Treatment Plants and Pumping Stations

**Challenges**
- Treatment Plants
  - Nitrogen removal temperature
  - Presence of ammonia
  - Detention time
- Pumping Stations
  - Storm damage
  - Vandalism

**Standards / Codes**
- National Construction code
- International Energy Conservation Code
- International Existing Building Code
- Coatings condition and corrosion issues
- Stairs, ladders, and guardrail condition
- Exterior walls and insulation condition
- Roof type and condition
- Maintenance history
- Asset ID and age

**Inspection Recommendations**
1. **1 Inspection Recommendations**
   - Ultrasonic thickness testing of shell, bottoms, and roof
   - Interior and exterior wall inspections
   - Ph or draft measurements

2. **2 Triage**
   - Typical conducted in the first months of a program, triage assessment is conducted out with the site as a service.

3. **3 Comprehensive Inspections**
   - Based on triage assessments, tasks are prioritized for comprehensive assessment

**Water Quality Challenges**

**Integrating Condition Assessment into Your Overall Asset Management Program**

**Common Steel and Coatings Tests**
- Visual coating inspection per SSPC VS2
- Dry film thickness measurements
- Adhesion testing per ASTM D 3359 Method X-Cut
- Qualitative lead testing

**Leveraging a Cathodic Protection System for Rapid Condition Assessment**

**Smart Condition Assessment Stretches Your Utility Dollars**

**The Challenge of Our Time**

**Identifying Best-Value Improvements Through Pump Station Trending**

*HDR Can Help*
Gravity Pipes (Storm and Sanitary Sewers)

EXTENDING ASSET LIFE
Meet the challenge of aging infrastructure through effective condition assessment

Choosing an Assessment Method
That Fits Your System’s Needs and Budget

Risk assessments determine which assets merit detailed assessments. The degree of inspection and the inspection coverage influences the cost. Several methods may be practical due to access limitations.

Pressure Pipe and Force Mains

Pipeline Rehabilitation Approaches

To order free copies of EXTENDING ASSET LIFE please go to: http://www.hdrinc.com/condition-assessment