

DISASTER AND EMERGENCY PREPAREDNESS

SAN DIEGO STATE UNIVERSITY

Report Number 06-36

June 28, 2006

Members, Committee on Audit

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THE CALIFORNIA STATE UNIVERSITY

CONTENTS

Executive Summary	1
Introduction.....	2
Background	2
Purpose.....	4
Scope and Methodology	5

OBSERVATIONS, RECOMMENDATIONS, AND CAMPUS RESPONSES

General Environment	6
Emergency Management Plan	6
Imperial Valley Campus	6
Emergency Plan Updates and Distribution	7
Emergency Hotline	9
Communications and Training.....	9
Testing and Drills.....	10

APPENDICES

APPENDIX A:	Personnel Contacted
APPENDIX B:	Campus Response
APPENDIX C:	Chancellor's Acceptance

ABBREVIATIONS

CSU	California State University
DEP	Disaster and Emergency Preparedness
DRII	Disaster Recovery Institute International
EO	Executive Order
EOC	Emergency Operations Center(s)
GC	Government Code
OES	(California) Office of Emergency Services
SDSU	San Diego State University
SEMS	Standardized Emergency Management System
SWEPT	Systemwide Emergency Preparedness Taskforce

EXECUTIVE SUMMARY

As a result of a systemwide risk assessment conducted by the Office of the University Auditor during the last quarter of 2005, the Board of Trustees, at its January 2006 meeting, directed that *Disaster and Emergency Preparedness* be reviewed. Similar audits of Disaster and Contingency Planning were conducted in 2003.

We visited the San Diego State University campus from March 6, 2006, through April 7, 2006, and audited the procedures in effect at that time.

In our opinion, internal administrative and operational controls governing disaster and emergency preparedness were, for the most part, effective. However, certain administrative and operational/fiscal controls relating to the formation of the emergency organization and emergency operations, specialized training, and testing of business continuity plans needed improvement.

The following summary provides management with an overview of conditions requiring attention. Areas of review not mentioned in this section were found to be satisfactory. Numbers in brackets [] refer to page numbers in the report.

GENERAL ENVIRONMENT [6]

The campus was unable to provide documentation that budgets were prepared for disaster and emergency planning activities.

EMERGENCY MANAGEMENT PLAN [6]

The emergency operations plan did not provide coverage of the Imperial Valley satellite campus, nor was there a written separate plan for this site. In addition, updating and distribution of the emergency operations plan required improvement. The web-based version of the plan needed technical updates for dates and non-functional links, and organization charts from two different sections of the plan were inconsistent. Further, the campus only maintained a web version of its emergency operations plan and current hard copies in its primary and alternate emergency operations center, which might limit its availability in the event of a disaster. Finally, the campus emergency operations information hotline time stamp was not timely updated.

COMMUNICATIONS AND TRAINING [9]

Specialized training for emergency preparedness needed to be increased. Specifically, specialized training had not been provided to some members of the emergency management team.

TESTING AND DRILLS [10]

Most business continuity plans had not been tested. Although the campus had business continuity plans in various critical areas, only the university computer operations plan had been tested.

INTRODUCTION

BACKGROUND

The National Safety Council (www.nsc.org) has provided guidance showing that disasters and emergencies are inevitable. These events include personal injuries, fires, explosions, chemical spills, toxic gas releases, natural disasters such as earthquakes, tornadoes, floods, and epidemics, and man-made disasters such as terrorist activities and riots. Anticipating emergencies and planning for an appropriate response can greatly lessen the extent of injuries and health concerns. Emergency preparedness can also limit damage to property, equipment, and materials. Experience tells us that when disasters and emergencies occur, the emergency response based on emergency preparedness and crisis training programs, will significantly affect the extent of damages and injuries sustained. The president of each of the 23 California State University (CSU) campuses has been delegated the responsibility for the implementation and maintenance of an emergency management system program.

There is no single definition of what constitutes a disaster. A disaster can develop quickly, hitting full-force, with little or no warning. Other times, a disaster can loom on the horizon for weeks until it becomes large enough to be a threat. Government Code (GC) §8680.3 defines disaster to mean:

A fire, flood, storm, tidal wave, earthquake, terrorism, epidemic, or other similar public calamity that the governor determines presents a threat to public safety.

