Columbus DSR83
Weir Raise Project

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Before System Improvements

Scioto River

WEST SIDE SEWERS

GRIT TANKS

FDS

FCS

IPS

JPWWTP

OSIS

Whittier St.

STORM TANK 1

STORM TANK 2

STORM TANK 3

OVERFLOW

DSR 83

FRANKLIN MAIN DESHLER TUNNEL

BIG WALNUT INTERCEPTOR SEWER

OVERFLOW

SWWTP
Collection System Improvements

Scioto River

OSIS

Whittier St.

STORM TANK 1
STORM TANK 2
STORM TANK 3

FDS

WEST SIDE SEWERS

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IPS

DSR 83

FRANKLIN MAIN DESHLER TUNNEL

OVERFLOW

BIG WALNUT INTERCEPTOR SEWER

SWWTP
Berliner Park Grit Tank Removal
OSIS Flow would back up to DSR83 and then overflow. This limited how much flow the OSIS could convey to the plants.
DSR83 Temporary Weir Raise
DSR83 Temporary Weir Raise Effects

- Upstream regulator gates could be opened from about 45% to 70% during storm events
- Higher plant influent flows were noticed
- Manage sewer elevation for Berliner Park protection also
DSR83 Temporary Weir Raise Effects

JP Effluent Daily Total (MG)

Reduced Plant Capacity Construction Period
Full Plant Capacity,
DSR83 Lower
DSR83 Weir Raise Complete

0.00 20.00 40.00 60.00 80.00 100.00 120.00 140.00 160.00
DSR83 Temporary Weir Raise Effects

**JP Effluent Daily Total (MG)**

- **Full Plant Capacity, DSR83 Lower**
- **DSR83 Weir Raise Complete**

Data points are plotted against dates from 6/21/2010 to 4/17/2011.
DSR83 Temporary Weir Raise Effects

Southerly Effluent Daily Total (MG)

- Full Plant Capacity, DSR83 Lower
- DSR83 Weir Raise Complete

Graph showing data from 6/21/2010 to 4/17/2011.
DSR83 Future Improvements

Increase DSR83 Weir elevation to increase flow capacity of OSIS
DSR83 Improvements Construction
DSR83 Weir Raise Effects

Modeled water surface profile, OSIS from DSR 83 at 702’ to FDS
Other Future System Improvements

• OSIS monitoring at Berliner Park for closer control of level
• OARS tunnel and pump station for increased conveyance
• Continual refinement to the wet weather operational strategy
Future OARS Tunnel Construction