



# Recycled Water and Managing An Irrigation System

Anita Matlock

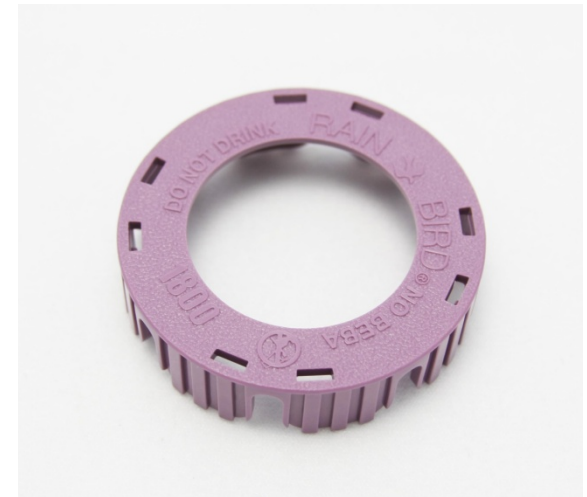
Area Sustainability Manager

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The Intelligent Use of Water.™

# Non Potable Irrigation Equipment (Past)

- Purple identification



# Legoland in 1998



- LEGOLAND in Carlsbad, CA under construction in 1998
- Rain Bird and other manufacturer's products were failing
- Determined recycled water with higher chlorine content
- Resigned rubber components to meet these site challenges

# Valves

- EPDM diaphragm material is reliable in recycled water conditions, due to EPDM being chlorine and chemical resistant



<http://www.rainbird.com/landscape/products/valves/htm>

# Legoland 2009-2011



- They had a history of spray heads failing due to the high chlorine content so LEGOLAND helped with our RD 1800 development
- They have been using the RD1800 since early 2011 and have had zero issues with their spray heads
- The site report is available in a short and long version on the RD1800 product page
  - [http://www.rainbird.com/documents/turf/site\\_Legoland-RD-short.pdf](http://www.rainbird.com/documents/turf/site_Legoland-RD-short.pdf)
  - [http://www.rainbird.com/documents/turf/site\\_Legoland-RD-long.pdf](http://www.rainbird.com/documents/turf/site_Legoland-RD-long.pdf)

# RD1800

- An evolved spray head developed using modern technology to meet customer requirements for increasingly harsh applications.



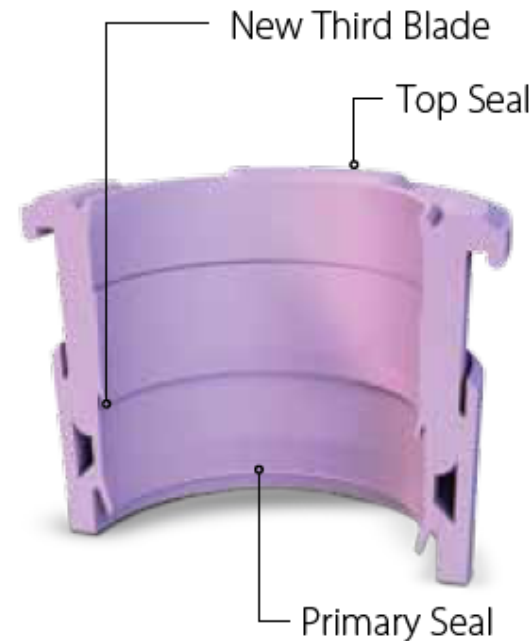
# WIPER SEAL AND STEM

## Bring on the Dirt

### Triple Coverage

Nearly three decades ago, the Rain Bird® 1800® Series and its co-molded wiper seal changed irrigation technology forever. With the RD1800, we've done it again with a precisely engineered, exclusive Triple-Blade Wiper Seal.

The RD1800's Top Seal flushes during pop-up and wipes the stem clean during retraction, preventing external debris from entering. During operation, the RD1800's Primary Seal combines with the stem's surface to eliminate flow-by. The exclusive Third Blade provides another line of defense, in case the primary seal is damaged.



# RATCHET RING



## Racheting Up Reliability

The RD1800's ratchet mechanism was designed to easily adjust during installation, hold steady over time, provide greater debris resistance and be more flexible. While competitive rings become brittle, the RD1800 ratchet ring does not crumble when exposed to stress.





