Western Riverside Council of Governments
WRCOG Executive Committee

AGENDA

Monday, December 5, 2022
2:00 PM

Western Riverside Council of Governments
County of Riverside Administrative Center
4080 Lemon Street, 1st Floor, Board Chambers
Riverside, CA 92501

Join Zoom Meeting
Meeting ID: 858 0593 8303
Passcode: 550593
Dial in: (669) 900 9128 U.S.

SPECIAL NOTICE – COVID-19 RELATED PROCEDURES IN EFFECT

Due to the State or local recommendations for social distancing resulting from the threat of Novel Coronavirus (COVID-19), this meeting is being held via Zoom under Assembly Bill (AB) 361 (Government Code Section 54953). Pursuant to AB 361, WRCOG does not need to make a physical location available for members of the public to observe a public meeting and offer public comment. AB 361 allows WRCOG to hold Committee meetings via teleconferencing or other electronic means and allows for members of the public to observe and address the committee telephonically or electronically.

In addition to commenting at the Committee meeting, members of the public may also submit written comments before or during the meeting, prior to the close of public comment to jleonard@wrcog.us.

Any member of the public requiring a reasonable accommodation to participate in this meeting in light of this announcement shall contact Janis Leonard 72 hours prior to the meeting at (951) 405-6702 or jleonard@wrcog.us. Later requests will be accommodated to the extent feasible.

The Committee may take any action on any item listed on the agenda, regardless of the Requested Action.

1. **CALL TO ORDER (Crystal Ruiz, Chair)**

2. **PLEDGE OF ALLEGIANCE**

3. **ROLL CALL**

4. PUBLIC COMMENTS

At this time members of the public can address the Committee regarding any items within the subject matter jurisdiction of the Committee that are not separately listed on this agenda. Members of the public will have an opportunity to speak on agendized items at the time the item is called for discussion. No action may be taken on items not listed on the agenda unless authorized by law. Whenever possible, lengthy testimony should be presented to the Committee in writing and only pertinent points presented orally.

5. CONSENT CALENDAR

All items listed under the Consent Calendar are considered to be routine and may be enacted by one motion. Prior to the motion to consider any action by the Committee, any public comments on any of the Consent Items will be heard. There will be no separate action unless members of the Committee request specific items be removed from the Consent Calendar.

A. Assembly Bill 361 Findings

Requested Action(s):

1. Affirm the findings of the Executive Committee in Resolution Number 01-22, adopted on April 4, 2022, which are:
    a. The Governor proclaimed a State of Emergency on March 4, 2020, related to the COVID-19 pandemic, which State of Emergency continues to exist today; and
    b. State or local officials have recommended measures to promote social distancing.

B. Summary Minutes from the November 7, 2022, Executive Committee Meeting

Requested Action(s):

1. Approve the Summary Minutes from the November 7, 2022, Executive Committee meeting.

C. Finance Department Activities Update

Requested Action(s):

1. Receive and file.

D. WRCOG Committees and Agency Activities Update

Requested Action(s):

1. Receive and file.

E. Cal Cities Activities Update

Requested Action(s):

1. Receive and file.

F. Approval of One TUMF Reimbursement Agreement Amendment and One TUMF Reimbursement Agreement

Requested Action(s):

1. Authorize the Executive Director to execute a TUMF Reimbursement Agreement Amendment with the City of Eastvale for the Planning, Engineering, and Construction Phases of the Limonite Avenue Bridge and Extension Project in an amount not to exceed $5,145,077.
2. Authorize the Executive Director to execute a TUMF Reimbursement Agreement with the City of Lake Elsinore for the Engineering Phase of the I-15/Franklin Interchange Project in an amount not to exceed

$6,000,000.

G. Approval of West Virginia University Fleet Maintenance Cost Study Subcontract Amendment No. 1

Requested Action(s):

1. Authorize Executive Director to execute Amendment No.1 to the Vocation Integrated Cost Estimation for Maintenance and Repair of Alternative Fuel Vehicles (VoiCE-MR), extending the project period of performance and increasing the funding amount to WRCOG.

H. Approval of a Professional Services Agreement with the Riverside County Flood Control and Water Conservation District for the Pollution Prevention Initiative

Requested Action(s):

1. Authorize the Executive Director to execute a Professional Services Agreement, substantially as to form, with the Riverside County Flood Control and Water Conservation District.

I. Appointment of WRCOG Representatives to Various Outside Committees

Requested Action(s):

1. Appoint Council member Brian Tisdale as the primary representative, and Mayor Chris Barajas as the alternate representative, to the California Association of Councils of Governments for a term commencing January 1, 2023, and ending December 31, 2024.
2. Appoint Council member Linda Krupa and Mayor Greg Newton as the two primary representatives, and Mayor Chris Barajas and Mayor Pro Tem Joseph Morabito as the two alternate representatives, to the Riverside County Solid Waste Advisory Council / Local Task Force for a term commencing January 1, 2023, and ending December 31, 2024.
3. Appoint Council member Ted Hoffman as the representative to the Santa Ana Watershed Project Authority's One Water One Watershed Steering Committee for a term commencing January 1, 2023, and ending December 31, 2024.
4. Appoint Mayor Crystal Ruiz and the primary representative, and Mayor Pro Tem Colleen Wallace as the alternate representative, to the San Diego Association of Governments' Borders Committee for a term commencing January 1, 2023, and ending December 31, 2024.
5. Appoint the following representatives to SCAG Policy Committees for a term commencing January 1, 2023, and ending December 31, 2024:
    i. Linda Krupa (Hemet) Transportation Committee
    ii. Crystal Ruiz (San Jacinto) Transportation Committee
    iii. Wes Speake (Corona) Transportation Committee
    iv. Colleen Wallace (Banning) Transportation Committee

v. Joseph Morabito (Wildomar) CEHD Committee

6. REPORTS / DISCUSSION

Members of the public will have an opportunity to speak on agendized items at the time the item is called for discussion.

A. Western Riverside County Energy Resilience Plan

Requested Action(s):

1. Approve the Western Riverside County Energy Resilience Plan.
2. Direct staff to pursue funding opportunities to advance the identified projects further along in the design process and conduct energy resilience planning activities.

B. Fiscal Year 2022/2023 Q1 Financial Update

Requested Action(s):

1. Approve an amendment to the adopted WRCOG 2022/2023 Fiscal Year Budget to increase revenues by $10M and to distribute the revenues per the Beaumont Settlement Agreement and increase of legal costs to $1.4 M associated with the Beaumont litigation.
2. Approve an amendment to the adopted WRCOG 2022/2023 Fiscal Year Budget to increase revenues in LTF by $72,500.
3. Approve the addition of two positions to the adopted WRCOG 2022/2023 Fiscal Year Budget - a Staff Analyst position in the Transportation & Planning Department (TUMF Program) and a Staff Analyst position in the Energy Department (I-REN Program).

7. REPORT FROM THE TECHNICAL ADVISORY COMMITTEE CHAIR

Rob Johnson, City of San Jacinto

8. REPORT FROM COMMITTEE REPRESENTATIVES

CALCOG, Brian Tisdale
SANDAG Borders Committee, Crystal Ruiz
SAWPA OWOW Committee, Ted Hoffman
SCAQMD, Ben Benoit
SCAG Regional Council and Policy Committee Representatives

9. REPORT FROM THE EXECUTIVE COMMITTEE CHAIR

Crystal Ruiz, City of San Jacinto

10. REPORT FROM THE EXECUTIVE DIRECTOR

Dr. Kurt Wilson

11. ITEMS FOR FUTURE AGENDAS

Members are invited to suggest additional items to be brought forward for discussion at future Committee meetings.

12. GENERAL ANNOUNCEMENTS

Members are invited to announce items / activities which may be of general interest to the Committee.

13. NEXT MEETING

The Executive Committee is dark during the month of January. The next Executive Committee

meeting is scheduled for Monday, February 6, 2023, at 2:00 p.m., in the County of Riverside Administrative Center, 4080 Lemon Street, 1st Floor, Board Chambers, Riverside.

14. CLOSED SESSION
CONFERENCE WITH LABOR NEGOTIATORS

Agency designated representative: Executive Director
Unrepresented employees: All agency employees

15. ADJOURNMENT

Western Riverside Council of Governments
WRCOG Executive Committee

Staff Report

Subject: **Assembly Bill 361 Findings**

Contact: **Dr. Kurt Wilson, Executive Director, kwilson@wrcog.us, (951) 405-6701**

Date: **December 5, 2022**

Requested Action(s):

1. Affirm the findings of the Executive Committee in Resolution Number 01-22, adopted on April 4, 2022, which are:
    a. The Governor proclaimed a State of Emergency on March 4, 2020, related to the COVID-19 pandemic, which State of Emergency continues to exist today; and
    b. State or local officials have recommended measures to promote social distancing.

Purpose:

The purpose of this item is to authorize virtual Committee meetings pursuant to Assembly Bill 361.

WRCOG 2022-2027 Strategic Plan Goal:

Goal #4 - Communicate proactively about the role and activities of the Council of Governments and its members.

Background:

Since the onset of the COVID-19 in early 2020, California government agencies have been able to continue to discharge their legal responsibilities through the use of virtual teleconferencing platforms such as Zoom to hold public meetings that enabled agencies to meet and conduct business, comply with social distancing orders, and most importantly, provide access to the public. WRCOG has been meeting on Zoom since March of 2020, when many Executive Orders were issued by Governor Newsom in response to the pandemic. One such order altered Brown Act requirements to allow for virtual meetings.

Although transmission, hospitalization, and death rates from COVID-19 have sharply declined since the original onset of the pandemic and subsequent Delta and Omicron Variant surges, an air of uncertainty remains regarding the pandemic and many counties continue to recommend masking inside and social distancing. Given that environment and a desire to continue allowing for the flexibility of holding virtual meetings, the Legislature recently approved, and Governor Newsom signed, Assembly Bill 361 (AB 361) to temporarily allow for virtual meetings under proscribed circumstances.

AB 361 amends the Brown Act to allow local legislative bodies to continue using teleconferencing and virtual meeting technology in certain circumstances. Under the Bill, legislative bodies can continue to meet remotely as long as there is a "proclaimed state of emergency" and the Executive Committee can make either of the following findings: (a) state or local officials have imposed or recommended measures

to promote social distancing, or (b) whether as a result of the emergency, meeting in person would present imminent risks to the health or safety of attendees. Even though cases have dropped, AB 361 is expressly intended "to protect the health and safety of civil servants and the public and does not preference the experience of members of the public who might be able to attend a meeting in a physical location over members of the public who cannot travel or attend that meeting in a physical location" because of physical status.

The Governor proclaimed a State of Emergency on March 4, 2020, related to the COVID-19 pandemic, which continues to exist to this day.

AB 361 requires specific procedural safeguards for the public. To accommodate individuals during these teleconferences and virtual meetings, a public comment period will be offered where the public can address the legislative body directly in real time. Additionally, public comments will be allowed up until the public comment period is closed at the meetings. The agenda will include information on the manner in which the public may access the meeting and provide comments remotely. If technical problems arise that result in the public's access being disrupted, the legislative body will not take any vote or other official action until the technical disruption is corrected and public access is restored.

The attached Resolution allows the Executive Committee to implement AB 361 by making the findings discussed above. These findings will be in effect for 30 days or until the Executive Committee makes findings that the conditions listed therein no longer exist, whichever is shorter. The findings can be extended by the Executive Committee upon a finding that conditions supporting the findings included in the Resolution still exist. The authorization to meet remotely will also apply to any Committees that meet during the 30-day effective period.

AB 361 will allow for virtual meetings during other state-proclaimed emergencies, such as earthquakes or wildfires, where physical attendance may present a risk. AB 361 is scheduled to sunset January 1, 2024.

Prior Action(s):

November 7, 2022: The Executive Committee affirmed the findings of the Executive Committee in Resolution Number 01-22, adopted on April 4, 2022, which are: 1) the Governor proclaimed a State of Emergency on March 4, 2020, related to the COVID-19 pandemic, which State of Emergency continues to exist today; and 2) State or local officials have recommended measures to promote social distancing.

October 3, 2022: The Executive Committee affirmed the findings of the Executive Committee in Resolution Number 01-22, adopted on April 4, 2022, which are: 1) the Governor proclaimed a State of Emergency on March 4, 2020, related to the COVID-19 pandemic, which State of Emergency continues to exist today; and 2) State or local officials have recommended measures to promote social distancing.

September 12, 2022: The Executive Committee affirmed the findings of the Executive Committee in Resolution Number 01-22, adopted on April 4, 2022, which are: 1) the Governor proclaimed a State of Emergency on March 4, 2020, related to the COVID-19 pandemic, which State of Emergency continues to exist today; and 2) State or local officials have recommended measures to promote social distancing.

August 1, 2022: The Executive Committee affirmed the findings of the Executive Committee in Resolution Number 01-22, adopted on April 4, 2022, which are: 1) the Governor proclaimed a State of

Emergency on March 4, 2020, related to the COVID-19 pandemic, which State of Emergency continues to exist today; and 2) State or local officials have recommended measures to promote social distancing.

April 4, 2022: The Executive Committee adopted Resolution Number 01-22; A Resolution of the Executive Committee of the Western Riverside Council of Governments Authorizing Virtual Committee Meetings Pursuant to AB 361.

Fiscal Impact:
This item is for informational purposes only; therefore, there is no fiscal impact.

Attachment(s):
Attachment 1 - Resolution Number 01-22: AB 361 findings

Western Riverside Council of Governments

County of Riverside • City of Banning • City of Beaumont • City of Calimesa • City of Canyon Lake • City of Corona • City of Eastvale
City of Hemet • City of Jurupa Valley • City of Lake Elsinore • City of Menifee • City of Moreno Valley • City of Murrieta • City of Norco
City of Perris • City of Riverside • City of San Jacinto • City of Temecula • City of Wildomar • Eastern Municipal Water District
Western Municipal Water District • Riverside County Superintendent of Schools

RESOLUTION NUMBER 01-22

A RESOLUTION OF THE EXECUTIVE COMMITTEE OF THE WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS AUTHORIZING VIRTUAL COMMITTEE MEETINGS PURSUANT TO AB 361

WHEREAS, the Western Riverside Council of Governments ("WRCOG") is committed to preserving and nurturing public access and participation in meetings of the Executive Committee, Administration & Finance Committee, Technical Advisory Committee, Planning Directors Committee, Public Works Committee, Finance Directors Committee, and the Solid Waste Committee; and

WHEREAS, all meetings of WRCOG's legislative bodies, including its Executive Committee, Administration & Finance Committee, Technical Advisory Committee, Planning Directors Committee, Public Works Committee, Finance Directors Committee, and the Solid Waste Committee, are open and public, as required by the Ralph M. Brown Act (Cal. Gov. Code 54950 – 54963), so that any member of the public may attend and participate in WRCOG's meetings; and

WHEREAS, starting in March 2020, in response to the spread of COVID-19 in the State of California, the Governor issued a number of executive orders aimed at containing the COVID-19 virus; and

WHEREAS, among other things, these orders waived certain requirements of the Brown Act to allow legislative bodies to meet virtually; and

WHEREAS, pursuant to the Governor's executive orders, WRCOG has been holding virtual meetings during the pandemic in the interest of protecting the health and safety of the public, WRCOG staff, and WRCOG's Committee members; and

WHEREAS, the Governor's executive order related to the suspension of certain provisions of the Brown Act expired on September 30, 2021; and

WHEREAS, on September 16, 2021, the Governor signed AB 361 (in effect as of October 1, 2021 – Government Code Section 54953(e)), which allows legislative bodies to meet virtually provided there is a state of emergency, and either (1) state or local officials have imposed or recommended measures to promote social distancing; or (2) the legislative body determines by majority vote that meeting in person would present imminent risks to the health and safety of attendees; and

WHEREAS, such conditions now exist in WRCOG, specifically, a state of emergency has been proclaimed related to COVID-19 and state or local officials are recommending measures to promote social distancing.

NOW THEREFORE, BE IT RESOLVED by the Executive Committee of the Western Riverside Council of Governments as follows:

Section 1. Recitals. The Recitals set forth above are true and correct and are incorporated into this Resolution by this reference.

Section 2. Findings. Consistent with the provisions of Government Code Section 54953(e), the Executive Committee finds and determines that (1) a state of emergency related to COVID-19 is currently in effect and (2) state or local officials have recommended measures to promote social distancing in connection with COVID-19.

Section 3. Remote Teleconference Meetings. Based on the findings and determinations included herein, the Executive Committee authorizes and directs any of its legislative bodies, including, without limitation, its Executive Committee, Administration & Finance Committee, Technical Advisory Committee, Planning Directors Committee, Public Works Committee, Finance Directors Committee, and Solid Waste Committee, to conduct remote teleconference meetings under the provisions of Government Code Section 54953(e) and that such bodies shall provide public access to their meetings as provided in Section 54953(e).

Section 4. Effective Date of Resolution. This Resolution shall take effect upon adoption and shall be effective for 30 days unless extended by a majority vote of the Executive Committee in accordance with Section 5 of this Resolution.

Section 5. Extension by Motion; Supersede. The Executive Committee may extend the application of this Resolution by motion and majority vote by up to 30 days at a time, provided that it makes all necessary findings consistent with and pursuant to the requirements of Section 54953(e)(3). Any such extension may be made before or after the expiration of the preceding 30-day period. This Resolution supersedes Resolution Number 26-21.

Section 6. Full and Fair Access. In making the findings included herein, the Executive Committee specifically relies on Section 8(b) of Statutes 2021, c.165 (AB 361, § 3, effective September 16, 2021) which provides as follows:

> (b) The Legislature finds and declares that [the changes made by AB 361 to] Section 54953 of the Government Code, all increase and potentially limit the public's right of access to the meetings of public bodies or the writings of public officials and agencies within the meaning of Section 3 of Article I of the California Constitution. Pursuant to that constitutional provision, the Legislature makes the following findings to demonstrate the interest protected by this limitation and the need for protecting that interest:
>
> (1) By removing the requirement that public meetings be conducted at a primary physical location with a quorum of members present, this act protects the health and safety of civil servants and the public and does not preference the experience of members of the public who might be able to attend a meeting in a physical location over members of the public who cannot travel or attend that meeting in a physical location.

(2) By removing the requirement for agendas to be placed at the location of each public official participating in a public meeting remotely, including from the member's private home or hotel room, this act protects the personal, private information of public officials and their families while preserving the public's right to access information concerning the conduct of the people's business.

PASSED AND ADOPTED by the Executive Committee of the Western Riverside Council of Governments on April 4, 2022.

Karen S. Spiegel

Karen Spiegel, Chair
WRCOG Executive Committee

Dr. Kurt Wilson, Secretary
WRCOG Executive Committee

Approved as to form:

Steven DeBaun
WRCOG Legal Counsel

AYES: 22 NAYS: Ø ABSENT: 2 ABSTAIN: Ø

WRCOG Executive Committee

Minutes

1. CALL TO ORDER

The meeting of the WRCOG Executive Committee was called to order by Chair Crystal Ruiz at 2:04 p.m. on November 7, 2022, at the Riverside County Administrative Center, 4080 Lemon Street, 1st Floor Board Chambers, Riverside.

2. PLEDGE OF ALLEGIANCE

Committee member Ben Benoit led the Committee members and guests in the Pledge of Allegiance.

3. ROLL CALL

- City of Banning - David Happe
- City of Beaumont - Mike Lara
- City of Calimesa - Wendy Hewitt
- City of Canyon Lake - Dale Welty
- City of Corona - Jacque Casillas
- City of Eastvale - Christian Dinco
- City of Hemet - Russ Brown
- City of Jurupa Valley - Chris Barajas
- City of Lake Elsinore - Brian Tisdale
- City of Menifee - Matt Liesemeyer
- City of Moreno Valley - Edward Delgado
- City of Murrieta - Lori Stone
- City of Norco - Kevin Bash
- City of Perris - Rita Rogers
- City of San Jacinto - Crystal Ruiz (Chair)
- City of Temecula - James Stewart
- City of Wildomar - Ben Benoit
- County, District 1 - Kevin Jeffries
- County, District 2 - Karen Spiegel
- County, District 5 - Jeff Hewitt
- Eastern Municipal Water District (EMWD) - Phil Paule
- Western Municipal Water District (WMWD) - Brenda Dennstedt
- WRCOG Executive Director - Dr. Kurt Wilson

4. PUBLIC COMMENTS

Arnold San Miguel, SCAG, announced that the Regional Council approved the REAP 2.0 CTC Guidelines, the CTC Partnership Program Call for Projects, and the REAP 2.0 Path Program.

Commotion L.A. is taking place November 15 - 17, 2022. SCAG released a Notice of Preparation for the draft EIR for Connect SoCal 2024. SCAG will host its 13th edition of its celebrated Southern California Economic Summit on December 1, 2022, in downtown Los Angeles at the Sheraton Grand. This year's theme is "Resourcing the Region."

5. CONSENT CALENDAR

RESULT: APPROVED AS RECOMMENDED
MOVER: District 5
SECONDER: Wildomar
AYES: Banning, Beaumont, Calimesa, Canyon Lake, Corona, Eastvale, Hemet, Jurupa Valley, Lake Elsinore, Menifee, Moreno Valley, Murrieta, Norco, Perris, San Jacinto, Temecula, Wildomar, District 1, District 2, District 5, EMWD, WMWD

A. Assembly Bill 361 Findings

Item 5.A was pulled for discussion by Committee member Mike Lara who suggested not approving this item for future meetings as a means to complete in-person meetings.

Dr. Kurt Wilson, WRCOG Executive Director, responded that with respect to AB 361, there will be a limit on how much longer AB 361 can be used. New legislation, AB 2449, provides for a complicated set of rules in which remote meetings will still be able to be held. WRCOG legal counsel will be providing a presentation at the February Executive Committee meeting to explain AB 2449 in detail.

Haviva Shane, WRCOG legal counsel, indicated that AB 361 is contingent upon the State of Emergency being declared by the Governor, which is set to expire at the end of February 2023. The ability to hold a hybrid meeting will require a quorum of members physically present in one location.

Action:
1. Affirmed the findings of the Executive Committee in Resolution Number 01-22, adopted on April 4, 2022, which are:
    a. The Governor proclaimed a State of Emergency on March 4, 2020, related to the COVID-19 pandemic, which State of Emergency continues to exist today; and
    b. State or local officials have recommended measures to promote social distancing.

B. Summary Minutes from the October 3, 2022, Executive Committee Meeting

Action:
1. Approved the Summary Minutes from the October 3, 2022, Executive Committee meeting.

C. Finance Department Activities Update

Action:
1. Received and filed.

D. WRCOG Committees and Agency Activities Update

Action:

1. Received and filed.

E. Report out of WRCOG Representatives on Various Committees

Action:
1. Received and filed.

F. Regional Streetlight Program Activities update

Action:
1. Approved Amendment No. 2 to the Amended & Restated Professional Services Agreement and Amendment No. 2 to Appendices 1 - 5, 7 - 9, and 11 to the Amended & Restated Professional Services Agreement between WRCOG, Yunex, LLC, and the Member Agency to extend the Agreement one year to December 1, 2023, for streetlight retrofit, operation and maintenance services.

G. PACE Programs: Adoption of Resolution to Escheat Unclaimed Funds to the State of California

Action:
1. Adopted Resolution Number 25-22; A Resolution of the Executive Committee of the Western Riverside Council of Governments to Escheat Unclaimed Funds to the State of California.

H. Approval of Executive Committee and General Assembly Meeting Schedule for 2023

Action:
1. Approved the schedule of Executive Committee and General Assembly meetings for 2023.

I. Approval of Two TUMF Reimbursement Agreement Amendments

Actions:
1. Authorized the Executive Director to execute Amendment Number 2 to a TUMF Reimbursement Agreement with the City of Menifee for the Construction Phase of the Holland Roadway Widening and Holland Road / I-215 Overpass Project from $8,255,000 to $10,255,000.
2. Authorized the Executive Director to execute Amendment Number 3 to a TUMF Reimbursement Agreement with the City of San Jacinto for the Construction Phase of the Esplanade Avenue Widening Project for an amount not to exceed $5,630,000.

J. Approval of Revised 2022 TUMF Central Zone 5-Year Transportation Improvement Program

Action:
1. Approved the Revised 2022 TUMF Central Zone 5-Year Transportation Improvement Program.

6. REPORTS / DISCUSSION

A. Cal Cities Activities Update

Erin Sasse, Regional Public Affairs Manager, Cal Cities, reported that a webinar is scheduled for

Monday, November 14, 2022, on all of the end of session activities. There are some funding bills that are positive for the cities: AB 1742, AB 1789. Riverside County will be one of the first to implement SB 1338. Cal Cities sponsored AB 1985. There is $180M available to help local governments implement SB 1383. Cal Cities supported AB 2142. AB 1711 was vetoed; Cal Cities opposed this bill. AB 2449 was signed into law. Cal Cities supported AB 2647, which was signed into law. Cal Cities opposed SB 284, which was vetoed by the Governor. Cal Cities opposed AB 2011, which was signed into law. Cal Cities opposed SB 897, which was signed into law.

The City of Riverside is hosting the November 14, 2022, Division meeting.

Action:

1. Received and filed.

B. Commercial PACE Activities Update

Casey Dailey, WRCOG Director of Energy & Environmental Programs, reported that WRCOG has two partners in the Commercial PACE (C-PACE) Program - Nuveen Green Capital (formerly Greenworks Lending) and Twain Financial Partners Holding.

In Fiscal Year (FY) 2020/2021, the WRCOG C-PACE Program financed 11 projects for a total amount of $79M, and includes two local projects in the Cities of Corona and Murrieta. In FY 2021/2022, 11 C-PACE projects were completed, totaling $68M, and includes two local projects in the City of Temecula. WRCOG subregional projects total $12M.

Staff continue to receive interest and inquiries on WRCOG C-PACE expansion opportunities from existing C-PACE providers and financial institutions, like JP Morgan and others. C-PACE is offered in 37 states throughout the country.

Committee member Dale Welty requested a follow-up discussion to discuss the merits of expanding the C-PACE Program.

Committee member Wendy Hewitt asked who or which Committee(s) approved the projects.

Mr. Dailey responded that WRCOG is the bond issuer, and approval of projects and issuance of PACE bonds is within the administrative authority that has been granted as part of the PACE Program.

Action:

1. Received and filed.

C. Housing Activities Update

Chris Gray, WRCOG Deputy Executive Director, reported that "housing" specifically is not a part of WRCOG's Strategic Plan. However, the State passes many housing-related bills, therefore, there are two goals within WRCOG's Strategic Plan to address serving as an advocate at the regional, state, and federal level, and identifying and helping to secure grants and other funding opportunities for its member agencies.

Riverside County has grown by 60% over the past 20 years. The number of housing units permitted has averaged 5,000 to 6,000 over the past five years. However, the pace of new home construction has not kept pace with population growth. Recognizing the need to add housing on a statewide level, over $500M has been allocated to cities and counites in California to assist with planning activities. WRCOG received $1.8M through SCAG's REAP Subregional Partnership Program.

WRCOG is currently providing direct assistance to five WRCOG member agencies and has pending agreements with three additional agencies to directly support planning efforts related to housing. Other key activities include the development of template Objective Design Standards and also the preparation of an Affordable Housing Pipeline map and list.

WRCOG continues to look for opportunities to secure additional funding for the region.

Action:

1. Received and filed.

7. REPORT FROM THE TECHNICAL ADVISORY COMMITTEE CHAIR

Technical Advisory Committee (TAC) Chair Rob Johnson was unable to attend the meeting.

8. REPORT FROM COMMITTEE REPRESENTATIVES

Committee member Brian Tisdale, CALCOG representative, reported that CALCOG has not met since his last report. The next meeting is scheduled for November 27, 2022.

Chair Crystal Ruiz, SANDAG Borders Committee representative, reported that SANDAG was awarded $150M for the Otay Mesa Border Crossing Project.

Committee member Ted Hoffman, SAWPA OWOW representative, reported that OWOW has not met since his last report. The next meeting is scheduled for November 17, 2022. Normal rainfall in this area is between 12" and 15" per year; however, there has not been much rainfall. Scientists are predicting a La Nina for the next year, meaning drought conditions will continue or worsen. The City of Lake Elsinore received Proposition 1 funding for its work on algae blooms in Lake Elsinore. The Prado Basin Right-of-Way Clearing Program has begun, which will clear roads to make the brine lines accessible. The Santa Ana Sucker Conservation Team completed a river walk to conduct a survey on the Santa Ana Sucker Fish.

Committee member Ben Benoit, South Coast AQMD representative for cities in Riverside County, reported that the goals of the 2008 Ozone Standard in the Coachella Valley were not reached due to the Environmental Protection Agency updating its numbers for diesel trucks. Formulas for adhesives and sealants are being scaled back due to volatile organic compounds. Particulate matter coming off recycling facilities is an issue in the Los Angeles area is being addressed. The Air Quality Management Plan will be released in December.

9. REPORT FROM THE EXECUTIVE COMMITTEE CHAIR

Chair Ruiz announced that tomorrow is election day, and wished several Committee members good luck.

10. REPORT FROM THE EXECUTIVE DIRECTOR

Dr. Kurt Wilson reported that the bulk of his update can be found in the Agenda packet. Dr. Wilson thanks Committee members Brenda Dennstedt and Phil Paule for allowing him to participate in the Colorado River tour, and wished Committee members a Happy Thanksgiving.

11. ITEMS FOR FUTURE AGENDAS

Committee member Dale Welty indicated that during the PACE presentation, staff asked for a determination on moving forward with a Commercial PACE Program, and asked if a subcommittee can address that.

12. GENERAL ANNOUNCEMENTS

Committee member Matt Liesemeyer inquired about the ability to view the agenda packets from the dais.

13. NEXT MEETING

The next Executive Committee meeting is scheduled for Monday, December 5, 2022, at 2:00 p.m., in the Riverside County Administrative Center, 4080 Lemon Street, 1st Floor Board Chambers, Riverside.

14. CLOSED SESSION

Haviva Shane, WRCOG Legal Counsel, announced that there are two Closed Session items as listed on the agenda.

CONFERENCE WITH LEGAL COUNSEL - EXISTING LITIGATION pursuant to Section 54956.9(d)(1): One case

1. Western Riverside Council of Governments v. National Union Fire Insurance Company of Pittsburgh, PA, U.S. District Court, C.D. Cal., Case No. 5:20-cv-02164-GW (KKx)

PUBLIC EMPLOYEE PERFORMANCE EVALUATION

Title: Executive Director

There were no reportable actions.

15. ADJOURNMENT

The meeting was adjourned at 3:49 p.m.

Western Riverside Council of Governments
WRCOG Executive Committee

Staff Report

Subject: **Finance Department Activities Update**

Contact: **Andrew Ruiz, Chief Financial Officer, aruiz@wrcog.us, (951) 405-6740**

Date: **December 5, 2022**

Requested Action(s):

1. Receive and file.

Purpose:

The purpose of this item is to provide an update on the Agency financials through September 2022.

WRCOG 2022-2027 Strategic Plan Goal:

Goal #3 - Ensure fiscal solvency and stability of the Western Riverside Council of Governments.

Background:

On January 12, 2022, the Executive Committee adopted a new Strategic Plan with specific fiscal-related goals:

1. Maintain sound, responsible fiscal policies.
2. Develop a process to vet fiscal impact(s) and potential risk(s) for all new programs and projects.
3. Provide detailed financial statements for public review online.

Regarding goal #1, staff have planned out a process to go through and revise all of its fiscal-related policies and plan to have them vetted and revised by the end of the fiscal year. Staff will begin by updating its investment policy with the assistance of its financial advisor, Public Financial Management (PFM), and will seek input from the Finance Directors Committee at its next meeting.

Regarding goal #3, staff have updated the public financial statements with significantly more detail, including breaking out each line item by fund, department, and program. These detailed financial statements provide more transparency into each of the Agency's funds and programs.

As staff continue to work through these goals, input through WRCOG's Committee structure will be important to ensure the goals are being met.

Financial Report Summary Through September 2022

The Agency's Financial Report summary through September 2022, a detailed overview of WRCOG's financial statements in the form of combined Agency revenues and costs, plus a detailed breakout, is

provided as an attachment to this Staff Report.

Also in this agenda for presentation is a 1st quarter financial update, under Report Item 6.B.

Fiscal Year (FY) 2021/2022 Year End and Agency Audit

FY 2021/2022 has now ended and the Agency's books have now been closed. WRCOG will be utilizing the services of the audit firm Van Lant and Fankhanel (VLF) to conduct its financial audit. During FY 2021/2022, an RFP was released for financial auditing services as a Government Finance Officers Association (GFOA) best practice, as WRCOG has utilized auditing firm Rogers, Anderson, Malody and Scott for the past five years. WRCOG ended up selecting a new audit firm (VLF) to conduct its audits based on the results of the RFP.

In July 2022, VLF conducted the first phase of the audit, known as the interim audit, which involves preliminary audit work that is conducted prior to the books being fully closed. The interim audit tasks are conducted in order to gain an understanding of the Agency's processes during the year and to compress the period needed to complete the final audit after the books have been closed. The interim audit has now been completed and the full audit has started in October 2022 with expected completion by the end of November.

Prior Action(s):
November 17, 2022: The Finance Director's Committee received and filed.

Fiscal Impact:
Finance Department activities are included in the Agency's adopted Fiscal Year 2022/2023 Budget under the Administration Department under Fund 110.

Attachment(s):
Attachment 1 - September 2022 Agency Financials

Attachment

FY 2022/2023 1st Quarter
Agency Financials

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Description	Actual	FY 23 Budget	Variance
Revenues			
Member Dues	$ 294,410	$ 294,410	$ -
Fellowship	-	100,000	(100,000)
Operating Transfer Out	443,120	2,476,847	2,033,727
Solid Waste - SB1383	117,593	117,593	-
PACE Revenue	6,375	-	(6,375)
Hero Admin Fees	183,300	2,725,000	2,541,700
WRCOG HERO CAFTA Revenue	-	150,000	150,000
PACE Commercial Sponsor Revenue	-	50,000	50,000
Regional Streetlights Revenue	43,276	135,542	92,266
Solid Waste	124,206	173,157	48,951
Used Oil Grants	198,398	198,398	-
Air Quality - Other Reimburse	126,000	270,167	144,167
IREN - Public Sector	173,185	10,038,349	9,865,164
REAP Revenue	151,479	1,050,000	898,521
LTF Revenue	70,000	70,000	-
Operations and Maintenance	-	-	-
LTF Revenue	1,002,500	930,000	(72,500)
Other Misc Revenue-RIVTAM	7,000	25,000	18,000
Commerical/Service	324,767	1,560,000	1,235,233
Retail	464,807	4,160,000	3,695,193
Industrial	6,369,701	8,320,000	1,950,299
Residential/Multi/Single	12,463,156	36,400,000	23,936,844
Multi-Family	3,854,841	4,680,000	825,159
Beaumont TUMF Settlement Revenue	1,500,000	900,000	(600,000)
Interest Revenue - Other	16,946	5,000	(11,946)
Citizens Trust Investment Interest	-	275,000	275,000
Total Revenues	**$ 27,935,061**	**$ 75,104,463**	**$ 46,969,402**
Expenses			
Salaries & Wages - Fulltime	$ 556,169	$ 3,064,926	$ 2,508,756
Fringe Benefits	654,865	1,399,419	744,555
Overhead Allocation	443,120	2,174,586	1,731,466
General Legal Services	500,051	1,551,600	639,717
Audit Svcs - Professional Fees	-	30,000	30,000
Bank Fees	-	67,008	67,008
Commissioners Per Diem	17,100	72,000	54,900
Parking Cost	7,241	28,000	20,759
Office Lease	87,702	340,000	252,298
WRCOG Auto Fuels Expenses	41	1,000	959
WRCOG Auto Maintenance Expense	-	500	500
Parking Validations	711	14,100	13,390
Staff Recognition	1,660	3,100	1,440
Coffee and Supplies	97	2,500	2,403
Event Support	46,010	165,000	118,990
Program/Office Supplies	5,429	22,800	17,371
Computer Equipment/Supplies	-	7,000	7,000
Computer Software	20,907	104,500	83,593
Rent/Lease Equipment	2,534	15,000	12,466
Membership Dues	9,561	59,250	49,689
Subscription/Publications	8,780	8,950	170
Meeting Support Services	96	3,350	3,25[illegible]

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Description	Actual	FY 23 Budget	Variance
Postage	773	8,250	7,477
Other Household Exp	784	2,600	1,816
Storage	1,299	5,500	4,201
Printing Services	1,324	4,650	3,326
Computer Hardware	60	9,000	8,940
Misc. Office Equipment	58	1,000	942
Communications - Regular Phone	5,535	17,500	11,965
Communications - Cellular Phones	2,046	16,900	14,854
Communications - Computer Services	5,372	40,000	34,628
Communications - Web Site	-	8,000	8,000
Equipment Maintenance - Comp/Software	-	7,500	7,500
Maintenance - Building and Improvement	5,353	12,000	6,647
Insurance - Errors & Omissions	-	50,000	50,000
Insurance - Gen/Busi Liab/Auto	7,001	54,266	47,265
WRCOG Auto Insurance	-	6,000	6,000
Data Processing Support	1,776	8,000	6,224
Recording Fee-PACE	1,331	14,000	12,669
Seminars/Conferences	158	24,850	24,692
Travel - Mileage Reimbursement	100	20,030	19,930
Travel - Ground Transportation	124	10,300	10,176
Travel - Airfare	-	36,750	36,750
Lodging	2,983	80,600	77,617
Meals	390	10,730	10,340
Other Incidentals	-	1,500	1,500
Training	120	33,250	33,130
OPEB Repayment	-	110,526	110,526
Supplies/Materials	-	8,900	8,900
Advertising Media - Newspaper Ad	29,000	29,048	48
Staff Education Reimbursement	-	7,500	7,500
Compliance Settlements	40,280	200,000	159,720
Direct Costs	-	1,660,177	1,660,177
Consulting Labor	391,226	8,018,122	7,626,896
TUMF Project Reimbursement	-	25,000,000	25,000,000
COG REN Reimbursement	-	1,474,000	1,474,000
Total Expenses	**$ 2,859,167**	**$ 46,126,038**	**$ 42,855,038**

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
					Administration			
					Revenues			
110	12	40001	0	0	Member Dues	$ 294,410	$ 294,410	$ -
110	12	49001	0	0	Interest Revenue - Other	16,946	5,000	(11,946)
110	12	97001	0	0	Operating Transfer Out	443,120	2,476,847	2,033,727
					Total Revenues	**$ 754,476**	**$ 2,776,257**	**$ 2,021,780**
					Expenses			
110	12	60001	0	0	Salaries & Wages - Fulltime	$ 185,707	$ 944,788	$ 759,081
110	12	61000	0	0	Fringe Benefits	324,496	449,211	124,715
110	12	65101	0	0	General Legal Services	19,313	115,000	95,687
110	12	65401	0	0	Audit Svcs - Professional Fees	-	30,000	30,000
110	12	65505	0	0	Bank Fees	-	2,000	2,000
110	12	65507	0	0	Commissioners Per Diem	17,100	70,000	52,900
110	12	71615	0	0	Parking Cost	7,241	28,000	20,759
110	12	73001	0	0	Office Lease	87,702	340,000	252,298
110	12	73003	0	0	WRCOG Auto Fuels Expenses	41	1,000	959
110	12	73004	0	0	WRCOG Auto Maintenance Expense	-	500	500
110	12	73102	0	0	Parking Validations	711	10,000	9,290
110	12	73104	0	0	Staff Recognition	1,160	3,100	1,940
110	12	73106	0	0	Coffee and Supplies	97	2,500	2,403
110	12	73107	0	0	Event Support	7,590	45,000	37,410
110	12	73108	0	0	Program/Office Supplies	5,429	20,000	14,571
110	12	73109	0	0	Computer Equipment/Supplies	-	5,500	5,500
110	12	73110	0	0	Computer Software	11,957	35,000	23,043
110	12	73111	0	0	Rent/Lease Equipment	2,534	15,000	12,466
110	12	73113	0	0	Membership Dues	8,061	30,000	21,939
110	12	73114	0	0	Subscription/Publications	8,764	6,000	(2,764)
110	12	73115	0	0	Meeting Support Services	80	500	420
110	12	73116	0	0	Postage	603	5,000	4,397
110	12	73117	0	0	Other Household Exp	784	1,500	716
110	12	73119	0	0	Storage	-	1,500	1,500
110	12	73120	0	0	Printing Services	1,324	1,000	(324)

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
110	12	73122	0	0	Computer Hardware	60	8,000	7,940
110	12	73201	0	0	Communications - Regular Phone	5,535	17,500	11,965
110	12	73204	0	0	Communications - Cellular Phones	802	7,500	6,698
110	12	73206	0	0	Communications - Computer Services	5,372	40,000	34,628
110	12	73209	0	0	Communications - Web Site	-	8,000	8,000
110	12	73302	0	0	Equipment Maintenance - Comp/Software	-	5,000	5,000
110	12	73303	0	0	Maintenance - Building and Improvement	5,353	12,000	6,647
110	12	73401	0	0	Insurance - Errors & Omissions	-	50,000	50,000
110	12	73405	0	0	Insurance - Gen/Busi Liab/Auto	7,001	50,266	43,265
110	12	73407	0	0	WRCOG Auto Insurance	-	6,000	6,000
110	12	73601	0	0	Seminars/Conferences	-	3,500	3,500
110	12	73611	0	0	Travel - Mileage Reimbursement	2	3,500	3,498
110	12	73612	0	0	Travel - Ground Transportation	-	1,500	1,500
110	12	73613	0	0	Travel - Airfare	-	3,000	3,000
110	12	73620	0	0	Lodging	-	1,500	1,500
110	12	73630	0	0	Meals	260	3,500	3,240
110	12	73650	0	0	Training	-	30,000	30,000
110	12	73660	0	0	OPEB Repayment	-	110,526	110,526
110	12	73801	0	0	Staff Education Reimbursement	-	7,500	7,500
110	12	85100	0	0	Direct Costs	-	160,177	160,177
110	12	85101	0	0	Consulting Labor	56,715	250,000	193,285
					Total Expenses	**$ 863,943**	**$ 2,941,068**	**$ 2,077,125**

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
					Fellowship			
					Revenues			
110	12	40009	4700	0	Fellowship	$ -	$ 100,000	$ (100,000)
					Total Revenues	**$ -**	**$ 100,000**	**$ (100,000)**
					Expenses			
110	12	60001	4700	0	Salaries & Wages - Fulltime	$ 18,840	$ 174,412	$ 155,572
110	12	61000	4700	0	Fringe Benefits	1,723	15,660	13,937
110	12	65101	4700	0	General Legal Services	-	100	100
110	12	73102	4700	0	Parking Validations	-	1,000	1,000
110	12	73107	4700	0	Event Support	-	1,000	1,000
110	12	73108	4700	0	Program/Office Supplies	-	500	500
110	12	73115	4700	0	Meeting Support Services	-	250	250
110	12	73116	4700	0	Postage	-	100	100
110	12	73601	4700	0	Seminars/Conferences	-	150	150
110	12	73611	4700	0	Travel - Mileage Reimbursement	-	1,000	1,000
110	12	73612	4700	0	Travel - Ground Transportation	-	150	150
110	12	73630	4700	0	Meals	-	350	350
110	12	73650	4700	0	Training	-	250	250
110	12	85101	4700	0	Consulting Labor	-	500	500
					Total Expenses	**$ 20,563**	**$ 195,422**	**$ 174,859**

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
					TUMF Administration			
					Revenues			
110	65	43001	1148	0	Commerical/Service	$ 12,991	$ 62,400	$ 49,409
110	65	43002	1148	0	Retail	18,592	166,400	147,808
110	65	43003	1148	0	Industrial	254,788	332,800	78,012
110	65	43004	1148	0	Residential/Multi/Single	498,526	1,456,000	957,474
110	65	43005	1148	0	Multi-Family	154,194	187,200	33,006
110	65	43027	1148	0	Beaumont TUMF Settlement Revenue	-	36,000	36,000
					Total Revenues	**$ 939,091**	**$ 2,240,800**	**$ 1,301,709**
					Expenses			
110	65	60001	1148	0	Salaries & Wages Fulltime	$ 77,061	$ 389,173	$ 312,112
110	65	61000	1148	0	Fringe Benefits	24,707	177,218	152,511
110	65	63000	1148	0	Overhead Allocation	200,000	800,000	600,000
110	65	65101	1148	0	General Legal Services	12,669	75,000	62,331
110	65	65505	1148	0	Bank Fees	-	15,000	15,000
110	65	73102	1148	0	Parking Validations	-	500	500
110	65	73108	1148	0	General Supplies	-	500	500
110	65	73109	1148	0	Computer Supplies	-	500	500
110	65	73110	1148	0	Computer Software	8,950	65,000	56,050
110	65	73113	1148	0	Membership Dues	-	1,500	1,500
110	65	73114	1148	0	Subscriptions/Publications	16	100	84
110	65	73116	1148	0	POSTAGE	-	100	100
110	65	73117	1148	0	Other Household Expenses	-	100	100
110	65	73120	1148	0	Printing Services	-	150	150
110	65	73204	1148	0	Cellular Phone	507	3,000	2,493
110	65	73302	1148	0	Equipment Maintenance	-	2,500	2,500
110	65	73405	1148	0	Insurance - Gen/Busi Liab/Auto	-	3,000	3,000
110	65	73601	1148	0	Seminar/Conferences	-	1,500	1,500
110	65	73611	1148	0	Travel - Mileage Reimbursement	-	1,500	1,500
110	65	73612	1148	0	Travel - Ground Transportation	-	250	250

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
110	65	73613	1148	0	Travel-AirFare	-	750	750
110	65	73620	1148	0	Lodging	-	800	800
110	65	73630	1148	0	Meals	-	1,000	1,000
110	65	73640	1148	0	Other Incidentals	-	500	500
110	65	85101	1148	0	Outside Consultants	99,503	450,000	350,497
					Total Expenses	**$ 423,413**	**$ 1,989,641**	**$ 1,566,228**
					TUMF			
					Revenues			
220	65	43001	1148	0	Commercial/Svcs	$311,776	$1,497,600	$1,185,824
220	65	43002	1148	0	Retail	$446,215	$3,993,600	$3,547,385
220	65	43003	1148	0	Industrial	$6,114,913	$7,987,200	$1,872,287
220	65	43004	1148	0	Residential/Multi/Single	$11,964,630	$34,944,000	$22,979,370
220	65	43005	1148	0	Multi Family	$3,700,647	$4,492,800	$792,153
220	65	43027	1148	0	Beaumont TUMF Settlement Revenue	$1,500,000	$864,000	($636,000)
220	65	49104	1148	0	Citizens Trust Investment Interest	$0	$275,000	$275,000
					Total Revenues	**$24,038,181**	**$54,054,200**	**$30,016,019**
					Expenses			
220	65	65101	1148	3307	Beaumon Legal Srvs-URBAN LOGIC	$ 287	$ 287	$ -
220	65	65101	1148	3310	General Legal Services	258,684	392,653	133,969
220	65	65101	1148	3311	General Legal Services	7,060	7,060	-
220	65	85160	1148	0	TUMF Project Reimbursement	-	25,000,000	25,000,000
					Total Expenses	**$ 266,031**	**$ 25,400,000**	**$ 25,133,969**

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
					Grant Writing			
					Expenses			
110	65	85101	1300	0	Consulting Labor	$ -	$ 20,000	$ 20,000
					Total Expenses	**$ -**	**$ 20,000**	**$ 20,000**
					Local Transportation Fund			
					Revenues			
210	65	41701	1400	0	LTF Revenue	$ 1,002,500	$ 930,000	$ (72,500)
					Total Revenues	$ 1,002,500	$ 930,000	$ (72,500)
					Expenses			
210	65	60001	1400	0	Salaries & Wages - Fulltime	$ 45,012	$ 346,880	$ 301,868
210	65	61000	1400	0	Fringe Benefits	14,703	153,100	138,397
210	65	63000	1400	0	Overhead Allocation	45,000	180,000	135,000
210	65	65101	1400	0	General Legal Services	-	2,500	2,500
210	65	73102	1400	0	Parking Validations	-	500	500
210	65	73107	1400	0	Event Support	-	500	500
210	65	73108	1400	0	Program/Office Supplies	-	500	500
210	65	73110	1400	0	Computer Software	-	2,500	2,500
210	65	73113	1400	0	Membership Dues	1,500	750	(750)
210	65	73116	1400	0	Postage	-	500	500
210	65	73204	1400	0	Communications - Cellular Phones	-	100	100
210	65	73601	1400	0	Seminars/Conferences	-	3,500	3,500
210	65	73611	1400	0	Travel - Mileage Reimbursement	-	1,000	1,000
210	65	73612	1400	0	Travel - Ground Transportation	-	1,500	1,500
210	65	73613	1400	0	Travel - Airfare	-	750	750
210	65	73620	1400	0	Lodging	-	2,500	2,500
210	65	73630	1400	0	Meals	85	750	665
210	65	73703	1400	0	Supplies/Materials	-	1,000	1,000
210	65	85101	1400	0	Consulting Labor	40,581	250,000	209,419
					Total Expenses	**$ 146,881**	**$ 948,829**	**$ 801,949**

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
					RIVTAM			
					Revenues			
110	65	42001	2039	0	Other Misc Revenue-RIVTAM	$ 7,000	$ 25,000	$ 18,000
					Total Revenues	**$ 5,000**	**$ 25,000**	**$ (20,000)**
					Expenses			
110	65	60001	2039	0	Salaries & Wages - Fulltime	$ 1,094	$ 6,353	$ 5,260
110	65	61000	2039	0	Fringe Benefits	331	3,504	3,173
110	65	85101	2039	0	Consulting Labor	-	15,000	15,000
					Total Expenses	**$ 1,425**	**$ 24,858**	**$ 23,433**
					Regional Early Action Planning (REAP)			
					Revenues			
110	65	41606	2235	0	REAP Revenue	$ 151,479	$ 1,050,000	$ 898,521
					Total Revenues	**$ 151,479**	**$ 1,050,000**	**$ 898,521**
					Expenses			
110	65	60001	2235	0	Salaries & Wages - Fulltime	$ 16,767	$ 79,264	$ 62,496
110	65	61000	2235	0	Fringe Benefits	5,277	35,872	30,595
110	65	63000	2235	0	Overhead Allocation	17,673	125,383	107,710
110	65	65101	2235	6001	General Legal Services	1,251	-	(1,251)
110	65	85101	2235	0	Consulting Labor	110,511	809,101	698,590
					Total Expenses	**$ 151,479**	**$ 1,049,620**	**$ 898,141**

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
					Clean Cities			
					Revenues			
120	80	41402	1010	0	Air Quality - Other Reimburse	$ 126,000	$ 270,167	$ 144,167
120	80	41701	1010	0	LTF Revenue	70,000	70,000	-
					Total Revenues	**$ 196,000**	**$ 340,167**	**$ 144,167**
					Expenses			
120	80	60001	1010	0	Salaries & Wages - Fulltime	$ 21,893	$ 170,523	$ 148,630
120	80	61000	1010	0	Fringe Benefits	6,803	86,260	79,457
120	80	63000	1010	0	Overhead Allocation	9,000	36,000	27,000
120	80	73107	1010	0	Event Support	-	10,000	10,000
120	80	73115	1010	0	Meeting Support Services	-	500	500
120	80	73116	1010	0	Postage	-	400	400
120	80	73116	1010	0	Communications - Cellular Phones	51	-	(51)
120	80	73611	1010	0	Travel - Mileage Reimbursement	26	500	474
120	80	73612	1010	0	Travel - Ground Transportation	52	250	198
120	80	73613	1010	100	Travel - Airfare	-	3,500	3,500
120	80	73620	1010	100	Lodging	842	3,500	2,658
120	80	73630	1010	0	Meals	-	500	500
120	80	73640	1010	0	Other Incidentals	-	500	500
120	80	73703	1010	0	Supplies/Materials	-	1,500	1,500
120	80	85101	1010	0	Consulting Labor	14,668	25,850	11,182
					Total Expenses	**$ 53,334**	**$ 339,783**	**$ 286,449**

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
					Love Your Neighborhood			
					Revenues			
110	80	41201	1035	0	Solid Waste	$ -	$ 50,000	$ 50,000
					Total Revenues	**$ -**	**$ 50,000**	**$ 50,000**
					Expenses			
110	80	73107	1035	0	Event Support	$ -	$ 10,000	$ 10,000
110	80	85101	1035	0	Consulting Labor	-	40,000	40,000
					Total Expenses	**$ -**	**$ 50,000**	**$ 50,000**
					Solid Waste			
					Revenues			
110	80	40301	1038	0	Solid Waste - SB1383	$ 117,593	$ 117,593	$ -
110	80	41201	1038	0	Solid Waste	124,206	123,157	(1,049)
					Total Revenues	**$ 241,800**	**$ 240,750**	**$ (1,049)**
					Expenses			
110	80	60001	1038	0	Salaries	$ 12,995	$ 61,429	$ 48,434
110	80	61000	1038	0	Fringe Benefits	3,933	31,224	27,291
110	80	63000	1038	0	Overhead Allocation	3,000	12,000	9,000
110	80	65101	1038	0	Legal	270	1,000	730
110	80	73102	1038	0	Parking Validations	-	500	500
110	80	73107	1038	0	Event Support	-	2,000	2,000
110	80	73114	1038	0	Subscriptions/Publications	-	250	250
110	80	73204	1038	0	Cell Phone Expense	175	500	325
110	80	73601	1038	0	Seminars/Conferences	-	500	500
110	80	73611	1038	0	Mileage Reimbursement	-	250	250
110	80	73612	1038	0	Ground Transportation	-	150	150
110	80	73613	1038	0	Airfare	-	250	250
110	80	73630	1038	0	Meals	-	500	500
110	80	73650	1038	0	Training	-	500	500
110	80	85101	1038	0	Consulting Labor	55,136	129,556	74,420
					Total Expenses	**$ 75,509**	**$ 240,609**	**$ 165,100**

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
					Streetlights			
					Revenues			
110	67	40615	2026	0	Regional Streetlights Revenue	$ 43,276	$ 135,542	$ 92,266
					Total Revenues	**$ 43,276**	**$ 135,542**	**$ 92,266**
					Expenses			
110	67	60001	2026	0	Salaries	$ 12,768	$ 63,779	$ 51,011
110	67	61000	2026	0	Fringe Benefits	4,248	31,032	26,784
110	67	63000	2026	0	Overhead Allocation	3,000	12,000	9,000
110	67	65101	2026	0	Legal	237	750	513
110	67	65505	2026	0	Streetllights Bank Fees	-	508	508
110	67	73102	2026	0	Parking Validations	-	150	150
110	67	73104	2026	0	Staff Recognition	500	-	(500)
110	67	73107	2026	0	Event Support	-	1,000	1,000
110	67	73108	2026	0	Program/Office Supplies	-	500	500
110	67	73114	2026	0	Subscriptions/Publications	-	1,600	1,600
110	67	73115	2026	0	Meeting&Support	-	600	600
110	67	73116	2026	0	Postage	33	150	117
110	67	73204	2026	0	Communications - Cellular Phones	102	500	399
110	67	73601	2026	0	Seminars/Conferences	-	1,200	1,200
110	67	73611	2026	0	Travel - Mileage Reimbursement	72	250	178
110	67	73612	2026	0	Travel-Ground Transportation	72	500	428
110	67	73613	2026	0	Travel - Airfare	-	1,000	1,000
110	67	73620	2026	0	Lodging	364	800	436
110	67	73630	2026	0	Meals	32	250	218
110	67	73650	2026	0	Training	-	500	500
110	67	73703	2026	0	Supplies/Materials	-	2,900	2,900
110	67	85101	2026	0	Consulting Labor	-	15,433	15,433
					Total Expenses	**$ 21,427**	**$ 135,402**	**$ 113,975**

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
					Inland Regional Energy Network			
					Revenues	**Actual**	**FY 23 Budget**	**Variance**
180	67	41480	2080	71XX	IREN - Public Sector	$ 92,806	$ 6,239,958	$ 6,147,152
180	67	41480	2080	72XX	IREN - Workforce Education and Training	41,069	2,323,361	2,282,292
180	67	41480	2080	73XX	IREN - Codes and Standards	39,310	1,475,030	1,435,720
					Total Revenues	**$ 173,185**	**$ 10,038,349**	**$ 9,865,164**
					Expenses	**Actual**	**FY 23 Budget**	**Variance**
180	67	60001	2080	7101	Salaries & Wages - Fulltime	$ 31,881	$ 221,281	$ 189,400
180	67	60001	2080	7201	Salaries & Wages - Fulltime	10,242	71,088	60,846
180	67	60001	2080	7301	Salaries & Wages - Fulltime	9,572	66,439	56,867
180	67	61000	2080	7101	Fringe Benefits	10,718	100,535	89,817
180	67	61000	2080	7201	Fringe Benefits	3,443	31,124	27,681
180	67	61000	2080	7301	Fringe Benefits	3,218	28,691	25,473
180	67	63000	2080	7101	Overhead Allocation	33,603	350,457	316,854
180	67	63000	2080	7201	Overhead Allocation	10,795	111,309	100,514
180	67	63000	2080	7301	Overhead Allocation	10,089	103,597	93,508
180	67	65101	2080	7101	General Legal Services	1,600	13,400	11,800
180	67	65101	2080	7111	General Legal Services	1,600	1,600	-
180	67	65101	2080	7201	General Legal Services	1,600	13,400	11,800
180	67	65101	2080	7211	General Legal Services	1,600	1,600	-
180	67	65101	2080	7301	General Legal Services	1,600	13,400	11,800
180	67	65101	2080	7311	General Legal Services	1,600	1,600	-
180	67	65505	2080	7101	Bank Fees	-	1,500	1,500
180	67	73102	2080	7101	Parking Validations	-	1,000	1,000
180	67	73107	2080	7103	Event Support	4,167	20,833	16,667
180	67	73107	2080	7113	Event Support	4,167	4,167	-
180	67	73107	2080	7203	Event Support	4,167	20,833	16,667
180	67	73107	2080	7213	Event Support	4,167	4,167	-
180	67	73107	2080	7303	Event Support	4,167	20,833	16,667
180	67	73107	2080	7313	Event Support	4,167	4,167	-
180	67	73113	2080	7101	Membership Dues	-	25,000	25,000
180	67	73117	2080	7101	Other Household Exp	-	1,000	1,000
180	67	73120	2080	7101	Printing Services	-	2,500	2,500

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
180	67	73122	2080	7101	Computer Hardware	-	1,000	1,000
180	67	73125	2080	7101	Misc. Office Equipment	58	1,000	942
180	67	73204	2080	7101	Communications - Cellular Phones	116	3,600	3,484
180	67	73601	2080	7203	Seminars/Conferences	79	9,921	9,842
180	67	73601	2080	7213	Seminars/Conferences	79	79	-
180	67	73611	2080	7101	Travel - Mileage Reimbursement	-	10,530	10,530
180	67	73612	2080	7101	Travel - Ground Transportation	-	5,000	5,000
180	67	73613	2080	7101	Travel - Airfare	-	25,000	25,000
180	67	73620	2080	7101	Lodging	148	69,259	69,111
180	67	73620	2080	7111	Lodging	148	148	-
180	67	73620	2080	7201	Lodging	148	148	-
180	67	73620	2080	7211	Lodging	148	148	-
180	67	73620	2080	7301	Lodging	148	148	-
180	67	73620	2080	7311	Lodging	148	148	-
180	67	73630	2080	7101	Meals	-	2,880	2,880
180	67	73703	2080	7101	Supplies/Materials	-	1,000	1,000
180	67	85100	2080	7101	Direct Costs	-	1,500,000	1,500,000
180	67	85101	2080	7101	Consulting Labor	2,056	2,937,874	2,935,819
180	67	85101	2080	7103	Consulting Labor	245	245	-
180	67	85101	2080	7111	Consulting Labor	2,056	2,056	-
180	67	85101	2080	7113	Consulting Labor	245	245	-
180	67	85101	2080	7201	Consulting Labor	2,056	1,726,119	1,724,064
180	67	85101	2080	7203	Consulting Labor	245	245	-
180	67	85101	2080	7211	Consulting Labor	2,056	2,056	-
180	67	85101	2080	7213	Consulting Labor	245	245	-
180	67	85101	2080	7301	Consulting Labor	2,056	1,017,167	1,015,112
180	67	85101	2080	7303	Consulting Labor	245	245	-
180	67	85101	2080	7311	Consulting Labor	2,056	2,056	-
180	67	85101	2080	7313	Consulting Labor	245	245	-
180	67	85182	2080	7101	COG REN Reimbursement	-	916,256	916,256
180	67	85182	2080	7201	COG REN Reimbursement	-	341,155	341,155
180	67	85182	2080	7301	COG REN Reimbursement	-	216,589	216,589
					Total Expenses	**$ 173,185**	**$ 10,028,330**	**$ 9,855,145**

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
					PACE Funding			
					Revenues			
110	67	40601	2104	0	PACE Revenue	$ 6,375	$ -	$ (6,375)
					Total Revenues	**$ 6,375**	**$ -**	**$ 6,375**
					Expenses			
110	67	73506	2104	0	Recording Fee-PACE	$ 34	$ -	$ (34)
					Total Expenses	**$ 34**	**$ -**	**$ (34)**
					Greenworks			
					Revenues			
110	67	40604	2105	0	WRCOG HERO CAFTA Revenue	$ -	$ 150,000	$ 150,000
					Total Revenues	**$ -**	**$ 150,000**	**$ 150,000**
					Expenses			
110	67	60001	2105	0	Salaries & Wages -Greenworks Lending	$ 12,039	$ 58,176	$ 46,137
110	67	61000	2105	0	Fringe Benefits	4,013	30,934	$ 26,921
110	67	63000	2105	0	Overhead Allocation	6,000	24,000	$ 18,000
110	67	73506	2105	0	Recording Fee	-	2,000	$ 2,000
110	67	85101	2105	0	Consulting Labor	-	34,757	$ 34,757
					Total Expenses	**$ 22,052**	**$ 149,866**	**$ 127,814**
					Twain			
					Revenues			
110	67	40607	2115	0	PACE Commercial Sponsor Revenue	$ -	$ 50,000	$ 50,000
					Total Revenues	**$ -**	**$ 50,000**	**$ 50,000**
					Expenses			
110	67	65101	2115	0	General Legal Services	$ -	$ 6,000	$ 6,000
110	67	73506	2115	0	Recording Fee	-	2,000	2,000
110	67	85101	2115	0	Consulting Labor	-	10,000	10,000
					Total Expenses	**$ -**	**$ 18,000**	**$ 18,000**

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
					Clean Fund			
					Expenses			
110	67	65101	2120	0	General Legal Services	$ -	$ 5,000	$ 5,000
					Total Expenses	**$ -**	**$ 5,000**	**$ 5,000**
					California Resiliency Challenge			
					Expenses			
110	67	60001	2225	0	Salaries & Wages - Fulltime	$ 2,423	$ 8,035	$ 5,612
110	67	61000	2225	0	Fringe Benefits	806	3,635	2,829
110	67	65101	2225	0	General Legal Services	101	250	149
110	67	85101	2225	0	Consulting Labor	-	119,127	119,127
					Total Expenses	**$ 3,331**	**$ 131,047**	**$ 127,716**

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
					HERO			
					Revenues			
110	67	40603	5000	0	Hero Admin Fees	$ 183,300	$ 2,725,000	$ 2,541,700
					Total Revenues	**$ 183,300**	**$ 2,725,000**	**$ 2,541,700**
					Expenses			
110	67	60001	5000	0	Stwide AB811 Salaries & Wages	$ 80,191	$ 326,906	$ 246,716
110	67	61000	5000	0	Fringe Benefit	25,750	182,932	157,182
110	67	63000	5000	0	Overhead Allocation	100,000	400,000	300,000
110	67	65101	5000	0	GENERAL LEGAL SERVICES	190,580	900,000	709,420
110	67	65505	5000	0	Bank Fee	-	48,000	48,000
110	67	65507	5000	0	Commissioners Per Diem	-	2,000	2,000
110	67	73102	5000	0	Parking Validations	-	200	200
110	67	73107	5000	0	Statewide - Event Support	-	500	500
110	67	73108	5000	0	General Supplies	-	300	300
110	67	73109	5000	0	Computer Supplies	-	1,000	1,000
110	67	73110	5000	0	Computer Software	-	2,000	2,000
110	67	73113	5000	0	NWCC- Membership Dues	-	1,500	1,500
110	67	73114	5000	0	Subscriptions/Publications	-	1,000	1,000
110	67	73115	5000	0	Meeting Support Services	16	500	484
110	67	73116	5000	0	Postage	86	2,000	1,914
110	67	73204	5000	0	Cellular Phone	268	1,500	1,232
110	67	73504	5000	0	Data Processing Support	1,776	8,000	6,224
110	67	73506	5000	0	Recording Fee	1,297	10,000	8,703
110	67	73601	5000	0	Seminar/Conferences	-	2,500	2,500
110	67	73611	5000	0	Travel - Mileage Reimbursement	-	500	500
110	67	73612	5000	0	Travel - Ground Transportatoin	-	500	500

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
110	67	73613	5000	0	Travel - Airfare	-	2,500	2,500
110	67	73620	5000	0	Lodging	889	1,500	611
110	67	73630	5000	0	Meals	13	500	487
110	67	73640	5000	0	Statewide Other Incidentals	-	500	500
110	67	73650	5000	0	Training	120	2,000	1,880
110	67	73703	5000	0	Supplies/Materials	-	1,500	1,500
110	67	81010	5000	0	Compliance Settlements	40,280	200,000	159,720
110	67	85101	5000	0	CA HERO Direct Exp	309	160,000	159,691
					Total Expenses	**$ 441,574**	**$ 2,260,338**	**$ 1,818,764**

Western Riverside Council of Governments
WRCOG Executive Committee

Staff Report

Subject: **WRCOG Committees and Agency Activities Update**

Contact: **Chris Gray, Deputy Executive Director, cgray@wrcog.us, (951) 405-6710**

Date: **December 5, 2022**

Requested Action(s):

1. Receive and file.

Purpose:
The purpose of this item is to provide updates on noteworthy actions and discussions held in recent WRCOG standing Committee meetings, and to provide general project updates.

