

## **Sunnyside Canal Improvement Project Update (04/14/11)**

The Sunnyside Canal Improvement Project (SCIP) is one result of the Sunnyside Division Water Rights Settlement Agreement between the United States Bureau of Reclamation (Reclamation), Washington State Department of Ecology (WDOE), Yakama Nation and Sunnyside Division Board of Control (Sunnyside) in the Yakima Basin Water Rights Adjudication. Under the Settlement Agreement, Sunnyside will participate in the Yakima River Basin Water Enhancement Project. Reclamation and state funds will cover approximately \$45 million in exchange for reduced diversions of 30,000 acre feet of water benefitting the lower Yakima River.

Some of the major components of this project (Phase I) include:

Replacement of 30 existing check structures with fully automated, electrically powered gates used to maintain a consistent water elevation in the canal for deliveries of irrigation water. The new gates will be overshot dual-leaf Langemann gates. These gates hinge at the base and in the middle so the leading edge of the gate rises and falls in a vertical plane.

A Supervisory Control and Data Acquisition (SCADA) system which communicates between the central office and all automated control sites which will help coordinate the flow of water throughout the 60-mile Sunnyside Canal. System water elevation and flow can be remotely sensed and controlled from any site with internet access.

Construction of three Re-Regulation Reservoirs placed northeast of Prosser, north of Granger and another north of Sunnyside. These reservoirs will each have a capacity between 300 and 500 acre-feet each with a maximum depth of about 25 feet.

Prior to 2004 automated gates were retrofitted by Sunnyside at existing concrete check structures at Canal Mile 2.93, 36.84, and 59.31. The check number represents the distance from the Yakima River head works in miles. New gates and check structures were installed under the YRBWEP Project at 21.34, 40.38, 45.70, and 48.27 during the 2005/2006 winter construction season. New gates and check structures were installed at 43.65, 50.76, 52.63, 55.21, and 57.55 during the 2006/2007 winter construction season. New gates and check structures were installed at 23.17, 25.77, 28.09, 30.25, 31.25, and 33.75 during the 2008/2009 winter construction season. New gates and check structures were installed at 14.27, 15.40, 16.95, 18.06, and 19.77 during the 2009/2010 winter construction season. New SCADA software and hardware has been installed in the Sunnyside office. SVID can now access data and make flow changes from any remote site with internet access including the two remote field offices. The communication system from the remote sites to the Sunnyside office utilizes spread spectrum radios.

On November 15th 2004 Reclamation, WDOE, Yakama Nation, Sunnyside, and many others participated in groundbreaking ceremonies on the M.P. 59.29 Re-Regulating Reservoir, near Prosser. The Sunnyside Canal Improvement Project 59.29 Re-Regulating Reservoir first fill was on Monday July 11, 2005.

Construction of the 23.7 Re-Regulation Reservoir north of Granger, near Punkin Center, was completed August 2008. Construction of the third Re-Regulation

Reservoir, MP 37.10 near SR 241 northeast of Sunnyside , is in progress with an anticipated completion date of May 1, 2011. The normal operating level of these reservoirs will be half full to leave room for excess water and to provide additional water when needed to meet irrigation demand. The entire Sunnyside Canal Improvement Project will be complete about 2013.

#### **M.P. 23.70 Re-Regulation Reservoir facts**

Engineer: CH2M-Hill, Inc (Prime), Huibregtse Louman Associates, and Conley Engineering, Inc.

Contractor: Tapani Underground, Inc. Battle Ground, WA

Bid Price: \$5.18 Million

Total final Price including land, engineering, and admin: about \$7.0 million

Capacity of Reservoir: 300 acre-feet

Maximum Depth of Reservoir: 31 feet

Area Utilized for Reservoir: 30 acres

Maximum Pumping Capacity (Out of Reservoir): 50 cfs

Four @ 100hp each

Maximum Gravity Intake into the Reservoir: 70 cfs

#### **M.P. 37.10 Re-Regulation Reservoir facts**

Engineer: CH2M-Hill, Inc (Prime), Huibregtse Louman Associates, and Conley Engineering, Inc.

Contractor: Rotschy, Inc. Vancouver, WA

Bid Price: \$5.21 Million

Total final Price including land, engineering, and admin: N/A

Capacity of Reservoir: 300 acre-feet

Maximum Depth of Reservoir: 22 feet

Area Utilized for Reservoir: 40 acres

Maximum Pumping Capacity (Out of Reservoir): 50 cfs

Four @ 100hp each

Maximum Gravity Intake into the Reservoir: 100 cfs

**M.P. 59.29 Re-Regulation Reservoir facts**

Engineer: CH2M-Hill, Inc (Prime), Huibregtse Louman Associates, and Conley Engineering, Inc.

