

Biosolids

(the other side of Subregional Operations)

Process, Constraints, the Future



Mike Prinz, Deputy Director Subregional Operations

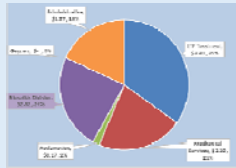


AGENDA

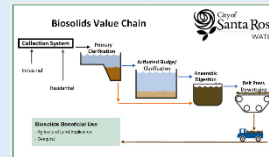
PROCESS



Costs



Plant



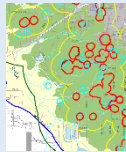
Offsite



CONSTRAINTS



Endangered Species



Economic



Environmental



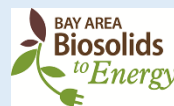
FUTURE



Internal



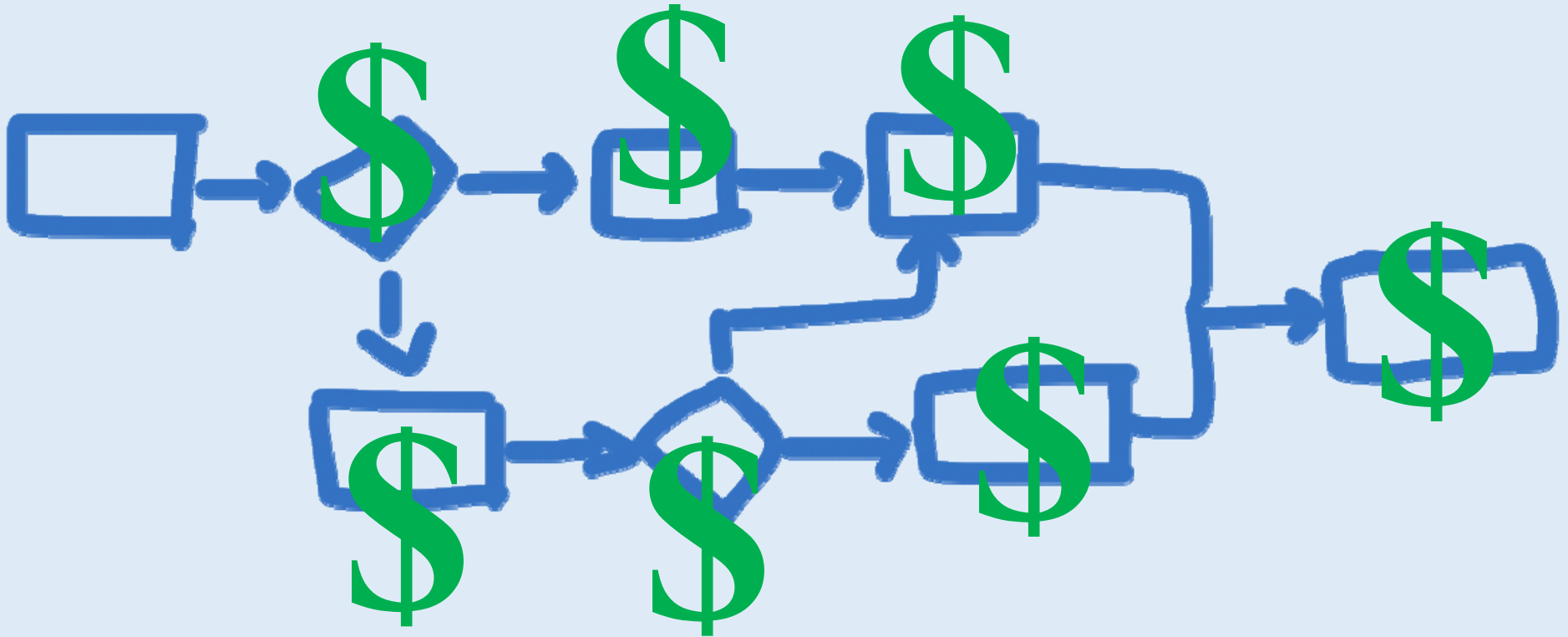
External



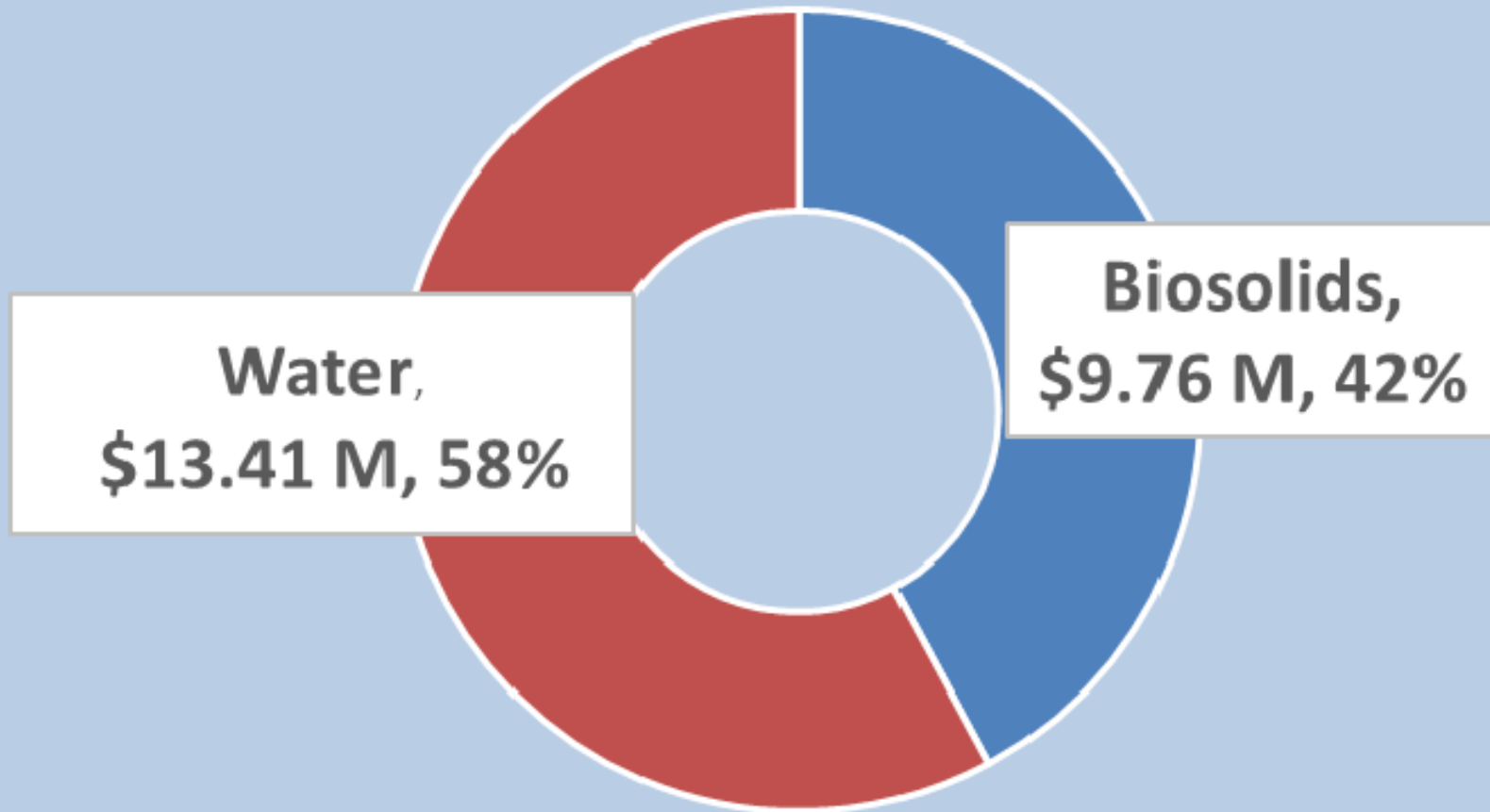
Near Term



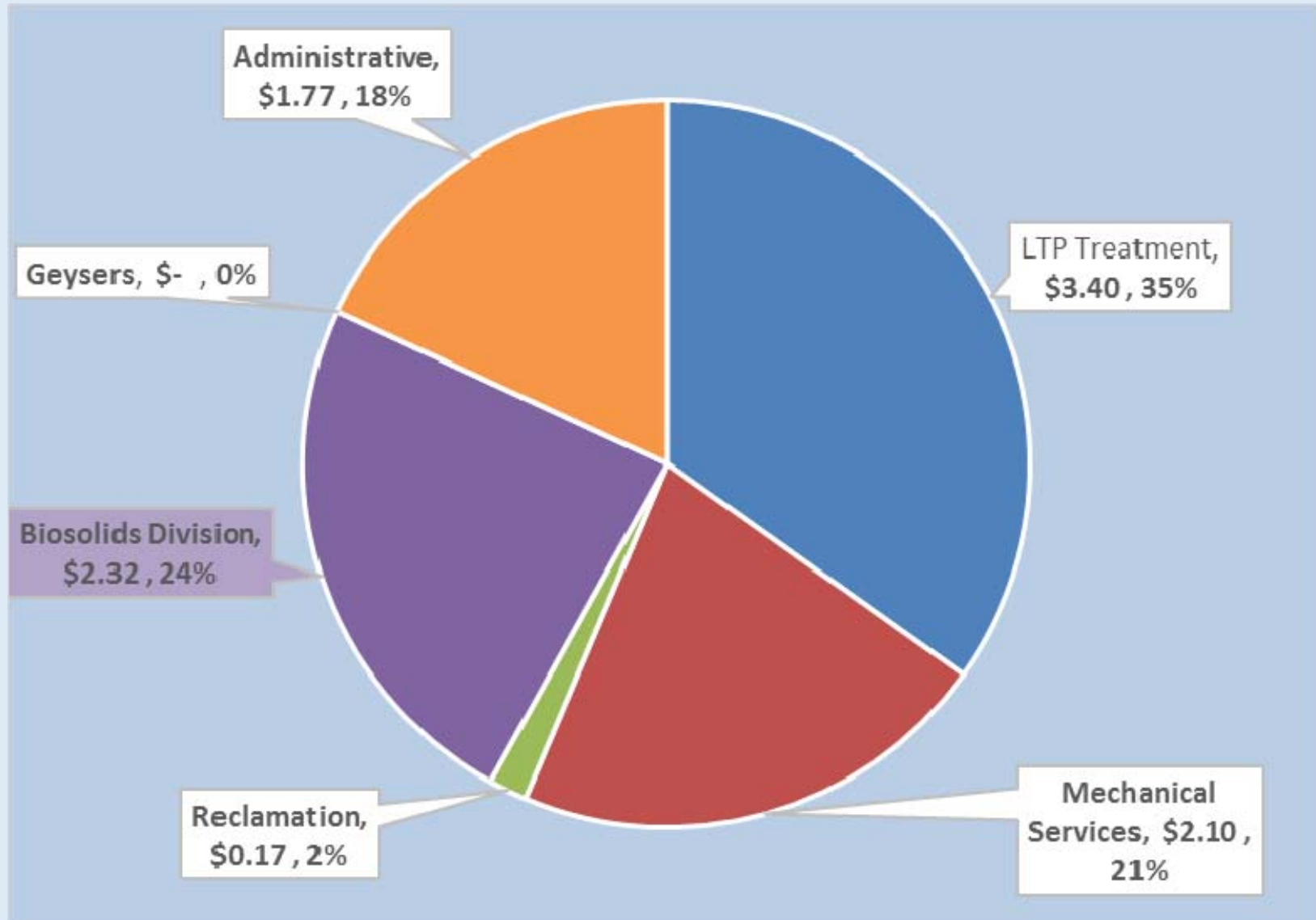
Like many aspects of the Subregional System, Biosolids are managed through a multi stage **PROCESS**



15/16 Subregional O/M, excluding debt service

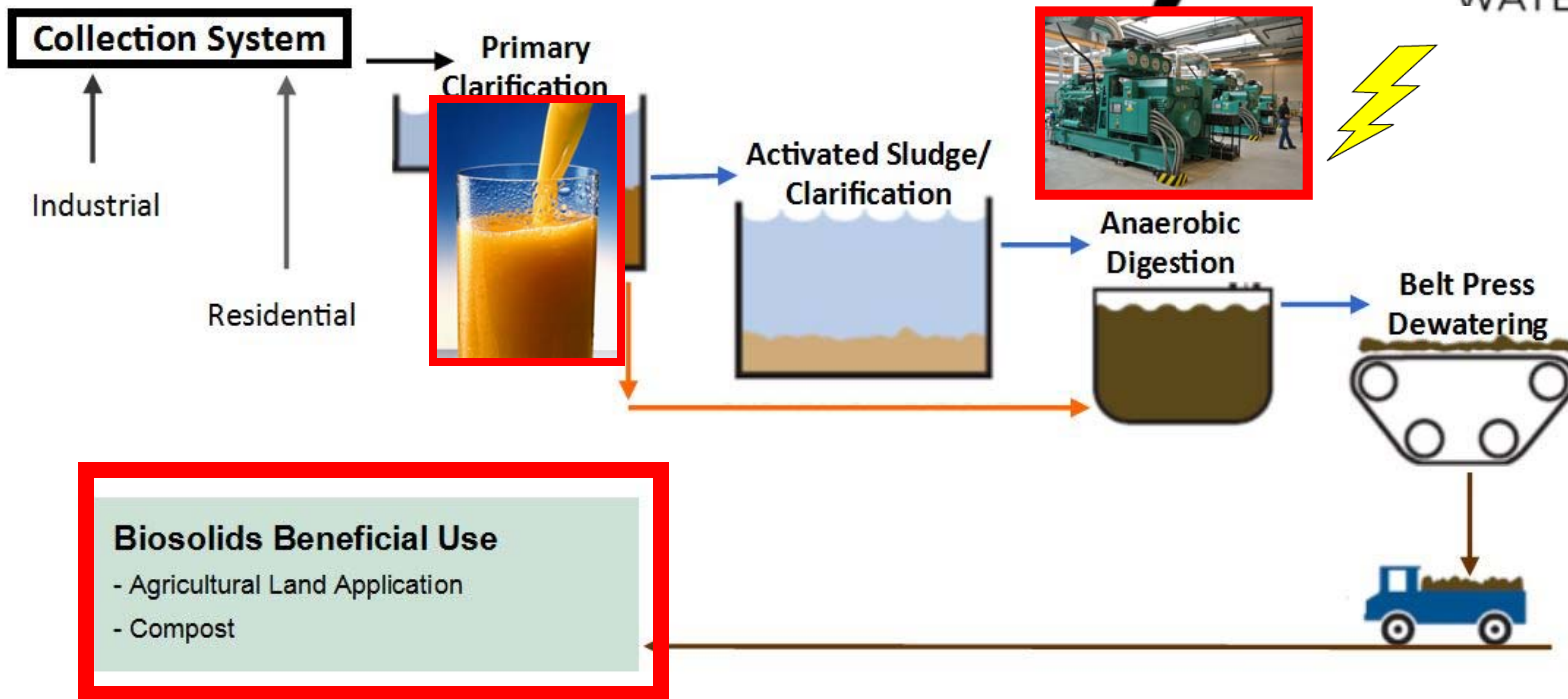


Only about ¼ of the total biosolids cost is attributable to the Biosolids Division budget

