

Results of the trend analyses are contained in Table 3-1. There is upward trend in water elevation for the selected monitoring wells between third quarter 2014 and second quarter 2019.

Monitoring locations WM-0039, WM-0049, WM-0073, WM-0118, WO-0086, and WO-0094 show no upward or downward five year trend in tritium concentration. Monitoring locations WB-1001, WM-0103, WO-0087 and WO-0100 show an upward five year trend in tritium concentration. Monitoring locations WC-0002, WC-0008, WM-0055, WM-0056, WM-0089, WM-0098, WM-0110, WM-0113, WM-0114, WM-0115, WM-0124, WM-0128, WO-0084, WO-0085, WO-0088, WO-0098, and WO-0112 show a downward five year trend in tritium concentration. The monitoring location WM-0110 which has historically the highest tritium concentration is currently trending downwards.

Six monitoring locations selected for trending show no evidence of an upward or downward five year trend. Four monitoring locations show an upward tritium concentration trend and seventeen monitoring locations show a downward tritium concentration trend for the five year period. The number of wells having upward trends increased by one since 2018 (CNS, 2018). The number of sampling locations with downward trends decreased by three since 2018.

**TABLE 3-1
LIST OF MONITORING LOCATIONS AND TRENDS
IDENTIFIED IN THE 2019 ANNUAL TRENDING DATA REPORT**

SAMPLE POINT	TYPE	TREND FOR	5 YEAR TREND	3 YEAR TREND
WB-0401	Boundary well	Water Elevation	Upward	Downward
WB-0502	Boundary well	Water Elevation	Upward	Downward
WB-1001	Boundary well	Water Elevation	Upward	None
		Tritium	Upward	Upward
WB-1003	Boundary well	Water Elevation	Upward	Downward
WC-0002	Creek/Spring	Tritium	Downward	None
WC-0008	Creek/Spring	Tritium	Downward	None
WM-0039	On-site well	Tritium	None	None
WM-0049	On-site well	Tritium	None	Upward
WM-0055	On-site well	Tritium	Downward	None
WM-0056	On-site well	Tritium	Downward	Downward
WM-0073	On-site well	Tritium	None	Upward

SAMPLE POINT	TYPE	TREND FOR	5 YEAR TREND	3 YEAR TREND
WM-0089	On-site well	Tritium	Downward	Downward
WM-0098	On-site well	Tritium	Downward	Downward
WM-0103	On-site well	Tritium	Upward	None
WM-0110	On-site well	Tritium	Downward	None
WM-0113	On-site well	Tritium	Downward	None
WM-0114	On-site well	Tritium	Downward	Downward
WM-0115	On-site well	Tritium	Downward	None
WM-0118	On-site well	Tritium	None	None
WM-0124	On-site well	Tritium	Downward	None
WM-0128	On-site well	Tritium	Downward	Downward
WO-0084	Off-site well	Tritium	Downward	Downward
WO-0085	Off-site well	Tritium	Downward	None
WO-0086	Off-site well	Tritium	None	None
WO-0087	Off-site well	Tritium	Upward	None
WO-0088	Off-site well	Tritium	Downward	Downward
WO-0094	Off-site well	Tritium	None	None
WO-0098	Off-site well	Tritium	Downward	Downward
WO-0100	Off-site well	Tritium	Upward	None
WO-0112	Off-site well	Tritium	Downward	Downward

NOTE:

"None" refers to results showing no evidence of upward trend and no evidence of downward trend.

Figure 3-1 shows the monitoring locations having five year tritium trending results by colored squares with green for downward trend, blue for no trend and red for upward trend. Monitoring locations having downward trend tend to align from the northeast to the southwest on the western and middle part of the disposal site. No trend locations are unremarkable. Most of the upward trend locations are located on the southeastern side of Figure 3-1.

Other notable recent trends observed in the time series graphs are (See Appendix B):

- Water levels have trended upwards in the last year
 - WC-0008 tritium shows a slight increase in the last year
 - WB-1001, WM-0073, WM-0089, WM-0103, WM-0113, WM-0115, WM-0124 and WO-0112 tritium have increased in the last year
- and
- WO-0100 has a downward trend in the last four measurements.