WRCOG 2022-2027 Strategic Plan Goal:
Goal #4 - Communicate proactively about the role and activities of the Council of Governments and its members.

Background:
Attached are summary recaps of actions and activities from recent WRCOG standing Committee meetings that occurred during the month of November 2022.

Prior Action(s):
November 7, 2022: The Executive Committee received and filed.

Fiscal Impact:
This item is for informational purposes only; therefore, there is no fiscal impact.

Attachment(s):
Attachment 1 - November 2022 meetings recaps

Western Riverside Council of Governments
Executive Committee and Supporting Foundation
Meetings Recap
November 7, 2022

Following is a summary of key items discussed at the last Executive Committee meeting.

Agenda Packet: https://wrcog.us/DocumentCenter/View/9654/exec-agendapacket-1122

PowerPoint Presentation: https://wrcog.us/DocumentCenter/View/9658/ec1122pp

Regional Streetlight Program Activities Update

- The Regional Streetlight Program holds a contract with Yunex, formerly Siemens, to provide streetlight retrofit and operations & maintenance (O&M) services to nine public agencies, including the Cities of Eastvale, Hemet, Lake Elsinore, Menifee, Murrieta, Perris, San Jacinto, Wildomar, and the Jurupa Community Services District. The current agreement with Yunex expires on December 1, 2022. The agencies have informed WRCOG of their desire to extend the contract and will execute a Second Amendment to their Appendix to the Amended & Restated Professional Services Agreement, following approval by their respective City Councils.
- The Executive Committee Approved Amendment No. 2 to the Amended & Restated Professional Services Agreement and Amendment No. 2 to Appendices 1 - 5, 7 - 9, and 11 to the Amended & Restated Professional Services Agreement between WRCOG, Yunex, LLC, and the Member Agency to extend the Agreement one year to December 1, 2023, for streetlight retrofit, operation and maintenance services.

Adoption of Resolution to Escheat PACE Unclaimed Funds to the State of California

- Adopted a resolution to escheat unclaimed PACE funds to the State of California.

Approval of Two TUMF Reimbursement Agreement Amendments

- Authorized the Executive Director to execute Amendment Number 2 to a TUMF Reimbursement Agreement with the City of Menifee for the Construction Phase of the Holland Roadway Widening and Holland Road / I-215 Overpass Project from $8,255,000 to $10,255,000.
- Authorized the Executive Director to execute Amendment Number 3 to a TUMF Reimbursement Agreement with the City of San Jacinto for the Construction Phase of the Esplanade Avenue Widening Project for an amount not to exceed $5,630,000.

Revised 2022 TUMF Central Zone 5-Year TIp

- Approved the Revised 2022 TUMF Central Zone 5-Year Transportation Improvement Program.

Commercial PACE (C-PACE) Activities Update

- In FY 2020/2021, the WRCOG C-PACE Program financed 11 projects for a total amount of $79M, including two local projects in Corona and Murrieta.
- In FY 2021/2022, 11 C-PACE projects were completed, totaling $68M including two local projects in Temecula.
- Staff continue to receive interest and inquiries on WRCOG C-PACE expansion opportunities from existing C-PACE providers and financial institutions, like J.P Morgan and others. No further action will occur until WRCOG Executive Committee provides direction.

Housing Activities Update

- Chris Gray, WRCOG Deputy Executive Director, presented an overview of WRCOG housing related activities.
- The presentation included background information on growth throughout the SCAG region noting that Riverside County grew by 60% over the previous 20 years.
- The number of housing units permitted has averaged 5,000 to 6,000 over the past five years. However; the pace of new home construction has not kept pace with population growth.
- Recognizing the need to add housing on a Statewide level, over $500M has been allocated to cities and counites in California to assist with planning activities.
- WRCOG is currently providing direct assistance in five WRCOG member agencies and has pending agreements with three additional agencies to directly support planning efforts related to housing
- Other key activities include the development of template Objective Design Standards and also the preparation of an Affordable Housing Pipeline map and list.
- WRCOG continues to look for opportunities to secure additional funding for the region.

Next Meeting

The next Executive Committee meeting is scheduled for Monday, December 5, 2022, at 2:00 p.m., in the County of Riverside Administrative Center, 4080 Lemon Street, 1st Floor, Board Chambers, Riverside.

Western Riverside Council of Governments
Administration & Finance Committee
Meeting Recap
November 9, 2022

Following is a summary of key items discussed at the last Administration & Finance Committee meeting.

Agenda Packet: https://wrcog.us/DocumentCenter/View/9657/af-agendapacket-1122

PowerPoint Presentation: https://wrcog.us/DocumentCenter/View/9659/af1122pp

Approval of a Professional Services Agreement with Riverside County Flood Control and Water Conservation District for the Pollution Prevention Initiative

- Following the positive success of the first round of the Love Your Neighborhood (LYN) initiative, WRCOG and Flood Control have developed a second PSA that will cover the duration from January 1, 2023, to June 30, 2027. A payment of $50,000 shall be applicable each fiscal year for a total of $250,000 over the term. The scope of work will include continuing outreach and education on the pollution prevention initiative through the LYN website, collaborative project planning, litter removal tracking, and conducting informational meetings.
- Authorized the Executive Director to execute a Professional Services Agreement, substantially as to form, with the Riverside County Flood Control and Water Conservation District. This item will be brought to the WRCOG Executive Committee for final approval.

Western Riverside County Clean Cities Coalition Activities

- Coalition staff recently hosted the annual SoCal AltCar conference on October 27, 2022, at the Moreno Valley Conference and Recreation Center. The event was well attended and included information on the $384 million National Electric Vehicle Infrastructure Funding Plan for California, as well as updates from various regional agencies.
- WRCOG recently conducted a Community Transportation Needs Assessment in focused areas of the subregion. The goal was to understand mobility challenges and identify strategies to address them with clean fuel vehicles. Completion of this assessment leads to eligibility for up to $1 million in funding to deploy solutions.
- Coalition staff recently participated in the Clean Cities Energy and Environmental Justice (EEJ) training, expanding staff's knowledge and resources for engaging communities that are disadvantaged and disproportionately burdened by poor air quality. Participation in this funding ensures that the Coalition is eligible to apply for significant future EEJ related funding.
- The National Electric Vehicle Infrastructure (NEVI) Funding Program is a federal funding program that provides money to states for deployment of electric vehicle charging infrastructure. California has prepared a plan for its $384 million share. Money goes directly to installers and network providers. Funding solicitations are expected in the first quarter of 2023, and Coalition staff are working to identify opportunities to partner with members to bring funding to the subregion.
- On September 28, 2022, the Coalition participated in its periodic redesignation process with the DOE. Redesignation allows the Coalition to demonstrate that it is active, viable, and committed to the Clean Cities mission. The Coalition was redesignated for another four years, and staff were encouraged to continue building relationships in the heavy-duty vehicle sector.

Western Riverside County Energy Resilience Plan

- Staff presented the draft Western Riverside County Energy Resilience Plan which developed a framework for WRCOG and its members to rank and prioritize their local government agencies for

energy resilience upgrades, and completed microgrid case studies and conceptual designs at two Jurupa Valley Fire Stations, a Banning Wastewater Treatment Plant, a Menifee Senior Center, and a Western Municipal Water District pump station.

- The case studies found that a microgrid is feasible at the fire stations, senior center, and wastewater treatment plant by utilizing a combination of solar photovoltaics, a generator, and battery energy storage to maintain power during a power outage. The resilience study at the WMWD pump station found that the existing natural gas- and electric-driven water pumps have enough capacity to run only gas pumps during an electric outage, or run only electric pumps during a gas supply interruption, and a backup generator to ensure reliability.
- Staff have been tracking grants that could fund potential next steps such as additional design work to further design and develop the feasibility studies to "shovel ready" projects, and/or to fund additional microgrid feasibility studies and conceptual designs for the remaining facilities in the prioritization matrix.

Grant Writing Assistance Program Activities Update

- WRCOG commenced its Grant Writing Assistance Program in 2017 to strengthen the subregion's overall competitiveness for grant funding and to provide needed supplemental support to member agencies which have been unable to seek grant funds due to limited staffing capacity and/or resources. The Program focuses on areas in which WRCOG already provides assistance to its member agencies.
- The Program provides four services: technical assistance with grant application development on eligible grant programs, advisory services, bi-weekly grant opportunities tables, and grant program fact sheets.
- The Program has provided assistance on grant application development on over 45 applications for the subregion with over 20 applications being awarded, totaling over $70M in grant funding.
- In addition to the types of grant programs the Program has assisted since 2017, WRCOG is able to assist with housing-related grant programs in the interim with the use of REAP grant program funds. Interested member agencies should reach out to Christopher Tzeng (ctzeng@wrcog.us) to discuss eligible grant programs.

2022 / 2023 General Assembly Activities Updates and Determinations

- The 2022 event had 650 attendees and generated $310,000 in revenue against $300,000 in costs.
- The 2023 event is tentatively scheduled for June 29, 2023, at the Pechanga Resort and Casino. The Executive Director was directed to execute a contract with Pechanga Resort and Casino.
- Direction was provided to the Executive Director regarding potential speaker options.

Next Meeting

The next Administration & Finance Committee meeting is scheduled for Wednesday, December 14, 2022, at 12:00 p.m., on the Zoom platform with the option for Committee members to attend in-person.

Western Riverside Council of Governments
Solid Waste Committee
Meeting Recap
November 16, 2022

Following is a summary of major items discussed at the November 16, 2022, Solid Waste Committee meeting.

Agenda Packet: https://wrcog.us/DocumentCenter/View/9660/swc-agendapacket-1122

PowerPoint Presentation: https://wrcog.us/DocumentCenter/View/9673/swc1122pp

Approval of Solid Waste Committee Meeting Schedule for 2023

- Below is the 2023 meeting schedule for the Solid Waste Committee. All Solid Waste Committee meeting dates are scheduled quarterly for the 3rd Wednesday of the month at 1:00 p.m.

Day	Time	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Quarterly 3rd Wed.	1:00 p.m.	-	15	-	-	17	-	-	16	-	-	15	-

San Gabriel Valley Council of Governments Regional Food Recovery Program Presentation

- Mackenzie Bolger with SGVCOG provided a presentation on their food recovery program and covered the areas of need identification, fulfilling SB (Senate Bill) 1383, procurement process for their request for proposals, and costs and funding sources.
- A report was developed by SGVCOG's consultant to provide to participating cities regarding their region's food recovery organizations on their capacities to process and recover edible food.
- Their program also identified food recovery organizational needs, which SGVCOG will address, including staffing, space, transportation, incidental expenses, agreements/record keeping, and grant writing.

Edible Food Program Survey and Discussion

- WRCOG staff reviewed the survey sent to WRCOG member SWC cities regarding WRCOG implementing a food rescue RFP (REQUEST FOR PROPOSAL). Most respondents stated that they would be interested in WRCOG moving forward with a program.
- WRCOG staff shared the elements in a proposed draft RFP scope to address the SB 1383 food recovery components.
- Members received the information and were receptive to WRCOG moving forward with an RFP for a food recovery program.

Next Meeting

The next Solid Waste Committee meeting is scheduled for Wednesday, February 15, 2023, at 1:00 p.m., on the Zoom platform with the option for Committee members to attend in-person.

Western Riverside Council of Governments
Technical Advisory Committee
Meeting Recap
November 17, 2022

Following is a summary of key items discussed at the last Technical Advisory Committee meeting.

Agenda Packet: https://wrcog.us/DocumentCenter/View/9661/tac-agendapacket-1122

PowerPoint Presentation: https://wrcog.us/DocumentCenter/View/9674/tac1122pp

Approval of Technical Advisory Committee Meeting Schedule for 2023

- All Technical Advisory Committee meeting dates were approved for the 3rd Thursday of the month at 9:30 a.m.

WRCOG Standing Committee	Day	Time	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Technical Advisory Committee	3rd Thurs.	9:30 a.m.	19	16	16	20	18	15	DARK	17	21	19	16	DARK

Santa Ana Municipal Separate Storm Sewer System (MS4) Permit Compliance Program Activities Update

- Staff from Riverside County Flood Control provided an update on the region MS4 permit.
- The permit is being updated and contains new provisions and requirements such as transition to a quantitative water quality standard, the development of a comprehensive Watershed Management Plan, and increased inspection frequency for commercial and industrial sites.
- One significant change is the transition to a tri-County permit (Riverside, San Bernardino, and Orange Counties) instead of permits for each County.
- Flood Control is currently meeting with the Regional Water Quality Control Board to address various technical and policy issues related to the updated permit.
- Once the permit has been finalized, additional updates will be provided.

2022 Fee Comparison Analysis Update

- WRCOG is conducting an update of the Fee Comparison Analysis based on 2022 fees. The Analysis is a comparison of fees that jurisdictions and agencies charge for development. The Analysis includes all jurisdictions within Western Riverside County and some jurisdictions adjacent to the subregion for comparison purposes. This Analysis was first conducted in 2016 and then again in 2018.
- A breakdown of fees for each land development type analyzed was provided to Committee members for review and discussion on September 22, 2022. Agencies have provided feedback to WRCOG and input has been incorporated into analysis.
- The fee comparison for each jurisdiction and comparison charts for all WRCOG jurisdictions will be provided in early December via email, and a final presentation to the Committee will be provided in early 2023.

Western Riverside County Energy Resilience Plan

- Staff presented the draft Western Riverside County Energy Resilience Plan which developed a framework for WRCOG and its members to rank and prioritize their local government agencies for energy resilience upgrades, and completed microgrid case studies and conceptual designs at two

Jurupa Valley Fire Stations, a Banning Wastewater Treatment Plant, a Menifee Senior Center, and a Western Municipal Water District pump station.

- The case studies found that a microgrid is feasible at the fire stations, senior center, and wastewater treatment plant by utilizing a combination of solar photovoltaics, a generator, and battery energy storage to maintain power during a power outage. The resilience study at the WMWD pump station found that the existing natural gas- and electric-driven water pumps have enough capacity to run only gas pumps during an electric outage, or run only electric pumps during a gas supply interruption, and a backup generator to ensure reliability.

- Staff have been tracking grants that could fund potential next steps such as additional design work to further design and develop the feasibility studies to "shovel ready" projects, and/or to fund additional microgrid feasibility studies and conceptual designs for the remaining facilities in the prioritization matrix.

Policy for TUMF Reimbursement Prior to Exhaustion of Credit for Developer Credit / Reimbursement Agreements

- In March 2022, the City of Corona requested that WRCOG consider an early reimbursement for the developer who constructed the I-15 / Cajalco interchange. The value of the transportation improvement exceeds the developer's TUMF obligation, which means that the developer is entitled to a reimbursement of the difference, which is estimated to be $15M - $20M.
- WRCOG's existing policy is to only provide reimbursement once both the transportation and land development component of a project is complete. In this instance, the transportation component is complete, but the land development component is not. This policy is known as exhaustion of credits.
- At the direction of the Administration & Finance Committee, WRCOG staff developed a comprehensive policy related to the payment of a reimbursement prior to the exhaustion of credits.
- The Technical Advisory Committee recommended that the Executive Committee not approve this policy change and maintain the existing policy.

Next Meeting

The next Technical Advisory Committee meeting is scheduled for Thursday, January 19, 2023, at 9:30 a.m., on the Zoom platform with an option for Committee members to attend in-person.

Western Riverside Council of Governments
Finance Directors Committee
Meeting Recap
November 17, 2022

Following is a summary of key items discussed at the last Finance Directors Committee meeting.

Agenda Packet: https://wrcog.us/DocumentCenter/View/9664/fdc-agendapacket-1122-REVISED

PowerPoint Presentation: https://wrcog.us/DocumentCenter/View/9675/fdc1122pp

Approval of Finance Directors Committee Meeting Schedule for 2023

- Below is the 2023 meeting schedule for the Finance Directors Committee. All meeting dates are scheduled quarterly on the 4th Thursday of the month at 1:00 p.m.

Day	Time	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Quarterly 4thThurs.	1:00 p.m.	-	23	-	27	25	-	-	24	-	-	17[4]	-

The Economy and Financial Markets and Investment Policy Discussion

- The current market themes discussed a strong labor market, treasury yields falling slightly after a soft CPI report, unemployment continuing to be low and inflation continuing trend high.
- WRCOG's investments continue to follow a conservative investment approach and have continued to outperform the benchmark Treasury Index.
- WRCOG's investment portfolio was reviewed by PFM and the only change recommended was regarding GASB 98, which requires Agencies to change the name of their Comprehensive Annual Financial Report (CAFR) to Annual Comprehensive Financial Report (ACFR)

American Rescue Plan Act Discussion

- The American Rescue Plan Act (ARPA) provided revenues for jurisdictions that indicated they had losses during the Coronavirus Pandemic. There was a wide variety of justifications for lost revenue, and while some jurisdictions had straightforward direction on how they would use their ARPA funds, others are still figuring out what they are going to use them for.
- The City of Jurupa Valley has a support group that meets on a quarterly basis to discuss ARPA funding, which has become more important, as ARPA support staff are no longer going to be answering e-mails or phone calls.
- For additional information, contact Connie Cardenas, Administrative Services Director with Jurupa Valley, at CCardenas@jurupavalley.org, or Kevin Ryan at kryan@jurupavalley.org.

Fiscal Year 2022/2023 Q1 Financial Update

- So far through Fiscal Year 2022/2023, five budget amendments were approved under the Executive Director's authority.
- There are several items staff are currently monitoring for potential budget changes:
  - Property Assessed Clean Energy (PACE) revenues appear to be trending under budget
  - The Regional Early Action Planning (REAP) Program has been extended an additional 18 months

- The Inland Regional Energy Network (I-REN) is still ramping up and will likely not expend all of its funds budgeted this year
- TUMF collections are still strong, but there may be some changes later this fiscal year.

- Two budget amendments were requested and approved:
  1. To increase TUMF Beaumont settlement revenues by $10M
  2. To increase TUMF Beaumont related legal to $1M to reflect the additional revenues expenditures regarding the TUMF Beaumont matter.

Report from the Chief Financial Officer

- Staff noted that for the February meeting, it would likely be in person due to AB 2449. Staff will be sending out a memo summarizing the changes prior to the meeting.

Next Meeting

The next Finance Directors Committee meeting is scheduled for Thursday, February 23, 2023, at 1:00 p.m., on the Zoom platform with the option for Committee members to attend in-person.

Western Riverside Council of Governments
WRCOG Executive Committee

Staff Report

Subject: **Cal Cities Activities Update**

Contact: **Erin Sasse, Regional Public Affairs Manager, Cal Cities, esasse@cacities.org, (951) 321-0771**

Date: **December 5, 2022**

Requested Action(s):

1. Receive and file.

Purpose:
The purpose of this item is to provide an update of activities undertaken by Cal Cities.

WRCOG 2022-2027 Strategic Plan Goal:
Goal #1 - Serve as an advocate at the regional, state, and federal level for the Western Riverside subregion.

Background:
The League of California Cities has been shaping the Golden State's political landscape since the association was founded in 1898. It defends and expands local control through advocacy efforts in the Legislature, at the ballot box, in the courts, and through strategic outreach that informs and educates the public, policymakers, and opinion leaders. Cal Cities also offers education and training programs designed to teach city officials about new developments in their field and exchange solutions to common challenges facing their cities.

Information regarding legislation of interest to Cal Cities members is provided as Attachment 1.

Prior Action(s):
October 3, 2022: The Executive Committee received and filed.

Fiscal Impact:
This item is for informational purposes only; therefore, there is no fiscal impact.

Attachment(s):
Attachment 1 - Cal Cities Legislative Update

2164 (Lee) Disability Access: Certified Access Specialist Program: Funding.

This measure makes permanent an existing law that allows local jurisdictions to collect a dedicated fee of $4 on business licenses and business permit renewals. This fee was set to drop to $1 in 2024, limiting available funding for physical accessibility improvements. Additionally, this measure clarifies existing law that authorizes local governments to provide financial assistance to struggling small businesses to increase accessibility.

SB 1338 (Umberg) Community Assistance, Recovery, and Empowerment (CARE) Court Program.

This measure creates the Community Assistance, Recovery, and Empowerment (CARE) Court program, a new civil court process to support individuals living with untreated schizophrenia spectrum and psychotic disorders. The CARE Court program connects individuals with a court-ordered care plan managed by a care team in the community. These CARE plans could include clinically prescribed, individualized interventions with several supportive services, medication, and a housing plan.

AB 1985 (R. Rivas) Organic Waste: Recovered Organic Waste Product Procurement Targets.

This measure assists local governments implementing the state's organic waste diversion targets by phasing in, over two years, CalRecycle's SB 1383 (Lara, 2016) organic waste diversion regulation's procurement requirements. This measure requires local governments to meet 33% of total compliance with the procurement requirements by 2023, 66% by 2024, and 100% compliance by 2025.

SB 1157 (Hertzberg) Urban Water Use Objectives.

This measure changes the standards for indoor residential water use beginning 2025 to 47 gallons per capita daily and beginning 2030 to 42 gallons per capita daily.

AB 2584 (Berman) Recall Elections.
Chapter 791, Statutes of 2022
This measure amends recall election law by increasing the total number of proponent signatures required to be included on a notice of intention to recall, establishes a public display period for local recall petitions, and lengthens the timeframe for holding a local recall election that has qualified for the ballot in order to allow that election to be consolidated with a regularly scheduled election.

AB 1041 (Wicks) Employment: Leave.
Chapter 748, Statutes of 2022
This measure expands the class of people for whom an employee may take leave to care for to include a designated person, defined to mean any individual related by blood or whose association with the employee is the equivalent of a family relationship. An employee is limited to one designated person per 12-month period.

SB 1439 (Glazer) Campaign Contributions: Agency Officers.
Chapter 848, Statutes of 2022
This measure applies the existing campaign contribution prohibition for state and local agencies and applies it to local elected agencies, such as city councils and boards of supervisors, and expands the timeframe prohibiting specific contributions following an official's action from three months to 12 months.

AB 2449 (B. Rubio) Open Meetings: Local Agencies: Teleconferences.
Chapter 285, Statutes of 2022
This measure allows, until January 1, 2026, members of a legislative body of a local agency to use teleconferencing without identifying each teleconference location in the notice and agenda of the meeting, and without making each teleconference location accessible to the public, under limited specified conditions.

SB 897 (Wieckowski) Accessory Dwelling Units: Junior Accessory Dwelling Units.
Chapter 664, Statutes of 2022
This measure increases the height maximum of an accessory dwelling unit (ADU) from 16 to 18 feet for parcels with an existing or planned multifamily building; or 20 feet for a multifamily or single-family parcel located within one half mile of transit. This measure also requires local jurisdictions to allow an ADU, that is attached to a primary single-family residence, to be constructed with a height of 25 feet.

AB 2011 (Wicks) Affordable Housing and High Road Jobs Act of 2022.
Chapter 647, Statutes of 2022
This measure requires cities to ministerially approve, without condition or discretion, certain affordable housing and mixed-use housing developments in zones where office, retail, or parking are a principally permitted use regardless of any inconsistency with a local government's general plan, specific plan, zoning ordinance, or regulation.

SB 6 (Caballero) Local Planning: Housing: Commercial Zones.
Chapter 659, Statutes of 2022
This measure, the Middle Class Housing Act of 2022, deems a housing development project an allowable use on a parcel that is within a zone where office, retail, or parking are a principally permitted use, if specified conditions are met, including requirements relating to density, public notice, hearings, consistency with sustainable community strategy or alternative plans, prevailing wage, and a skilled and trained workforce.

AB 2097 (Friedman) Residential, Commercial, or Other Development Types: Parking Requirements.
Chapter 459, Statutes of 2022
This measure prohibits a public agency from imposing any minimum automobile parking requirement on any residential, commercial, or other development project that is located within one-half mile of public transit, except under limited circumstances.

SB 1186 (Wiener) Medicinal Cannabis Patients' Right of Access Act.
This measure enacts the Medicinal Cannabis Patients' Right of Access Act, which, on and after January 1, 2024, prohibits a local jurisdiction from adopting or enforcing any regulation that prohibits the retail sale by delivery within the local jurisdiction of medicinal cannabis to medicinal cannabis patients or their primary caregivers by medicinal cannabis businesses or that has the effect of prohibiting the retail sale by delivery within the local jurisdiction.

SB 852 (Dodd) Climate Resilience Districts.
This measure authorizes a city, county, city and county, special district, or a combination of any of those entities to form a climate resilience district to finance projects that address sea level rise, extreme heat, extreme cold, the risk of wildfire, drought, and the risk of flooding.

AB 1909 (Friedman): Bicycle Omnibus Measure.
This measure removes the prohibition of class 3 electric bicycles on a bicycle path or trail, bikeway, bicycle lane, equestrian trail, or hiking or recreational trails and instead authorizes a local authority to prohibit the operation of any electric bicycle or any class of electric bicycle on an equestrian trail or hiking or recreational trail.

Western Riverside Council of Governments
WRCOG Executive Committee

Staff Report

Subject: **Approval of One TUMF Reimbursement Agreement Amendment and One TUMF Reimbursement Agreement**

Contact: **Chris Gray, Deputy Executive Director, cgray@wrcog.us, (951) 405-6710**

Date: **December 5, 2022**

Requested Action(s):

1. Authorize the Executive Director to execute a TUMF Reimbursement Agreement Amendment with the City of Eastvale for the Planning, Engineering, and Construction Phases of the Limonite Avenue Bridge and Extension Project in an amount not to exceed $5,145,077.
2. Authorize the Executive Director to execute a TUMF Reimbursement Agreement with the City of Lake Elsinore for the Engineering Phase of the I-15/Franklin Interchange Project in an amount not to exceed $6,000,000.

Purpose:

The purpose of this item is to request approval of one Transportation Uniform Mitigation Fee (TUMF) Reimbursement Agreement and one Reimbursement Agreement Amendment.

WRCOG 2022-2027 Strategic Plan Goal:

Goal #5 - Develop projects and programs that improve infrastructure and sustainable development in our subregion.

Background:

WRCOG's TUMF Program is a regional fee program designed to provide transportation and transit infrastructure that mitigates the impact of new growth in Western Riverside County. A Reimbursement Agreement is a document between WRCOG and a member agency and allows WRCOG to provide funding for TUMF expenses incurred for the Planning, Design, Engineering, and/or Construction of a TUMF project. To enter into a reimbursement agreement, the funding for the project must first be allocated in the appropriate TUMF Zone Transportation Improvement Program (TIP). TUMF Agreements and Amendments are initiated by their respective agencies when that agency is ready for the infrastructure development.

Reimbursement Agreement

One Reimbursement Agreement Amendment and one Reimbursement Agreement are being presented for approval. The requested Reimbursement Agreements are listed below.

City of Eastvale:

1. The Limonite Avenue Bridge and Limonite Avenue Extension Project Reimbursement Agreement Amendment sets the amount of funding in the Planning, Engineering, and Construction Phases in an amount not to exceed $5,145,077. This project funding has been requested by the City and is programmed in the adopted Fiscal Year 2022/2023 Northwest Zone 5-Year TIP.

City of Lake Elsinore:

1. The I-15 / Franklin Interchange Project Reimbursement Agreement sets the amount of funding in the Engineering Phase to an amount not to exceed $6,000,00. This project funding has been requested by the City and is programmed in the adopted Fiscal Year 2022/2023 Southwest Zone 5-Year TIP.

Prior Action(s):
June 3, 2019: The Executive Committee authorized the Executive Director to execute a TUMF Reimbursement Agreement with the City of Eastvale for the Planning and Engineering Phases of the Limonite Avenue Extension Project in an amount not to exceed $1,540,000.

Fiscal Impact:
Transportation Department activities are included in the Agency's adopted Fiscal Year 2022/2023 Budget under the Transportation Department and the Reimbursement Agreement and Reimbursement Agreement Amendment are consistent with the Northwest Zone and Southwest Zone TIP.

Attachment(s):
Attachment 1 - TUMF Limonite Ave Bridge and Extension Agreement Amendment 17-NW-EAV-1192
Attachment 2 - TUMF I-15/Franklin Agreement 22-SW-LEL-1204

Attachment 1

TUMF Limonite Avenue Bridge and Extension Agreement Amendment 1, 17-NW-EAV-1192

AMENDMENT NO. 1 TO TRANSPORTATION UNIFORM MITIGATION FEE PROGRAM AGREEMENT

LIMONITE AVENUE BRIDGE (OVER CUCAMONGA CREEK) AND LIMONITE AVENUE EXTENSION

This Amendment No. 1 to Transportation Uniform Mitigation Fee Program Agreement ("Amendment No. 1") is entered into this _____ day of December, 2022, by and between the WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS ("WRCOG") and CITY OF EASTVALE ("AGENCY"). WRCOG and the AGENCY are sometimes referred to individually as "Party" and collectively as "Parties."

RECITALS

A. WRCOG and AGENCY have entered into an agreement titled "Transportation Uniform Mitigation Fee Program Agreement" that is dated May 22, 2019 ("Agreement"). The Agreement provides the terms and conditions, scope of work, schedule and funding amount for the construction of the LIMONITE AVENUE BRIDGE (OVER CUCAMONGA CREEK), LIMONITE AVENUE EXTENSION, 2,450' EAST OF HELLMAN TO ARCHIBALD (hereinafter the "Project").

B. The Parties desire to amend the Agreement by increasing the funding amount pursuant to Sections 6 and 33 of the Agreement.

C. Funds are being increased as the Agreement initially only included planning and engineering phases, and now the City wishes to add construction phase.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual covenants and subject to the

conditions contained herein, the Parties hereby agree as follows:

1. The Funding Amount contained in Section 2 of the Agreement is hereby increased by Three Million Six Hundred Five Thousand Seventy Seven Dollars ($3,605,077.00) from One Million Five Hundred Forty Thousand Dollars ($1,540,000.00) to an amount not to exceed Five Million One Hundred Forty Five Thousand Seventy Seven Dollars ($5,145,077.00).

2. The foregoing increase in the Funding Amount is within the Maximum TUMF Share.

3. Exhibits “A”, “A-1”, and “A-2” of the Agreement are hereby replaced in their entirety by Exhibits “A”, “A-1”, and “A-2” of this Amendment No. 1, which are attached hereto and incorporated by reference.

4. The above-stated Recitals are hereby fully incorporated into this Amendment No. 1.

5. Except to the extent specifically modified or amended hereunder, all of the terms, covenants and conditions of the Agreement shall remain in full force and effect between the Parties hereto.

IN WITNESS WHEREOF, the Parties have caused this Amendment No. 1 to be executed by their duly authorized representatives to be effective on the day and year first written above.

WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS

By: _____
Dr. Kurt Wilson, Executive Director

Approved to Form:

By: _____
Steven C. DeBaun
General Counsel

CITY OF EASTVALE

By: _____
Henry Garcia, Interim City Manager

Approved to Form:

By: _____
Erica Vega
City Attorney

Attest:

By: _____
Marc Donohue
City Clerk

Exhibit A

SCOPE OF SERVICES

1. **SCOPE OF WORK:**

Planning, Engineering, Environmental, Construction and Project Management for Limonite Avenue, west of Archibald Avenue, and Bridge over Cucamonga Creek Channel.

EXHIBIT "A-1"

ESTIMATE OF COST

Phase	TUMF	LOCAL	TOTAL
PA&ED	$450,000.00	-	$450,000.00
PS&E	$500,000.00	-	$500,000.00
RIGHT OF WAY	-	-	-
CONSTRUCTION	$4,195,077.00	-	$4,195,077.00
TOTAL	$5,145,077.00	-	$5,145,077.00

EXHIBIT "A-2"

PROJECT SCHEDULE

TIMETABLE:

Phase	Estimated Completion Date	Estimated Cost	Comments
PA&ED	September 2020	$450,000.00	
PS&E	November 2022	$500,000.00	
RIGHT OF WAY	December 2022		
CONSTRUCTION	June 2024	$4,195,077.00	
TOTAL		$5,145,077.00	

Attachment 2

TUMF I-15/Franklin Interchange
Agreement 22-SW-LEL-1204

\TRANSPORTATION UNIFORM MITIGATION FEE PROGRAM
AGREEMENT TO REIMBURSE TUMF FUNDS
INTERSTATE 15 FRANKLIN STREET INTERCHANGE IMPROVEMENT PROJECT
FINAL PS&E PHASE

THIS REIMBURSEMENT AGREEMENT ("Agreement") is entered into as of this _____day of _____, 20__, by and between the Western Riverside Council of Governments ("WRCOG"), a California joint powers authority and **City of Lake Elsinore**, a California municipal corporation ("AGENCY"). WRCOG and AGENCY are sometimes hereinafter referred to individually as "Party" and collectively as "Parties".

RECITALS

A. WRCOG is the Administrator of the Transportation Uniform Mitigation Fee Program of Western Riverside County ("TUMF Program").

B. WRCOG has identified and designated certain transportation improvement projects throughout Western Riverside County as projects of regional importance ("Qualifying Projects" or "Projects"). The Qualifying Projects are more specifically described in that certain WRCOG study titled "TUMF Nexus Study", as may be amended from time to time. Qualifying Projects can have Regional or Zonal significance as further described in the TUMF Nexus Study.

C. The TUMF Program is funded by TUMF fees paid by new development in Western Riverside County (collectively, "TUMF Program Funds"). TUMF Program Funds are held in trust by WRCOG for the purpose of funding the Qualifying Projects.

D. The AGENCY proposes to implement a Qualifying Project, and it is the purpose of this Agreement to identify the project and to set forth the terms and conditions by which WRCOG will release TUMF Program Funds.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual covenants and subject to the conditions contained herein, the Parties hereby agree as follows:

1. Description of the Qualifying Project. This Agreement is intended to distribute TUMF Program Funds to the AGENCY for **Interstate 15 Franklin Street Interchange Improvement Project**, (the "Project"), a Qualifying Project. The Work, including a timetable and a detailed scope of work, is more fully described in Exhibit "A" attached hereto and incorporated herein by reference and, pursuant to Section 20 below, is subject to modification if requested by the AGENCY and approved by WRCOG. The work shall be consistent with one or more of the defined WRCOG Call for Projects phases detailed herein as follows:

1) PS&E – Plans, Specifications and Estimates

2. WRCOG Funding Amount. WRCOG hereby agrees to distribute to AGENCY, on the terms and conditions set forth herein, a sum not to exceed **Six Million Dollars ($6,000,000),** to be used for reimbursing the AGENCY for eligible Project expenses as described

in Section 3 herein ("Funding Amount"). The Parties acknowledge and agree that the Funding Amount may be less than the actual cost of the Project. Nevertheless, the Parties acknowledge and agree that WRCOG shall not be obligated to contribute TUMF Program Funds in excess of the maximum TUMF share identified in the TUMF Nexus Study ("Maximum TUMF Share"), as may be amended from time to time.

3. Project Costs Eligible for Advance/Reimbursement. The total Project costs ("Total Project Cost") may include the following items, provided that such items are included in the scope of work attached hereto as Exhibit "A" ("Scope of Work"): (1) AGENCY and/or consultant costs associated with direct Project coordination and support; (2) funds expended in preparation of preliminary engineering studies; (3) funds expended for preparation of environmental review documentation for the Project; (4) all costs associated with right-of-way acquisition, including right-of-way engineering, appraisal, acquisition, legal costs for condemnation procedures if authorized by the AGENCY, and costs of reviewing appraisals and offers for property acquisition; (5) costs reasonably incurred if condemnation proceeds; (6) costs incurred in the preparation of plans, specifications, and estimates by AGENCY or consultants; (7) AGENCY costs associated with bidding, advertising and awarding of the Project contracts; (8) construction costs, including change orders to construction contract approved by the AGENCY; (9) construction management, field inspection and material testing costs; and (10) any AGENCY administrative cost to deliver the Project.

4. Ineligible Project Costs. The Total Project Cost shall not include the following items which shall be borne solely by the AGENCY without reimbursement: (1) any AGENCY administrative fees attributed to the reviewing and processing of the Project; and (2) expenses for items of work not included within the Scope of Work in Exhibit "A".

5. Procedures for Distribution of TUMF Program Funds to AGENCY.

(a) Initial Payment by the AGENCY. The AGENCY shall be responsible for initial payment of all the Project costs as they are incurred. Following payment of such Project costs, the AGENCY shall submit invoices to WRCOG requesting reimbursement of eligible Project costs. Each invoice shall be accompanied by detailed contractor invoices, or other demands for payment addressed to the AGENCY, and documents evidencing the AGENCY's payment of the invoices or demands for payment. Documents evidencing the AGENCY'S payment of the invoices shall be retained for four (4) years and shall be made available for review by WRCOG. The AGENCY shall submit invoices not more often than monthly and not less often than quarterly.

(b) Review and Reimbursement by WRCOG. Upon receipt of an invoice from the AGENCY, WRCOG may request additional documentation or explanation of the Project costs for which reimbursement is sought. Undisputed amounts shall be paid by WRCOG to the AGENCY within thirty (30) days. In the event that WRCOG disputes the eligibility of the AGENCY for reimbursement of all or a portion of an invoiced amount, the Parties shall meet and confer in an attempt to resolve the dispute. If the meet and confer process is unsuccessful in resolving the dispute, the AGENCY may appeal WRCOG's decision as to the eligibility of one or more invoices to WRCOG's Executive Director. The WRCOG Executive Director shall provide his/her decision in writing. If the AGENCY disagrees with the Executive Director's decision, the AGENCY may appeal the decision of the Executive Director to the full WRCOG Executive Committee, provided the AGENCY submits its request for appeal to WRCOG within

ten (10) days of the Executive Director's written decision. The decision of the WRCOG Executive Committee shall be final. Additional details concerning the procedure for the AGENCY's submittal of invoices to WRCOG and WRCOG's consideration and payment of submitted invoices are set forth in Exhibit "B", attached hereto and incorporated herein by reference.

(c) Funding Amount/Adjustment. If a post Project audit or review indicates that WRCOG has provided reimbursement to the AGENCY in an amount in excess of the Maximum TUMF Share of the Project, or has provided reimbursement of ineligible Project costs, the AGENCY shall reimburse WRCOG for the excess or ineligible payments within 30 days of notification by WRCOG.

6. Increases in Project Funding. The Funding Amount may, in WRCOG's sole discretion, be augmented with additional TUMF Program Funds if the TUMF Nexus Study is amended to increase the maximum eligible TUMF share for the Project. Any such increase in the Funding Amount must be approved in writing by WRCOG's Executive Director. In no case shall the amount of TUMF Program Funds allocated to the AGENCY exceed the then-current maximum eligible TUMF share for the Project. No such increased funding shall be expended to pay for any Project already completed. For purposes of this Agreement, the Project or any portion thereof shall be deemed complete upon its acceptance by WRCOG's Executive Director which shall be communicated to the AGENCY in writing.

7. No Funding for Temporary Improvements. Only segments or components of the construction that are intended to form part of or be integrated into the Project may be funded by TUMF Program Funds. No improvement which is temporary in nature, including but not limited to temporary roads, curbs, tapers or drainage facilities, shall be funded with TUMF Program Funds, except as needed for staged construction of the Project.

8. AGENCY's Funding Obligation to Complete the Project. In the event that the TUMF Program Funds allocated to the Project represent less than the total cost of the Project, the AGENCY shall provide such additional funds as may be required to complete the Project.

9. AGENCY's Obligation to Repay TUMF Program Funds to WRCOG; Exception For PA&ED Phase Work. Except as otherwise expressly excepted within this paragraph, in the event that: (i) the AGENCY, for any reason, determines not to proceed with or complete the Project; or (ii) the Project is not timely completed, subject to any extension of time granted by WRCOG pursuant to the terms of this Agreement; the AGENCY agrees that any TUMF Program Funds that were distributed to the AGENCY for the Project shall be repaid in full to WRCOG, and the Parties shall enter into good faith negotiations to establish a reasonable repayment schedule and repayment mechanism. If the Project involves work pursuant to a PA&ED phase, AGENCY shall not be obligated to repay TUMF Program Funds to WRCOG relating solely to PA&ED phase work performed for the Project.

10. AGENCY local match funding is not required, as shown in Exhibit "A" and as called out in the AGENCY's Project Nomination Form submitted to WRCOG in response to its Call for Projects.

11. Term/Notice of Completion. The term of this Agreement shall be from the date first herein above written until the earlier of the following: (i) the date WRCOG formally accepts the Project as complete, pursuant to Section 6; (ii) termination of this Agreement pursuant to Section 15; or (iii) the AGENCY has fully satisfied its obligations under this Agreement. All applicable indemnification provisions of this Agreement shall remain in effect following the termination of this Agreement.

12. Representatives of the Parties. WRCOG's Executive Director, or his or her designee, shall serve as WRCOG's representative and shall have the authority to act on behalf of WRCOG for all purposes under this Agreement. The AGENCY hereby designates **Jason Simpson, City Manager**, or his or her designee, as the AGENCY's representative to WRCOG. The AGENCY's representative shall have the authority to act on behalf of the AGENCY for all purposes under this Agreement and shall coordinate all activities of the Project under the AGENCY's responsibility. The AGENCY shall work closely and cooperate fully with WRCOG's representative and any other agencies which may have jurisdiction over or an interest in the Project.

13. Expenditure of Funds by AGENCY Prior to Execution of Agreement. Nothing in this Agreement shall be construed to prevent or preclude the AGENCY from expending funds on the Project prior to the execution of the Agreement, or from being reimbursed by WRCOG for such expenditures. However, the AGENCY understands and acknowledges that any expenditure of funds on the Project prior to the execution of the Agreement is made at the AGENCY's sole risk, and that some expenditures by the AGENCY may not be eligible for reimbursement under this Agreement.

14. Review of Services. The AGENCY shall allow WRCOG's Representative to inspect or review the progress of the Project at any reasonable time in order to determine whether the terms of this Agreement are being met.

15. Termination.

(a) Notice. Either WRCOG or AGENCY may, by written notice to the other party, terminate this Agreement, in whole or in part, in response to a material breach hereof by the other Party, by giving written notice to the other party of such termination and specifying the effective date thereof. The written notice shall provide a 30 day period to cure any alleged breach. During the 30 day cure period, the Parties shall discuss, in good faith, the manner in which the breach can be cured.

(b) Effect of Termination. In the event that the AGENCY terminates this Agreement, the AGENCY shall, within 180 days, repay to WRCOG any unexpended TUMF Program Funds provided to the AGENCY under this Agreement and shall complete any portion or segment of work for the Project for which TUMF Program Funds have been provided. In the event that WRCOG terminates this Agreement, WRCOG shall, within 90 days, distribute to the AGENCY TUMF Program Funds in an amount equal to the aggregate total of all unpaid invoices which have been received from the AGENCY regarding the Project at the time of the notice of termination; provided, however, that WRCOG shall be entitled to exercise its rights under Section 5(b), including but not limited to conducting a review of the invoices and requesting additional information. Upon such termination, the AGENCY shall, within 180 days, complete any portion or segment of work for the Project for which TUMF Program Funds have

been provided. This Agreement shall terminate upon receipt by the non-terminating Party of the amounts due to it hereunder and upon completion of the segment or portion of Project work for which TUMF Program Funds have been provided.

(c) Cumulative Remedies. The rights and remedies of the Parties provided in this Section are in addition to any other rights and remedies provided by law or under this Agreement.

16. Prevailing Wages. The AGENCY and any other person or entity hired to perform services on the Project are alerted to the requirements of California Labor Code Sections 1770 et seq., which would require the payment of prevailing wages were the services or any portion thereof determined to be a public work, as defined therein. The AGENCY shall ensure compliance with these prevailing wage requirements by any person or entity hired to perform the Project. The AGENCY shall defend, indemnify, and hold harmless WRCOG, its officers, employees, consultants, and agents from any claim or liability, including without limitation attorneys, fees, arising from its failure or alleged failure to comply with California Labor Code Sections 1770 et seq.

17. Progress Reports. WRCOG may request the AGENCY to provide WRCOG with progress reports concerning the status of the Project.

18. Indemnification.

(a) AGENCY Responsibilities. In addition to the indemnification required under Section 16, the AGENCY agrees to indemnify and hold harmless WRCOG, its officers, agents, consultants, and employees from any and all claims, demands, costs or liability arising from or connected with all activities governed by this Agreement including all design and construction activities, due to negligent acts, errors or omissions or willful misconduct of the AGENCY or its subcontractors. The AGENCY will reimburse WRCOG for any expenditures, including reasonable attorneys' fees, incurred by WRCOG, in defending against claims ultimately determined to be due to negligent acts, errors or omissions or willful misconduct of the AGENCY.

(b) WRCOG Responsibilities. WRCOG agrees to indemnify and hold harmless the AGENCY, its officers, agents, consultants, and employees from any and all claims, demands, costs or liability arising from or connected with all activities governed by this Agreement including all design and construction activities, due to negligent acts, errors or omissions or willful misconduct of WRCOG or its sub-consultants. WRCOG will reimburse the AGENCY for any expenditures, including reasonable attorneys' fees, incurred by the AGENCY, in defending against claims ultimately determined to be due to negligent acts, errors or omissions or willful misconduct of WRCOG.

(c) Effect of Acceptance. The AGENCY shall be responsible for the professional quality, technical accuracy and the coordination of any services provided to complete the Project. WRCOG's review, acceptance or funding of any services performed by the AGENCY or any other person or entity under this Agreement shall not be construed to operate as a waiver of any rights WRCOG may hold under this Agreement or of any cause of action arising out of this Agreement. Further, the AGENCY shall be and remain liable to

WRCOG, in accordance with applicable law, for all damages to WRCOG caused by the AGENCY's negligent performance of this Agreement or supervision of any services provided to complete the Project.

19. Insurance. The AGENCY shall require, at a minimum, all persons or entities hired to perform the Project to obtain, and require their subcontractors to obtain, insurance of the types and in the amounts described below and satisfactory to the AGENCY and WRCOG. Such insurance shall be maintained throughout the term of this Agreement, or until completion of the Project, whichever occurs last.

(a) Commercial General Liability Insurance. Occurrence version commercial general liability insurance or equivalent form with a combined single limit of not less than $1,000,000.00 per occurrence. If such insurance contains a general aggregate limit, it shall apply separately to the Project or be no less than two times the occurrence limit. Such insurance shall:

(i) Name WRCOG and AGENCY, and their respective officials, officers, employees, agents, and consultants as insured with respect to performance of the services on the Project and shall contain no special limitations on the scope of coverage or the protection afforded to these insured;

(ii) Be primary with respect to any insurance or self-insurance programs covering WRCOG and AGENCY, and/or their respective officials, officers, employees, agents, and consultants; and

(iii) Contain standard separation of insured provisions.

(b) Business Automobile Liability Insurance. Business automobile liability insurance or equivalent form with a combined single limit of not less than $1,000,000.00 per occurrence. Such insurance shall include coverage for owned, hired and non-owned automobiles.

(c) Professional Liability Insurance. Errors and omissions liability insurance with a limit of not less than $1,000,000.00 Professional liability insurance shall only be required of design or engineering professionals.

(d) Workers' Compensation Insurance. Workers' compensation insurance with statutory limits and employers' liability insurance with limits of not less than $1,000,000.00 each accident.

20. Project Amendments. Changes to the characteristics of the Project, including the deadline for Project completion, and any responsibilities of the AGENCY or WRCOG may be requested in writing by the AGENCY and are subject to the approval of WRCOG's Representative, which approval will not be unreasonably withheld, provided that extensions of time for completion of the Project shall be approved in the sole discretion of WRCOG's Representative. Nothing in this Agreement shall be construed to require or allow completion of the Project without full compliance with the California Environmental Quality Act (Public Resources Code Section 21000 *et seq.;* "CEQA") and the National Environmental Policy Act of

1969 (42 USC 4231 *et seq.*), if applicable, but the necessity of compliance with CEQA and/or NEPA shall not justify, excuse, or permit a delay in completion of the Project.

21. Conflict of Interest. For the term of this Agreement, no member, officer or employee of the AGENCY or WRCOG, during the term of his or her service with the AGENCY or WRCOG, as the case may be, shall have any direct interest in this Agreement, or obtain any present or anticipated material benefit arising therefrom.

22. Limited Scope of Duties. WRCOG's and the AGENCY's duties and obligations under this Agreement are limited to those described herein. WRCOG has no obligation with respect to the safety of any Project performed at a job site. In addition, WRCOG shall not be liable for any action of AGENCY or its contractors relating to the condemnation of property undertaken by AGENCY or construction related to the Project.

23. Books and Records. Each party shall maintain complete, accurate, and clearly identifiable records with respect to costs incurred for the Project under this Agreement. They shall make available for examination by the other party, its authorized agents, officers or employees any and all ledgers and books of account, invoices, vouchers, canceled checks, and other records or documents evidencing or related to the expenditures and disbursements charged to the other party pursuant to this Agreement. Further, each party shall furnish to the other party, its agents or employees such other evidence or information as they may require with respect to any such expense or disbursement charged by them. All such information shall be retained by the Parties for at least four (4) years following termination of this Agreement, and they shall have access to such information during the four-year period for the purposes of examination or audit.

24. Equal Opportunity Employment. The Parties represent that they are equal opportunity employers and they shall not discriminate against any employee or applicant of reemployment because of race, religion, color, national origin, ancestry, sex or age. Such non-discrimination shall include, but not be limited to, all activities related to initial employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination.

25. Governing Law. This Agreement shall be governed by and construed with the laws of the State of California.

26. Attorneys' Fees. If either party commences an action against the other party arising out of or in connection with this Agreement, the prevailing party in such litigation shall be entitled to have and recover from the losing party reasonable attorneys' fees and costs of suit.

27. Time of Essence. Time is of the essence for each and every provision of this Agreement.

28. Headings. Article and Section Headings, paragraph captions or marginal headings contained in this Agreement are for convenience only and shall have no effect in the construction or interpretation of any provision herein.

29. Public Acknowledgement. The AGENCY agrees that all public notices, news releases, information signs and other forms of communication shall indicate that the Project is being cooperatively funded by the AGENCY and WRCOG TUMF Program Funds.

30. No Joint Venture. This Agreement is for funding purposes only and nothing herein shall be construed to make WRCOG a party to the construction of the Project or to make it a partner or joint venture with the AGENCY for such purpose.

31. Compliance With the Law. The AGENCY shall comply with all applicable laws, rules and regulations governing the implementation of the Qualifying Project, including, where applicable, the rules and regulations pertaining to the participation of businesses owned or controlled by minorities and women promulgated by the Federal Highway Administration and the Federal Department of Transportation.

32. Notices. All notices hereunder and communications regarding interpretation of the terms of this Agreement or changes thereto shall be provided by the mailing thereof by registered or certified mail, return receipt requested, postage prepaid and addressed as follows:

If to AGENCY:
City of Lake Elsinore
130 South Main Street
Lake Elsinore, California 92530
Attention: Jason Simpson, City Manager
Telephone: (951) 674-3124
Facsimile: (951) 471-1261

If to WRCOG:
Western Riverside Council of Governments
3390 University Avenue; Suite 200
Riverside, California 92501
Attention: Christopher Gray, Deputy Executive Director
Telephone: (951) 405-6710
Facsimile: (951) 223-9720

Any notice so given shall be considered served on the other party three (3) days after deposit in the U.S. mail, first class postage prepaid, return receipt requested, and addressed to the party at its applicable address. Actual notice shall be deemed adequate notice on the date actual notice occurred regardless of the method of service.

33. Integration; Amendment. This Agreement contains the entire agreement between the PARTIES. Any agreement or representation respecting matters addressed herein that are not expressly set forth in this Agreement is null and void. This Agreement may be amended only by mutual written agreement of the PARTIES.

34. Severability. If any term, provision, condition or covenant of this Agreement is held invalid or unenforceable, the remainder of this Agreement shall not be affected thereby.

35. Conflicting Provisions. In the event that provisions of any attached appendices or exhibits conflict in any way with the provisions set forth in this Agreement, the language, terms

and conditions contained in this Agreement shall control the actions and obligations of the Parties and the interpretation of the Parties' understanding concerning the Agreement.

36. Independent Contractors. Any person or entities retained by the AGENCY or any contractor shall be retained on an independent contractor basis and shall not be employees of WRCOG. Any personnel performing services on the Project shall at all times be under the exclusive direction and control of the AGENCY or contractor, whichever is applicable. The AGENCY or contractor shall pay all wages, salaries and other amounts due such personnel in connection with their performance of services on the Project and as required by law. The AGENCY or consultant shall be responsible for all reports and obligations respecting such personnel, including, but not limited to: social security taxes, income tax withholding, unemployment insurance and workers' compensation insurance.

37. Effective Date. This Agreement shall not be effective until executed by both Parties. The failure of one party to execute this Agreement within forty-five (45) days of the other party executing this Agreement shall render any execution of this Agreement ineffective.

38. No Third Party Beneficiaries. There are no intended third party beneficiaries of any right or obligation assumed by the Parties.

[SIGNATURES ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized representatives to be effective on the day and year first above-written.

WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS

By:_____ Date:_____
Dr. Kurt Wilson
Executive Director

Approved to Form:

By:_____ Date:_____
Steven C. DeBaun
General Counsel

CITY OF LAKE ELSINORE

By: _____ Date:_____
Timothy J. Sheridan
Mayor

Approved to Form:

By:_____ Date:_____
Barbara Leibold
City Attorney

Attestation:

By:_____ Date:_____
Candice Alvarez, MMC
City Clerk

EXHIBIT "A"

SCOPE OF WORK

SCOPE OF WORK:

This TUMF Reimbursement is for the Final Plans, Specifications, and Estimate (PS&E) Phase only. Final PS&E includes the development of the plans, specifications, and construction cost estimate; obtaining any resource agency permits, and advertisement/award of the construction contract.

From approved FTIP:

CONS NEW I-15/FRANKLIN ST INC, CONST AUX LNS FROM FRANKLIN ST IC TO MAI NST IC & FROM FRANKLIN ST IC TO RR CYN IC, REALIGN & RECONSTRUCT MAIN ST SB ON RAMP FROM 1-2 LNS, ON WS OF I-15 CONST AUTO CENTER DR EXTNSN FROM EX FRANKLIN ST TO ADOBE ST & ON ES OF I-15 AND CONST CNY ESTATE DR EXT FROM EX FRANKLIN ST TO CAMINO DEL NORTE

EXHIBIT "A-1"

ESTIMATE OF COST

Phase	TUMF	LOCAL	TOTAL
PA&ED			
PS&E	$6,000,000	$2,000,000	$8,000,000
RIGHT OF WAY			
CONSTRUCTION			
TOTAL	$6,000,000	$2,000,000	$8,000,000

EXHIBIT "A-2"

PROJECT SCHEDULE

TIMETABLE:

This TUMF Reimbursement is for Final PS&E Phase only.

Final PS&E is anticipated to begin February 2023 with estimated completion date of February 2025.

Phase	Estimated Completion Date	Estimated Cost	Comments
PA&ED	August 2017	$3,786,801	PA&ED completed with RR Canyon IC
PS&E	February 2025	$8,000,000	Est. Start Date: February 2023
RIGHT OF WAY	February 2026	$8,000,000	
CONSTRUCTION	July 2028	$80,000,000	
TOTAL		$99,786,801	

Elements of Compensation

EXHIBIT "B"

PROCEDURES FOR SUBMITTAL, CONSIDERATION AND PAYMENT OF INVOICES

1. For professional services, WRCOG recommends that the AGENCY incorporate this Exhibit "B-1" into its contracts with any subcontractors to establish a standard method for preparation of invoices by contractors to the AGENCY and ultimately to WRCOG for reimbursement of AGENCY contractor costs.

2. Each month the AGENCY shall submit an invoice for eligible Project costs incurred during the preceding month. The original invoice shall be submitted to WRCOG's Executive Director with a copy to WRCOG's Project Coordinator. Each invoice shall be accompanied by a cover letter in a format substantially similar to that of Exhibit "B-2".

3. For jurisdictions with large construction projects (with the total construction cost exceeding $10 million) under construction at the same time, may with the approval of WRCOG submit invoices to WRCOG for payment at the same time they are received by the jurisdiction. WRCOG must receive the invoice by the 5th day of the month in order to process the invoice within 30 days. WRCOG will retain 10% of the invoice until all costs have been verified as eligible and will release the balance at regular intervals not more than quarterly and not less than semi-annually. If there is a discrepancy or ineligible costs that exceed 10% of the previous invoice WRCOG will deduct that amount from the next payment.

4. Each invoice shall include documentation from each contractor used by the AGENCY for the Project, listing labor costs, subcontractor costs, and other expenses. Each invoice shall also include a monthly progress report and spreadsheets showing the hours or amounts expended by each contractor or subcontractor for the month and for the entire Project to date. Samples of acceptable task level documentation and progress reports are attached as Exhibits "B-4" and "B-5". All documentation from the Agency's contractors should be accompanied by a cover letter in a format substantially similar to that of Exhibit "B-3".

5. If the AGENCY is seeking reimbursement for direct expenses incurred by AGENCY staff for eligible Project costs, the AGENCY shall provide the same level of information for its labor and any expenses as required of its contractors pursuant to Exhibit "B" and its attachments.

6. Charges for each task and milestone listed in Exhibit "A" shall be listed separately in the invoice.

7. Each invoice shall include a certification signed by the AGENCY Representative or his or her designee which reads as follows:

"I hereby certify that the hours and salary rates submitted for reimbursement in this invoice are the actual hours and rates worked and paid to the contractors or subcontractors listed.

Signed _____

Title _____

Date _____

Invoice No. _____

8. WRCOG will pay the AGENCY within 30 days after receipt by WRCOG of an invoice. If WRCOG disputes any portion of an invoice, payment for that portion will be withheld, without interest, pending resolution of the dispute, but the uncontested balance will be paid.

9. The final payment under this Agreement will be made only after: (I) the AGENCY has obtained a Release and Certificate of Final Payment from each contractor or subcontractor used on the Project; (ii) the AGENCY has executed a Release and Certificate of Final Payment; and (iii) the AGENCY has provided copies of each such Release to WRCOG.

EXHIBIT "B-1"
[Sample for Professional Services]

For the satisfactory performance and completion of the Services under this Agreement, Agency will pay the Contractor compensation as set forth herein. The total compensation for this service shall not exceed (_____INSERT WRITTEN DOLLAR AMOUNT___) ($___INSERT NUMERICAL DOLLAR AMOUNT___) without written approval of Agency's City Manager [or applicable position] ("Total Compensation").

1. ELEMENTS OF COMPENSATION.

Compensation for the Services will be comprised of the following elements: 1.1 Direct Labor Costs; 1.2 Fixed Fee; and 1.3 Additional Direct Costs.

1.1 DIRECT LABOR COSTS.

Direct Labor costs shall be paid in an amount equal to the product of the Direct Salary Costs and the Multiplier which are defined as follows:

1.1.1 DIRECT SALARY COSTS

Direct Salary Costs are the base salaries and wages actually paid to the Contractor's personnel directly engaged in performance of the Services under the Agreement. (The range of hourly rates paid to the Contractor's personnel appears in Section 2 below.)

1.1.2 MULTIPLIER

The Multiplier to be applied to the Direct Salary Costs to determine the Direct Labor Costs is _____, and is the sum of the following components:

1.1.2.1 Direct Salary Costs _____

1.1.2.2 Payroll Additives _____

The Decimal Ratio of Payroll Additives to Direct Salary Costs. Payroll Additives include all employee benefits, allowances for vacation, sick leave, and holidays, and company portion of employee insurance and social and retirement benefits, all federal and state payroll taxes, premiums for insurance which are measured by payroll costs, and other contributions and benefits imposed by applicable laws and regulations.

1.1.2.3 Overhead Costs _____

The Decimal Ratio of Allowable Overhead Costs to the Contractor Firm's Total Direct Salary Costs. Allowable Overhead Costs include general,

administrative and overhead costs of maintaining and operating established offices, and consistent with established firm policies, and as defined in the Federal Acquisitions Regulations, Part 31.2.

Total Multiplier _____
(sum of 1.1.2.1, 1.1.2.2, and 1.1.2.3)

1.2 FIXED FEE.

1.2.1 The fixed fee is $_____.

1.2.2 A pro-rata share of the Fixed Fee shall be applied to the total Direct Labor Costs expended for services each month, and shall be included on each monthly invoice.

1.3 ADDITIONAL DIRECT COSTS.

Additional Direct Costs directly identifiable to the performance of the services of this Agreement shall be reimbursed at the rates below, or at actual invoiced cost.

Rates for identified Additional Direct Costs are as follows:

ITEM	REIMBURSEMENT RATE
	[___insert charges___]
Per Diem	$ /day
Car mileage	$ /mile
Travel	$ /trip
Computer Charges	$ /hour
Photocopies	$ /copy
Blueline	$ /sheet
LD Telephone	$ /call
Fax	$ /sheet
Photographs	$ /sheet

Travel by air and travel in excess of 100 miles from the Contractor's office nearest to Agency's office must have Agency's prior written approval to be reimbursed under this Agreement.

2. DIRECT SALARY RATES

Direct Salary Rates, which are the range of hourly rates to be used in determining Direct Salary Costs in Section 1.1.1 above, are given below and are subject to the following:

2.1 Direct Salary Rates shall be applicable to both straight time and overtime work, unless payment of a premium for overtime work is required by law, regulation or craft agreement, or is otherwise specified in this Agreement. In such event, the premium portion of Direct Salary Costs will not be subject to the Multiplier defined in Paragraph 1.1.2 above.

2.2 Direct Salary Rates shown herein are in effect for one year following the effective date of the Agreement. Thereafter, they may be adjusted annually to reflect the Contractor's adjustments to individual compensation. The Contractor shall notify Agency in writing prior to a change in the range of rates included herein, and prior to each subsequent change.

POSITION OR CLASSIFICATION	RANGE OF HOURLY RATES
[___sample___]	
Principal	$ .00 - $ .00/hour
Project Manager	$ .00 - $ .00/hour
Sr. Engineer/Planner	$ .00 - $ .00/hour
Project Engineer/Planner	$ .00 - $ .00/hour
Assoc. Engineer/Planner	$ .00 - $ .00/hour
Technician	$ .00 - $ .00/hour
Drafter/CADD Operator	$ .00 - $ .00/hour
Word Processor	$ .00 - $ .00/hour

2.3 The above rates are for the Contractor only. All rates for subcontractors to the Contractor will be in accordance with the Contractor's cost proposal.

3. INVOICING.

3.1 Each month the Contractor shall submit an invoice for Services performed during the preceding month. The original invoice shall be submitted to Agency's Executive Director with two (2) copies to Agency's Project Coordinator.

3.2 Charges shall be billed in accordance with the terms and rates included herein, unless otherwise agreed in writing by Agency's Representative.

