

CHAPTER 5

MITIGATION MEASURES AND MONITORING

5.1 Introduction

CEQA requires that every public agency, including the University, mitigate or avoid significant effects on the environment when it is feasible to do so. Mitigation measures are generally developed for all significant impacts to reduce impacts to less than significant levels. Where feasible, the campus should make these measures conditions of project approval. In doing so, the campus must identify a funding source, mitigation trigger, and a feasible schedule for implementation of all mitigation measures.

Monitoring of mitigation measures (*CEQA Guidelines Section 15097*)

http://ceres.ca.gov/topic/env_law/ceqa/guidelines/art7.html requires that the decision maker adopt a program to monitor all mitigation measures, and project revisions, to ensure that they are implemented. Monitoring provides a benefit to the University by enabling the University to understand which mitigation techniques are successful, and which mitigation measures may need to be clarified in subsequent documents. Table 10 is a sample Mitigation Monitoring Status Report Checklist.

Table 10: SAMPLE MITIGATION MONITORING STATUS REPORT CHECKLIST					
Environmental Topic	Mitigation Measure Number	Measure	Status	Responsible Party	Task Complete
Aesthetics	9.3-3.b	Planning & Design Guidelines	Complete	Campus Planning Office	01/00
Air Quality	1.10-1.e	TSM/TDM Strategies	Ongoing	Campus Transportation and Parking Office	Continuous
Biology	2.1-4	Special status species survey, Area A	Done	Campus Planning Office	4/01
Hazardous Materials	4.2-4	Hazardous materials information	Ongoing	Campus Environmental Health & Safety	Continuous
Transportation	5.9-4.a	Campus/City Traffic Study	Pending	Campus Transportation and Parking Office	
Utilities	7.15-1	Solar energy features retrofit	Ongoing	Campus Physical Plant	5/01

5.2 Developing Mitigation Measures and a Monitoring Program

To establish appropriate mitigation measures and the associated monitoring program, the campus should be aware of the natural resource-related impacts of any project when developing the project description. Developing the project description is in fact the campus's first opportunity to eliminate potential impacts.

As more information becomes available through analysis of environmental issue areas during preparation of the environmental document, those responsible for funding and implementing mitigations should be advised of potential impacts, and their assistance should be enlisted in developing mitigation measures and determining appropriate levels of campus responsibility for the measures.

It is very important to consult with those who will be responsible for implementing mitigation measures. They can provide advice as to whether a proposed mitigation is feasible, affordable, or too restrictive to enable appropriate flexibility in compliance. The objective is to reduce environmental impacts, NOT to require unnecessary additional paperwork. There may be reporting systems on construction for example, or existing reporting required by regulatory agencies which could satisfy information needed for mitigation. The link between impacts, mitigation measures and changes in levels of significance should be described in the Draft EIR environmental issue sections and the Summary Table of Impacts and Mitigations. This process establishes a clear link between impacts, mitigation measures, levels of significance before and after mitigation and monitoring requirements.

After agencies and/or the public submit comments on the Negative Declaration or Draft EIR, the campus may further develop or refine mitigation measures. These measures then become part of the final environmental document. Mitigation measures adopted as conditions of approval become part of the project and are legally binding. As the campus finalizes mitigation measures, it should simultaneously develop a Mitigation Monitoring Program to be adopted when the project is approved and the environmental document approved or certified. The Mitigation Monitoring Program should assign responsibility for monitoring both on and off-campus mitigation measures. This document may be included as part of the final environmental document, or it may be reproduced separately.

Practical Considerations

- When developing the project description, consider potential physical impacts to the environment and design the project in such a way that they are eliminated where possible, or minimized.
- During preparation of the environmental document, assemble information about potential impacts. Begin to conceptualize how these impacts will be mitigated and how mitigation measures will be monitored.
- Advise Vice Chancellors and other campus staff about major impacts. Enlist their support in developing appropriate mitigation measures and determining the campus's share of responsibility for mitigation and ability/willingness to finance mitigation measures.

- In the environmental document, correlate the impacts and mitigation measures by number and state the level of significance before and after mitigation.
- After receiving comments on the environmental document, refine mitigation measures as needed.
- Develop a mitigation monitoring program by establishing appropriate monitoring requirements for each mitigation measure and assigning responsibility for implementation.
- Produce a Mitigation Monitoring Program document to be included within or accompany the final environmental document in the approval and certification process.

Mitigation measures are generally effective when they contain the following five elements*:

Why: state the objective of the mitigation measure and why it is recommended.

What: Explain the specifics of the mitigation measure and how it will be designed and implemented.

- identify measurable performance standards by which the success of the mitigation can be determined.
- provide for contingent mitigation as appropriate if monitoring reveals that the success standards are not satisfied.

Who: Identify the agency, organization or individual responsible for implementing the measure.

