

**Case Study Vetting Standards for Presentations to the Mitigation Subcommittee  
of the [California Cyanobacteria and Harmful Algal Bloom \(CCHAB\) Network](#)**

These case study vetting standards will be used by the Mitigation Subcommittee to select presentations by vendors and consultants/engineers. These presentations to the Mitigation Subcommittee will not be posted to the Mitigation website in accordance with the Vendor Policy. The intent of presentations is to educate the Mitigation Subcommittee with new, modified or upcoming technologies for mitigating California's Cyanobacteria and Harmful Algal Bloom (CCHAB) issues.

Developing a lake management strategy is a process requiring a thorough investigation of the lake and the specific processes driving the production of CCHABs in that lake. During any given investigation a wide range of approaches may be examined with one or more integrated into the final plan. Case studies may come from published literature, presentations at scientific meetings or prepared by professionals in this field. They might be in the form of publications, video, animations or other media. The case studies should be developed using a set of standards that illustrate the process required to arrive at a particular solution and illustrate how the solution is applied. The case studies should not be advertisements for specific vendors or contractors other than "material was prepared by\_\_\_\_\_".

A primary purpose of any case study is to illustrate the effort and commitment required to properly manage CCHABs. Many times, multiple types of treatments are required to achieve success or approach success. Similarly, mitigation needs may change over time. Non-CyanoHAB case studies can be used if the case study describes the process of solving algae bloom problems in general. Highly productive water can easily switch between non-problem and problem species, so the same principles of bloom management apply.

A good case study should include the following elements or standards:

1. Define the symptoms – What is happening at the lake that triggered the need for a case study?
2. Describe the lake, water characteristics, watershed and land uses.
3. What were the data needs to complete the evaluation?
4. Was it necessary to collect additional data – What kind of information was missing and what did it take to fill in the gaps (equipment, modified monitoring program, time, staffing, new technical expertise, consultant services, etc.)?
5. Explain the critical points in the findings that eliminated an approach or justified the need for more in-depth evaluation of selected approaches. For example, why will hypolimnetic oxygenation work where whole water column aeration will not?
6. Were short- and long-term goals presented? For example, a short-term goal may require chemical treatment to reduce a massive bloom, with a long-term goal of reducing available nutrients and thus production potential.
7. Describe the permitting process and implications (delay, costs, monitoring requirements), if applicable.
8. Describe the implementation – How is the method employed?
9. Cost analysis.
10. Effectiveness evaluation: How well did it work? Typically made by comparison of pre- and post-implementation conditions/data and comparison with past experience at the lake. What is the expected duration of benefit (Weeks? Months? Years?) and what studies support the expectation?

11. Present a timeline of the above elements: When did the problem start? When were short-term/long-term goals developed? How long to achieve first attempt at mitigation? How long to achieve success? Did the project meet expectations?
12. Include additional details that may be useful to understand the mitigation strategy and its effectiveness. For example, what parts of the study could be improved if it was to be repeated?

It is important to recognize that not all case studies will include the full level of detail outlined above. However, the more information that can be provided the more useful the case study will be to the sub-committee and others to use as an example.