1. **Overview Statement**: Briefly summarize the assessment activities that were undertaken this academic year, indicating:

   a. which program learning outcomes were assessed this year.

   b. who in your department/program was involved in the assessment of the above learning outcomes

During this academic year, we assessed learning outcomes 3a and 3b:

3a. Develop a written synthesis of environmental problems and potential management approaches to these problems

3b. Present an in-depth analysis of environmental problems and potential management approaches to an audience of peers

Assessment was completed by all full-time members of the Department: John Callaway, Deneb Karentz, William Karney, Jack Lendvay, Stephanie Ohshita, and David Saah (Rob Toia was on sabbatical, and Tracy Benning was on leave during this academic year; they did not participate in assessment this year). John Callaway, MSEM Graduate Program Director, coordinated the assessment. Assessment of these learning outcomes was assessed in Spring 2009 using three sections of MSEM 698: Masters Project.

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2. **Please Answer the Following Questions for Each of the Student Outcomes Assessed:**

   a. **What did you do?**

   Describe clearly and concisely how you assessed the learning outcomes that were evaluated this year (e.g., measures, research methods, etc.). [please use bullet points to answer this question]

   3a: written synthesis

   • as a department, we developed a review form for the written Projects (see attachment).
   • we randomly selected 1/3 of all students completing MSEM 698:
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Master’s Project (8 of 24 students across 3 sections).
- the final written project for each of the 8 randomly selected students was evaluated by both their instructor (3 sections: Karney, MacDonald, and Saah) and one additional ENVS faculty member (Callaway, Karentz, Lendvay and Ohshita).
- Callaway compiled the individual assessment reports.
- the detailed evaluations of each of the randomly selected students will be kept by the Department.

3b: in-depth analysis to audience of peers
- as a department, we developed a review form for the oral presentation of the Projects (see attachment).
- we randomly selected 1/3 of all students completing MSEM 698: Master’s Project (8 of 24 students across 3 sections).
- each of the 8 randomly selected students was evaluated by both their instructor (3 sections: Karney, MacDonald, and Saah) and one additional ENVS faculty member (Callaway, Karentz, Lendvay and Ohshita) at the final presentation of the MSEM Master’s Projects (Friday, May 22nd).
- Callaway compiled the individual assessment reports.
- the detailed evaluations of each of the randomly selected students will be kept by the Department.

b. What did the faculty in the department or program learn?
Summarize your findings and conclusions as a result of the assessment indicating strengths and weaknesses in student learning demonstrated by this assessment.

3a: written synthesis
- overall, most students did well on the written Project, with an average score across all assessments of 2.56 out of 3 (based on 8 assessments by instructors and 8 by other faculty, there were 9 scores of 3 and 7 scores of 2).
- there were no areas where student scores were consistently low. In identifying trends on the written Project, integration of material from multiple sources was a challenging aspect for some students. Some students also had difficulty writing in a concise scientific style.
- in almost all cases, there were only slight differences in evaluations completed by instructors (average score = 2.63) and by the additional faculty member (average score 2.50).

3b: in-depth analysis to audience of peers
- overall, most students did well on the oral presentation of their Project, with an average score across all assessments of 2.69 out of 3 (based on 8
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assessments by instructors and 8 by other faculty, there were 12 scores of 3, 3 scores of 2, and 1 score of 1).

- in cases where oral and written scores were different, most students did better on their oral presentations than the written Project.
- in almost all cases, there were only slight differences in evaluations completed by instructors (average score = 2.75) and by the additional faculty member (average score 2.63). As with the written Projects, scores from instructors were slightly higher than scores from the other faculty member, but the sample size is too small to indicate any real trend.

c. **What will be done differently as a result of what was learned?**
Discuss how courses and/or curricula will be changed to improve student learning as a result of the assessment. Include a discussion of how the faculty will help students overcome their weaknesses and improve their strengths.

- the department will review and update the syllabus for the Project class to emphasize the critical components of the written and oral Project in more detail.
- the department will develop more uniform guidance on the expectations for the Project so that guidance will be given more consistently by different instructors.
- we will encourage students to develop more specific management recommendations for their Projects.
- we will evaluate the incorporation of more writing and synthesis into MSEM coursework so that students have more training on scientific writing before the Project class.
- students will be encouraged to begin developing ideas for their project early on in the MSEM program.

3. **Attach a copy of the components of the department/program assessment plan that have been modified since its initial submission:**
   a. Program Mission
   b. Program Learning Goals
   c. Program Learning Outcomes
   d. Program Learning Rubrics aligned with outcomes
   e. Curriculum map that shows the courses that pertain to the outcome

No changes have been made to the assessment plan.

**Please return to: Provost Office by June 1, 2009**

You can send your replies as either a Word attachment (to: marin@usfca.edu) or as a hard
copy to: Provost Office, Lone Mountain Rossi Wing 4th floor.

If you have any questions, please contact: William Murry, Director of Institutional Assessment (wmurry@usfca.edu or x5486).