



Figure 1 Range in average annual percent of Project discharges to the tributaries that was transferred from Colby Lake

The amount of water needed for augmentation from Colby Lake is expected to vary significantly through time (Figure 1). A few periods of interest are:

- Earlier years when seepage from the FTB is estimated to be near existing conditions and flow from the Mine Site is estimated to be relatively low. Most seepage will be returned to the FTB pond and less water will be treated by the WWTP and discharged. During this period, the demand from Colby Lake is estimated to be high.
- Years 10 to 15 when flow from the Mine Site is estimated to have increased substantially and seepage rates from the Tailings Basin are estimated to have increased. More water must be treated and discharged by the WWTP reducing the demand for Colby Lake water.
- Years 15 to 18 when water from the Mine Site is estimated to have significantly decreased due to filling the East/Central Pit. Again, more seepage can be returned to the FTB pond, increasing the demand from Colby Lake.
- Years 18 to 20 when it is expected that the pond will be reduced in size to prepare for reclamation. More water will be treated and demand from Colby Lake will be reduced.
- Years 20 to about 32 when all treated and collected water will be sent to either the FTB pond to maintain water levels or to fill the West Pit at the Mine Site. Therefore, the entire flow demand in the tributaries will be met with Colby Lake Water.