

Information for GlobalGAP Water Management Plan

Roza Irrigation District (Roza) water that flows through an open canal, into either open or closed laterals before its delivery on-farm. Roza water is derived from the Cascade Mountains in the state of Washington, which is located west of the grower's land. The United States Bureau of Reclamation (USBR) Yakima Project maintains five reservoirs for irrigation and flood control purposes. Three of these reservoirs, Kachess, Keechelus, and Cle Elum provide storage water for the Roza via the Yakima River. The storage water comprises one third of Roza's irrigation water. Roza's irrigation water is derived from the Cascade Mountain's rain and snow pack eventual runoff to the Yakima River. The Roza Dam is located at river mile 127.9 on the Yakima River and is Roza's legal point of diversion. Landowners within Roza's district boundary have water allotments. Water is not delivered until the yearly assessment is paid.

Roza operated and maintains the irrigation conveyance structures for the diverted Yakima River water. This water is not used or intended as a potable water source.

Historical usage and weather data is used to maximize irrigation efficiency for the land. Roza's daily water ordering system allows the grower control and flexibility in water usage and distribution. Irrigation application can be changed as conditions change. The grower complies with the Roza policy of not allowing highly turbid on-farm runoff to the Roza drains, which return farm runoff to the Yakima River. This method supports water conservation efforts in minimizing soil erosion.

The Roza Irrigation District has a May 10, 1905 water rights, which are comparatively junior. In the event of a drought, each landowner has an equitable but reduced pro rata amount of water delivered on-farm.

Irrigation agricultural return flow is directed to Roza drains and wasteways. The return flow may also infiltrate to the ground water. That water which does not infiltrate returns to the Yakima River.

Irrigation water is analyzed every three weeks 4.95 miles from the Roza Dam diversion site for the following parameters: temperature, pH, specific conductance, dissolved oxygen, turbidity, total suspended solids, *Fecal coliform*, *E. coli*, total nitrogen species: nitrate plus nitrite (inorganic form), Total Kjeldahl Nitrogen (organic form), ammonia (seldomly), and Total Phosphorus. There are five additional milepost sites on the Roza Canal (11.5, 32.8, 59.0, 75.1, and 94.7) where *E. coli* and turbidity are sampled on a monthly basis. In addition, temperature, pH, and specific conductance are measured at the 59.0, 75.1, and 94.7 locations. The RSBOJC Water Quality Laboratory, an accredited lab through the Department of Ecology, performs all of the sample collection and most of the sample analysis. The USBR Pacific NW Regional

Laboratory in Boise, Idaho performs the nutrient sample analysis of nitrogen, phosphorus, and ammonia. All laboratory results are retained on file in both hard copy and electronic formats for inspection.

Roza requires landowners or the public (not already on the email group broadcast list) to complete a public records request form which then has to be approved by Management (e.g., Wayne Sonnichsen). Once this is done then I add their contact information to the email broadcast list which then allows them to see the data when I send it out to the group usually the following week after the week of canal sampling. The Lat/Long coordinates of the canal sampling locations are also listed on the lab results data report.