

## Annex J Los Rios Community College District

### J.1 Introduction

This Annex details the hazard mitigation planning elements specific to the Los Rios Community College District (LRCCD or District), a previously participating jurisdiction to the 2016 Sacramento County Local Hazard Mitigation Plan (LHMP) Update. This Annex is not intended to be a standalone document, but appends to and supplements the information contained in the Base Plan document. As such, all sections of the Base Plan, including the planning process and other procedural requirements apply to and were met by the District. This Annex provides additional information specific to LRCCD, with a focus on providing additional details on the risk assessment and mitigation strategy for this District.

### J.2 Planning Process

As described above, the District followed the planning process detailed in Chapter 3 of the Base Plan. In addition to providing representation on the Sacramento County Hazard Mitigation Planning Committee (HMPC), the District formulated their own internal planning team to support the broader planning process requirements. Internal planning participants, their positions, and how they participated in the planning process are shown in Table J-1. Additional details on plan participation and District representatives are included in Appendix A.

*Table J-1 LRCCD – Planning Team*

Name	Position/Title	How Participated
Debbie Turner	Risk Management Supervisor	Attended meetings. Provided input on draft annex. Provided mitigation actions.
Julia Coleman	Risk Management Specialist	Attended meetings. Provided input on draft annex. Provided mitigation actions.
Nate Martin	Director, Sustainability	Attended meeting, Provided input on draft annex. Provided mitigation actions.
Vince Montoya	Dir. Facilities Maintenance	Provided input on mitigation actions, past occurrences, and hazard assessment.
Dan McKechnie	Dir. Facility, Planning & Construction	Provided input on mitigation actions, future master planning projects, and bond funding.
Larry Savidge	Emergency Manager/Chief of Police	Provided input on mitigation actions and emergency planning.

Coordination with other community planning efforts is paramount to the successful implementation of this LHMP Update. This section provides information on how the District integrated the previously approved 2016 Plan into existing planning mechanisms and programs. Specifically, the District incorporated into or implemented the 2016 LHMP through other plans and programs shown in Table J-2.

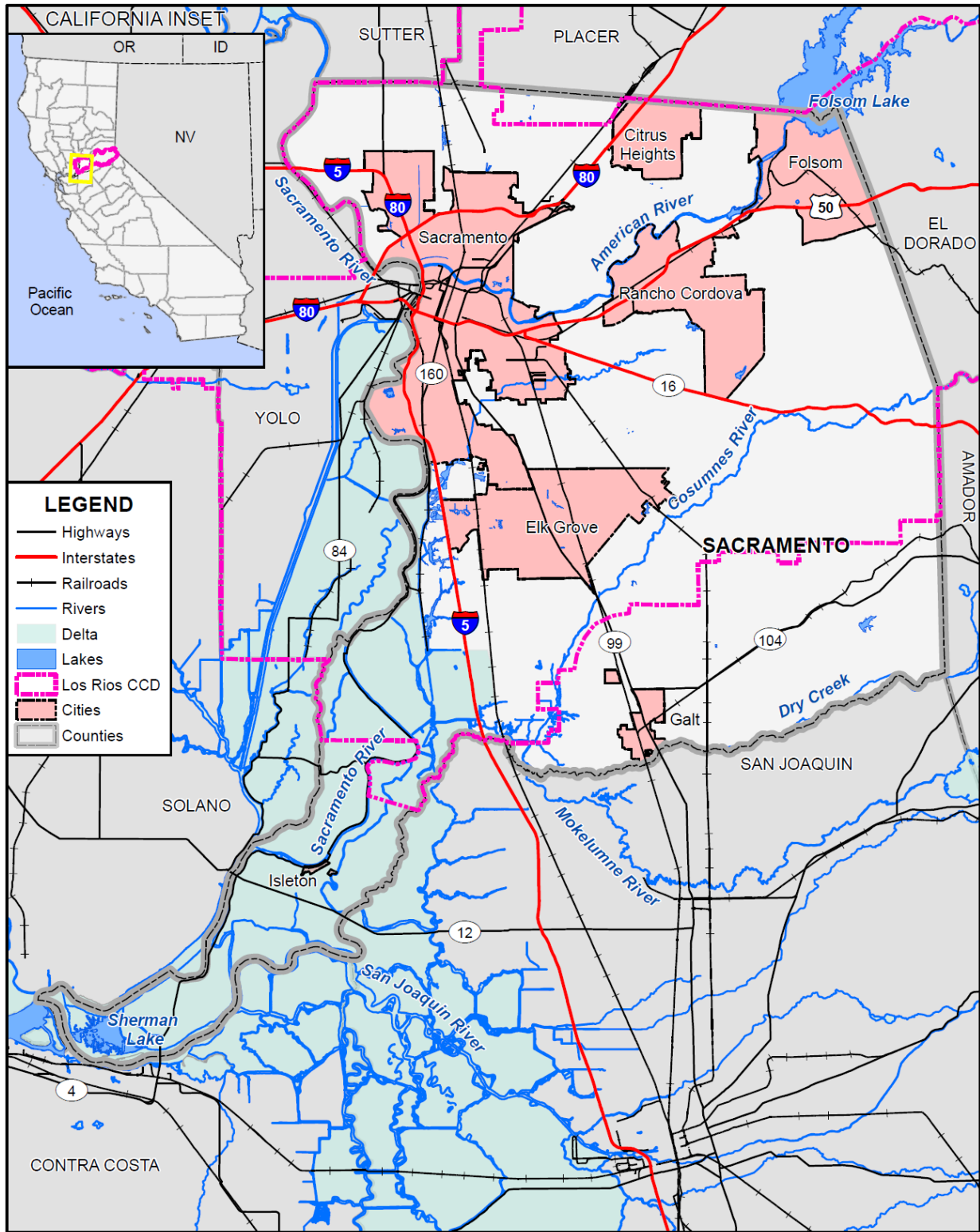
*Table J-2 2016 LHMP Incorporation*

Planning Mechanism 2016 LHMP Was Incorporated/Implemented In.	Details: How was it incorporated?
Emergency Operations Plan	Consulted LHM Plan for updating emergency operations written plan and training needs.
Schedule Maintenance Special Repairs Plan	Consulted LHMP for hazard assessment and mitigation actions to obtain state funding for deferred maintenance repairs.