Where: Identify the specific location of the mitigation measure

When: Develop a schedule for implementation

* Source: Herson, Al and Bogdan, Kenneth, "Mitigating Environmental Impacts: Law, Policy and Practice", UC Davis Extension, January 31, 1996

5.3 The LRDP EIR Mitigation Measure and Monitoring Framework

Introduction

The campus establishes an overall framework for campus mitigation measures when conducting environmental review on a new or revised Long Range Development Plan. For subsequent projects, the campus develops additional mitigation measures for any significant impacts that were not already mitigated at the Program EIR level.

Types of Mitigation Measures

Mitigation measures identified in LRDP EIRs can be divided into the following three broad categories:

- 1) mitigations related to the implementation of future campus projects;
- 2) mitigations related to maintaining adequate service levels; and
- 3) administrative measures independent of specific projects that are required to mitigate certain impacts.

Figure 11 shows these types of mitigation measures for LRDP EIRs.

Mitigation Measures Related to Future Campus Projects

LRDPs are concerned with land use planning in relation to future development necessary for the campus to meet its broad missions of instruction, research and public service. As specific projects are proposed, the campus will be responsible for:

- ensuring adequate tiered review of these projects by completing project-level CEQA reviews;
- ensuring that project-level mitigation measures identified in the LRDP are implemented, not merely reiterated; and
- ensuring that project-level mitigation measures identified as a result of a tiered project-specific CEQA review are implemented.

LRDP EIRs specify mitigation that the campus should consider in the project-specific environmental review of future development on the campus. Implementation of these mitigation measures is accomplished through administrative controls over project planning and implementation, such as modifications to design plans and construction contract provisions. These measures are monitored through verification and certification by campus personnel currently responsible for monitoring architectural and engineering contracts for compliance. (See Figure 12 for an approach to mitigation monitoring for LRDP EIR projectspecific mitigation measures.)

Mitigations Related to Service Levels

LRDP EIRs identify areas where the implementation of the campus LRDP results in additional demand for services that may exceed the existing capacity for delivery of a particular service. For instance, development of additional buildings would increase the demand for on-campus fire protection services. Appropriate mitigation for this type of impact, for example, would be to hire additional fire fighters and support staff or provide additional equipment as necessary to maintain an adequate level of service. For each level of service issue, the campus should identify:

- the baseline service level;
- the method that will be used to measure the level of service; and |
- the threshold level that must be reached to prompt the implementation of mitigation measures.

For example, the campus may decide to establish a level of service for fire protection that relates the number of fire fighters, or the response time to the amount of square feet of building area on the campus. This level would be expressed in terms of the level of service available before implementation of development proposed in the LRDP. The campus would then determine that an additional fire fighter would be needed if the amount of building space on campus were to grow by some absolute amount of space. On an annual basis, the campus would review the growth in building space to determine whether the increase would trigger a need for additional personnel, equipment, training or other resources.

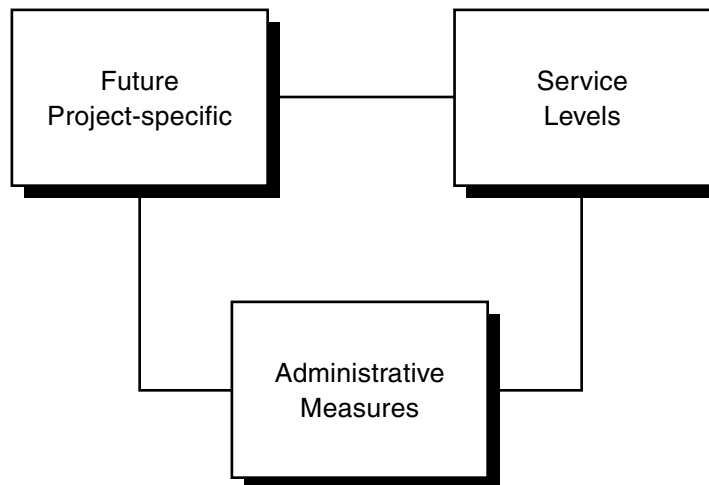
The campus should annually collect level of service data, compare it to the predetermined threshold levels, and initiate budget changes needed to attain the desired service levels. Figure 13 shows the mitigation monitoring process for LRDP EIR service levels.