In California Code of Regulations, Title 19, §2402, Standardized Emergency Management System (SEMS) Regulations, emergency is defined to mean:

A condition of disaster or of extreme peril to the safety of persons and property caused by such conditions as air pollution, fire, flood, hazardous material incident, storm, epidemic, riot, drought, sudden and severe energy shortage, plant or animal infestations or disease, the governor's warning of an earthquake or volcanic prediction, or an earthquake or other conditions, other than conditions resulting from a labor controversy.

Executive Order 921, *California State University Emergency Management Program*, dated November 21, 2004, requires maintenance of an emergency management system on each campus that will be activated when a hazardous condition or natural disaster reaches or has the potential for reaching proportions beyond the capacity of routine operations. The campus shall write each emergency plan in accordance with and as described in SEMS regulations developed by the California Office of Emergency Services (OES). Additionally, the campuses shall support the Systemwide Emergency Preparedness Taskforce (SWEPT) assigned oversight responsibility for CSU systemwide emergency management. SWEPT is a multi-discipline committee charged with improving communication between police chiefs, emergency coordinators, risk managers, and environmental health and occupational safety directors. It proposes and establishes mechanisms/systems for coordinating a response to emergencies; and studies and proposes solutions to systemwide issues such as emergency communications, mutual assistance protocols, and training. Further, business continuity planning is an integral part of a comprehensive emergency management model, and it is recommended that each campus form a Business Continuity Planning Committee.

After the initial emergency response, restoration of business (“business continuity”) is of paramount importance. Two sources of industry guidance on standards and terminology are *Glossary of Terms* from the Disaster Recovery Institute International (DRII), and *Business Continuity: Best Practices* as defined by the Business Continuity Institute. The DRII *Glossary of Terms* describes business continuity as “the ability of an organization to ensure continuity of service and support for its customers and to maintain its viability before, after, and during an event.” In *Best Practices*, a disaster recovery plan is defined as “a plan to resume a specific essential operation, function, or process of an enterprise.”

Business continuity is frequently considered a broader term than emergency preparedness. The goal of emergency preparedness is to address the immediate impacts of the disaster and to respond as needed to bring the emergency to closure. Business continuity is a continuing cycle of preparation that includes the broader perspectives of disaster, response, recovery, mitigation, risk reduction, prevention, and preparedness, as depicted below:



Disaster recovery/emergency preparedness plans are required of state agencies by GC §8607(a), which states:

The OES, in coordination with all interested state agencies with designated response roles in the state emergency plan and interested local emergency management agencies shall jointly establish by regulation a SEMS for use by all emergency response agencies.

SEMS is the system required by GC §8607(a) for managing response to multi-agency and multi-jurisdiction emergencies in California. As a result of the 1991 East Bay Hills fire in Oakland, Senate Bill 1841 was passed and made effective January 1, 1993. The intent of this law is to improve the coordination of state and local emergency response in California, and it implemented SEMS. SEMS

regulations took effect in September 1994. SEMS consists of five organizational levels, which are activated as necessary: field response, local government, operational area, regional, and state. By standardizing key elements of the emergency management system, SEMS is intended to facilitate the flow of information within and between levels of the system and facilitate coordination among all responding agencies. SEMS incorporates the use of five essential Incident Command System functions: command (management), operations, planning/intelligence, logistics, and finance/administration. All CSU campuses are required to formally adopt and implement SEMS.

PURPOSE

Our overall audit objective was to ascertain the effectiveness of existing policies and procedures related to the administration of *Disaster and Emergency Preparedness* (DEP) activity and to determine the adequacy of controls that ensure compliance with relevant governmental regulations, Trustee policy, Office of the Chancellor directives, and campus procedures.

