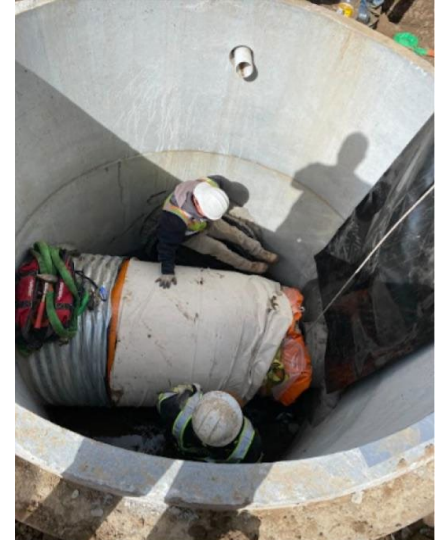# Conduit Inspections

Presented by Standard Drain, LLC

Standard Drain, LLC

- Located in Missoula MT
- Family Business
- Specialize in Storm/Wastewater Infrastructure Repairs
- 3D Manhole Scanning

- UV CIPP 4-75 Inch
- Jetter Vac Services
- Hydro-Excavation
- CCTV Crawler Inspections
  - NASSCO & PACP Certified

CCTV Inspections of Dam Conduits: WHEN

Aging infrastructure presents a never-ending demand for inspections, improvements and rehabilitations.

Through CCTV Crawlers we are able to carry out inspections on dam conduit lines and other drains as part of the yearly, 5-year and 10-year milestone inspections dams require.

Most applicable time for inspections is if/when water level is the lowest such as winter drawdown. This reduces costs associated with gaining access to conduit structures.

A typical inspection can be carried out in a single day.

Emergency inspections can be necessary to help diagnose and prevent conduit failures or identifying a clog.

Conduit Inspection: How

Gaining access to the downstream outlet of the conduit is the preferred method in a typical situation.

Spillway water is evacuated to the point that there is no static water in the conduit line.

Scaffolding, ladders and safety barriers are installed.

Crawler is lowered into outlet of conduit and inspection is performed.

CCTV crawler van allows for remote control and monitor of the crawler system

Conduit Inspection: What

Once the inspection begins we are able to catalog in real time the individual profile of the existing pipe. Key issues we look for are:

- Overall pipe condition ranked as a 1-5
- Fractures or cracks: A laser is used to measure the size and is cataloged.
- Inflow and Infiltration (I&I): Any inflow from connecting drains or infiltration of groundwater from fractures or cracks.
- Pipe deterioration of RCP (Reinforced Concrete Pipe) or CMP(Corrugated Metal Pipe).

- Offset joints or missing pipe wall
- Protruding taps of connecting drains
- Sags or bellies in the pipe profile
- Deformation or anomalies

Infiltration   Inflow