### **J.3 District Profile**

The District profile for the LRCCD is detailed in the following sections. Figure J-1 displays a map and the location of the District within Sacramento County.

Figure J-1 LRCCD



**FOSTER MORRISON**  
CONSULTING

0 10 20 Miles

**SACRAMENTO**  
COUNTY

Data Source: Los Rios Community College District, Sacramento County GIS, Cal-Atlas; Map Date: 09/2020.

### J.3.1. Overview and Background

Los Rios Community College District is one of the nation's most respected learning institutions and the second-largest community college district in California. The College is a two-year public college district that serves the greater Sacramento region. Los Rios includes: American River, Cosumnes River, Folsom Lake and Sacramento City colleges; major education and outreach centers in Davis, Elk Grove, Natomas, Placerville, Rancho Cordova and West Sacramento; and specialized workforce and economic development programs for business, government and organizations throughout the region. The colleges offer AA/AS degrees, certificates and transfer education opportunities - students complete freshman and sophomore years and transfer to a four-year college or university - in more than 70 career fields.

The District's 2,400 square mile service area includes all of Sacramento County, most of El Dorado County and parts of Yolo, Placer and Solano counties. About 70,000 students are enrolled in the colleges and about 5000 employees to include full-time, part-time, and temporary.

- American River College – 153 acres with 122 buildings
- Natomas Center – 1 building
- Cosumnes River College – 180 acres with 90 buildings
- Elk Grove Center – 1 building
- Folsom Lake College – 151 acres with 21 buildings
- El Dorado Center – 3 buildings
- Rancho Cordova Center – 1 building
- Sacramento City College – 72 acres with 38 buildings
- Aeronautics (McClellan) - 2 buildings
- Davis Center – 2 buildings
- West Sacramento Center – 1 building

Other sites support vocational programs include Sacramento Regional Public Safety Center (1 building), Mather (1 building) for auto collision and bio-diesel program, and Pre-Apprenticeship training program (2 buildings).

Operational buildings include Facilities Management (1 building), District Office support (9 buildings) and Police Services and Workforce and Economic Development (1 building)

## J.4 Hazard Identification

LRCCD identified the hazards that affect the District and summarized their location, extent, frequency of occurrence, potential magnitude, and significance specific to District (see Table J-3).

**Table J-3 LRCCD—Hazard Identification Assessment**

Hazard	Geographic Extent	Likelihood of Future Occurrences	Magnitude/Severity	Significance	Climate Change Influence
Climate Change	Limited	Unlikely	Negligible	Low	–
Dam Failure	Limited	Unlikely	Negligible	Low	Medium
Drought & Water Shortage	Limited	Unlikely	Negligible	Low	High
Earthquake	Limited	Unlikely	Negligible	Low	Low
Earthquake Liquefaction	Limited	Unlikely	Negligible	Low	Low
Floods: 1%/0.2% annual chance	Limited	Unlikely	Critical	Low	Medium
Floods: Localized Stormwater	Limited	Occasional	Critical	Low	Medium
Landslides, Mudslides, and Debris Flow	Limited	Unlikely	Negligible	Low	Medium
Levee Failure	Limited	Unlikely	Negligible	Low	Medium
Pandemic	Extensive	Unlikely	Catastrophic	Medium	Medium
Severe Weather: Extreme Cold and Freeze	Limited	Unlikely	Negligible	Low	Medium
Severe Weather: Extreme Heat	Limited	Unlikely	Negligible	Low	High
Severe Weather: Heavy Rains and Storms	Limited	Likely	Limited	Medium	Medium
Severe Weather: Wind and Tornado	Limited	Likely	Limited	Low	Low
Subsidence	Limited	Unlikely	Negligible	Low	Medium
Volcano	Limited	Unlikely	Negligible	Low	Low
Wildfire	Limited	Unlikely	Negligible	Low	High
<p><b>Geographic Extent</b>                      Limited: Less than 10% of planning area                      Significant: 10-50% of planning area                      Extensive: 50-100% of planning area</p> <p><b>Likelihood of Future Occurrences</b>                      Highly Likely: Near 100% chance of occurrence in next year, or happens every year.                      Likely: Between 10 and 100% chance of occurrence in next year, or has a recurrence interval of 10 years or less.                      Occasional: Between 1 and 10% chance of occurrence in the next year, or has a recurrence interval of 11 to 100 years.                      Unlikely: Less than 1% chance of occurrence in next 100 years, or has a recurrence interval of greater than every 100 years.</p> <p><b>Magnitude/Severity</b>                      Catastrophic—More than 50 percent of property severely damaged; shutdown of facilities for more than 30 days; and/or multiple deaths                      Critical—25-50 percent of property severely damaged; shutdown of facilities for at least two weeks; and/or injuries and/or illnesses result in permanent disability                      Limited—10-25 percent of property severely damaged; shutdown of facilities for more than a week; and/or injuries/illnesses treatable do not result in permanent disability                      Negligible—Less than 10 percent of property severely damaged, shutdown of facilities and services for less than 24 hours; and/or injuries/illnesses treatable with first aid</p> <p><b>Significance</b>                      Low: minimal potential impact                      Medium: moderate potential impact                      High: widespread potential impact</p> <p><b>Climate Change Influence</b>                      Low: minimal potential impact                      Medium: moderate potential impact                      High: widespread potential impact</p>					

## J.5 Hazard Profile and Vulnerability Assessment

The intent of this section is to profile the District's hazards and assess the District's vulnerability separate from that of the Sacramento County Planning Area as a whole, which has already been assessed in Section 4.3 Hazard Profiles and Vulnerability Assessment in the Base Plan. The hazard profiles in the Base Plan discuss overall impacts to the Sacramento County Planning Area and describes the hazard problem description, hazard location and extent, magnitude/severity, previous occurrences of hazard events and the likelihood of future occurrences. Hazard profile information specific to the District is included in this Annex. This vulnerability assessment analyzes the property and other assets at risk to hazards ranked of medium or high significance specific to the District. For more information about how hazards affect the County as a whole, see Chapter 4 Risk Assessment in the Base Plan.

