

**Table 12**  
**Evaluation of Osoyoos**  
**Groundwater Quality Ambient Network**

<b>Network Name :</b>	<b>OSOYOOS</b>					
<b>Aquifer Numbers:</b>	193 (Osoyoos West), 194 (Osoyoos east)					
<b>Monitored Since:</b>	August 26, 1985					
<b>Footprint Area:</b>	193 = 25 km <sup>2</sup> , 194 = 4 km <sup>2</sup>					
<b>Number of Obs wells:</b>	27 wells at 18 sites					
<b>Number wells in WRA:</b>	457					
<b>Aquifer Classification:</b>	193=IIA (rank 16 ), 194 = IIA (rank 14)					
<b>Parameters ≥ GCDWQ:</b>	Nitrate, Uranium, Total Dissolved Solids					
<b>Contaminants of Concern:</b>	NO3, U, TDS, Cl					
<b>Network Objective</b>	<b>Measurement Criteria</b>	<b>Current Status</b>	<b>Evidence of Change</b>	<b>Response Options</b>	<b>Comments</b>	
<b>1</b>	<b>Spatial and Depth Coverage</b>	a. background well(s) b. coverage in areas of suspected impacts c. coverage of all indicated spatial mode areas d. coverage of hydraulically isolated formations	- good spatial coverage	- no evidence of geothermal - no significant land use change - several municipal wells available for sampling	- no response/change - add wells from Town of Osoyoos	- what is the purpose of so many shallow wells adjacent to Peanut Lake and Elks Hall Lake. These are likely influenced by surface water in the lakes.
<b>2</b>	<b>Suite of Chemistry Parameters and Lab Methods</b>	a. indicator parameters capable of identifying existing/potential threats b. ability for anion/cation balance c. continuity of historical parameters d. consistent suite of parameters e. new parameters reflect emerging lab methods and recs. by Kohut (2009) f. surrogate monitoring methods	- insufficient parameters to verify charge balance - HCO3 not regularly included - background for some parameters is modal	- NH4 considerable variability could be due to sampling method - NO3, SO4 decreasing	- no response/change - sample for complete suite in all parameters annually - monitor WTN 14402 more closely - include turbidity - monitor more closely for U, As	
<b>3</b>	<b>Sampling Frequency for Network + Wells of Importance</b>	a. consistency in suite of parameters b. duration frequency for primary and secondary priority wells c. sampling for seasonal variation	- parameters not consistent - no seasonal sampling	- sample frequency is not consistent	- no response/change - sample more consistently	
<b>4</b>	<b>Field Methods QA/QC Data Validation</b>	a. field sampling + handling protocols b. QA/QC lab results c. cation/anion balance d. QA/QC data entered in EMS e. identify statistical outliers	- some outliers identified, As variable likely result of sampling methods		- no response/change - adherence to field protocols - EMS results reviewed quickly so that sample re-testing still possible	
<b>5</b>	<b>Spatial and Temporal Analysis and Reporting</b>	a. visual outliers and spatial/temporal trends b.	- one upwards trend exists - some downwards trends exist	- upward trend in Cl - downward trend in NO3 and SO4	- no response/change - regular analysis/validation to identify outliers/trends - communicate with planners - communicate with water users - communicate with planners	- nitrogen, uranium and TDS are above GCDWQ and close attention is required in WTN 14402, WTN C WTN 14602