Within the overall audit objective, specific goals included determining whether:

- ▶ Administration of DEP incorporates a defined mission, stated goals and objectives, and clear lines of organizational authority and responsibility; and is adequately funded.
- ▶ Plans and procedures address general and campus specific incidents; include recordkeeping systems for effective planning, administration, and reporting; maximize DEP resources; and are adequately communicated to emergency management personnel.
- ▶ An emergency operations center (EOC) provisioned with sufficient equipment, supplies, and other critical resources exists; and a roster of resources for materials and services that may be needed in an emergency situation is maintained.
- ▶ The emergency management plan is compliant with SEMS, including the use of the modular incident command system organization methodology and incident action plans; inclusive of an effective building marshal program for evacuation; and reviewed/updated at a minimum every year.
- ▶ The emergency management plan has been adequately communicated to the campus community, a roster of emergency management personnel is annually communicated to the chancellor's office, and support is provided to the SWEPT.
- ▶ Emergency management activities are effectively coordinated with appropriate city, county, operational area, state, federal, and private agencies; and include adequate mutual aid and assistance agreements.
- ▶ Specialized and/or general training has been provided to the emergency management team, building marshals, and all employees.

- ▶ Emergency plan testing, drills, and/or evacuations are adequately planned, conducted, and documented; and include periodic testing of mutual aid and assistance agreements.
- ▶ Generators, communications devices, and other equipment and supplies are functional, tested currently, and the related responsibility is appropriately assigned.
- ▶ The campus has a business continuity plan and if that plan is tested.

SCOPE AND METHODOLOGY

The proposed scope of the audit, as presented in Attachment B, Audit Item 2 of the January 31 through February 1, 2006, meeting of the Committee on Audit, stated that DEP includes review of compliance with Trustee policy and systemwide directives, contingency and disaster recovery planning, backup communications, building safety and emergency egress including provisions for individuals with disabilities, the extent of plan testing, and relationships with state and federal emergency management agencies. DEP includes program and facility readiness and resource planning for actions related to natural and man-made disasters and the recovery therefrom.

Our study and evaluation were conducted in accordance with the *International Standards for the Professional Practice of Internal Auditing* issued by the Institute of Internal Auditors, and included the audit tests we considered necessary in determining that operational and administrative controls are in place and operative. This review emphasized, but was not limited to, compliance with state and federal laws, Board of Trustees policies, and Office of the Chancellor and campus policies, letters, and directives. The audit review focused on procedures in effect from January 2005 through March 2006. In instances wherein it was necessary to review annualized data, fiscal year 2005/06 was the primary period reviewed.

We focused primarily upon the internal administrative, compliance, and operational controls over the campuswide emergency operations plan and related management activities. Specifically, we reviewed and tested:

- ▶ The emergency management organization.
- ▶ Emergency management and business continuity plans.
- ▶ Emergency management plan guidelines, policies, procedures, and recordkeeping.
- ▶ The building marshal program, emergency action plans, and the campus emergency hotline.
- ▶ The EOC, emergency equipment, and related emergency supplies.
- ▶ Coordination with other agencies and mutual aid and assistance agreements.
- ▶ Funding and budgetary controls for emergency management activities.
- ▶ Communication of the emergency management plan.
- ▶ Training for emergency management activities.
- ▶ Evacuation drills and emergency management and business continuity plan testing.

OBSERVATIONS, RECOMMENDATIONS, AND CAMPUS RESPONSES

GENERAL ENVIRONMENT

The campus was unable to provide documentation that budgets were prepared for disaster and emergency planning activities.

Executive Order (EO) 921, *California State University Emergency Management Program*, dated November 12, 2004, states that each president shall ensure determination, acquisition, and maintenance of facilities, equipment, and related supplies required for emergency management activities.

The assistant to the vice president of business and financial affairs stated that disaster and emergency planning and execution were embedded within the responsibilities assigned to several different areas; therefore, a separate budget for disaster and emergency planning activities was unnecessary.

Failure to prepare adequate budget documentation for disaster and emergency planning activities increases the risk that emergency management activities will not be adequately funded.

Recommendation 1

We recommend that the campus require the emergency planning team committee to prepare a request for emergency management activities needs and submit the information to the vice president of business and financial affairs annually.

Campus Response

We concur. The emergency planning team will prepare and submit an emergency management activities needs request to the vice president of business and financial affairs annually. This will be completed by December 22, 2006.

