# RIVERSIDE: AUDIT & ADVISORY SERVICES

November 18, 2019

To: Mike Lane, Chief

 University of California Police Department (UCPD), Riverside

 Lisa Martin, Director

 Office of Emergency Management

Subject: Internal Audit of Business Continuity

Ref: R2019-04

We have completed our audit of Business Continuity in accordance with the University of California, Riverside Audit Plan. Our report is attached for your review. We will perform audit follow-up procedures in the future to review the status of management action. This follow-up may take the form of a discussion or perhaps a limited review. Audit R2019-04 will remain open until we have evaluated the actions taken.

We appreciate the cooperation and assistance provided by your staff. Should you have any questions concerning the report, please do not hesitate to contact me.

 Gregory Moore

 Director

cc: Ethics & Compliance, Risk and Audit Controls Committee Members

Business Continuity Planner Stoner

UNIVERSITY OF CALIFORNIA AT RIVERSIDE

AUDIT & ADVISORY SERVICES

MEMBER OF ASSOCIATION OF COLLEGE & UNIVERSITY AUDITORS

INTERNAL AUDIT REPORT R2019-04

BUSINESS CONTINUITY

NOVEMBER 2019

 Approved by:

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 Gregory Moore

 Director

**UC RIVERSIDE**

**BUSINESS CONTINUITY**

**INTERNAL AUDIT REPORT R2019-04**

**NOVEMBER 2019**

**I. MANAGEMENT SUMMARY**

Based upon the results of work performed within the scope of the audit, we note that while the Office of Emergency Management (OEM) has made recent efforts to initiate the development of a comprehensive business continuity plan, we observed some areas that present opportunities for improvement to minimize risk, strengthen internal control, and/or effect compliance with University policy:

1. OEM has not completed a current campus-wide (“enterprise”) continuity plan because not all mission critical campus units’ continuity plans are in place. (Observation III.A.)
2. The nature and extent of unit personnel involvement in continuity planning activities may not be adequately communicated or well understood. (Observation III.B.)

These items are discussed below. Minor items that were not of a magnitude to warrant inclusion in the report were discussed verbally with management.

**II. INTRODUCTION**

 **A. PURPOSE**

University of California, Riverside (UCR) Audit & Advisory Services (A&AS), as part of its Audit Plan, performed an audit of the OEM Business Continuity program to evaluate the adequacy of existing processes to identify the impacts of potential disruptive events on essential functions and maintain viable continuity and recovery strategies and plans. A&AS reviewed business continuity planning activities as necessary to assess compliance with University policies, procedures, and applicable regulations, efficiency and effectiveness of selected operations, and adequacy of certain internal controls.

 **B. BACKGROUND**

The University of California (UC) faces a variety of risks both man-made and of natural causes. Ensuring that UC mitigates risks and is able to continue to perform its mission in the event of natural or man-made disasters or other extraordinary events that might disrupt normal operations requires an integrated approach that includes preparation, mitigation, response, and recovery.

The UC Office of the President (UCOP) Office of Risk Services sponsors several programs to support efforts to make UC resistant and resilient to disasters, with effective crisis and consequence management capabilities. One such program is the UC Ready program that encompasses both Mission Continuity and information system (IT) Disaster Recovery. UC Ready utilizes an “all hazards approach” and follows the National Fire Protection Association 1600 (NFPA 1600) Standards on Emergency Management and Business Continuity Programs.

UC Ready provides continuity planners at every UC campus a web-based software tool – also called UCR Ready – that facilitates the systematic development of unit-level business continuity plans that would be the bases for an enterprise-level campus business continuity plan. Continuity planners and departmental staff provide answers to standard questions presented by the tool, and data collected informs the business continuity plan as whole as well as integral planning components of Risk Assessment, Business Impact Analysis (BIA), and Recovery and Continuity Strategies.

The UCR Business Continuity program is managed by OEM, which is presently organized under the UC Police Department (UCPD). Before the appointment of the current campus business continuity planner in July 2018, UCR did not have a business continuity planner for four (4) years due to resignations, reassignments, and other changes in OEM personnel and organization. Recent efforts to initiate business continuity planning processes consist of OEM reestablishing contacts with individual campus units, scheduling meetings, and working with individual campus units to begin continuity planning activities or update old continuity plans if they exist, using the UC Ready tool and prioritizing high impact administrative units and departments that provide support to others.