3.3 Base Work and Extra Work shall be charged separately, and the charges for each task and Milestone listed in the Scope of Services, shall be listed separately. The charges for each individual assigned by the Contractor under this Agreement shall be listed separately on an attachment to the invoice.

3.4 A charge of $500 or more for any one item of Additional Direct Costs shall be accompanied by substantiating documentation satisfactory to Agency such as invoices, telephone logs, etc.

3.5 Each copy of each invoice shall be accompanied by a Monthly Progress Report and spreadsheets showing hours expended by task for each month and total project to date.

3.6 If applicable, each invoice shall indicate payments to DBE subcontractors or supplies by dollar amount and as a percentage of the total invoice.

3.7 Each invoice shall include a certification signed by the Contractor's Representative or an officer of the firm which reads as follows:

I hereby certify that the hours and salary rates charged in this invoice are the actual hours and rates worked and paid to the employees listed.

Signed _____

Title _____

Date _____

Invoice No. _____

4. PAYMENT

4.1 Agency shall pay the Contractor within four to six weeks after receipt by Agency of an original invoice. Should Agency contest any portion of an invoice, that portion shall be held for resolution, without interest, but the uncontested balance shall be paid.

4.2 The final payment for Services under this Agreement will be made only after the Contractor has executed a Release and Certificate of Final Payment.

EXHIBIT B-2
Sample Cover Letter to WRCOG

Date
Western Riverside Council of Governments
3390 University Avenue; Suite 450
Riverside, California 92501
Attention: Deputy Executive Director
ATTN: Accounts Payable

Re: Project Title - Invoice #__

Enclosed for your review and payment approval is the AGENCY's invoice for professional and technical services that was rendered by our contractors in connection with the 2002 Measure "A" Local Streets and Roads Funding per Agreement No. _____ effective __(Month/Day/Year)__. The required support documentation received from each contractor is included as backup to the invoice.

Invoice period covered is from __Month/Date/Year__ to __Month/Date/Year__.

Total Authorized Agreement Amount:	$0,000,000.00
Total Invoiced to Date:	$0,000,000.00
Total Previously Invoiced:	$0,000,000.00
Balance Remaining:	$0,000,000.00
Amount due this Invoice:	**$0,000,000.00**
	==========

I certify that the hours and salary rates charged in this invoice are the actual hours and rates worked and paid to the contractors listed.

By: _____
Name
Title

cc:

EXHIBIT B-3
Sample Letter from Contractor to AGENCY

Month/Date/Year

Western Riverside Council of Governments
3390 University Avenue; Suite 200
Riverside, California 92501
Attention: Deputy Executive Director
Attn: Accounts Payable Invoice #_____

For **[type of services]** rendered by **[contractor name]** in connection with **[name of project]** This is per agreement No. XX-XX-XXX effective Month/Date/Year.

Invoice period covered is from Month/Date/Year to Month/Date/Year.

Total Base Contract Amount:	$000,000.00
Authorized Extra Work (if Applicable)	$000,000.00

TOTAL AUTHORIZED CONTRACT AMOUNT:	$000,000.00
Total Invoice to Date:	$000,000.00
Total Previously Billed:	$000,000.00
Balance Remaining:	$000,000.00
Amount Due this Invoice:	$000,000.00
	==========

I certify that the hours and salary rates charged in this invoice are the actual hours and rates worked and paid to the employees listed,

By: _____
Name
Title

EXHIBIT B-4
SAMPLE TASK SUMMARY SCHEDULE
(OPTIONAL)

EXHIBIT B-5
Sample Progress Report

REPORTING PERIOD: Month/Date/Year to Month/Date/Year
PROGRESS REPORT: #1

A. Activities and Work Completed during Current Work Periods

TASK 01 – 100% PS&E SUBMITTAL
1. Responded to Segment 1 comments from Department of Transportation
2. Completed and submitted Segment 1 final PS&E

B. Current/Potential Problems Encountered & Corrective Action

Problems	Corrective Action
None	None

C. Work Planned Next Period

TASK 01 – 100% PS&E SUBMITTAL
1. Completing and to submit Traffic Signal and Electrical Design plans
2. Responding to review comments

Western Riverside Council of Governments
WRCOG Executive Committee

Staff Report

Subject: **Approval of West Virginia University Fleet Maintenance Cost Study Subcontract Amendment No. 1**

Contact: **Taylor York, Program Manager, tyork@wrcog.us, (951) 405-6751**

Date: **December 5, 2022**

Requested Action(s):

1. Authorize Executive Director to execute Amendment No.1 to the Vocation Integrated Cost Estimation for Maintenance and Repair of Alternative Fuel Vehicles (VoiCE-MR), extending the project period of performance and increasing the funding amount to WRCOG.

Purpose:

The purpose of this item is to provide background on the VoiCE-MR project and to request authorization for the Executive Director to execute Subcontract Amendment No. 1.

WRCOG 2022-2027 Strategic Plan Goal:

Goal #5 - Develop projects and programs that improve infrastructure and sustainable development in our subregion.

Background:

In early 2020, WRCOG partnered with West Virginia University's (WVU) Center for Alternative Fuels, Engines and Emissions (CAFEE), and the Clean Cities Coalition from West Virginia to jointly propose a study to track maintenance costs of heavy- and medium-duty vehicles fueled by alternative fuels and compare them to a baseline diesel vehicle. This project is titled Vocation Integrated Cost Estimation for Maintenance and Repair of Alternative Fuel Vehicles (Study), and includes fuels such as natural gas, propane, electric, and high biodiesel blends. The Study specifically addresses medium- and heavy-duty vehicles operating in urban delivery vocations, port drayage, school buses, refuse trucks, and transit bus vocations. Funding was awarded through a U.S. Department of Energy grant (DE-FOA-0002197). This effort will culminate in the development of a tool to help fleets understand the maintenance cost impact of, and potentially make a business case for, adopting alternative fuels for this type of vehicle. The role of WRCOG has been to gather and compile local fleet maintenance cost data to support the study, then communicate this data to researchers at WVU for inclusion in analysis and tool development. The project is expected to be awarded over a three-year period, through three budget periods each in the amount of $54,167 and a WRCOG cost share of $28,846.

Though the project was awarded and began in October 2020, implementation was delayed due to COVID-19. The original subcontract was signed in October 2021. The subcontract had a period of performance of October 1, 2020, to December 31, 2021, and allocated $54,167 in funding and a cost

share of $28,846.

The subcontract amendment presented here modifies Budget Period 1 and adds Budget Period 2. Specifically it:

1. Modifies the period of performance for Budget Period 1 to be October 1, 2020, to June 30, 2022, to accommodate for COVID-19 related delays.
2. Adds Budget Period 2, with period of performance of July 1, 2022, to June 30, 2023.
3. Increases the funding amount by $54,167 and the cost share amount by $23,077. Total subcontract value is now $108,334 and cost share is $51,923.

Because this amendment increases overall subcontract funding beyond the Executive Director's single-signature authority limit of $100,000, staff are seeking action from the Executive Committee to authorize the Executive Director to sign and execute the subcontract amendment. The previous contract was approved under the Executive Director's Single Signature Authority as the contract amount was less than $100,000.

Prior Action(s):
October 21, 2021: The Technical Advisory Committee received and filed.

Fiscal Impact:
This action would increase program funding related to Subcontract No. 20-596-WRC in the amount of $54,167, and increases cost share by $23,077. The total funded value of the subcontract would be $108,334 and the total amount of cost share would be $51,923. The subcontract would be valid until June 30, 2023.

Attachment(s):
Attachment 1 - WVURC Subcontract Amendment 1

Subcontract No. 20-596-WRC
Amendment No. 1
UEI:

Pursuant to Article 63 of the agreement effective July 1, 2021 between West Virginia University Research Corporation on behalf of West Virginia University (hereinafter referred to as "WVURC") and Western Riverside Council of Governments (hereinafter referred to as “Subrecipient"), the parties hereby agree to the following modifications:

WHEREAS, the WVURC has funding under U.S. Department of Energy (DOE) Cooperative Agreement No. DE-EE0009227 entitled “VoICE-MR: Vocation Integrated Cost Estimation for Maintenance and Repair of Alternative Fuel Vehicles (AFV)”, which provides funding for Subrecipient's portion of work; and,

NOW THEREFORE, the parties agree to the following changes:

Article 2: Period of Performance

The period of performance of this Agreement shall begin on October 1, 2020 and not extend beyond June 30, 2023 unless agreed to in writing by both parties hereto. This includes the extension of Budget Period 1 through June 30, 2022, as well as the addition of Budget Period 2, the start and end dates of which are July 1, 2022 – June 30, 2023. Any extension of this Agreement beyond June 30, 2023 is subject to continuation by DOE with specific funds awarded for the Subrecipient’s portion of the work.

Article 6: Price, Payment, and Submission of Invoices

As compensation for services provided under this Agreement, the WVURC agrees to reimburse the Subrecipient an amount not to exceed $108,334, which includes an increase of $54,167 for Budget Period 2. The remainder of Article 6 remains unchanged. However, Subrecipient’s cost share commitment for Budget Period 1 is hereby increased by $23,077 to $51,923.

Article 36: System for Award Management and University Identifier Requirements

Subsection B is hereby replaced with the following:

B. Requirement for Unique Entity Identifier (UEI)
Subrecipient must have a UEI assigned by the System for Award Management (SAM). This requirement must flow down to any lower-tier subrecipients or subcontractors.

All other obligations, conditions, terms, covenants, and provisions of the original agreement, and its amendments, shall also be binding under this Amendment.

IN WITNESS WHEREOF, the parties have caused this Amendment to be executed as of the date of signature of their duly authorized representatives.

West Virginia University	Western Riverside Council
Research Corporation	of Governments
_____	_____
Name:	Name:
Title:	Title:
Date:	Date:

Western Riverside Council of Governments
WRCOG Executive Committee

Staff Report

Subject: **Approval of a Professional Services Agreement with the Riverside County Flood Control and Water Conservation District for the Pollution Prevention Initiative**

Contact: **Olivia Sanchez, Program Manager, osanchez@wrcog.us, (951) 405-6721**

Date: **December 5, 2022**

Requested Action(s):

1. Authorize the Executive Director to execute a Professional Services Agreement, substantially as to form, with the Riverside County Flood Control and Water Conservation District.

Purpose:

The purpose of this item is to provide an update on the Pollution Prevention Initiative (PPI) and to request approval to receive revenues to fund the initiative through June 30, 2027.

WRCOG 2022-2027 Strategic Plan Goal:

Goal #2 - Identify and help secure grants and other potential funding opportunities for projects and programs that benefit member agencies.

Background:

In March 2021, WRCOG and the Riverside County Flood Control and Water Conservation District (Flood Control) entered into an agreement establishing the Pollution Prevention Initiative (PPI). The region-wide initiative supports marketing and awareness on illegal disposal and littering, using online platforms. Program goals include quantifiable result tracking of litter removal, increased pollution prevention, meeting objectives with the Municipal Separate Storm Sewer System (MS4) Permits, and complying with California mandates related to solid waste, recycling, and proper household hazardous waste disposal, which aligns with WRCOG's Energy & Environmental Programs.

Project Accomplishments

On June 26, 2021, the Cities of Canyon Lake, Lake Elsinore, and Wildomar organized a multi-city community clean up event as a part of WRCOG's PPI, called Love Your Neighborhood (LYN). The event kicked-off at the Lake Elsinore Storm Stadium where staff supplied volunteers with trash pickers, trash bags, reusable gloves, and wristbands. Nearly 200 volunteers from various non-profits and community organizations mobilized to clean up litter throughout various areas of the three cities. Volunteers collected over 2,000 pounds of litter, and dozens of bulky items were removed with the help of public works crew members and Habitat for Humanity organizations.

WRCOG and Flood Control collaborated on program elements to determine interested cities'

participation and providing members with necessary resources, assisting with the administration of a stand alone LYN website, updating the LYN toolkit to include a DIY section, and data reporting.

Staff, along with Flood Control and SGA and Associates, developed a website for public usage to support LYN activities. A workshop was held on November 9, 2022, to provide information and program elements so member jurisdictions can develop their own clean up activities.

Pollution Prevents Initiative Agreement - Multiple Fiscal Years (2023/2024, 2024/2025, 2025/2026, 2026/2027)

Following the positive success of the first round of the LYN initiative, WRCOG and Flood Control have developed a second Professional Services Agreement (PSA). Discussion on developing a multi-year agreement began in early October 2022. The new PSA will cover the duration from January 1, 2023, to June 30, 2027. A payment sum of $50,000 shall be applicable each fiscal year for a total of $250,000 over the term. The scope of work will include continuing outreach and education on the PPI through the LYN website, collaborative project planning, litter removal tracking, and conducting informational meetings.

Prior Action(s):
November 9, 2022: The Administration & Finance Committee recommended that the Executive Committee approve a 5-year agreement with the Riverside County Flood Control and Water Conservation District to implement the LYN initiative.

Fiscal Impact:
The Agreement will provide an overall total of $250,000 in revenue for Environmental Department activities related to the Pollution Prevention Initiative, Love Your Neighborhood, through Fiscal Year 2026/2027.

Attachment(s):
Attachment 1 - Agreement with Riverside County Flood Control and Water Conservation District

AGREEMENT

For Riverside County Pollution Prevention Initiative
(FY2022/2023 to FY2026/2027)

This Agreement, dated as of _____, is entered by and between the Riverside County Flood Control and Water Conservation District, a body politic ("DISTRICT"), and the Western Riverside Council of Governments, a joint powers authority established under the laws of the State of California ("WRCOG"). DISTRICT and WRCOG are individually referred to herein as "Party" and collectively referred to herein as "Parties". The Parties hereto hereby agree as follows:

RECITALS

WHEREAS, the Riverside County Watershed Protection is a partnership program between Riverside County, the DISTRICT, Coachella Valley Water District and 27 Cities that manage watershed programs which protect, preserve and enhance the quality of the water and the natural environment of our watersheds; and

WHEREAS, DISTRICT seeks a partnership in order to meet compliance objectives with the MS4 Permits and California mandates related to solid waste, recycling, and household hazardous waste that align with WRCOG's Energy and Environmental Programs; and

WHEREAS, WRCOG will work with the DISTRICT to develop and manage a website, utilize GIS mapping for reporting litter and pollutants reduction, household hazardous waste, recycling and other environmental protection programs ("PROGRAM INITIATIVE") that support mandates set by state agencies and to create promotional materials and final report of program activities.

WHEREAS, PROGRAM INITIATIVE will increase pollution prevention awareness and its impact on the environment; to educate residents and local businesses with the goal of shaping their attitude towards minimizing stormwater pollution; and

NOW, THEREFORE, in consideration of the preceding recitals and the mutual

covenants hereinafter contained, the Parties hereto mutually agree that the above recitals are true and correct and incorporated into the terms of this Agreement and as follows:

1. Understanding of the Parties. WRCOG will assist DISTRICT with its webpage development to establish methods for quantifiable waste diversion tonnages. These quantifiable results will be tracked for litter removal and other behaviors that support mandates set by state agencies including Cal-Recycle and the California Regional Water Quality Control Boards. The DISTRICT and WRCOG will conduct informational meetings with member agencies and sponsoring partners to encourage participation and support of the PROGRAM INITIATIVE.

2. Compensation. Within sixty (60) calendar days after execution of this Agreement, the DISTRICT shall pay a lump sum amount of Fifty Thousand Dollars ($50,000) to WRCOG for PROGRAM INITIATIVE, as set forth herein for fiscal year 2023. In any subsequent fiscal year during the term of this Agreement, DISTRICT may request WRCOG to provide the services described herein. Upon WRCOG's receipt and acceptance of DISTRICT's payment of a lump sum amount of Fifty Thousand Dollars ($50,000), WRCOG shall begin work for the applicable fiscal year. The amount of compensation paid to WRCOG for PROGRAM INITIATIVE approved pursuant to this Agreement, shall not exceed the total sum of Two Hundred Fifty Thousand Dollars ($250,000) over the entire term of this Agreement based on the availability of sufficient funding.

3. Term of Agreement. The term of this Agreement shall commence January 1, 2023, and shall terminate at midnight on June 30, 2027.

4. Indemnity and Hold Harmless. Each Party shall defend indemnify and hold harmless the other Party, including Affiliates and each of their respective officers, directors, shareholders, employees, representatives, agents, successors and assigns from and against all claims of third parties, and all associated losses, to the extent arising out of (a) a Party's gross negligence or willful misconduct in performing any of its obligations under this Agreement, or (b)

a material breach by a Party of any of its representations, warranties, covenants or agreements under this Agreement.

5. Notices. Any and all notices sent or required to be sent to the parties of this Agreement will be mailed by first class mail, postage prepaid, to the following addresses:

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT 1995 Market Street Riverside, CA 92501 Attn: Watershed Protection Division	WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS 3390 University Avenue, Suite 200 Riverside, CA 92501 Attn: Casey Dailey

6. ASSIGNMENT. No part of this Agreement or any right or obligation arising from it is assignable without the written consent of the Parties. Any attempt to assign or subcontract services relating to this Agreement without the consent of DISTRICT shall constitute a material breach of this Agreement.

7. Governing Law. This Agreement is to be construed in accordance with the laws of the State of California.

8. Signatures. The individuals executing this Agreement represent and warrant that they have the right, power, legal capacity and authority to enter into and to execute this Agreement on behalf of the Parties.

9. Entire Agreement. This Agreement shall constitute the complete and exclusive statement of understanding between the Parties which supersedes all previous written or oral agreements, and all prior communications between the Parties relating to the subject matter of this Agreement.

10. No Third-Party Beneficiary. The provisions of this Agreement are solely for the benefit of the Parties, and not for the benefit of any third party and accordingly, no third party shall have the right to enforce the provisions of this Agreement.

11. Counterparts: Electronic Signatures. This Agreement may be executed in any number of counterparts, each of which will be an original, but all of which together will

constitute one instrument. Each Party of this Agreement agrees to the use of electronic signatures, such as digital signatures that meet the requirements of the California Uniform Electronic Transactions Act ("CUETA" Cal. Civ. Code §§ 1633.1 to 1633.17), for executing this Agreement. The Parties further agree that the electronic signatures of the Parties included in this Agreement are intended to authenticate this writing and to have the same force and effect as manual signatures. Electronic signature means an electronic sound, symbol or process attached to or logically associated with an electronic record and executed or adopted by a person with the intent to sign the electronic record pursuant to CUETA as amended from time to time. CUETA authorizes use of an electronic signature for transactions and contracts among Parties in California, including a government agency. Digital signature means an electronic identifier, created by computer, intended by the Party using it to have the same force and effect as the use of a manual signature and shall be reasonably relied upon by the Parties. For purposes of this section, a digital signature is a type of "electronic signature" as defined in subdivision (i) of Section 1633.2 of the Civil Code.

//

//

(Signatures on next page)

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement on

_____.
(to be filled in by Clerk of the Board)

RECOMMENDED FOR APPROVAL:

By _____
JASON E. UHLEY
General Manager-Chief Engineer

RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

By _____
KAREN SPIEGEL, Chair
Riverside County Flood Control and Water Conservation District Board of Supervisors

APPROVED AS TO FORM:

MINH TRAN
County Counsel

By _____
KRISTINE BELL-VALDEZ
Supervising Deputy County Counsel

ATTEST:

KECIA HARPER
Clerk of the Board

By _____
Deputy

Riverside County Pollution Prevention Initiative Agreement
(FY2022/2023 to FY2026/2027)
With Western Riverside Council of Governments
MS:AMR:blm
11/10/22

WESTERN RIVERSIDE COUNCIL OF GOVERNMENTS

DocuSigned by:
By: _____
559AA08D610442A...
KURT WILSON
Executive Director

APPROVAL AS TO FORM:

DocuSigned by:
By: _____
E54DE3F1B3634C0...
STEVEN DEBAUN
General Counsel

Riverside County Pollution Prevention Initiative Agreement
(FY2022/2023 to FY2026/2027)
With Western Riverside Council of Governments
MS:AMR:blm
11/10/22

Western Riverside Council of Governments
WRCOG Executive Committee

Staff Report

Subject: **Appointment of WRCOG Representatives to Various Outside Committees**

Contact: **Chris Gray, Deputy Executive Director, cgray@wrcog.us, (951) 405-6710**

Date: **December 5, 2022**

Requested Action(s):

1. Appoint Council member Brian Tisdale as the primary representative, and Mayor Chris Barajas as the alternate representative, to the California Association of Councils of Governments for a term commencing January 1, 2023, and ending December 31, 2024.
2. Appoint Council member Linda Krupa and Mayor Greg Newton as the two primary representatives, and Mayor Chris Barajas and Mayor Pro Tem Joseph Morabito as the two alternate representatives, to the Riverside County Solid Waste Advisory Council / Local Task Force for a term commencing January 1, 2023, and ending December 31, 2024.
3. Appoint Council member Ted Hoffman as the representative to the Santa Ana Watershed Project Authority's One Water One Watershed Steering Committee for a term commencing January 1, 2023, and ending December 31, 2024.
4. Appoint Mayor Crystal Ruiz and the primary representative, and Mayor Pro Tem Colleen Wallace as the alternate representative, to the San Diego Association of Governments' Borders Committee for a term commencing January 1, 2023, and ending December 31, 2024.
5. Appoint the following representatives to SCAG Policy Committees for a term commencing January 1, 2023, and ending December 31, 2024:
    i. Linda Krupa (Hemet) Transportation Committee
    ii. Crystal Ruiz (San Jacinto) Transportation Committee
    iii. Wes Speake (Corona) Transportation Committee
    iv. Colleen Wallace (Banning) Transportation Committee
    v. Joseph Morabito (Wildomar) CEHD Committee

Purpose:
The purpose of this item is to request a number of appointments to outside agencies.

WRCOG 2022-2027 Strategic Plan Goal:
Goal #1 - Serve as an advocate at the regional, state, and federal level for the Western Riverside subregion.

Background:
WRCOG's Executive Committee appoints a number of elected officials to represent the Agency and/or the subregion's interests on a number of committees in outside agencies. These include the following:

- California Association of Councils of Governments (CALCOG) (one appointment plus an alternate)
- Riverside County Solid Waste Advisory Council / Local Task Force (two appointments plus two alternates)
- San Diego Association of Governments (SANDAG) Borders Committee (one appointment plus an alternate)
- Santa Ana Watershed Project Authority (SAWPA) One Water One Watershed (OWOW) Steering Committee (one appointment)
- Southern California Association of Governments (SCAG) Policy Committees (six appointments)

Per policy, all WRCOG appointees serve for a two-year term. The current term for these appointments will be from January 2023 through December 2024. Also per policy, priority in selection is to be given to elected officials who serve on WRCOG as Executive Committee members or alternates.

WRCOG emailed a notice of availability to all elected officials for WRCOG's member agencies. A list of those persons who responded was presented to the Administration & Finance Committee for review and discussion on October 12, 2022. After discussion, the Administration & Finance Committee made the following recommendations:

CALCOG:
Primary - Brian Tisdale (Lake Elsinore)
Alternate - Chris Barajas (Jurupa Valley)

Riverside County Solid Waste Advisory Council / Local Task Force:
Primary 1 - Lina Krupa (Hemet)
Primary 2 - Chris Barajas (Jurupa Valley)
Alternate 1 - Greg Norton (Norco)
Alternate 2 - Joseph Morabito (Wildomar)

SAWPA OWOW:
Ted Hoffman (Norco)

SANDAG Borders Committee:
Primary - Crystal Ruiz (San Jacinto)
Alternate - Colleen Wallace (Banning)

SCAG Policy Committees:
Linda Krupa (Hemet) Transportation Committee
Crystal Ruiz (San Jacinto) Transportation Committee
Wes Speake (Corona) Transportation Committee
Christi White (Murrieta) Energy & Environment Committee
Colleen Wallace (Banning) Transportation Committee
Joseph Morabito (Wildomar) CEHD Committee

It should be noted that the Administration & Finance Committee recommended the appointment of Christi White (Murrieta) to the Energy & Environment Committee. Her eligibility is contingent on results of the November General Election and as of November 28, 2022, it does not appear that she will be eligible for appointment. Unless the Executive Committee opts to make the appointment directly, the matter will be referred for reconsideration at the February meeting of the Administration & Finance Committee.

Prior Action(s):
October 12, 2022: The Administration & Finance Committee recommended appointments to CALCOG, Riverside County Solid Waste Advisory Council / Local Task Force, SANDAG Borders Committee, SAWPA OWOW, and SCAG Policy Committees.

Fiscal Impact:
WRCOG stipends are included in the Agency's adopted Fiscal Year 2022/2023 Budget under the General Fund (Fund 110).

Appointments to SCAG Policy Committees has no fiscal impact to WRCOG since SCAG provides stipends to elected officials for attendance at its meetings.

Attachment(s):
None.

Western Riverside Council of Governments
WRCOG Executive Committee

Staff Report

Subject: **Western Riverside County Energy Resilience Plan**

Contact: **Daniel Soltero, Program Manager, dsoltero@wrcog.us, (951) 405-6738**

Date: **December 5, 2022**

Requested Action(s):

1. Approve the Western Riverside County Energy Resilience Plan.
2. Direct staff to pursue funding opportunities to advance the identified projects further along in the design process and conduct energy resilience planning activities.

Purpose:

The purpose of this item is to present the Western Riverside County Energy Resilience Plan.

WRCOG 2022-2027 Strategic Plan Goal:

Goal #5 - Develop projects and programs that improve infrastructure and sustainable development in our subregion.

Background:

In November 2019, the Bay Area Council announced the California Resilience Challenge (CRC), a statewide effort led by businesses and a diverse range of partners that provides grants for local governments to build climate resiliency and to support a shared vision for a resilient California in the face of increasing climate threats.

In April 2020, the Bay Area Council, through the CRC, awarded WRCOG a $200,000 grant to develop the Plan to build resiliency against power shutoffs and/or power issues at subregional critical facilities by developing a blueprint for energy resiliency technologies, projects, and strategies for member agencies.

Final Western Riverside County Energy Resilience Plan

Western Riverside County is known for its warm, dry Mediterranean climate. Eleven of WRCOG's member jurisdictions are located at the base of mountain areas, including the Santa Ana Mountains in the Cleveland National Forest (home to the "Holy Fire" in 2018). In recent years, millions of California power customers have gone without power due to Public Safety Power Shutoffs (PSPS) events, which have been standard practice for many years but not to the scale experienced recently. Additionally, extreme heat days, wildfires, and flooding are all predicted to increase further in the subregion due to climate change. These climate-related challenges will be exacerbated by large population growth in the region, increasing energy demand and further stressing the energy grid.

WRCOG has developed a Western Riverside County Energy Resilience Plan (Plan) in response to increasing power interruptions resulting from strains and stressors such as wildfires, extreme heat events, and PSPS. This Plan is intended to guide decision-making related to the identification of and investment into critical facilities and other community assets. The Plan achieves this in two stages: 1) Identification and Prioritization of Critical Facilities; and 2) Evaluation of Design and Implementation Options for Energy Resilience Solutions. Attached to this Staff Report is the Western Riverside County Energy Resilience Plan (Attachment 1).

For purposes of this Plan, energy resilience is defined as the ability of energy systems to prepare for and adapt to changing conditions, and to withstand and recover rapidly from disruptions. To make an energy system resilient it requires an understanding of what can go wrong, what the likelihood of it going wrong is, and how to mitigate the likelihood of the event from occurring and the consequences from the event. It is also important to note that energy resilience strategies have already been implemented by governments, schools, and community-based nonprofits, and typically involve solar photovoltaic (PV) systems and battery energy storage systems (BESS). Several studies have been completed that address ways to link multiple facilities into a microgrid, which is a group of interconnected, energy-consuming devices and equipment (i.e., homes, businesses, or industrial facilities) and distributed energy resources (i.e., solar PV system, BESS, wind turbine, etc.) within clearly defined electrical boundaries that act as a single controllable entity with respect to the utility grid. These microgrids generally operate while connected to the utility grid but, thanks to control capabilities (smart controls), these microgrid systems can disconnect from the conventional utility grid and operate autonomously to meet anticipated or potential utility outages, essentially creating an "island" with continuous power supply.

Early on in the development of the Plan, staff conducted outreach with member agency staff from Public Works Departments and facility managers to identify critical facilities in member agency jurisdictions that they would deem appropriate for resilience upgrades. Member agency staff identified several types of facilities, including water system infrastructure, fire stations, emergency operations centers, and community centers, as critical facilities.

Once having a list of facilities, staff embarked to understand how location, demographics, and socioeconomic status contribute to climate change vulnerability, as knowing which areas have more vulnerable populations and hazards helps decision-makers prioritize where and how to allocate resources when wildfires, extreme heat events, and other climate-related hazards occur. This stage of the Plan outlines four factors: 1) social vulnerability / community value, 2) operational needs, 3) physical hazard sensitivity, and 4) existing infrastructure, in the form of a matrix, to be evaluated in order to identify priority facilities in need of resilience upgrades and investment.

Overall, there are many social, economic, and environmental factors that influence community and individual vulnerability to climate impacts and their ability to adapt to climate change. The Center for Disease Control's Social Vulnerability Index (SVI) score, along with the matrix prioritization, was used to identify which facilities serve residents with the greatest vulnerability to climate hazards. The social vulnerabilities factored into this analysis include socioeconomic status, household composition and disability, minority status and language, and housing and transportation. The communities with the highest overall social vulnerability scores include:

- City of Banning (two facilities)
- City of Beaumont (two facilities)

- City of Jurupa Valley (four facilities)
- City of Lake Elsinore (three facilities)
- City of Moreno Valley (three facilities)

The natural and climate hazards for Western Riverside County were identified using three resources: Cal-Adapt, Resilient IE, and member jurisdiction staff expertise. Based on these sources, the following climate hazards were identified as the most impactful to the facilities and population served: extreme temperature, flooding, wildfire, human health hazards, and drought. The hazard sensitivity evaluation includes considering the location of the facility and that location's sensitivity to a particular hazard and the likelihood of a hazard to disrupt energy supply to the facility.

Existing infrastructure and operational needs of each facility were also analyzed as part of the prioritization method. Operational needs were reviewed to determine the feasibility for the facility to continue to provide services during an electric grid disruption or other emergency situation. Facility features for each site were ranked on a three-point scale to identify equipment and electric loads that support mission-critical services by ranking them as "uninterruptable," "essential," and "non-essential." Additionally, existing infrastructure was reviewed to address the physical attributes of the facility that are related to providing continuous energy supply or supporting the needs that are reliant on electricity such as lighting, heating and cooling, refrigeration of medicines, or telecommunications. This criteria includes analysis of fundamental issues such as the age of the building, the age and condition of the energy equipment, availability of backup power generation, and the overall capacity of the electricity system.

With all the prior information and data, an evaluation matrix was developed to review the characteristics of the various critical facilities identified by WRCOG member agencies. The purpose of the matrix is to provide an objective method to integrate a broad range of important facility factors and characteristics that impact the overall resilience of the facility as well as the broader community. A scoring system was developed to place each facility on 100-point scale, with higher scoring facilities seen has having the greatest need for intervention to enhance its resilience. Different weighting factors were attributed to each aspect of the facility that was evaluated ranging from its impact on community value, the operational characteristics such as providing shelter or a place of assembly, the potential sensitivity of a facility to nearby hazards, and the services or resources provided relative to the anticipated community needs during a disruption in the energy system. The weighting used to reflect the conditions in Western Riverside County could be adjusted if the matrix were to be used in another location with different threats, risks, and vulnerabilities and community composition.

Once the matrix was developed, staff coordinated a stakeholder meeting with the Plan's Advisory Group, consisting of representatives from various member agencies, to receive feedback and confirm the three sites for the second stage of the Plan. Based on discussion with WRCOG member agencies, several factors were weighted more highly, such as security, ability to maintain medical care, and the ability to meet the needs of the most vulnerable populations and community. Using this method and integrating the Advisory Group's feedback and discussion, staff identified the City of Beaumont's Wastewater Treatment Plant, the City of Menifee's Kay Ceniceros Senior Center, and the City of Jurupa Valley's Fire Station 16. In December 2021, staff initiated data requests to the case study facility managers and shortly thereafter received a notice from the City of Beaumont that it was opting-out of the Energy Resilience Plan since it had already completed a similar resilience study at its wastewater treatment plant. As such, staff shifted its focus to the City of Banning's Wastewater Reclamation Plant.

With the critical facilities identified and prioritized, the framework for designing energy resilience strategies focuses on developing a technical solution. This stage determines what hazards to mitigate or protect against, what level of reliability and resilience to design to, what technologies and design elements could be part of the solution, and what resources can be mapped to the selected technologies to help with implementation. First, one must identify the resilience requirements for a given facility to arrive at a “desired end-state” that we can aim for when selecting design solutions. Next, analyze the capabilities of a facility to prevent, mitigate, and recover from a disruption event, which is typically informed by reviewing existing infrastructure. If the capabilities fall short of the requirements, then a resilience gap is identified; the essential goal of this Plan is to fill those gaps by selecting and implementing energy resilience strategies. Each of these factors, along with possible resilience interventions, are discussed in this Plan in the form of case studies, which outline the decision-making framework used to identify the facilities located in the Cities of Banning, Jurupa Valley, and Menifee, and the ways in which they can become more resilient to future utility power interruptions.

The case study at the City of Menifee's Kay Ceniceros Senior Center identified that flooding, human health, and extreme temperatures as the highest threats to the area. The microgrid simulator used for this effort identified four potential scenarios with different system architecture, or combination or energy resources to sustain the critical electrical loads summarized as 70% of existing load. The baseline scenario proposes installing a 62 kilowatt (kW) photovoltaic (PV) system, a 36 kW diesel generator, and a 85 kilowatt-hour (kWh) / 185 kW battery energy storage system (BESS). This combination of onsite power generation and storage will sustain critical loads through the typical outage at this facility which occurs 1.2 times per year and lasts 2.5 hours.

The case study at the City of Banning's Wastewater Reclamation Plant identified flooding, wildfire, earthquakes and landslides, and human health hazards from vulnerable populations as the highest threats in the area. The baseline scenario proposes keeping the diesel generators and installing a 123 kW PV system and a 85 kWh / 185 kW BESS. This combination of onsite power generation and storage will sustain 100% of the facility's electrical load through the typical outage at this facility which occurs three times per year and lasts 4.5 hours.

The case studies at the City of Jurupa Valley's Fire Stations 16 & 17 identified similar energy resilience strategies, including installation of PV systems and BESS, and retaining existing diesel or natural gas backup generators.

This Plan also recognizes that water and wastewater systems are important elements of resilience, but water systems were not a focus of AECOM's scope of work. Instead, UCR CE-CERT was hired to conduct a resilience analysis of water systems in the WRCOG subregion. Having prior experience with Western Municipal Water District, specifically for energy efficiency upgrades and strategies, as well as microgrid implementation experience, UCR was a great candidate to assist staff with a resilience analysis of water systems. The analysis found that by reducing the energy consumption and demand at the sites, the existing stations have capacity to continue operations during an electric outage by running all natural gas driven pumps, and during a gas outage to run all electric pumps with a backup generator. Additionally, the study identified that a second electric and second gas pipeline interconnection could be completed to add for resilience of utility supply. Finally, the study has recommended the addition of backup generators, whether stationary or mobile, along with a mobile solar PV and BESS trailer could increase resilience to outages at remote locations. The Water Systems Energy Resilience Study is included in this staff report as an Attachment.

Energy resiliency projects often require a combination of funding and financing strategies. As such, this Plan also includes a chapter summarizing available funding and financing strategies that support the electrification of and resilience planning for critical facilities, with an emphasis on inclusion of energy storage for emergency response. The chapter would also include key consideration for the implementation and governance, including an understanding that the agencies that own and/or operate the facility are likely to be the primary implementers of energy measures. Other important partners include the local utility, such as Southern California Edison or the local municipal utilities that could provide technical expertise as it relates to energy systems, as well as community-based organizations that could provide expertise from a public input standpoint.

WRCOG staff have been tracking various funding opportunities to plan for potential next steps which can include conducting microgrid concept design feasibility studies on the next highest priority sites in the matrix, or to do more design work on the existing case studies to reach a more advanced design specification and get closer to implementation. For example, staff are currently tracking the Governor's Office of Planning & Research Integrated Climate Adaptation and Resilience Planning (ICARP) grants, which provide funding to help fill local, regional, and tribal adaptation planning and resilience needs, provide resources, and support the development of a pipeline of climate resilient projects. The ICARP Adaptation Planning Grant could assist with further analyses for facilities that were identified as priority sites in the matrix to complete a microgrid concept design, or to advance the existing concept designs from the four case studies to a more refined design stage.

Staff have been coordinating with representatives from the cities involved in this Plan to discuss the potential to pursue available funding to conduct more additional case studies, or refine the existing case studies to a more advanced design stage. To date, staff has met with representatives from the Cities of Corona, Jurupa Valley, Menifee, Murrieta, Riverside, and Wildomar, and has received positive feedback and interest on participating with WRCOG on future energy resilience and microgrid design, feasibility studies and concept design on their critical facilities.

Prior Action(s):

November 17, 2022: The Technical Advisory Committee recommended that the Executive Committee approve the final version of the Western Riverside County Energy Resilience Plan, and recommended that the Executive Committee direct staff to pursue funding opportunities to advance the identified projects further along in the design process.

November 9, 2022: The Administration & Finance Committee recommended that the Executive Committee approve the final version of the Western Riverside County Energy Resilience Plan, and recommended that the Executive Committee direct staff to pursue funding opportunities to advance the identified projects further along in the design process.

October 13, 2022: The Public Works Committee received and filed.

October 12, 2022: The Administration & Finance Committee received and filed.

October 3, 2022: The Executive Committee approved Amendment No. 1 to the Professional Services Agreement with AECOM authorizing an increase to the contract amount and extra work related to the Western Riverside County Energy Resilience Plan.

September 14, 2022: The Administration & Finance Committee recommended that the Executive Committee approve Amendment No. 1 to the Professional Services Agreement with AECOM authorizing an increase to the contract amount and extra work related to the Western Riverside County Energy Resilience Plan.

Fiscal Impact:
All activities as part of the Western Riverside County Energy Resilience Plan are included in the approved budget for the Energy & Environment Department as part of General Fund expenses (Fund 110). Expenses incurred by WRCOG are being reimbursed by the California Resilience Challenge grant.

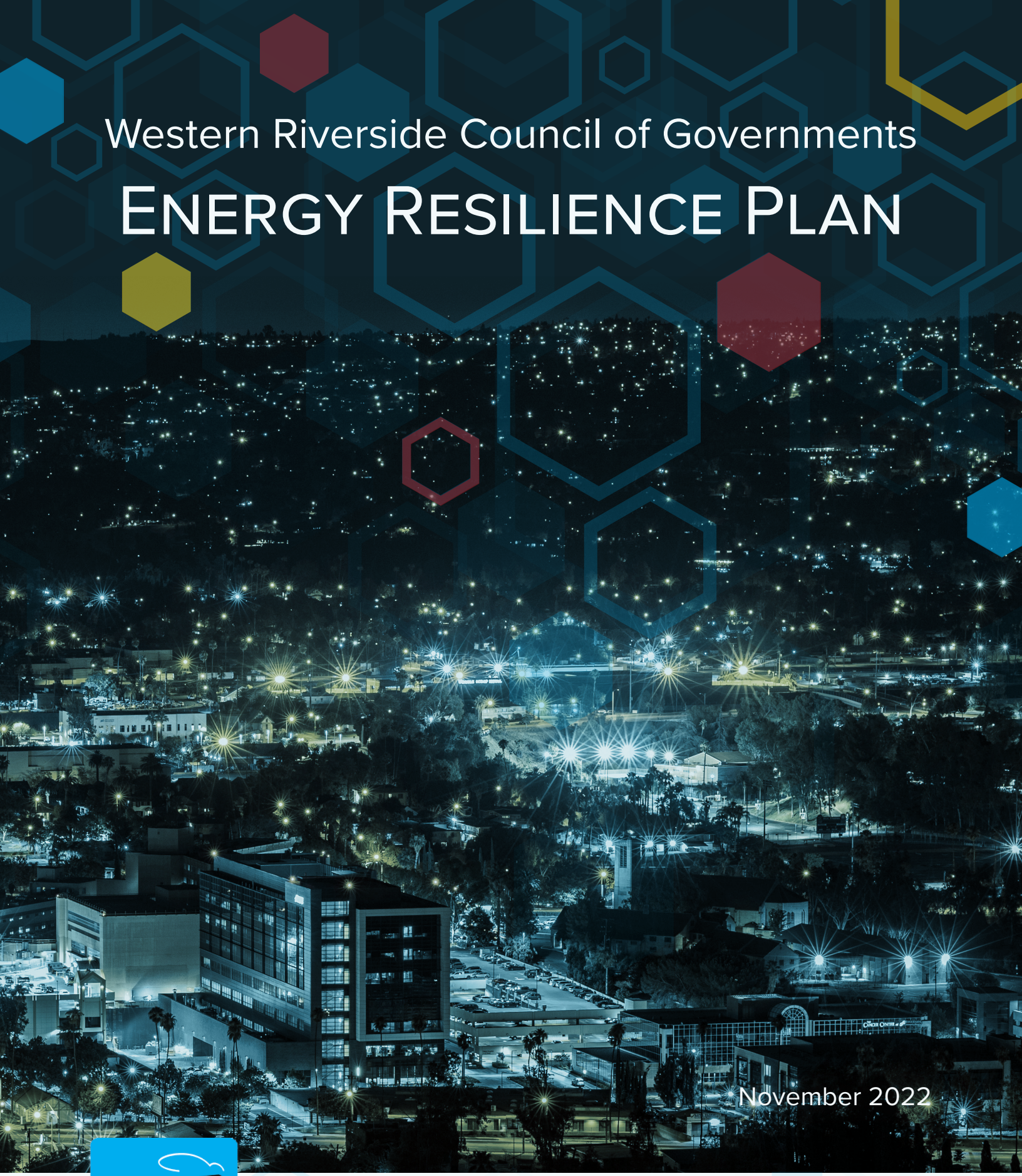
Attachment(s):
Attachment 1 - Western Riverside County Energy Resilience Plan
Attachment 2 - Water Systems Energy Resilience Study for WRCOG

Attachment

Western Riverside County Energy Resilience Plan

Western Riverside Council of Governments

ENERGY RESILIENCE PLAN



November 2022

WRCOG Western Riverside Council of Governments

CALIFORNIA RESILIENCE CHALLENGE

UCR CE-CERT

AECOM

Contents

Figures

Tables

Acknowledgments

The AECOM team, the Western Riverside Council of Governments (WRCOG) and staff would foremost like to thank all WRCOG Member Agencies who participated in the Energy Resilience Planning process that led to the creation of this plan. For their technical contribution to the Energy Resilience Plan through stakeholder feedback and analysis peer review, we would like to thank the College of Engineering, Center for Environmental Research and Technology (CE-CERT) at the University of California, Riverside. Finally, this study would not have been possible without the generous support and funding opportunity from the California Resilience Challenge organized by the Bay Area Council. The residents and community members of Western Riverside County are safer and better prepared for an uncertain climate future thanks to the generous support of the California Resilience Challenge 2020 Grant Program.

City of Banning

City of Beaumont

City of Calimesa

City of Canyon Lake

City of Corona

City of Eastvale

City of Hemet

City of Jurupa Valley

City of Lake Elsinore

City of Menifee

City of Moreno Valley

City of Murrieta

City of Norco

City of Perris

City of Riverside

City of San Jacinto

City of Temecula

City of Wildomar

County of Riverside

Eastern Municipal Water District

Western Municipal Water District

Riverside County Superintendent of Schools

Acronyms and Abbreviations

ACS	American Community Survey
ARPA	American Rescue Plan Act
ATSDR	Agency for Toxic Substances and Disease Registry
BESS	Battery energy storage systems
CVAG	Coachella Valley Association of Governments
CDC	Center for Disease Control and Prevention
FEMA	Federal Emergency Management Agency
GHG	Greenhouse gas
IIJA	Infrastructure Investment and Jobs Act
IPCC	Intergovernmental Panel on Climate Change
ISRF	Infrastructure State Revolving Fund
I-REN	Inland Regional Energy Network
kW	Kilowatt
kWh	Kilowatt hour
NPC	Net present costs
PSPS	Public Safety Power Shutoffs
P3	Public-private partnership
PV	Photovoltaic
SAIDI	System Average Interruption Duration
SAIFI	System Average Interruption Frequency
SCE	Southern California Edison
SBCOG	San Bernadino Council of Governments
SVI	Social Vulnerability Index
WRCOG	Western Riverside Council of Governments
WWTP	Wastewater treatment plant
ZEV	Zero-emission vehicle

Executive Summary

Over the past few years, millions of Californians have lost power from environmental hazards either directly through local infrastructure damage or indirectly, through Public Safety Power Shutoffs (PSPS). Extreme heat days, wildfires, and flooding are all predicted to increase further in the subregion due to climate change. These challenges will be exacerbated by large population growth in the region, increasing energy demand and further stressing the energy grid.

WRCOG has developed this Energy Resilience Plan (Plan) as a response to these increasing power interruptions and, when implemented, it will allow WRCOG and its member agencies to be better prepared to withstand and adapt to the impact of climate change. The Plan serves as a resource for developing and implementing energy resilience solutions in the subregion. It outlines a process consisting of two core functions: identifying and prioritizing critical facilities, and designing for energy resilience.

The Plan provides information for future decision-making regarding how to prioritize public facilities for implementation of energy efficiency upgrades, local energy generation, microgrids, and energy storage systems, to increase facility and community resilience.

This Plan is also intended to serve as a handbook to guide decision-making related to the identification of and investment into critical facilities and other community assets. The Plan outlines four evaluation areas: social vulnerability/community value, operational needs, physical hazard sensitivity, and existing infrastructure. These are used identify priority facilities in need of resilience upgrades and investment. Each of these factors, along with possible resilience interventions, are discussed in this plan in the form of four case study facilities located in three WRCOG member cities.

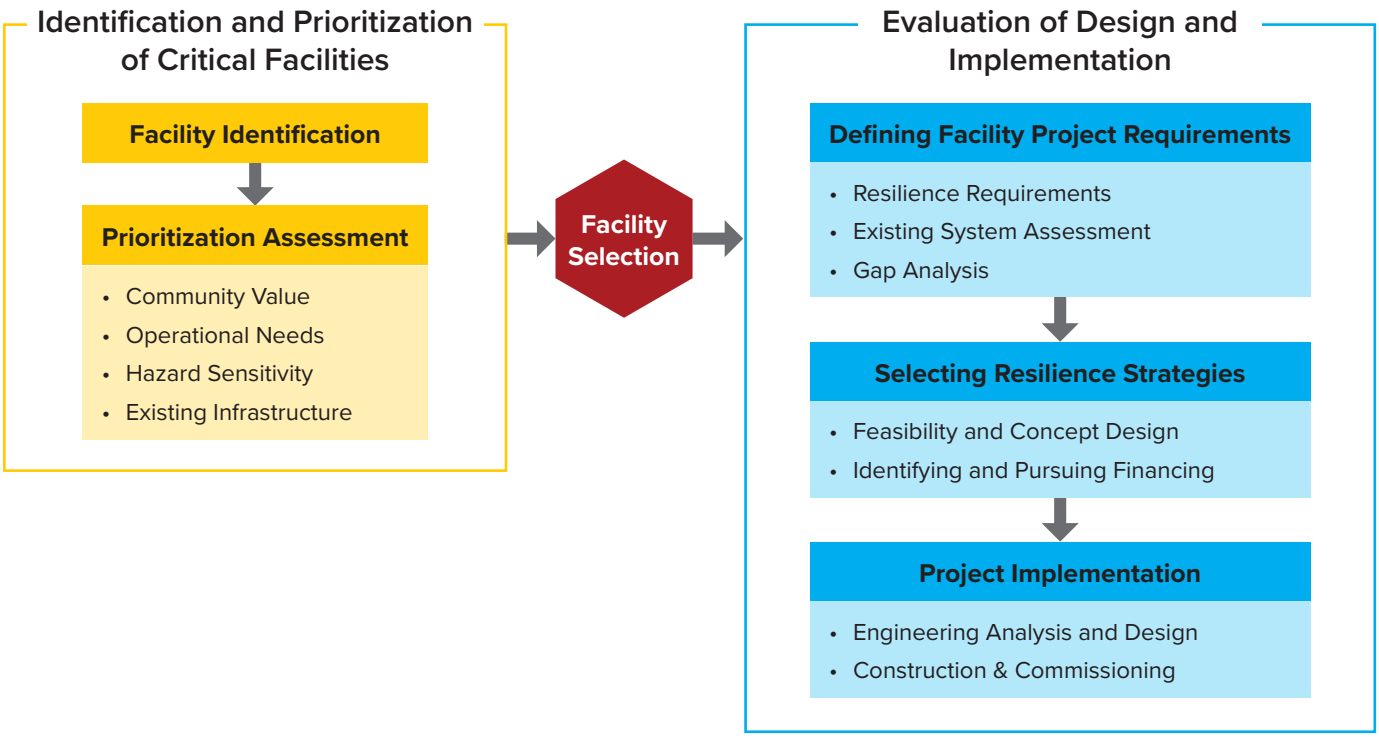


Figure ES.1. Overarching Energy Resilience Assessment and Project Development Framework

A concept-level component sizing and basis of design was applied to four case studies. The facilities that were chosen as case studies were facilities that ranked highly via the prioritization methodology presented in Section 2.4, and were also representative of other common critical facilities in the WRCOG subregion. These case studies demonstrate specific solutions to enhancing energy resilience at fire stations, water treatment facilities, and community centers across WRCOG and inform the design approach for other facility types.

The combination of the Plan and case studies provide a foundation for a systematic assessment and project development process which considered both the technical and financial solution. The next steps for WRCOG include:

- Apply the technical solution development methodology at the other high ranking critical facilities to define the applicable resilience projects for implementation
- Develop concept and/or detailed designs for selected facilities which are suitable for funding, financing, and construction
- **Identify partnership opportunities to plan, fund, and implement climate actions.**
- Determine which strategies will require environmental review, technical analysis, and/or complex partnerships and permitting
- Track new federal funding opportunities as guidance is released
- Based upon the developed concept designs, begin preparing application materials for the state grants that have been allocated additional funding in the Governor's 2022-2023 budget.

12 Member Jurisdictions Represented
72 Critical Facilities Identified
178 Energy Loads Identified as Uninterruptible
141 Energy Loads Identified as Essential

27 Emergency Response Facilities
27 Critical Infrastructure Nodes
18 Community Resilience Hubs

Figure ES.2. Scope of Potential Facility Energy Resilience Projects Across WRCOG

With this report, WRCOG members are prepared with a decision-making guide regarding implementation of energy resilience projects to increase facility and community resilience against regional power interruptions. This Plan may also serve as a guide and template for governance organizations outside of Western Riverside County to navigate community resilience through energy resilience.


Photo Credit: WRCOG

1. Introduction

The Western Riverside Council of Governments (WRCOG) represents the collective voice of twenty-two member agencies, including eighteen Cities, the County of Riverside, Eastern and Western Municipal Water Districts, and the Riverside County Superintendent of Schools. Western Riverside County is known for its warm, dry Mediterranean climate. Eleven of WRCOG's member's jurisdictions are located at the base of mountain areas, including the Santa Ana Mountains in the Cleveland National Forest (home to the "Holy Fire" in 2018). In recent years, millions of California power customers have gone without power due to Public Safety Power Shutoffs (PSPS) events, which have been standard practice for many years but not to the current scale until recently. Additionally, extreme heat days, wildfires, and flooding are all predicted to increase further in the subregion due to climate change. These climate-related challenges will be exacerbated by large population growth in the region, increasing energy demand and further stressing the energy grid.

WRCOG has developed this Energy Resilience Plan (Plan) as a response to increasing power interruptions resulting from strains and stressors such as wildfires, extreme heat events, and PSPS. As the Plan is implemented, it will allow WRCOG and its member agencies to be better prepared in coming years for climate change impacts. Building on the previous initiatives CAPtivate and Resilient IE, the Plan provides a framework for decision making to develop targeted and prioritized energy resilience projects.

The ability of each agency to locally respond to climate-related disruptions depends heavily on the dependability of energy and power supply at critical facilities. This Plan contributes to improving resilience in the region by developing a blueprint for facility energy resilience assessment, technologies, projects, and applications for WRCOG's member agencies to be able to respond to environmental events when the need arises

The Plan was led with a stakeholder-first approach to identifying the energy resilience needs of the subregion, working with each member agency to identify critical facilities and critical loads, prioritize facilities based on a multi-criteria methodology, and develop strategies to maintain power supply during grid interruptions from environmental or PSPS events.

1.1. Why Energy Resilience?

Energy Resilience, like energy supply more generally, is a means to an end. When energy supply for a community is reliable and affordable, it is transformative, leading to greater prosperity and greater quality of life for all. Energy infrastructure has become so ingrained in the daily

necessities of life that it has become taken for granted in many communities. It is only in recent years, through an uptick in energy disruptions caused by unprecedented environmental hazards and natural disasters, that communities have begun recognizing just how fragile this critical infrastructure can be.

This recognition has driven some communities, and WRCOG in particular, to action. As an agency charged with facilitating collective action on important issues that affect its members, WRCOG has developed this Energy Resilience Plan as a means to an end: a means to improve the social and economic resilience of the Western Riverside community through acting on the fragile yet critical infrastructure that the community relies on, energy.

This translates to a few goals that were established for this Plan early in the development process. The primary goals established by WRCOG and its member agencies are to create an Energy Resilience Plan that yields:

- **Consistent access** to electricity for all critical public safety community facilities;
- Fundamental **health and safety services** at critical public and private facilities for all members of the community; and
- **Replicable** examples of how energy resilience can be implemented at prototypical locations.

These established goals underpin WRCOG's Energy Resilience Plan, guiding the development process and ensuring the resultant Plan best serves the needs of the community.

1.2. WRCOG Context

WRCOG is a joint powers authority whose purpose is to unify Western Riverside County so that it can speak with a collective voice on important issues that affect its members. Member agencies include eighteen Cities in Western Riverside County, the County of Riverside, Eastern and Western Municipal Water Districts, and the Riverside County Superintendent of Schools. WRCOG examines a range of regional matters critical to Western Riverside County's future. In April 2020, the Bay Area Council awarded WRCOG a grant to develop this Energy Resilience Plan as part of the California Resilience Challenge Committee.

WRCOG has been a leader in promoting energy efficiency, sustainability, and resilience in Western Riverside County. It has numerous programs to assist its members in enhancing their sustainability efforts including:

- **Inland Regional Energy Network (I-REN):** a collaboration between WRCOG, the Coachella Valley Association of Governments (CVAG) and San Bernardino Council of Governments (SBCOG) to actively participate in California's Clean Energy initiatives and build a stronger clean energy economy and community. I-REN has a vision to connect residents, businesses, and local governments to a wide range of energy efficiency resources to increase energy savings and equitable access throughout San Bernadino and Riverside Counties. I-REN programs and services include three sectors: Public sector, Codes and Standards sector, and Workforce Education and Training sector.
- **Resilient IE:** suite of resources to assist with local resilience planning and adaptation to climate hazards. Resilient IE resources include vulnerability assessments and adaptation strategies, hazard and evacuation maps, Climate Resilient Guidebook, and Resilient IE toolkit/template Resilient Element.
- **Clean Cities Coalition:** a program designed to reduce petroleum use in the transportation sector through the integration of advanced alternative technologies including zero-emission vehicles (ZEV) and improve air quality in Western Riverside County.

1.3. Climate Change

Climate is the long-term behavior of the atmosphere – typically represented as averages – for a given time of year. This includes average annual temperature, snowpack, or rainfall. Human emissions of carbon dioxide and other greenhouse gas emissions (greenhouse gases) are important drivers of global climate change, and recent changes across the climate system are unprecedented. Greenhouse gases trap heat in the atmosphere, resulting in warming over time. This atmospheric warming leads to other changes in the earth systems, including changing patterns of rainfall and snow, melting of glaciers and ice, and warming of oceans. Human-induced climate change is already affecting many weather and climate extremes in every region across the globe. Evidence of observed changes include heatwaves, heavy precipitation, droughts, and hurricanes.[1]

While climate projections cannot predict what will happen at a certain date in the future, projections can provide cities with information about what to expect from the climate in the future. For example, climate projections can estimate how much warmer the temperature will be in summer or how many more extreme weather events are likely to occur in the future. Climate projections, however, cannot forecast with precision when those events will occur.

In short, climate change is expected to make many natural hazards more frequent and more severe, which exacerbates the potential hazard sensitivity of critical infrastructure and assets and vulnerable populations.

1.4. Energy Resilience Definition and Context

Resilience can be defined as "**the ability to anticipate, prepare for, and respond to hazardous events, trends, or disturbances.**"[2]

Energy resilience, meanwhile, has been defined as "**the ability of energy systems to prepare for and adapt to changing conditions and withstand and recover rapidly from disruptions.**"[3]

1 Intergovernmental Panel on Climate Change. (2021). Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press. In Press.

2 Center for Climate and Energy Solution

3 Presidential Policy Directive -- Critical Infrastructure Security and Resilience

To make an energy system resilient requires an understanding of what can go wrong, what is the likelihood of it going wrong, and how to mitigate the likelihood of a disruptive event from happening or the impact of the event when it does happen. In other words, resilience is about the ability to mitigate risks, as defined[4] in Figure 1.1.

To provide context for this definition of energy resilience and how energy infrastructure changes might be applied in the WRCOG community, a literature review was conducted at the start of the planning process. Key findings from the literature review are discussed below.

Resilience measures (energy efficiency, load management, solar photovoltaics, battery storage) have been implemented at facilities owned by local governments, school districts, and community-based non-profits. Most of the examples are of solar plus storage serving individual facilities. Several studies have been completed that address ways to link multiple facilities into a larger microgrid, but regulatory constraints and associated costs have been barriers to implementation. Good candidates for multi-facility microgrids are locations with large parcels owned by a single entity, such as civic centers, schools, or corporate campuses. Appendix H includes references to a few case studies that highlight its applicability.

Electric resilience concerns across California include:

- Localized equipment failure - transformers, switchgear
- Overheating of transmission lines – heat-related impeded electricity flow
- Equipment failure or transmission loss due to wildfire
- Increasing electricity demand – building decarbonization, electric vehicles
- Rolling blackouts due to insufficient capacity (2- to 6-hour disruptions)
- Public Safety Power Shut Offs (up to 48-hour disruptions)
- Seismic, fire, or other extreme event (72 hours or more)

Due to their role serving a community either under normal operations or in an emergency, the types of facilities most often considered for resiliency upgrades include the following:

- Local Schools and Community Colleges
- Civic Center Public Buildings – City Hall, Police Station
- Other Public Buildings – Library, Community Center, Recreation Center
- Private Community Assets – YMCA/YWCA, Religious Organization Facilities, Boys and Girls Club

Finally, the types of resiliency interventions explored most often by other communities

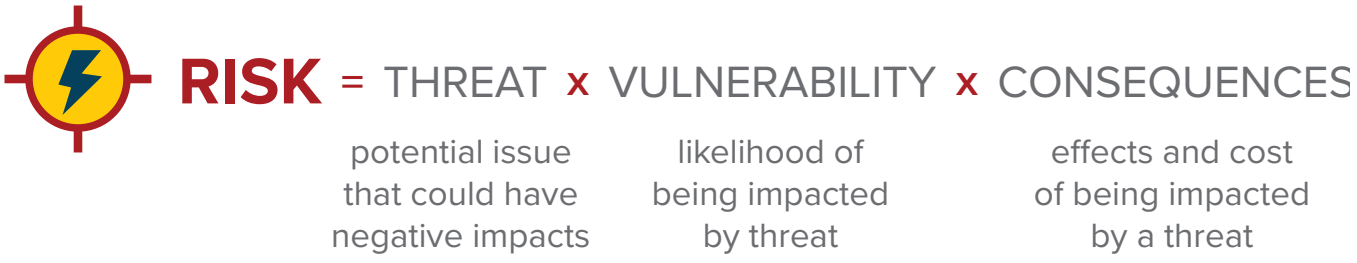


Figure 1.1. Definition of Risk for Energy Systems

4 Department of Homeland Security's Risk Assessment Methodology

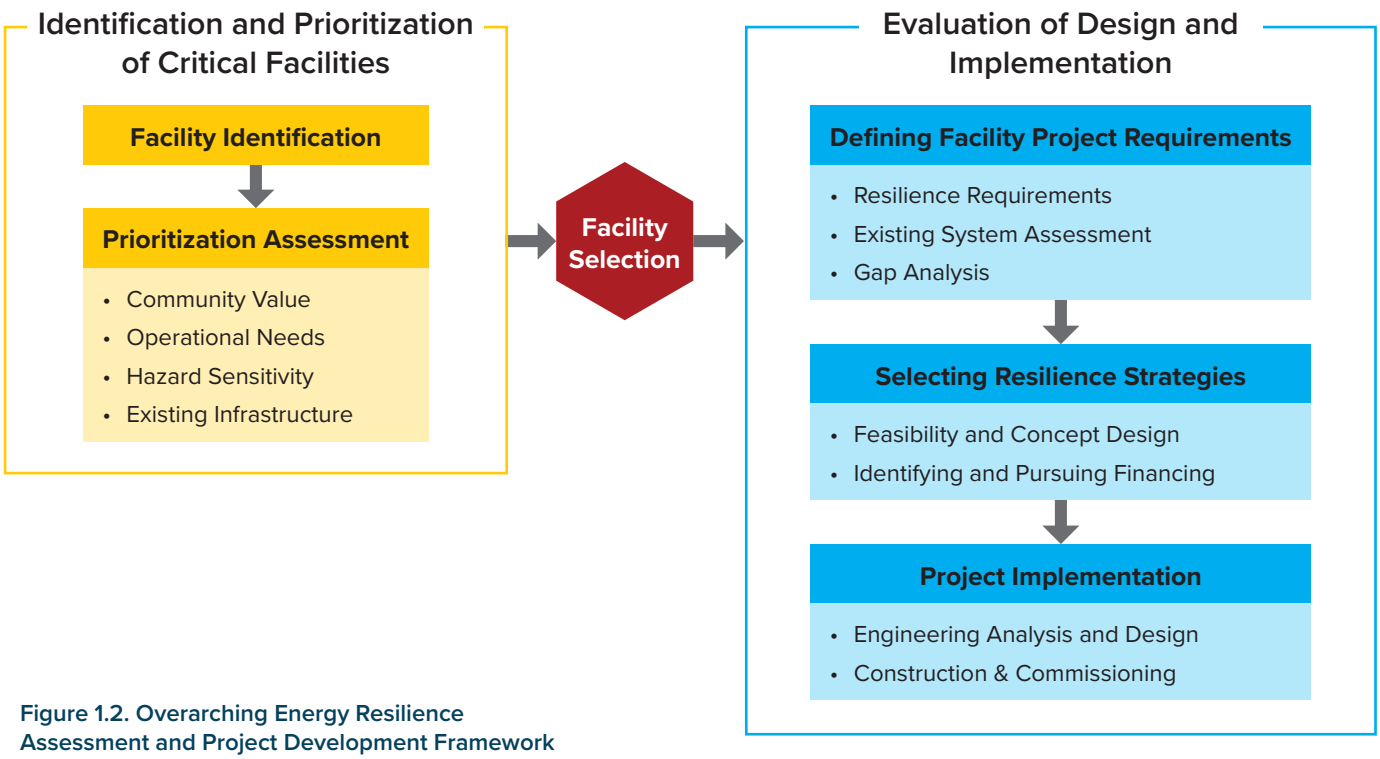


Figure 1.2. Overarching Energy Resilience Assessment and Project Development Framework

throughout California, due to their technological maturity and value brought to the community, include:

- Energy efficiency
- Solar photovoltaics plus battery storage
- Microgrids
- Community resilience hubs

All of these angles for energy resilience helped provide context and shaped the focus for how this Plan was developed. In particular, with respect to how this Plan may be useful as a guide outside of WRCOG, these overarching topics provide a frame of reference for how challenges that this Plan attempts to address are being grappled with beyond Western Riverside County.

1.5. What Does This Plan Do?

WRCOG prepared this Plan to support WRCOG members and other agencies in preparing for and responding to power interruptions resulting from events such as wildfires, extreme heat, or PSPS. The Plan provides information for future decision-making regarding how to prioritize public facilities for implementing energy infrastructure upgrades including efficiency, on-site generation, energy storage systems and microgrids to increase facility and community resilience.