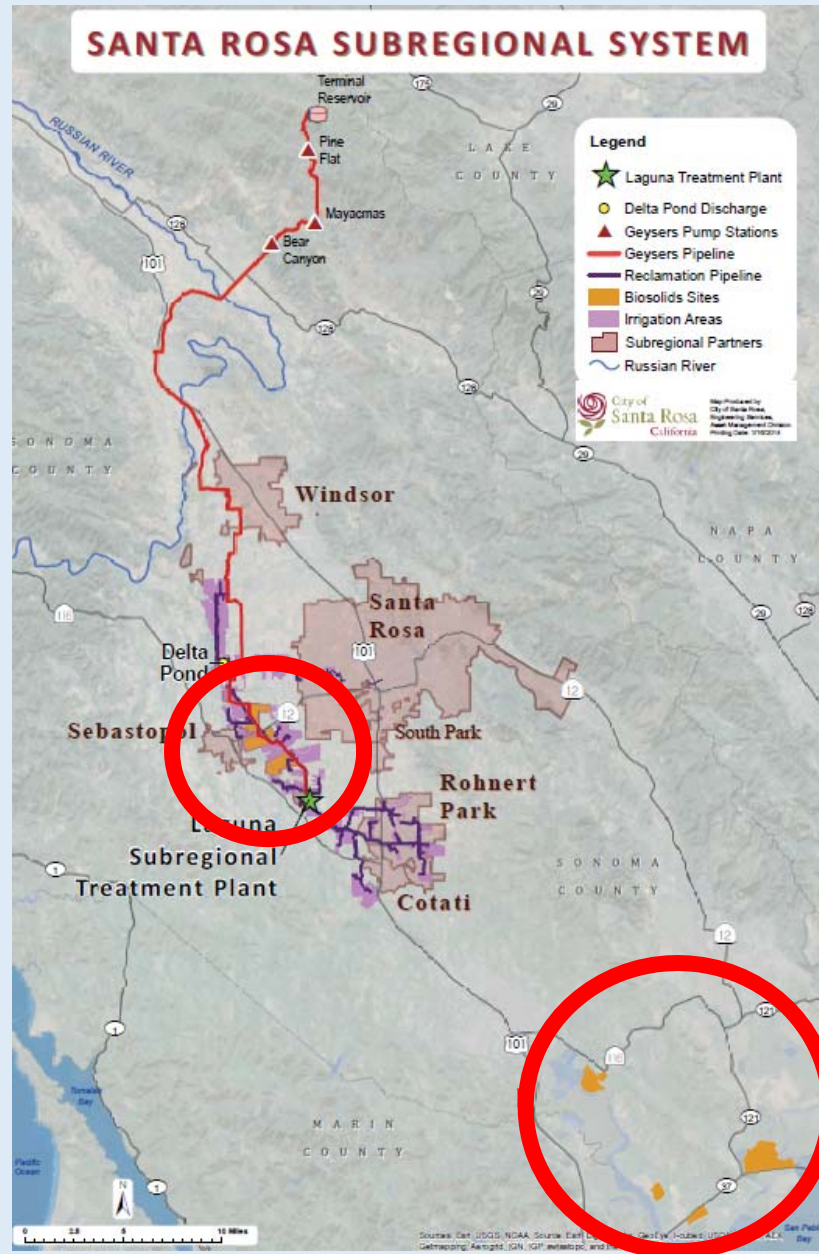




Biosolids Value Chain



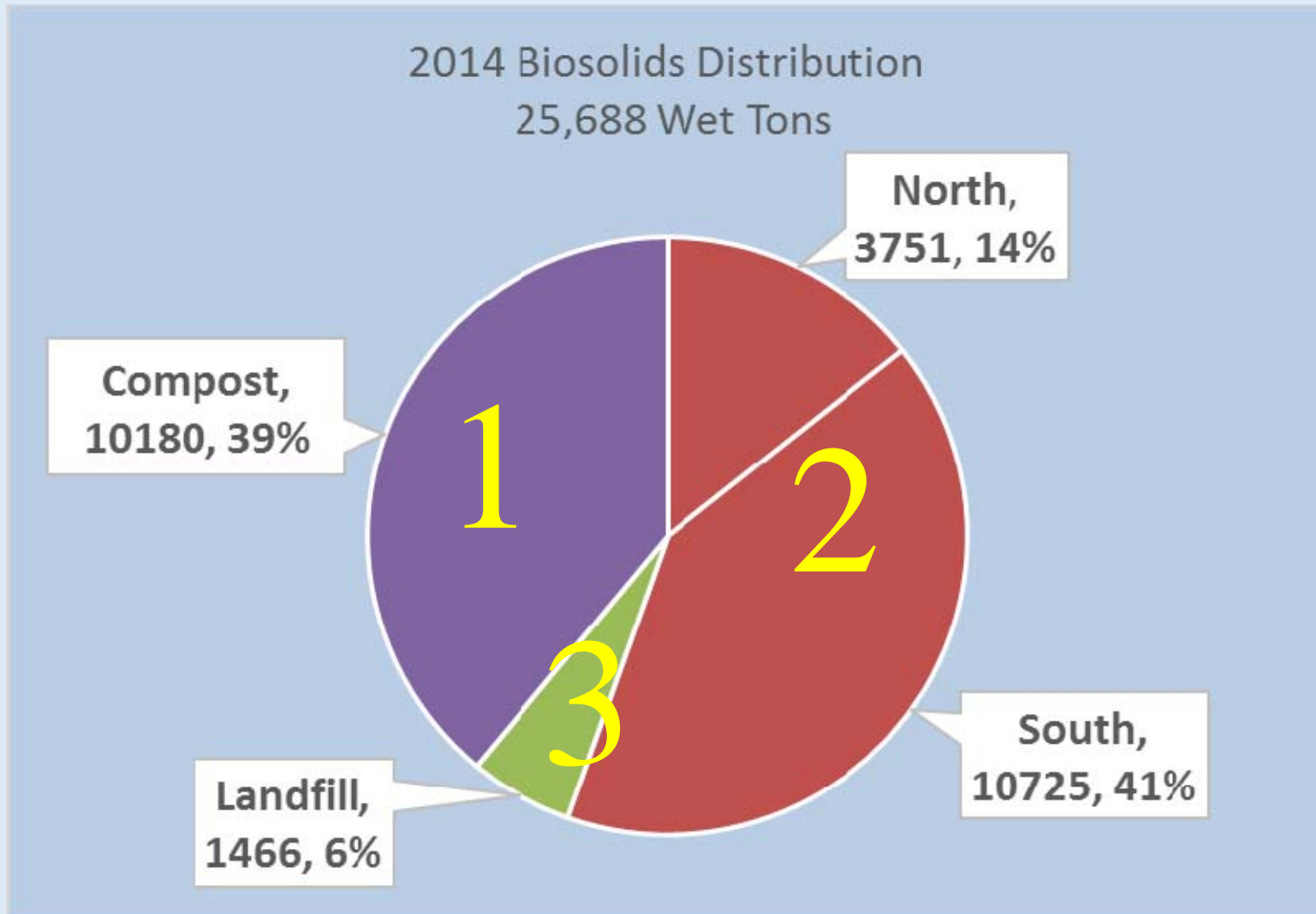
The rest of the process extends far outside the plant facility boundaries