 **C. SCOPE**

A&AS reviewed selected campus business continuity activities to evaluate whether management practices and program procedures are adequate and appropriate, operating as intended, and effective and efficient to provide reasonable assurance that necessary actions are taken to identify the impacts of potential disruptive events on essential functions and maintain viable continuity and recovery strategies and plans.

The scope of the audit included reviews of the UC Ready program and applicable University policies, procedures, and regulations, discussions with OEM management and selected campus personnel, and examination of documents and records related to the business continuity program. We reviewed and evaluated the status of individual units’ continuity plans as well as the campus continuity plan.

In addition to the National Fire Protection Association (NFPA) 1600 Standard on Disaster / Emergency Management and Business Continuity / Continuity of Operations Programs (2016 Edition), we considered other external standards and guidance for business continuity programs, including The Institute of Internal Auditors (The IIA) Global Technology Audit Guide (GTAG), Business Continuity Management and The IIA Internal Professional Practices Framework (IPPF) Practice Guide, Business Continuity Management.

The review focused on activities during the period July 1, 2018 through April 30, 2019 and centered on the following business continuity management areas:

1. Management and Stakeholder Support
2. Risk Assessment and Risk Mitigation
3. Business Impact Analysis
4. Business Recovery and Continuity Strategy
5. Awareness, Training, and Exercises
6. Maintenance

The audit was limited to the review of overall campus business continuity planning processes. We did not review the campus crisis management plan or the response phase of the emergency management program and did not evaluate or test the campus IT disaster recovery plan, albeit these are necessary components of a comprehensive business continuity plan. In the past, A&AS reviewed the campus IT disaster recovery plan as a separate audit engagement.

Business continuityconsists of a plan of action. It ensures that regular business will continue even during a disaster. Disaster recoveryis a subset of business continuity planning. Business continuity is the first defense against a disaster threatening the proper function of business.

**D. INTERNAL CONTROLS AND COMPLIANCE**

As part of the review, internal controls were examined within the scope of the audit.

Internal control is a process designed to provide reasonable, but not absolute, assurance regarding the achievement of objectives in the following categories:

\* effectiveness and efficiency of operations

\* reliability of financial reporting

\* compliance with applicable laws and regulations

Substantive audit procedures were performed during January through April 2019. Accordingly, this evaluation of internal controls is based on our knowledge as of that time and should be read with that understanding.

**III. OBSERVATIONS, COMMENTS, AND RECOMMENDATIONS**

**A. Campus Business Continuity Plan**

OEM has not completed a current campus-wide (“enterprise”) continuity plan because not all mission critical campus units’ continuity plans are in place.

COMMENTS

Continuity planning ensures that the University takes preparatory steps to enable it to continue operations despite adverse events and to resume operations rapidly and effectively. It involves the creation and validation of a practiced logistical plan for how UCR will recover and restore critical functions within a predetermined time after an operational disruption.

OEM has initiated collaboration with individual campus units to begin continuity planning activities or update old continuity plans if they exist, using the UC Ready tool and prioritizing high impact administrative units and departments that provide support to others. However, none of the high impact administrative units have completed new or updated old continuity plans. The process of completing or updating unit-level business continuity plans compels the individual units to estimate the impacts of disruptive events on their essential functions and to prepare viable strategies and plans for recovery and continuity of services. All unit-level continuity plans should be updated, reviewed and approved, compiled, and integrated into a campus-wide continuity plan.

The aim of continuity planning is to increase the University’s resilience or ability to continue to perform its mission of teaching, research, and public service during any disruptive event, and to return to normal performance and operations as quickly as possible. Business continuity plans contain information and strategies needed during a recovery process, as well as recommendations for advance preparations.

RECOMMENDATIONS

As UCR executive leadership and the Emergency Management Policy Group (EMPG) explicitly support business continuity planning objectives, OEM should continue working with individual unit personnel and obtain their cooperation and commitment to complete the development of business continuity plans as soon as possible.

To accelerate the completion of individual units' continuity plans, OEM should implement follow-up procedures, such as regular communication with department personnel, one-on-one sessions with staff who may require additional guidance, and specialized training, as deemed necessary.

MANAGEMENT RESPONSE

In order to complete an Enterprise Plan for the university in a timely manner, the Office of Emergency Management will:

* Provide regular updates to the Vice Chancellor of Planning, Budget and Administration on the status of Continuity Planning and individual plan development.
* Request as necessary assistance from the VC support in prioritizing the plan updates by departments in order to meet the completion timeline.
* Initiate updates of continuity plans to develop the Enterprise Plan according to the attached timeline; the updates to include points of communication, follow-up, escalation if needed, and additional guidance or training as necessary for the departments.