This Plan is also intended to serve as a handbook to guide decision-making related to the identification of and investment into critical facilities and other essential community assets. The Plan outlines four evaluation factors, social vulnerability/community value, operational needs, physical hazard sensitivity, and existing infrastructure, in order to identify priority facilities in need of resilience upgrades. After priority facilities are selected, the Plan describes how to define the requirements for energy resilience at each facility, how to identify and select appropriate energy resilience strategies, and ultimately how to approach energy project implementation. This process is summarized in Figure 1.2. Each of these factors along with possible resilience interventions are informed by focused case studies of facilities located within three of the WRCOG member cities. The case studies outline analysis performed to identify requirements and arrive at conceptual designs for energy resilience upgrades.

2. Framework for Identifying and Prioritizing Critical Facilities

The WRCOG Energy Resilience Plan is intended to guide decision-making related to the identification of and investment into critical facilities and other community assets. The Plan achieves this in two stages:

1. Identification and Prioritization of Critical Facilities
2. Evaluation of Design and Implementation Options for Energy Resilience Solutions

The framework for identifying and prioritizing critical facilities outlines four factors to be evaluated in order to identify priority facilities and rank their needs for resilience upgrades and investment: social vulnerability/ community value, operational needs, physical hazard sensitivity, and existing infrastructure.

2.1. Identifying Critical Facilities

This Plan focuses on critical facilities because of the everyday utility and benefit that their operations provide to the community as well as their importance for disaster response.

In the development of this Plan, WRCOG member agency Public Works departments and facilities managers were engaged to determine which municipal facilities best fit the Federal Emergency Management Agency (FEMA) description of critical facilities and met vital needs for communities during hazard events to maintain health and safety.

FEMA defines critical facilities as:

"Facilities or infrastructure that are necessary for the health and welfare of the population and that are especially important following hazard events. Critical facilities include, but are not limited to, shelters, police and fire stations, and hospitals."[5]

Additional "essential facilities" can include:

- Transportation infrastructure
- Water and sewer infrastructure
- Health care facilities
- Substations
- Electric generation and distribution infrastructure
- Telecommunications infrastructure
- Aviation control towers
- Grocery stores
- Government facilities

5 FEMA. (2020). Accessed from: https://www.fema.gov/glossary/critical-facility

WRCOG members identified several types of facilities including water system infrastructure, fire stations, emergency operations centers, and community centers as critical facilities deemed applicable for resilience upgrades. Figure 2.1 shows the type of critical facilities identified throughout WRCOG based on responses from twelve member agencies.

2.2. Identifying Social Vulnerabilities facing Western Riverside County

In addition to determining the facilities to focus on for resilience interventions based on typology, this Plan provides a framework to identify which critical facilities should be prioritized for investment based on four social factors discussed further below: community value, operational needs, physical hazard sensitivity, and existing infrastructure.

2.2.1. Understanding Community Value (Social Vulnerability)

Understanding how place, demographics, and socioeconomic status contribute to climate change vulnerability helps identify avenues for policy and/or programmatic interventions. Understanding which areas of Western Riverside County have more vulnerable residents helps decision-makers prioritize where and how to allocate resources when wildfires, extreme heat events, and other climate-related hazards occur.

Overall, there are many social, economic, and environmental factors that influence community and individual vulnerability to climate impacts and their ability to adapt to climate change. For example, outdoor workers are at greater risk of

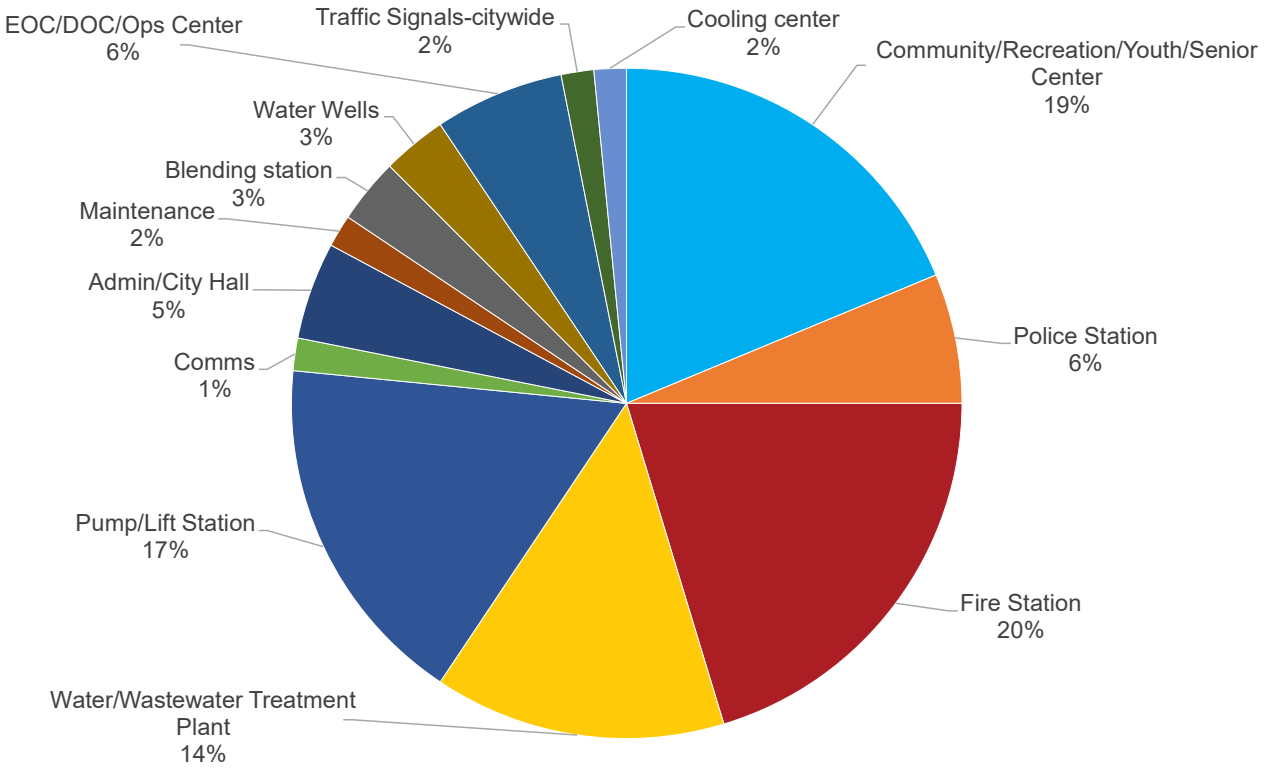


Figure 2.1. Critical Facility Typology Distribution Across WRCOG

heat stroke and related illnesses from extreme heat events, lower income residents have fewer resources to repair flood or fire damage and may live in poor housing conditions, and people with limited English language proficiency are less likely to access programs that could help during or after an extreme weather event. Moreover, individual biological factors, such as age or health status, can amplify a population's sensitivity to climate change.

Communities of color are often burdened with multiple, overlapping factors that cumulatively impact their ability to adapt or respond to climate change. Structural and institutional racism in economic, government, and social systems has resulted and continues to result in the disproportionate distribution of climate burdens and exposures, such as a low concentration of tree canopy coverage and a high concentration of impervious surfaces. In addition, a growing body of social epidemiological research has found that repeated experiences of racism become biologically embedded in the body and results in "weathering" or premature physiological deterioration, which in turn increases a population's sensitivity to climate hazards.

2.2.2. Social Vulnerability Findings in WRCOG

The Social Vulnerability Index (SVI) score and matrix prioritization identified which facilities serve residents with the greatest vulnerability to climate hazards. The social vulnerabilities identified in Western Riverside County include:

Socioeconomic Status: This category measures the proportion of the population who is below poverty, unemployed, has no high school diploma, and income levels. The most straightforward way socioeconomic status affects disaster is related to income or assets. Households with lower incomes may not have the funds to prepare their home for climate change hazards, or the ability to recover if their home gets damaged. Lower income and unemployed populations are also less likely to have access to healthcare, leading to a higher incidence of chronic conditions (such as heart and pulmonary conditions) which put them more at risk of health effects from heat and wildfire.

Figure 2.2 depicts the spread of socioeconomic vulnerability within Western Riverside County. The communities of Moreno Valley, Banning, Jurupa Valley, and Lake Elsinore have high scores in this sector.

Household Composition and Disability: This category measures the proportion of households with people aged 65 or older, aged 17 or younger, people older than age five with a disability, and single-parent households. Older adults, children, and people with a disability are physiologically and socially more vulnerable to extreme events or climate stressors. For example, older adults and people with a disability may have reduced mobility, communication abilities, and/or mental functioning which could make it difficult to evacuate (for example in a wildfire, flood, or landslide) or understand and/or carry out preparedness measures in their homes. Older adults are also more likely to have chronic illnesses (such as heart and pulmonary conditions) that increase the risk of heat illness and medical problems from wildfire smoke.

Children, particularly younger ones, are socially vulnerable because they do not have the resources or knowledge to cope with climate change hazards. They are typically dependent on their parents or other adults to keep them safe and healthy. Physical characteristics (such as the fact that they are still growing, their smaller size, the way they regulate body temperature) also put them more at risk of health effects from heat and wildfire.[6]

Figure 2.3 shows that household composition

6 Kenney WL, Craighead DH, Alexander LM. 2014. Heat waves, aging, and human cardiovascular health. Med Sci Sports Exerc. 46(10): 1891-1899.

is mixed throughout the subregion, but the communities of Banning, Moreno Valley, Jurupa Valley, Menifee, and Lake Elsinore have high scores in this sector.

Minority Status and Language: This category measures the proportion of the population that are a racial minority and/or speak English "less than well." Historic and current day social and economic marginalization makes populations of

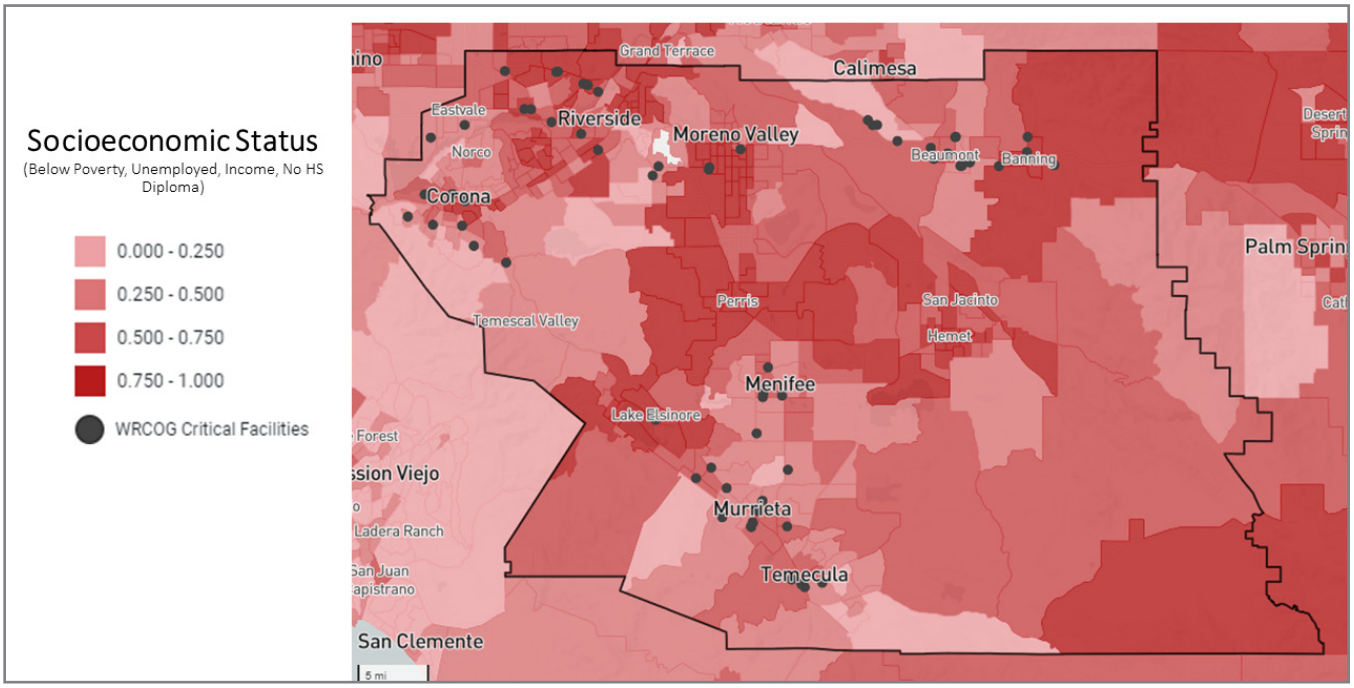


Figure 2.2. Socioeconomic Status Scores

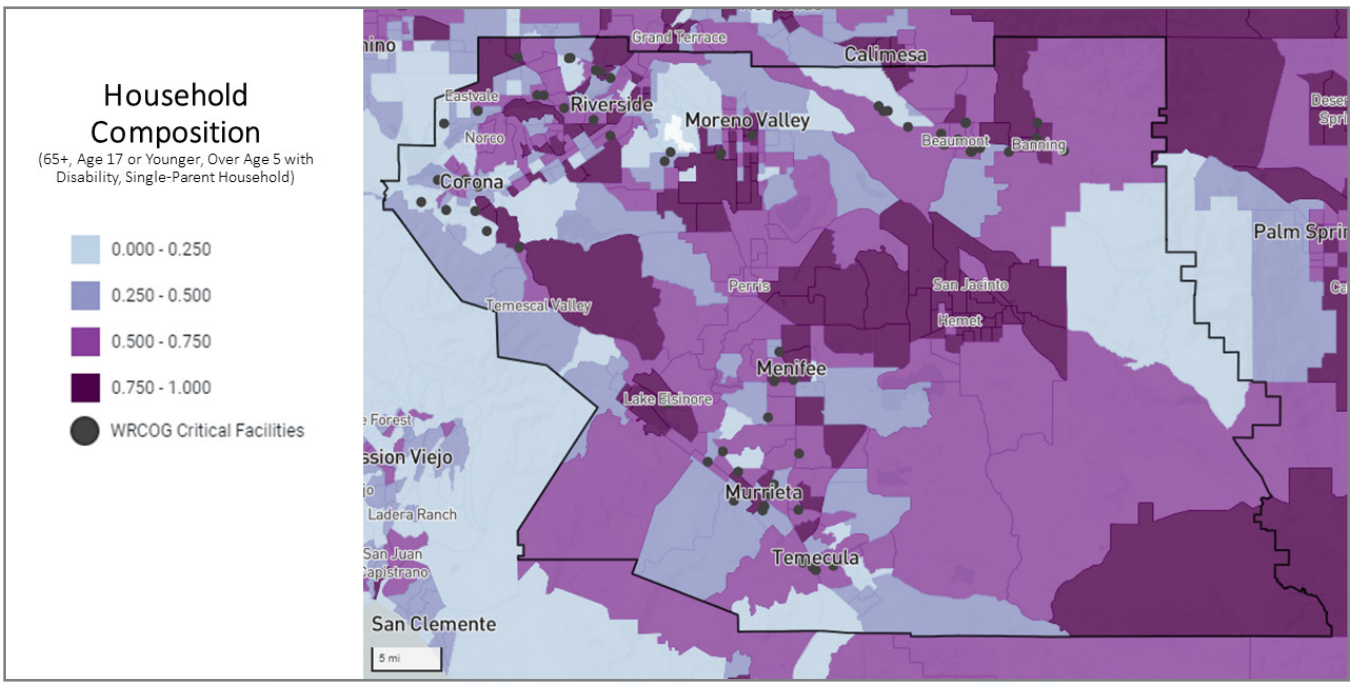


Figure 2.3. Household Composition and Disability Scores

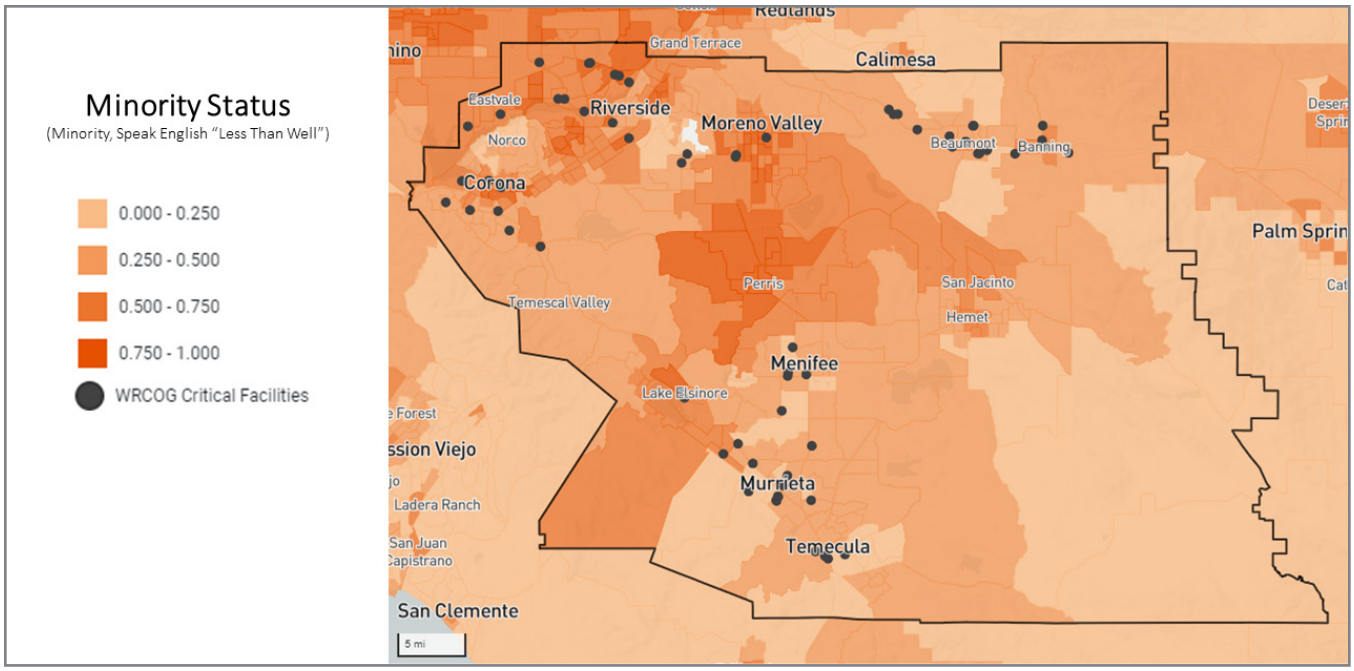


Figure 2.4. Minority Status and Language Scores

color more vulnerable to the impacts of climate change. Of course, race and ethnicity are connected to all three of the other SVI categories. Populations who are not proficient in English may have limited access to information and resources. Because of a lack of culturally relevant content, they may not fully understand climate hazards, preparedness actions, or emergency communications.

Figure 2.4 shows the distribution of scores throughout the subregion. Jurupa Valley, Riverside, and Lake Elsinore have high scores in this sector.

Housing and Transportation: This category includes housing and transportation factors that lead to higher risk to natural disasters and public health threats for populations. Factors include the number of multi-unit dwellings, mobile homes, group quarters, crowding, and the proportion of households with no vehicle. Homes that are well-constructed are better at protecting inhabitants from climate stressors and extreme events. For example, having better insulation and air conditioning reduces the effects of extreme heat. Or a stick-built home is likely to sustain less damage from a flood than a mobile home.

Figure 2.5 shows the distribution of scores throughout Western Riverside County. The communities of Banning, Beaumont, Jurupa Valley, Moreno Valley, and Lake Elsinore have high scores in this sector.

The Socioeconomic Status and Household Composition & Disability CDC SVI themes are the greatest contributors to social vulnerability in the WRCOG region. This indicates the need for facility improvements that support populations including lower-income households, older adults, children, and people with disabilities. Figure 2.6 shows overall SVI scores for Western Riverside County.

The communities with the highest overall social vulnerability scores and the number of critical facilities identified there are:

- Jurupa Valley (4 facilities)
- Moreno Valley (3 facilities)

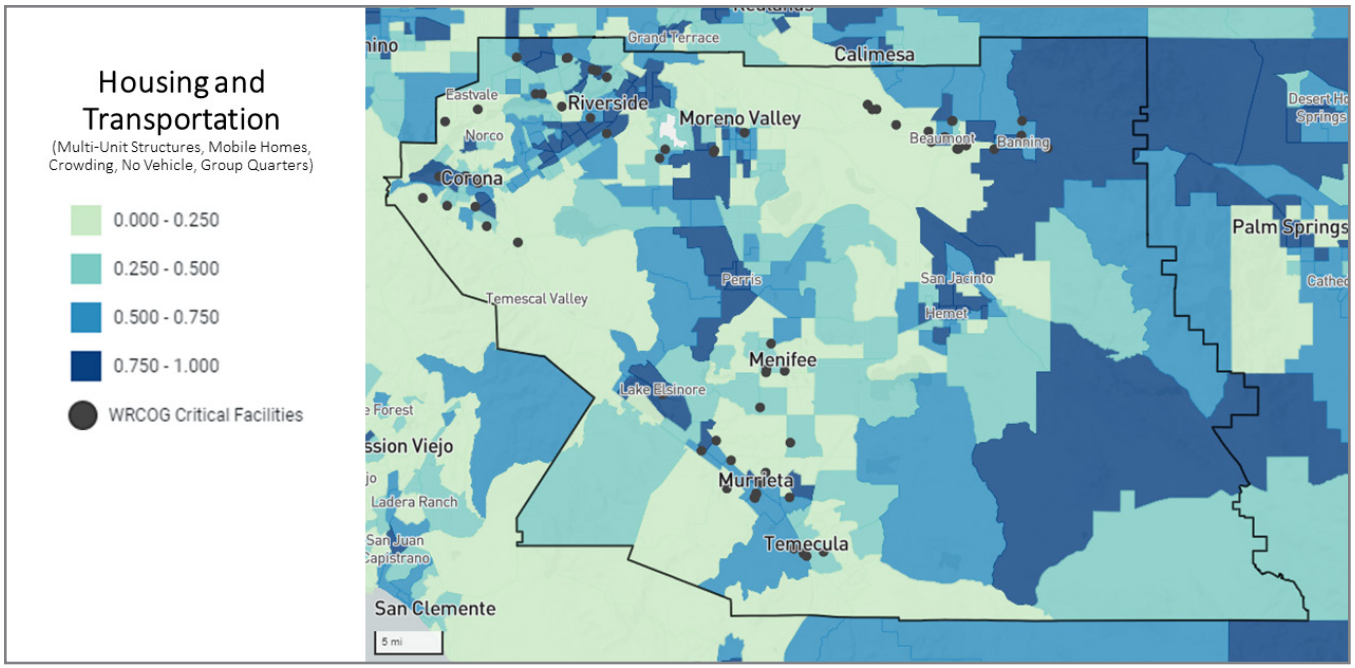


Figure 2.5. Housing and Transportation Scores

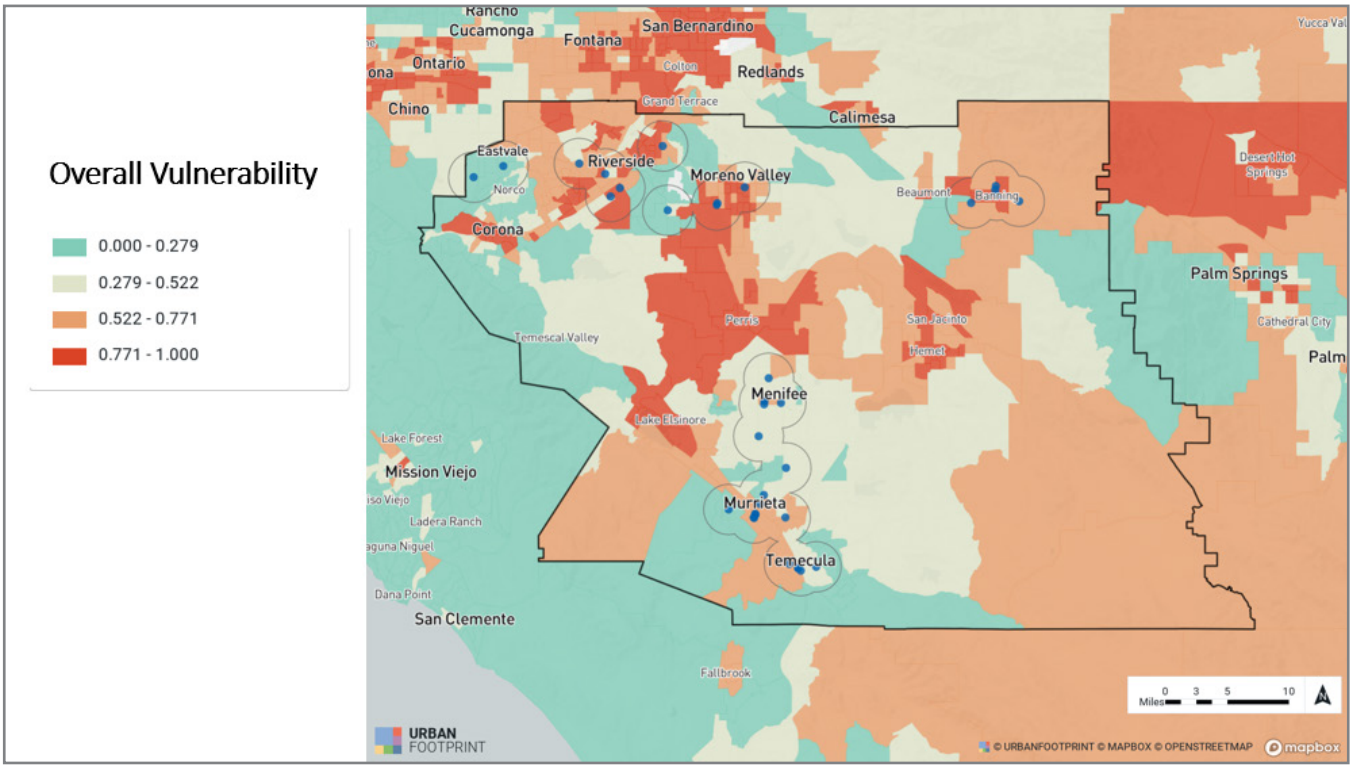


Figure 2.6. Overall Vulnerability Scores

- Lake Elsinore (3 facilities)
- Banning (2 facilities)
- Beaumont (2 facilities)

2.3. Identifying Natural Hazards facing Western Riverside County

The natural and climate hazards for Western Riverside County were identified using three resources: Cal-Adapt, Resilient IE, and member agency staff expertise. Cal-Adapt 2.0 is a collaboration between state agency funding programs, university, and private sector researchers to provide regionally downscaled climate projections and data that are sanctioned by the state to be used in climate adaptation resiliency and planning. Cal-Adapt utilizes California's Fourth Climate Change assessment to model the extent and impact of climate hazards on communities.

Resilient IE is an adaptation and resilience strategy prepared for the WRCOG subregion of the Inland Empire with a focus on transportation infrastructure, community vulnerability assessments, and resilience planning, in collaboration with San Bernardino County Transportation Authority and Caltrans.

Additionally, several working sessions were held with WRCOG and several member agencies to identify which hazards posed the greatest threat to their communities and assets, based on local experience and institutional knowledge.

Based on these sources, the following subregional climate hazards were identified:

Air Quality: Air Quality within the Western Riverside subregion is impacted by high levels of ozone and particle pollution that has plagued the region. Rising temperatures can exacerbate the air pollution and trap harmful ground-level ozone in the air due to increased water vapor. Poor air quality can have direct health effects, such as reduced lung function, pneumonia, asthma, cardiovascular diseases, and premature death. Ozone concentrations are projected to increase by 5 to 10 parts per billion by 2050 in the Los Angeles region, especially in those areas that currently experience high levels of ozone.[7]

Drought: 75% of water supplied to customers in the WRCOG subregion is imported from the Sacramento-San Joaquin Bay Delta via the State Water Project or the Colorado River. As such,

7 Resilient IE (2020).

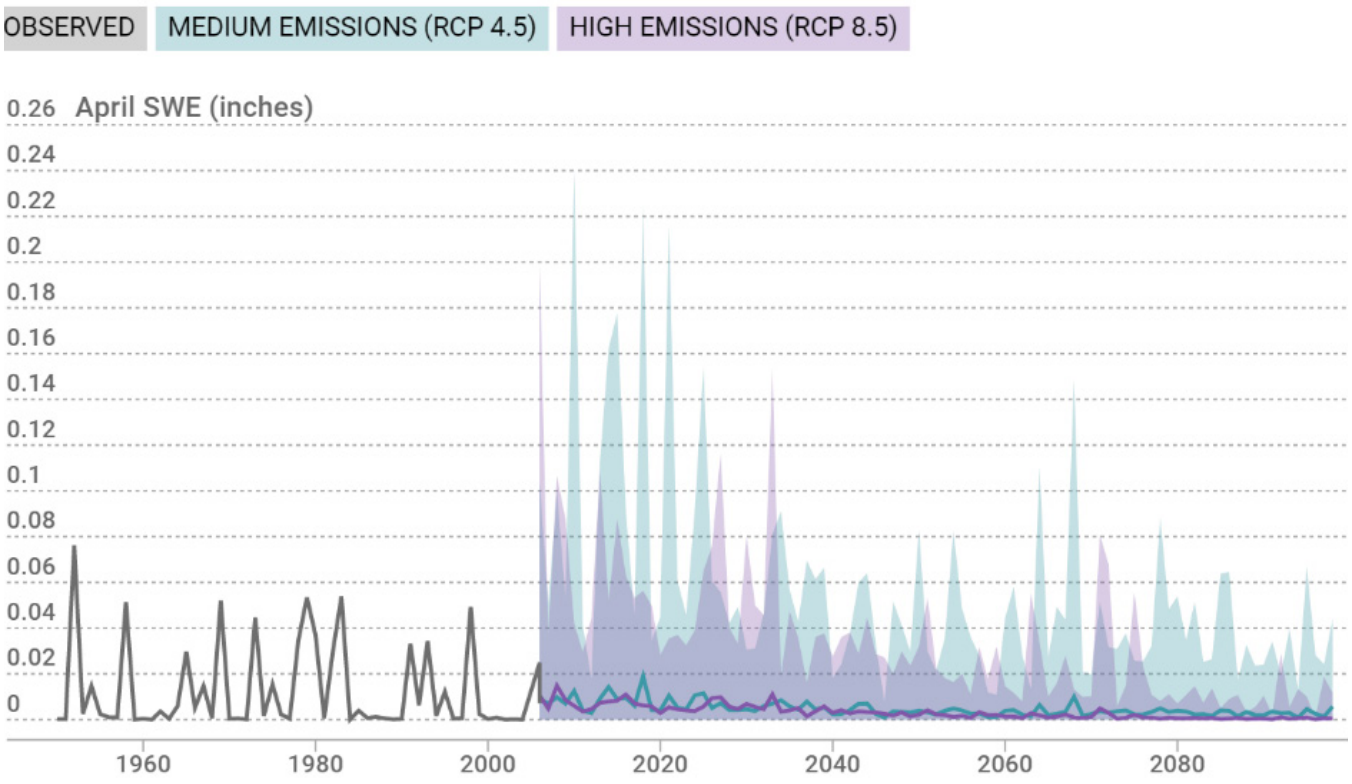


Figure 2.7. April Sierra Nevada Snow Water Equivalent (Source: Cal-Adapt, 2022)

much of the water is from the Sierra Nevada snowpack, which is projected to decrease by 2100 under all climate scenarios, as illustrated in Figure 2.7.[8]

Flooding: Although Southern California is likely to experience a decrease in overall precipitation levels due to climate change, the region is also expected to see an increase in the number of extreme precipitation events. Although flooding may occur in areas not designated as flood zones, the regulatory standard for identifying flood areas is through the FEMA special hazard flood zone maps, which identify 100-year flood zones. Figure 2.8 identifies FEMA 100-year flood zones for the subregion.

Extreme Temperature: Climate change is expected to increase overall global temperatures (IPCC 2013). The subregion will experience this increase in average annual heat in a variety of ways, including an increased number of extreme heat days [9] and heat waves, warmer summer evenings, and warmer average annual temperatures.

As identified in Figure 2.9, the number of extreme heat days is projected to rise through 2050, where the average year could include 23-29 extreme heat days, and 30-59 extreme heat days per year by 2099.[10]

8 Data derived from 32 LOCA downscaled climate projections generated to support California's Fourth Climate Change Assessment. Details are described in Pierce et al., 2018.

9 Threshold temperature for a location is defined as the 98th percentile value of historical daily maximum/minimum temperatures (from 1961–1990, between April and October) observed at that location. In Riverside County, the threshold temperature is 106.0 °F.

10 Data derived from 32 LOCA downscaled climate projections generated to support California's Fourth Climate Change Assessment. Details are described in Pierce et al., 2018.

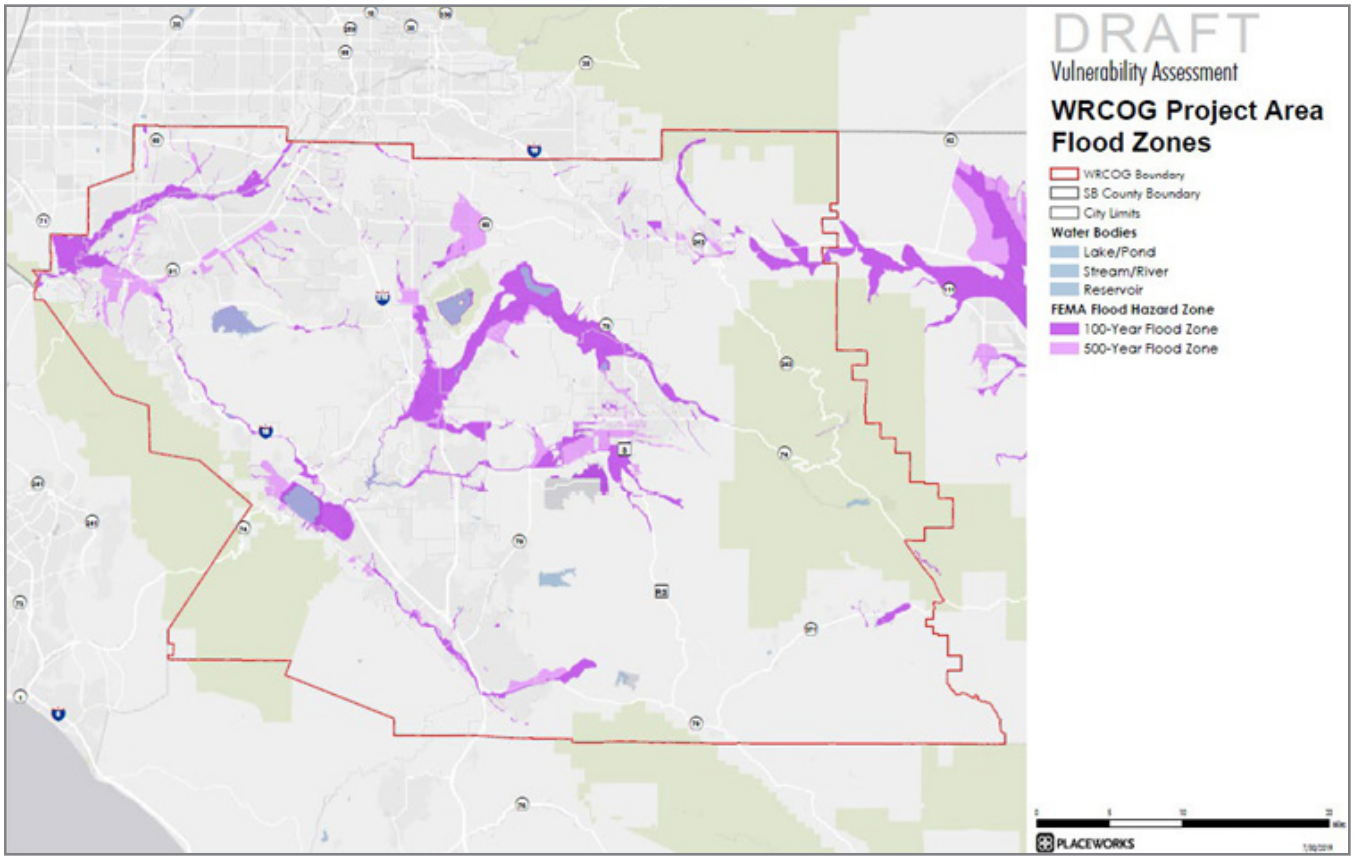


Figure 2.8. FEMA 100-year Flood Zones (Source: FEMA (2018) and WRCOG (2019)

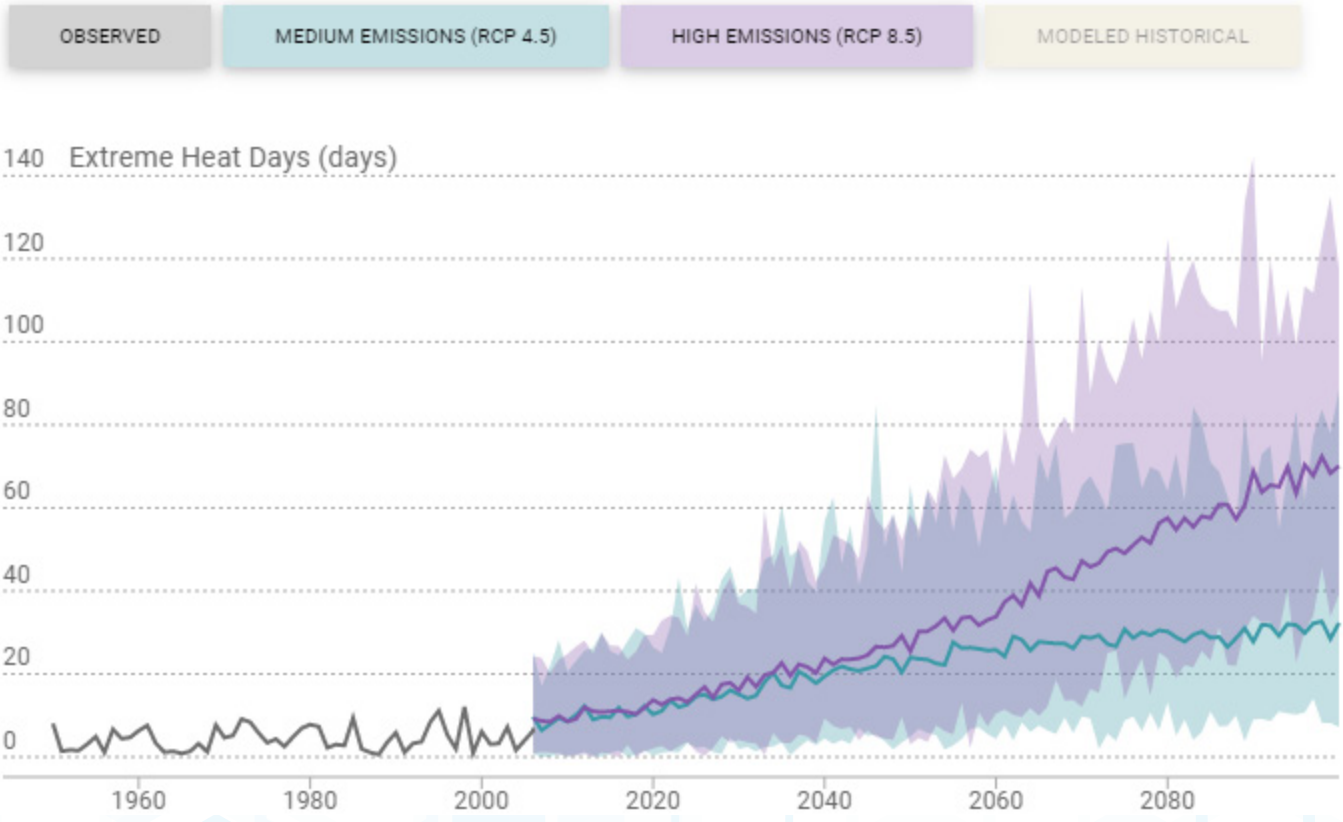


Figure 2.9. Number of Days in a Year When Daily Maximum Temperature is Above a Threshold Temperature of 106.0 °F in Riverside County (Source: Cal-Adapt, 2022)

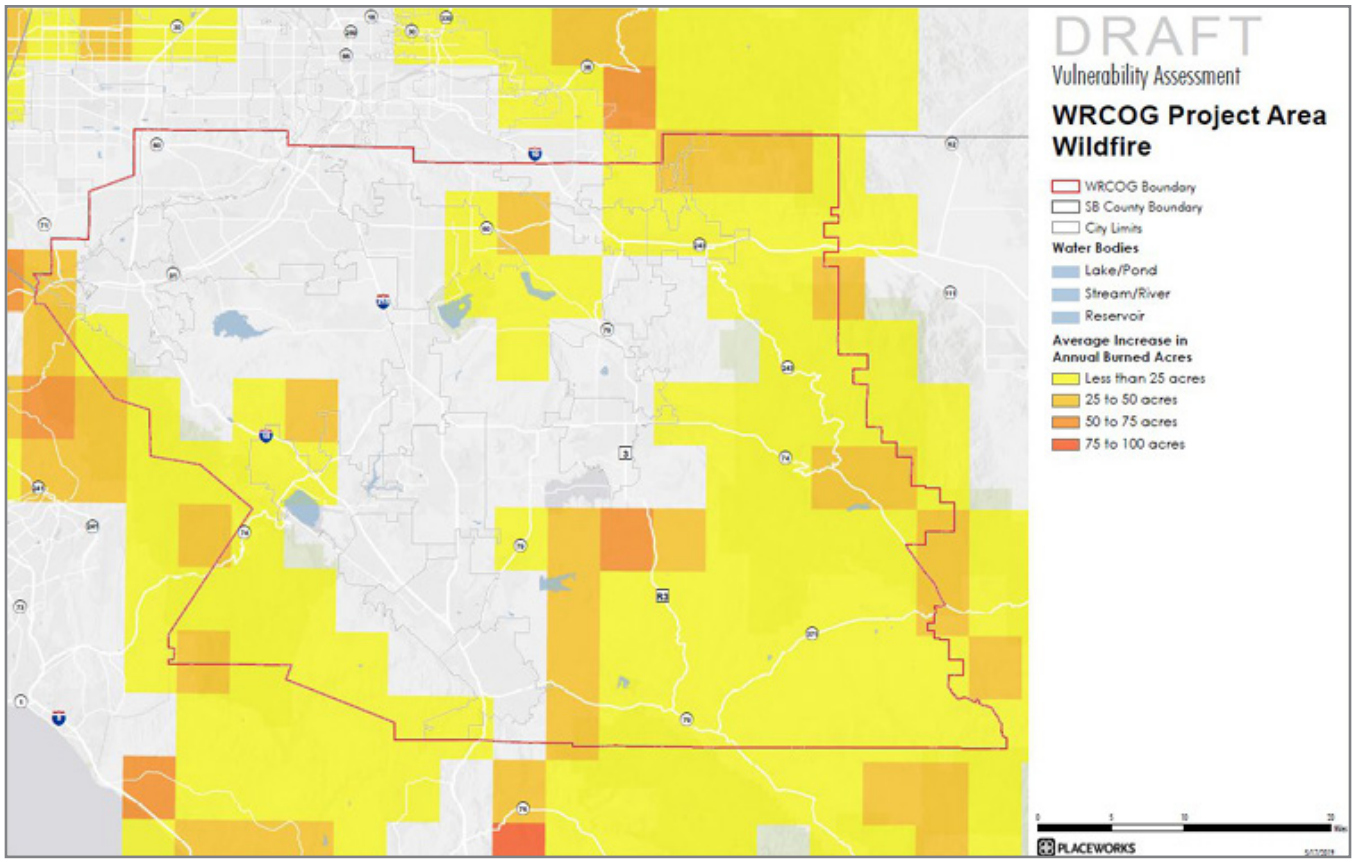


Figure 2.10. Average Increase Between Historic (1962-1990) and Future (2070-2099) Annual Burned Acres (Source: CEC, 2019)

Wildfire: Higher temperatures and drought create extremely dry fuel conditions that can increase the likelihood and intensity of wildfire. According to the California Fourth Climate Change Assessment, the WRCOG region may see a 13.4% increase in average annual acres burned above historic levels by mid-century. By the end of the century this increase is projected to decrease to 2.3% above historic levels due to wildfire fuel reductions associated with increased drought and extreme heat conditions. In addition to the direct physical threat to life and property, smoke released during an event can have a detrimental effect on the subregion's air quality. Figure 2.10 shows the average increase between historic and future annual acres burned within the Western Riverside subregion.

Human Health Hazards: Climate hazards can have detrimental health impacts on communities, especially vulnerable populations, as discussed further in the Social Vulnerability section. Californians face a variety of increasing health problems such as more heat-related illnesses, breathing and heart troubles, food and water contamination, traumatic injuries, mental health challenges, and exposure to infectious diseases.[11] Extreme heat can exacerbate the air pollution and trap harmful ground-level ozone in the air due to increased water vapor.[12] Flooding can threaten food and water safety and lead to more contaminated runoff and failures of wastewater treatment facilities, which can lead to outbreaks of gastrointestinal infections.[13] Wildfire smoke produces particle pollution, which is the principal

11 Louise Bedsworth et al. (2018). Statewide Summary Report. California's Fourth Climate Change Assessment, California Governor's Office of Planning and Research, Scripps Institution of Oceanography, California Energy Commission, and California Public Utilities Commission.
12 Resilient IE (2020).
13 Juli Trtanj et al. (2016) "Climate Impacts on Water-Related Illnesses," chapter 6 in The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment, USGCRP health2016.globalchange.gov/downloads.

public health threat from short-and longer-term exposure to wildfire smoke. The health effects of particle pollution exposure can range from relatively minor (e.g., eye and respiratory tract irritation) to more serious health effects (e.g., exacerbation of asthma and heart failure, and premature death).[14]

2.4. Prioritizing Critical Facilities

2.4.1. Overview of Prioritization Framework

An evaluation matrix was developed to review the characteristics of the various critical facilities identified by WRCOG member agencies. The purpose of the matrix is to provide an objective method to integrate a broad range of important facility factors and characteristics that impact the overall resilience of the facility as well as the broader community. A scoring system was developed to place each facility on 100-point scale, with higher scoring facilities seen as having the greatest need for intervention to enhance its resilience. For example, a facility with a score of 80 is less resilient than a facility scoring 60, to be able to meet its needs in order to sustain its operations during a disaster event. Different weighting factors were attributed to each aspect of the facility that was evaluated ranging from its impact on community value, the operational characteristics such as providing shelter or a place of assembly, the potential sensitivity of a facility to nearby hazards, and the services or resources provided relative to the anticipated community needs during a disruption in the energy system (Figure 2.11).

Based on discussion with WRCOG member agencies several factors were weighted more highly such as security, ability to maintain medical care, and the ability to meet the needs of the most vulnerable populations and community. The weighting used to reflect the conditions in West Riverside County could be adjusted if the matrix were to be used in another location with different threats, risks, and vulnerabilities and community composition.

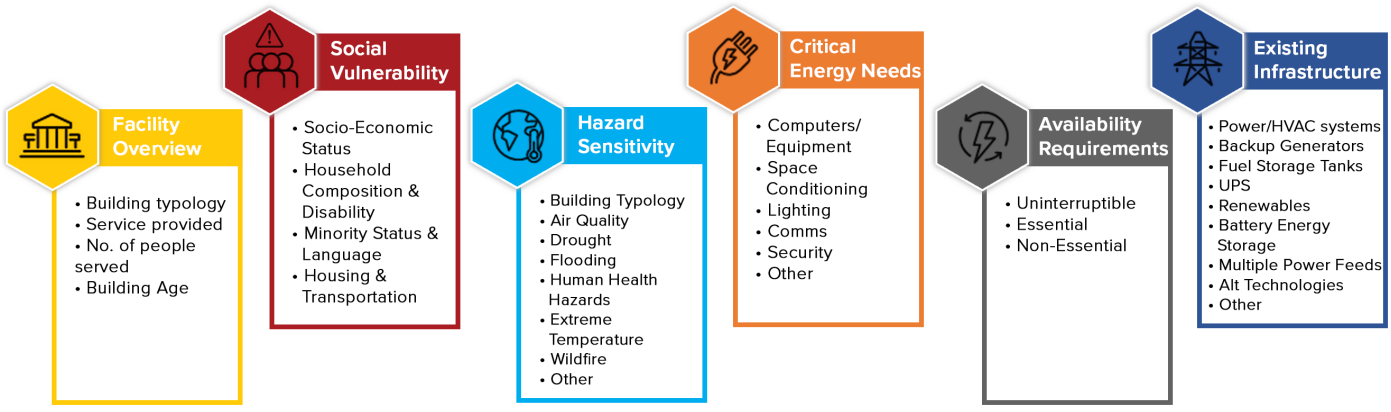


Figure 2.11. Facility Prioritization Factors

14 US EPA (2021).

2.4.2. Community Value (Social Vulnerability)

This assessment uses the CDC/ATSDR Social Vulnerability Index (CDC SVI) [15] to identify census tracts in the member agency's jurisdiction that have greater vulnerability to climate-related hazards such as wildfire and extreme heat. The index uses data from American Community Survey (ACS) 2014-2018 5-year estimates for fifteen variables grouped into four themes: Socioeconomic Status, Household Composition & Disability, Minority Status & Language, and Housing Type & Transportation (See Figure 2.12).

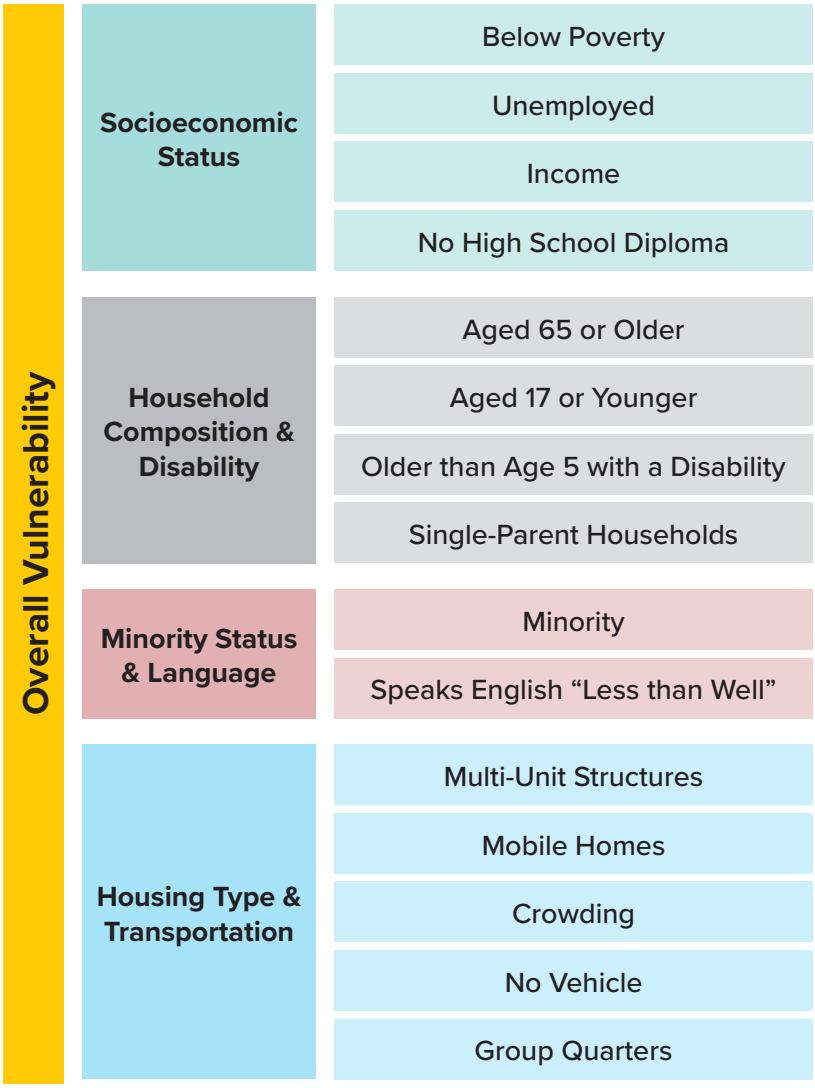


Figure 2.12. CDC/ATSDR SVI Variables Used (Source: CDC, 2022)

To analyze the CDC SVI data for the WRCOG member agency's jurisdiction, R+A downloaded the 2018 SVI dataset for California[16]. This dataset shows the relative vulnerability, shown as a percentile ranking, of all census tracts within California (rather than all US census tracts). The WRCOG facilities were then mapped so they could be matched up with the SVI data for the census tract they belong to using UrbanFootprint software.

To translate the CDC SVI percentile results into the WRCOG Facility Prioritization Matrix Community Value (Social Vulnerability) sector, each facility received points for its tract's overall SVI score. The following methodology is used to convert the percentile score to points in the matrix:

- Over 75th percentile = 4 points
- > 50-75th percentile = 3 points
- > 25-50th percentile = 2 points
- 0-25th percentile = 1 point

In order to determine the community value of a facility, several criteria should be evaluated including number of people served, socioeconomic status, household composition

15 https://www.atsdr.cdc.gov/placeandhealth/svi/index.html

16 Centers for Disease Control and Prevention/ Agency for Toxic Substances and Disease Registry/ Geospatial Research, Analysis, and Services Program. CDC/ATSDR Social Vulnerability Index 2018 Database California. https://www.atsdr.cdc.gov/placeandhealth/svi/data_documentation_download.html. Accessed August 2021.

Key stakeholders to engage around this topic to validate the analysis and learn more about specific community needs include:

- **Representatives from populations identified as socially vulnerable**
- **Community based organizations**

and disability, minority status and language, access to housing and transportation, and overall social vulnerability of the population served by the facility. This analysis determines the scale and vulnerability of the community served by the asset/facility. The higher the vulnerability of the population served, the higher the priority of the facility for resilience interventions.

During the development of this Plan, the SVI analysis was validated by speaking with WRCOG staff and representatives from the cities identified as most at-risk.

2.4.3. Operational Needs (Energy Needs & Availability Requirements)

This category addresses the various functions and services that the facilities are currently providing or services that are provided to community members. The analysis in this component of facility prioritization is used to determine the feasibility to continuing to provide these services in a time of electrical grid disruption or other emergency situation.

Each of the facility features are ranked on three-point scale. Three points are assigned to services that cannot be interrupted, such as refrigeration of medication, two points to services that are essential such as heating and cooling, and one point to services than are non-essential.

Figure 2.13 shows the type of critical energy needs at various facilities and how important it is to preserve those functions during power disruptions.

The evaluation starts with a determination of whether the function of services of the facility can be relocated. Having location flexibility enables the services to be brought to the specific community that is being impacted, rather than requiring community members to travel to the facility.

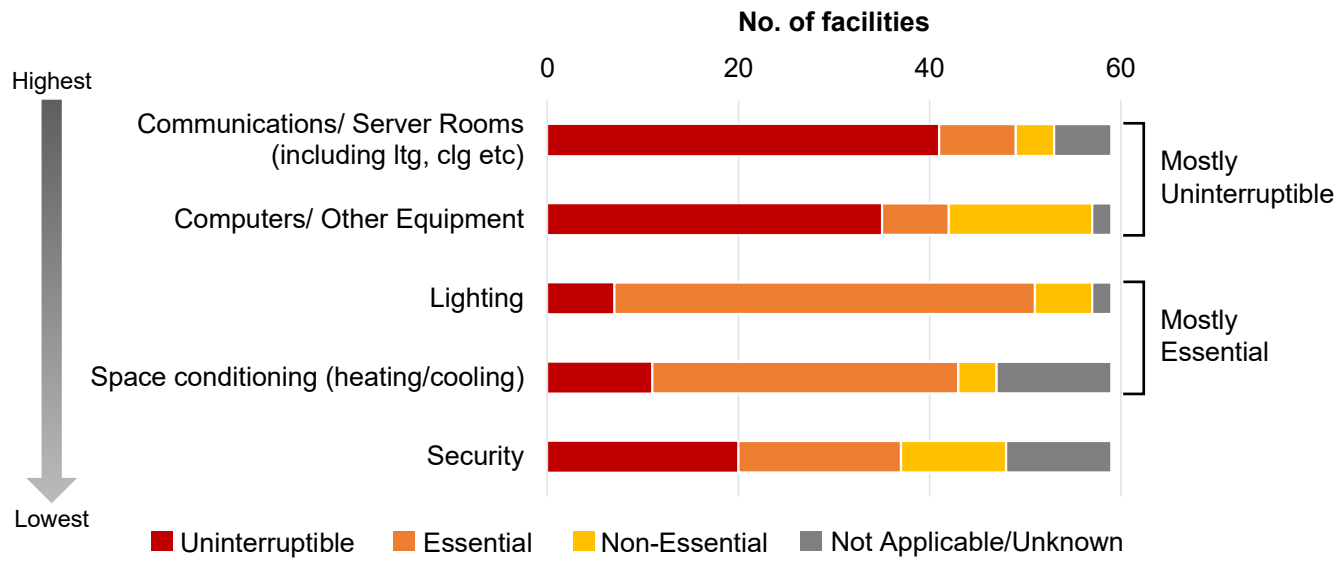
The next factor is the presence of computers and other operations or communications equipment. Given their sensitivity, preservation of electronic resources is seen as high priority. Facilities with computers are allocated a higher score to reflect the importance protecting these resources and, ideally being able to maintain operations of data and communications.

Space conditioning, either heating or cooling, can be vital to protecting people that have health-related concerns that can be exacerbated by extreme heat or cold. This can include persistent cardiovascular or respiratory illnesses. Over time, exposure to extreme heat or cold can be life threatening.

Lighting is important to maintain for the security and safety of people occupying the building. Facilities with the ability to provide lighting in an area where people can congregate and access other resources are considered to be a significant resilience asset.

Maintaining communications is critical during times of disruption of emergency, through the cell phone on internet networks. This can be as simple as providing phone charging and as significant as having a secure server or server room that is connected to long-term backup power source.

Location in a secured area is considered to be a positive attribute. This could be a facility located



Note: Additional requirements pertain to pumps, process equipment, etc.

Figure 2.13. Facility Critical Energy Needs and Availability Requirements

in a secure city building or maintenance yard or a secure school site in the community. Ability to monitor who comes in and out the facility, provide lighting, provide separation between people or families, and generally protect those using the facility from harm are critical concerns in facility selection.

During the development of this Plan, a request for information was sent to facility managers to collect data about the operations of critical facilities and followed up with stakeholder interviews to provide more detail and confirm information.

2.4.4. Physical Hazard Sensitivity

The third prioritization factor is physical hazard sensitivity, which assess the scale and nature of the physical threats to the asset/facility. They are measured on a three-point scale, where three points are assigned for high sensitivity, two points are assigned for low sensitivity, and one point is assigned to low sensitivity for each hazard. Zero points are assigned if the hazard does not apply.

Key stakeholders to engage at this step in the process to provide insight into the details of facility operations and systems include:

- **Municipal and/or regional emergency management personnel**
- **Public safety departments including Fire, Police**
- **Public and critical facilities managers**
- **Public works and/or utility departments**

Physical threats to critical facilities include:

- PSPS
- Extreme heat
- Wildfire
- Flood
- Earthquake

Physical threats can interrupt the power supply to critical facilities as a result of physical damage to infrastructure and or the preemptive shutoff of energy supply to minimize possible damage to infrastructure and/or the community. Many critical facilities across the WRCOG subregion are susceptible to physical threats from climate hazards.

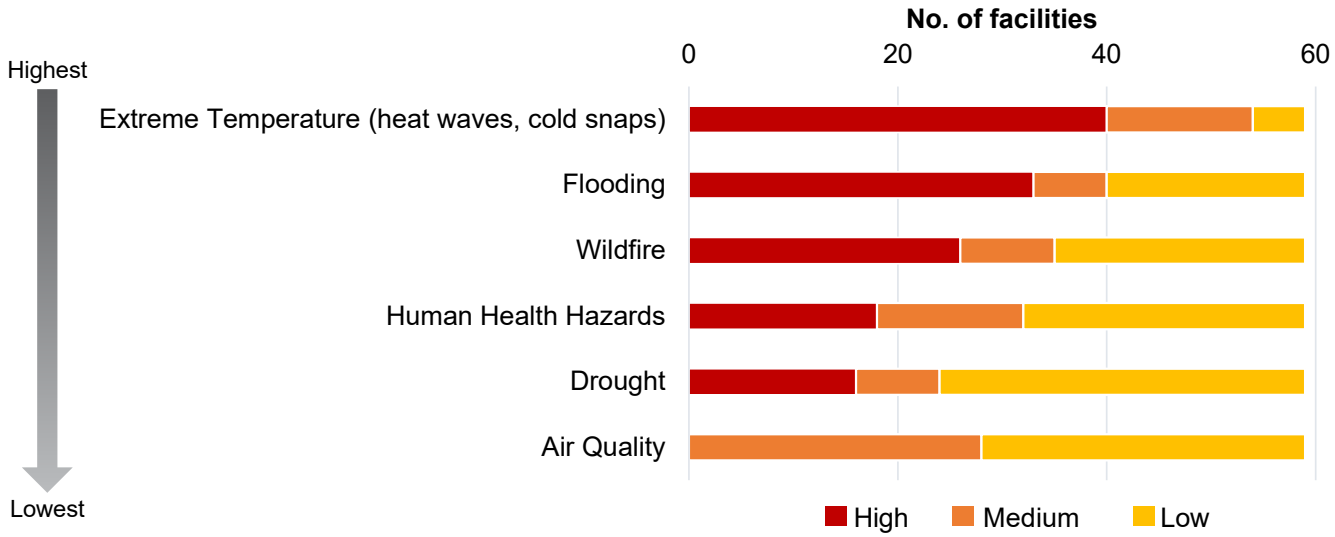
Figure 2.14 identifies the hazard sensitivity of critical facilities in Western Riverside County to various climate hazards.

The hazard sensitivity evaluation includes considering the location of the facility and that location's sensitivity to a particular hazard (i.e. Is the facility located in a high wildfire severity zone?) and the likelihood of a hazard to disrupt energy supply to the facility.

During the development of this Plan, a workshop was hosted with WRCOG member agency's emergency management personnel and public works departments to discuss which climate hazards were affecting their cities and how facilities and communities were being impacted.

Key stakeholders to engage at this step in the process include:

- **Municipal and/or regional emergency management personnel**
- **Public safety departments including Fire and Police**
- **Public and critical facilities managers**



Note: Additional threats include PSPS and earthquakes. Latter specifically applicable to Riverside.

Figure 2.14. Physical Threats to Critical Facilities

2.4.5. Existing Infrastructure

The criteria in this component of the prioritization analysis address the physical attributes of the facility that are related to providing continuous energy supply or supporting the needs that are reliant on electricity such as lighting, heating and cooling, refrigeration of medicines, or telecommunications.

The criteria include fundamental issues such as the age of the building, the age and condition of the energy equipment, and the overall capacity of the electricity system. Older buildings are more likely to have less efficient systems or need energy upgrades and may have capacity constraints on electrical service or the feasibility of adding new systems. Older buildings may also have opportunities to integrate energy resilience measures into planned facility upgrades. The age and condition of the energy equipment, presence and capacity of heating and cooling systems. Other infrastructure factors include the presence and capacity of heating and cooling systems, which is a critical concern if the facility is planned to be place of refuge or assembly.

The next cluster of criteria address methods of maintaining power to provide basic services. These include back up generation, fuel storage tanks, battery storage, and on-site energy generation. Photovoltaic systems designed to operate autonomously from the power grid can serve this need during daylight hours but need to the combined with other methods to provide energy for longer periods.

Typical backup generations systems are designed to maintain building energy services for relatively short periods. If the facilities are considered for a longer period of use, which is likely, the existing backup systems may need to be increased to provide energy for 12-24 hours or be augmented by on-site generation to extend the duration that the facility provide resilience services. Other factors include whether there are multiple ways to feed energy to the property or if the property is able to switch from one source, such as diesel generator, to another energy source such as PV or batteries without major disruption to services.

The presence of these energy infrastructure components and services at a given facility are compared to an ideal list of systems and services to determine the score in each category. This analysis is used to determine the gap between a specific facility and an ideal situation. Facilities with greater diversity services and existing capacity, and thus a smaller gap, receive a higher score in this section of the prioritization analysis.

Similar to the operational needs factor, a request for information was sent to facility managers to collect data about critical facilities and followed up with stakeholder interviews to provide more detail and confirm information, during the development of this Plan.

