Table 1. Sustainable Management Criteria Summary

Sustainability Indicator	Significant and Unreasonable Conditions	Minimum Threshold	Measurable Objective	Undesirable Result
Chronic Lowering of Groundwater Levels	Excluding groundwater level declines that may occur during drought conditions, conditions that result in prolonged, year-to-year reductions in groundwater levels below levels recorded historically [10 years] at RMS wells, resulting in impacts to beneficial uses and users of groundwater. When the long-term period doesn't end in drought conditions and is balanced with above and below average water years, significant and unreasonable groundwater level decline occurs when groundwater level decline continues, including during drought periods, and extend for a long period [e.g., 10 years] resulting in impacts to beneficial uses and users of groundwater.	Wells with >10 years historical groundwater elevation observations: Minimum static October groundwater elevation prior to 2015. Wells with <10 years historical groundwater elevation observations: Inferred minimum static October groundwater elevation between 2005 to 2014 or historical groundwater levels simulated by the NVIHM.	Wells with >10 years of groundwater level observations: October average static groundwater elevation observed historically prior to 2015 Wells with <10 years of groundwater level observations: October average static groundwater elevation between 2005 to 2014, for wells that lack at least 10 years of observed data	20% of designated RMS well levels fall below the MT in fall (October) for 3 consecutive years of fall measurements in non-drought years.
Reduction in Groundwater Storage	Groundwater extractions exceed the Subbasin sustainable yield and result in impacts to beneficial uses and users of groundwater.	The net groundwater extraction by pumping that exceeds the sustainable yield for the Subbasin, where net groundwater extraction is the volume extracted less any volume of augmented recharge achieved by projects implemented in the Subbasin.	The net annual groundwater extraction by pumping up to the sustainable yield for the Subbasin.	The 7-year average annual net groundwater extraction in the Subbasin exceeds the sustainable yield.
Seawater Intrusion	Groundwater conditions in the Subbasin allow for the increase of the flow of seawater into the Napa Valley Subbasin such that chloride concentrations measured in RMS wells reach levels that no longer meet the state secondary drinking water standard [250 mg/L] and would result in groundwater being unsuitable for beneficial uses.	Chloride concentration of 250 mg/L established at designated RMS.	Historical maximum native chloride concentration measured at each RMS.	A detected and confirmed exceedance of the MT at any of the RMS wells where sea water is determined to be the chloride source and the exceedance is determined to have resulted from Subbasin management.
Degraded Water Quality	Statistically significant increase in concentrations of groundwater quality constituents of concern that negatively affects the suitability of groundwater for domestic, agricultural, municipal or environmental beneficial uses.	State drinking water standards at each RMS for: • TDS - 500 mg/L • Nitrate (as N) - 10 mg/L • Arsenic - 10 µgL	Historical range and no more than 75% of the MT for each constituent of concern.	Confirmed exceedance of an MT at any RMS determined to have resulted from Subbasin management.

Sustainability Indicator	Significant and Unreasonable Conditions	Minimum Threshold	Measurable Objective	Undesirable Result
Land Subsidence	Permanent, inelastic subsidence to a degree that disrupts or causes accelerated damage to important public or private infrastructure as a result of groundwater extraction and use.	Land surface elevation RMS: 0.2 feet/year inelastic land surface elevation reduction. Groundwater level RMS: Minimum historical groundwater levels	Land surface elevation RMS: Less than 0.2 feet/year. Groundwater level RMS: Historical minimum groundwater elevation.	Annual MT is exceeded and groundwater extraction is determined to be the cause of the detected inelastic subsidence, based on correlation of groundwater levels and land surface elevation data or documentation of increased groundwater pumping rates.
Depletion of Interconnected Surface Water	A reduction of the timing and duration of hydraulic connection relative to the historical conditions, resulting in impacts to groundwater dependent ecosystems or other beneficial users of surface water.	Streamflow Depletion RMS: (Interim MT) The second highest seasonal volume of streamflow depletion that occurred from 2005 to 2014. Groundwater level RMS: the inferred minimum static groundwater elevation between 2005 to 2014, informed by available data and historical groundwater levels simulated by the NVIHM.	Streamflow Depletion RMS: (Interim MT) A reduced volume of streamflow depletion corresponding to a 10 percent reduction in average annual historical (2005 to 2014) pumping for all non-de minimis groundwater users. Groundwater level RMS: Inferred average static groundwater elevation between 2005 to 2014	Streamflow Depletion RMS: (Interim UR): Exceedance of the MT for the volume of streamflow depletion occurring for three consecutive years at the Napa River at Pope Street or Napa River at Oak Knoll Avenue locations. Groundwater level RMS: 20% of RMS well levels are below the MT in the Fall for three consecutive years of Fall measurements.