Additionally, OEM will develop a detailed project plan for the completion of the Enterprise Continuity Plan. This project plan will include a timeline to identify and develop the internal OEM operations and documentation needed to complete the plan, the start/stop dates associated with each department plan needed to roll up into the Enterprise plan as seen within the tier structure of the attached timeline, and finally the development and publication of the plan, with a projected date of completion by July 1, 2020. Based on ITS priorities and schedule, the plan will then include the IT support for essential functions identified within the departmental plans to subsequently follow.

**B. Management and Stakeholder Support**

While OEM asserts that Campus executive leadership demonstrates unequivocal support for business continuity planning, unit and department managers seem less committed to the success of the program. As a result, the nature and extent of unit personnel involvement in continuity planning activities may not be adequately communicated or well understood.

COMMENTS

If unit management engagement in business continuity planning activities is perceived as routine or perfunctory, the importance of staff roles and responsibilities in continuity planning and event preparedness may be disregarded or underappreciated.

Executive leadership is responsible for governance, overall direction, and strategy for the UCR business continuity program managed by OEM. However, the ability of the Campus to continue mission critical functions under adverse conditions depends heavily on operational level preparedness that can reasonably be assured if high impact units maintain current continuity plans that are developed, tested/exercised, and maintained by designated competent unit personnel.

RECOMMENDATIONS

OEM should coordinate efforts with high impact unit leaders to identify and officially assign personnel who will be engaged in business continuity planning activities and held responsible for completing current continuity plans. Designated unit level continuity planners should typically be actively involved in planning activities of risk assessment and risk mitigation, formulating continuity and recovery strategies, and testing/exercising the plan and its components. They should also be prepared to participate in the execution of the plan should a disruptive event occur.

Management may consider if continuity planning roles and responsibilities assigned to unit personnel should be included in employee job descriptions and evaluated as part of performance appraisals.

MANAGEMENT RESPONSE

In order to improve the communication with unit and department managers regarding the extensive executive leadership support for business continuity and the emergency management program, OEM will:

* Provide regular updates to the Vice Chancellor of Planning, Budget and Administration on the status of Continuity Planning and individual plan development, including unit and department management involvement.
* Initiate a conversation surrounding continuity planning roles and responsibilities potentially included in employee job descriptions and/or performance appraisals.
* Continually look for opportunities to train, exercise or relay continuity information at the department level for increased exposure, understanding and involvement from unit and department management.