### J.5.1. Hazard Profiles

Each hazard vulnerability assessment in Section J.5.3, includes a hazard profile/problem description as to how each medium or high significant hazard (as shown in Table J-3) affects the District and includes information on past hazard occurrences and the likelihood of future hazard occurrence. The intent of this section is to provide jurisdictional specific information on hazards and further describes how the hazards and risks differ across the Sacramento County Planning Area.

### J.5.2. Vulnerability Assessment and Assets at Risk

This section identifies the District's total assets at risk, including values at risk, populations at risk, critical facilities and infrastructure, natural resources, and historic and cultural resources. Growth and development trends are also presented for the District. This data is not hazard specific, but is representative of total assets at risk within the District.

#### *Assets at Risk and Critical Facilities*

This section considers the LRCCD's assets at risk, with a focus on key District assets such as critical facilities, infrastructure, and other District assets and their values. With respect to District assets, the majority of these assets are considered critical facilities as defined for this Plan. Critical facilities are defined for this Plan as:

*Any facility, including without limitation, a structure, infrastructure, property, equipment or service, that if adversely affected during a hazard event may result in severe consequences to public health and safety or interrupt essential services and operations for the community at any time before, during and after the hazard event.*

A critical facility is classified by the following categories: (1) Essential Services Facilities, (2) At-risk Populations Facilities, (3) Hazardous Materials and Solid Waste Facilities.

Table J-4 lists critical facilities and other District assets identified by the District Planning Team as important to protect in the event of a disaster. LRCCD's physical assets, valued at over \$1.4 billion, consist of the buildings and infrastructure to support the District's operations.

*Table J-4 LRCCD Critical Facilities, Infrastructure, and Other District Assets*

Name of Asset	Facility Type	Replacement Value	Which Hazards Pose Risk
American River College (ARC)	Main Campus	\$394,091,646	Flooding, Severe Weather: heavy rain, wind and tornadoes, Wildfire, Pandemic
Cosumnes River College (CRC)	Main Campus	\$320,857,854	Severe Weather: heavy rain, wind, and tornadoes, Pandemic
Davis Center	Center under Sacramento City College	\$24,478,837	Severe Weather: heavy rain, wind, and tornadoes, Pandemic
District Office	Operational Support	\$7,871,895	Flooding, Levee Failure, Severe Weather: heavy rain, wind and tornadoes, Pandemic
Elk Grove Center	Center under Cosumnes River College	\$12,868,824	Severe Weather: heavy rain, wind, and tornadoes, Pandemic
El Dorado Center	Center under Folsom Lake College	\$28,303,503	Severe Weather: heavy rain, wind & tornadoes, and wildfire, Pandemic
Ethan Way Center	Special services for business and industry	\$5,094,488	Flooding, Levee failure, Severe Weather: heavy rain, wind & tornadoes, Pandemic
Facilities Management	Operational Support	\$9,373,473	Severe Weather: heavy rain, wind and tornadoes, Pandemic
Folsom Lake College	Main Campus	\$179,975,251	Severe Weather: heavy rain, wind and tornadoes, Pandemic
Mather Location (Leased)	Offsite program for American River College	\$6,075,603	Severe Weather: heavy rain, wind and tornadoes, Pandemic
Natomas Center	Center under American River College	\$9,646,908	Flooding, Severe Weather: heavy rain wind, and tornadoes, Pandemic
Rancho Cordova Center	Center under Folsom Lake College	13,057,066	Severe Weather: heavy rain, wind and tornadoes, Pandemic
Sac Regional Public Safety Training Center	Center under American River College	\$10,242,536	Severe Weather: heavy rain, wind and tornadoes, Pandemic

Name of Asset	Facility Type	Replacement Value	Which Hazards Pose Risk
Sacramento City College (SCC)	Main Campus	\$381,038,709	Flooding, Severe Weather: heavy rain, wind and tornadoes, Pandemic
Sacramento City College Hangar (Leased)	Offsite location for Sacramento City College	\$3,152,561	Severe Weather: heavy rain, wind and tornadoes, Pandemic
Water Tower Complex	Operational Support	\$4,211,569	Flooding, Levee Failure, Severe Weather: heavy rain, wind and tornadoes, Pandemic
West Sacramento Center	Center under Sacramento City College	\$11,663,738	Severe Weather: heavy rain, wind and tornadoes, Pandemic
<b>Total</b>		<b>\$1,422,004,461</b>	

Source: LRCCD

### *Natural Resources*

LRCCD has a variety of natural resources of value to the District. These natural resources parallels that of Sacramento County as a whole. Information can be found in Section 4.3.1 of the Base Plan.

### *Historic and Cultural Resources*

LRCCD has a variety of historic and cultural resources of value to the District. These historic and cultural resources parallels that of Sacramento County as a whole. Information can be found in Section 4.3.1 of the Base Plan.

### *Growth and Development Trends*

General growth in the District parallels that of the Sacramento County Planning Area as a whole. Information can be found in Section 4.3.1 of the Base Plan.

### *Development since 2016*

No District facilities have been constructed since 2016 but improvements have been made at several campuses to include modernization projects and removing/rebuilding several buildings on existing campuses (American River College, Cosumnes River College and Sacramento City College). As such, a change in vulnerability is unlikely.

### *Future Development*

Natomas Center adding a second building of instructional space, Folsom Lake College adding a science building for classes, labs, library and faculty offices, and at Sacramento City College replacing the existing science building with an updated facility.



The District has no control over future development in areas the District services. Future development in these areas parallels that of the Sacramento County Planning Area. More general information on growth and development in Sacramento County as a whole can be found in “Growth and Development Trends” in Section 4.3.1 Sacramento County Vulnerability and Assets at Risk of the Base Plan.

