

# Idaho Wastewater Reuse Conference

June 26 & 27, 2007

Class A vs. B Treatment and  
other Requirements for  
Irrigation, Aquifer Recharge,  
Subsurface Disposal, and  
Rapid Infiltration

# Rules, Guidance, Permitting

- Definitions: Reuse vs. Land Application
- IDAPA 58.01.17 – Reuse Rules –  
<http://adm.idaho.gov/adminrules/rules/idapa58/0117.pdf>
- IDAPA 58.01.16 – Wastewater Rules –  
<http://adm.idaho.gov/adminrules/rules/idapa58/0116.pdf>
- Reuse Guidance –  
[http://www.deq.idaho.gov/water/permits\\_forms/permitting/guidance.cfm](http://www.deq.idaho.gov/water/permits_forms/permitting/guidance.cfm)
- Permit Application – See Reuse Rules and Chapter 1 of Reuse Guidance



# Class A vs Class B Requirements

- Both Class A and B:
  - Oxidized, coagulated, clarified, filtered
  - Pilot tested or otherwise approved by DEQ
  - Total Coliform = 2.2 per 100 ml
  - Point of Compliance is prior to storage
  - Minimum Size for Private Systems is 25,000 gpd (peak day flow) based on Wastewater Rules
  - Permit REQUIRED for all Classes

# Class A vs Class B Requirements

- Class B:
  - Potential for Groundwater Monitoring
  - Buffer distances
  - Operator Certification for Distribution
  - Residual Chlorine Required
  - No Aquifer Recharge (Rapid Infiltration allowed)
  - Treatment Redundancy still required by Wastewater Rules
  - Purple Pipe Recommended, not required



# Class A vs Class B Requirements

- Class A:
  - More Uses
  - Distribution System Operator Licensing not required
  - Specific Engineering Report Requirements
  - Distribution System Requirements

# Class A vs Class B Requirements

- Class A:
  - Filtration Technology Acceptance Prior to Design –  
[http://www.deq.idaho.gov/water/permits\\_forms/permitting/ww\\_filtration\\_technology\\_acceptance.cfm](http://www.deq.idaho.gov/water/permits_forms/permitting/ww_filtration_technology_acceptance.cfm)
  - Nutrient Removal Requirements
    - Total N = 10 mg/L max for Ground Water Recharge
    - Total N = 30 mg/L max for Irrigation and other non-recharge uses

# Class A vs Class B Requirements

- Class A:
  - Turbidity Requirements:
    - 2.0 NTU for granular and cloth filters
    - 0.2 NTU for membrane filters



# Class A vs Class B Requirements

- Class A:
  - Disinfection Requirements:
    - Total Coliform = 2.2 per 100 ml
    - 450 CT or 5 log Inactivation of Virus



# Class A vs Class B Requirements

- Class A:
  - Reliability and Redundancy Requirements:
    - Complete Redundancy to treat peak day flow  
AND
    - One of the following
      - 1. Approved Alternative Disposal Option or
      - 2. Diversion to adequate lined storage (7 days) or
      - 3. Equivalent Backup System
      - Any of these three must be automatically activated if turbidity exceeds limits...

# Class A vs Class B Requirements

- Class A
  - Standby Power Required
  - Standby Filter Units Required
  - OR for both of above:
    - Automatic by-pass of filtration to alternative permitted disposal option.



# Class A vs Class B Requirements

- Class A:
  - BOD5 = 5 mg/L max. for Groundwater Recharge and 10 mg/L max. for Non-recharge
  - pH between 6.0 and 9.0
  - Owners of Groundwater Recharge systems must control the ground within 1000 ft. or 6 months aquifer travel time down gradient from the recharge location
  - Class A mixed with canal and surface water can be used as Class A



# Class A vs Class B Requirements

- Class A:
  - Technical Capacity required to be submitted prior to receiving permit
  - Financial Capacity required to be submitted prior to receiving permit
  - Managerial Capacity required to be submitted prior to receiving permit

# Class A vs Class B Requirements

## Class A Uses:

- Residential Irrigation
- Ground water Recharge (no injection)
- Specific fire and dust suppression
- Toilet flushing, other approved uses
- Subsurface Disposal
  - ❖ permitted by DEQ, not Health District
  - ❖ based on both Reuse and Subsurface Rules
  - ❖ reduced trench surface area based on effluent quality



# Class A vs Class B Requirements

## Class B Uses:

- Irrigation of parks, playgrounds, golf courses
- Rapid Infiltration Basins (dose and rest)
- Specific fire and dust suppression
- toilet flushing, other approved uses