**Timeline – Continuity Plan Updates**

| **#** | **Plan** | **Sub Plans** | **Plan? (Y/N)** | **Notes** |
| --- | --- | --- | --- | --- |
| **TIER 1** |
| 1 | Athletics | ATHLETICS | Y | Initiate Update in Jan/Feb |
| 2 | Auxiliary Services | AUXILIARY SERVICES ADMINISTRATION  | Y | In Progress |
| 3 | Campus Veterinarian | OFFICE OF CAMPUS VETERINARIAN | Y | In Progress |
| 4 | Communications | UNIVERSITY COMMUNICATIONS | Y | In Progress |
| 5 | Dining | RESIDENTIAL DINING | Y | In Progress |
| RETAIL DINING | Y | In Progress |
| HOSPITALITY SERVICES | Y | In Progress |
| 6 | EHS | EH&S & RISK SERVICES | Y | Updated 2019 |
| 7 | Facility Services | FACILITIES SERVICES | Y | Initiate Update in Jan/Feb |
| 8 | Financial Services | FINANCIAL SERVICES | Y | In Progress |
| 9 | Housing | HOUSING, DINING & HOSPITALITY SERVICES (HDRS) ADMINISTRATION | Y | In Progress |
| HOUSING | Y | In Progress |
| RESIDENTIAL LIFE  | Y | In Progress |
| 10 | TAPS | TRANSPORTATION & PARKING SERVICES | Y | Updated 2019 |
| 11 | UCPD | UCPD | Y | Updated 2019 |
| **TIER 2** |
| 12 | Auxiliary Services | CAMPUS BUSINESS SERVICES | Y | In Progress |
| CAREER SERVICES | Y | In Progress |
| 13 | CHASS | COLLEGE OF HUMANITIES ARTS AND SOCIAL SCIENCES | Y | In Progress |
| 14 | Childhood Services | EARLY CHILDHOOD SERVICES | Y | In Progress |
| 15 | HUB | HIGHLANDER UNION BUILDING (HUB) | Y | Updated 2019 |
| 16 | HR | HUMAN RESOURCES | Y | Initiate Update in Jan/Feb |
| 17 | KUCR | KUCR | Y | Updated 2019 |
| 18 | Palm Desert | UCR PALM DESERT | Y | Updated 2019 |
| 19 | PD&C |  PLANNING, DESIGN & CONSTRUCTION(PD&C) | Y | Initiate Update in Jan/Feb |
| 20 | SOM | SCHOOL OF MEDICINE (SOM) - ADMINISTRATION | Y | Plan update is in progress |
| SCHOOL OF MEDICINE (SOM) - CLINICS | Y | Plan update is in progress |
| 21 | Student Affairs | STUDENT AFFAIRS | Y | 10/28 Dean of Students - Plan update in progress |
|  ENROLLMENT MANAGEMENT | Y | 10/28 Dean of Students - Plan update in progress |
| INTERNATIONAL EDUCATION CENTER | Y | 10/28 Dean of Students - Plan update in progress |
|  ADMISSIONS | Y | 10/28 Dean of Students - Plan update in progress |
| UNDERGRADUATE EDUCATION | Y | 10/28 Dean of Students - Plan update in progress |
| UNIV EASTSIDE COMMUNITY COLLAB (UECC) | Y | 10/28 Dean of Students - Plan update in progress |
| VCSA FINANCIAL AID OFFICE | Y | 10/28 Dean of Students - Plan update in progress |
| VCSA OFFICE OF THE REGISTRAR | Y | 10/28 Dean of Students - Plan update in progress |
| 22 | Student Health | STUDENT HEALTH SERVICES | Y | 10/28 Dean of Students - Plan update in progress |
| **TIER 3** |
| 23 | Advancement | ADVANCEMENT ADMINISTRATION | Y | Initiate Plan Update in March/April |
| ALUMNI & CONSTITUENT RELATIONS/EVENT MGT & PROTOCOL | Y | Initiate Plan Update in March/April |
| ADVANCEMENT SERVICES | Y | Initiate Plan Update in March/April |
| 24 | Audit | AUDIT & ADVISORY SERVICES | Y | In Progress - Department ready to update |
| 25 | BCOE | BCOE CE CERT | Y | Meeting being rescheduled |
| BOURNS COLLEGE OF ENGINEERING | Y | Initiate Plan Update in March/April |
| 26 | Campus Council | OFFICE OF CAMPUS COUNCIL | Y | Initiate Plan Update in March/April |
| 27 | Chancellor's Office | OFFICE OF THE CHANCELLOR | Y | Initiate Plan Update in March/April |
| OFFICE OF THE VC FOR PLANNING, BUDGET & ADMINISTRATION | Y | Initiate Plan Update in March/April |
| OFFICE OF THE VC FOR UNIVERSITY ADVANCEMENT | Y | Initiate Plan Update in March/April |
| 28 | CNAS | NATURAL RESERVE | Y | Initiate Plan Update in March/April |
| COLLEGE OF NATURAL & AGRICULTURAL SCIENCES  | Y | Initiate Plan Update in March/April |
| UNDERGRADUATE ACADEMIC ADVISING CENTER | Y | Initiate Plan Update in March/April |
| 29 | EVC | OFFICE OF THE PROVOST  | Y | Initiate Plan Update in March/April |
| 30 | Library | UNIVERSITY LIBRARIES | Y | Initiate Plan Update in March/April |
| 31 | Public Policy | SCHOOL OF PUBLIC POLICY | Y | Initiate Plan Update in March/April |
| 32 | RED | RESEARCH & ECONOMIC DEVELOPMENT | Y | Initiate Plan Update in March/April |
| 33 | School of Business | SCHOOL OF BUSINESS | Y | Initiate Plan Update in March/April |
| 34 | SRC | STUDENT RECREATION CENTER | Y | Initiate Plan Update in March/April |
| 35 | UCR Arts | UCR ARTS (CULVER CENTER) | Y | Updated 2019 |
| 36 | UNEX | UNIVERSITY EXTENSION | Y | Initiate Plan Update in March/April |
| **TIER 4** |
| 37 | ITS | INFORMATION TECHNOLOGY SERVICES (ITS) | Y | Initiate Plan Update in May |
| 38 | UCR | ENTERPRISE PLAN | Y | Initiate Plan Update in May |