### J.5.3. Vulnerability to Specific Hazards

This section provides the vulnerability assessment, including any quantifiable loss estimates, for those hazards identified above in Table J-3 as high or medium significance hazards. Impacts of past events and vulnerability of the District to specific hazards are further discussed below (see Section 4.1 Hazard Identification in the Base Plan for more detailed information about these hazards and their impacts on the Sacramento County Planning Area). Methodologies for evaluating vulnerabilities and calculating loss estimates are the same as those described in Section 4.3 of the Base Plan.

An estimate of the vulnerability of the District to each identified priority hazard, in addition to the estimate of likelihood of future occurrence, is provided in each of the hazard-specific sections that follow. Vulnerability is measured in general, qualitative terms and is a summary of the potential impact based on past occurrences, spatial extent, and damage and casualty potential. It is categorized into the following classifications:

- **Extremely Low**—The occurrence and potential cost of damage to life and property is very minimal to nonexistent.
- **Low**—Minimal potential impact. The occurrence and potential cost of damage to life and property is minimal.
- **Medium**—Moderate potential impact. This ranking carries a moderate threat level to the general population and/or built environment. Here the potential damage is more isolated and less costly than a more widespread disaster.
- **High**—Widespread potential impact. This ranking carries a high threat to the general population and/or built environment. The potential for damage is widespread. Hazards in this category may have occurred in the past.
- **Extremely High**—Very widespread with catastrophic impact.

Depending on the hazard and availability of data for analysis, this hazard specific vulnerability assessment also includes information on values at risk, critical facilities and infrastructure, populations at risk, and future development.

#### Power Outage/Power Failure

An impact of almost all hazards below relates to power outage and/or power failures. The US power grid crisscrosses the country, bringing electricity to homes, offices, factories, warehouses, farms, traffic lights and even campgrounds. According to statistics gathered by the Department of Energy, major blackouts are on the upswing. Incredibly, over the past two decades, blackouts impacting at least 50,000 customers have increased 124 percent. The electric power industry does not have a universal agreement for classifying disruptions. Nevertheless, it is important to recognize that different types of outages are possible so that plans may be made to handle them effectively. In addition to blackouts, brownouts can occur. A brownout is an intentional or unintentional drop in voltage in an electrical power supply system. Intentional brownouts are used for load reduction in an emergency. Electric power disruptions can be generally

grouped into two categories: intentional and unintentional. More information on types of power disruptions can be found in Section 4.3.2 of the Base Plan.

LRCCD added a generator to back up its computer servers several years ago and had it as a project in past LHMP. LRCCD also added a generator at District Office for backup.

### *Public Safety Power Shutoff (PSPS)*

A new intentional disruption type of power outage/failure event has recently occurred in California. In recent years, several wildfires have started as a result of downed power lines or electrical equipment. This was the case for the Camp Fire in 2018. As a result, California's three largest energy companies (including PG&E), at the direction of the California Public Utilities Commission (CPUC), are coordinating to prepare all Californians for the threat of wildfires and power outages during times of extreme weather. To help protect customers and communities during extreme weather events, electric power may be shut off for public safety in an effort to prevent a wildfire. This is called a PSPS. More information on PSPS criteria can be found in Section 4.3.2 of the Base Plan.

The El Dorado Center has been subject to PSPS events during high wind conditions because of its location in the foothills of El Dorado County.

The District has experienced multiple utility power outages lasting several days per event, at the Folsom Lake College, El Dorado Center campus, located in Placerville California. The Public Safety Power Shutoffs (PSPS) started in October 2019, and according to PG&E, they will continue into the foreseeable future.

### *Pandemic*

**Likelihood of Future Occurrence**–Likely  
**Vulnerability**–Medium

### **Hazard Profile and Problem Description**

According to the World Health Organization (WHO), a disease epidemic occurs when there are more cases of that disease than normal. A pandemic is a worldwide epidemic of a disease. A pandemic may occur when a new virus appears against which the human population has no immunity. A pandemic occurs when a new virus emerges for which people have little or no immunity, and for which there is no vaccine. This disease spreads easily person-to-person, causes serious illness, and can sweep across the country and around the world in a very short time. The U.S. Centers for Disease Control and Prevention has been working closely with other countries and the WHO to strengthen systems to detect outbreaks of that might cause a pandemic and to assist with pandemic planning and preparation. An especially severe a pandemic could lead to high levels of illness, death, social disruption, and economic loss.

### **Location and Extent**

During a pandemic, the whole of the District, County, and surrounding region is at risk, as pandemic is a regional, national, and international event. The speed of onset of pandemic is usually short, while the

duration is variable, but can last for more than a year as shown in the 1918/1919 Spanish Flu. There is no scientific scale to measure the magnitude of pandemic. Pandemics are usually measured in numbers affected by the pandemic, and by number who die from complications from the pandemic.

### Past Occurrences

There has been one state and federal disaster declaration due to pandemic, as shown in Table J-5.

*Table J-5 Sacramento County – State and Federal Pandemic Disaster Declarations 1950-2020*

Disaster Type	Federal Declarations		State Declarations	
	Count	Years	Count	Years
Pandemic	1	2020	1	2020

Source: Cal OES, FEMA

The 20th century saw three outbreaks of pandemic.

- The 1918-1919 Influenza Pandemic (H1N1)
- The February 1957-1958 Influenza Pandemic (H2N2)
- The 1968 Influenza Pandemic (H3N2)

To date, the 21st century has seen two acknowledged pandemics.

- 2009 Swine Flu (H1N1)
- 2019/2020 COVID 19

Certain impacts that the District has been facing are the costs required to supply technology equipment to employees for them to be able to work from home, which includes the costs to increase District internet speed and VPN access for added security. Also, the costs associated with needing to provide students with Chromebooks, hotspots, and other technology equipment so they are equipped to continue their schooling offsite. Additionally, the District had to put into place a hiring freeze and our student enrollment has had a decrease, which ultimately causes a reduction and loss of revenue. Further, athletics have been currently halted which causes a reduction in revenue received from ticket sales and parking on event days. Since there are no in person classes, the District also loses revenue related to parking on campuses. Also, the District had to face the costs of cancellation for events that were already scheduled (e.g. commencement, appreciation days, travel, etc.).

