

Integrated Ecosystem Assessment and Multivariate Indicators

Progress Report

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The Farallon Institute is in the process of producing an Integrated Ecosystem Assessment (IEA) to characterize the ecosystem of the North Central Coast Study Region in the years immediately prior to and at the time of MPA implementation. To date, most of work accomplished has involved planning and coordination with other PIs, the MPA Monitoring Enterprise, and those developing metadata standards for the entire region. We attended a PI meeting and have twice discussed with Monitoring Enterprise staff the development and calibration of appropriate ecosystem indicators. In terms of our specific project, we have outlined the questions that we can address at multiple time scales (from centennial to seasonal), defined the various spatial scales and overall geographic scope of the IEA, and identified numerous ecosystem indicators that we will use to describe ecosystem state. Our existing database is being updated with newly-available data points, and a plan is in place to acquire further data sets that can be used for the development of the IEA. We have planned the statistical approach (e.g., multivariate analyses such Principal Components Analysis to develop indicators) and have reviewed the overall MPA Monitoring Plan to ensure compliance with the goals and needs of the MPA Monitoring Enterprise. We will be developing both qualitative (“vital signs”) and quantitative ecosystem indicators. We anticipate completion of a draft report by fall 2011.