EMERGENCY MANAGEMENT PLAN

IMPERIAL VALLEY CAMPUS

The emergency operations plan did not include coverage of the Imperial Valley satellite campus, nor was there a separate written plan for this site.

EO 921, *California State University Emergency Management Program*, dated November 12, 2004, states that each campus president is delegated the responsibility for the implementation and maintenance of an emergency management system program on campus. Further, the campus shall write each emergency plan in accordance with and as described in Standardized Emergency Management System (SEMS), as developed by the state Office of Emergency Services (OES).

Title 19 §2443 states that compliance with SEMS shall be documented in the areas of planning, training, exercises, and performance.

Title 19 §2445 states that state agencies shall include the use of SEMS in emergency plans and procedures.

The assistant to the vice president of business and financial affairs stated that the campus continues to assess the risks to the satellite campus and when completed, a separate written plan would be prepared.

The absence of an emergency plan for the Imperial Valley campus limits the campus' ability to effectively respond to emergencies and imposes an undue risk of loss and/or injury to the campus community.

Recommendation 2

We recommend that the campus identify a person responsible for and a reasonable timeframe to prepare a written emergency operations plan for the Imperial Valley campus.

Campus Response

We concur. The campus will identify a person responsible for and a reasonable timeframe to prepare the emergency operations plan. This will be completed by November 1, 2006.

EMERGENCY PLAN UPDATES AND DISTRIBUTION

Updating and distribution of the emergency operations plan required improvement.

We found that:

- ▶ The San Diego State University (SDSU) web-based emergency operations plan needed technical updates for dates and non-functional links. For example, two sets of links to SEMS incident command organization charts showed organization charts with January 2004 dates, which were well beyond the one-year review and update standards required in EO 921. Additionally, the finance organization charts from the two different sections of the plan were inconsistent to the extent that one included a procurement group and the other did not.
- ▶ The campus only maintained a web version of its emergency operations plan and current hard copies in its primary and alternate emergency operations center (EOC), which might limit its availability in the event of a disaster. An alternate version of the emergency operations plan (i.e., CD copy, hard copy, etc.) would be invaluable in the event that the web-based version and EOC copies could not be accessed in an emergency.

EO 921, *California State University Emergency Management Program*, dated November 12, 2004, states that each campus president is delegated the responsibility for the implementation and maintenance of an emergency management system program on campus. Further, the campus shall write each emergency plan in accordance with and as described in SEMS, as developed by the state OES, and review/update it at a minimum every year.

Government Code §13402 states that management is responsible for establishing and maintaining a system of internal administrative controls, which includes documenting the system, communicating system requirements to employees, and assuring that the system is functioning as prescribed and is modified, as appropriate, for changes in conditions.

The assistant to the vice president of business and financial affairs stated that inconsistent updates were an oversight. She added that the campus emergency operations plan was updated online, the web link to the plan was available on the SDSU home page, and copies of key elements of the plan (e.g., EOC response team checklists) were available in each of the EOC.

Failure to timely update the emergency operations plan and ensure that the plan is available to emergency team members limits the campus' ability to effectively respond to emergencies.

Recommendation 3

We recommend that the campus:

- a. Perform a comprehensive review of the web-based emergency operations plan to identify and correct any non-functioning links, inconsistencies, and inaccuracies.
- b. Develop and maintain an alternate version of its emergency operations plan for distribution to all emergency planning team members.

Campus Response

We concur.

- a. A comprehensive review and update of the web-based emergency operations plan will be completed by December 22, 2006.
- b. The campus will distribute an alternate version of the emergency operations plan to all emergency planning team members by December 22, 2006.

EMERGENCY HOTLINE

The SDSU emergency operations information hotline time stamp was not timely updated.

Our test call on March 13, 2006, to the SDSU emergency operations information hotline at 866-794-8832 reached a recorded response, which stated, “The date is November 3rd, and the campus is under normal operation.”

EO 921, *California State University Emergency Management Program*, dated November 12, 2004, states that the campus should communicate the SEMS compliant plan to the campus community in a variety of methods on a continuous basis through public education, e.g., web posting of the campus emergency plan or other mechanisms for regular dissemination of hazard planning.