All campus and office locations were closed for an extended period after the onset of the pandemic. After the extended period essential employees were allowed to be onsite following strict COVID-19 procedures and all other employees were working from home. Classes will continue to be online through the Spring Semester 2021 districtwide. As our facilities are facing closures, the facility rentals we extend to the community and local businesses have been cancelled. Vandalism has occurred to District facilities during the lockdowns (broken windows, door locks, graffiti, and vehicle theft/vandalism.).

## Vulnerability to and Impacts from Pandemic

Pandemics have and will continue to have impacts on human health in the region. A pandemic occurs when a new virus emerges for which there is little or no immunity in the human population; the virus causes serious illness and spreads easily from person-to-person worldwide. There are several strategies that public health officials can use to combat a pandemic. Constant surveillance regarding the current pandemic, use of infection control techniques, and administration of vaccines once they become available. Citizens can help prevent the spread of a pandemic by staying home, or “self-quarantining,” if they suspect they are infected. Pandemic does not affect the buildings, critical facilities, and infrastructure in the District. Pandemic can have varying levels of impact to the citizens of the District and greater County, depending on the nature of the pandemic.

Impacts could range from school and business closings to the interruption of basic services such as public transportation, health care, and the delivery of food and essential medicines. Hospitalizations and deaths can occur, especially to the elderly or those with pre-existing underlying conditions. As seen with Covid-19, multiple businesses were forced to close temporarily (some permanently), and unemployment rose significantly. Supply chains for food and essentials can be interrupted. Prisons may need to release prisoners to comply with social distance standards.

The most significant impacts to the District from the Pandemic generally have been economic in nature based on the District trying to accommodate virtual learning while experiencing a decrease in revenue sources such as those detailed above in Past Occurrences.

### Assets at Risk

Pandemics do not affect District facilities, but can affect District personnel who operate District facilities.

### *Severe Weather: Heavy Rains and Storms*

**Likelihood of Future Occurrence**–Likely

**Vulnerability**–Medium

### Hazard Profile and Problem Description

Storms in the District occur annually and are generally characterized by heavy rain often accompanied by strong winds and sometimes lightning and hail. Approximately 10 percent of the thunderstorms that occur each year in the United States are classified as severe. A thunderstorm is classified as severe when it contains one or more of the following phenomena: hail that is three-quarters of an inch or greater, winds in excess of 50 knots (57.5 mph), or a tornado. Heavy precipitation in the District falls mainly in the fall, winter, and spring months.

### Location and Extent

Heavy rain events occur on a regional basis. Rains and storms can occur in any location of the District. All portions of the District are at risk to heavy rains. Most of the severe rains occur during the fall, winter, and spring months. There is no scale by which heavy rains and severe storms are measured. Magnitude of

storms is measured often in rainfall and damages. The speed of onset of heavy rains can be short, but accurate weather prediction mechanisms often let the public know of upcoming events. Duration of severe storms in California, Sacramento County, and the District can range from minutes to hours to days. Information on precipitation extremes can be found in Section 4.3.4 of the Base Plan.

### Past Occurrences

There have been past disaster declarations from heavy rains and storms, which were discussed in Section 4.3.4 of the Base Plan. According to historical hazard data, severe weather, including heavy rains and storms, is an annual occurrence in the District. This is the cause of many of the federal disaster declarations related to flooding.

Historically, LRCCD has suffered approximately \$167,000 in damages of which approximately \$136,000 was recovered through disaster assistance programs. The events took place in 1994, 1995, 1997, 2003, 2004, 2008. The District noted two events that took place in 2017:

- **January 3-12, 2017** – Severe storms including high winds and gusts caused damage to multiple District locations (including American River College, Cosumnes River College, Folsom Lake College, Sacramento City College, El Dorado Center). Fallen tree limbs, roof leaks, and fence damages occurred. Damages can be seen in the images below.
- **January 18-23, 2017** – Severe storms including high winds and gusts caused damage to multiple District locations (including: District Office, Cosumnes River College, Sacramento City College). Large tree fell on Boardroom building creating building and water damage, other locations had fence damage, multiple fallen trees, and debris removal. LRCCD had to relocate regular scheduled Board meetings to alternate sites and lack of use of building for other activities. Damages can be seen in the images below.

*Figure J-2 January 2017 Storm Damage – Tree Damage to Boardroom*



Source: LRCCD

*Figure J-3 January 2017 Storm Damage – Felled Tree*



Source: LRCCD

*Figure J-4 January 2017 Storm Damage – Fence Damage*



Source: LRCCD

*Figure J-5 January 2017 Storm Damage – Felled Tree*



Source: LRCCD

### **Vulnerability to and Impacts from Heavy Rain and Storms**

Heavy rain and severe storms are the most frequent type of severe weather occurrences in the District. These events can cause localized flooding. Elongated events, or events that occur during times where the ground is already saturated can cause 1% and 0.2% annual chance flooding. Wind often accompanies these storms and has caused damage in the past. Hail and lightning are rare in the District.

Actual damage associated with the effects of severe weather include impacts to property, critical facilities (such as utilities), and life safety. Heavy rains and storms often result in localized flooding creating



significant issues. Roads can become impassable and ground saturation can result in instability, collapse, or other damage to trees, structures, roadways and other critical infrastructure. Floodwaters and downed trees can break utilities and interrupt services.

During periods of heavy rains and storms, power outages can occur. These power outages can affect pumping stations and lift stations that help alleviate flooding. More information on power outage and failure can be found in the discussion at the beginning of Section J.5.3, as well as in Section 4.3.3 of the Base Plan.

When there are heavy rains and strong winds, it usually affects multiple locations within LRCCD. For example, the January 2008 storms caused damages at 7 locations incurring a cost of \$48,000 in damages. This included 16 items listed on the claim form. The state reimbursed LRCCD \$38,600. Majority of the replacement cost were for items that were outside of the buildings, such as bent fence post, ripped sun covers, ripped banners, damage to storage containers, fallen trees, debris cleanup, and a broken window. The Facilities Management building had part of the roofing system blown off which created a leak inside the building and the damages were over \$8,000. This was the first occurrence of damages to this building.