# **The Need for Pumps and Filtration**

# Need Pumps and Filtration?



- Rain Bird manufactures custom pumps and filtration systems\*
- Up to 5,000 GPM
- From 3/4 up to 25 hp\*\*
- Integrated skid design
- SCADA capable & compatible

• For Irrigation Systems & Transfer Pumps

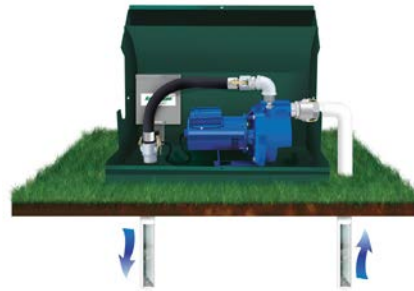
\*\* Consult with factory for larger hp

# Pump Stations – Product Line

Pump Start Relay



Light Commercial (LC)



Low Profile (LP)



D Series



Intermediate Flow



Large Commercial



# Recycled Water and Need to Boost



- Park had 80 psi and now is 40 psi
- Basic 5 HP booster pump with VFD
- Off the shelf

# Filtration Systems

- Centrifugal Sand Separator
- Self Cleaning Pump Suction Screen
- Backwashing Screen Filter (BSF)
- Hydraulic Suction Scanner
  - I-Series
  - G-Series
- Electric Suction Scanner (E-Series)
- Disc Filter
- Sand Media Filter



# **Rain Bird Water Harvesting**

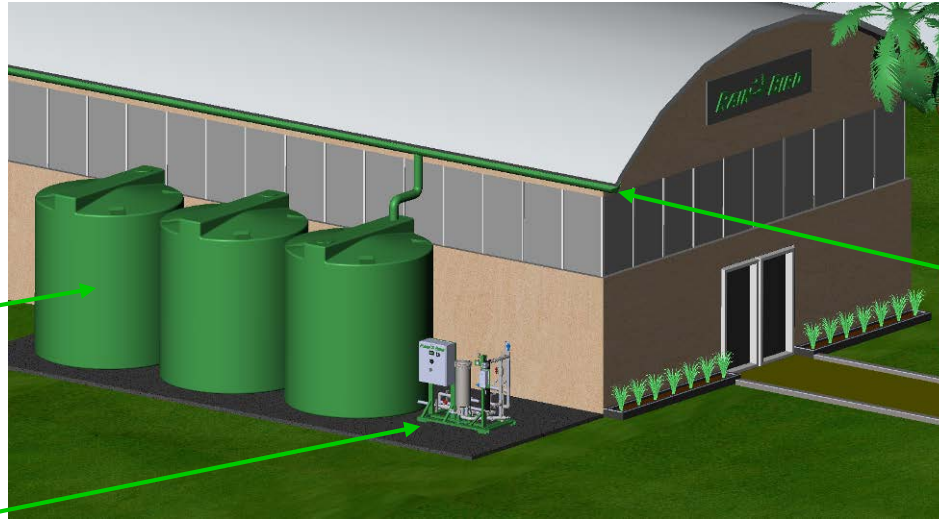


## SUSTAINABLE IRRIGATION SOLUTION

### RAIN WATER HARVESTING SYSTEM FOR COMMERCIAL APPLICATIONS

Three 7,500 Gallon  
Polyethylene Above  
Ground Storage  
Tanks (22,500 Gallon  
Combined Capacity)

50GPM @ 50PSI  
Rain Bird Water  
Harvesting Treatment  
And Control System



Roof Mounted Gutter  
System To Collect Rain  
Water

Water Harvesting System With Above Ground Tank



Rain Bird Drip Irrigation System

Harvested Water Irrigation  
On Turf Areas And Drip  
Zones With Rain Bird  
Irrigation Systems



Rain Bird Rotor Irrigation System

## SUSTAINABLE IRRIGATION SOLUTION

### HVAC CONDENSATE HARVESTING SYSTEM FOR COMMERCIAL APPLICATIONS

Condensate Collection  
Pipe To Connect HVAC  
Systems To Water  
Storage Tank

Above Ground 8000  
Gallon Corrugated  
Steel Storage Tank

25GPM @ 50PSI  
Rain Bird Water  
Harvesting Treatment  
And Control System



Four Roof Mounted  
HVAC Heating and  
Cooling Systems

Water Harvesting System With Above Ground Tank



Rain Bird Drip Irrigation System

Harvested Water Irrigation  
On Park Ways And Drip  
Areas With Rain Bird  
Irrigation Systems



Rain Bird Spray Irrigation System



# Support

## Technical expertise

- Irrigation
- Industrial

## Training

- Lunch and Learn/Brown Bags including CEU credits
- Webinars
- Classes

## Commitment to the Intelligent Use of Water

# **Take Advantage of Local Rebates from Water Agencies**

# MWD Rebates


- **Rebates for irrigation equipment**
- **Water Savings Incentive Program for customized projects**
- **Incentives for On-Site Recycled Water Conversions**

[www.socalwatersmart.com](http://www.socalwatersmart.com)



Select the applicable rebate program below.



 Feed Entries

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# Thank You

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