Administrative Compliance Measures

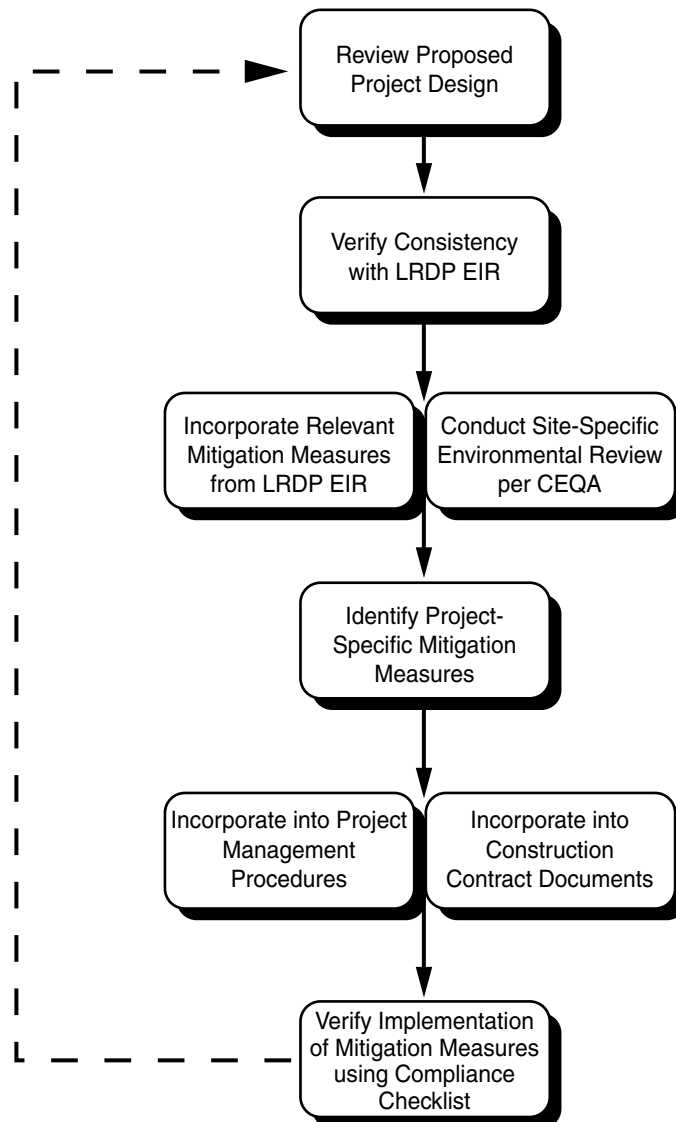
LRDP EIRs identify specific actions independent of future development projects that the campus must initiate in order to mitigate certain adverse impacts of general campus growth. Such actions include special one-time projects to collect data, prepare reports, develop a plan of action, or implement a project. For example, the LRDP EIR may indicate that to mitigate the adverse effect of the additional solid waste that would be generated over the life of the plan, the campus will investigate and implement, to the extent financially feasible, composting opportunities for the green waste generated on campus.

The campus should inventory all such administrative actions proposed in its LRDP EIR. The campus should then develop a plan for the funding and implementation of each effort, and forward that plan through the budget process. The campus should assign the responsibility for implementation of the effort called for in the LRDP EIR to a specific campus unit. Figure 14 shows the mitigation monitoring process for LRDP EIR administrative measures.

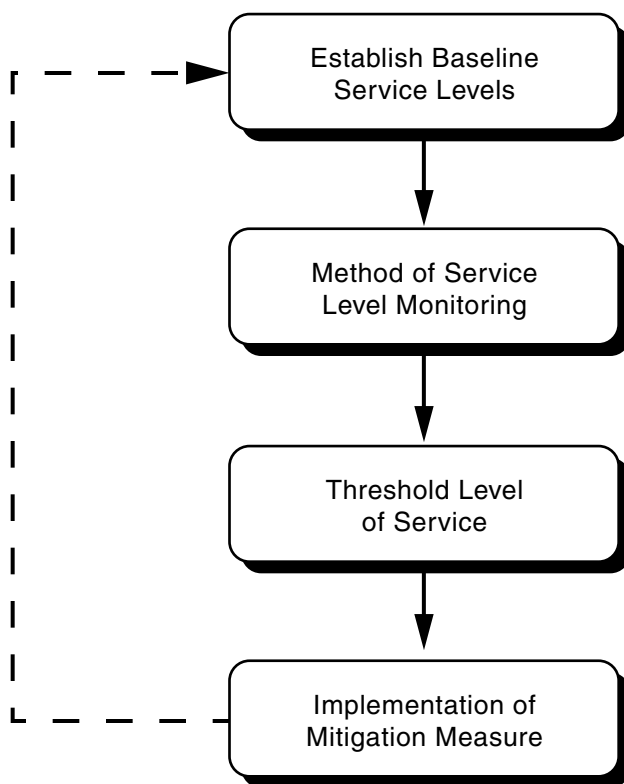
Figure 11: Types of Mitigation Measures for LRDP EIRs



**Figure 12: Mitigation Monitoring Process for LRDP EIR:
Project-specific Mitigation Measures**



**Figure 13: Mitigation Monitoring Process for LRDP EIR:
Service Levels**



**Figure 14: Mitigation Monitoring Process for LRDP EIR:
Administrative Measures**

