Staff developed a trend detection model and ran a power analysis to determine if the existing CMP monitoring design would have sufficient power (80% or higher) to detect significant (α = 0.05) trends towards the turbidity numeric targets within the TMDL timeline. Significant trends would be detected at this power level four times out of five if they were present. Staff conducted the analysis for three numeric target scenarios: year-round, dry season, and wet season.

The year-round scenario comprises the following conditions:

* a sample size of n=12 per site per year, i.e. monthly sampling;
* an end target of 8 NTU;
* a total timeframe of 20 years; and
* a 5-year evaluation cycle, i.e. 5 years of data are necessary to detect significant trends.

Staff determined that the current design would provide a power level of 100% for the year-round scenario and is therefore adequate.

Staff define the 5-month dry season as May through September. The dry-season scenario comprises the following conditions:

* a sample size of n=5 per site per year;
* an end target of 6 NTU;
* a total timeframe of 20 years; and
* a 5-year evaluation cycle.

Staff determined that the current design would provide a power level of 85% for the dry season scenario and is therefore adequate.

Staff define the 7-month wet season as October through April of the following year. The wet-season scenario comprises the following conditions:

* a sample size of n=7 per site per year;
* an end target of 11 NTU;
* a total timeframe of 20 years; and
* a 5-year evaluation cycle.

Staff determined that the current design would provide a power level of 100% for the wet season scenario and is therefore adequate.