submitted attachment is included below.*

## Comments on the Rain Bird Sure-Pop Spray Sprinklers

### Background

Contra Costa Water District provides residential customers with free water use evaluations. One of the primary actions taken is to evaluate the irrigation system and make recommendations on improved equipment and landscape water management. Over the thousands of surveys conducted CCWD staff have identified a number of common problems. One such common problem are broken or improperly working sprinkler heads. Many times the sprinklers are low-end, low-priced sprinkler heads. These low-end sprinkler heads are generally sold at big box stores and hardware stores and are not generally sold at irrigation supply stores. As a result, these poorly made products end up at a large percentage of residential properties.

### Specific Problem Identified

One sprinkler head we have identified to be very problematic are the Rain Bird **Sure-Pop** Spray Heads. These sprinkler heads are the low-end version of the very well made 1800 series sprinklers. Below are the key issues we have identified:

**Cap:** The primary problem with the cap on the sprinkler body is that the threads are virtually non-existent in this product. It has a single thread that can be easily miss-threaded. When it is not properly screwed on, it results in a lot of water waste. Secondly, the cap is not solidly made. Rather than being made of solid plastic, it has spaces in the top of the cap which reduce its strength, rigidity and allows UV light to hit the rubber seal below. As a result, the cap cracks resulting in fountains of water.

**Wiper Seal:** The internal wiper seal in this sprinkler is thin compared to others. Also, because of the poor cap design, UV light hits the rubber seal, which may add to its degradation. Often we find the white wiper seal with cracks which cause fountains of water.

**Spring/ Pop-Up Riser Base:** The spring is supposed to seat at the bottom of the pop-up riser allowing the shaft to pop up and down. However, the base of this sprinkler's pop-up riser does not allow the spring to seat properly resulting in the spring being pushed over the base of the riser. This results in the pop-up getting stuck half way up and this results in considerable water waste.

The attached photos compare the Rain Bird Sure-Pop Spray head with another brand. However, Rain Bird makes a very good quality pop-up with its 1800 series heads. I simply did not have one handy for the photographs.



Left: Single thread does not tighten properly or easily compared to multiple threads on Right.



Demonstrating putting on single thread cap



Spaces in the Cap



Pointing out cracks in the Cap



Right: Rain Bird Sure Pop Rubber Seal compared to thicker seal (bottom side)



Right: Rain Bird Sure Pop Rubber Seal compared to thicker seal (top side)



Crack in Rain Bird Sure Pop Rubber Seal



Crack in Rain Bird Sure Pop Rubber Seal



Left: Spring does not seat properly at base of pop-up shaft compared to Right.



As a result of the spring not seating properly, the sprinkler pop-up will get stuck half up.