City of Meridian
Public Works Department

Protection of the City’s Public Water Supply and the Aquifer Resource
Meridian Public Works

• Primary Responsibilities
  – Water Supply and Wastewater Treatment
  – The mission of Public Works is to anticipate, plan and provide exemplary public services and facilities that support the needs of our growing community in an efficient, customer-focused and financially responsible manner.

• Water Supply
  – Ensure an adequate supply of clean, safe, drinking water is available for all current and future residents.
Water Supply

• City Water Supply
  – Over 90,000 residents and growing fast
  – Groundwater diverted from 23 wells
  – 3.5 billion gallons pumped in 2015
  – Future demand may approach 15 billion gallons per year
  – Is the resource sustainable?
    • Quantity
    • Quality
Water Quantity

- Where do we get data?
  - Test wells
  - Up to 20 years of ground water level monitoring
- What does the data show?
  - Aquifer system includes many different layers
  - Aquifer system is full and robustly recharged
  - Water supply is sustainable
- City actions
  - Continue to monitor water levels
Water Quality

- Regulated by Safe Drinking Water Act
- Where do we get data?
  - Knowledge of land use and history
  - Water quality sampling from supply wells and monitoring wells from multiple depths
- What does the data show?
  - Human-introduced contaminants exist in some layers
  - Natural contaminants exist in some layers
  - Water chemistry and temperature varies with depth
Water Quality Concerns and Strategies

1. Existing contaminants
   - Build test wells
   - Seal wells
   - Pumping rates
   - Water Treatment

2. Introduction of future contaminants
   - Ordinances
   - Monitoring
Water Quality Concerns and Strategies

3. Disruption of natural barriers to contaminant movement

- Actions:
  - Maintain natural protective layers when building new wells
Primary Water Quality Concern

- Unsealed domestic wells
  - “Drill and Drive” construction methods
  - Data collected from well abandonments prove that voids exist outside casings
Protection Strategy

• Alternate drilling method
  – Mud-rotary drilling
  – Full-depth casing seals
Request for Area of Drilling Concern

- Submitted to IDWR
- Documents:
  - Aquifer characteristics
  - Presence of contaminants of concern
  - Unsealed nature of “drill and drive” wells
- Proposes and suggest rules to:
  - Protect the groundwater resource from contamination and waste
  - Protect public health
Conclusion

• The water resource belongs to everyone and everyone is responsible for protecting it.