The main data center at the District Office supports the LRCCD's software systems, computers operations, and student services. This center has a 22-hour diesel generator that will provide power to the data center during a power outage.

The District police dispatch center at Ethan Way site is at risk of losing power. To mitigate this facility being affected by power outage, in 2008 a backup dispatch center was included in the new Operations building design at the Cosumnes River College campus.

### **Assets at Risk**

All District assets (from Table J-4) are at risk from this hazard. Risk includes building loss of use, damage to property, equipment, furniture, computers, students' classes having to be moved, and loss of income for facility rentals.

## **J.6 Capability Assessment**

Capabilities are the programs and policies currently in use to reduce hazard impacts or that could be used to implement hazard mitigation activities. This capabilities assessment is divided into five sections: regulatory mitigation capabilities, administrative and technical mitigation capabilities, fiscal mitigation capabilities, mitigation education, outreach, and partnerships, and other mitigation efforts.

### **J.6.1. Regulatory Mitigation Capabilities**

Table J-6 lists regulatory mitigation capabilities, including planning and land management tools, typically used by local jurisdictions to implement hazard mitigation activities and indicates those that are in place in the LRCCD.

**Table J-6 LRCCD Regulatory Mitigation Capabilities**

Plans	Y/N Year	Does the plan/program address hazards? Does the plan identify projects to include in the mitigation strategy? Can the plan be used to implement mitigation actions?
Comprehensive/Master Plan/General Plan	Y	Each campus has a master plan and mitigation actions are completed through capital improvement planning or maintenance and repair planning.
Capital Improvements Plan	Y	Hazards that are directly related to specific projects may be included within projects (individual).
Economic Development Plan	N	
Local Emergency Operations Plan	N	
Continuity of Operations Plan	N	
Transportation Plan	N	
Stormwater Management Plan/Program	N	
Engineering Studies for Streams	N	
Community Wildfire Protection Plan	N	
Other special plans (e.g., brownfields redevelopment, disaster recovery, coastal zone management, climate change adaptation)	N	
Building Code, Permitting, and Inspections	Y/N	Are codes adequately enforced?
Building Code	Y	California Building Code 2013—LRCCD is under the jurisdiction of the Division of the State Architect and use the code they deem appropriate.
Building Code Effectiveness Grading Schedule (BCEGS) Score	N	
Fire department ISO rating:	N	
Site plan review requirements	Y	LRCCD has the state architect review projects site plans with respect to ADA Accessibility and Landscaping (water use).
Land Use Planning and Ordinances	Y/N	Is the ordinance an effective measure for reducing hazard impacts? Is the ordinance adequately administered and enforced?
Zoning ordinance	N	
Subdivision ordinance	N	
Floodplain ordinance	N	
Natural hazard specific ordinance (stormwater, steep slope, wildfire)	N	
Flood insurance rate maps	N	
Elevation Certificates	N	
Acquisition of land for open space and public recreation uses	N	
Erosion or sediment control program		
Other		

**How can these capabilities be expanded and improved to reduce risk?**

Continue staff training on update regulations and building codes, enforce building codes with individual campus projects.

Source: LRCCD

## J.6.2. Administrative/Technical Mitigation Capabilities

Table J-7 identifies the District department(s) responsible for activities related to mitigation and loss prevention in LRCCD.

*Table J-7 LRCCD’s Administrative and Technical Mitigation Capabilities*

Administration	Y/N	Describe capability Is coordination effective?
Planning Commission	N	
Mitigation Planning Committee	Y	To review hazards related to LRCCD
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)	Y	Facilities Maintenance grounds department maintains drainage systems, roofing systems, and tree trimming to prevent damages to property and people.
Mutual aid agreements	N	
Other		
		Is staffing adequate to enforce regulations? Is staff trained on hazards and mitigation? Is coordination between agencies and staff effective?
<b>Staff</b>	<b>Y/N FT/PT</b>	
Chief Building Official	N	
Floodplain Administrator	N	
Emergency Manager	Y	District police department works with multiple surrounding agencies to anticipate and respond to public safety issue, and natural disasters.
Community Planner	N	
Civil Engineer	N	
GIS Coordinator	N	
Other	Y	Risk Management Supervisor, Risk Management Specialist, Director, Sustainability, Dir. Facilities Maintenance, Dir. Facility, Planning & Construction, and Emergency Manager/Chief of Police are all trained on mitigation.
<b>Technical</b>		
Warning systems/services (Reverse 911, outdoor warning signals)	Y	We use a mass notification system to address emergencies with employees and students.
Hazard data and information	N	
Grant writing	N	
Hazus analysis	N	
Other		
<b>How can these capabilities be expanded and improved to reduce risk?</b>		

Continue to develop, update, and train on Emergency and Pandemic planning. Add more staffing to support maintenance programs.

Source: LRCCD

### J.6.3. Fiscal Mitigation Capabilities

Table J-8 identifies financial tools or resources that the District could potentially use to help fund mitigation activities.

*Table J-8 LRCCD’s Fiscal Mitigation Capabilities*

Funding Resource	Access/ Eligibility (Y/N)	Has the funding resource been used in past and for what type of activities? Could the resource be used to fund future mitigation actions?
Capital improvements project funding	Y	Capital Improvement funds for mitigation projects if they are directly related to a specific Capital Improvement project. For example, while renovating the athletic fields the main storm drain is going to be improved to reduce the risk of localized flooding.
Authority to levy taxes for specific purposes	N	
Fees for water, sewer, gas, or electric services	N	
Impact fees for new development	N	
Storm water utility fee	N	
Incur debt through general obligation bonds and/or special tax bonds	Y	Bond funding has been used for past projects—for example seismic retro fitting of Hughes Stadium which was first build in 1928.
Incur debt through private activities	N	
Community Development Block Grant	N	
Other federal funding programs	Y	
State funding programs	Y	The State provided special maintenance and special repair (SMSR) funding for schools. With this funding, we were able to complete roofing renovations district wide. This funding is not guaranteed to be part of the annual budget.
Other		
<b>How can these capabilities be expanded and improved to reduce risk?</b>		
Continue to allocate funds towards mitigation projects to reduce risks.		