Contractor: Tri-State Contractors, Inc. Portland, OR

Bid Price: \$4.77 Million

Total final Price including land, engineering, and admin.: about \$6.5 Million

Capacity of Reservoir: 300 acre-feet

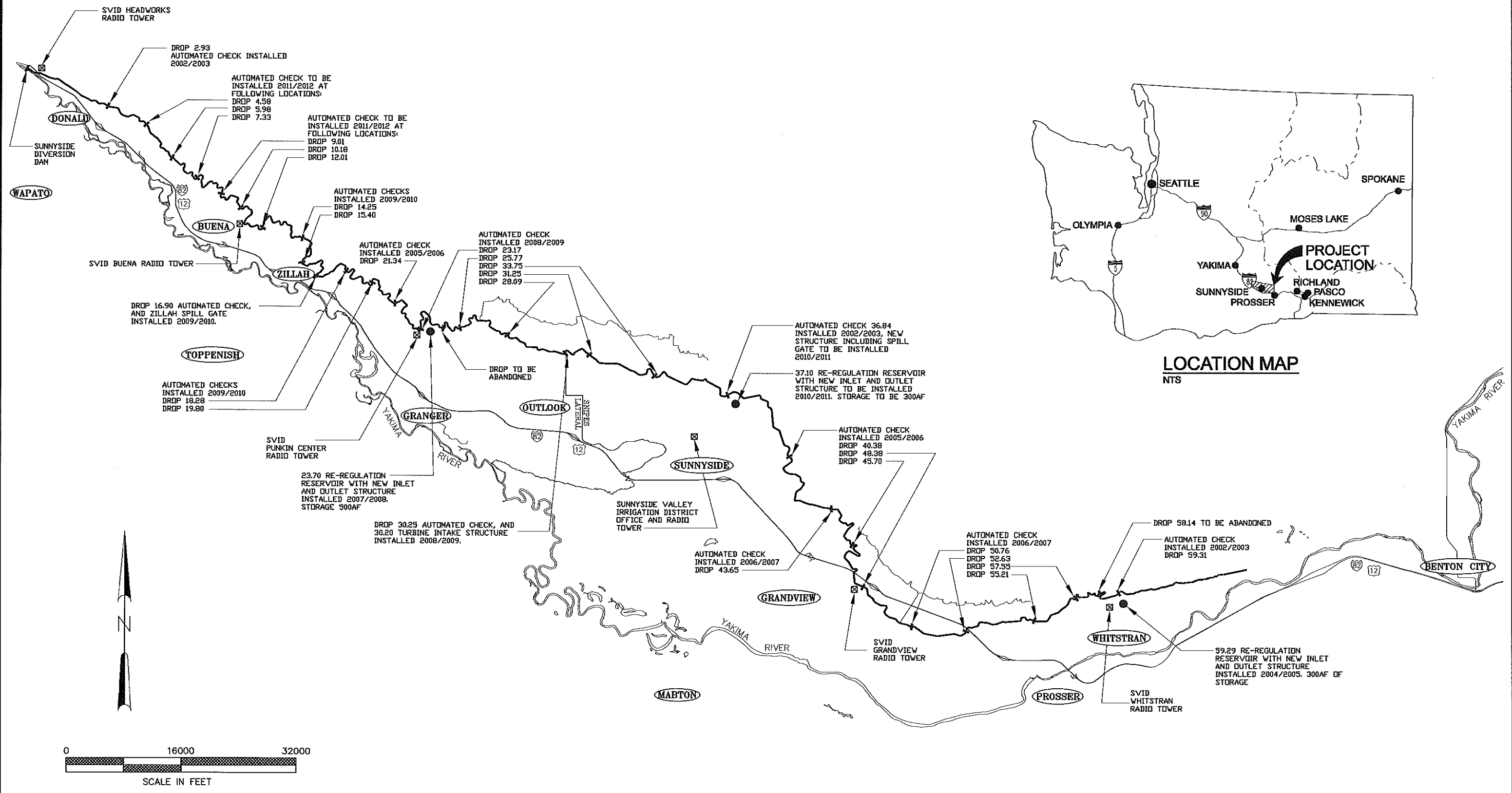
Maximum Depth of Reservoir: 25 feet

Area Utilized for Reservoir: 25 acres

Maximum Pumping Capacity (Out of Reservoir): 30 cfs

Four @ 100hp each

Maximum Gravity Intake into the Reservoir: 40 cfs



SUNNYSIDE VALLEY IRRIGATION DISTRICT  
SUNNYSIDE, WASHINGTON 98944

# SUNNYSIDE CANAL CHECK STRUCTURES

DATE: 04/02/10  
SCALE: 1"=16000'

DRAWN BY: DMF  
APPROVED BY: DS