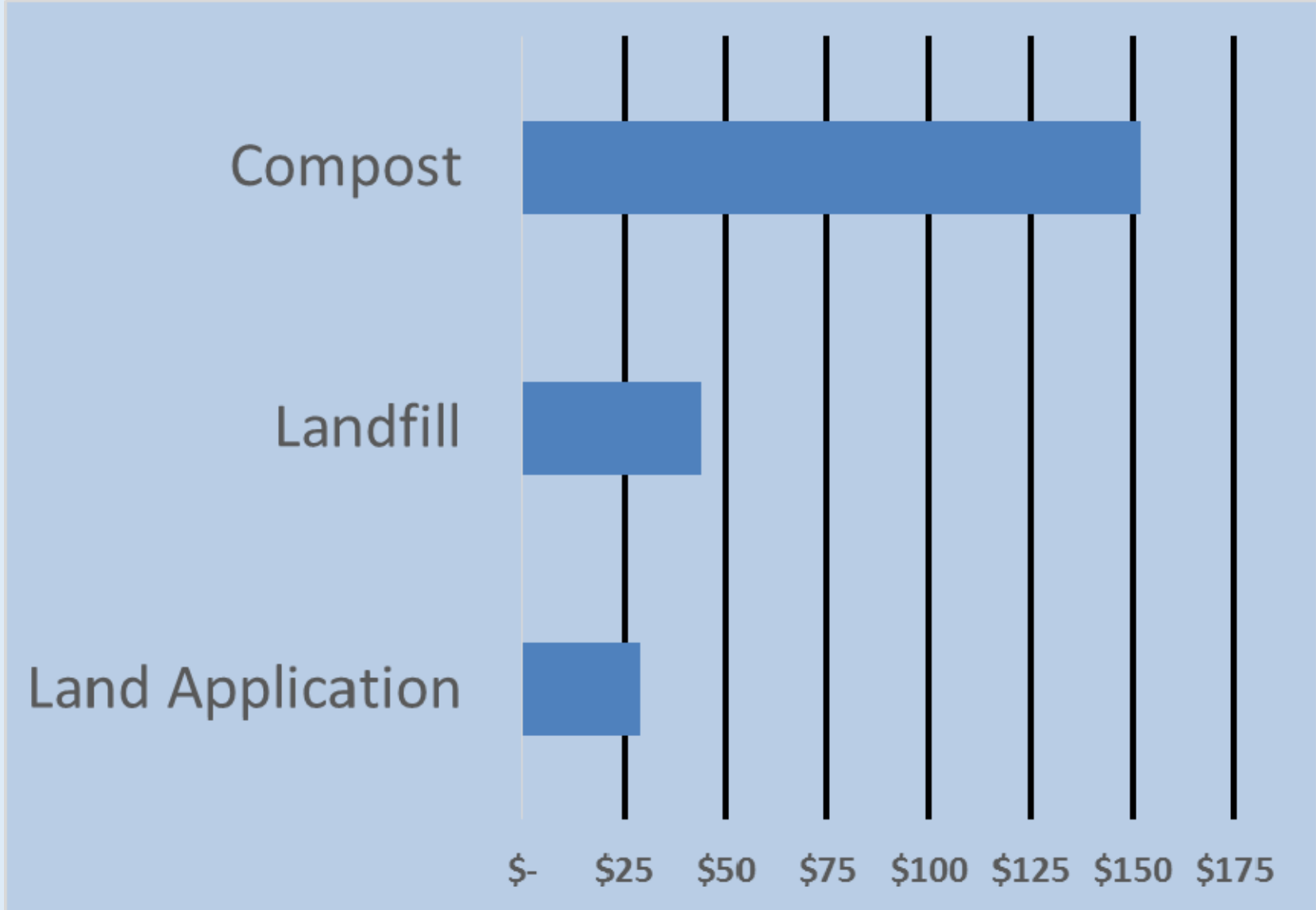


The Subregional **B**iosolids **M**anagement **S**ystem follows a three legged stool principle

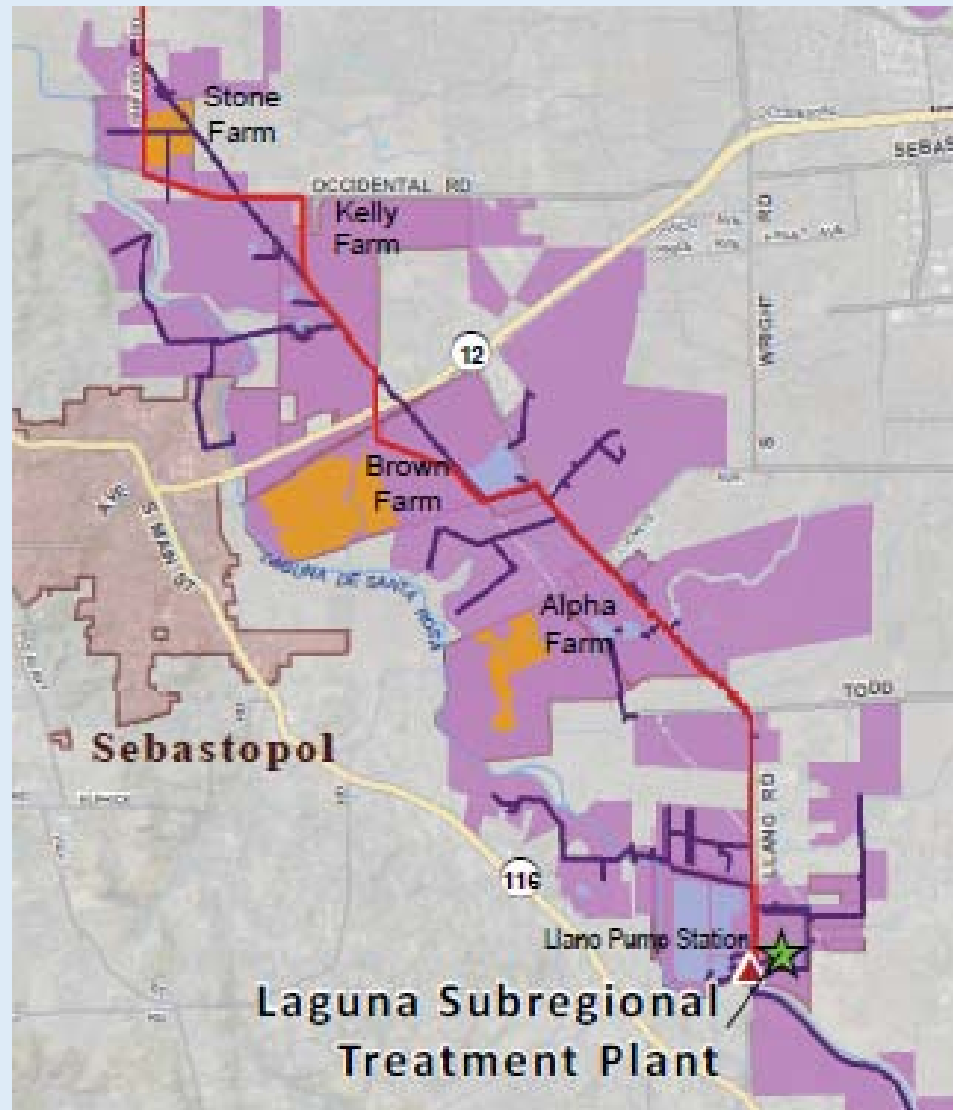


Land application is the most significant disposal route – which is likely to be the case for the long term future