Key stakeholders to engage at this step in the process to provide insight into the details of facilities include:

- **Municipal and/or regional emergency management personnel**
- **Public and critical facilities managers**
- **Public works departments**

3. Framework for Designing for Energy Resilience

As stated previously, The WRCOG Energy Resilience Plan serves as a guide for decision-making related to the identification of and investment into critical facilities and other community assets in two stages:

1. Identification and Prioritization of Critical Facilities
2. Evaluation of Design and Implementation Options for Energy Resilience Solutions

With the critical facilities identified and prioritized, the framework for designing for Energy Resilience focuses on developing a technical solution. This includes determining what hazards to mitigate or protect against, what level of reliability and resilience to design to, what technologies and design elements could be part of the solution, and what resources can be mapped to the selected technologies to help with implementation.

3.1. Evaluating Energy Resilience

This section describes the process to defining what are the design objectives of a resilient energy system for critical WRCOG facilities. It is an attempt to answer the question:

"How resilient is resilient enough?"

There are many levels of resilience, and many layers of backups and redundancies that could be applied to a given situation. So, the challenge for any prudent engineer or emergency planner is to navigate how to put boundaries on that decision-making process. One approach can be summarized below, as follows:

$$Resilience = \frac{[Capabilities]}{[Requirements]}$$

In other words, designing a facility to be "resilient enough" means designing it to have resilience capabilities that are appropriately aligned with the resilience requirements. Designing capabilities that far exceed the requirements appropriate for that facility, i.e., achieving ">100%" (conceptually) would constitute overinvestment of infrastructure.

3.1.1. Defining the Energy Resilience Requirements

When we successfully tease out the resilience requirements are for a given facility, we come to a "desired end-state" that we can aim for when selecting our design solutions. This desired end-state should be built up from a holistic understanding of the **Mission Needs** of a facility, i.e., what is/are the function(s) and purpose of the facility being evaluated and what systems

must be operational in order for the mission to be successful. Missions for a facility can include emergency response, water treatment and water distribution, critical life safety, community cooling hubs, etc. Mission Needs can include lighting, computers and network connectivity for communications, HVAC systems, and specialized equipment such as garage bay doors, medical equipment, pumps, etc. This top-down approach for defining resilience requirements can be summarized in Figure 3.1.

As illustrated in Figure 3.1, a resilience evaluation informs the **resources** required to support successful operation. Most critical missions require some degree of **power** supply to assure mission success, either for the whole facility or for critical circuits. Depending on the mission, **heating** and **cooling** may be critical in order to maintain sensitive climate control requirements. Reliable **water** supply may also be a requirement for mission success, although in some cases reliable water supply is the outcome of mission success (such as for water/wastewater treatment and distribution systems).[17]

Resource requirements can be defined in three tiers of availability that we have found to be sufficient for describing all possible scenarios for Mission Needs, defined in Table 3.1.

To determine the availability requirements for each resource at a given facility, it is recommended to start with a narrative understanding of the facility by engaging stakeholders who know the facility well, including but not limited to:

- The **facility manager**, who can speak to what systems are in place, what they are used for, and where are the chronic issues that have historically caused mission disruptions.
- The **site director**, who can speak to the broader functions of the facility, the implications to community resilience if utilities are disrupted, and what kind of contingency plans are in place (or lacking) to mitigate mission interruption due to facility degradation (such as whether the mission can be relocated somewhere else).

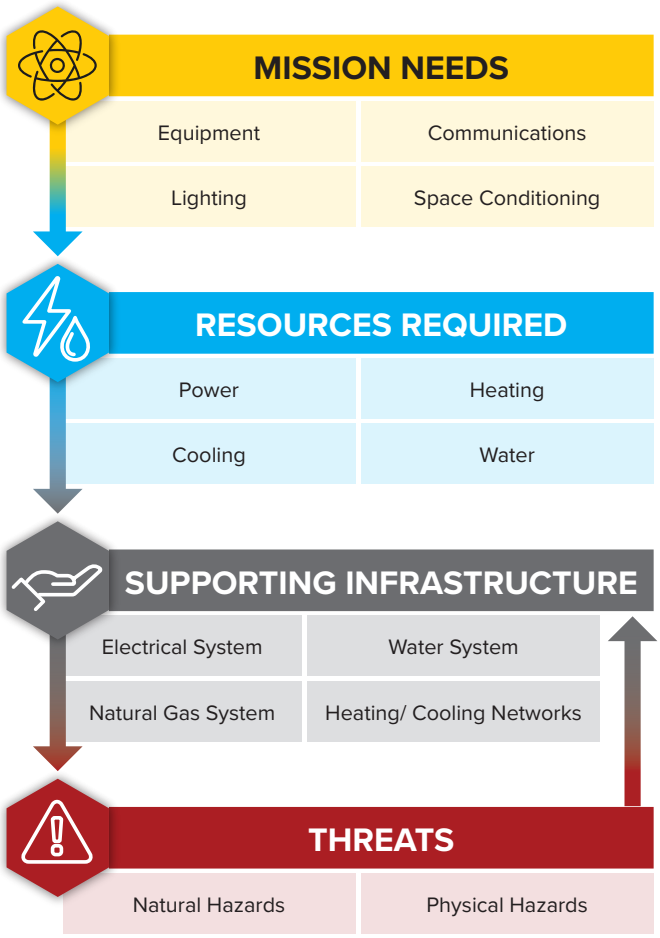


Figure 3.1. Top-down Approach to Defining Energy Resilience Requirements

Through interviewing the facility manager and site director of the critical facility being assessed, each end-use for each resource can be categorized into Uninterruptible, Essential, or Non-essential. For the case studies, this was achieved by sending a facility questionnaire to the key stakeholders to gain initial understanding and then following up with a phone interview. The result is a complete knowledge base for the resource requirements of the facility. For most facilities, such as the

17 Water and wastewater systems at a facility are important elements of resilient infrastructure, but have not been the focus of this effort.

Table 3.1. Tiers of Resource Availability Requirements

Tier	Description
Uninterruptible	Resource must be continuously available and cannot experience even momentary disruptions in supply or quality.
Essential	Resource must be available during a specific activity for a given duration. Minor variations in resource quality can be tolerated without significant disruption.
Non-Essential	Resource can be lost, or quality can be degraded for extended periods without severe consequence.

Menifee Senior Center and **Jurupa Valley Fire Station** case studies, the resource end-uses that are categorized as Uninterruptible or Essential will be a focused subset of the total resource use at the facility. This can be a very helpful discovery because it means that the facility's resilience strategy can hone in on that subset of more critical end-uses instead of building a strategy that serves the entirety of all resources used. When resources are scarce in an austere environment such as the aftermath of a natural disaster, having a clear understanding of which end-uses are most critical will help ensure that those scarce resources are allocated appropriately.

The resource requirements thus identified, an understanding of the supporting infrastructure is a natural next step. The supporting infrastructure represents not just the physical, engineered systems present in a facility but also the management systems applied to a facility such as maintenance plans and emergency protocol exercises. When a mission needs resources to ensure success, it is the **supporting infrastructure** that provides those resources. This includes the power distribution system (transformers, panels, circuits), the HVAC system (mechanical equipment, pipes, ducts, natural gas supply), the water and wastewater systems (pipes, pumps, valves), and management systems.

Similarly, it is the supporting infrastructure that must survive the **threats** present in a given community or geographic location. Threats include the natural hazards present in the area (heat waves, earthquakes, heavy rains and flooding, strong winds, etc.) as well as the social vulnerabilities and physical threats that a community may face (socioeconomic factors, social unrest, public health challenges, etc.). Revisit Chapter 2 for how to assess the threats present in a given location.

To recap, when designing a facility for energy resilience, it is the Supporting Infrastructure that provides the Resources required for the Mission, and it is the Supporting infrastructure that must survive the Threats facing the community. The level of risk mitigation pursued (the resilience requirement) is informed both by the degree to which the critical Resources are required for mission success and the magnitude of the Threats that may cause resource disruption. The Supporting Infrastructure, therefore, is our entry point into making changes at a facility that will enhance its ability to achieve mission success amid a range of threats and is the focus of the rest of this chapter. See Figure 3.2 for a conceptual recap.

3.1.2. Defining the Energy Resilience Capabilities

An effective energy resilience strategy involves more than a simply installing a backup diesel generator with some fuel storage and calling it a day. Resilience includes **preventing** utility service disruptions from ever occurring, **mitigating** the impact of utility service disruptions when they

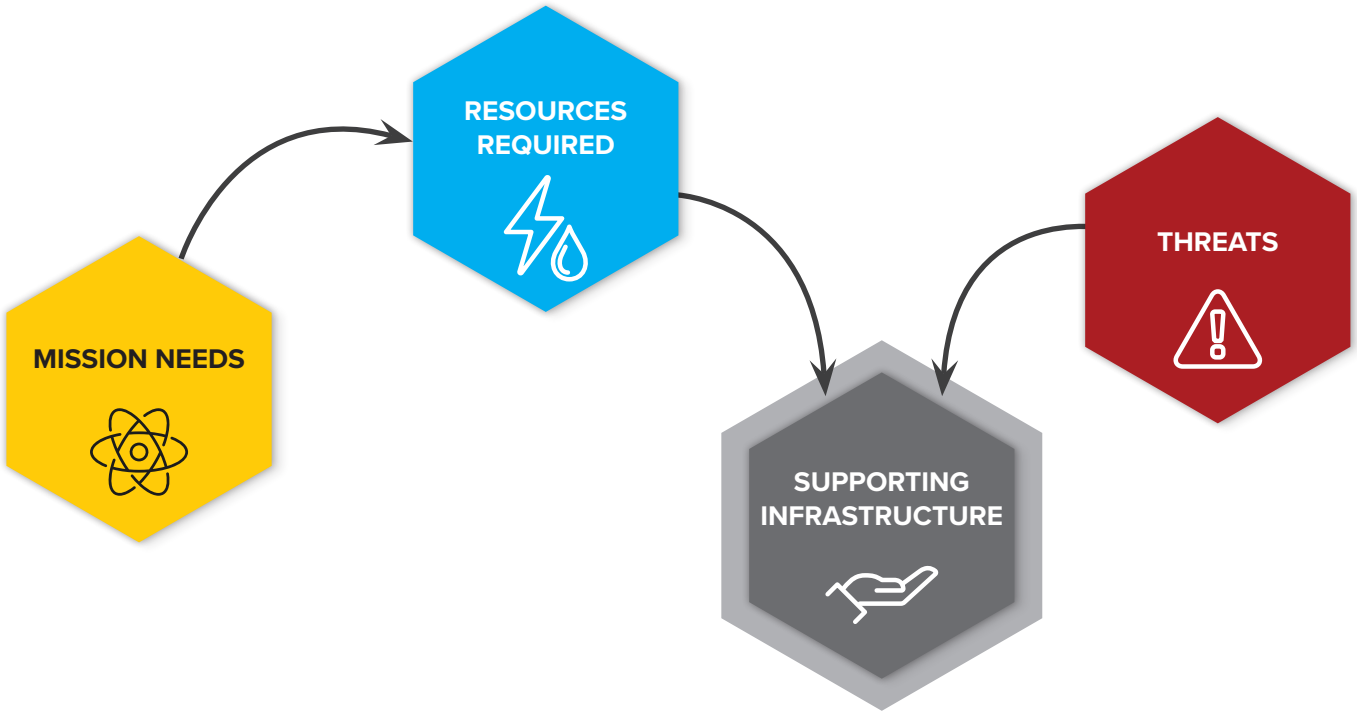


Figure 3.2. Supporting Infrastructure Is the Entry-Point for Addressing Threats and Providing Resources for Mission Success at a Facility

do occur, and **recovering** to full operations in the aftermath of a disruption event.

The capability of a facility to prevent, mitigate, and recover from a disruption event is informed by the **Supporting Infrastructure** defined in the previous section. To assess the energy resilience capability of the supporting infrastructure, the three qualities of resilient infrastructure (prevention, mitigation, recovery) can be subdivided into ten energy resilience attributes. These are described in Table 3.2. When evaluating the resilience capability of a facility, evaluating according to each of these attributes can be helpful for making sure that Energy Resilience is being looked at from all angles.

3.1.3. Defining the Energy Resilience Gaps

When compared against the Energy Resilience *Requirements*, the existing Energy Resilience *Capabilities* provide insight into how well the facility can meet the Needs of the Mission that the facility is charged to perform. If the capabilities fall short of the requirements, then a **Resilience Gap** is identified. The essential goal of an energy resilience plan is to fill these gaps by selecting and implementing energy resilience strategies.

For guidance on how to assess the existing infrastructure serving a critical facility, refer to Section 2.4.5.

As the gaps are identified, ideas may start to form about what areas need more attention. The Resilience Attributes can help provide a more focused direction for that attention. Once that direction becomes unveiled, that is when the resilience strategies come in.

For example, the **Menifee Senior Center** was identified as a critical facility with an Essential power requirement to serve as a cooling and heating emergency shelter and food distribution location for residents of the community. The existing infrastructure assessment informed that

Table 3.2. Energy Resilience Attributes

Resilience Attributes	Attribute Qualities
Cybersecurity Of Energy Systems	Protection in place for energy systems (e.g. HVAC controls, centralized monitoring, etc.) to resist a cyber attack
Physical Hardening	Protection of energy infrastructure (e.g. electrical supply lines and switch stations, district heating plants and pipes, etc.) from threats such as flooding, fire, and strong winds
Redundant Supply Paths	Separated supply paths to minimize the system infrastructure's vulnerability to the same local threat. (e.g. having multiple electrical supply lines from same source routed through the north and south of campus respectively)
Energy Source Diversity	Alternative sources of energy available to supply critical loads (e.g., utility connection, on-site renewable energy, and emergency backup diesel generator)
Energy Demand Reduction	Conservation and management of energy use in order to reduce the requirement for critical backup capacity and increase outage sustainment time
Load Sustainment Capacity	Ability to maintain energy supply to critical demand from on-site sources. Includes generation, fuel storage, controls, and infrastructure
Emergency Management Protocols	Level of emergency response plan and personnel training
Islanding Capabilities, Analytics, & Controls	Automation of back-up systems, predicting threats, performance indicators to support response efforts
Personnel Availability For Assessment & Repair	Ability to access staff (be it university, contractor, or local specialists) of appropriate expertise for damage assessment and repair
Equipment, Parts & Procurement	Ensuring replacement critical equipment and parts are available. Also includes standardization of components and secured procurement practices

this essential power supply requirement was not being met. The utility power supply capacity was sufficient when the grid is operational, but in response to a Threat such as a wildfire-caused PSPS event, no alternative power source would be available. In other words, the Resilience Gap of insufficient Energy Source Diversity was identified. With the gap thus identified, strategies can be considered that are designed to close that gap.

3.2. Selecting Energy Resilience Strategies

In order to close a resilience gap, we start thinking about the nature of the gap and the different strategies available to us. Is the resource supply susceptible to physical damage? Does the facility consume excessive energy relative to its needs? Is there a lack of controls ability to phase down non-critical loads? Based on the kind of gap, we can look at the relevant menu of strategies and narrow down which strategy fits the need the best.

A complete list of energy resilience strategies considered in this Energy Resilience Plan is provided in Appendix F. This is not an exhaustive list covering all possible design approaches to energy resilience, but it does capture the majority of desired end-states or capabilities that would apply to the WRCOG community. The more agnostic take by focusing on desired end-states and capabilities instead of focusing on specific, technical solutions allows the project engineer to

identify the best solution for a specific site in the context of rapidly evolving energy technology. However, a selection of specific technical solutions that are more commonly deployed are also included in this list for expedience.

Besides addressing resilience gaps, feeding into the strategy selection is a consideration of the site **constraints** and **opportunities**. These key considerations inform what kinds of strategies can make sense for the facility. This is an appropriate time to re-engage the facility manager and site director because they will know the site better than any utility bills or as-built drawings can describe. Be sure to compliment this with reliable data such as utility bills (including interval data) and as-built drawings that can verify and support the claims of the facility manager and site director, because these references will be needed when forming the basis of design for a technical solution.

Appendix D provides a complete list of strategies considered in this Energy Resilience Plan. To help with identifying resilience strategies that can be applied to fill a resilience gap, each strategy is tagged with a Category, which Resource(s) the strategy supports, and which Resilience Attribute(s) the strategy addresses. Additionally, some key considerations intended to inform whether the strategy is worth further evaluation are included. Table 3.3 provides a sample of what is included in Appendix D.

Categories that each energy resilience strategy will fall under:

- Backup Power
- Controls & Communications
- Electrical Distribution
- Energy Conservation
- Energy Management
- Energy Storage
- Energy Supply
- Maintenance
- Mechanical Systems
- Other

Table 3.3. Sample of Energy Resilience Strategies

Strategy	Category	Resource	Resilience Attribute	Key Considerations
On-site Solar	Energy Supply	Power	Energy Source Diversity	• Rooftop/Parking Area • Circuit capacity • Structural support • Shading • Glare
Battery Energy Storage System	Energy Storage	Power	Energy Source Diversity; Energy Demand Reduction	• Outdoor space with clearances • Circuit capacity • Advanced controls
Dispatchable Power (e.g. Diesel Generator)*	Backup Power	Power	Load Sustainment Capacity	• Outdoor space with clearances • Ventilation requirements • Noise requirements • Fuel storage capacity • Dedicated emergency circuits

* The energy industry is currently developing alternatives to using diesel generators to support air quality improvements and reduce greenhouse gas emissions associated with backup power supplies.

Resource(s) that each energy resilience strategy may support:

- Power
- Heating
- Cooling
- Water

Resilience Attribute(s) that each energy resilience strategy may address: see Table 3.2.

By making use of this dataset of energy resilience strategies, and by keeping in mind the Resilience Gaps and Key Considerations, we can arrive at a short-list of strategies to pursue.

3.3. Implementing Selected Strategies

When the engineers and facility stakeholders have worked out which Energy Resilience Strategies are appropriate to move forward with, it is time to develop the technical designs and financing plans for implementation.

Note that some of the strategies that may be selected for implementation are programmatic. Other strategies are more technological in nature and can be generally described as "strategies that require projects to implement." This section focuses on those strategies that require projects to implement (see Figure 3.3).

For the **technical design**, the Case Studies in Appendix A serve as a reference to provide insight into the design process for arriving at an energy resilience solution. After the appropriate energy resilience strategies have been identified, through working with the facility manager and site director to define the resilience requirements and opportunities or constraints of the existing conditions, the design team leverages a multi-variable optimization model to arrive at a recommended preliminary design architecture.

Inputs to the optimization model include the energy load profile, utility tariff structure (consumption rate, demand charges, time-of-use rates, ratchet charges, etc.), on-site energy generation profiles, PV over-production net metering tariffs, new equipment capital costs, equipment maintenance costs, and equipment replacement costs or end-of-life demolition costs and equipment values (depending on project lifecycle). Utility outage trends are also considered, namely, historical average outage frequency and duration in the utility service area proximate to the site.

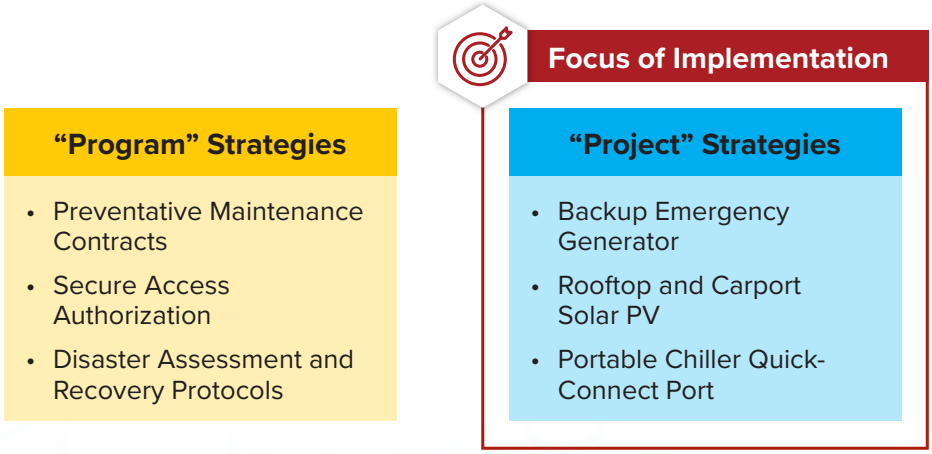


Figure 3.3. Program-oriented vs Project-oriented Energy Resilience Strategies

To arrive at a recommended preliminary design architecture, the optimization model essentially minimizes the Net Present Cost of design scenarios. This begins with defining multiple design scenarios (i.e., design alternatives with different equipment capacities) for comparison. The model simulates how each scenario may operate in a manner that minimizes the operational costs (e.g., minimize purchased electricity or diesel consumption), and then ranks each scenario based on their overarching Net Present Cost. Net Present Cost unifies into a single cost variable the upfront capital costs, ongoing operations and maintenance costs, and end-of-life costs and values by applying a discount factor to future savings and expenses. For an energy resilience focus, the design team can rank each scenario by additional factors such as reduction in annual diesel generator runtime. Multiple simulations were modeled per design scenario to capture typical and atypical utility outage conditions occurring varying times of day and year.

To choose a preferred alternative among the different design scenarios, a system that provides the right balance of minimum Net Present Cost and minimum diesel generator runtime was selected for each Case Study. Once the recommended balance of equipment capacities has been selected, a preliminary architecture for the proposed solution can be drafted. To move forward from conceptual to detailed design and implementation, a funding and financing strategy for the site is the next step.

A range of **funding and financing strategies** were identified to support project implementation, particularly to support the electrification and resilience planning of critical facilities in the WRCOG region, with an emphasis on including energy storage for emergency response. Funding strategies include federal and state grants, demand-side rebates and incentive programs, local revenue generating mechanisms like new measures, and financing tools like public-private partnerships, state loan programs, and climate resilience focused bonds. These strategies were identified to inform and prepare the WRCOG for the development of new partnerships, potential environmental review and technical analysis, and tracking federal and state funding opportunities as guidance is released. Refer to **Appendix E** for more details on the full list of funding and financing strategies identified as a part of this review.

4. Conclusion

The WRCOG Energy Resilience Plan serves two primary functions. First, to serve as a decision-making guide for WRCOG members regarding implementation of energy resilience projects to increase facility and community resilience against regional power interruptions. Second, to serve as a more general guide for governance organizations outside of Western Riverside County to begin to untangle the complex topic of community resilience through energy resilience. This conclusion addresses both elements.

4.1. Impact for WRCOG and Members

This Energy Resilience Plan will have a lasting impact on the community by enhancing the day-to-day health and wellbeing of communities through reducing the negative impacts of natural disasters and power interruptions. The Plan achieves this by outlining a pathway for equitable and reliable access to electricity at all critical facilities across WRCOG member agencies, ensuring fundamental access to health and public safety services for all members of the Western Riverside community. Figure 4.1 illustrates the scope of the critical services covered in WRCOG's Plan.

Through the application of the Plan's framework WRCOG will realize its aspiration of serving its member communities withstand and adapt to current and future climate-related threats. By being modeled around a replicable framework, this Plan can benefit other communities and jurisdictions beyond Western Riverside County.

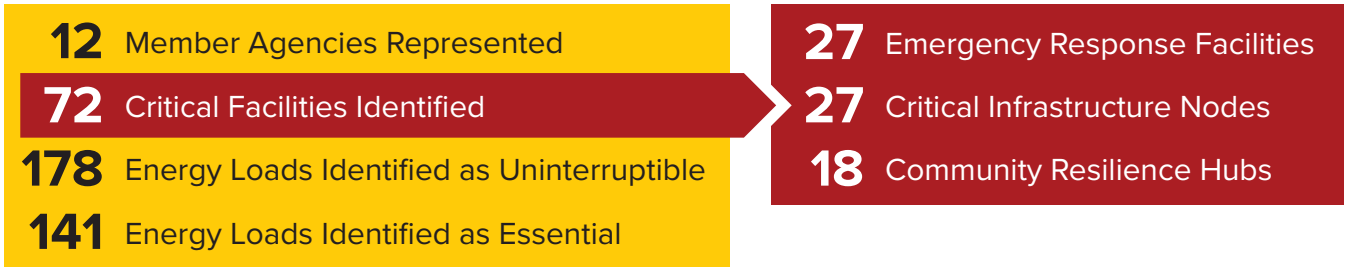


Figure 4.1. Energy Resilience Scale of Impact

4.2. Next Steps

The main priority for achieving the full potential of this Energy Resilience Plan is to scale the findings from the Case Studies to apply to the remaining critical facilities across WRCOG member agencies.

4.2.1. Technical Implementation Next Steps

The Plan describes an approach to identifying critical facilities and potential energy resilience strategies to consider at said facilities. At the subregional level, the next step to progress implementation is to apply the strategies outlined in this Plan across the critical facilities, developing the bespoke concept designs for each. These designs will provide the basis for project financing, detailed design, and subsequent installation. This flow from strategies to finished projects is described in Figure 4.2.

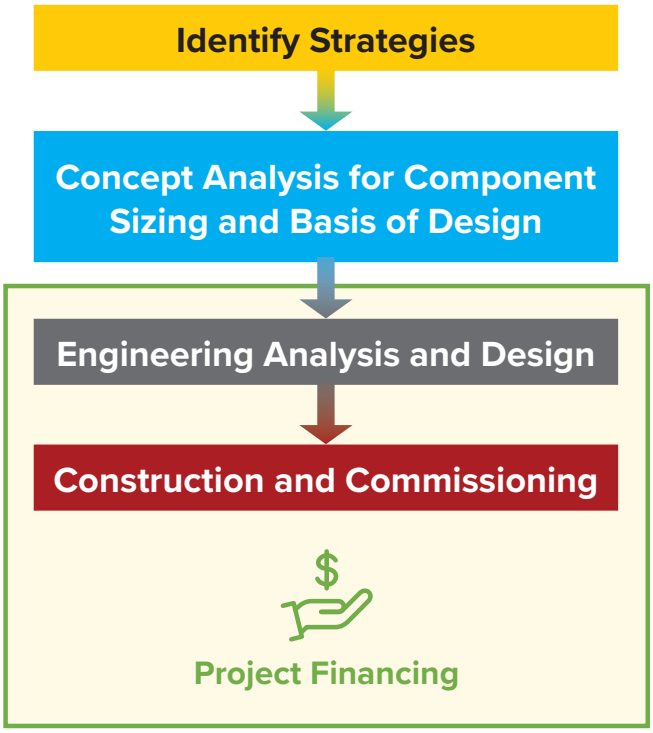


Figure 4.2. Project Implementation Lifecycle

In the development of this Plan, four facilities were selected to serve as case studies for strategy analysis and subsequent preliminary concept design (provided in Appendix A). The facilities were chosen based both upon their score using the prioritization methodology and how representative they are of other common critical facilities in the WRCOG subregion. The development of these concept designs have informed the approach to energy resilience projects at the remaining critical facilities.

The following are generalized recommendations for the concept design process at any critical facility:

- **Confirm with stakeholders the age, condition and future plans for a building to confirm energy investments make sense for the site.** This informs the relevance and urgency of seeking energy resilience improvements to the site; if a site is scheduled for demolition then energy projects may not be appropriate but if the site is due for major renovation then it may be perfect timing for energy upgrades.

- **Confirm with stakeholders all the critical loads at the site, and use this as a basis to estimate the percent of interval data to be carried by alternative power system.** In rare cases critical-load interval data may be available, but in general this allows approximations of real-world outage scenarios to be modeled for energy supply optimization (compared, for example, against designing a microgrid at full load capacity that may require greater reliance on diesel generation).
- **Plan to install as much Solar PV as can fit on the site, up to the capacity that would yield annual Net Zero Energy.** Solar PV is commonly the most cost-effective alternative energy resource and so identifying as much area on-site for solar PV as possible (i.e., roof and parking area that is flat, unobstructed, unshaded, and generally southward facing) is likely to yield the greatest energy resilience benefits.
- **Unless limited by space availability at the site, optimize the on-site battery energy storage capacity for minimum Net Present Cost and minimum generator runtime during grid outages.** When paired with enough Solar PV, including battery energy storage will unlock the ability to operate the site in islanding mode without a backup generator, which can significantly improve energy resilience even if just for a few hours during peak daylight.
- **Size the backup power source (i.e., diesel generator unless alternative technologies are identified) to cover all critical loads.** This is not only required where building codes dictate a backup power source but also guarantees the reliability requirements for a site will be met even if the Solar PV array fails or if weather conditions yield a significantly less than average PV power output.
- **For community resilience hubs that serve a critical response function for heat waves and wildfires, evaluate the facility HVAC system and identify opportunities for greater redundancy in cooling supply and intake air filtration.** For sites that serve this function, reliable and resilient power is only part of the energy resilience solution; reliable and resilient mechanical systems are equally important to ensure cooling and indoor air quality services are provided when they are most critical for the community.

4.2.2. Financial Implementation Next Steps

The Plan details a regional transition to renewable energy in critical infrastructure, including the ability to quickly adapt to drought, extreme heat, and other climate changes. Implementation will be most effective and efficient if multiple actions are pursued in tandem, which may include using funding and financing sources to support multiple, or bundled, projects. Near-term next steps (within one to two years) for beginning implementation of priority actions may include:

- **Identify partnership opportunities to plan, fund, and implement climate actions.** WRCOG's efforts in this planning process convened agencies together from across Western Riverside County, opening the opportunity to continue these partnerships as agencies begin to pursue funding. Partnerships between public agencies can also increase the competitive edge of grant applications. Other civic institutions, notably UC Riverside, may also offer partnership opportunities.
- **Determine which strategies will require environmental review, technical analysis, and/or complex partnerships and permitting.** Some of the priority actions will have longer implementation timelines due to environmental review requirements or financing coordination (e.g., new sales tax, bond issuance). To meet its electrification goals in a timely manner, WRCOG member agencies will need to start the first phase of work on these longer-term projects.

- **Track new federal funding opportunities as guidance is released.** The IIJA and Inflation Reduction Act present enormous opportunities. While the available details on known programs are summarized in this chapter, the federal government is regularly releasing new program announcements related to funding eligibility and availability.
- **Begin preparing application materials for the state grants that have been allocated additional funding in the Governor's 2022-2023 budget.** Some funding for these grants may already be or will soon be available and will have short application deadlines. An early start on application materials will give WRCOG member agencies more time to match actions to grant opportunities, define strong proposal narratives, and identify potential partnerships.

Through this Energy Resilience Plan, WRCOG has advanced its mission to "facilitate, plan and identify funding opportunities for critical infrastructure projects and programs that benefit its member agencies and the communities they serve" by providing a decision-making framework for how to identify and prioritize energy resilience projects for critical facilities and essential community assets.[18] The generalized next steps particularly benefit WRCOG Member Agencies by delivering an action plan that can apply to all remaining critical facilities not analyzed in the Case Studies. The benefits of the Plan extend beyond WRCOG by providing a replicable framework for energy resilience planning that may be used by other jurisdictions across the State of California.

18 Western Riverside Council of Governments Strategic Plan 2022-2027. https://wrcog.us/DocumentCenter/View/9317/Strategic-Plan-2022-through-2027. Accessed November 2022.

Appendix A.
Case Studies

A1. Case Study 1- Banning Wastewater Treatment Plant

Facility Overview

The Banning Wastewater Treatment Plant (WWTP) plant located at 2242 Charles St, Banning, CA 92220 treats wastewater from approximately 30,000 people, including 12,800 dwellings and the surrounding community.

The Banning WWTP is currently connected to the Southern California Edison (SCE) utility on the TOU-GS-2-D-CPP tariff. As a critical infrastructure system, the WWTP has an existing backup power system comprising of two diesel generators, each dedicated to half of the plant with the total capacity of 900 gallons of diesel storage.

Figure A.1. City of Banning WWTP Site Location

Past Disruptions

The WWTP has experienced 7 SCE grid outages over the past several months with the longest one being 5 hours. However, such outages have not yet led to any operational disruptions or degradations as the backup generators have been able to cover the full plant electrical loads. However, given the importance of the WWTP to the community, and due to the fact that no redundant diesel generator exists, additional backup power systems may be warranted because:

- If either of the existing diesel generators fail; no other alternative exists to power that section of the plant
- In case of major disasters that may cause prolonged outages, the diesel storage may not be sufficient and fuel re-supply may be compromised
- Air quality regulations limit the run hours of fossil-based generators and alternatives are being promoted at the regional and state level for environmental benefits

Therefore, to prevent such cascading effects of power outage to other utility functions, it is proposed that multiple on-site power sources to be incorporated into the plant infrastructure to provide enough flexibility and redundancy to enhance system resilience against power outages.

Resilience enhancement against grid outages requires technical and financial analyses to develop a viable solution which includes a recommended size and combination of power generation and energy storage assets. This analyses, along with detailed simulation of the microgrid system, is further discussed in the section below.

Analysis and Simulations

To assess how the current and proposed system would response to prolonged utility power outages, a comprehensive microgrid modeling and analysis was carried out. For this purpose, HOMER Grid software tool was used. HOMER Grid is a microgrid modeling software that is being widely used in the research and industry communities to design and optimization of microgrids, size different components of the system, and also to perform a technical and financial feasibility assessment. This tool can also help with resilience and reliability assessment of various microgrid combinations, which has been the main focus of the current study.

In order to develop the baseline model (i.e. business as usual), the annual load of the WWTP was collected and input to the model. AECOM received partial load profile for “August 22nd 2021 to March 2nd 2022” and estimates were used to fill in missing data based on known load profiles in order to have a complete year for analysis. The existing diesel generators were also modeled to reflect the current status as the baseline of the model.

Utility bill analysis identified that the utility charges were $74,447 for the period June 2020 to May 2021. The tariff is not Time of Use and energy costs is determined by a flat rate of $0.0923 per kWh used. During the period of 06/2020-05/2021 the total energy consumption was 784,000 kWh. Peak demand of 120 kW was measured during November 14th, December 24th, and February 23rd.

Figure A.2 depicts the monthly variations in the monthly energy consumptions and the breakdown of billing charges. The electrical load heatmap for the Banning WWTP is presented in Figure A.3.

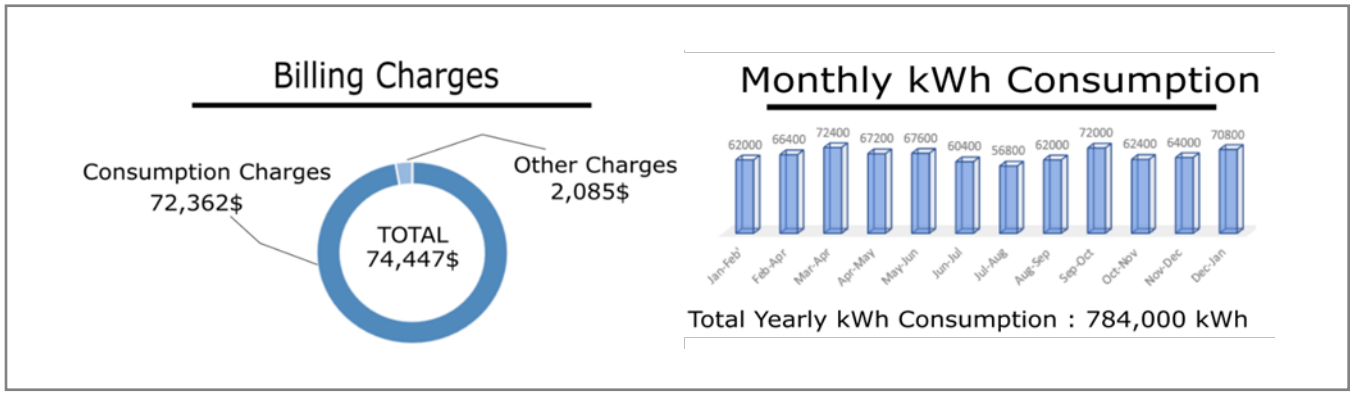


Figure A.2. System Annual Electricity Consumption and Billing Charges

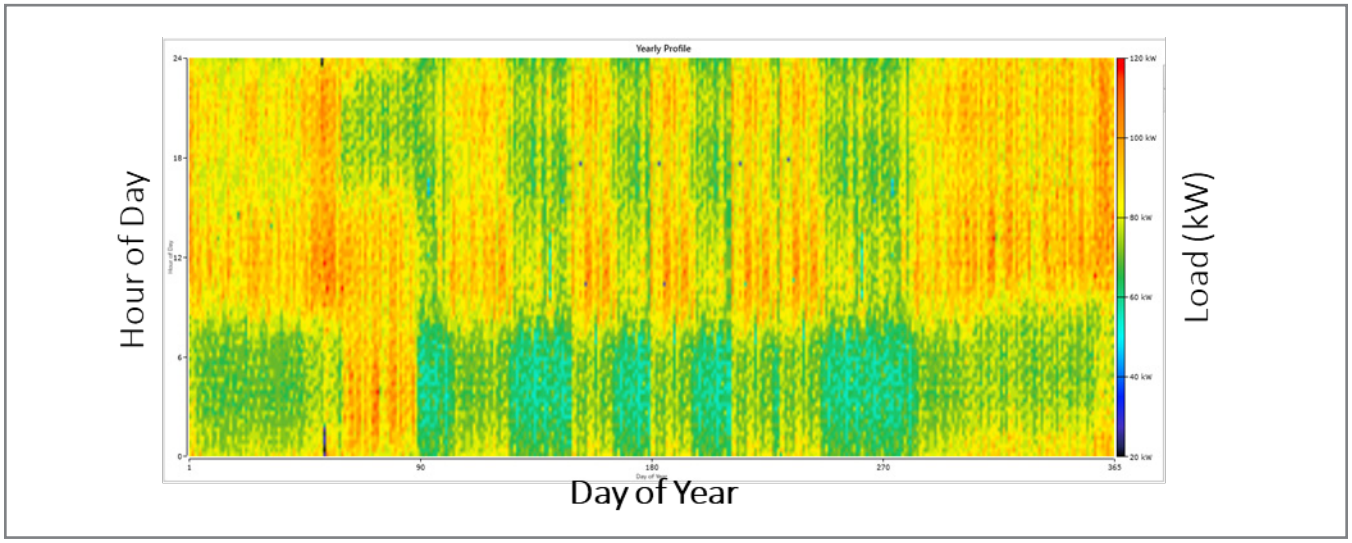


Figure A.3. Heat Map of the Banning WWTP Electrical Load

Improving resilience of the WWTP to utility power outages can be enhanced through implementation of diverse power sources. To achieve this goal, it is proposed that on-site solar photovoltaics (PVs), as an additional source of power, along with battery energy storage systems (BESS) to be utilized and various combinations and sizes to be evaluated. The capacity of the existing diesel generators totals 130 kW. PV array size was dictated by the available space on land at the south-west corner of the site, resulting in 123 kW system.

For the purpose of this analysis, it is assumed that 100% of the plant load is critical and that no downtime is acceptable. Figure A.4 schematically shows the main components and connections of the developed microgrid for Banning WWTP.

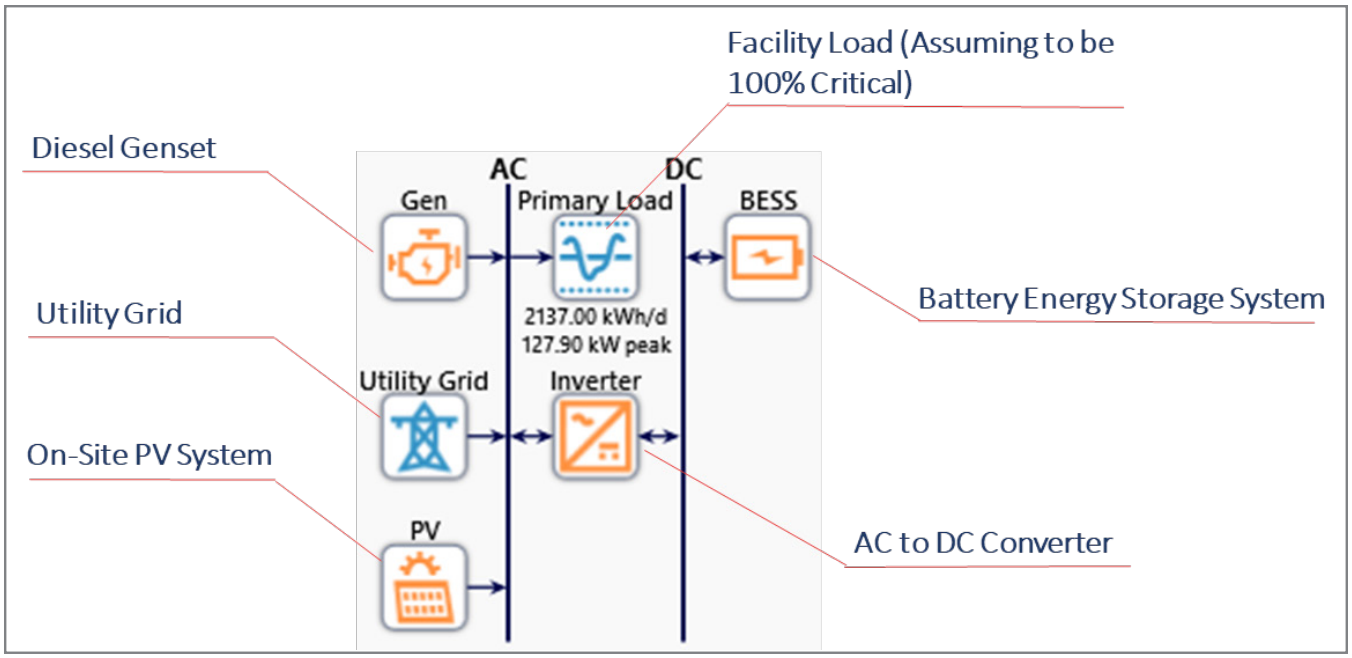


Figure A.4. Microgrid Architecture and Components

The analysis considered the numbers and duration of historical power outages sourced from SCE reliability reports[1]. System Average Interruption Frequency (SAIFI) and System Average Interruption Duration (SAIDI) numbers, representing average frequency of sustained interruptions and average duration of sustained interruptions respectively, were used in this study. According to the historical reliability of SCE circuits serving the City of Banning for 2021, the SAIDI has been 772 minutes and the SAIFI has been 2.9 outages per year. Therefore, it was assumed that the system would have to endure three 4.5 hours-long outages each year.

$$SAIDI = \frac{\text{sum of all sustained customer interruption durations}}{\text{total number of customers served}}$$

$$SAIFI = \frac{\text{sum of total quantity of “sustained” customer interruptions}}{\text{total number of customers served}}$$

The distribution of these outages will be randomly selected by the software; one example is shown in Figure A.5. Depending on the reliability requirements set for the facility. In this case study, we assumed that 100% of the plant load is critical and should be covered throughout the year, i.e., no down time or degradation of performance is allowed.

1 Circuit Reliability Review- Banning, 2022, SOUTHERN CALIFORNIA EDISON

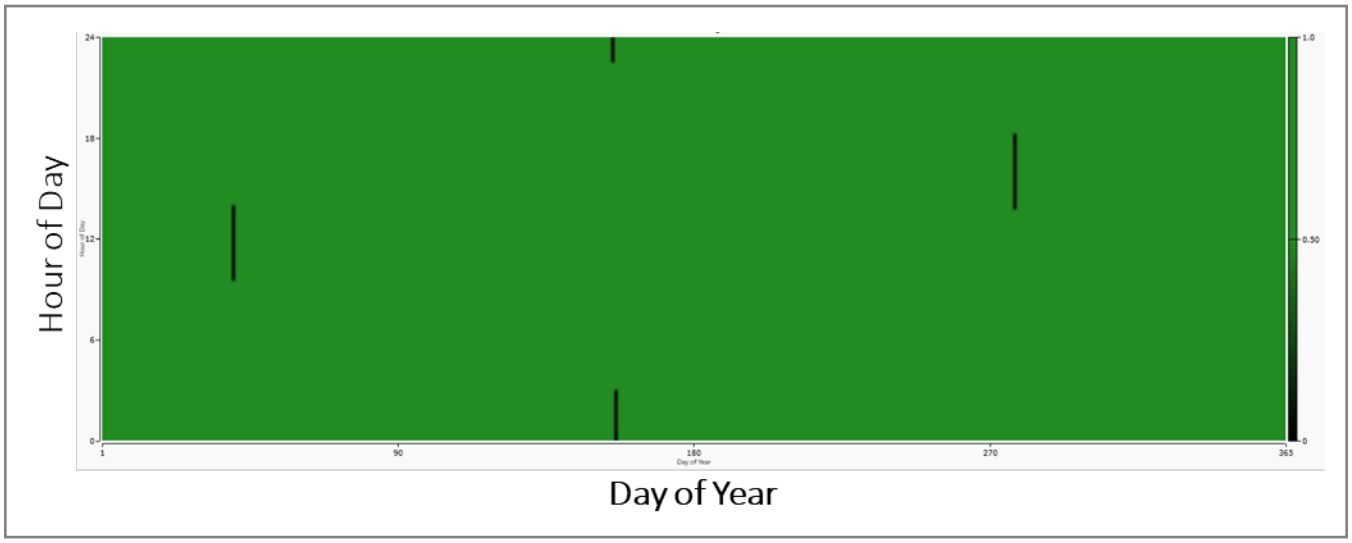


Figure A.5. Random Distribution of Outages Throughout the Year

Results and Recommendations

Feasible solutions for the Banning WWTP are summarized in Table A.1. These solutions essentially include those system sizes and combinations, referred to as system Architecture, that are capable of meeting the loads during the defined outage scenarios. Each battery pack has the rated capacity of 85 kWh/185 kW, and the software will come up with the optimum number of packs for each system architecture. We have also considered scenarios without diesel generators (i.e., scenarios 5 and 6) to see if there will be any benefits into replacing the existing ones if they are nearing their end of life.

Table A.1. Banning WWTP Microgrid Modeling Results

Architecture				Cost				System		
Scn.	PV (kW)	Generator (kW)	BESS (kWh/kW)	NPC ($)	LCOE ($/kWh)	CapEx ($)	Simple Payback (yr)	Renewable Fraction (%)	Generator Hours	BESS Autonomy (hr)
1	123	130	-	$920 k	0.091	$194 K	11.2	27.5	10	-
2	-	130	-	$950 k	0.094	$0.0 K	-	0	14	-
3	**123**	**130**	**85/185**	**$1.00 M**	**0.099**	**$243 K**	**17.3**	**27.5**	**4**	**0.95**
4	-	130	85/185	$1.03 M	0.102	$48 K	-	0	10	0.95
5	123	-	425/925	$1.33 M	0.131	$435 K	-	27.5	-	4.77
6	-	-	510/1110	$1.43 M	0.142	$289 K	-	0	-	5.73

These scenarios are ranked based on the net present costs (NPC).[2] Scenario 2, which is the baseline scenario, has the second-best NPC; however, the renewable fraction (defined as annual renewable energy generation divided by annual energy consumption) is zero and the generator runtime is 14 hours per year. Scenario 3 is comprised of solar PVs, BESS, and diesel generators; this combination provides multiple benefits in terms of resilience performance and integration of renewable energy. Availability of multiple power sources improves the system flexibility and thereby enhance resilience against power

2 Cost includes equipment capital cost only. All-in cost (design, construction, etc.) to be included in Final Draft.

outages. In case of future outages become longer and more frequent, the system would be able to sustain the plant operations for longer periods compared to other scenarios investigated here; see the reduced generators runtime for Scenario 3 compared to other scenarios which means less reliance on diesel fuel, less maintenance, and longer lifetime for the diesel generators; for those reasons, and considering only slightly higher NPC compared with the baseline case, Scenario 3 is the proposed option in improving resilience posture of the system while also reducing GHG emissions and maintaining the economic performance close to the existing situation. The single-line diagram of the proposed system is shown in Figure A.6.

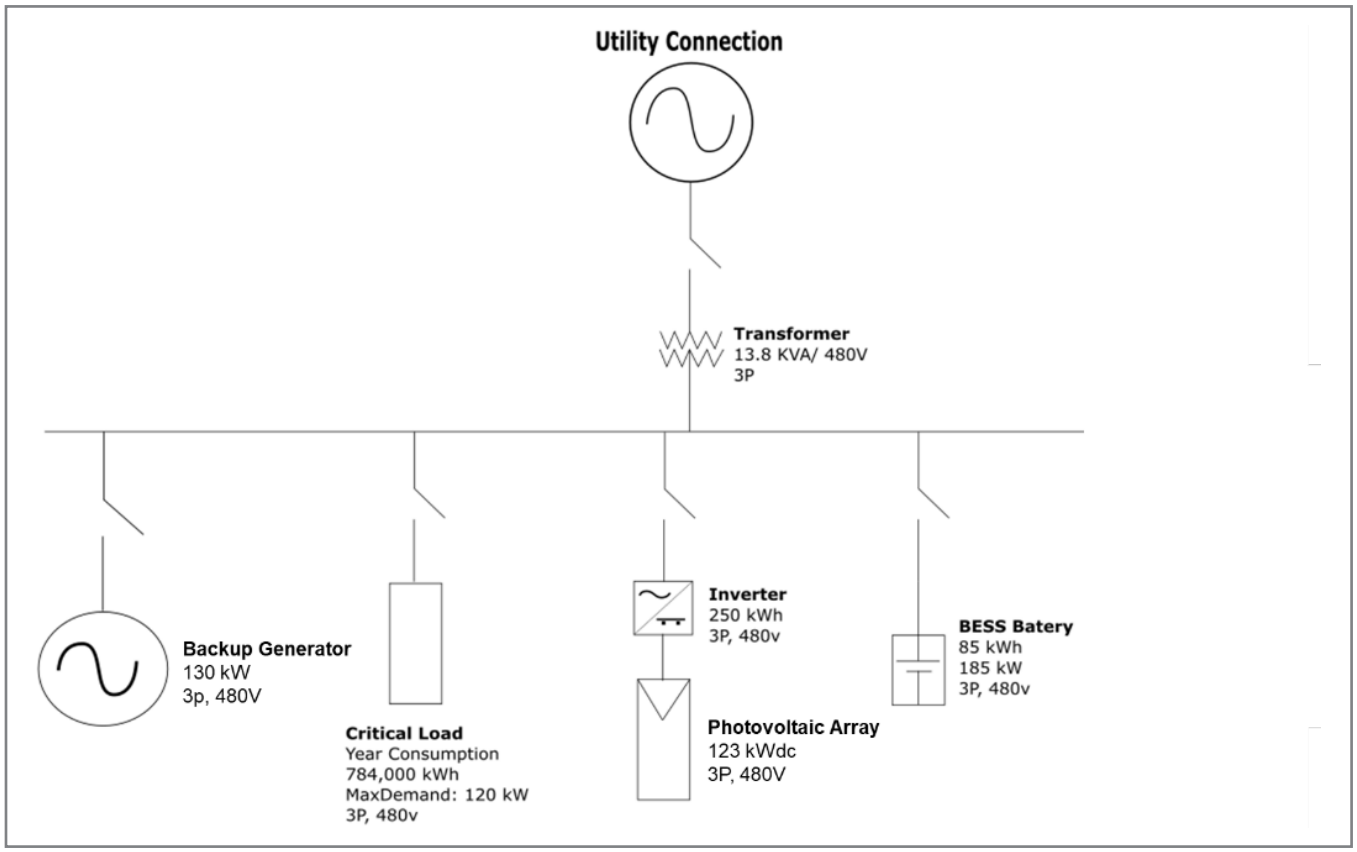


Figure A.6. Single-line Diagram of the Proposed System for Banning WWTP

A2. Case Study 2- Menifee Senior Center

Facility Overview

The Menifee Senior Center is located at 29844 Haun Rd Menifee CA 92586 serving 100+ seniors. The Menifee Senior Center is also being utilized as cooling and heating emergency shelter and food distribution location for residents of the community.

The facility is currently connected to the Southern California Edison (SCE) utility on the TOU-GS-2-D-CPP tariff. The backup system includes a 36 kW diesel generator. The site location is shown in Figure A.7 below.

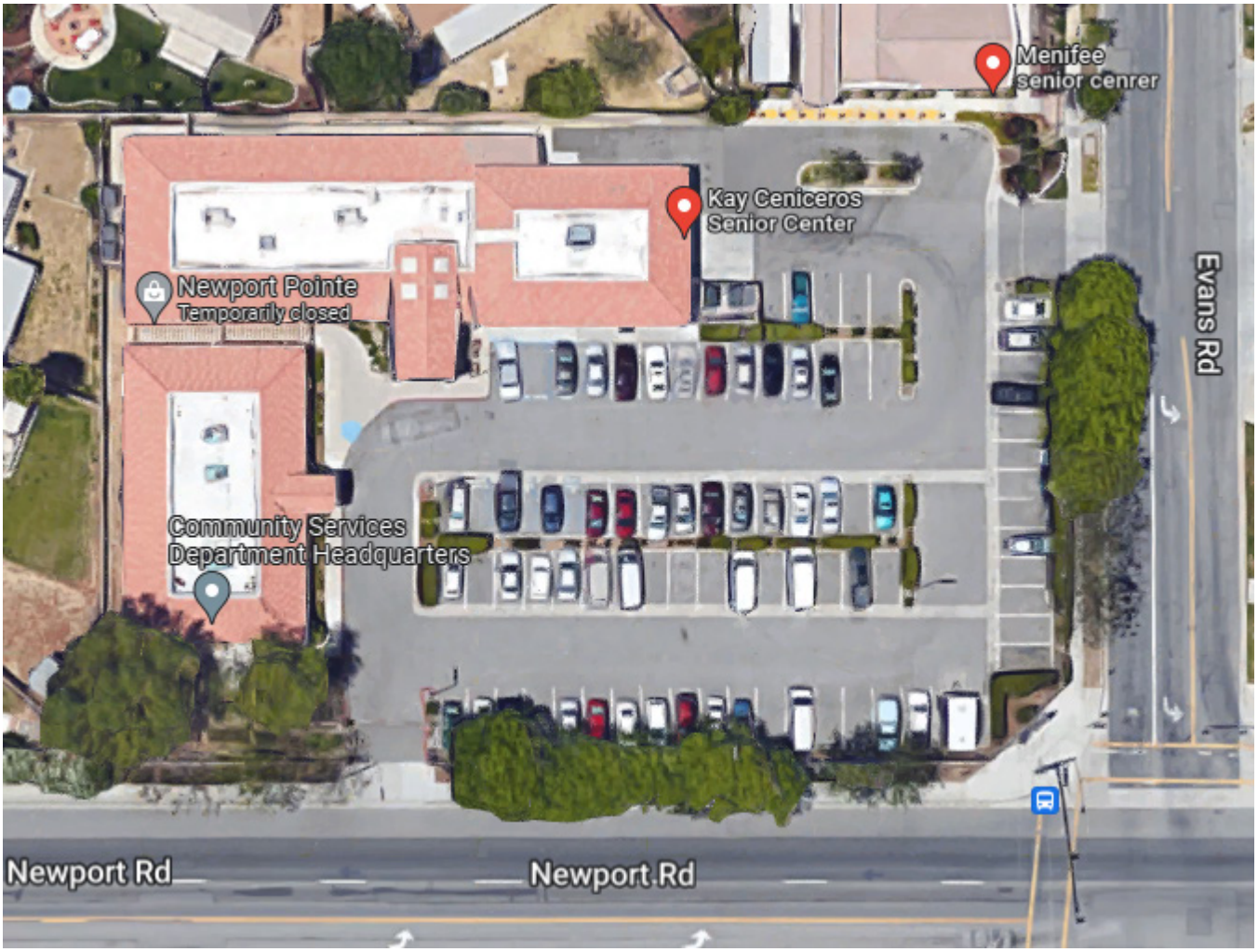


Figure A.7. Menifee Senior Center Site Location

Past Disruptions

The hazard sensitivity assessment revealed that flooding, and human health risks caused by extreme temperatures are among the highest threats. The latter one can be alleviated by enhancing reliability of the heating and cooling systems. In addition to regular scheduled maintenance to ensure reliable

operation of the heating and cooling systems, reliable power sources are required. As grid outages are becoming more frequent, improving resilience of the energy systems against them is critical and has been the focus of this study. Such analyses along with detailed simulation of the plant system is further discussed in the section below

Analysis and Simulations

To assess how the current and proposed system would response to prolonged utility power outages, a comprehensive microgrid modeling and analysis was carried out. For this purpose, HOMER Grid software tool was used. HOMER Grid is a microgrid modeling software that is being widely used in the research and industry communities to design and optimization of microgrids, size different components of the system, and also to perform a technical and financial feasibility assessment. This tool can also help with resilience and reliability assessment of various microgrid combinations, which has been the main focus of this study.

In 2021, the total cost of electricity charges was $31,110 which includes energy charges, demand charges, and fixed charges. The annual electricity consumption during the year of 2021 has been 133,590 kWh with the peak demand being 58 kW happened on August 1st. Figure A.8 depicts the monthly variations in the monthly energy consumptions and the breakdown of billing charges. The electrical load heatmap for the Menifee Senior Center is presented in Figure A.9.

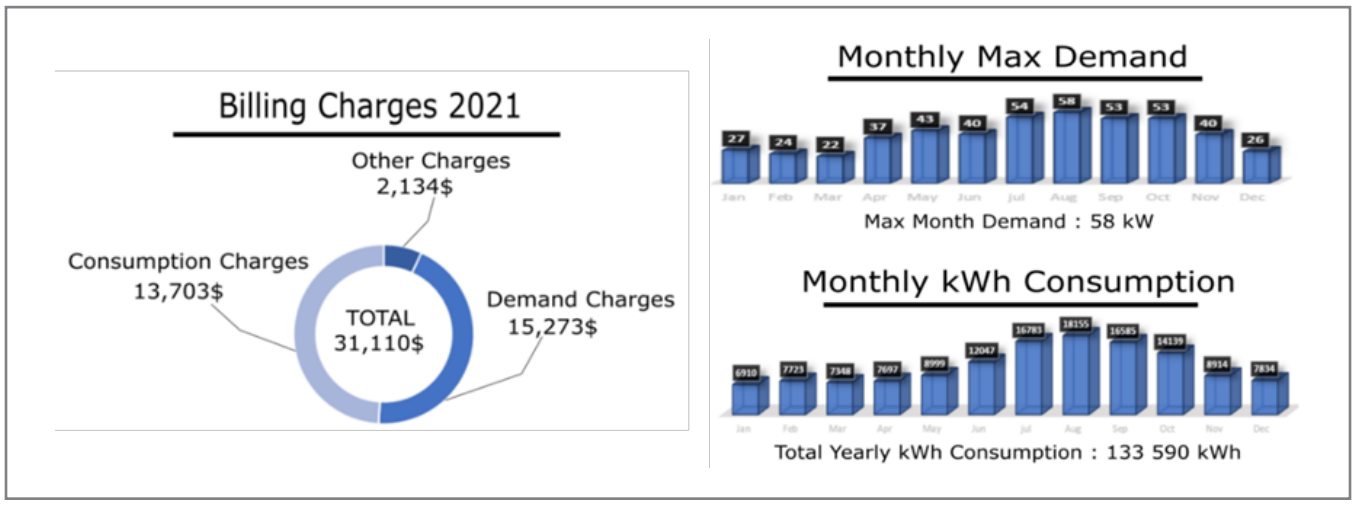


Figure A.8. System Annual Electricity Consumption and Billing Charges

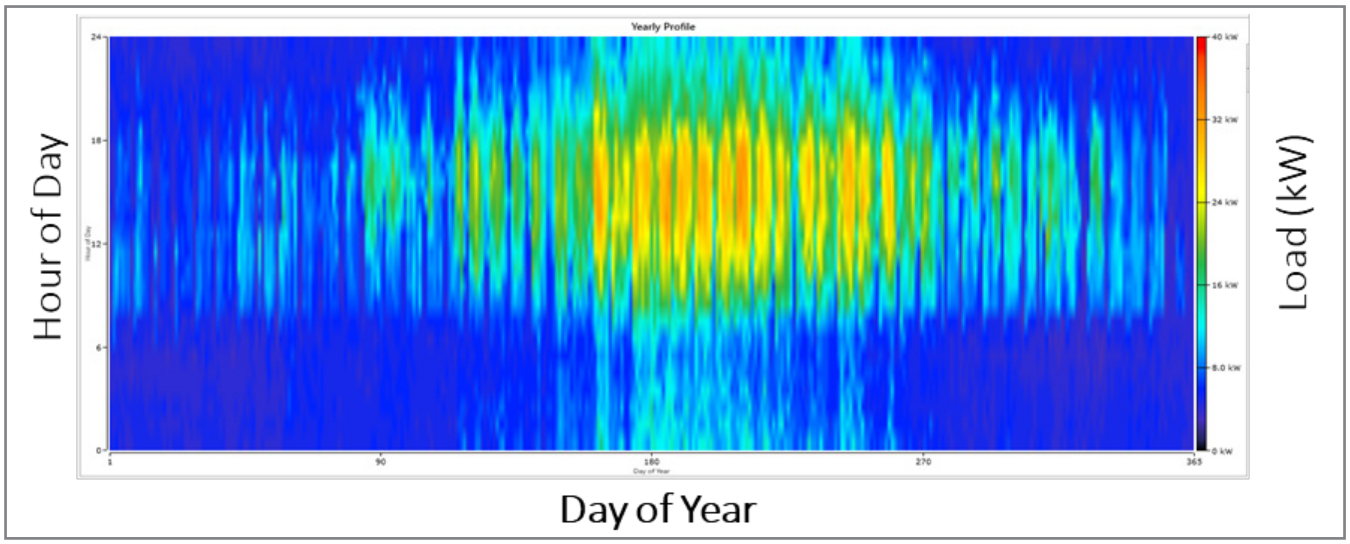


Figure A.9. Heat Map of the Menifee Senior Center Electrical Load

As mentioned earlier, improving resilience performance of the Menifee Senior Center against utility power outages can be enhanced through implementation of diverse power sources. To achieve this goal, it is proposed that on-site solar photovoltaics (PVs), as an additional source of power, along with battery energy storage systems (BESS) to be utilized and various combinations and sizes to be evaluated. The capacity of the planned diesel generator is 36 kW.

Figure A.10 shows the proposed location for the solar PV arrays which can accommodate a 62 kW PV system and also provide shaded parking area for the staff and customers.

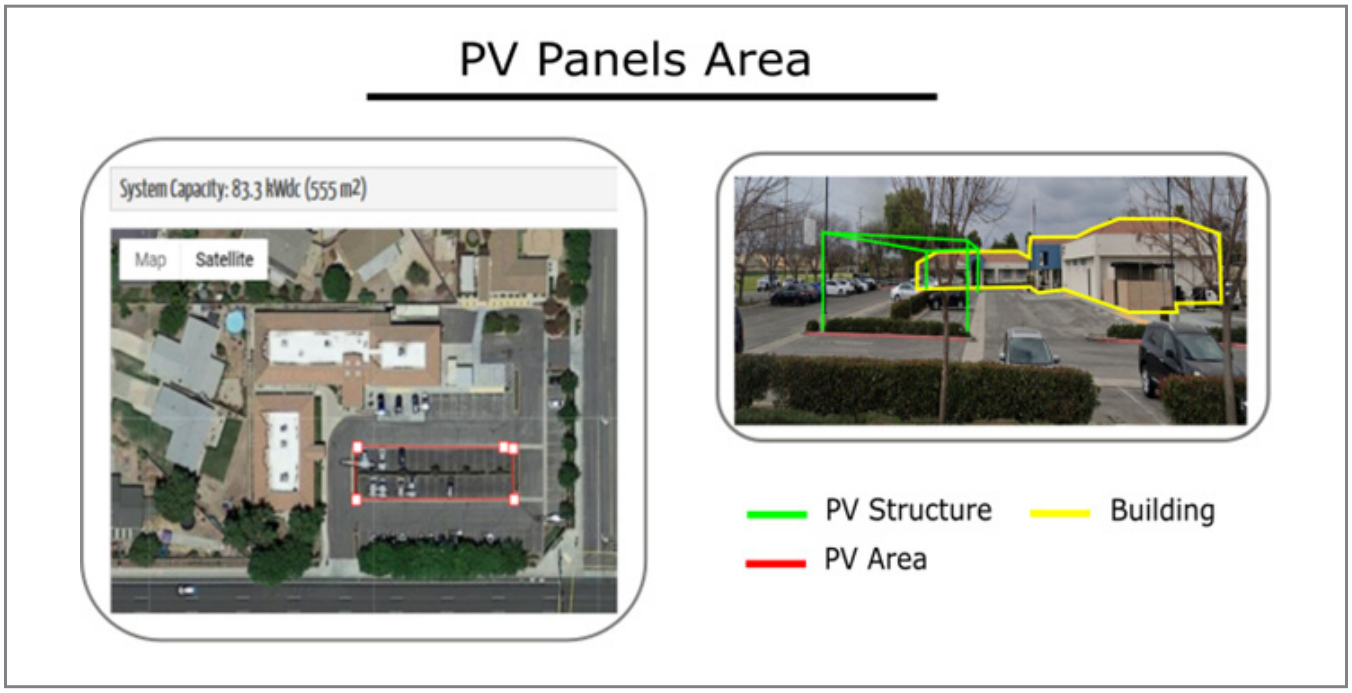


Figure A.10. Menifee Senior Center- PV system location

For the purpose of this analysis, it is assumed that 70% of the facility load, associated with the non-office building, is critical. That is particularly important in how the HOMER tools will treat the load in terms of resilience requirements which would directly impact how the microgrid components are sized and operated. In this case study, no down time is allowed, and the tool will develop the system such that all the loads are met at all the time throughout the year even in case of prolonged grid outages. Figure A.11 schematically shows the main components and connections of the developed microgrid for the Menifee Senior Center.

