

### Project Synopsis and Purpose:

Creating a hybrid or a supervised classification in Erdas allows for a highly accurate result (or as much time as the analyst can spend on it). I wanted to investigate another approach to this – the unsupervised classification. How does a more automated approach affect the final image output? What occurs when different specifications are used for the unsupervised classification?

I used a Landsat image of the Salton Sea, and broke my project into two parts. The first part involved running a series of unsupervised classifications, starting with six classes and ending with thirty. Leaving all other options during the process constant, I was able to compare how the number of classes affected image output resulting from an unsupervised classification. The second part involved a simple land cover classification based on a CalFire overlay. Ten images were produced from a series of unsupervised classifications. Each image assigned an increasing number of spectral classes to each of the five classes in the land cover scheme I had created.