Source: LRCCD

### J.6.4. Mitigation Education, Outreach, and Partnerships

Table J-9 identifies education and outreach programs and methods already in place that could be/or are used to implement mitigation activities and communicate hazard-related information.

*Table J-9 LRCCD's Mitigation Education, Outreach, and Partnerships*

Program/Organization	Yes/No	Describe program/organization and how relates to disaster resilience and mitigation. Could the program/organization help implement future mitigation activities?
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	No	
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes	Each campus holds Earth day events for resource conservation and most campuses have a sustainability club. District Office is working on campus natural resource usage dashboard for student and employees' projects.
Natural disaster or safety related school programs	Yes	Continue to train employees on National Incident Management System (NIMS) emergency preparation, and building evacuation training.
StormReady certification	No	
Firewise Communities certification	No	
Public-private partnership initiatives addressing disaster-related issues	No	
Other		
<b>How can these capabilities be expanded and improved to reduce risk?</b>		
Increase training for students and employees on disaster preparedness and mitigation.		

Source: LRCCD

LRCCD Police Department conducts emergency operation drills at various locations throughout the school year. Depending on the type of drill it may involve outside agencies. In the past, outside agencies included local fire, police, Cal OES (California Office of Emergency Services), Center for Disease Control, Red Cross, and Sacramento County OES.

### **J.6.5. Other Mitigation Efforts**

To sustain our services during and after a disaster, such as flooding and severe weather, there is a strong support to protect LRCCD against data center failure including network and server infrastructure and access to the Internet. LRCCD is in the process of updating data centers at the District Office and Folsom Lake College. Currently the two data centers have generator backup power sources, and each has a 10Gbps connection to the Corporation for Education Network Initiatives California (CENIC) for Internet access. Each of the connections connect at a different location on the CENIC backbone. LRCCD is in the process of projects at each of the data centers of upgrading to Liebert Smartrow technology. LRCCD is also hopes to complete 4 additional 10Gbps circuits to create a 10Gbps Ring between the main campuses and District Office. LRCCD is also looking to install at least 1Gbps connection at the outreach centers and other district facilities. This is all in effort to improve connectivity for services including communications (phones, email, and others), and all Internet access.

LRCCD is also looking at architecture and deploying redundant WAN (Wide Area Network site to site) connectivity and on main campuses for the core and distribution LAN (Local Area Network with site building to building or floor to floor) networking. This will provide complete resiliency to failures of fiber and/or network electronics along either pathways, or data center, and failures at either of the CENIC connections, or the main data centers at LRCCD locations. The project continues with participation of CENIC, AT&T, SECC/Comcast and the LRCCD DO-IT Department. CENIC internet connections bandwidth was increased from 1Gbps each to 10Gbps (only one pathway is active at a time) and LRCCD will complete main campus WAN connectivity from single 1Gbps pathway to multiple 10Gbps pathways.

LRCCD upgraded the emergency mass notification system to alert students and employees for emergencies (such as disasters, shelter in place, campus closures, etc.) by sending text messages, email messages or calling a mobile phone. The system has improved features, ease of use, and aligns with technological advances for future options. It is now easier to post to social media sites, and digital signage.

The system can provide information to the majority of students and employees. The annual maintenance fees are funding by LRCCD.

LRCCD District police have trained over 550 employees in the SEMS/NIMS program. This training is open to all employees and students but is mandatory for all employees who are an Emergency Operations Command member. The emergency operation plan is being updated to be more streamline and training will be provided to all team members.

## **J.7 Mitigation Strategy**

### **J.7.1. Mitigation Goals and Objectives**

The LRCCD adopts the hazard mitigation goals and objectives developed by the HMPC and described in Chapter 5 Mitigation Strategy.

### **J.7.2. Mitigation Actions**

The planning team for the LRCCD identified and prioritized the following mitigation actions based on the risk assessment. Background information and information on how each action will be implemented and administered, such as ideas for implementation, responsible office, potential funding, estimated cost, and timeline are also included. The following hazards were considered a priority for purposes of mitigation action planning:

- Floods: Localized Stormwater
- Pandemic
- Severe Weather: Heavy Rains and Storms

It should be noted that many of the projects submitted by each jurisdiction in Table 5-4 in the Base Plan benefit all jurisdictions whether or not they are the lead agency. Further, many of these mitigation efforts are collaborative efforts among multiple local, state, and federal agencies. In addition, the countywide public outreach action, as well as many of the emergency services actions, apply to all hazards regardless

of hazard priority. Collectively, this multi-jurisdictional mitigation strategy includes only those actions and projects which reflect the actual priorities and capacity of each jurisdiction to implement over the next 5-years covered by this plan. It should further be noted, that although a jurisdiction may not have specific projects identified for each priority hazard for the five year coverage of this planning process, each jurisdiction has focused on identifying those projects which are realistic and reasonable for them to implement and would like to preserve their hazard priorities should future projects be identified where the implementing jurisdiction has the future capacity to implement.

### ***Multi-Hazard Actions***

#### ***Action 1. Pandemic Response Plan***

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**Hazards Addressed:** Pandemic

**Goals Addressed:** 1, 2, 3, 4, 5

**Issue/Background:** COVID-19 global pandemic and subsequent shutdown causing LRCCD college campuses to go 100% remote and conversion to online courses in March 2020, continuing through Fall semester 2021.

**Project Description:** Develop a Pandemic Response Plan districtwide to provide direction and outline decision making strategies to ensure the health and safety of our students and employees.

**Other Alternatives:** N/A

**Existing Planning Mechanism(s) through which Action Will Be Implemented:** Work with consultant to update and implement at each campus operations department.

**Responsible Office/Partners:** Health Services lead

**Cost Estimate:** \$50,000

**Benefits (Losses Avoided):** Implement plan effectively to protect health and safety of students and employees. Maximize continuity of student classes and services.