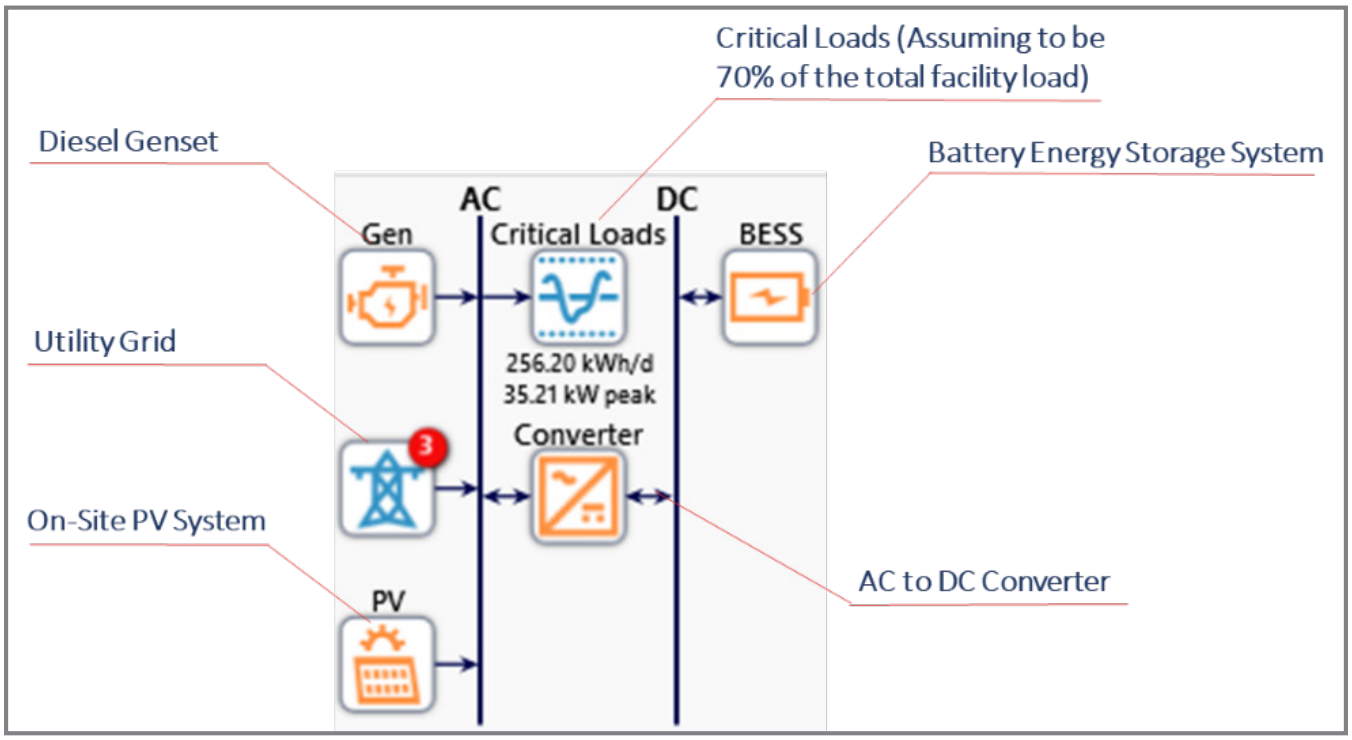


Figure A.11. Menifee Senior Center- Microgrid Architecture and Components

To evaluate reliability and resilience of the facility, grid outages should be modeled, and the system respond to such outages to be evaluated. Towards that end, frequency and duration of power outages are needed as input to the software model. Statistics of the past grid outages is available at the city level through SCE reliability reports.[3] SAIFI and SAIDI numbers, representing average frequency of sustained interruptions and average duration of sustained interruptions respectively, were used in this study. According to the historical reliability of SCE circuits serving the city of Menifee for 2021, the SAIDI has been 175 minutes and the SAIFI has been 1.2. Therefore, it was assumed that each year the system would have to endure 1.2 outages each being 2.5 hours long.

The distribution of these outages will be randomly selected by the software; one example is shown in Figure A.12. Depending on the reliability requirements set for the facility, the software will size the solar and battery system such that those requirements are met at all times. In this case study, we assumed that 70% of the facility load is critical and should be covered throughout the year, i.e., no down time or degradation of performance is allowed for that portion of the load.

3 Circuit Reliability Review- Menifee, 2022, Southern California Edison

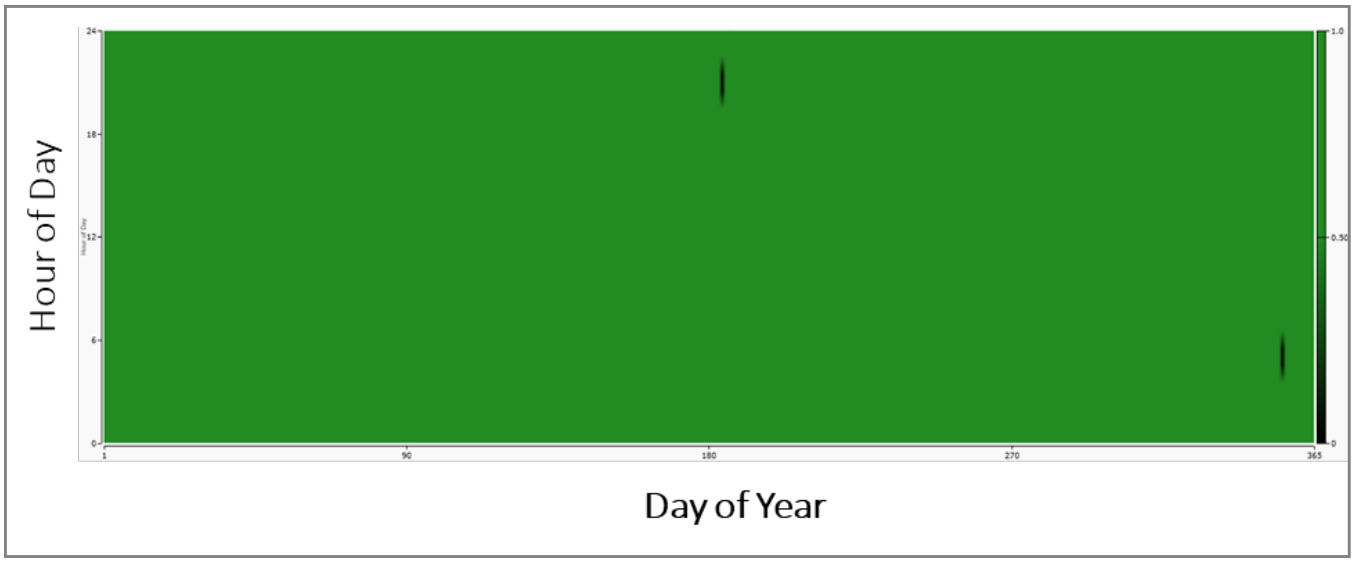


Figure A.12. Menifee Senior Center- Random Distribution of Outages Throughout the Year

Results and Recommendations

Feasible solutions for the Menifee Senior Center are summarized in Table A 2. These solutions essentially include those system sizes and combinations, referred to as system Architectures, that are capable of meeting the critical loads during the defined outage scenarios. Each battery pack has the rated capacity of 85 kWh/185 kW, and the software will come up with the optimum number of packs for each system architecture.

Table A.2. Menifee Senior Center- Microgrid Modeling Results

Architecture				Cost				System		
Scn.	PV (kW)	Generator (kW)	BESS (kWh/kW)	NPC ($)	LCOE ($/kWh)	CapEx ($)	Simple Payback (yr)	Renewable Fraction (%)	Generator Hours	BESS Autonomy (hr)
1	62	36	-	$124 k	0.082	$149,450	9.5	75.8	4	-
2	-	36	-	$131.5 k	0.172	$27,000	-	0.0	4	-
3	**62**	**36**	**85/185**	**$146.4 k**	**0.108**	**$190,950**	**9.7**	**82.9**	**3**	**8**
4	-	36	85/185	$161.6 k	0.201	$68,500	-	0.0	4	8

These feasible scenarios are ranked based on the net present costs (NPC).[4] Scenario 2 represents the baseline scenario and has the second best NPC; however, the renewable fraction for this scenario is zero. Additionally, the generator runtime is 4 hours per year which is the highest among all feasible scenarios. Scenarios 3 is comprised of solar PVs, BESS, and diesel generators; this combination provides multiple benefits in terms of resilience performance and integration of renewable energy. Availability of multiple power sources improves the system flexibility and thereby enhance resilience against power outages. In case of future outages become longer and more frequent, the system would be able to sustain critical operations for longer periods compared to other scenarios investigated here; in other

4 Cost includes equipment capital cost only. All-in cost (design, construction, etc.) to be included in Final Draft.

words, reduced generators runtime for scenario 3 compared with other scenarios can be translated to less reliance on diesel fuel, less maintenance, and longer lifetime for the diesel generators; for those reasons, and considering that the NPC of this scenario is only slightly higher than other scenarios, Scenario 3 is the proposed option for improving resilience posture of the system while also reducing GHG emissions and maintaining the economic performance close to the existing situation. Implementation of BESS would provide a more flexible demand management and can reduce demand charges on the utility bills. The single-line diagram of the proposed system is shown in Figure A.13.

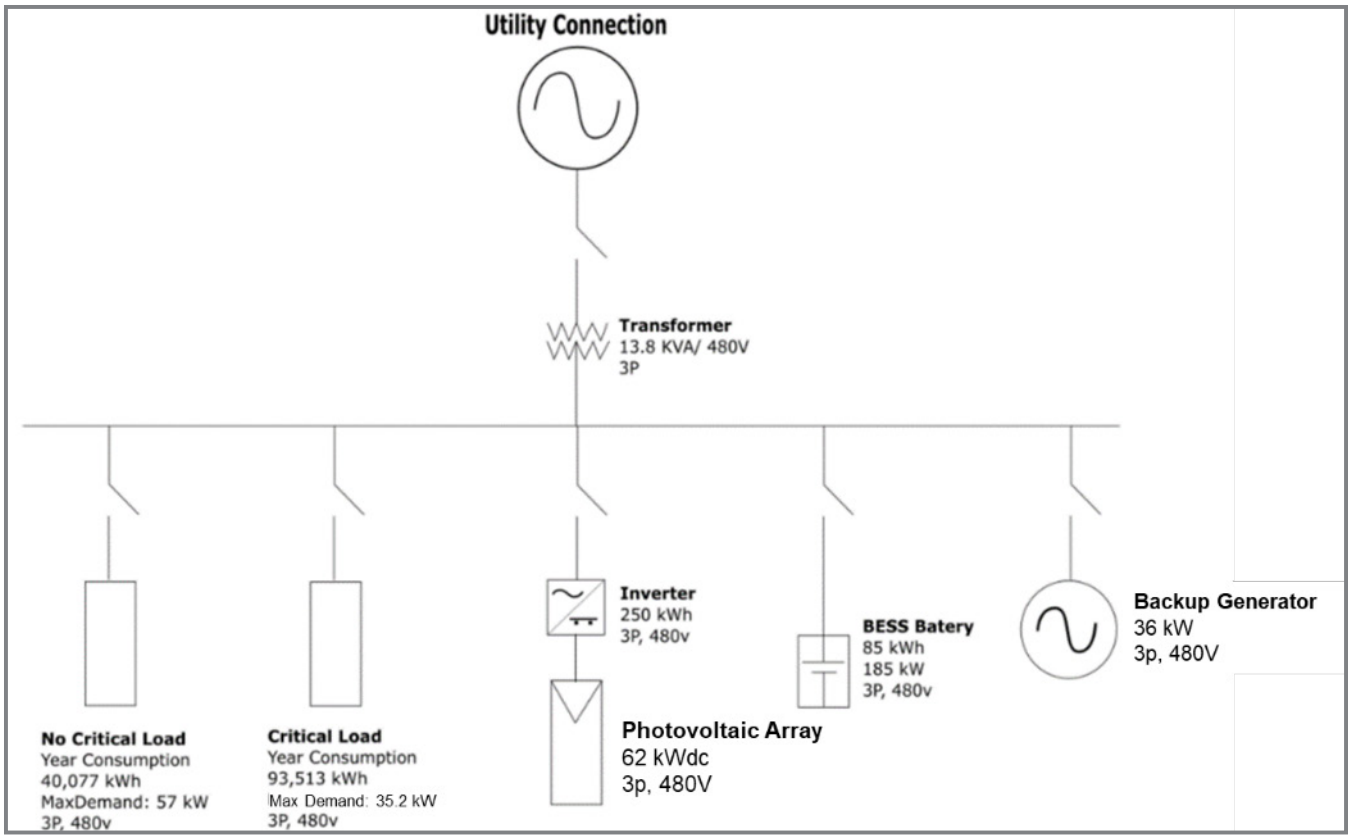


Figure A.13. Single-line diagram of the proposed system for the Menifee Senior Center

A3. Case Study 3- Jurupa Valley Fire Station 16

Facility Overview

The Jurupa Valley Fire Station 16 is located at 9270 Limonite Ave, Jurupa Valley, CA. The facility is 40+ years old and serves around 10,000 people. The facility team has recently acquired a 12 kW backup generator.

The facility is currently connected to the Southern California Edison (SCE) utility on the TOU-GS-1-B tariff. The site location is shown in Figure A.14 below.

Figure A.14. Jurupa Valley Fire Station 16 Site Location

Analysis and Simulations

To assess how the current and proposed system would response to prolonged utility power outages, a comprehensive microgrid modeling and analysis was carried out. For this purpose, HOMER Grid software tool was used. HOMER Grid is a microgrid modeling software that is being widely used in the research and industry communities to design and optimization of microgrids, size different components of the system, and also to perform a technical and financial feasibility assessment. This tool can also help with resilience and reliability assessment of various microgrid combinations, which has been the main focus of this study.

In 2021, the total utility charges was $5,256 which includes energy charges, demand charges, and fixed charges. The total energy consumption during 2021 has been 26,923 kWh with the peak demand reaching 11.28 kW on July 11th. Figure A.15 depicts the monthly variations in the monthly energy consumptions and the peak demands. The electrical load heatmap for this facility is shown in Figure A.16.

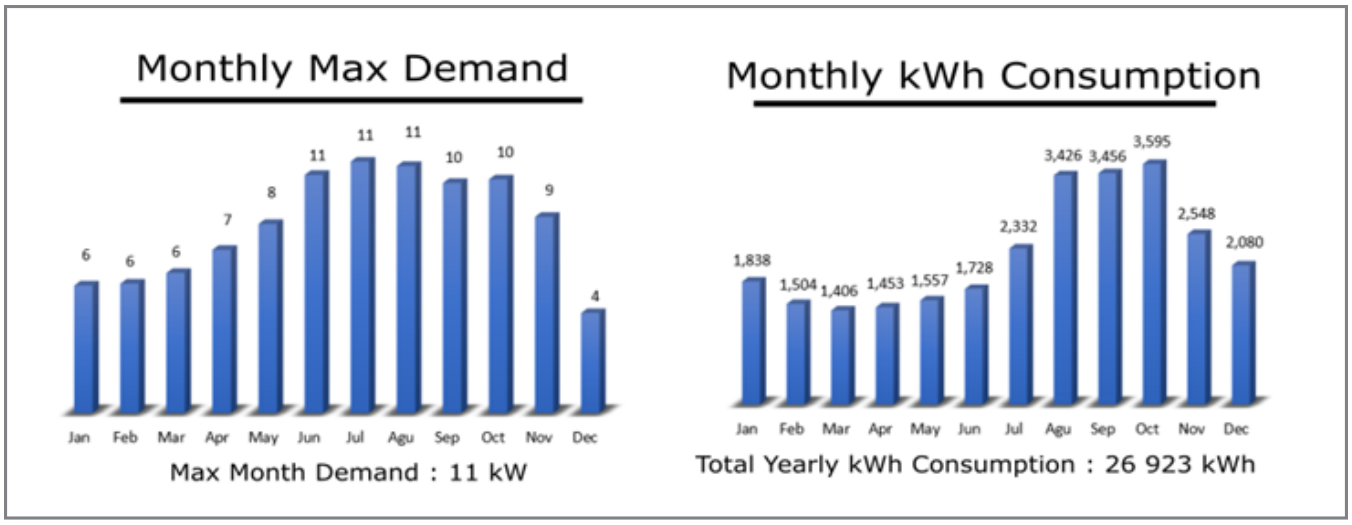


Figure A.15. Monthly Electricity Consumption and Peak Demands

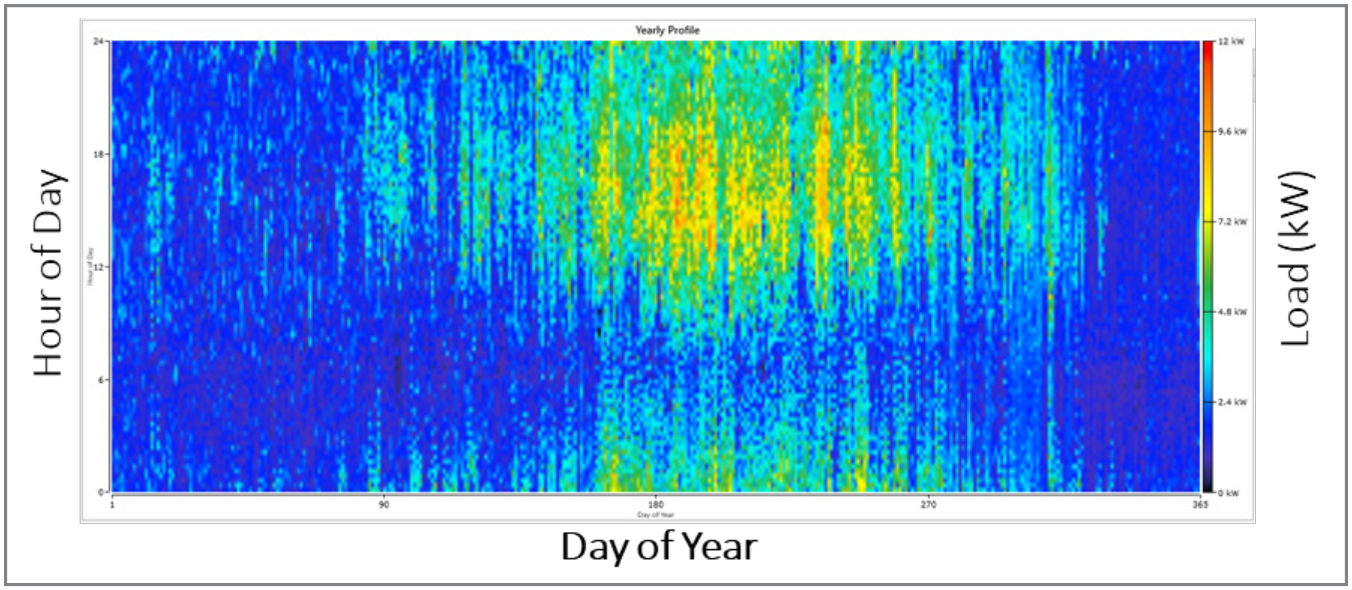


Figure A.16. Heat Map of the Jurupa Valley Fire Station 16 Electrical Load

To improve resilience performance of the facility, it is proposed that on-site solar photovoltaics (PVs), as an additional source of power, along with battery energy storage systems (BESS) to be utilized and various combinations and sizes to be evaluated. The capacity of the existing (or planned) diesel generator is 12 kW. Figure A.17 shows the proposed location for the solar PV arrays which can accommodate a 14 kW PV system and also provide shaded parking area for the staff.

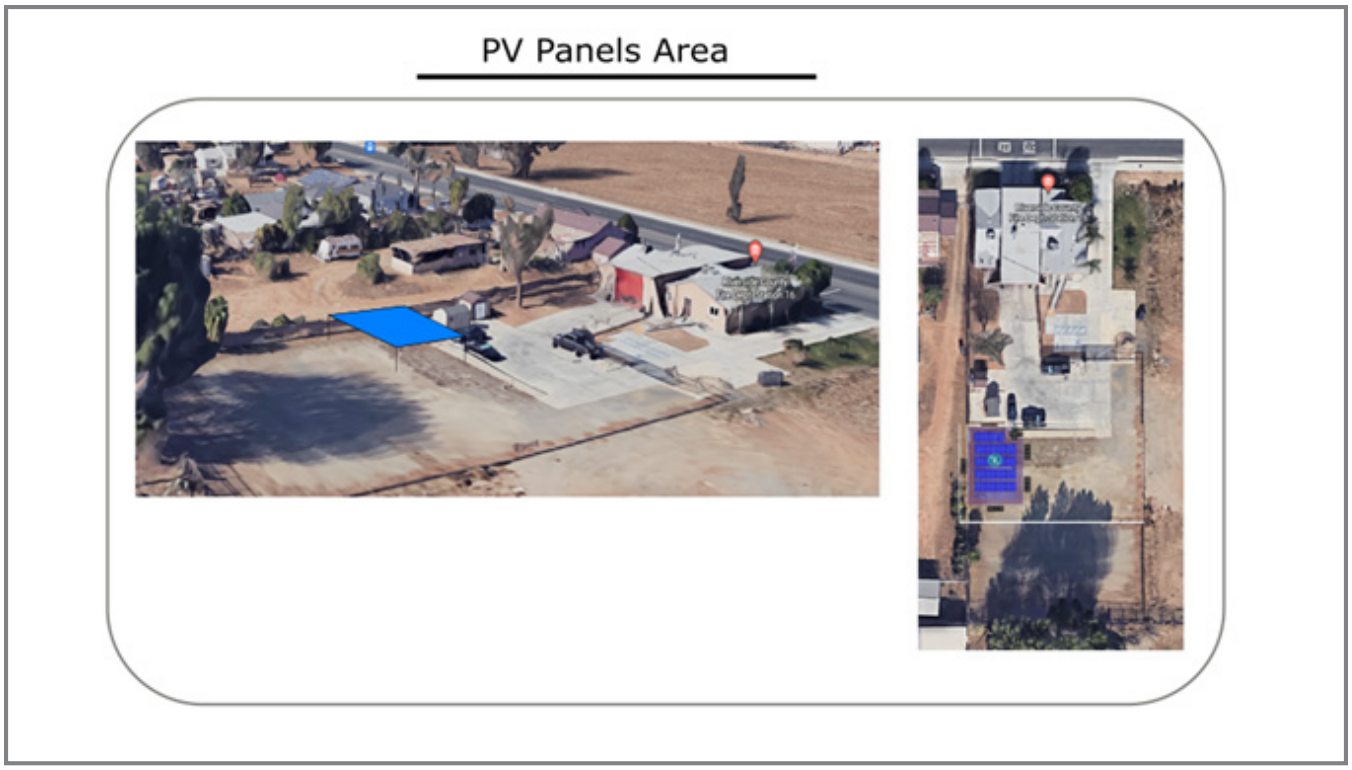


Figure A.17. Jurupa Valley Fire Station 16 - PV System Location

For the purpose of this analysis, 100% of the facility load is assumed to be critical. That is particularly important in how the HOMER tools will treat the load in terms of resilience requirements which would directly impact how the microgrid components are sized and operated. In this case study, no down time is allowed, and the tool will develop the system such that all the loads are met at all the time throughout the year even in case of prolonged grid outages. Figure A.18 schematically shows the main components and connections of the developed microgrid for Jurupa Valley Fire Station 16.

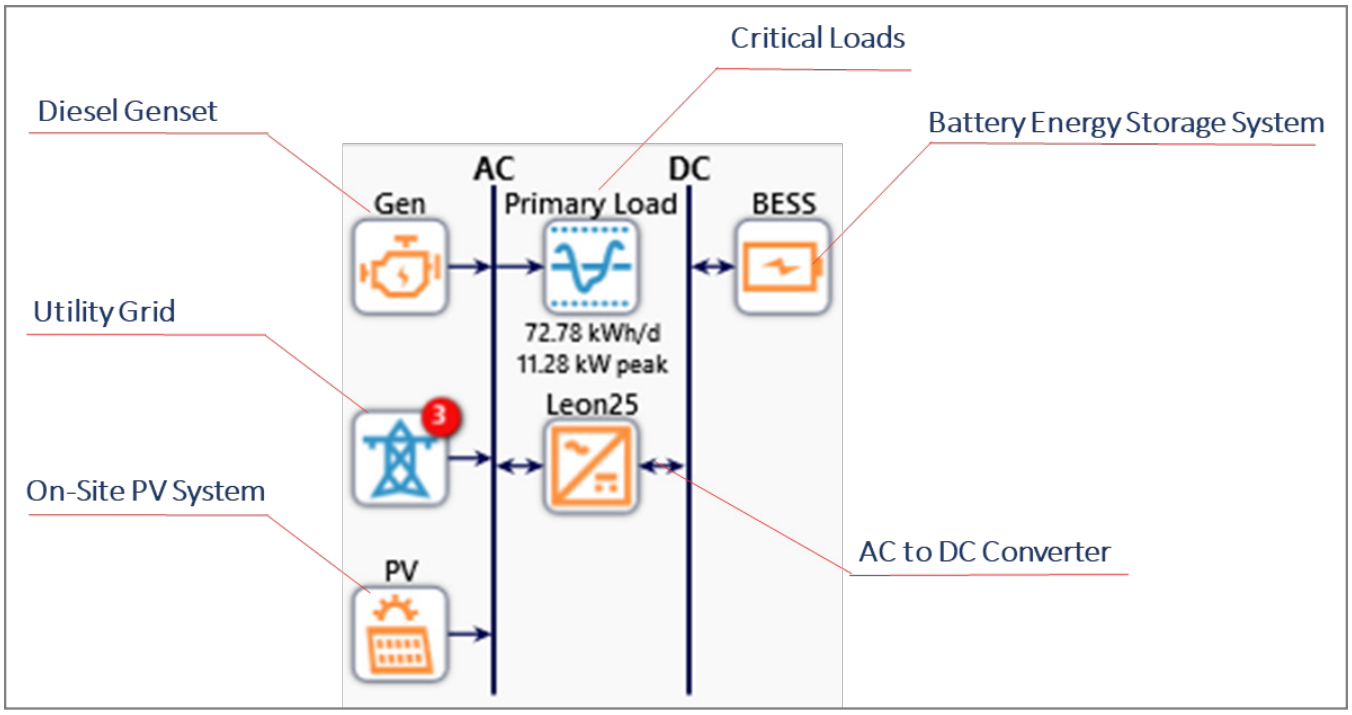


Figure A.18. Jurupa Valley Fire Station 16 - Microgrid Architecture and Components

To evaluate reliability and resilience of the facility, grid outages should be modeled, and the system respond to such outages to be evaluated. Towards that end, frequency and duration of power outages are needed as input to the software model. Statistics of the past grid outages is available at city level through SCE reliability reports.[5] SAIFI and SAIDI numbers, representing average frequency of sustained interruptions and average duration of sustained interruptions respectively, were used in this study. According to the historical reliability of SCE circuits serving the city of Jurupa Valley for 2021, the SAIDI has been 891 minutes and the SAIFI has been 2.7. Therefore, it was assumed that each year the system would have to endure 2.7 outages each being 5.5 hours long.

The distribution of these outages will be randomly selected by the software; one example is shown in Figure A.19. Depending on the reliability requirements set for the facility, the software will size the solar and battery system such that those requirements are met at all times. In this case study, we assumed that 100% of the plant load is critical and should be covered throughout the year, i.e., no down time or degradation of performance is allowed.

5 Circuit Reliability Review- Jurupa Valley, 2022, SOUTHERN CALIFORNIA EDISON

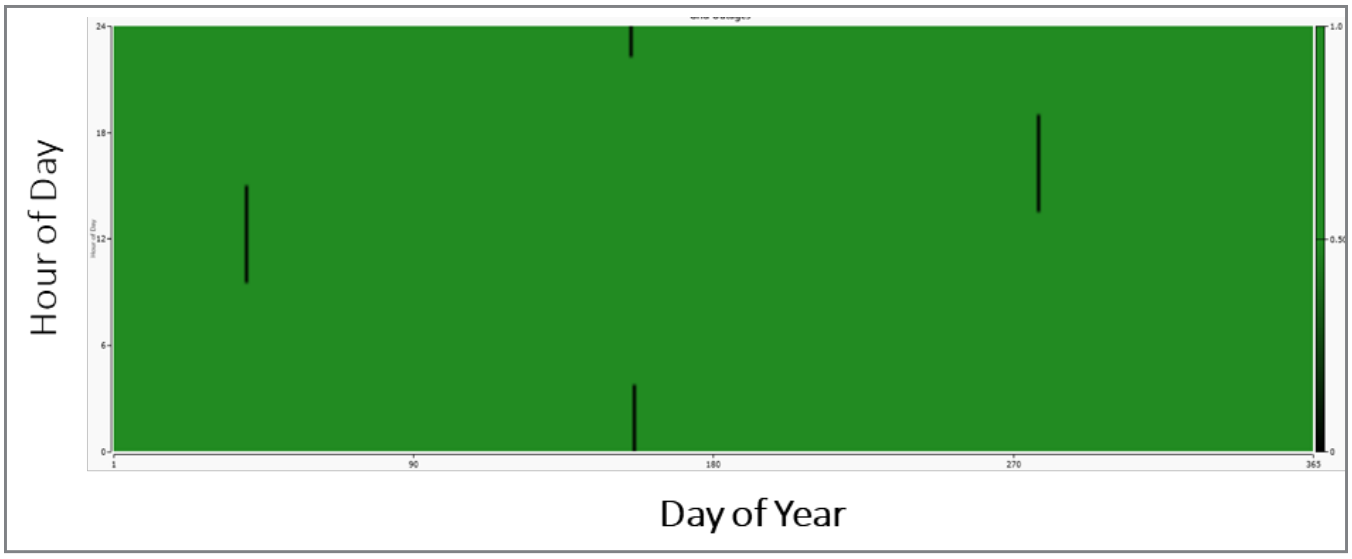


Figure A.19. Jurupa Valley Fire Station 16 - Random Distribution of Outages Throughout the Year

Results and Recommendations

Feasible solutions for the Jurupa Valley Fire Station 16 are summarized in Table A 3. These solutions essentially include those system sizes and combinations, referred to as system Architectures, that are capable of meeting the critical loads during the defined outage scenarios. Each battery pack has the rated capacity of 10.5 kWh/10.5 kW, and the software will come up with the optimum number of packs for each system architecture.

Table A.3. Jurupa Valley Fire Station 16- Microgrid Modeling Results

Architecture				Cost				System		
Scn.	PV (kW)	Generator (kW)	BESS (kWh/kW)	NPC ($)	LCOE ($/kWh)	CapEx ($)	Simple Payback (yr)	Renewable Fraction (%)	Generator Hours	BESS Autonomy (hr)
1	14	12	-	$27.8 k	0.066	$27.6 k	7.7	66.2	8	-
2	**14**	**12**	**10.5/10.5**	**$37.2 k**	**0.089**	**$33.6 k**	**10**	**67.1**	**3**	**2.8**
3	-	12	-	$41.4 k	0.159	$0	-	0	7	-
4	-	12	10.5/10.5	$50.1 k	0.193	$5.9 k	-	0	19	2.8

These feasible scenarios are ranked based on the net present costs (NPC). Scenario 3 represents the baseline scenario and has the third best NPC. Scenarios 2 is comprised of solar PVs, BESS, and diesel generators; this combination provides multiple benefits in terms of resilience performance and integration of renewable energy. Availability of multiple power sources improves the system flexibility and thereby enhance resilience against power outages. In case of future outages become longer and more frequent, the system would be able to sustain critical operations for longer periods compared to other scenarios investigated here; in other words, reduced generators runtime for scenario 2 compared with other scenarios can be translated to less reliance on diesel fuel, less maintenance, and longer lifetime for the diesel generators. Scenario 2 will also result in a better economic performance compared

to the baseline case; for those reasons, and considering that it has lower GHG emissions, Scenario 2 is the proposed option for improving resilience posture of the system. Implementation of BESS would provide flexibility towards better demand management and can reduce demand charges on the utility bills. The single-line diagram of the proposed system is shown in Figure A.20.

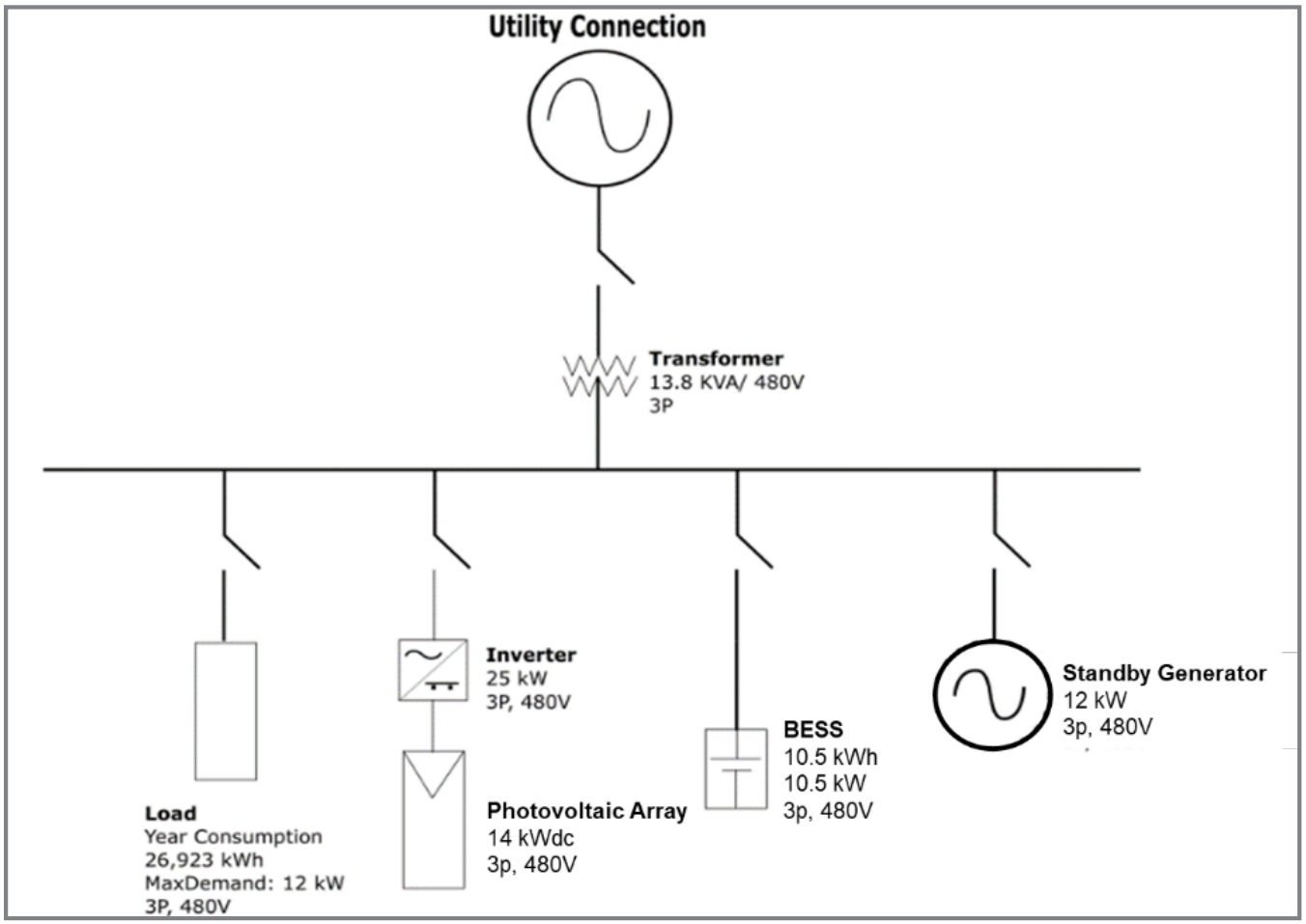


Figure A.20. Single-line Diagram of the Proposed System for Jurupa Valley Fire Station 16

A4. Case Study 4- Jurupa Valley Fire Station 17

Facility Overview

Similar analysis was carried out on Jurupa Valley Fire Station 17 as was completed for the Jurupa Valley Fire Station 16. Jurupa Valley Fire Station 17 is a larger and newer facility located at 10400 San Sevaine Way, Mira Loma, CA 91752.

The facility is currently connected to the Southern California Edison (SCE) utility on the TOU-GS-1-B tariff. The site location is shown in Figure A.21.

Figure A.21. Jurupa Valley Fire Station 17 Site Location

Analysis and Simulations

To assess how the current and proposed system would response to prolonged utility power outages, a comprehensive microgrid modeling and analysis was carried out. For this purpose, HOMER Grid software tool was used. HOMER Grid is a microgrid modeling software that is being widely used in the research and industry communities to design and optimization of microgrids, size different components of the system, and also to perform a technical and financial feasibility assessment. This tool can also help with resilience and reliability assessment of various microgrid combinations, which has been the main focus of this study.

In 2021, the total utility charges was $5,256 which includes energy charges, demand charges, and fixed charges. The total energy consumption of the facility during 2021 has been 73,600 kWh with the peak demand reaching 24 kW multiple times throughout the year in June, July, and August. Figure A.22 depicts the monthly variations in the monthly energy consumptions and the peak demands. The electrical load heatmap for this facility is shown in Figure A.23.

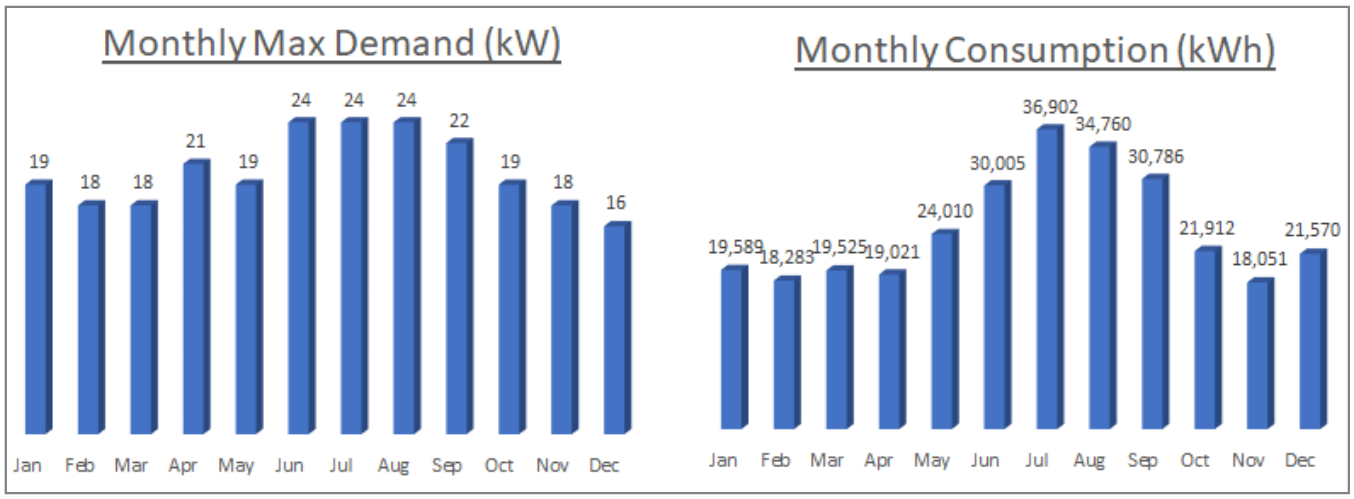


Figure A.22. Monthly Electricity Consumption and Peak Demands

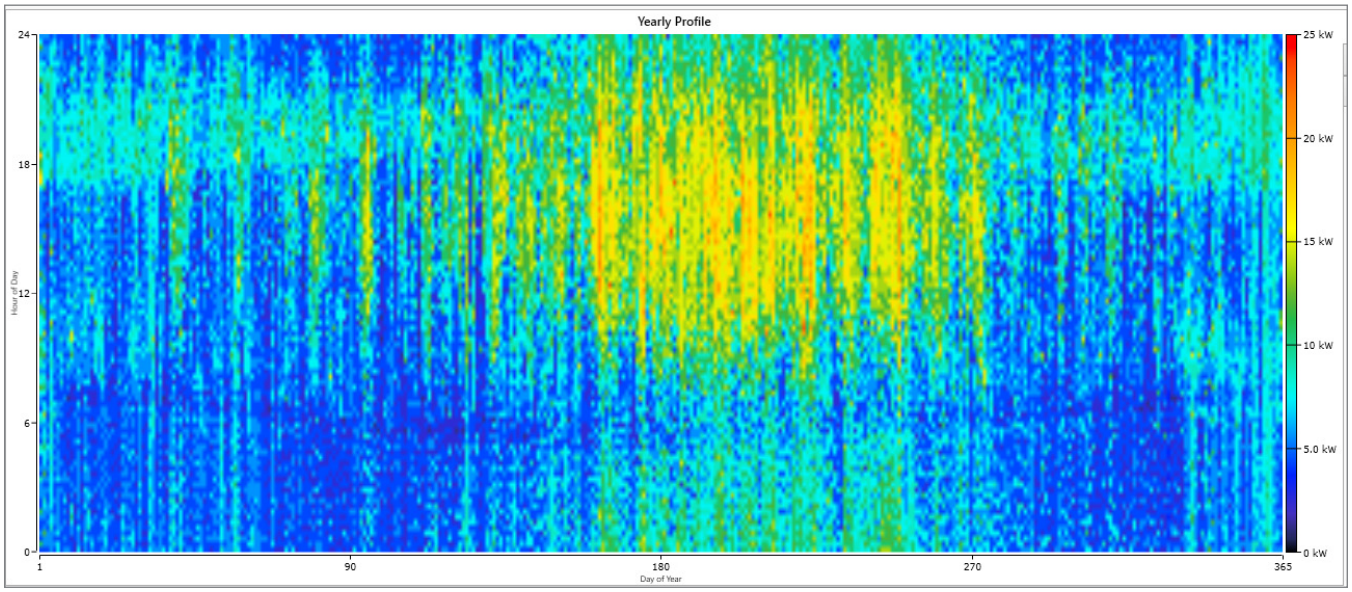


Figure A.23. Heat Map of the Jurupa Valley Fire Station 17 Electrical Load

To improve resilience performance of the facility, it is proposed that on-site solar photovoltaics (PVs), as an additional source of power, along with battery energy storage systems (BESS) to be utilized and various combinations and sizes to be evaluated. The capacity of the existing (or planned) diesel generator is 24 kW. The solar PV arrays can be installed at the parking lot as well as on the roof; the combined capacity would be a 55 kW PV system and also provide shaded parking area for the staff.

For the purpose of this analysis, 100% of the facility load is assumed to be critical. That is particularly important in how the HOMER tools will treat the load in terms of resilience requirements which would directly impact how the microgrid components are sized and operated. In this case study, no down time is allowed, and the tool will develop the system such that all the loads are met at all the time throughout the year even in case of prolonged grid outages. Figure A.24 schematically shows the main components and connections of the developed microgrid for Jurupa Valley Fire Station 17.

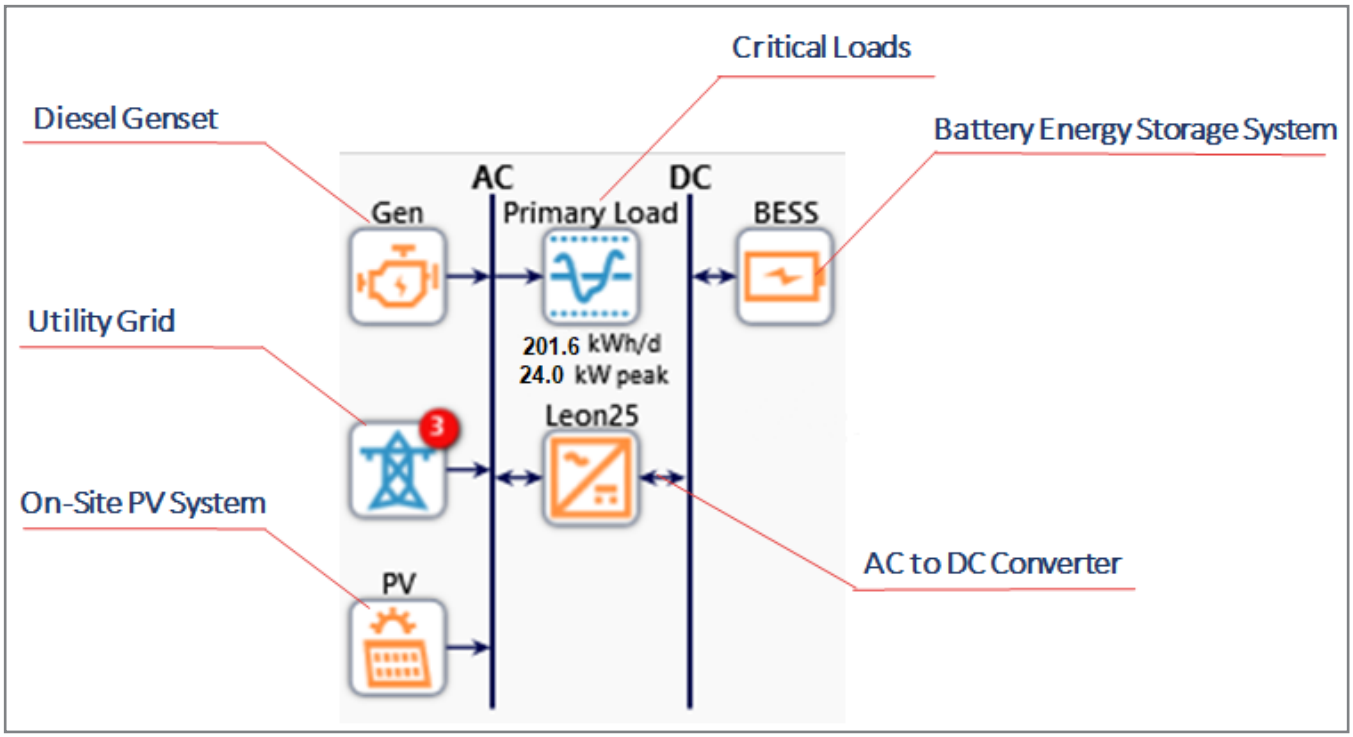


Figure A.24. Jurupa Valley Fire Station 17 - Microgrid Architecture and Components

To evaluate reliability and resilience of the facility, grid outages should be modeled, and the system respond to such outages to be evaluated. Towards that end, frequency and duration of power outages are needed as input to the software model. Statistics of the past grid outages is available at city level through SEC reliability reports.[6] SAIFI and SAIDI numbers, representing average frequency of sustained interruptions and average duration of sustained interruptions respectively, were used in this study. According to the historical reliability of SEC circuits serving the Jurupa Valley for 2021, the SAIDI has been 891 minutes and the SAIFI has been 2.7. Therefore, it was assumed that each year the system would have to endure 2.7 outages each being 5.5 hours long.

The distribution of these outages will be randomly selected by the software; one example is shown in Figure A.25. Depending on the reliability requirements set for the facility, the software will size the solar and battery system such that those requirements are met at all times. In this case study, we assumed that 100% of the plant load is critical and should be covered throughout the year, i.e., no down time or degradation of performance is allowed.

6 Circuit Reliability Review- Jurupa Valley, 2022, SOUTHERN CALIFORNIA EDISON

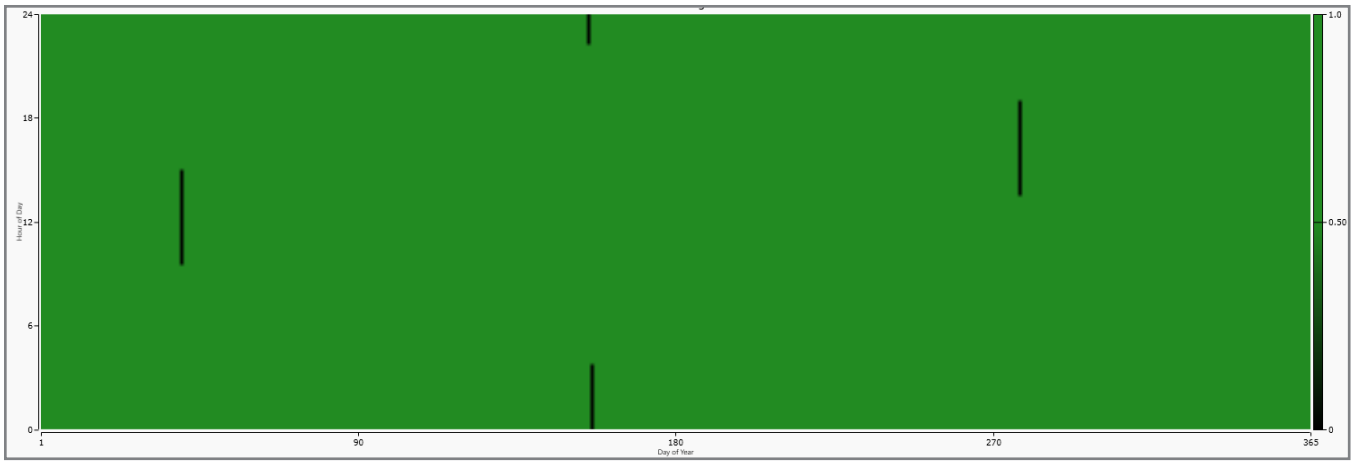


Figure A.25. Jurupa Valley Fire Station 17 - Random Distribution of Outages Throughout the Year

Results and Recommendations

Feasible solutions for the Jurupa Valley Fire Station 17 are summarized in Table A 4. These solutions essentially include those system sizes and combinations, referred to as system Architectures, that are capable of meeting the critical loads during the defined outage scenarios. Each battery pack has the rated capacity of 10.5 kWh/10.5 kW, and the software will come up with the optimum number of packs for each system architecture.

Table A.4. Jurupa Valley Fire Station 17- Microgrid Modeling Results

Architecture				Cost				System		
Scn.	PV (kW)	Generator (kW)	BESS (kWh/kW)	NPC ($)	LCOE ($/kWh)	CapEx ($)	Simple Payback (yr)	Renewable Fraction (%)	Generator Hours	BESS Autonomy (hr)
1	55	24	-	$62.5 k	0.042	$108.6 k	8.1	74.5	17	-
2	**55**	**24**	**10.5/10.5**	**$98.6 k**	**0.067**	**$131.4 k**	**10.9**	**74.9**	**16**	**1**
3	-	24	-	$107.7 k	0.150	$0	-	0	31	-
4	-	24	10.5/10.5	$143.6 k	0.199	$22.8 k	-	0	33	1

These feasible scenarios are ranked based on the net present costs (NPC). Scenario 3 represents the baseline scenario and has the third best NPC. Scenarios 2 is comprised of solar PVs, BESS, and diesel generators; this combination provides multiple benefits in terms of resilience performance and integration of renewable energy. Availability of multiple power sources improves the system flexibility and thereby enhance resilience against power outages. In case of future outages become longer and more frequent, the system would be able to sustain critical operations for longer periods compared to other scenarios investigated here; in other words, reduced generators runtime for scenario 2 compared with other scenarios can be translated to less reliance on diesel fuel, less maintenance, and longer lifetime for the diesel generators. Scenario 2 will also result in a better economic performance compared to the baseline case; for those reasons, and considering that it has lower GHG emissions, Scenario 2 is the proposed option for improving resilience posture of the system. Implementation of BESS would provide flexibility towards better demand management and can reduce demand charges on the utility bills. The single-line diagram of the proposed system is shown in Figure A.26.

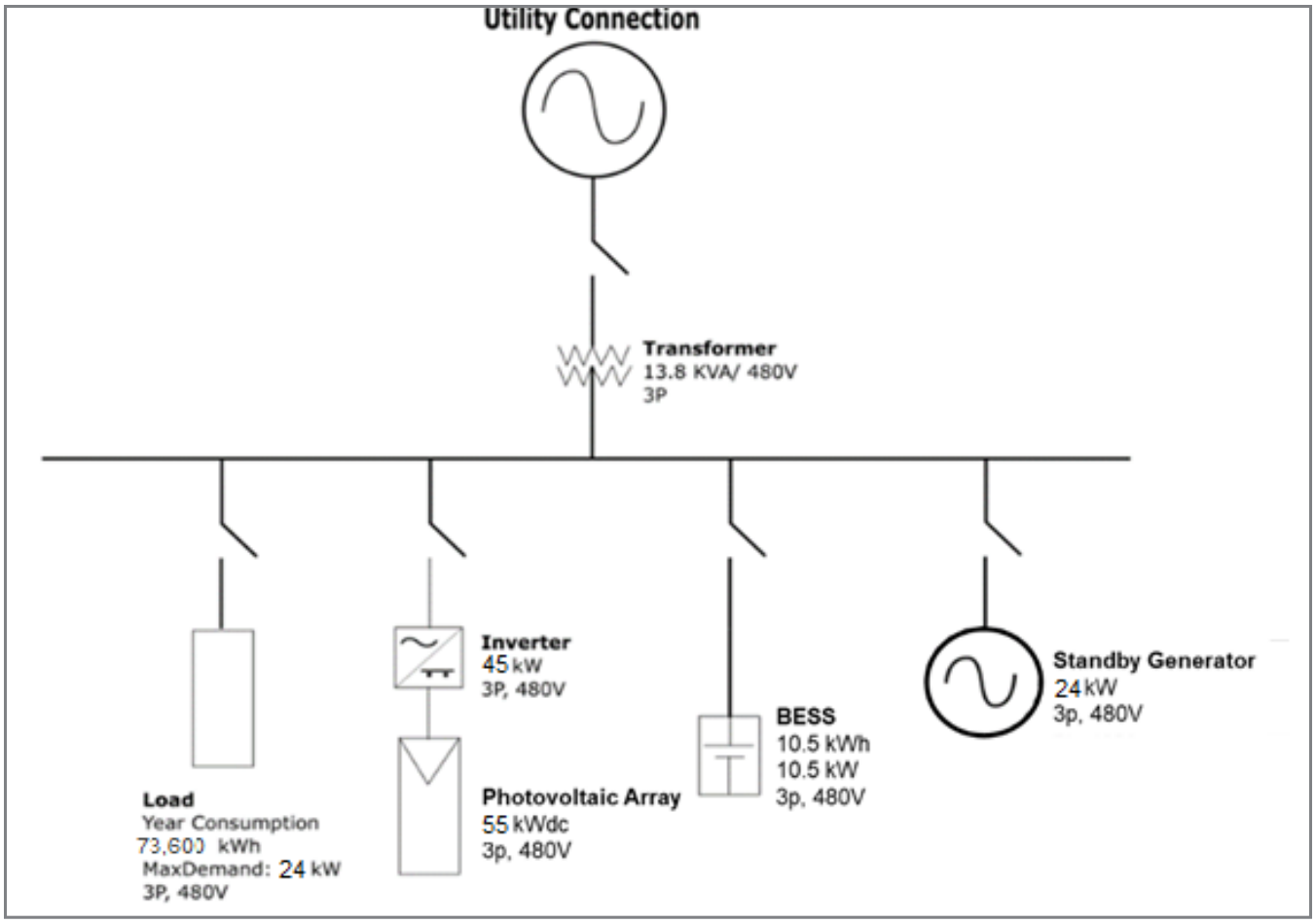


Figure A.26. Single-line Diagram of the Proposed System for Jurupa Valley Fire Station 17

Appendix B.
Critical Facility Questionnaire

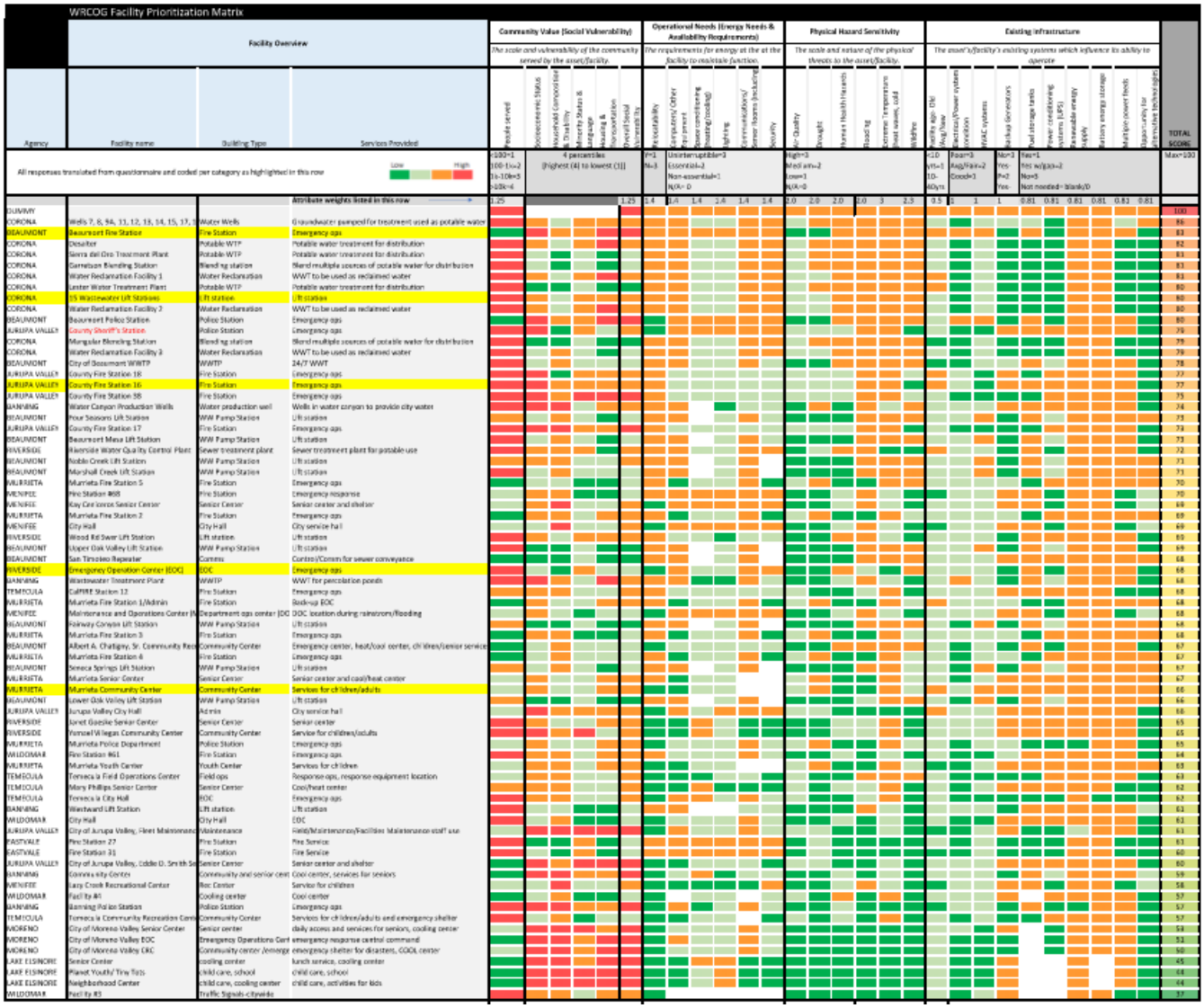
WRCOG Critical Assets- Questionnaire

[NAME OF JURISDICTION]

	Guidance	*Facility 1*	*Facility 2*
Facility Name	*As extracted from the WRCOG Regional Facility List spreadsheet circulated earlier; add/modify list as needed.*	[FACILITY NAME]	[FACILITY NAME]
			FACILITY OVERVIEW
Facility Type	*As extracted from the WRCOG Regional Facility List spreadsheet circulated earlier; add/modify list as needed.*		
Services Provided	*As extracted from the WRCOG Regional Facility List spreadsheet circulated earlier; add/modify list as needed.*		
No. of people served	*On average, how many people does this facility serve under normal operations? Select range from dropdown menu.*		
Facility Age	*Select from dropdown menu.*		
			HAZARD SENSITIVITY
Air Quality	*Identify degree of sensitivity against each threat, by selecting one of the following options from the dropdown menu:* ***Low*** ***Medium*** ***High***		
Drought			
Flooding			
Human Health Hazards			
Extreme Temperature (heat waves, cold snaps)			
Wildfire			
Other?	*Note any additional remarks on threat probability and consequence*		
			MOST CRITICAL ENERGY NEEDS
Computers/ Other Equipment	*Identify most prioritized energy needs for the facility by selecting "X" where applicable. Leave other fields blank.*		
Space conditioning (heating/cooling)			
Lighting			
Communications/ Server Rooms (including ltg, clg etc)			
Security			
Other?	*Note any additional remarks on critical energy needs here*		

	Guidance	*Facility 1*	*Facility 2*
Facility Name	*As extracted from the WRCOG Regional Facility List spreadsheet circulated earlier; add/modify list as needed.*	**[FACILITY NAME]**	**[FACILITY NAME]**
AVAILABILITY REQUIREMENTS			
Computers/ Other Equipment	*Identify availability requirements to meet the most critical energy needs by selecting one of the following options from the dropdown menu:* *Uninterruptible : Eg-24x7, no downtime at all; Eg- 911 call center comms* *Essential : Eg- can afford minor downtime, Eg- fire station* *Non-Essential : Eg: can afford downtime, can stay offline for a few hours without major impact, Eg- Contracting office* *Not Applicable*		
Space conditioning (heating/cooling)			
Lighting			
Communications/ Server Rooms (including ltg, clg etc)			
Security			
Additional remarks	*Note any additional remarks on availability requirements can be entered here*		
EXISTING INFRASTRUCTURE			
Electrical/Power System Condition	*Select from dropdown menu*		
HVAC System Condition	*Select from dropdown menu*		
Backup Generators	*Identify if facility has backup generators that support facility load, in part or in full, from dropdown selection*		
Fuel storage tanks	*Identify if facility has fuel storage tank, from dropdown selection*		
Power conditioning systems (UPS)	*Identify if facility has UPS supporting critical loads of the concerned facility, from dropdown selection*		
Renewable energy supply	*Identify if facility has solar PV or other forms of renewable energy, from dropdown selection*		
Battery energy storage	*Identify if facility has battery energy storage systems, from dropdown selection*		
Multiple power feeds	*Identify if facility has multiple power feeds, from dropdown selection*		
Opportunity for alternative technologies	*Identify if alternate energy on site can be an option, or if there is room to expand current alternative systems. Enter response in words.*		
Additional remarks	*Any additional remarks on current infrastructure or on any of the above can be entered here. Note any issues related to backup power, power outages, or power quality*		
What are the key challenges you anticipate in implementing resilience measures on this site ?	*Enter response in words. Mention any key pain points, if they exist, specific to the facility or region.*		