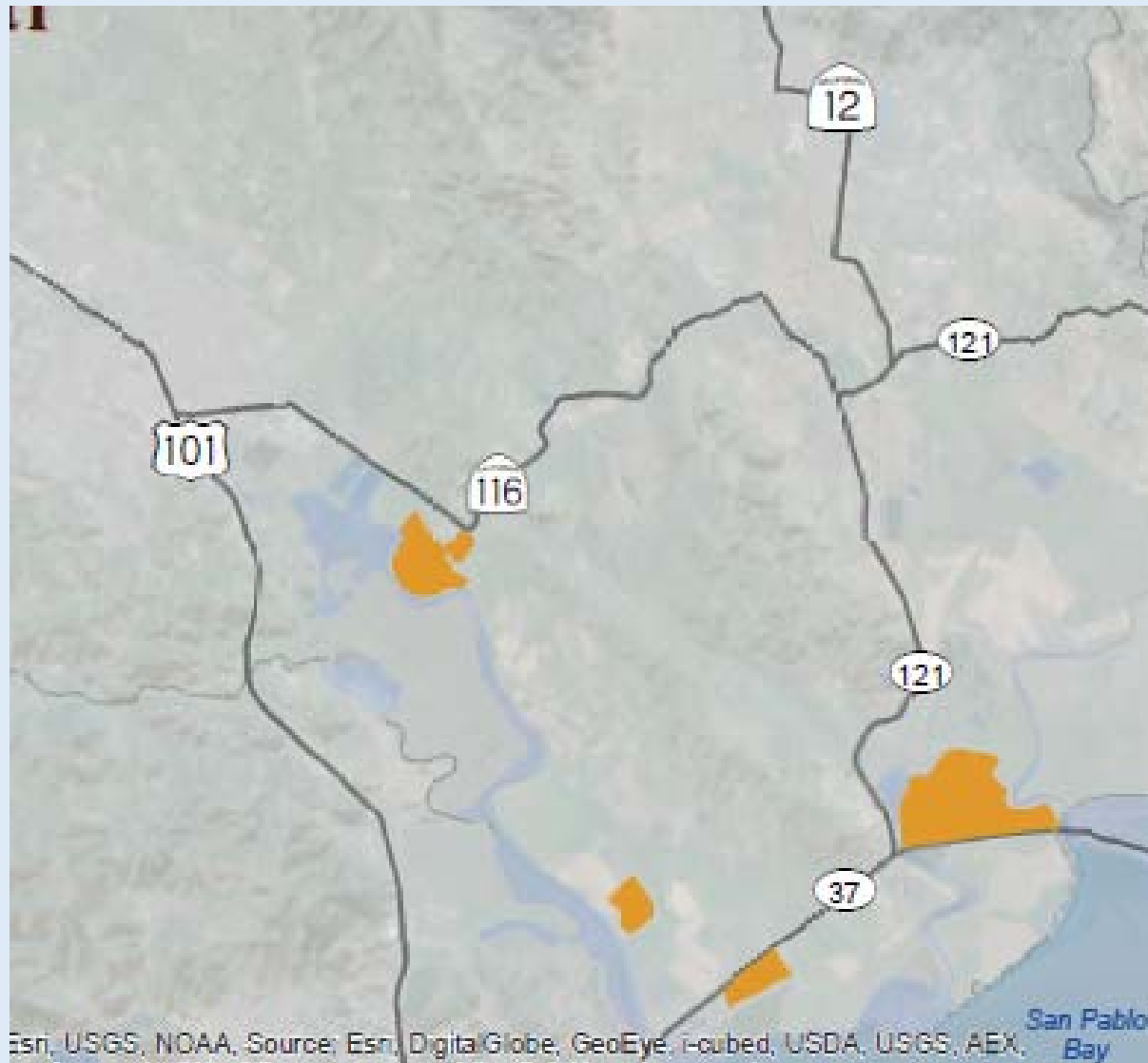




Zooming in shows City owned farms that are used for irrigation of recycled water along with land application of biosolids



All of our land application sites in South County are on privately owned property



Esri, USGS, NOAA, Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, San Pablo Bay

Land application works differently in 'North' County versus 'South County' – but the result is the same



'Land Application'



Alpha farm is not only a land application site, but is also the home of Alpha Barn



Alpha Barn



The interior of Alpha Barn has a capacity of about 7,000 wet tons – about 25% of the total annual LTP production



Roughly 1/3 of the biosolids produced every year are processed into class A compost at the City's compost facility.



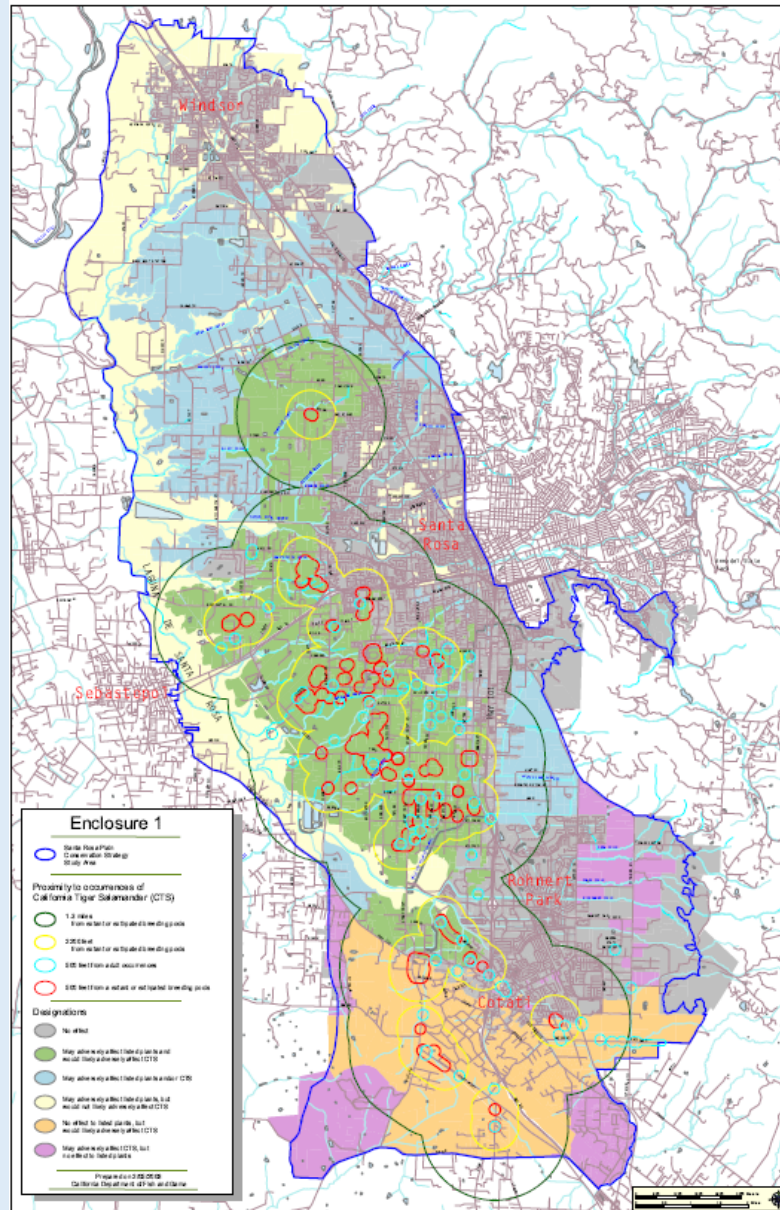
The biosolids 'process' must completely fit within **CONSTRAINTS**

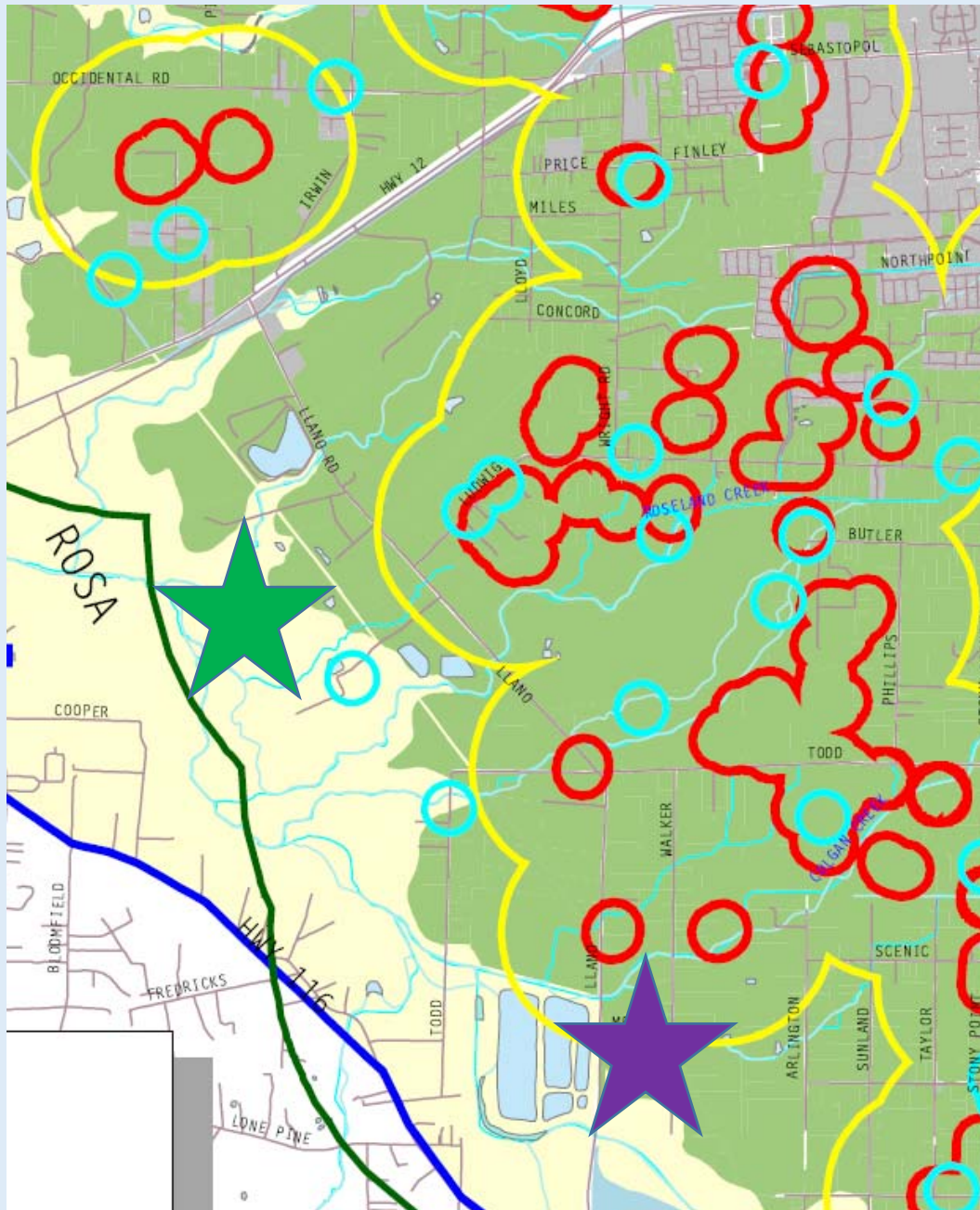


California **T**iger **S**alamanders are endangered, and are consequently a significant constraint for land application

