Water Body Segmentation in Aerial Imagery
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**Goal**
- Segmenting out water bodies to narrow down the search regions for oil leak detection.

**Proposed Framework for Water Body Segmentation**

**SVM based Segmentation**
- Constructs a set of hyper planes in a high-dimensional space, to separate different regions in an image.

**Preliminary Results**
- **K means clustering**
- **Mean shift clustering**
- **Graph Cut**

**Future Work**
- Investigate the effectiveness in hyper-spectral and multi-spectral imagery.
- Research on other color spaces such as YCrCb and Lab for water body segmentation.
- Develop a predictor model for oil leak detection.
- Acceleration of algorithms using dedicated hardware such as GPUs and FPGAs.