The assistant to the vice president of business and financial affairs stated that the hotline had not been updated due to oversight and the campus took immediate corrective action.

Outdated emergency hotline messages increases the risk that callers could be misled in emergency situations.

Recommendation 4

We recommend that the campus develop and implement a procedure that ensures the emergency hotline message is accurate and up-to-date.

Campus Response

We concur. Campus procedures will be documented by September 1, 2006.

COMMUNICATIONS AND TRAINING

Specialized training for emergency preparedness needed to be increased.

Our review of training records for 2005 and 2006 disclosed that specialized training had not been provided for 6 of 15 members of the primary and alternate emergency management team reviewed.

EO 921, *California State University Emergency Management Program*, dated November 12, 2004, states that each president shall ensure that certain management activities are accomplished in support of emergency management including training of the campus community. Training includes specialized training for those designated as members of the campus emergency management team, and training attendance records shall be kept for a minimum of seven years.

The assistant to the vice president of business and financial affairs stated that some specialized emergency management training had already been provided; however, scheduling conflicts prevented attendance by all members.

Lack of specialized training in critical emergency management skills increases the likelihood that emergency response would be inadequate.

Recommendation 5

We recommend that the campus review its emergency preparedness training program and ensure that adequate specialized training is provided for key team members.

Campus Response

We concur. The campus will review its emergency preparedness training program to ensure that adequate specialized training is provided for key team members. The review will be completed by December 22, 2006.

TESTING AND DRILLS

Most business continuity plans had not been tested.

Our review disclosed that the campus had business continuity plans in the critical areas of student health services, human resources and payroll, business services, university computer operations, accounting services and accounts payable, office of housing administration, and student financial services. However, only the university computer operations plan had been tested.

EO 921, *California State University Emergency Management Program*, dated November 12, 2004, states that each campus shall develop a business continuity plan. Further, almost all business continuity plans contain certain common elements including testing and auditing the plans to determine the effectiveness of the overall business continuity and incident recovery program. This includes a review and documentation of test results and lessons learned. The review should occur annually, with testing occurring every two years at a minimum.

The assistant to the vice president of business and financial affairs stated that although the business continuity plans had not been formally tested, the plans were being reviewed and updated annually.

Inadequate testing of the business continuity plans increases the risk of ineffective preparedness and unavailability of essential services.

Recommendation 6

We recommend that the campus develop and exercise test plans sufficiently to ensure the effectiveness of campus business continuity activities, including a review and documentation of test results and lessons learned.

Campus Response

We concur. The campus will develop, exercise, and document test results for the critical business continuity plans identified. This will be completed by March 30, 2007.

APPENDIX A: PERSONNEL CONTACTED

<u>Name</u>	<u>Title</u>
Stephen L. Weber	President
John Browning Jr.	Chief of Police, Public Safety
Valerie Carter	Manager, Audit and Tax
Norma Casas	Analyst, Audit and Tax
Terry Gee	Director, Environmental Health and Safety
Ellene Gibbs	Associate Vice President, Financial Operations
Eddie Gilbert	Lieutenant, Public Safety
Nancy Lopez	Assistant to the Vice President, Business and Financial Affairs
Joe Patterson	Director, Physical Plant
Kristen Ross	Occupational Safety Manager, Environmental Health and Safety
Sally Roush	Vice President, Business and Financial Affairs



July 12, 2006

Mr. Larry Mandel
University Auditor
The California State University
401 Golden Shore, 4th Floor
Long Beach, CA 90802

RECEIVED
UNIVERSITY AUDITOR

JUL 14 2006

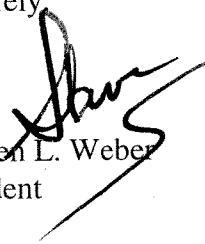
THE CALIFORNIA STATE
UNIVERSITY

Dear Mr. Mandel:

Attached is San Diego State University's response to report number 06-36, *Disaster and Emergency Preparedness*. For ease of reference, the report's recommendations have been included with our responses. Documentation of policy and control changes will follow under separate cover.

Should you have any questions or require additional information, please contact Valerie Carter, Audit and Tax Manager, at 619-594-5901.