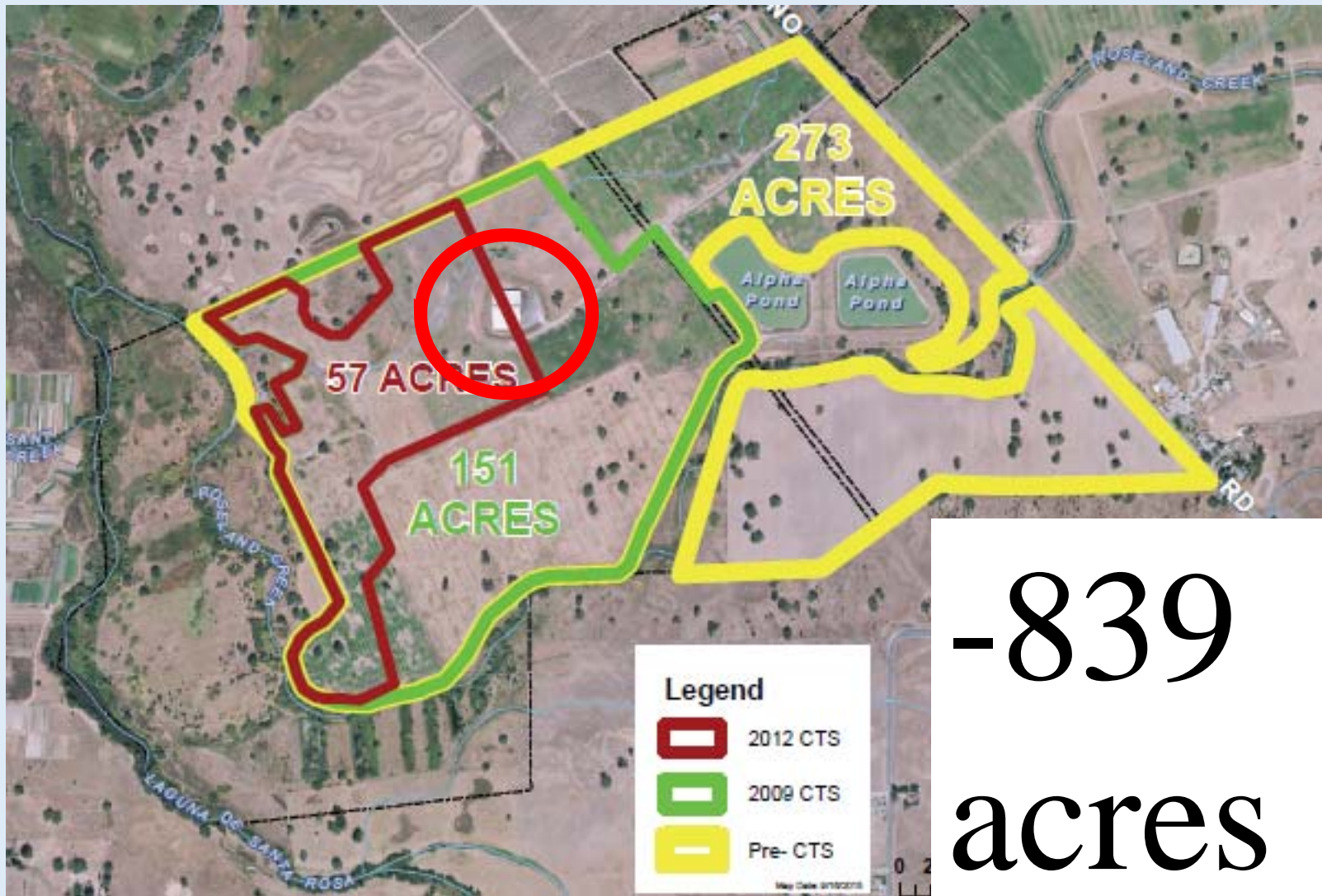


CTS and their breeding areas have been documented in numerous parts of central Sonoma County



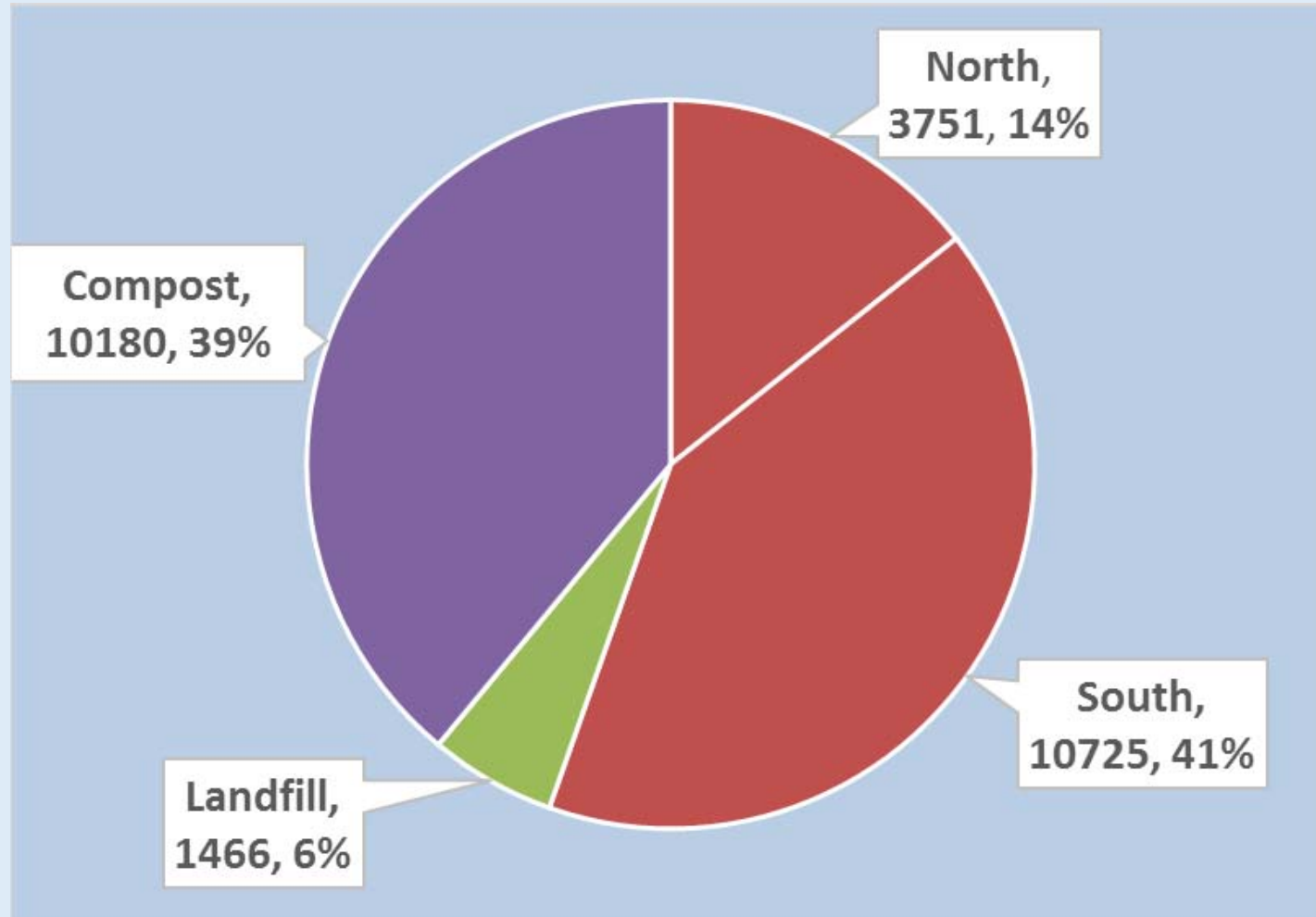


The existence of CTS has had significant impacts on City Owned biosolids land applications sites