Appendix C.
Asset Prioritization Matrix


WRCOG Facility Prioritization Matrix
Facility Overview
Agency
Facility name
Building Type
Services Provided
Community Value (Social Vulnerability)
The scale and vulnerability of the community served by the asset/facility.
People served
Socioeconomic Status
Household Composition
Disability
Minority Status & Language
Housing & Transportation
Overall Social Vulnerability
Operational Needs (Energy Needs & Availability Requirements)
The requirements for energy at the at the facility to maintain function.
Criticality
Computers/ Other Equipment
Space conditioning (heating/cooling)
Lighting
Communications/ Server Rooms (including
Security
Physical Hazard Sensitivity
The scale and nature of the physical threats to the asset/facility.
Air Quality
Drought
Human Health Hazards
Flooding
Extreme Temperature (heat waves, cold
Wildfire
Existing Infrastructure
The asset's/facility's existing systems which influence its ability to operate
Facility age- Old/ Avg/New
Electrical/Power system
Backup Generators
HVAC systems
Fuel storage tanks
Power conditioning systems (UPS)
Renewable energy supply
Battery energy storage
Multiple power feeds
Opportunity for Electric Vehicle charging
TOTAL SCORE
All responses translated from questionnaire and coded per category as highlighted in this row
Low
High
<100=1
100-1k=2
1k-10k=3
>10k=4
4 percentiles
(highest (4) to lowest (1))
P=1
M=3
Uninterruptible=3
Essential=2
Non-essential=1
N/A= 0
High=3
Med=2
Low=1
N/A=0
<10 yrs=5
10-40yrs
Poor=3
Avg/Fair=2
Good=1
No=3
Yes-P=2
Yes-
Yes=1
Yes w/gen=2
No=3
Not needed= blank/0
Max=100
Attribute weights listed in this row
1.25
1.25
1.4
1.4
1.4
1.4
1.4
1.4
2.0
2.0
2.0
1.0
3
2.5
0.5
1
1
1
0.83
0.83
0.83
0.83
0.83
DUMMY
CORONA
Wells 7, 8, 9A, 11, 12, 13, 14, 15, 17, 1
Water Wells
Groundwater; pumped for treatment; used as potable water
100
BEAUMONT
Beaumont Fire Station
Fire Station
Emergency ops
86
CORONA
Desalter
Potable WTP
Potable water treatment for distribution
82
CORONA
Sierra del Oro Treatment Plant
Potable WTP
Potable water treatment for distribution
81
CORONA
Garretson Blending Station
Blending station
Blend multiple sources of potable water for distribution
81
CORONA
Water Reclamation Facility 1
Water Reclamation
WWT to be used as reclaimed water
81
CORONA
Lester Water Treatment Plant
Potable WTP
Potable water treatment for distribution
80
CORONA
35 Wastewater Lift Stations
Lift station
Lift station
80
CORONA
Water Reclamation Facility 2
Water Reclamation
WWT to be used as reclaimed water
80
BEAUMONT
Beaumont Police Station
Police Station
Emergency ops
80
JURUPA VALLEY
County Sheriff's Station
Police Station
Emergency ops
79
CORONA
Mangular Blending Station
Blending station
Blend multiple sources of potable water for distribution
79
CORONA
Water Reclamation Facility 3
Water Reclamation
WWT to be used as reclaimed water
79
BEAUMONT
City of Beaumont WWTP
WWTP
24/7 WWT
78
JURUPA VALLEY
County Fire Station 18
Fire Station
Emergency ops
77
JURUPA VALLEY
County Fire Station 16
Fire Station
Emergency ops
77
JURUPA VALLEY
County Fire Station 38
Fire Station
Emergency ops
75
BANNING
Water Canyon Production Wells
Water production well
Wells in water canyon to provide city water
74
BEAUMONT
Four Seasons Lift Station
WW Pump Station
Lift station
73
JURUPA VALLEY
County Fire Station 17
Fire Station
Emergency ops
73
BEAUMONT
Beaumont Mesa Lift Station
WW Pump Station
Lift station
73
RIVERSIDE
Riverside Water Quality Control Plant
Sewer treatment plant
Sewer treatment plant for potable use
72
BEAUMONT
Noble Creek Lift Station
WW Pump Station
Lift station
71
BEAUMONT
Marshall Creek Lift Station
WW Pump Station
Lift station
71
MURRIETA
Murrieta Fire Station 5
Fire Station
Emergency ops
70
MENIFEE
Fire Station #68
Fire Station
Emergency response
70
MENIFEE
Kay Ceniceros Senior Center
Senior Center
Senior center and shelter
69
MURRIETA
Murrieta Fire Station 2
Fire Station
Emergency ops
69
MENIFEE
City Hall
City Hall
City service hall
69
RIVERSIDE
Wood Rd Sewr Lift Station
Lift station
Lift station
69
BEAUMONT
Viejo Oak Valley Lift Station
WW Pump Station
Lift station
69
BEAUMONT
San Timoteo Repeater
Comms
Control/Comm for sewer conveyance
68
RIVERSIDE
Emergency Operation Center (EOC)
EOC
Emergency ops
68
BANNING
Wastewater Treatment Plant
WWTP
WWT for percolation ponds
68
TEMECULA
CalFIRE Station 12
Fire Station
Emergency ops
68
MURRIETA
Murrieta Fire Station 1/Admin
Fire Station
Back-up EOC
68
MENIFEE
Maintenance and Operations Center (M
Department ops center
DOC location during rainstorm/flooding
68
BEAUMONT
Fairway Canyon Lift Station
WW Pump Station
Lift station
68
MURRIETA
Murrieta Fire Station 3
Fire Station
Emergency ops
68
BEAUMONT
Albert A. Chatigny, Sr. Community Rec
Community Center
Emergency center, heat/cool center, children/senior services
67
MURRIETA
Murrieta Fire Station 4
Fire Station
Emergency ops
67
BEAUMONT
Seneca Springs Lift Station
WW Pump Station
Lift station
67
MURRIETA
Murrieta Senior Center
Senior Center
Senior center and cool/heat center
67
MURRIETA
Murrieta Community Center
Community Center
Services for children/adults
66
BEAUMONT
Lower Oak Valley Lift Station
WW Pump Station
Lift station
66
JURUPA VALLEY
Jurupa Valley City Hall
Admin
City service hall
66
RIVERSIDE
Janet Goeske Senior Center
Senior Center
Senior center
65
RIVERSIDE
Ysmael Villegas Community Center
Community Center
Service for children/adults
65
MURRIETA
Murrieta Police Department
Police Station
Emergency ops
65
WILDOMAR
Fire Station #61
Fire Station
Emergency ops
64
MURRIETA
Murrieta Youth Center
Youth Center
Services for children
63
TEMECULA
Temeca Is Field Operations Center
Field ops
Response ops, response equipment location
63
TEMECULA
Mary Phillips Senior Center
Senior Center
Cool/heat center
62
TEMECULA
Temeca Is City Hall
EOC
Emergency ops
62
BANNING
Westward Lift Station
Lift station
Lift station
61
WILDOMAR
City Hall
City Hall
EOC
61
JURUPA VALLEY
City of Jurupa Valley, Fleet Maintenanc
Maintenance
Field/Maintenance/Facilities Maintenance staff use
61
EASTVALE
Fire Station 27
Fire Station
Fire Service
61
EASTVALE
Fire Station 31
Fire Station
Fire Service
60
JURUPA VALLEY
City of Jurupa Valley, Eddie D. Smith Se
Senior Center
Senior center and shelter
60
BANNING
Cabazon City Center
Community and senior cent
Cool center, services for seniors
59
MENIFEE
Lazy Creek Recreational Center
Rec Center
Service for children
58
WILDOMAR
Facility #4
Cooling center
Cool center
57
BANNING
Banning Police Station
Police Station
Emergency ops
57
TEMECULA
Temeca Is Community Recreation Cent
Community Center
Services for children/adults and emergency shelter
57
MORENO
City of Moreno Valley Senior Center
Senior center
daily access and services for seniors, cooling center
53
MORENO
City of Moreno Valley EOC
Emergency Operations Cent
emergency response control command
51
MORENO
City of Moreno Valley CEC
Community center /emerge
emergency shelter for disasters, COOL center
50
LAKE ELSINORE
Senior Center
cooling center
lunch service, cooling center
45
LAKE ELSINORE
Planet Youth/ Tiny Tots
child care, school
child care, school
44
LAKE ELSINORE
Neighborhood Center
child care, cooling center
child care, activities for kids
44
WILDOMAR
Facility #3
Traffic Signals -citywide
37

This page intentionally left blank

Appendix D.
Energy Resilience Strategies

Table D.1. Energy Resilience Strategies

Strategy	Category	Resource	Resilience Attribute	Opportunities & Constraints
On-site Solar PV	Energy Supply	• Power	• Energy Source Diversity	
Battery Energy Storage System	Energy Storage	• Power	• Energy Source Diversity • Energy Demand Reduction	
Other Alternative Energy Generation	Energy Supply	• Power	• Energy Source Diversity • Islanding Capabilities, Analytics, & Controls	
Backup Power (Backup Generator)	Backup Power	• Power	• Load Sustainment Capacity • Energy Source Diversity	
Critical Load UPS System	Backup Power	• Power	• Load Sustainment Capacity • Islanding Capabilities, Analytics, & Controls	
Regular Generator Testing	Backup Power	• Power	• Energy Management Protocols	
Microgrid Controls System	Energy Management	• Power	• Redundant Supply Paths • Load Sustainment Capacity • Islanding Capabilities, Analytics, & Controls	
Portable Generator Quick-Connect	Backup Power	• Power	• Energy Source Diversity • Load Sustainment Capacity	
Redundant HVAC Systems	Building Systems	• Heating • Cooling	• Energy Source Diversity • Personnel Availability for Assessment & Repair • Equipment, Parts and Procurement	
Portable Backup HVAC Tie-in Connection	Building Systems	• Heating • Cooling	• Energy Source Diversity • Load Sustainment Capacity • Emergency Management Protocols • Equipment, Parts and Procurement	

Strategy	Category	Resource	Resilience Attribute	Opportunities & Constraints
Alternate Communication Paths	Controls and Communications	• Communications	• Cybersecurity of Energy Systems	
Building Envelope Sealing	Energy Conservation	• Power • Heating • Cooling	• Energy Demand Reduction	
HVAC Performance Upgrades	Energy Conservation	• Power • Heating • Cooling	• Energy Demand Reduction	
Lighting Performance Upgrades	Energy Conservation	• Power • Heating • Cooling	• Energy Demand Reduction	
Recommissioning and Rebalancing HVAC Systems	Energy Conservation	• Power • Heating • Cooling	• Energy Demand Reduction	
Building Automation System	Energy Management	• Communications • Power	• Cybersecurity of Energy Systems • Energy Demand Reduction • Islanding Capabilities, Analytics, & Controls	
Plug Load Management	Energy Management	• Power	• Energy Demand Reduction • Emergency Management Protocols	
Fuel Storage Capacity	Energy Storage	• Fuel	• Energy Source Diversity • Physical Hardening	
Preventative Maintenance on HVAC Systems	Maintenance	• Heating • Cooling • Personnel	• Physical Hardening • Personnel Availability for Assessment & Repair	
Preventative Maintenance on Electrical Systems	Maintenance	• Power • Personnel	• Physical Hardening • Personnel Availability for Assessment & Repair	
UPS Maintenance and Testing	Maintenance	• Power	• Emergency Management Protocols • Equipment, Parts and Procurement	
Graceful Shutdown Procedures	Energy Management	• Other	• Cybersecurity of Energy Systems • Emergency Management Protocols • Equipment, Parts and Procurement	

Strategy	Category	Resource	Resilience Attribute	Opportunities & Constraints
Adequate Electrical Circuit Condition	Power Distribution	• Power	• Physical Hardening • Load Sustainment Capacity	
Alternate Power Supply Paths	Power Distribution	• Power	• Redundant Supply Paths	
Dedicated Critical Electrical Circuits	Power Distribution	• Power	• Redundant Supply Paths • Load Sustainment Capacity	
Redundant Electrical Feeder	Power Distribution	• Power	• Redundant Supply Paths	

This page intentionally left blank

Appendix E. Funding and Financing Strategies

The available funding and financing strategies identified in this chapter support the electrification of and resilience planning for critical facilities in the WRCOG region, with an emphasis on inclusion of energy storage for emergency response. This chapter summarizes key considerations for developing funding strategies for resiliency efforts, as well as grants and other funding and financing tools that are currently available to fund capital intensive energy resiliency projects and ongoing policies and programs.

E1. Key Considerations for Developing Funding & Financing Strategies

The following section will contain high-level descriptions of the difference between funding and financing types, revenue generating tools, and the potential role of local and regional stakeholders in the implementation process.

Funding vs. Financing

Energy resiliency projects often require a combination of funding and financing strategies. Funding includes revenues generated by a project (e.g., from electricity generated by a renewable energy project), taxes, and grants or incentives that do not need to be paid back. While many grants are very competitive and require a multi-stage application process, some are allocated through state or federal formulas that consider factors such as population size, demographics, and various other forms of Census data.

Financing, often accessed in the form of loans or bonds, is the incurrence of indebtedness to cover the initial costs of a project. Financing must be paid back with revenue, for example from the sale of electricity back to the grid, incentives, or tax credits. A common example of financing for a renewable energy project is a solar power purchase agreement (PPA). Solar PPAs are a type of public-private partnership where a developer covers most, if not all, of the cost associated with design, permitting, financing, and installation of solar energy system on a customer's property. The developer will then provide the energy generated on-site to the customer at a cost lower than the typical utility's rate. The developer of the solar energy system will benefit from the income associated with sale of electricity, as well as any related tax credits and other incentives generated from the system. In addition to public-private partnerships, other financing opportunities may include revolving loan funds operated by the state and/or bond issuances.

Implementation and Governance

The facilities evaluated in this planning process are operated by a wide range of city and county agencies, including local Police (or County Sheriff), Fire, Wastewater, and Community Services Departments. Some of the Fire stations evaluated are operated by the state (CalFIRE). In general, the agencies that own and operate facilities are likely to be the primary implementers of energy measures. Local governments are eligible to apply for most of the grants and incentives described below, enter into PPAs or other public-private partnerships, and access the other funding and financing tools described below.

However, the process for applying for competitive grants (in particular) is onerous. Larger cities and local governments that operate their municipal utilities are most likely to have the capacity to pursue state and federal grants independently. By partnering together, cities may help share the administrative burden and increase the competitiveness of grant applications. WRCOG can continue to play a valuable role in convening cross-agency partnerships, providing information about upcoming grant opportunities, and even serving as a co-applicant for specific grants that have a regional focus. Other important local partners include SCE, which (as discussed below) offers some incentive and financing programs for energy efficiency improvements.

E2. Funding & Financing Tools

Common funding and financing sources for energy resiliency projects and programs can be broadly categorized as (1) grants from local, state, and federal agencies, (2) financing tools and 3) local revenue sources. This section summarizes key funding and financing sources that are currently available to support implementation of WRCOG's regional resilience plan.

Grants and Incentives

In response to the COVID-19 pandemic and the increasing impacts of climate change, an unprecedented amount of federal and state funding is being made available to local governments for energy and resilience related projects, creating a once-in-a-generation opportunity to implement projects and programs that mitigate and adapt to climate change. At the same time, local agencies across the country are largely underfunded, which creates substantial competition for grant funding. The increasing frequency and intensity of extreme weather events have also increased local agency demand for grant dollars to mitigate climate change, prepare for future events, and support recovery from these events.

The grants summarized below are those that have potential to fund WRCOG and member agency's resiliency efforts, including improving resiliency to regional vulnerabilities such as wildfire, drought, flooding, and extreme heat and supporting the goal of long-term decarbonization.

State and Regional Grants

The State of California offers an array of mitigation and resilience-related grants for which WRCOG's Energy Resiliency Plan may be well-suited. In May 2022, Governor Newsom announced a record-breaking $32 billion increase in state funding over the next four years to address climate change, including emissions reduction, drought resilience and response, extreme heat, natural carbon sequestration, renewable energy, and energy resilience (Office of Governor Gavin Newsom 2022). State grant programs that are earmarked to receive increased funding allocations because of this increased budget allocation are indicated with an asterisk.

Table E.1. State and Regional Grants Most Applicable to WRCOG Energy Resiliency Plan

Administering Organization	Program/Grant Name	Eligible Receiving Entities	Description	Eligible Uses	Funding Range	Type of Funding
California Governor's Office of Planning and Research (Cal OPR)	Adaptation Planning Grant Program*	Local, Regional, and Tribal Governments	Adaptation Planning Grant Program provides funding to help fill planning needs, provides communities the resources to identify climate resilience priorities, and support the development of a pipeline of climate resilient infrastructure projects across the state.	• Build community planning and capacity by supporting peer to peer learning/info sharing. • Multisector/issue planning. • Support communities faced with cascading and compound impacts of climate change.	$25m released in total through multiple rounds of funding.	Competitive
California Governor's Office of Planning and Research (Cal OPR)	Regional Resilience Planning & Implementation Grant Program*	Local, Regional, and Tribal Governments	This Program will support regions in advancing resilience through capacity-building, planning, and project implementation.	• Support regional projects that improve climate resilience and reduce risk from climate impacts. Including: wildfire, sea level rise, drought, flood, increasing temperatures, and extreme heat events.	$255m in fed funding (fed cost share) 25% local cost share ($85m set aside by FEMA to cover).	Reimbursement based; advanced funding on a case-by-case basis.
California Energy Commission (CEC)	Energy Partnership Program	Cities, Counties, County offices of Education, Special Districts, Public Hospitals, Public Care Facilities, Public Colleges or Universities	This Program offers services to help identify the most cost-effective, energy-saving opportunities for existing buildings and new construction. These funds may be used to conduct energy audits, prepare feasibility studies, and develop equipment performance specifications, among other construction related plans.	• Assist with contractor selection • Review commissioning plans. • Review equipment bid specifications. • Develop equipment performance specifications. • Review existing proposals and designs.	Up to $20,000 available per grantee.	Available, continuously open with final filing date. Closed once funding is expended.
California Governor's Office of Emergency Services (Cal OES)	PrepareCA Jumpstart	Local, Regional, and Tribal Governments	Provides technical assistance to develop local initiatives that primarily benefit eligible socially vulnerable and high hazard risk communities; and create resiliency through capacity building, mitigation, preparedness activities, education, response and recovery planning, and/or future project scoping.	• Evacuation planning – community education on mitigation. • Strengthening building codes. • Implementing a Community Emergency Response Team. • Establishing a data/fiscal management system.	$15m in state funding. Applications may not receive more than $1m in state funds.	Reimbursement based; advanced funding on a case-by-case basis.
California Resilience Challenge	California Resilience Challenge 2022 Grant Program	State communities	A statewide effort inviting local communities across CA to apply for funding for a project that addresses a unique climate threat: drought, fire, flood, or extreme heat.	• Differs case-by-case. • Santa Barbara County received an award to design two pilot climate resilience hubs that will provide safe refuge and critical services during emergencies.	$2m released in 2021, 2022 TBD.	Competitive
California Governor's Office of Emergency Services (Cal OES)	PrepareCA Match	Local, Regional, and Tribal Governments	Provides scoping/sub-application technical assistance to develop FEMA HMGP projects and activities that directly and primarily benefit socially vulnerable and high hazard risk communities.	• Address effects of future conditions such as climate change, demographics changes, population changes, and land-use changes. • Advance whole community risk reduction, including protecting access and functional needs.	$255m in fed funding (fed cost share) 25% local cost share ($85m set aside by FEMA to cover).	Reimbursement based; advanced funding on a case-by-case basis.
California Governor's Office of Planning and Research (Cal OPR)	Extreme Heat and Community Resilience Grant Program*	TBD. More information coming soon.	TBD. More information coming soon.	• TBD. More information coming soon.	TBD. More information coming soon.	TBD. More information coming soon.
Coachella Valley Mountains Conservancy	Climate Resilience and Community Access Grant Program	Nonprofit, Public Agency, Tribal Government	Seeks to invest in local conservation community by creating new programs or developing organizational or agency capacity to enhance desert resilience to climate change and foster conservation of the desert as a carbon sink.	• Enhance desert resilience to climate change. • Improve natural resources management.	Grants requests may range from $100-400,000 per grantee.	No minimum match, but applicants leveraging other funds will be preferred.
State Energy Resource Conservation and Development Commission	Community Energy Resilience Act of 2022 (SB 833)	TBD. More information coming soon.	Seeks to support local governments in developing community energy resilience plans that help achieve energy resilience objectives and state clean energy and air quality goals.	• TBD. More information coming soon.	TBD. More information coming soon.	TBD. More information coming soon.
California Department of Food and Agriculture (CDFA)	Fairground and Community Resilience Centers Program	Tribes, Community-based organizations, Nonprofits, Foundations, Public agencies, Financial institutions, small businesses, Private sector	The Fairground and Community Resilience Centers Program focuses on improving both local fairground and other community facilities to enhance the state's emergency preparedness capabilities, particularly in response to climate change.	• Infrastructure for emergency evacuation, shelter, base camps during emergency events, and critical deferred maintenance. (I.e., cooling and heating centers, clean air centers, and extended emergency evacuation response centers with kitchens, shower facilities, broadband, back-up power, etc.)	$38m of available funding.	TBD. Draft guidelines and details are currently being developed.

Administering Organization	Program/Grant Name	Eligible Receiving Entities	Description	Eligible Uses	Funding Range	Type of Funding
California Strategic Growth Council	Community Resilience Centers (CRC) Program	California Native American Tribes, Community-based organizations, Community development financial institutions, Faith-based organizations, Foundations, Joint powers authorities, Nonprofits, Libraries, Local government agencies, Schools, Small businesses	The CRC program funds new construction and upgrades of neighbourhood-level resilience centers across the state that will support communities during climate and other disasters, as well as build long-term resilience, preparedness, and recovery operations for local communities.	• Comprehensive retrofits that support the resilience center's ability to provide shelter during an emergency (I.e., solar installation, energy and water efficiency appliances, etc.). • Upgrades to surrounding area that support accessibility and function of the center (I.e., community gardens, shade trees, low-carbon transportation, etc.) • Distribution of community services and resources such as food, clean water, and personal protective equipment. • Local workforce development and job force training programming.	$25m will be available in 2022-2023 fiscal year and $75m will be available in 2023-2024 fiscal year.	TBD. Draft guidelines and details are currently being developed.

*These grants have been allocated funding through the 2022 California State Budget.

Federal Grants

Federal grants tend to offer larger dollar amounts per grantee than state and local grants but tend to have more requirements and lengthier application processes, which can be resource-intensive for the receiving entity. Given this, federal grants are generally better suited for higher price tag projects, including regional projects, for which the grant can cover a significant portion. A list of the federal grants that are most relevant to WRCOG's Energy Resiliency Plan are summarized in Table E.2. Many new and legacy federal grants have received an injection of funding through President Biden's Infrastructure Investment and Jobs Act (IIJA). These funding opportunities must be used in accordance with IIJA rules, such as domestically sourced construction materials and Justice 40 Initiative requirements.

In addition to pursuing competitive funding, WRCOG member agencies may also consider allocating federal formula funding to improve energy resilience. For example, funds already allocated to cities and counties from the American Rescue Plan Act (ARPA) through the Coronavirus State and Local Fiscal Recovery Fund could potentially be used to fund portions of energy resiliency projects, particularly projects related to water infrastructure or replacing lost public sector revenue streams.[1] Other potential formula funding sources include the Energy Efficiency and Conservation Block Grant Program, which specifically calls out as an eligible use the development, implementation, and installation of renewable energy technologies on government buildings.

1 For example, the City of Riverside received $73,535,189 in American Rescue Plan Act (ARPA) funding, which the City had already allocated to various uses at the time of this publication. Any remaining funding, however, could be considered for this purpose.

Table E.2. Federal Grants Most Applicable to WRCOG Energy Resiliency Plan

Administering Organization	Program/Grant Name	Eligible Receiving Entities	Description	Eligible Uses	Funding Range	Type of Funding
Federal Emergency Management Agency (FEMA)	Building Resilient Infrastructure and Communities (BRIC)*	State, Tribal Gov./Org., Local Government, For-Profit Entity, Public Agency/Authority, Other, Utilities, Cooperative Organization	The Building Resilient Infrastructure and Communities program makes federal funds available to states, U.S. territories, federally recognized Tribal governments, and local communities for hazard mitigation activities.	• Capability and capacity-building. (knowledge sharing, etc.) • Mitigation projects. (projects to increases resilience and public safety) • Management costs (indirect, direct, administrative expenses.)	State allocations - $56M. National competition for mitigation projects - $919M.	Competitive
United States Department of Energy (US DOE)	Program Updating our Electric Grid and Ensuring Reliability and Resiliency*	State, Tribal Gov./Org., Local Government, US Territory	To provide federal financial assistance to demonstrate innovative approaches to transmission, storage, and distribution, infrastructure to harden and enhance resilience and reliability.	• Innovative approaches for hardening efforts that enhance resilience and reliability. • Promotion of grid resilience by region.	$5B available in total with $1B appropriated annually for FY 2022-2026. Opens 3rd QTR, 2022.	Competitive, Cooperative Agreement, Other
Federal Emergency Management Agency (FEMA)	Hazard Mitigation Grant Program*	State, Tribal Gov./Org.	Hazard mitigation includes long-term efforts to reduce risk and the potential impact of future disasters. HMGP assists communities in rebuilding in a better, stronger, and safer way to become more resilient overall.	• Development and adoption of hazard mitigation plans (required to receive federal funding). • Structural resilience retrofits for buildings and utilities for resistance against hazards.	$3.46B available until expended.	Competitive. 75% federal and 25% local/state match requirement.
Energy Efficiency and Renewable Energy (EERE)	Energy Efficiency and Conservation Block Grant Program*	State, Tribal Gov./Org, Local Government, County	This program assists states, local governments, and Tribes to reduce energy use, reduce fossil fuel emissions, and improve energy efficiency.	• Energy distribution technologies; distributed resource, district heating and cooling systems. • On-site renewables; solar energy, wind energy, fuel cells.	$550M available until expended. Applications 4th QTR, 2022.	Mix of competitive and formula grants.
Department of Agriculture, Forest Service	Community Wildfire Defense Grant Program for At-Risk Communities*	State, Tribal Gov./Org., Local Government, Public Agency/ Authority, Non-Profit	Provides grants to communities at risk from wildfire to develop or revise their community wildfire protection plans and carry out projects described within those plans.	• Under development. • Eligible to plan and implement fuels reduction strategies and drought mitigation.	Not to exceed $250,000 for planning or $10M for implementation per grantee.	Mix of competitive and formula grants.
Federal Grant, disbursed through State	Building Codes Implementation for Efficiency and Resilience*	States and State Partnerships	Enable sustained, cost-effective implementation of updated building energy codes to save customers money on their energy bills.	• Meeting updated building energy codes in a cost-effective manner. • Address implementation needs in both urban and suburban areas. • See sources for all eligible uses.	$225M available until expended.	Competitive
US Department of Housing and Urban Development (HUD)	Community Development Block Grant (CDBG)	Metropolitan Statistical Areas (MSAs), Cities with a minimum population of 50,000, Urban counties with a minimum population of 200,000	To develop viable urban communities by providing decent housing and a suitable living environment, and by expanding economic opportunities, principally for low-and-moderate income persons.	• Flexible funding to meet multi-sector/issue planning needs that intersect with climate risks. • Planning and responding to cascading and compound impacts of climate change.	$8.7B allocated for FY 2022. Minimum request of $100,000 and has no ceiling limit.	Mix of competitive and formula grants. 70% of funds must be used to benefit low-and-moderate persons.

*These grants have been allocated additional funding through IIJA.

Utility and Tax Incentives

The state and federal government currently have programs in place to incentivize an equitable transition to clean energy. Incentive programs and rebates are funding sources open to all applicable projects until the program budget is expended. To reap the benefits of incentives and rebates, the costs of planning and implementation must first be covered to establish a functioning renewable energy system.

Note that the federal Inflation Reduction Act, which was passed in August 2022, extended the solar investment tax credit and advanced energy project credit, and created new tax credits and deductions to incentivize investments in energy efficient commercial buildings, clean vehicles, alternative fuels, and clean electricity production and storage. Guidance on the details of these new programs can be expected over the coming months and years.

Table E.3. Existing Utility and Tax Incentives Most Applicable to WRCOG Energy Resiliency Plan

Administering Organization	Program Name	Description	Eligible Uses
California Public Utilities Commission (CPUC)	Microgrid Incentive Program (MIP)	The Microgrid Incentive Program, with $200M budget, will fund clean energy microgrids to support the critical needs of a vulnerable communities impacted by grid outages and to test new technologies or regulatory approaches to inform future action.	• Increased electricity and resiliency in communities at risk of electrical outages. • Increased reliability for critical infrastructure such as fire stations, schools, nursing homes, etc. • Reduced impacts of power outages and minimized disruptions for low-income households.
Southern California Edison (SCE)	Self-Generation Incentive Program (SGIP)	The Self-Generation Incentive Program (SGIP) is a CA Public Utilities Commission (CPUC) program administered by California's Investor-Owned Utilities (IOUs) that offers rebates for installing energy storage technology at your facility. These storage technologies include battery storage systems that can function in the event of a power outage.	• Self-generated energy in a storage system (i.e., battery).
United States Dept. of Energy (US DOE)	Solar Investment Tax Credit	The solar Investment Tax Credit (ITC) is a federal tax credit for those who purchase solar energy systems for commercial scale properties. The credit is equal to a percentage of the cost of eligible equipment. Tax exempt entities may not collect the credit themselves, but the benefits may be useful in securing a PPA.	• Solar photovoltaic (PV) system that is placed in service during the tax year.

Financing Tools

Projects that generate their own revenue or cost savings create private investment opportunities. Public-private partnership (P3) agreements are cooperative agreements between one or more public and private sectors that can take different forms, such as private entity financing or management of a project in return for a promised stream of payments from a government agency. In the context of limited public funding opportunities, P3 agreements may provide capital that allows a project to be delivered faster since private operators may have more immediate access to capital and debt financing and fewer competing resource demands. Table E.4 summarizes some of the most common P3 opportunities to implement energy projects.

Table E.4. Public Private Partnership Opportunities

Strategy	Description
Power Purchase Agreement (PPA)	A Power Purchase Agreement (PPA), a type of P3, is a financial agreement in which a developer arranges for the design, permitting, financing, and installation of an energy system on a customer's property at little to no cost. The developer sells the power generated to the host customer at a fixed rate that is typically lower than the local utility's retail rate. The lower electricity price serves to offset the customer's purchase of electricity from the grid while the developer receives the income from the sales of electricity as well as any tax credits and other incentives generated from the system. These may take the form of corporate PPAs, which involve corporate or industrial buyers purchasing renewable energy directly or virtually from developers. PPAs typically last 10 to 25 years, and the developer is responsible for the operation and maintenance of the system for the duration of the agreement. The Morris Model of a PPA is when a public entity issues a government bond at a low interest rate and transfers low-cost capital to a developer in exchange for a lower PPA price.
Energy Savings Performance Contracting (ESPC)	Budget-neutral approach to building improvements that provide renewable energy, reduce energy, and increase operational efficiency. In ESPC, a facility owner partners with an energy service company (ESPC) that provides design and installation of the energy improvements, arranges the financing, and in some cases provides ongoing operations and maintenance services. Similar to a PPA, a facility owner can use an ESPC to pay for today's facility upgrades with tomorrow's energy savings without tapping into capital budgets. State and local governments can implement ESPC projects in their own facilities as well as promote and support ESPC projects through ESPC programs. Ideal candidates for ESPC projects include any large building or group of buildings such as city, county, and state buildings; schools; hospitals; commercial office buildings; and multi-family buildings.
Leasing Arrangements	Tax-exempt lease-purchase agreements provide state and local governments with the opportunity to finance upgrades and use energy savings to pay for financing costs. While leasing arrangements have higher rates compared to bond financing, they are often faster and more flexible revenue-generating mechanisms.
On-Bill Tariff Financing (SCE Program)	The On-Bill Financing Program provided by Southern California Edison (SCE) offers commercial and institutional customers with a monthly usage of 100 kW or less the opportunity to reduce operating expenses and finance retrofitting projects by covering the initial costs of installing the energy saving measures. Commercial property owners pay back these costs on their monthly utility bills interest free for up to 60 months. The program includes energy assessment and includes a specific list of measures to reduce the cost of refrigeration, cooling, and lighting.

Table G-5 summarizes current loan opportunities that are relevant to WRCOG's resiliency framework. Notably, the California Infrastructure and Economic Development Bank's Infrastructure State Revolving Fund (ISRF) can be used as a source of matching funds for grants or other financing needs. Table G-6 summarizes the types of bonds that may be suitable for funding WRCOG's climate actions.

Table E.5. Relevant Loan Programs Offered by the California Infrastructure and Economic Development Bank

Program	Description
CLEEN (Green Loan) Program	The CLEEN Program provides public financing to help meet state goals of greenhouse gas reduction, water conservation, and environmental preservation. This program consists of two subprograms: (1) the Statewide Energy Efficiency Program (SWEEP), which helps local governments and nonprofit organizations make small, medium, and large-scale energy-efficiency upgrades and projects, and (2) the Light Emitting Diode Street Lighting Program, which finances the installation of LED (Light Emitting Diode) streetlights for local governments.
Infrastructure State Revolving Fund (ISRF)	The Infrastructure State Revolving Fund (ISRF) Program (through IBank) is authorized to directly provide low-cost public financing to state and local government entities, including Municipalities, Universities, Schools and Hospitals (MUSH borrowers) and to nonprofit organizations sponsored by public agencies for a wide variety of public infrastructure and economic expansion projects. In the past, WRCOG member agencies have received state revolving fund loans for the development of bike path and pedestrian path lights and investments in drinking water sources.

Table E.6. Bonds Relevant to WRCOG Energy Resiliency Plan

Strategy	Description
Environmental Impact Bond (EIB)	An Environmental Impact Bond (EIB) is an innovative financing tool that uses a Pay for Success approach to provide up-front capital from private investors for environmental projects, either to pilot an innovative approach whose performance is viewed as uncertain or to scale up a solution that has been tested in a pilot program.
Revenue or General Obligation Bonds	Revenue Bonds are used to pay for projects such as major improvements to an airport, water system, garage or other large facilities which generate revenue that is then used to repay the debt. General obligation (GO) bonds are issued to pay for projects that may not have a revenue stream. Debt is repaid through an increase in the ad valorem property tax. In California, General Obligation bonds (and in some cases revenue bonds) are subject to voter approval.
Green or Climate Bonds	Green or climate bonds specifically finance climate change adaptation or mitigation projects. Eligible projects include those related to renewable energy and energy efficiency, sustainable waste management projects, sustainable land use and biodiversity conservation, clean transportation, and clean drinking water.
Utility Revenue Bonds	A utility revenue bond is a type of municipal bond issued to finance a public utility project that repays investors directly from project revenues. Utility revenue bonds are used to fund capital projects in areas considered essential to public services including hospitals, fire services, water and waste treatment facilities, and improvements to the electrical grid.

Local Revenue Sources

Another key strategy for funding and financing the region's climate actions is to develop fiscal policies that support and reinforce its climate goals. Climate change creates a long-term financial obligation, both in terms of mitigating, adapting, and responding to a climate crisis, and, as such, requires long-term fiscal planning. WRCOG's member agencies may consider developing a Climate Action Fund that allocates a portion of the local General Fund to specifically fund climate mitigation and adaptation efforts.

WRCOG member agencies may also identify climate action and adaptation as a priority criterion when determining how to allocate funding and prioritize programs and projects across all funds. For example, the City of Los Angeles' Financial Policies identifies "resilience and sustainability" as a primary criterion for allocating funding and prioritizing capital projects (City Administrative Officer of Los Angeles 2020). If WRCOG member agencies were to develop a similar criteria policy, it may have the effect of facilitating implementation of fund-specific, or department-specific, climate actions, such as prioritizing facility improvements that includes energy resiliency improvements.

In some cases, government agencies within California have implemented local climate and resource specific taxes to offset the cost of natural hazard mitigation. The City of Santa Clara renewed the Safe, Clean Water and Natural Flood Protection Program in November of 2020; a parcel tax of $.006 per square foot which protects drinking water supplies, dams from earthquakes and climate change, reduces pollutions, toxins, and contaminants in waterways, and provides flood protection. Marin County also passed the Marin Wildfire Prevention Measure in 2020; another parcel tax of 10 cents per building square foot which supports wildfire prevention including early detection and improving critical infrastructure. WRCOG member agencies may consider a similar program or measure to fund regionally specific resilience efforts, which could include funds set aside for resilience improvements for critical facilities.

Next Steps

The Energy Resiliency Plan details a regional transition to renewable energy in critical infrastructure, including the ability to quickly adapt to drought, extreme heat, and other climate changes. Implementation will be most effective and efficient if multiple actions are pursued in tandem, which may include using funding and financing sources to support multiple, or bundled, projects. Near-term next steps (within one to two years) for beginning implementation of priority actions may include:

- **Identify partnership opportunities to plan, fund, and implement climate actions.** WRCOG's efforts in this planning process representatives from member agencies across Western Riverside County, opening the opportunity to continue these partnerships as agencies begin to pursue funding. Partnerships between public agencies can also increase the competitive edge of grant applications. Other civic institutions, notably UC Riverside, may also offer partnership opportunities.
- **Determine which strategies will require environmental review, technical analysis, and/or complex partnerships and permitting.** Some of the priority actions will have longer implementation timelines due to environmental review requirements or financing coordination (e.g., new sales tax, bond issuance). To meet its electrification goals in a timely manner, WRCOG member agencies will need to start the first phase of work on these longer-term projects.
- **Track new federal funding opportunities as guidance is released.** The IIJA and Inflation Reduction Act present enormous opportunities. While the available details on known programs are summarized in this chapter, the federal government is regularly releasing new program announcements related to funding eligibility and availability.
- **Being preparing application materials for the state grants that have been allocated additional funding in the Governor's 2022-2023 budget.** Some funding for these grants may already be or will soon be available and will have short application deadlines. An early start on application materials will give WRCOG member agencies more time to match actions to grant opportunities, define strong proposal narratives, and identify potential partnerships.

Appendix F.
Resilient Design Resources and Guidelines (References)

1. Anderson, K. (2017). Increasing Resiliency Through Renewable Energy Microgrids. *Journal of Energy Management, 2(2),23-38.* https://www.nrel.gov/docs/fy17osti/69034.pdf

2. Better Buildings. (2022). *Distributed Generation (DG) for Resilience Planning Guide.* U.S. Department of Energy. https://dg.resilienceguide.ornl.gov//

3. California Energy Commission. (2018). *Microgrid Analysis and Case Studies Report*. California Energy Commission. https://www.districtenergy.org/viewdocument/microgrids-analysis-and-case-studie

4. California Governor's Office of Emergency Services. (2020). *California Adaptation Planning Guide*. Resilient California. https://www.caloes.ca.gov/wp-content/uploads/Hazard-Mitigation/Documents/CA-Adaptation-Planning-Guide-FINAL-June-2020-Accessible.pdf#search=adaptation%20planning%20guide

5. California Natural Resources Agency. (2018). *Paying it Forward: The Path Toward Climate-Safe Infrastructure in California.* State of California. https://files.resources.ca.gov/climate/climate-safe-infrastructure-working-group/

6. City of Los Angeles. (Undated). *Resilience by Design: Los Angeles Earthquake Plan.* Mayor's Office of Resilience. https://www.eeri.org/images/archived/wp-content/uploads/Garcetti-Los-Angeles-Earthquake-Plan.pdf

7. City of Los Angeles. (2018). *Resilient Los Angeles*. Mayor's Office of Resilience. https://resilientcitiesnetwork.org/downloadable_resources/Network/Los-Angeles-Resilience-Strategy-English.pdf

8. City of Phoenix. (2021). *Climate Action Plan.* City of Phoenix. https://www.phoenix.gov/oepsite/Documents/2021ClimateActionPlanEnglish.pdf

9. Elsworth, J. & Van Geet, O. (2020). *Solar Photovoltaics in Severe Weather: Cost Considerations for Storm Hardening PV Systems for Resilience*. National Renewable Energy Laboratory. https://betterbuildingssolutioncenter.energy.gov/sites/default/files/75804.pdf

10. New York City Mayor's Office of Resiliency. (2020). Climate Resiliency Design Guidelines (Version 4.0). City of New York. https://www1.nyc.gov/assets/orr/pdf/NYC_Climate_Resiliency_Design_Guidelines_v4-0.pdf

11. Moslehi, S. (2018). Sustainability of integrated energy systems: A performance-based resilience assessment methodology. *Applied Energy, 228* (15),487-498. https://doi.org/10.1016/j.apenergy.2018.06.075

12. NIST. (2016). *Community Resilience Planning Guide for Buildings and Infrastructure Systems, Volume 1.* U.S. Department of Commerce. https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.1190v1.pdf

13. NREL. (2017). *Microgrid-Ready Solar PV – Planning for Resiliency.* National Renewable Energy Laboratory. https://www.nrel.gov/docs/fy18osti/70122.pdf

14. NREL. (2018). *Valuing the Resilience Provided by Solar and Battery Energy Storage Systems.* National Renewable Energy Laboratory. https://www.nrel.gov/docs/fy18osti/70679.pdf

15. Placeworks, Atlas Planning Solutions & ICF. (2020). *Resilient IE Toolkit*. Western Riverside Council of Governments. https://wrcog.us/DocumentCenter/View/8019/Resilient-IE-Toolkit

16. Resilient by Design. (2017). *Resilient by Design Bay Area Challenge*. The Rockefeller Foundation. http://www.resilientbayarea.org/book

17. Laouadi, A. et. al. (2022). *Climate Resilience Buildings: Guideline for management of overheating risk in residential buildings.* National Research Council Canada Construction research Centre. https://nrc-publications.canada.ca/eng/view/ft/?id=9c60dc19-ca18-4f4c-871f-2633f002b95c&dp=2&dsl=en

18. Lawrence, A. (2021). *The gathering storm: Climate change and data center resiliency.* Uptime Institute. https://uptimeinstitute.com/the-gathering-storm-climate-change-and-data-center-resiliency

19. SOM. (2021). *Designing Communities for Wildfire Resilience.* SOM. https://www.som.com/wp-content/uploads/2021/09/Designing-Communities-for-Wildfire-Resilience_reduced_FINAL-1632896152.pdf

20. Serdar, M.Z. & Al-Ghamdi, S.G. (2021). Preparing for the Unpredicted: A Resiliency Approach in Energy System Assessment. *Green Energy and Technology.* DOI: 10.1007/978-3-030-67529-5_9

21. Urban Land Institute. (2022). *Enhancing Resilience through Neighborhood-Scale Strategies.* Urban Land Institute. https://knowledge.uli.org/en/reports/research-reports/2022/enhancing-resilience-through-neighborhood-scale-strategies?_gl=1*1p1h7b6*_ga*OTE5MDc0OTgyLjE2NjgxMjkxODM.*_ga_HB94BQ21DS*MTY2ODE5MDU2NS4yLjEuMTY2ODE5MTI1My4wLjAuMA.

22. Urban Land Institute. (2022). *Resilient Retrofits: Climate Upgrades for Existing Buildings.* Urban Land Institute. https://knowledge.uli.org/en/reports/research-reports/2022/resilient-retrofits

23. Zhivov, A., et. al. (2021). Defining, Measuring and Assigning Resilience Requirements to Electric and Thermal Energy Systems. *IEA-EBC, preprint, VC-21-004.* https://annex73.iea-ebc.org/Data/Sites/4/media/papers/VC-21-004_Preprint.pdf

24. Zhivov, A., et. al. (2022). *Energy Master Planning toward Net Zero Energy Resilient Public Communities Guide*. Springer Cham. https://link.springer.com/content/pdf/bfm:978-3-030-95833-6/1

Useful Websites & Organizations:

- AIA (The American Institute of Architects) Community Resilience Design Resources
- Better Buildings U.S. Department of Energy
- Building Forward LA
- California Association of Councils of Governments Planning for Resiliency
- HUD (US Department of Housing and Urban Development) Community Resilience Planning Resources
- Microgrid Resources Coalition
- National Renewable Energy Laboratory (NREL) – Resilient Energy Systems
- Resilient California
- Resilient Cities Catalyst
- Resilient Cities Network (formerly 100 Resilient Cities)
- Southern California Association of Governments (SCAG)
- Southern California Resilience Initiative (SCRI)
- Uptime Institute
- U.S. Green Building Council (USGBC)
- Urban Land Institute (ULI) Urban Resilience Program
- Whole Building Design Guide

Attachment

Water Systems Energy Resilience Study for WRCOG

Water System Resiliency Study for Western Riverside Council of Governments (WRCOG)

November 9, 2022

PREPARED BY:
Primary Author(s):
Sadrul Ula, Ph.D.
Henry Gomez

College of Engineering
Center for Environmental Research and Technology | University of California, Riverside
1084 Columbia Avenue
Riverside, CA 92507
(951) 781-5791
http://www.cert.ucr.edu

TABLE OF CONTENTS

Page

LIST OF FIGURES

LIST OF TABLES

EXECUTIVE SUMMARY

Introduction

Water and wastewater systems are critical and essential services requiring resiliency and reliable operation during and after any natural disaster. Water systems in California have been developed to satisfy various communities' needs over the last 100 years. Today the water systems use as much as 19 percent of the state's electricity consumption for pumping, treating, collecting, discharging, wastewater, and customer end uses. The other mode of water pumping is by natural gas driven engines. Water Pumps are the dominant energy users in California and reduction of related energy use is a concern for both power companies and water districts. Incentivizing water districts to lower their consumption by lowering their electric bills not only helps the district's bottom line and helps reduce Green House Gases (GHG) but also helps in optimal pumping operation and helps the system operators prepare options for resilient operation during grid failures.

Project Purpose

The project objective is to evaluate resiliency measures for WRCOG member agencies.

To achieve these goals, University of California Riverside, CE-CERT personnel will satisfy the following objectives:

1. CECERT will work with WRCOG's staff, consultants, and member agencies to develop the Western Riverside County Energy Resiliency Plan;
2. Work with WRCOG's staff and the Project Team to educate and involve key member agency staff, officials, and to some degree community stakeholders in participating communities;
3. Leverage prior experience gained through energy projects including the Chemehuevi Tribe Microgrid and multiple water utility agencies;
4. Provide input and guidance in technical discussions;
5. Participate in workshops and meetings as needed; and,
6. CECERT will conduct feasibility analysis of targeted WMWD water facilities to improve resiliency and operations during critical power outage events. The analysis will focus on maintaining water delivery during unplanned power interruptions by using alternative energy sources including electric, natural gas, backup generators, solar PV, and battery energy system.
7. The two specific WMWD sites to be reviewed Bergamont Pump Station (PS) and Holcomb Pump Station (PS)

Project Approach

UC Riverside (UCR), College of Engineering-Center for Environmental Research and Technology (CE-CERT) researchers have been working on various aspects of electrical energy efficiency for over 10 years. As parameters related to each pumping station are different from each other, any generalized resiliency solution will be addressed appropriately for each site. Each mitigation strategy at Western Municipal Water District's two sites is assessed based on its potential to reduce the risks to the site, its difficulty to implement, and its cost. The overall project design will help design a plan that will implement solutions and measure the results of the mitigation action plan while satisfying water quality and user needs.

CHAPTER 1: Introduction

1.1 General Site Information

This project is to study energy resilience issues for two critical water pumping sites of Western Municipal Water District (WMWD) located in Riverside Public Utility's (RPU) service territory. The overall scope of this project is to evaluate site configurations and recommend a resilient water pumping solution after any major natural disaster which will help towards sustainable energy use at two of the larger sites at WMWD. The sites evaluated are Holcomb Pump Station and Bergamont Pump Station.

Two common themes in energy billing that occur are energy consumption and demand, and associated costs for each. Energy consumption and its costs are the more well-known of the two, and are defined as the amount of energy used by the customer, usually measured in kilowatt-hours (kWh), and is typically proportional to the amount of water pumped by that pumping station. This is calculated by summing up all the consumption for all the 15-minute intervals. The way energy is charged can either be time discriminate or indiscriminate. In residential and older industrial rates, only the total amount of energy is charged regardless of when the power is used. In modern industrial rates, Time-Of-Use (TOU) rates are charged, which charge different rates depending on the time of day the power is used. Energy costs are no longer one single flat rate, but a summation of charges pertaining to the time of day. Utilities tend to have four types of sub-charges: on-peak, mid-peak, off-peak, and super off-peak. These charges have two distinct seasons: summer (June – September) and winter (October – May).

Demand costs are not typically addressed outside of a few experts in the energy efficiency field. Most energy-efficiency/savings costs measures in the past did not consider this parameter in the savings model. The demand cost can be summarized as the maximum amount of power (kW) being used during any 15-minute interval. This is very critical for reducing the use and related costs in billing since even just one 15-minute kW use period in the entire month can significantly increase the total bill. For example, a water station uses an average of 500 kilowatts for the whole of the month, but for 15 minutes four pumps were used in unison to fill up the water tanks quickly since there were identical set points for all the pumps. The maximum demand doubled to 1000 kilowatts during this period; therefore, the demand and associated costs also doubled. Understanding the pattern of demand over time and finding ways of reducing it is critical in helping to find a sustainable and resilient solution. For example, instead of allowing all the pumps to run for filling a storage tank quickly, a solution can include running a reduced number of pumps to do the same work taking a longer time. This strategy reduces the demand on alternative energy sources during natural disasters. Many water districts are spending large capital investments on pumps and motors to satisfy the maximum demand which may occur only a handful of times in a year whereas the average water-need may be satisfied with fewer number of pumps. Identifying the number of pumps to

satisfy required water-need requires analyzing 15-minute interval energy data for the whole year. The results of this analysis provide a base line for resiliency and reliability calculations.

Paying attention to TOU rates also offers opportunities of shifting energy consumption from high demand and cost periods to low demand and cost periods without violating water quality and supply needs.

This study's results present the greatest potential opportunities by optimizing both demand and energy consumption in two of the largest water pumping stations of WMWD.

1.1.1 Rate Schedules

Since the sites UCR is evaluating are within RPU territory, UCR gathered information such as Time of Use and Rates for each site. Table 1.1 shows the TOU rates for each of the two sites being evaluated.

		Per Meter, Per Month Effective January 1,				
		2019	2020	2021	2022	2023
Customer Charge	Flat Charge	$691.87	$679.08	$672.68	$666.28	$659.88
Reliability Charge	Flat Charge based on Maximum Demand					
Tier 1	< or = 100 kW	$912.50	$725.00	$537.50	$350.00	$350.00
Tier 2	> 100 - 150 kW	$1,012.50	$925.00	$837.50	$750.00	$750.00
Tier 3	> 150 - 250 kW	$1,050.00	$1,000.00	$1,050.00	$900.00	$900.00
Tier 4	> 250 - 500 kW	$1,100.00	$1,100.00	$1,100.00	$1,100.00	$1,100.00
Tier 5	> 500 - 750 kW	$1,287.50	$1,475.00	$1,662.50	$1,850.00	$1,850.00
Tier 6	> 750 kW	$1,487.50	$1,875.00	$2,262.50	$2,650.00	$2,650.00
		Per kW Effective January 1,				
		2019	2020	2021	2022	2023
Demand Charge						
On-Peak	Billing demand, per kW	$6.97	$7.06	$7.16	$7.27	$7.38
Mid-Peak	Billing demand, per kW	$2.93	$3.13	$3.34	$3.64	$3.69
Off-Peak	Billing demand, per kW	$1.42	$1.53	$1.65	$1.82	$1.85
Network Access Charge	Max Billing demand, per kW	$0.69	$1.24	$1.79	$2.34	$2.89
High Voltage Network Access Charge	Max Billing demand, per kW	$0.00	$0.06	$0.61	$1.16	$1.71
		Per kWh Effective January 1,				
		2019	2020	2021	2022	2023
Energy Charge						
On-Peak	All on-peak kWh	$0.1049	$0.1079	$0.1104	$0.1124	$0.1154
Mid-Peak	All mid-peak kWh	$0.0845	$0.0874	$0.0898	$0.0922	$0.0946
Off-Peak	All off-peak kWh	$0.0734	$0.0755	$0.0773	$0.0787	$0.0808

Table 1.1: Winter and Summer RPU Rate Schedules for the two Project Sites

In residential and older industrial rates, only the total amount of energy is charged regardless of when the power is used. In modern industrial rates, TOU rates are charged. Energy costs are no longer one single flat rate, but a summation of charges pertaining to the times of day the power is used. Companies tend to have four types of sub-charges: on-peak, mid-peak, off-peak, and super off-peak. These peak times and their rates are established by the utility company. These charges have two distinct seasons: Summer (June – September) and Winter (September –

June) as shown in Figure 1.1. The summer season strains the energy resources of a utility company severely, due to the use of high kW demand equipment such as Heating, Ventilation, and Air Conditioning (HVAC) during the peak hours. The high peak hours are generally towards the end of the day when solar generation is the lowest. Users are charged extra during high demand hours to discourage use during that time. During the winter (all the season except summer) period RPU's on-peak charges shift towards evening hours as listed below.

Daily Time Periods are Defined as Follows:

On-Peak:	12:00 p.m. to 6:00 p.m. summer weekdays except holidays 5:00 p.m. to 9:00 p.m. winter weekdays except holidays
Mid-Peak:	8:00 a.m. to 12:00 p.m. and 6:00 p.m. to 11:00 p.m. summer weekdays except holidays 8:00 a.m. to 5:00 p.m. winter weekdays except holidays
Off-Peak	All other hours Off-peak holidays are: New Year's Day, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas.

Summer shall commence at 12:00 a.m. on June 1 and continue through September 30 of each year. Winter shall commence at 12:00 a.m. on October 1 of each year and continue through May 31 of the following year.

Figure 1.1: RPU TOU for Two Project Sites at WMWD

A common misconception is that a billing month is just a regular calendar month when looking at the billing data. A billing month is not the same as a calendar month. A billing month starts when the date from the billing meter is read and ends when the next reading is done as shown in Table 1.2. Both WMWD sites UCR is working with have similar billing dates, which may not be true for other sites.

1.2 Pump Stations Billing Cycles

Bergamont Water District	Alessandro (Holcomb) Water District
November 25, 2019 to December 24, 2019	November 25, 2019 to December 24, 2019
December 24, 2019 to January 24, 2020	December 24, 2019 to January 24, 2020
January 24, 2020 to February 25, 2020	January 24, 2020 to February 25, 2020
February 25, 2020 to March 25, 2020	February 25, 2020 to March 25, 2020
March 25, 2020 to April 24, 2020	March 25, 2020 to April 24, 2020
April 24, 2020 to May 26, 2020	April 24, 2020 to May 26, 2020
May 26, 2020 to June 23, 2020	May 26, 2020 to June 23, 2020
June 23, 2020 to July 24, 2020	June 23, 2020 to July 24, 2020
July 24, 2020 to August 25, 2020	July 24, 2020 to August 25, 2020
August 25, 2020 to September 24, 2020	August 25, 2020 to September 24, 2020
September 24, 2020 to October 26, 2020	September 24, 2020 to October 26, 2020
October 26, 2020 to November 23, 2020	October 26, 2020 to November 23, 2020
November 23, 2020 to December 23, 2020	November 23, 2020 to December 23, 2020
December 23, 2020 to January 21, 2021	December 23, 2020 to January 21, 2021
January 21, 2021 to February 22, 2021	January 21, 2021 to February 22, 2021
February 22, 2021 to March 24, 2021	February 22, 2021 to March 24, 2021
March 24, 2021 to April 23, 2021	March 24, 2021 to April 23, 2021
April 23, 2021 to May 25, 2021	April 23, 2021 to May 25, 2021

Table 1.2: Billing Cycle for Two Sites

CHAPTER 2:
Holcomb Pump Station

2.1 General Site Information

Holcomb Pump Station (PS) has a total of 8 pumps, three of them are electric and five are gas driven pumps. At the site both input and output storages are very large and reservoir heights are around 45 ft high. Below are the specs of both output tanks that Holcomb PS delivers water to, as well as the current reservoir set points as seen in Figure 2.1.

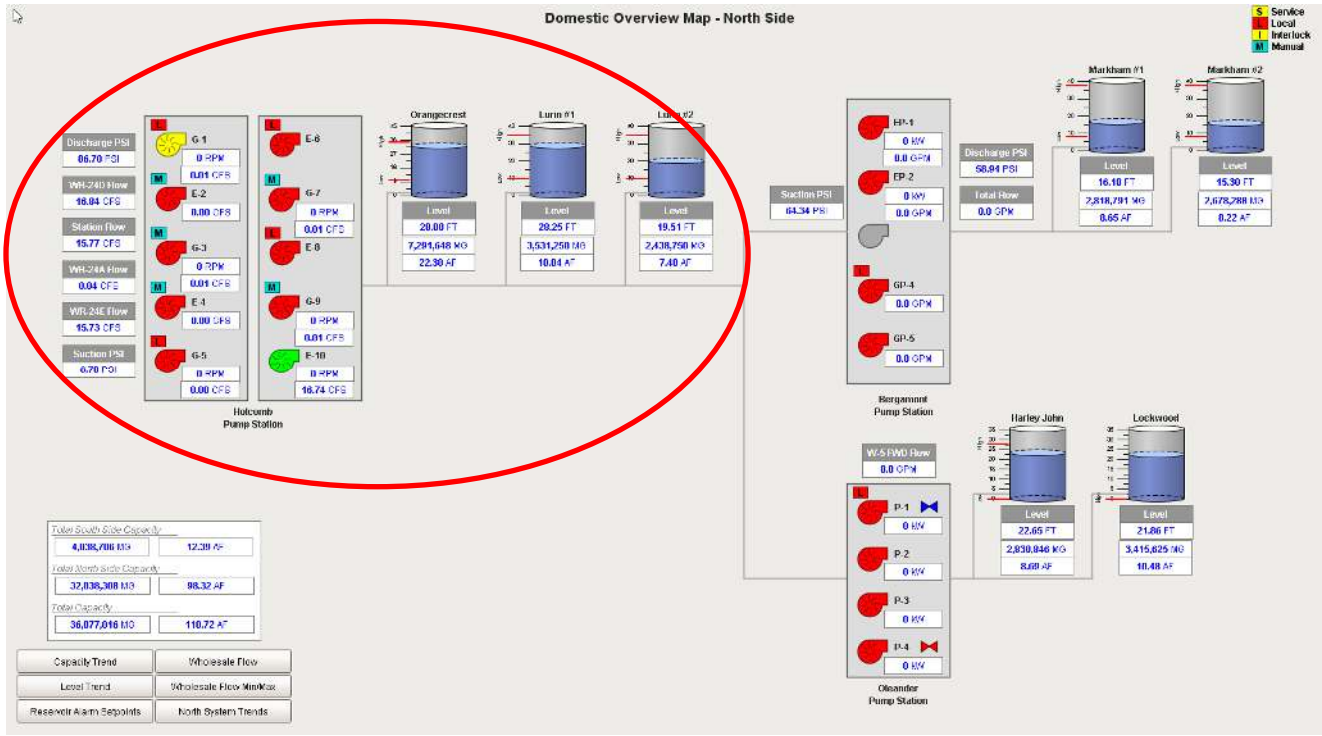


Figure 2.1: Holcomb Pump Station SCADA Overview

2.2 Baseline Data and Analysis

2.2.1 Total kW Cost versus Demand

When determining a possible demand reduction approach, all the monthly bills must be studied to determine the peak demand and associated costs. Typically, the total bill is largely influenced by the demand charges which are based on the peak kW values and the energy charges which are based on the amount of energy usage (kWh) all within a billing month period. Therefore, the major charges are broken into two categories: peak demand (kW) and energy usage (kWh) charges. In some cases, the peak demand may have the largest influence on the total bill amount since the rate for this charge is much higher than the energy charges. The way the peak demand works is best described using an example. If a site were operating at 300 kW for the entire month and then suddenly had a peak of 550 kW within that billing month, the

billing company will take the peak value of 550 kW and multiply it by the rate to give the demand charge despite the site running below 300 kW for a majority of that month. A possible demand reduction for this site would be to reduce any kW peaks and try to keep running without creating sharp spikes. By looking at the most recent 12-month billing period, various trends for different months can be observed and then used for formulating a possible demand reduction strategy for the future. For example, if the peak demand and cost are higher than usual in a particular month, this opens the door for a possible demand reduction and cost savings opportunities. This will require an in-depth analysis by zooming into energy use data for this month for further studies.

In Figure 2.2 monthly kW demand charges are shown along with associated costs from November 2019 to April 2021. It shows that the maximum demand reached above 1,100 kW eight times over this 18 months period, while it was lower during the other months.

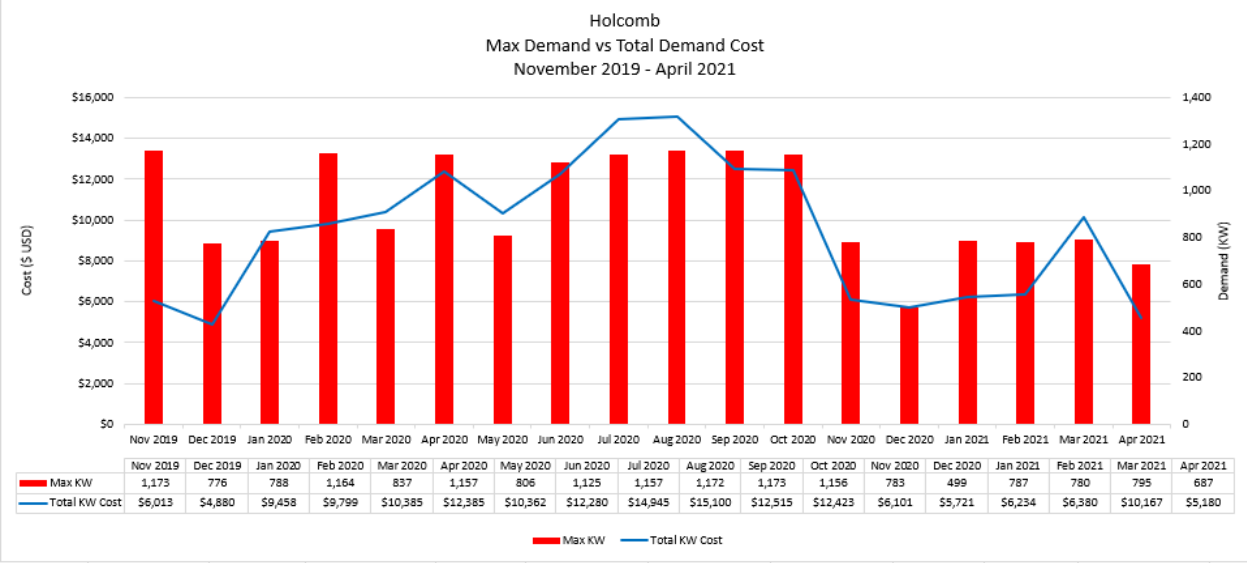


Figure 2.2: Holcomb Pump Station Total Bill Amount versus Max Demand and Demand Cost

2.2.2 Electricity Cost Amount versus Total Electricity Usage

Similar to the method of looking at the demand charges, the total energy usage is the other item to be looked into for a base line for this site. While the kW demand is related to the actual rate of delivery of the electricity from the grid, the generation charge deals with the actual kWh generation of the electricity. Both of these have charges at different rates for different times of the day. A user has the choice of when they want to use the electricity which will result in creating different demand and energy charges consumption and related charges since the time of day is one of the main factors in the cost. Thus, by studying the previous billing history and the frequency of energy usage in a month, potential for both demand reduction and shifting of energy use can be identified.

Figure 2.3 shows the monthly energy usage (kWh) as well as the total charge for electricity over the period from November 2019 to April 2021.

Figure 2.4 shows total monthly kWh energy use and kW demand along with total electricity cost during the period November 2019 to April 2021.

