

**STRUCTURE G-337  
(STA 2 Seepage Return Pump Station)**

Seepage Return Pump Station G-337 is equipped with three 42-inch diameter electric motor driven pumps, each providing a nominal capacity of approximately 80 cfs (240 cfs total). Minimum intake elevation is established at 7.00 ft NGVD. Pump station floor elevation is established at 15.75 ft NGVD. Design headwater elevations are maintained between 8.0 and 8.5 ft NGVD in order to maintain average water level within the Seepage Canal at 9.0 ft NGVD. Under Design Flow conditions, pumps are able to operate at nominal capacity with a headwater elevation of 8.5 ft NGVD and a tailwater elevation up to 16.12 ft NGVD. The pumps are capable of operating at a reduced capacity for the higher tailwater stages associated with the Standard Project Storm (SPS) and Probable Maximum Storm (PMS) events (G-337 max TW for SPS is 16.54 ft NGVD and max TW for PMS is 17.03 ft NGVD).

**PURPOSE**

G-337 provides seepage control service to those private lands north, west and south of STA-2 and its Supply Canal. G-337 and future auxiliary seepage pumps isolate water control operations so they do not affect adjacent landowners. Pumping Station G-337 discharges to the Supply Canal for STA-2..

**OPERATION**

G-337 can be operated manually or remotely as required to maintain average canal elevation at 9.0 ft NGVD during Typical Operations. G-337 may be pumped down to 7.0 ft. NGVD in order to maintain control elevations at the far end of the seepage canal. The pumps operate automatically in response to headwater elevation and the station is normally unmanned. Operational experience has indicated that the original 3 pump design is inadequate to isolate adjacent lands from the impacts of all water management operating in STA-2. An additional 4 units, G-337A, are being added to supplement an original design capacity.

A temporary 100-cfs seepage return pump is located near the northwest corner of the seepage collection canal, and discharges directly into the Inflow Canal near Structure G-333D. This pump will remain in place until the additional seepage pump station G-337A is operational. G-337A is anticipated to be located at the northwest corner of the seepage collection canal, just west of the existing temporary pump.

**Seepage Collection Canal**

The Seepage Collection Canal runs parallel to the supply canal and continues around the perimeter of the Inflow Canal and treatment cells, eventually terminating near outflow pump station G-335. The total distance is approximately 73,200 ft or 13.9 miles. The Seepage Collection Canal has a bottom width of 12.0 ft at approximate elevation varying

from -5.7 ft NGVD to +2.3 ft NGVD and side slopes of 3 to 1 (H to V) and 2 to 1. The top of the canal bank is estimated at 11.0 ft NGVD.

### **HYDRAULIC AND HYDROLOGIC MEASUREMENTS**

Staff gauges: Headwater / tailwater staff gauges are available for local monitoring.

Telemetry system: Three electric pumps on telemetry control, pumps monitored for rpm  
Stage recorders at upstream and downstream of structure

No water quality sampling is required by permit at this structure. Water quality sampling will take place at the Research Division's request.

### **DESCRIPTION OF STRUCTURE**

Number of Pumps:	3
Discharge Capacity (combined):	240
Design Headwater elevation:	8.0 ft NGVD
Design low water (headwater) elevation:	7.0 ft NGVD
Design Tailwater elevation:	16.12 ft NGVD
Nominal pump operating speed:	
(3) Electric 42" diameter:	383 rpm
Automatic start control elevation	Pump 1 @ 6.75 ft. Pump 2 @ 7.00 ft. Pump 3 @ 7.25 ft.

### **POWER SOURCE**

Prime Movers	<u>Commercial electricity</u>
--------------	-------------------------------

### **STATION POWER**

Normal	<u>Commercial electricity</u>
--------	-------------------------------

Emergency	<u>Diesel Generator</u>
-----------	-------------------------

**Date of Acceptance into Service:** October 1999

**ACCESS:** Access to G-337 is from S-6 along the west levee of the Supply Canal. The pump station is located between S-6 and S-7.