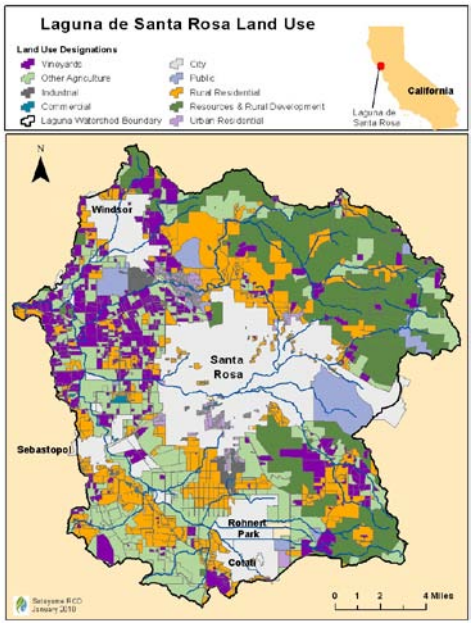
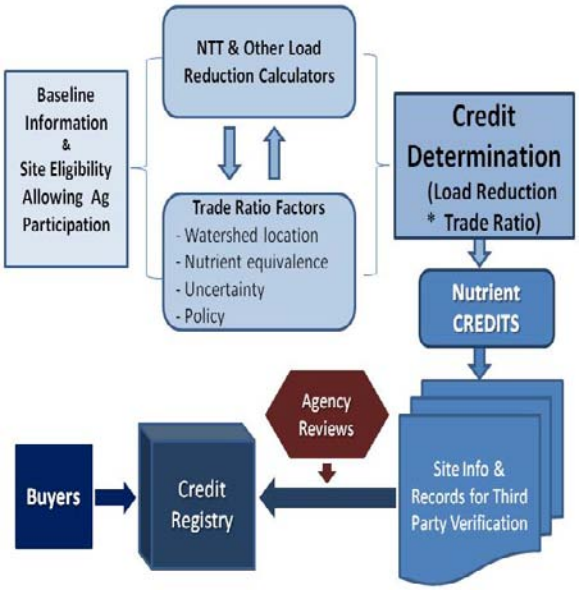
City of Santa Rosa, California Nutrient Offset Resolution Compliance Project

K&A is assisting the City of Santa Rosa with total phosphorus and total nitrogen offset reduction projects necessary for compliance with an NPDES permit resolution. The resolution implements a pre-TMDL zero net load requirement for the City's discharge to the Laguna de Santa Rosa. The City can implement further wastewater treatment, increase its water reclamation initiatives with steam power generation, and/or irrigation of urban and agricultural lands to reduce the amount of nutrients discharged to the Laguna. However, in wet years these efforts are predicted to be insufficient to comply with the no net loading requirement. The "Nutrient Offset Resolution" assigned by the North Coast Regional Water Quality Control Board outlines a program based on nonpoint source reductions to be used as offsets to the discharged nutrient loadings.



The City is the only NPDES-permitted WWTP in the 254 square mile Laguna watershed, a tributary to the Russian River that discharges to the Pacific Ocean. Costs to upgrade the existing wastewater reclamation facility (>$40M) far surpass crediting alternatives provided by agriculture in the watershed. Moreover, the City of Santa Rosa anticipates additional demand for credits when they receive future TMDL Waste Load Allocations for their Municipal Separate Storm Sewer System (MS4) permit. This will force the City to also consider more cost-effective alternatives to otherwise exorbitantly expensive storm water retrofits. Other permitted MS4s in the Laguna will face very similar needs.



K&A has been developing approvable credit estimation methods and protocols for a variety of non-point source projects including those on dairies for current offset needs. As these details have been provided to the Regional Board, it has become evident that the process to secure credits under the Nutrient Offset Program is administratively burdensome and continuously evolving. This is due to a lack of standardized methods or protocols for calculating credits from Ag conservation practices, no infrastructure or tools to readily facilitate trades, and no formal means to engage agriculture in this existing (and growing) marketplace. As such, K&A is working with the City, local Resource Conservation Districts (RCDs) and a variety of other regional and state partners to develop a formal water quality trading program. The future trading framework will be much simpler and efficient, serving as a template for other areas of California with heavy Ag production and point source load reduction requirements.