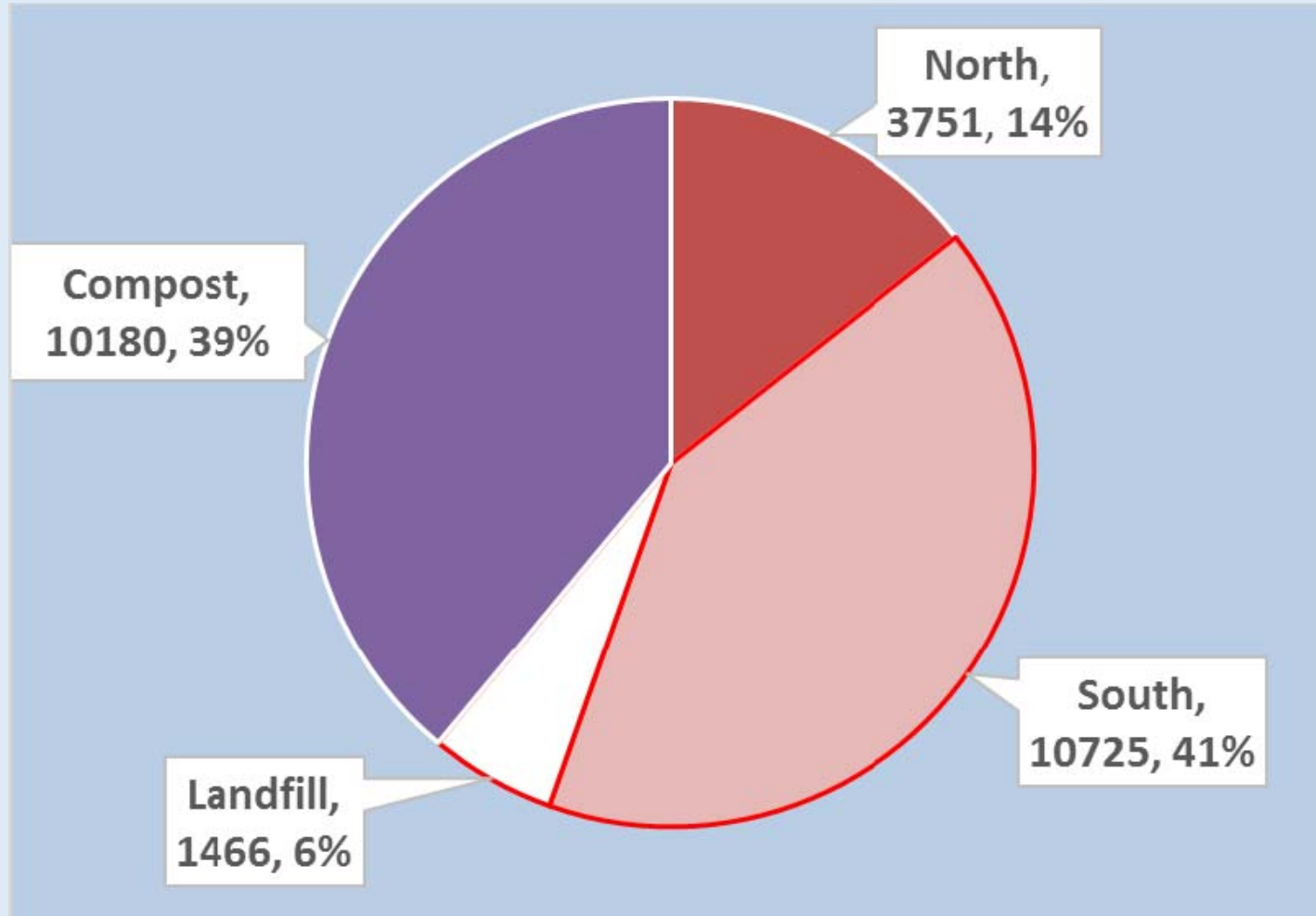


-839
acres

Landfill disposal is being phased out by 2025, and private property in South County is subject to changing perspectives of landowners



Landfill disposal is 'going away' by 2025, and private property in South County is subject to changing perspectives of landowners.



Organic farming is lucrative and increasing, but excludes land application of biosolids AND our compost



Source: Red Rock Foods

Environmental factors can result in decreased loading rates



The net effect of these constraints...decreased BMS resiliency





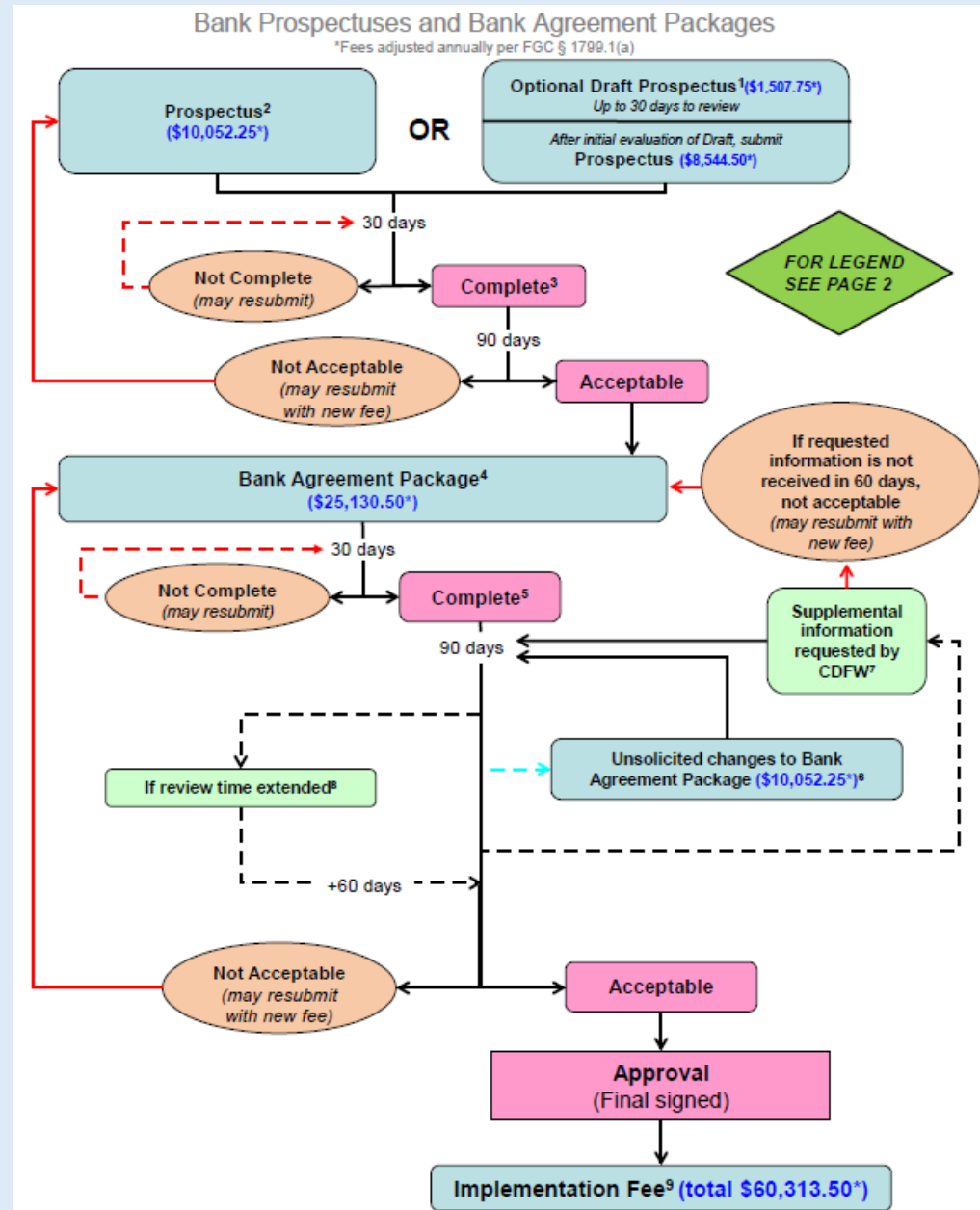
A Biosolids Management Strat Plan was developed in 2014