Sincerely,



Stephen L. Weber
President

Attachment

c: Sally F. Roush, Vice President for Business and Financial Affairs
Ellene J. Gibbs, Associate Vice President, Financial Operations
Nancy Lopez, Assistant to the Vice President for Business and Financial Affairs
Valerie J. Carter, Audit and Tax Manager

DISASTER AND EMERGENCY PREPAREDNESS

SAN DIEGO STATE UNIVERSITY

Report Number 06-36

June 28, 2006

GENERAL ENVIRONMENT

Recommendation 1

We recommend that the campus require the emergency planning team committee to prepare a request for emergency management activities needs and submit the information to the vice president of business and financial affairs annually.

Campus Response

We concur. The emergency planning team will prepare and submit an emergency management activities needs request to the vice president of business and financial affairs annually. This will be completed by December 22, 2006.

EMERGENCY MANAGEMENT PLAN

IMPERIAL VALLEY CAMPUS

Recommendation 2

We recommend that the campus identify a person responsible for and a reasonable timeframe to prepare a written emergency operations plan for the Imperial Valley campus.

Campus Response

We concur. The campus will identify a person responsible for and a reasonable timeframe to prepare the emergency operations plan. This will be completed by November 1, 2006.

EMERGENCY PLAN UPDATES AND DISTRIBUTION

Recommendation 3

We recommend that the campus:

- a. Perform a comprehensive review of the web-based emergency operations plan to identify and correct any non-functioning links, inconsistencies, and inaccuracies.
- b. Develop and maintain an alternate version of its emergency operations plan for distribution to all emergency planning team members.

Campus Response

We concur.

- a. A comprehensive review and update of the web-based emergency operations plan will be completed by December 22, 2006.
- b. The campus will distribute an alternate version of the emergency operations plan to all emergency planning team members by December 22, 2006.

EMERGENCY HOTLINE

Recommendation 4

We recommend that the campus develop and implement a procedure that ensures the emergency hotline message is accurate and up-to-date.

Campus Response

We concur. Campus procedures will be documented by September 1, 2006.

COMMUNICATIONS AND TRAINING

Recommendation 5

We recommend that the campus review its emergency preparedness training program and ensure that adequate specialized training is provided for key team members.

Campus Response

We concur. The campus will review its emergency preparedness training program to ensure that adequate specialized training is provided for key team members. The review will be completed by December 22, 2006.

TESTING AND DRILLS

Recommendation 6

We recommend that the campus develop and exercise test plans sufficiently to ensure the effectiveness of campus business continuity activities, including a review and documentation of test results and lessons learned.

Campus Response

We concur. The campus will develop, exercise, and document test results for the critical business continuity plans identified. This will be completed by March 30, 2007.



THE CALIFORNIA STATE UNIVERSITY
OFFICE OF THE CHANCELLOR

BAKERSFIELD

August 8, 2006

CHANNEL ISLANDS

CHICO

MEMORANDUM

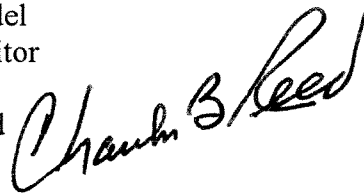
DOMINGUEZ HILLS

EAST BAY

FRESNO

TO: Mr. Larry Mandel
University Auditor

FULLERTON

FROM: Charles B. Reed
Chancellor


HUMBOLDT

LONG BEACH

SUBJECT: Draft Final Report Number 06-36 on *Disaster and Emergency Preparedness*, San Diego State University

LOS ANGELES

MARITIME ACADEMY

In response to your memorandum of August 8, 2006, I accept the response as submitted with the draft final report on *Disaster and Emergency Preparedness*, San Diego State University.

MONTEREY BAY

NORTHRIDGE

POMONA

CBR/jt

SACRAMENTO

Enclosure

SAN BERNARDINO

cc: Ms. Ellene J. Gibbs, Associate Vice President, Financial Operations
Dr. Stephen L. Weber, President

SAN DIEGO

SAN FRANCISCO

SAN JOSÉ

SAN LUIS OBISPO

SAN MARCOS

SONOMA

STANISLAUS