**Potential Funding:** HEERF Funding or District General Funds

**Timeline:** 6 months

**Project Priority:** High

#### ***Action 2. Emergency Operations Plan Update***

---

**Hazards Addressed:** Multi-Hazard (Floods: Localized Stormwater, Pandemic, Severe Weather: Heavy Rains and Storms)

**Goals Addressed:** 1, 2, 3, 4, 5

**Issue/Background:** LRCCD has an outdated Emergency Operations Plan

**Project Description:** Hire consultant to update the Emergency Operations Plan. Update and revise districtwide to include all college locations to be in compliance with Federal governance, prepare guidance 101. Goal to provide clarity and consistency across the District.

**Other Alternatives:** No action

**Existing Planning Mechanism(s) through which Action Will Be Implemented:** Working with Police Services and Campus Operations to implement and schedule training.

**Responsible Office/Partners:** Los Rios Police Department led project

**Cost Estimate:** \$50,000

**Benefits (Losses Avoided):** Be prepared for quick reaction time to open the Emergency Operation Center to react to any hazard to protect students and employees, and maintain business operations.

**Potential Funding:** General Funds

**Timeline:** 6 months

**Project Priority:** High

***Action 3. COVID-19 Education/Information Program***

---

**Hazards Addressed:** Pandemic Response

**Goals Addressed:** 1, 2, 3, 4, 5

**Issue/Background:** Global pandemic keeping up with the changes by CDC, vaccination education, on-campus safety protocols, when to stay home, and staying healthy.

**Project Description:** Create an Education Program for students and employees for on-campus activities, to include safety protocols, vaccination education, response to symptoms, and protecting the community. Disseminate information effectively and efficiently to all district constituents (students, faculty, staff). This includes a COVID education campaign, marketing tools, social media production, website resources.

**Other Alternatives:** No action

**Existing Planning Mechanism(s) through which Action Will Be Implemented:** Working through staff development and campus health services

**Responsible Office/Partners:** Health Services and Public Information Office

**Cost Estimate:** \$100,000



**Benefits (Losses Avoided):** Reduced risk from pandemic.

**Potential Funding:** HEERF (Higher Education Emergency Relief Fund)

**Timeline:** 6 months

**Project Priority:** High

**Action 4.** *Installing a Microgrid Project, at the Folsom Lake College, El Dorado Center (EDC) in Placerville, CA*

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**Hazards Addressed:** Severe Weather: Floods, Wind and Tornado, Wildfire Mitigation, Climate Change

**Goals Addressed:** 1, 2, 3, 4, 5

**Issue/Background:** EDC is the only Los Rios Community College site, which is subject to PG&E's Public Safety Power Shutoffs (PSPS), which occurred approximately five days in 2019 resulting in the campus being closed.

**Note:** Because EDC also provide electrical power to the adjacent community garden and observatory, power outages at our location have community implications as well.

**Project Description:** The Microgrid Project, in conjunction with the Solar Carport Project, would allow the campus to remain open during future PSPS events, which will continue for the foreseeable future. The Microgrid plan is to install a solar covered car port, battery storage system, and a propane powered generator all working together, such that when PG&E activates a PSPS event, EDC will remain open and operational for several days without being affected. This is referred to as islanding, and would allow EDC to be isolated from PG&E's PSPS. This Microgrid system will provide grid resiliency, lower utility cost over time, and reduce GHG emission, while increasing our renewable energy generation capacity, as well, as moving the campus closer to Zero Net Energy.

**Other Alternatives:** Solar project only, without battery storage and emergency generator. This option would not provide campus resilience.

**Existing Planning Mechanism(s) through which Action Will Be Implemented:** Assess and implement plan to create electrical grid resiliency, GHG mitigation, and increase renewable energy generation.

**Responsible Office/Partners:** Los Rios Community College District-Facilities Maintenance

**Cost Estimate:** Currently, our portion of the unfunded cost is estimated at \$600,000

**Benefits (Losses Avoided):** This Microgrid project will create resiliency, because of the ability to isolate from the electric utility grid during power outages (Island mode), thus keeping the campus operational during PSPS events. This project will also keep students in class, avoid possible state funding losses, and create resiliency for the campus and the surrounding community.

**Potential Funding:** The majority of the project will be funded through utility rates, the remaining funding for unexpected cost listed above is TBD.

**Timeline:** November 2021

**Project Priority:** High

***Action 5. Backup Power for Police Dispatch***

---

**Hazards Addressed:** All Hazards

**Goals Addressed:** 1, 2, 3, 4, 5

**Issue/Background:** Lack of backup power for a critical service

**Project Description:** Install Uninterrupted Power Supply (UPS) portable units for Los Rios Police Dispatch computers, provide backup power in case of power outage for short term use.

**Other Alternatives:** No action

**Existing Planning Mechanism(s) through which Action Will Be Implemented:** Police department working with IT to find a solution for implementation.

**Responsible Office/Partners:** Information Technology (IT Dept)

**Cost Estimate:** \$15,000

**Benefits (Losses Avoided):** Delay in response to emergency situations

**Potential Funding:** General funds

**Timeline:** 6 months

**Project Priority:** High

***Action 6. Tree Mitigation – Districtwide***

---

**Hazards Addressed:** Floods, Severe Weather: Heavy Rains and Storms, Severe Weather: Winds and Tornados, Climate Change

**Goals Addressed:** 1, 2, 3, 4, 5

**Issue/Background:** History of large fallen trees uprooted during severe weather events, some that have caused building or property damage (roof, gutters, fencing, concrete work).

**Project Description:** Mitigate future damages to buildings and property when trees fall. Check and monitor the health of existing trees (age, disease, insect damage) and assess location, type, size of future trees prior to planting. Ongoing pruning of limbs, proper maintenance of all trees.

**Other Alternatives:** No action.

**Existing Planning Mechanism(s) through which Action Will Be Implemented:** Facilities management to review, hire contractor, and add to maintenance schedule.

**Responsible Office/Partners:** Los Rios Community College District-Facilities Maintenance

**Cost Estimate:** \$150,000

**Benefits (Losses Avoided):** Minimize potential damage districtwide

**Potential Funding:** General funds

**Timeline:** Ongoing

**Project Priority:** Medium