What is reclaimed water (recycled water)?

- Highly treated wastewater effluent put to beneficial use
- Regulated by Idaho DEQ
- Treatment requirements depend on class of reclaimed water
- Increased uses with increased treatment
Classes of Reclaimed Water

- **Current Rules – Class E**
  - Primary effluent quality
  - Buffer distances required
  - Agronomic application rate
  - No grazing
  - No animal feed within four weeks

- **Current Rules - Class D**
  - Treatment: Oxidation and disinfection
    - 230 total coliform per 100 mL (TC/100mL)
  - Buffer distances required
  - Agronomic application rate
  - No grazing
  - Irrigate fodder, seed, or processed food crops
Classes of Reclaimed Water

• Current Rules – Class C
  • Treatment: Oxidation and disinfection
    • 5-Day Median: 23 TC/100 mL
    • Max: 230 TC/100 mL
    • Weekly sampling
  • Agronomic application rate
  • Buffer distances required
  • Contact non-edible portion of food crops
Classes of Reclaimed Water

- Current Rules – Class B
  - Treatment: oxidation, coagulation, clarification, filtration, and disinfection
    - 7-Day median: 2.2 TC/100 mL
    - Max: 23 TC/100 mL
    - Daily sampling
    - Required chlorine residual after disinfection contact time
  - Buffer distances required
  - Distribution system operator certification
  - Increased number of irrigation sites possible

- Changes – Class B
  - Turbidity requirements
    - Granular or cloth media
      - 24 hr mean – 5 NTU
      - Max – 10 NTU
Classes of Reclaimed Water

- **Current Rules – Class A**
  - Treatment: oxidation, coagulation, clarification, filtration, and disinfection
    - 7-Day median: 2.2 TC/100 mL
    - Max: 23 TC/100mL
    - Daily sampling
    - Required chlorine residual
  - No buffer distances for landscape irrigation
  - No distribution system operator certification
  - Treatment redundancy required

- **Changes – Class A**
  - Turbidity requirements
    - Granular or cloth media
      - 24 hr mean – 5 NTU
      - Max – 10 NTU
    - Membrane filtration
      - 24 hr mean – 0.2 NTU
      - Max – 0.5 NTU
  - Redundancy per wastewater rules
  - Comply with groundwater quality rule for recharge
## Reclaimed Water Uses by Class

<table>
<thead>
<tr>
<th>Class</th>
<th>Use Description</th>
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</table>
| Class A| •Irrigation – golf courses, schools, parks, residences  
         •Fire suppression  
         •Dust suppression  
         •Toilet flushing at industrial/commercial sites  
         •Industrial water source  
         •Ground water recharge |
| Class B| •Irrigation – non-residential  
         •Toilet flushing at industrial/commercial sites |
| Class C| •Irrigation – crops (no contact with edible food crops), cemeteries, roadside vegetation  
         •Toilet flushing at industrial/commercial sites |
| Class D| Irrigation – fodder, seed, or processed food crops |
| Class E| Irrigation – forested sites |
Reclaimed water can be used as a resource for groundwater recharge.
Summary of Meridian’s Reclaimed Water Program

- Heroes Park
- Treatment upgrades
- City-wide permit
- Backbone infrastructure
- Master planning effort
“Citywide” Permit

- 5-year Permit Cycle
- Allowable Uses
  - Irrigation
  - Dust Suppression
  - Toilet Flushing
  - Sewer Flushing
  - Fire Suppression
- Compliance Activities
  - Plans of Operation
  - Runoff Management

First “Citywide” permit issued in Idaho (April 19, 2010)
Heroes Park

- Restroom facilities complete
- Interpretive monuments in place
Booster Pump Station and Reservoir
Timeline

Final class A “citywide” permit issued by IDEQ
Booster station/reservoir design-build operational

2011

2010

Final “citywide” permit application submitted to IDEQ
First use of reclaimed water at Heroes Park

2009

2008

Final class A permit for Heroes Park issued by IDEQ
Phase 1 cloth media filters installed
Pressure/leak test of BRO pipeline
Final Heroes Park permit application submitted to IDEQ

2007

2006

Design of NaOCl booster and connection of BRO pipeline to Heroes Park pond

City recognizes upcoming challenges with TP TMDL and water rights

2005