Adaptive Management Plan Checklist

Adaptive Management is a science-based, structured approach to environmental decision making under uncertain conditions. Adaptive management emphasizes acquisition and use of new knowledge and increases the likelihood of success in obtaining goals in a manner that is both economical and effective. Adaptive management can be applied at a program, plan or project level.

Best available science is specific to the project, its objectives, and the decision-making timeframe. Best available science for writing an adaptive management plan is likely to include peer reviewed literature and agency reports for scientific information relevant to the size and scope of the project.

For a more detailed description of the Adaptive Management framework, please see <u>Delta Plan Appendix C at http://deltacouncil.ca.gov/pdf/delta-plan/2013-appendix-c-adaptive-management.pdf</u>

The checklist below is a recommendation of items to consider when preparing an Adaptive Management Plan. What is included and to what degree depends on the size and scope of the project.

| Examples of items to include in the Adaptive Management Plan | YES | N/A |
|--|-----|-----|
| Problem Statement: A clear definition of the problem | | |
| Should establish background for the goals and objectives of the project. | | |
| Goals: Broadly explain the general solutions to problem | | |
| Should be based on the current best understanding. | | |
| Objectives: Provide specific statements of desired outcomes | | |
| Objectives are often quantitative, and more specific than goals. Should be | | |
| formulated to allow for evaluation of how well the objectives are being met. | | |
| Conceptual Models: Explain why an action is expected to result in meeting | | |
| project objectives | | |
| Can be written explanations alone or include diagrams. May be simple and | | |
| highly specific to the project site or may reference complex models for | | |
| ecosystems or species. Should provide a guide for testing questions. | | |
| Select Actions: Test the cause-effect relationships from the conceptual | | |
| model | | |
| Should consider the geographic area and time scale, consequences of being | | |
| wrong, level of uncertainty and degree of confidence in the benefits. | | |
| Performance Measures: Selected based on goals, objectives, and the | | |
| conceptual model | | |
| Should help address the status and trends of progress toward achieving the | | |
| goals and objectives. Define what data collection should be done to support | | |
| performance measure analysis and reporting in the Data Management Plan. | | |
| Data Management Plan: Collection, storage, and sharing of the data | | |
| Should describe a process for organizing and clearly documenting | | |
| observations, including how data are collected, stored, and made available | | |
| to interested parties. | | |
| Monitoring Plan: Appropriate to the scope of the project and requirements | | |
| Compliance monitoring (required by permits) | | |
| Performance monitoring (measuring achievement of targets) | | |
| Mechanistic monitoring (testing the conceptual model with targeted research) | | |
| Should include monitoring metrics that can be integrated and summarized to | | |
| inform analysis, synthesis, and evaluation. Can include ideas for targeted | | |
| research, even if those studies are not required or currently funded. Should | | |
| include baseline conditions to the extent practical. | | |

| Examples of items to include in the Adaptive Management Plan | YES | N/A |
|---|-----|-----|
| Analysis and Evaluation Plan: Describe how the monitoring data collected | | |
| will be evaluated | | |
| Should describe the different analyses that will be performed with monitoring | | |
| data, and the frequency at which those analyses are performed and reported | | |
| upon. Includes timelines for evaluation of performance thresholds that could | | |
| lead to adaptive management actions. | | |
| Communication Plan: Sharing outcomes and result analysis | | |
| Should include how the analysis, synthesis, and evaluation will be shared, | | |
| and with whom, and on what timeline. | | |
| Adaptive Management Actions: Timeline and thresholds | | |
| Should be tied to a timeframe based on the system and uncertainties. | | |
| Timeframe may need to be adjusted as results are evaluated. | | |