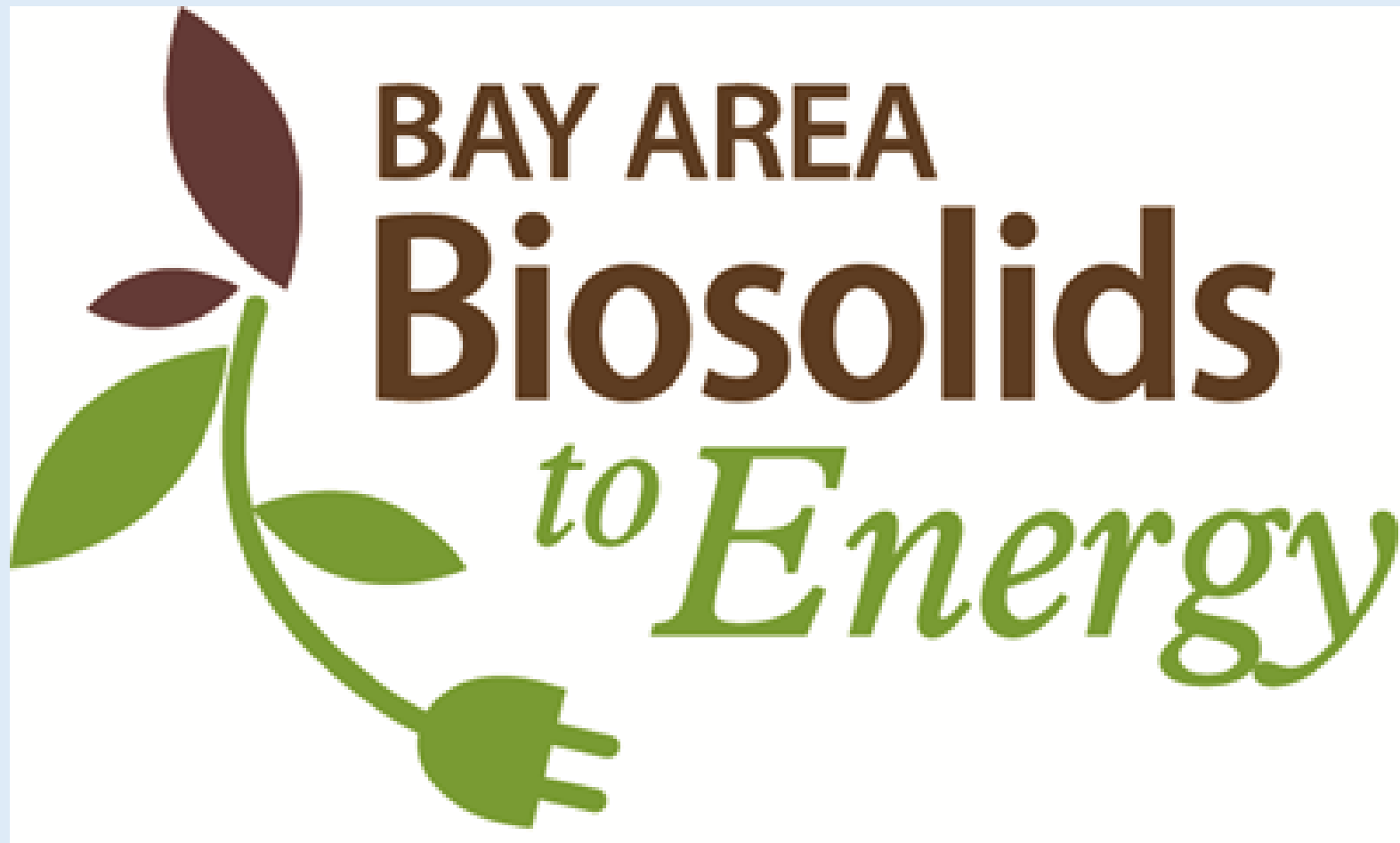
Staff are continually analyzing ways to maximize City resources 'internally'



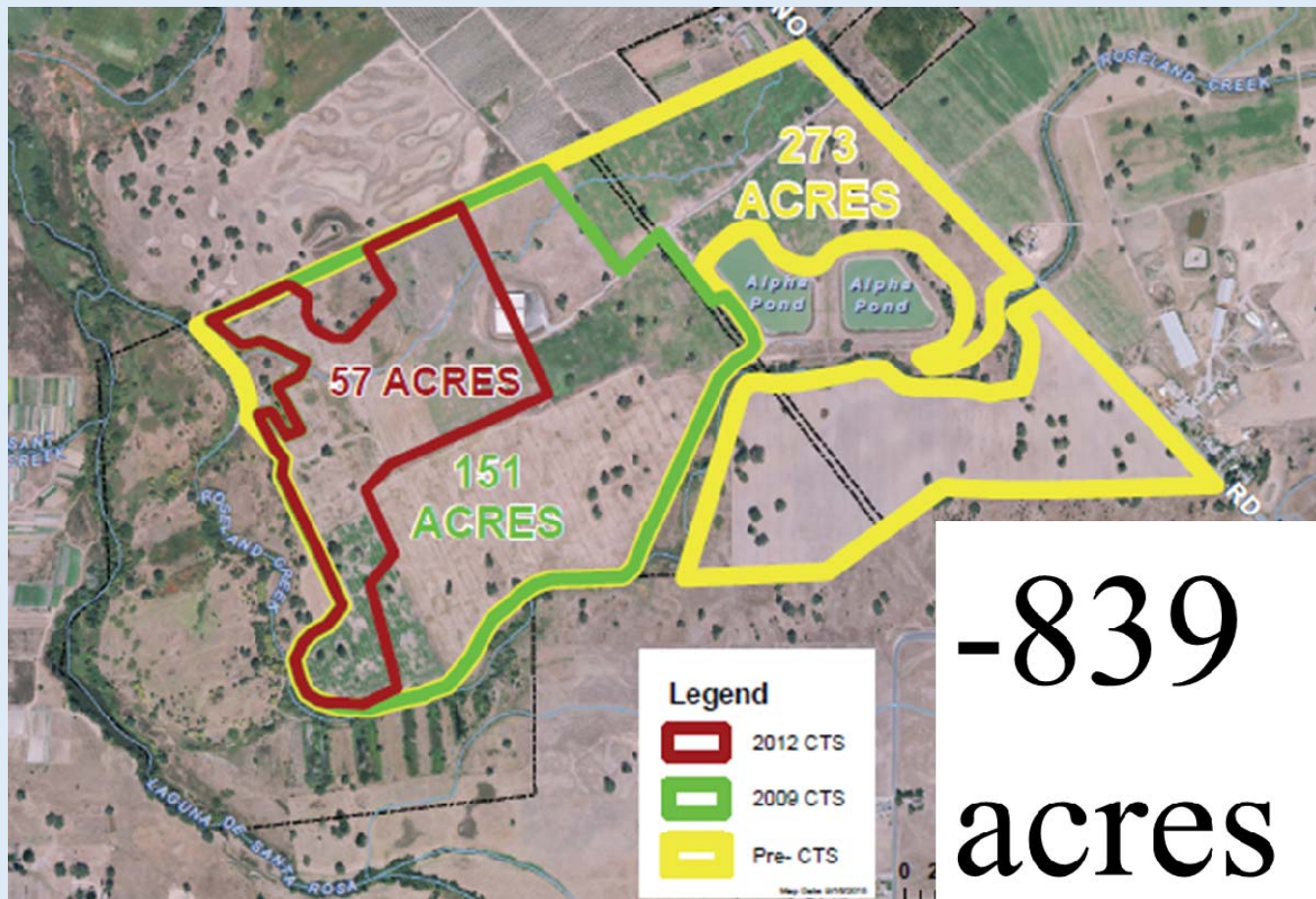
We're investigating creation of a CTS mitigation bank



Santa Rosa joined the Bay Area Biosolids to Energy Coalition in 2011



Due to evolving constraints, land application economics, need for resiliency, and results of the 2014 Biosolids Management Strategic Plan, purchase and lease of additional land application areas is being pursued



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acres

QUESTIONS?