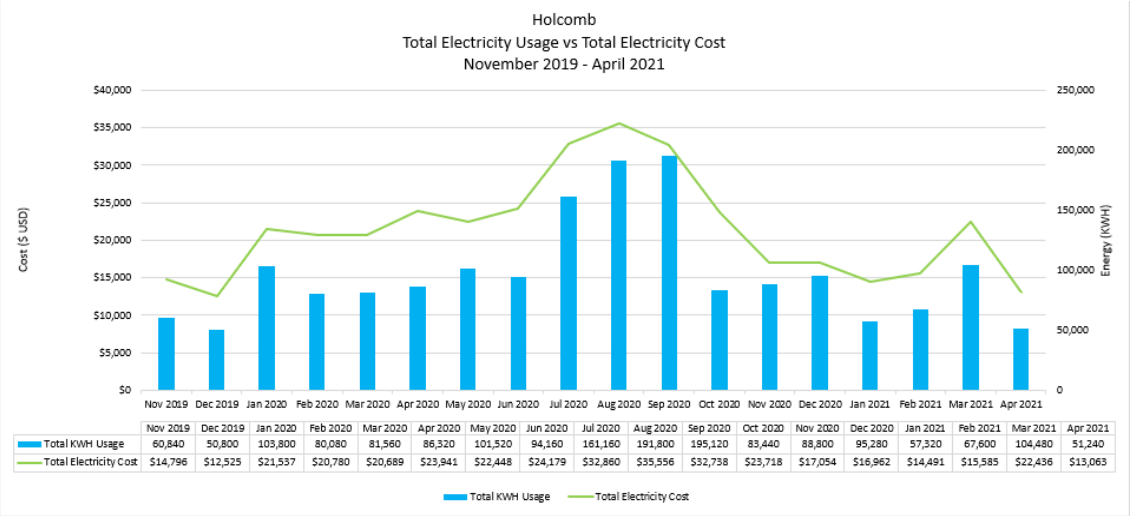


Figure 2.3: Holcomb Pump Station Total Electricity Usage versus Total Electricity Cost

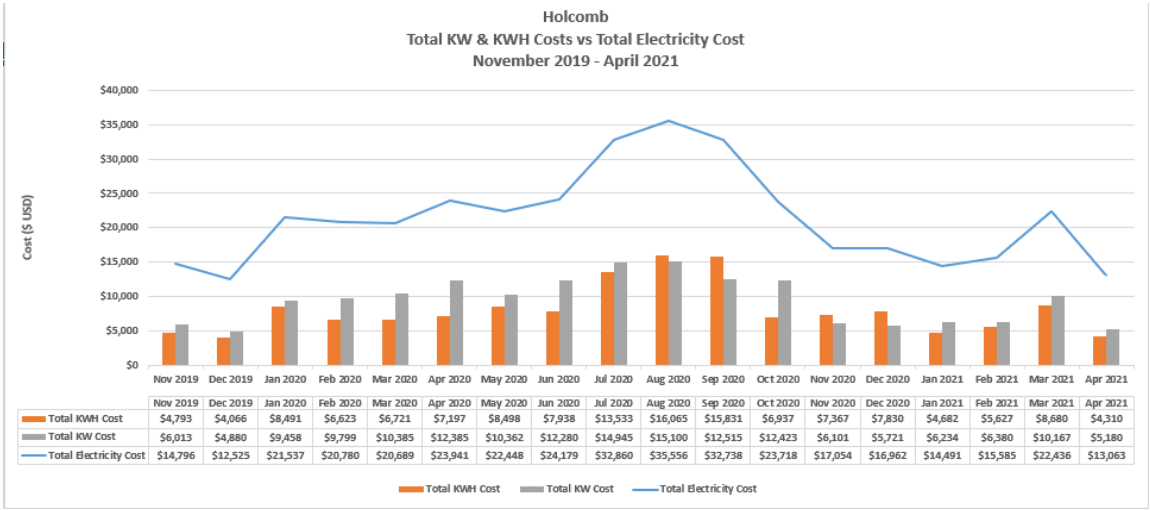


Figure 2.4: Holcomb PS kW, kWh, and Total Electricity Cost

2.2.3 RPU 15-Minute Interval Data

The data analysis and validation of WMWD required a compilation and comparison of RPU 15-minute interval data and RPU billing data. Analysis of 15-minute interval data is necessary to get a better understanding on when the highest peaks or demands happens each month. Figure 2.5 shows kW demand usage from July 2020 to April 2021. By looking at an entire year we are able to see what months have the highest kW demand. Based on this observation we can begin to zero in to specific months or days if necessary to see when the site used the most electricity. Once zoomed in we are able to see for how long, and how many times a peak happened in a given time frame. When looking at 15-minute interval data this is usually done in a three-step process. The first step is to plot the interval data for the full year and identify the top three highest peaks. Second step is to zoom into the highest peak for that month and get a better

clarity of how and why operations were done this way. After understanding that we discuss with operators and finalize recommendations that will achieve the same amount of total water production over a longer duration of pumping time. For example, figure 2.5 shows that a number of high demand peaks of about 750 kW occurred between July and October 2020 caused by two large pumps running. These peaks were of shorter durations only followed by many other peaks of about 375 kW at other times where only one large pump was running. It is possible to pump same amounts of water by running one pump for double the amount of time and avoid running two pumps at the same time, thereby, reducing electrical demand by 50%.

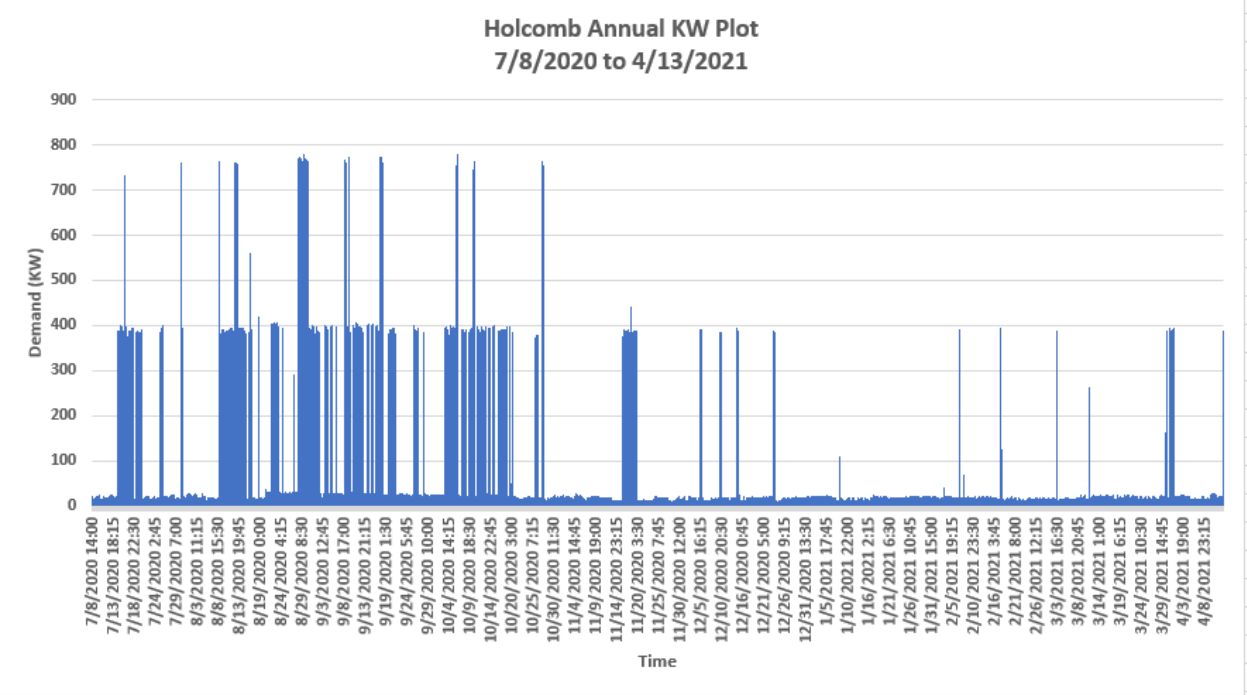


Figure 2.5: Holcomb PS 15-Minute Interval kW Demand Data for One Year

2.2.4 kWh Energy Cost Breakdown of Electric Bills

The following pie charts shown in this section are representations of the breakdown of the electricity bill of the Holcomb PS for the month September 2020.

In September 2020 kWh charges make up the single largest portion of the cost. The kWh energy costs together (on-peak + mid-peak + off-peak) are almost 50 percent of the total bill for the pie chart on the left as shown in Figure 2.8. If we look at demand, pie chart in the center on-peak demand is the smallest at 796kW but the on-peak cost is the highest at 45%. It is recommended to reduce electricity usage during on-peak hours and substitute with operation during mid-peak or off-peak hours.

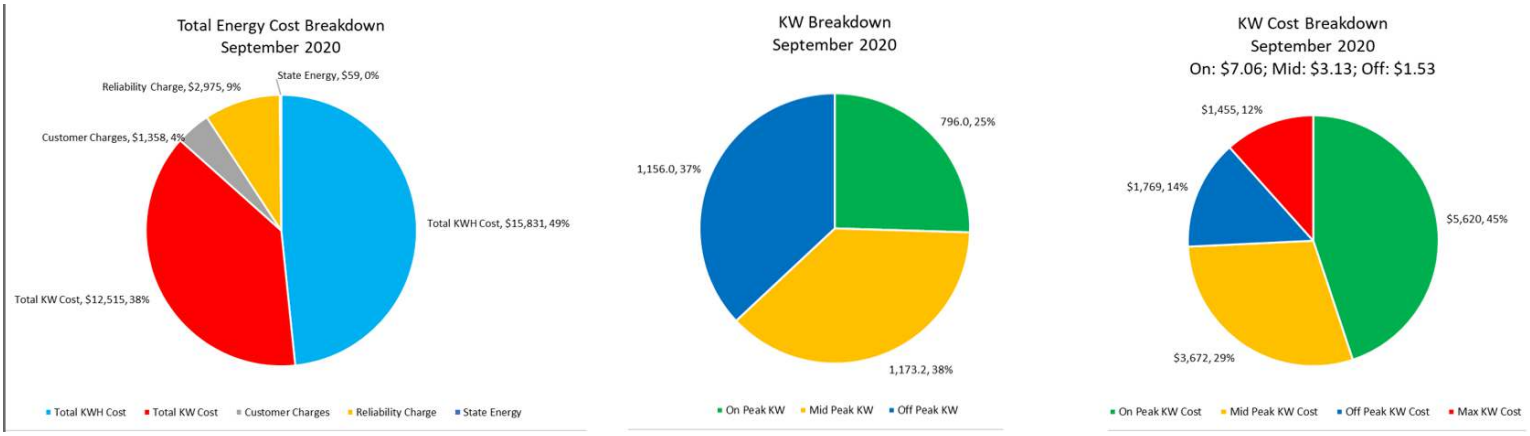


Figure 2.8: Holcomb Pump Station Cost Breakdown for September 2020

2.3 Gas Cost Breakdown

Figure 2.9 below shows the cost of Gas from December 2019 to December 2021. Since this pumping station also uses gas pumps to distribute water we analyze gas bills the same way we do electric bills. This not only offers diversity in energy sources for this site, but as the cost of natural gas is usually much lower, we encourage the use of gas pumps before electric pumps in order to reduce overall kW demand associated charges as well as total savings of combined gas plus electric charges.

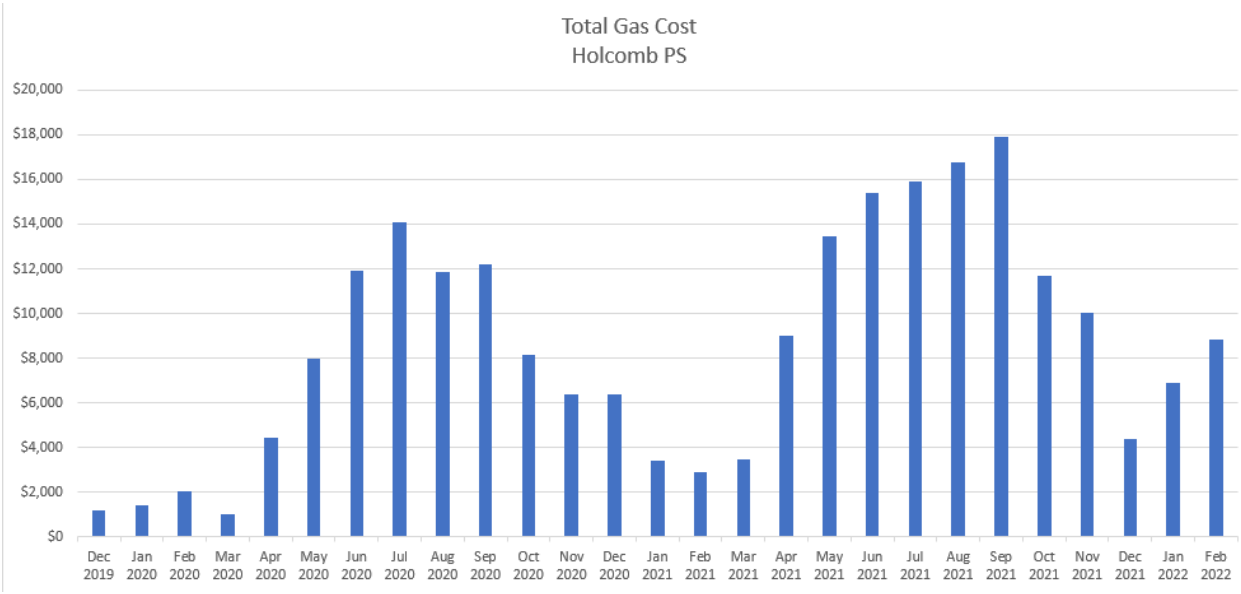


Figure 2.9: Holcomb PS Total Gas Cost Breakdown

Figures 2.10 shown below show the total gas cost breakdown for the months of July 2020 and December 2020, respectively. As seen in both months, Shell Gas commodity price is the highest cost followed by transmission charge, taking up 87% and 85% of gas costs, respectively. State and customer charges follow up with the middle and smallest percentages, respectively in both month breakdowns.

Figure 2.10: Holcomb PS Total Gas Cost Breakdown for July 2020 and December 2020

CHAPTER 3:
Bergamont Pump Station

3.1 General

Bergamont Pump Station (PS) has a total of 5 pumps, three of them are electric and two are gas-driven pumps. At the site, both input and output storage tanks are very large and reservoir heights are around 45 ft high. Below are the specs of both input tanks that Bergamont PS receives water from, as well as the current reservoir set points as seen in Figure 3.1.

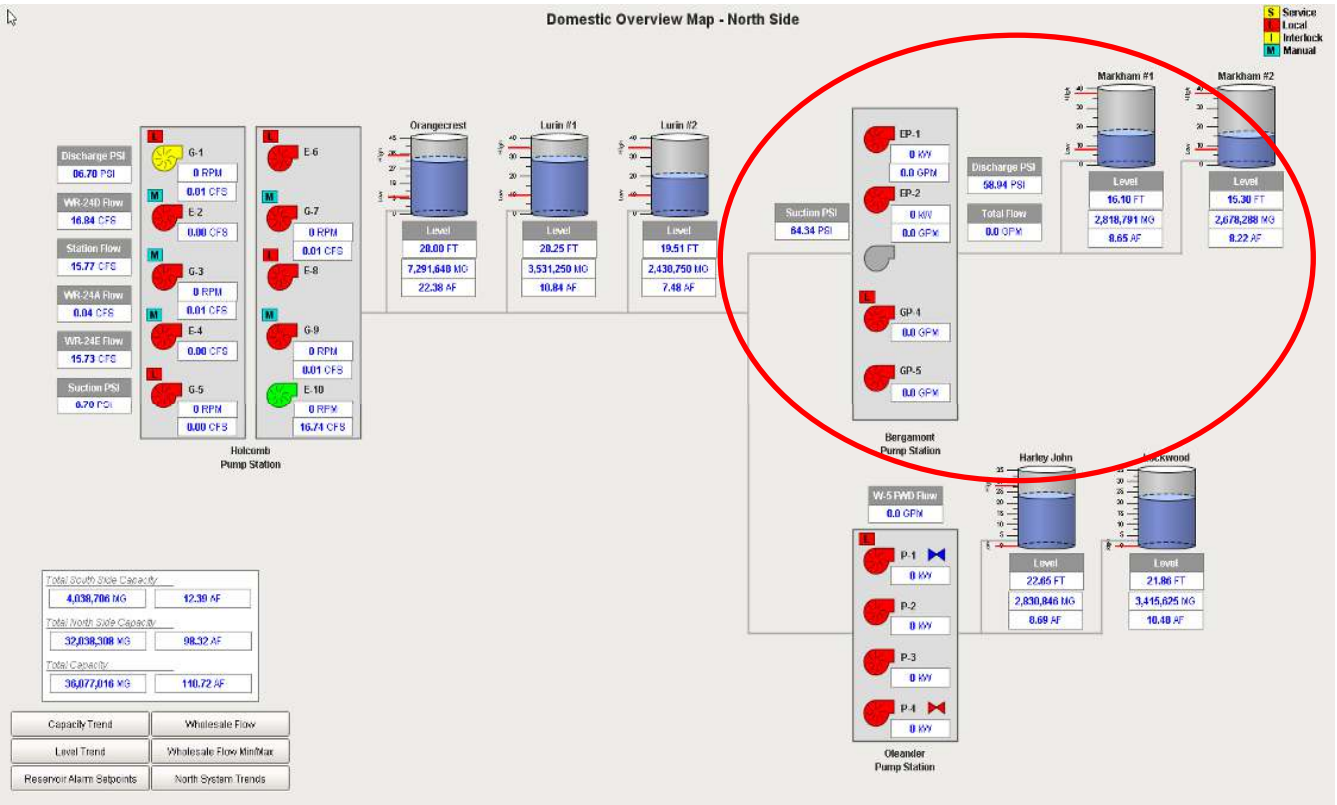


Figure 3.1: Bergamont Pump Station SCADA Overview

3.2 Baseline Data and Analysis

3.2.1 Total Bill Amount versus Demand

In Figure 3.2, the demand charges make up a large portion of the total bill amount throughout the year more specifically in the summer months. By analyzing each month's costs, potential demand and associated reductions may be recommended.

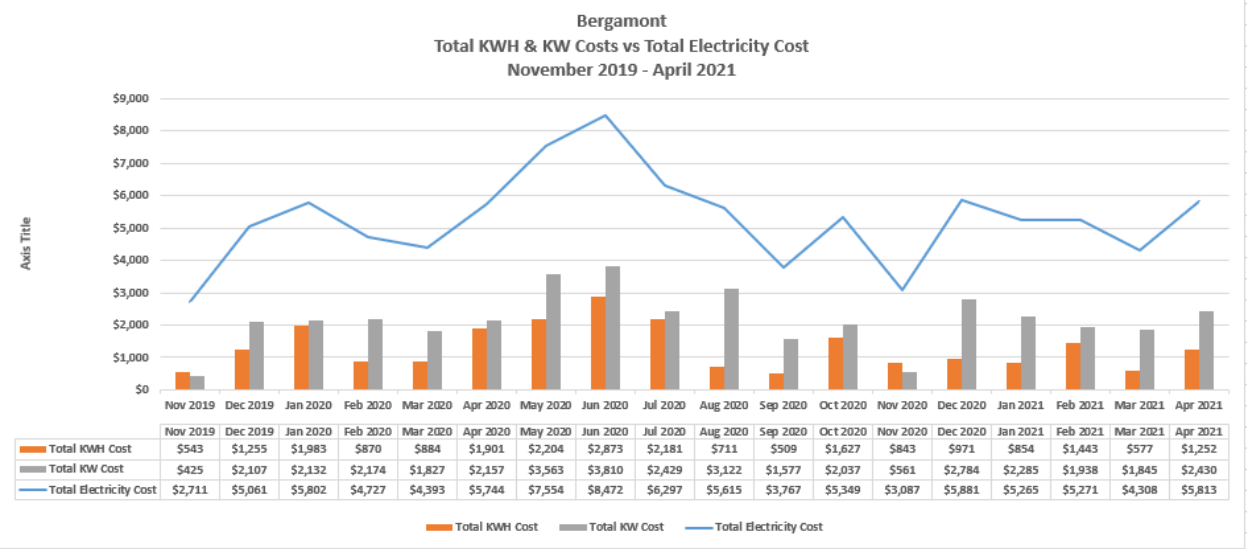


Figure 3.2: Bergamont PS Total Bill Amount versus kW and kWh Cost

3.2.2 Electricity Usage versus Electricity Cost

Figure 3.3 was derived by extracting the total bill amount and total energy usage data from the monthly RPU electric bills. The data was plotted to formulate a recommended method for reducing overall electricity demand and associated costs.

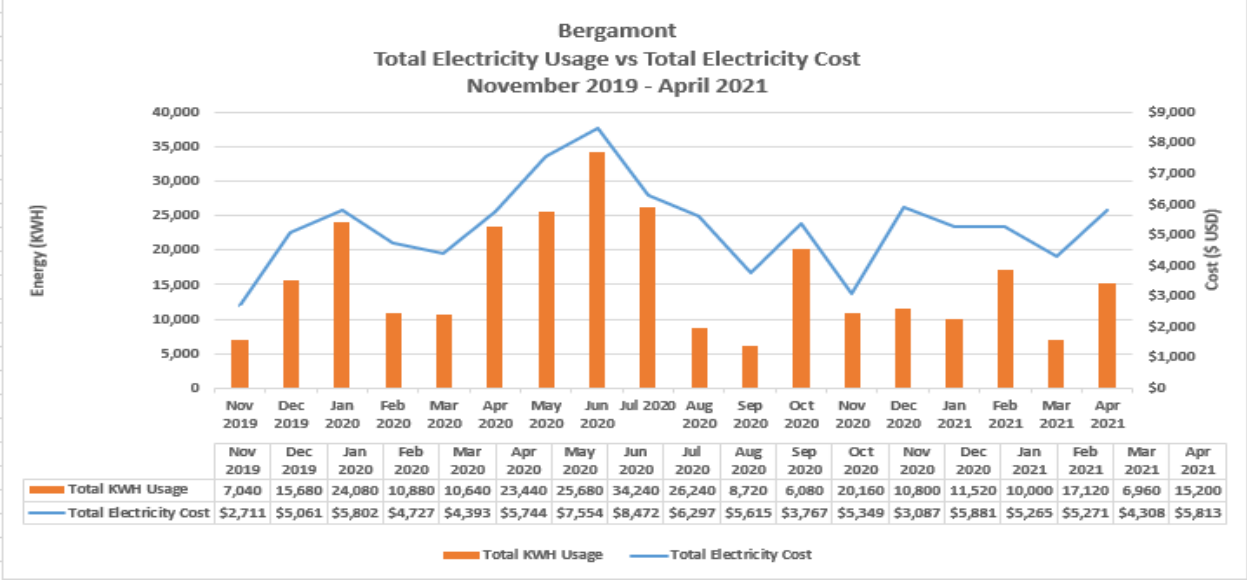


Figure 3.3: Bergamont Total Cost versus Total Energy Usage

3.2.4 RPU 15-Minute Interval Data

Figure 3.4 shows 15-minute kW demand usage for an entire year for the Bergamont PS. Plotting the entire duration gives everyone an overview of any unusual or unique kW usage throughout the year as well as seasonal variation. After the entire duration is plotted then we can zoom

into any particular month either summer and/or winter to get a better idea on pump activity for that day and its duration. Based on this analysis we are able to determine if we can make any changes to pumping strategy to eliminate high peak demand. Figure 3.4 shows that only a handful of times the peak demand exceeded 175 kW and these may be eliminated by running smaller number of pumps for longer durations and satisfy water needs.

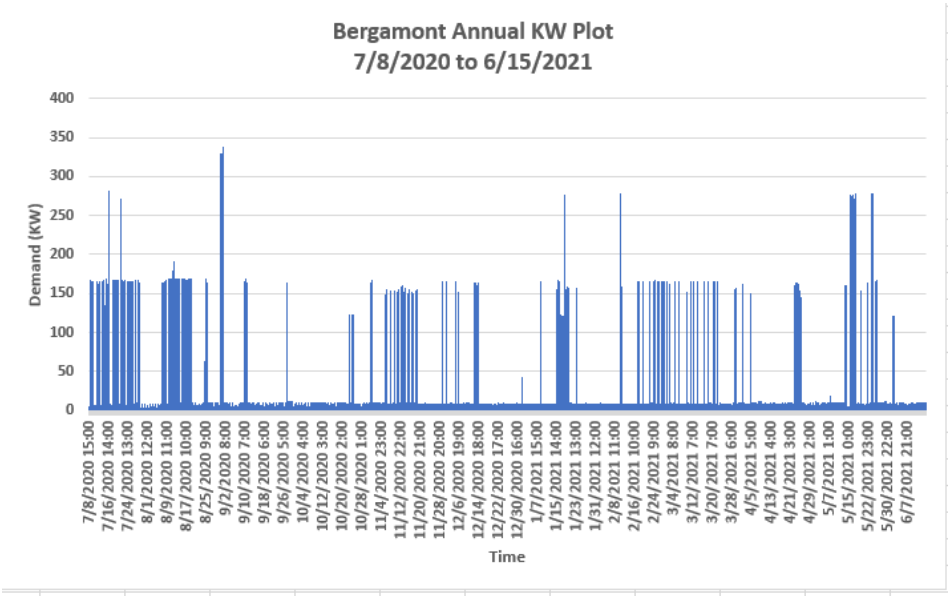


Figure 3.4: Bergamont 15-Minute Interval kW Demand Data for One Year

3.2.5 kWh Energy Cost Breakdown of Electric Bills

The following pie charts shown in this section are representations of the kW demand cost breakdown of the electricity bills and the breakdown of kW demand and kWh energy use amounts for Bergamont for the months of June 2020 and October 2020.

Figure 3.8 below shows the total kW cost breakdown for the month of June 2020. As shown, on-peak kW cost takes up most of the pie chart at 52 percent as a result of its cost rate at $7.06. Mid-peak kW cost follows up with 26 percent of the pie chart at a cost rate of $3.13, and the off-peak and max kW cost each take up 11 percent of the pie chart. Reducing the peaks will not only offer resiliency by using alternative energy resources of reduced ratings but also reduces associated costs.

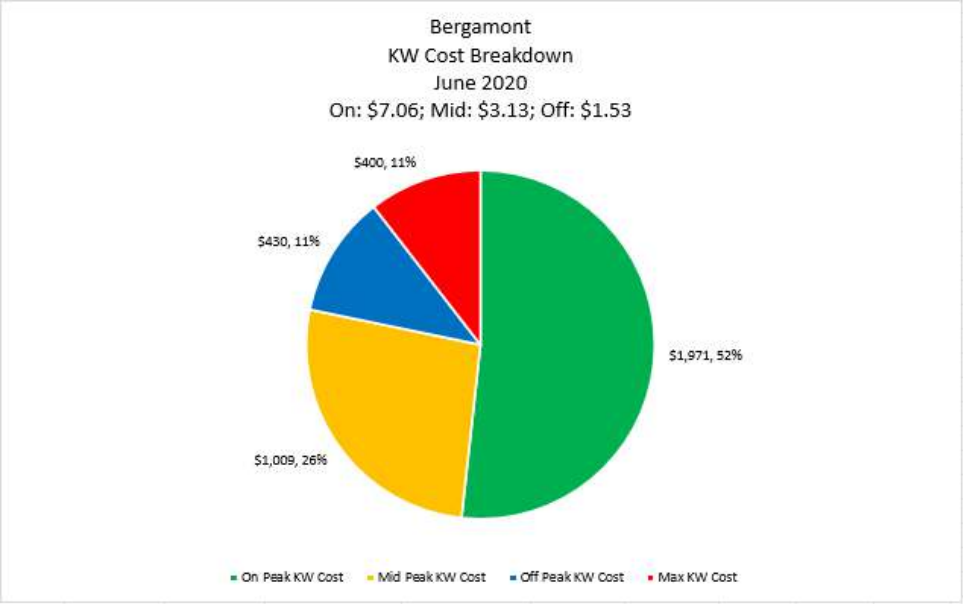


Figure 3.8: Bergamont kW Cost Breakdown for June 2020

The pie chart in Figure 3.9 below shows the kW amount breakdown for June 2020. As seen, the breakdown is about same among the different peaks. While mid-peak takes up 36 percent of the pie chart, the on-peak and off-peak amount each take up 32 percent of the kW breakdown. The kW amount breakdown can also associate closely with the kWh cost breakdown in Figure 3.10, especially given the individual cost rates of the three peaks.

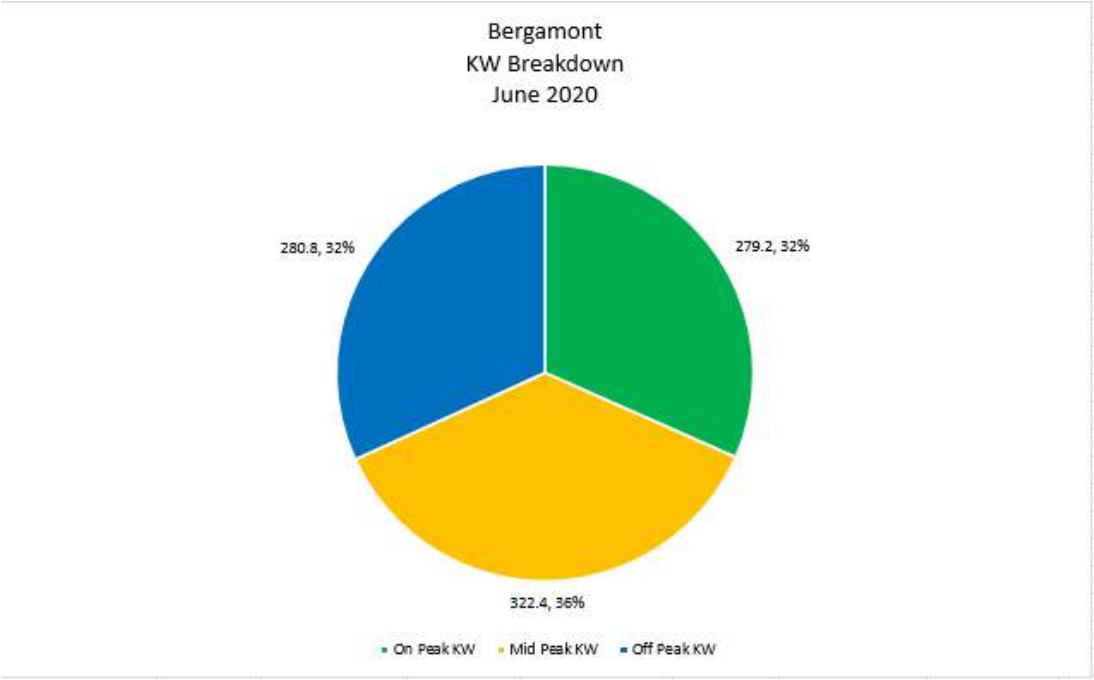


Figure 3.9: Bergamont kW Amount Breakdown for June 2020

In figure 3.10 below, the pie chart shown displays the breakdown for the kWh energy amount. Unlike the kW demand amount, off-peak kWh makes up most of the pie chart at around 59 percent. Mid-peak kW follows up with 24 percent of the breakdown and on-peak takes up the smallest chunk of the pie chart at 17 percent.

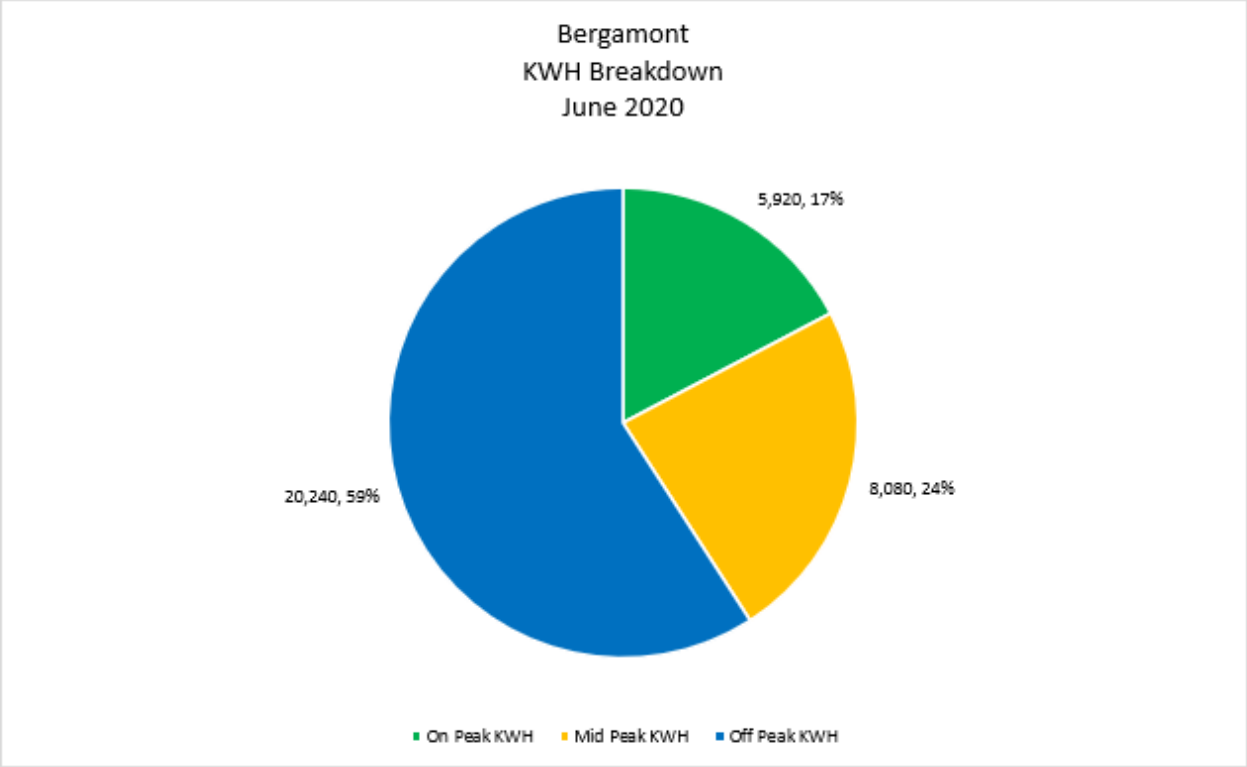


Figure 3.10: Bergamont kWh Amount Breakdown for June 2020

Figures 3.11 and 3.12 below display the kW cost breakdown and kW amount, respectively, for the month of October 2020. These breakdowns have resemblance to the ones for June 2020 shown in figures 3.9 and 3.10. Here, the on-peak kW cost covers most of the cost breakdown at 54 percent. Mid-peak cost follows up with 24 percent of the breakdown, and off-peak covers 12 percent. The individual cost rates for the peaks are the same as in June 2020. Here, the pie chart is very similar, almost the same to that shown in June 2020, in which on-peak kW cost is most of the breakdown. The kW amount breakdown is also very similar to June 2020, in which the pie chart shows a very even breakdown among the different peaks. Here, off-peak kW has a very slight majority at 35 percent, while mid-peak amount makes up 33 percent and on-peak amount makes up 32 percent.

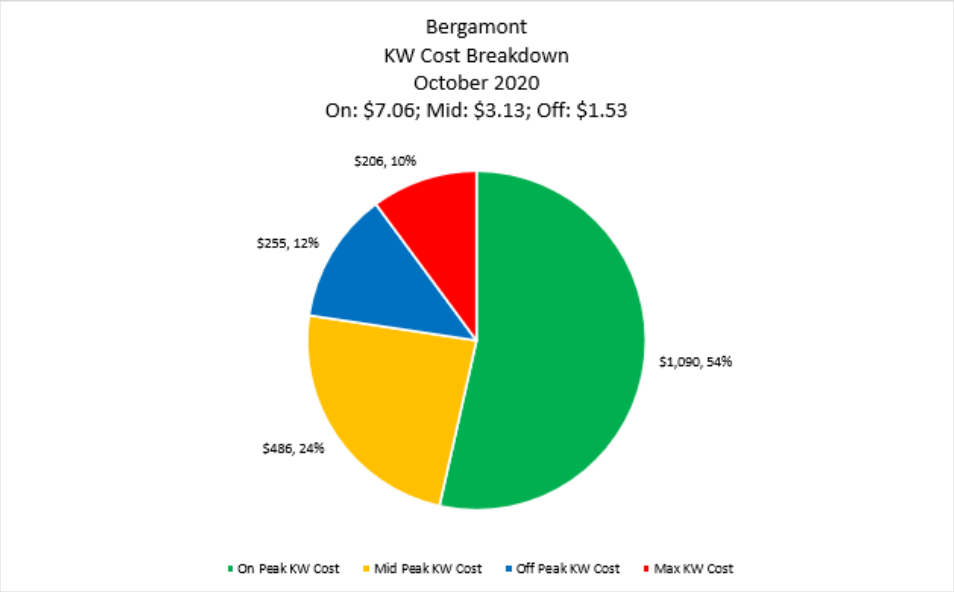


Figure 3.11: Bergamont kW Cost Breakdown for October 2020

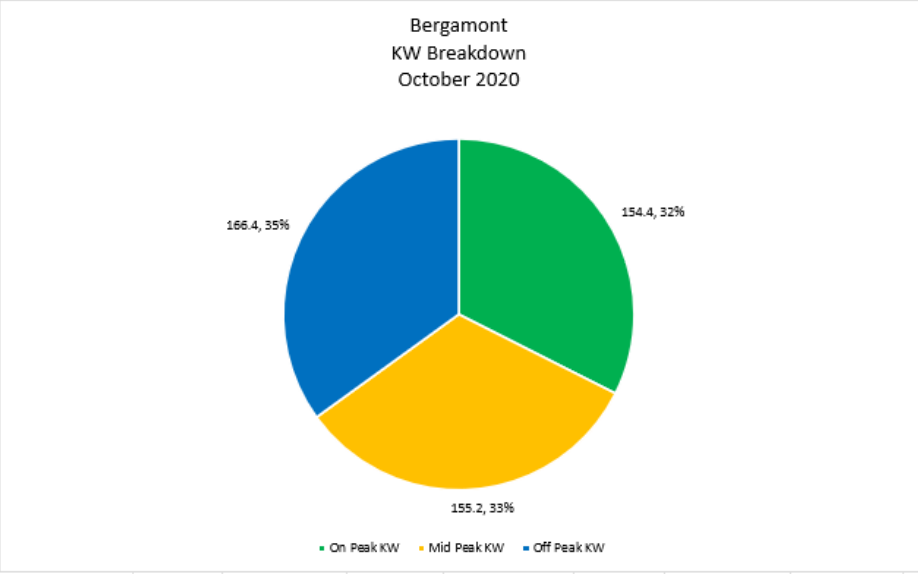


Figure 3.12: Bergamont kW Amount Breakdown for October 2020

Figure 3.13 below displays the kWh energy breakdown for October 2020. Just like with the previous two pie charts, this breakdown also has a resemblance to the kWh energy breakdown for June 2020 where the off-peak kWh takes up most of the breakdown. However, in this month, the breakdown is much more drastic, as the kWh breakdown here takes up 73 percent of the pie chart, with mid-peak and on-peak taking up 18 percent and 9 percent respectively.

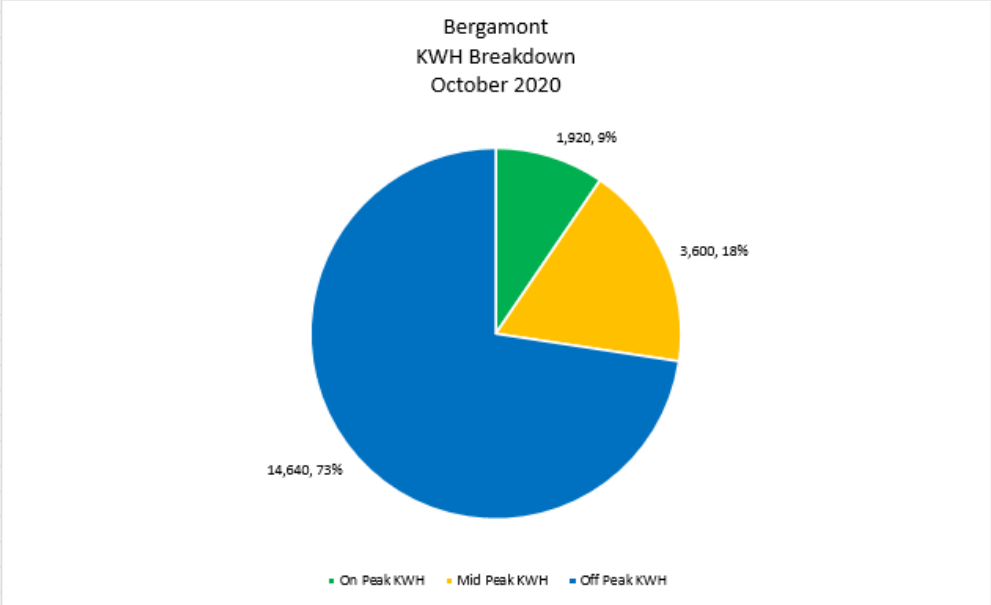


Figure 3.13: Bergamont kWh Amount Breakdown for October 2020

3.3 Gas Cost Breakdown

Figure 3.14 below shows the cost of Gas from December 2019 to December 2021. Since this pumping station uses natural gas pumps to distribute water, we analyze Gas bills the same way we do electric bills. Due to the cost of Gas being much lower, we encourage the use of Gas pumps before electric pumps in order to reduce overall Demand and associated charges as well as total combined savings of Gas plus electric charges.

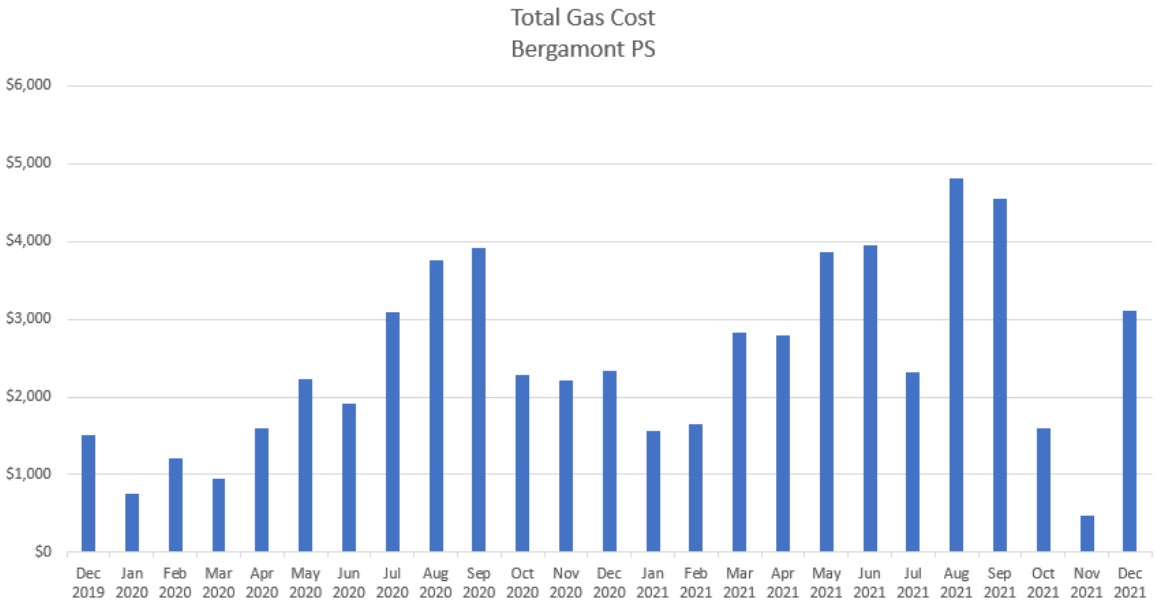


Figure 3.14: Bergamont PS Total Gas Cost Breakdown

Figure 3.15 below shows the total gas cost breakdown for the months of September 2020 and December, 2020 respectively. As seen in both months, Gas Commodity charge takes up a vast majority of the breakdowns, taking up 48% and 57%, respectively. Transportation and customer charges follow up with the middle and smallest percentages, respectively, in both months breakdown.

The information and plots provided in the sections above provide a baseline demand and energy information which helps in analyzing resiliency issues.

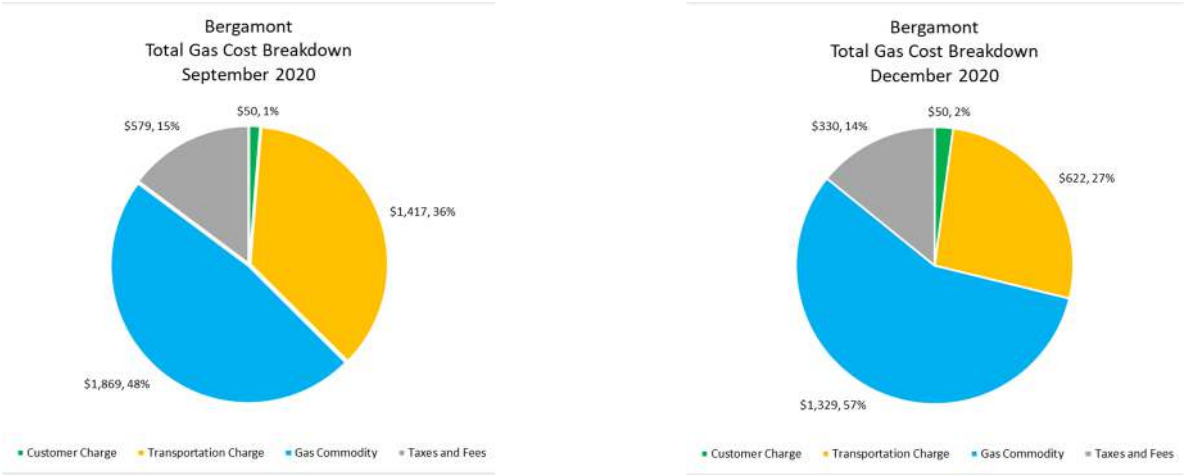


Figure 3.15: Bergamont Total Gas Cost Breakdown for July 2020 and December 2020

CHAPTER 4:
Identify and Prioritize Mitigation Strategies

Each mitigation strategy at Western Municipal Water District's two sites is assessed based on its potential to reduce the risks to the site, its difficulty, and its cost. The risk reduction score is based on a potential percentage of reduction. Site-specific information, low to high reduction scores are assigned, where low = 20%, low-medium = 35% medium = 50%, medium-high = 65%, and high = 80% risk reduction. The cost and difficulty of each site are estimated on a low to high (1 to 10) scale. The site can then use the scores to prioritize mitigation actions based on their cost and difficulty of implementation, and ability to reduce risk. Table 1 provides score mitigation actions.

Mitigation Action	Difficulty	Cost	Risk Reduction
Propose Plan that will build resilience against power shutoffs at critical facilities by developing a blueprint for energy resiliency technologies, projects, and strategies	4	2	High (80%)
Add backup power to critical loads by adding backup Gas Line to Water District Existing Site	4	4	Medium-High (65%)
Add backup power to critical loads by adding Solar Energy Storage to Water District Existing Site	4	4	Medium-High (65%)
Add backup power to critical loads by adding Battery Energy Storage to Water District Existing Site	4	4	Medium-High (65%)
Develop action plan with county to establish clear contingency plans	4	1	Med (50%)

Table 4.1: Risk Reduction Scoring of Mitigation Action Plan

CHAPTER 5:
Create Action Plan and Implement Solutions

The action plan will implement solutions and measure the results at the two sites at WMWD. Currently the two sites, Bergamont and Holcomb Pumping Stations, are being supplied by 3 sources of energy:

1) Electricity: Power lines
2) Natural Gas: Gas Distribution Lines
3) Diesel: Backup Generators

Below in the following subsection are full descriptions of the three sources of energy along with their mitigation action description. Based on those action plans the table below was created to show what the list of mitigation strategies, next steps, and the overall priority of each step to achieve the overall goal of resiliency. Table 2 shows mitigation action plan.

Mitigation Action	Next Steps	Priority
Develop action plan with water district	Draft memorandum of understanding	1
Add backup power to critical loads by adding backup Gas Line to Water District Existing Site	Meeting with Gas Company and Water district, discuss overall plan	2
Add backup power to critical loads by adding Solar Energy Generation to Water District Existing Site	Procure Solar Panels	3
Add backup power to critical loads by adding Mobile Battery Energy Storage to Water District Existing Site	Deploy Battery Energy Storage	4
Commission Microgrid	System Operation Test	5

Table 5.1: Mitigation Action Plan

5.1 Electricity Supply

The pumping stations are being supplied with electricity by the Riverside Public Utility (RPU) from their Orangecrest Electrical Substation. RPU power lines shown in color red, distribute the electricity throughout the facility, including the Mills Water Treatment Plant, as shown below:

Source: Google Maps

Table 5.1: Electrical Supply

Current Threats: In the event of a natural disaster, like a major earthquake, wildfire, or flood, if the Orangecrest Electrical Substation (South of the facility) goes down, an alternative electrical energy source will be needed.

Recommendations: We suggest routing electricity from RPU's other electrical substations, which may have survived the natural disaster. In the case one substation goes down, any of the other one listed below can keep on supplying the facility.

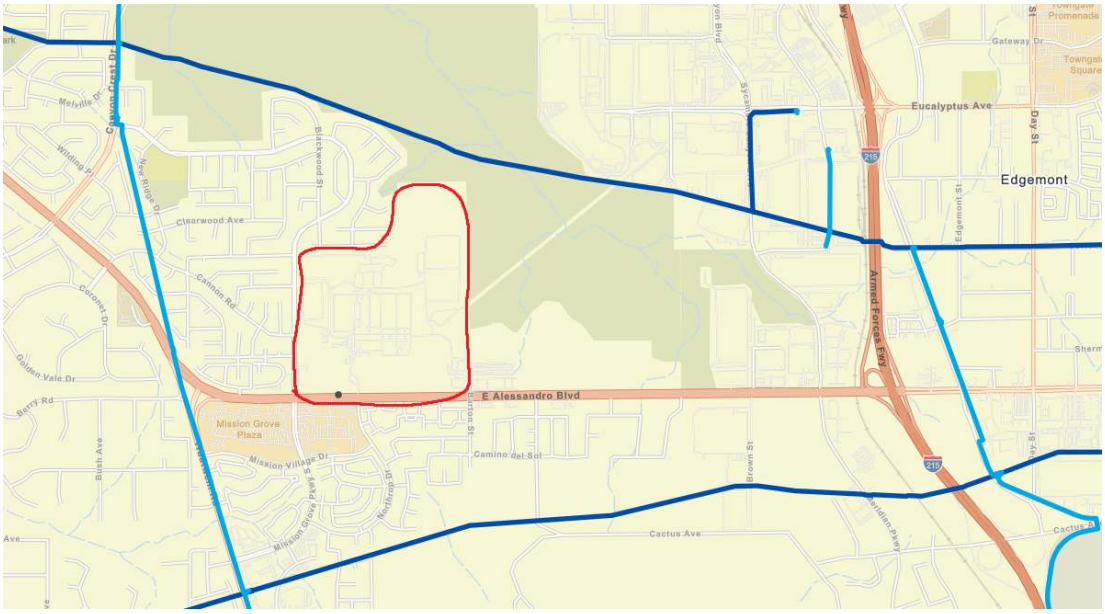
- La Colina Substation (North of facility) [Now Temporarily Closed]

    - Around 4 miles
- Springs Generation (East of facility) [Now Temporarily Closed]
    - Around 2-3 miles
- Tanker Substation (East of facility)
    - Around 5 miles
- Mountain View Substation (West of facility)
    - Around 8 miles
- Source: California Electric Transmission Lines
- Price: --- Unknown at this time

As these substations and connecting high voltage lines already exist, relatively simple modifications in distribution circuit breakers can achieve this.

5.2 Natural Gas Supply

The Bergamont and Holcomb pumping stations are also being supplied by the SoCal natural gas company through nearby pipelines as shown below:



Light Blue = High Pressure Distribution Lines
Dark Blue = Transmission Lines
Red = Site Outline

Source: https://socalgas.maps.arcgis.com/apps/webappviewer/index.html?id=aaebac8286ea4e4b8e425e47771b8138

Table 5.2: Natural Gas Supply

Current Threats: In the event of a natural disaster, like a major earthquake, wildfire, or flood, the pipeline supplying gas to this facility may be damaged.

Recommendations: We suggest connecting this facility to an alternative high-pressure distribution line. In case where one line has to be shut down due to damages, the other line may remain functional.

Price: --- (natural gas distribution line cost/mile) Unknown at this time.

5.3 Diesel

Some of the pumping stations at the larger Mills facility have backup diesel generators. For resiliency of the water systems, diesel generators may be used when either grid power or natural gas supply is disrupted due to a major natural disaster. If the highway system is also damaged at that time, preventing new deliveries, larger diesel storage on site will be needed to provide energy resiliency for a longer period.

5.4 Self-Sustaining Renewable Energy

Long term sustainability is only possible from on-site generation, which may be provided by Solar PV. This site currently has large open areas which may be utilized for installing solar panels. Long term availability of space is a major challenge. There are 3 possible options of solar PV as listed below:

Ground Mounted Solar Panels:

Pros: Easier to build & maintain. Greater energy productivity. Fewer electrical hazards. More efficient cooling

- Very little space restrictions

Cons: More ground clutter

Source; https://luminasolar.com/the-pros-and-cons-of-ground-mounted-solar-panels/

Price: Medium expense

- Price: --- (per kW) Unknown at this time.

Source: Google Images & Google Maps

Table 5.3: Ground Mounted Solar and Area of Installation

Raised Solar Panels:

Pros: Less ground clutter. Usable space below panels.

- For example: Solar Carports

Cons: Harder to build and maintain

Source: https://www.solarreviews.com/blog/are-solar-canopies-worth-it

Price: Higher expense

- Price: --- (per kW) Unknown at this time.

Source: Google Images & Google Maps

Table 5.4: Carport Mounted Solar and Area of Installation

Rooftop Solar on Existing Buildings:

Pros: Better use of unused space. Easy to install.

Cons: Harder to maintain. Some roof orientations might not provide the best energy production

Source; https://aesinspect.com/the-pros-and-cons-of-ground-vs-roof-mounting-solar-panels/

Price: Low-Medium expense due to less structural costs

- Price: --- (per kW) Unknown at this time.

Source: Google Images & Google Maps

Table 5.5: Rooftop Mounted Solar and Area of Installation

5.5 Battery Energy Storage Systems (BESS)

For enhanced resiliency, on site solar can be made more beneficial by implementing BESS to store extra solar electricity during the daylight hours for pumping water during the night also. For offering energy resiliency in a flexible format, UCR has designed and built a mobile BESS platform on a trailer shown below. This trailer along with its 100kW on board inverter is capable of moving around and deliver power to any location where and when needed.

Table 5.5: CE-CERT Battery Energy Storage Trailer

ACRONYMS AND GLOSSARY

Term/Acronym	Definition
CEC	California Energy Commission
CE-CERT	College of Engineering-Center for Environmental Research and Technology
GHG	Green House Gases
GPD	Gallons Per Day
GPM	Gallons Per Minute
HP	Horsepower
HVAC	Heating, Ventilation, and Air Conditioning
kW	kilowatt
kWh	kilowatt-hour
kVar	Kilo Volt Ampere Reactive
PS	Pump Station
SCADA	Supervisory Control and Data Acquisition
RPU	Southern California Edison
TOU	Time of Use
UCR	University of California Riverside
WMWD	Western Municipal Water District

Western Riverside Council of Governments
WRCOG Executive Committee

Staff Report

Subject: Fiscal Year 2022/2023 Q1 Financial Update

Contact: Andrew Ruiz, Chief Financial Officer, aruiz@wrcog.us, (951) 405-6740

Date: December 5, 2022

Requested Action(s):

1. Approve an amendment to the adopted WRCOG 2022/2023 Fiscal Year Budget to increase revenues by $10M and to distribute the revenues per the Beaumont Settlement Agreement and increase of legal costs to $1.4 M associated with the Beaumont litigation.
2. Approve an amendment to the adopted WRCOG 2022/2023 Fiscal Year Budget to increase revenues in LTF by $72,500.
3. Approve the addition of two positions to the adopted WRCOG 2022/2023 Fiscal Year Budget - a Staff Analyst position in the Transportation & Planning Department (TUMF Program) and a Staff Analyst position in the Energy Department (I-REN Program).

Purpose:

The purpose of this item is to provide an overview of the Agency's financial performance, budget changes, and current trends.

WRCOG 2022-2027 Strategic Plan Goal:

Goal #3 - Ensure fiscal solvency and stability of the Western Riverside Council of Governments.

Background:

Q1 Budget Amendment

Attached for review is the quarterly financials through September 30, 2022, for Fiscal Year 2022/2023. The total Agency financials, in summary format, are at the beginning of the document. The detailed, programmatic financials are below the summary.

In the first quarter of Fiscal Year 2022/2023, five budget amendments were made:

1. In the Solid Waste Program, revenues, along with expenditures, were increased by approximately $117k due to several cooperative agreements entered into by WRCOG member jurisdictions to support compliance activities related to Senate Bill (SB) 1383, which is a statewide effort to reduce emissions of short-lived climate pollutants, and went into effect in January 2022. WRCOG will be performing an organic capacity study for its Solid Waste members.
2. In the Solid Waste Program, legal expenditures were increased by $1,000, with event support expenditures proportionally decreased by $1,000, to cover additional legal costs related to the SB

1383 capacity planning. There is no net increase in expenditures.
3. In the Inland Regional Energy Network, or I-REN, Program, expenditures in various categories, mostly travel-related, were increased to account for various conferences and events staff anticipate to attend throughout the fiscal year. These expenditures are being offset by a reduction in the consulting expense line item. There is no net increase in expenditures.
4. In the Clean Cities Program, budgeted expenditures in event support and travel were increased to reflect the anticipated expenditures for the year. These expenditures are being offset by a reduction in the consulting expense line item. There is no net increase in expenditures.
5. In the California Resiliency and Streetlight Programs, the budgets were amended to accommodate for an increase in consulting labor due to additional work needed in the California Resiliency Challenge budget to complete the Energy Resiliency Plan. The additional consulting expenditures are offset by a reduction in various line items within the budgets. There is no net increase in expenditures.

With three quarters remaining, staff are monitoring the following line items:

1. Property Assessed Clean Energy (PACE) Programs: The PACE Commercial and Residential Programs are being closely monitored with respect to the Program's activities and whether adjustments will need to be made to the anticipated revenues or expenditures. The HERO Program (PACE Residential), now in its winddown phase, is still servicing the outstanding assessments (liens) related to the Program. The Program still generates revenues from refunds, payoffs, delinquency sell-offs, and the annual administrative fee; however, refunds and payoffs are a variable in anticipated revenues and are being monitored based on the original assumptions. In the PACE Commercial Program, one project has been completed this fiscal year, with several additional projects in the pipeline that are expected to be completed within the fiscal year.
2. Regional Early Action Planning (REAP) Program: REAP has been extended an additional 18 months, so the anticipated revenues and expenditures will likely be reduced and stretched out over a longer period. WRCOG has been notified that it is eligible to apply for an additional $1.6M in funding; applications are funds due in February 2023. Staff anticipate that these funds will be available starting in July 1, 2023.
3. I-REN: As the I-REN continues to ramp up, the budget will be monitored for any additional changes outside of what was made in the first quarter. As implementers and consultants are brought under contract in early 2023, there will be a substantial increase in expenditures as work on those contracts begin.
4. TUMF: During the period from July 2022 to October 2022, TUMF has collected $30M, which is significantly above projections. For example, the TUMF Program collected over $12M for the month of August only. WRCOG's projections for this period of time were $12M (approximately $4M per month). Staff is actively monitoring applications and fee collections on a weekly basis. There is some uncertainty regarding collections for the remainder of the year, given the fluctuations in development activity associated with statewide and national economic conditions. Additionally, it is not uncommon for development activity to fluctuate on a monthly basis because of weather, supply chain issues, and other factors. Staff will report back in January regarding collections through December to determine if there will be significant changes in the level of annual revenue.

<u>Budget Amendment for Beaumont Settlements</u>

The City of Beaumont, WRCOG, and AIG have now resolved an outstanding claim associated with an insurance policy held by the City of Beaumont related to criminal behavior and embezzlement by past

City staff. The amount of the settlement is $8.5M, which should be paid to WRCOG by December 2022. Additionally, WRCOG has received a settlement payment from Norton Rose for $1.5M.

Per the language in the settlement agreement, WRCOG will be sharing these funds with the City of Beaumont and using a portion of the settlement to pay all outstanding legal expenses associated with this effort. The balance of the funds will be allocated to the TUMF Program based on previous direction from the WRCOG Executive Committee.

As a result of the extensive litigation associated with this settlement, additional costs were incurred by WRCOG. The original estimate of legal expenses associated with the litigation was $400,000. We now estimate that those costs will approach $1.4 M.

Therefore, staff is requesting that the Executive Committee approve an amendment to the adopted Fiscal Year 2022/2023 Agency Budget to include these expenses and the additional revenue.

New Positions

Staff will also be requesting approval from the Executive Committee to add two new positions to the adopted 2022/2023 Fiscal Year Budget.

1. Analyst in the Transportation & Planning Department working on the TUMF Program. Currently, there are 2.5 FTEs who regularly work on the TUMF Program, including the Director of Transportation & Planning (0.5 FTE), a TUMF Program Manager (1 FTE), and a TUMF Analyst (1 FTE). Over the past several years, there has been a significant increase in workload associated with the TUMF Program related to a variety of factors. First, the level of TUMF collections has increased as development activity has increased. Second, WRCOG has received multiple requests from its member agencies to review developer reimbursements, credit agreements, and other TUMF-related documents. While these reviews have typically been performed by the member jurisdictions, WRCOG is now being asked to assist with these tasks given that many of the member jurisdictions have staffing with limited experience regarding TUMF. Third, WRCOG has implemented an online TUMF collection portal which is administered directly by WRCOG. Fourth, the number and magnitude of jurisdictional reimbursements has increased as TUMF collections have increased. Fifth, adding an additional position within the TUMF Program would provide additional redundancy within the Program. The TUMF Program is WRCOG's largest and most complex program and having additional staff who understand the intricacies of the program would provide a significant benefit. The current level of TUMF collections support this position and long-term projections of development activity provide a high degree of certainty that there will be sufficient revenues for the position. The approximate cost for this position is $90,000, which includes $65,000 in salaries and $25,000 in benefits.

   There are two sources of funding for this position. The first source of funding would be the TUMF Program itself. As noted above, TUMF revenues are exceeding projections through the first three months of the 2022/2023 Fiscal Year. If rate of collections continue at the current pace, the additional revenue accruing to WRCOG will be more than sufficient to fund this position. However; there is some level of uncertainty regarding overall economic activity throughout the remainder of the 2022/2023 Fiscal Year which could affect TUMF revenue. Therefore, the second source of funding are Local Transportation Funds (LTF). WRCOG receives LTF from the Riverside County Transportation Commission (RCTC) on an annual basis. The funds for the 2022/2023 Fiscal year

have already been received by WRCOG and were $72,000 above previous projections. The approved LTF workplan, which is tied to this funding source, already includes funding for TUMF Staff which therefore allows LTF funds to be used to fund this position for this Fiscal Year and future years as necessary.

2. Analyst in the Energy Department working on the I-REN Program. In Q3 of FY 2021/2022, the Inland Regional Energy Network (I-REN) released four Requests for Proposals to bring on consultants to develop and implement programs in their Public Sector and Codes & Standards Sectors. Twelve interviews were conducted November 8 - 10, 2022, and consultants will be selected and notified within the next two weeks, followed by contract negotiations. Staff anticipates the agreements will be finalized and approved sometime in February 2023 at which time selected consultants will begin development of programs for I-REN's three sectors. I-REN is currently recruiting for its Senior Analyst position that was budgeted for in the Fiscal Year 2022/2023 budget and is proactively taking steps to recruit a Workforce Education & Training analyst to assist with the implementation of programs it has already begun to develop, including a program similar to WRCOG's successful Fellowship program. This additional position was referenced in the I-REN's original proposal to the California Public Utilities Position (CPUC) and accounted for in the funding for the Program; however, it was not included in this Fiscal Year's budget. Staff now anticipate that this position will be needed this fiscal year and are requesting a budget amendment to add the position. The approximate cost for this position is $90,000, which includes $65,000 in salaries and $25,000 in benefits.

Prior Action(s):

November 17, 2022: The Finance Directors Committee recommended that the Executive Committee approve 1) an amendment to the adopted WRCOG 2022/2023 Fiscal Year Budget to increase revenues by $10M, increase of legal costs to $1M associated with the Beaumont litigation, and increase the expenditures to recognize the allocation funds consistent with the approved Settlement Agreement and Executive Committee policy, which include payments to the City of Beaumont, RCTC, RTA, and RCA; and 2) the addition of two positions to the adopted WRCOG 2022/2023 Fiscal Year Budget - a Staff Analyst position in the Transportation & Planning Department (TUMF Program) and a Staff Analyst position in the Energy Department (I-REN Program) at the cost of $90,000 for each position.

Fiscal Impact:

The proposed budget amendment related to the Beaumont settlement would increase settlement revenues by $10M and increase legal costs associated with the settlement from $400,000 to $1.4M. The settlement revenues would be paid out per the Beaumont Settlement Agreement previously approved by the Executive Committee.

The proposed amendment related to the additional position in the TUMF Program will increase salaries by approximately $65,000 and benefits by $25,000 between the TUMF and LTF Programs. The Local Transportation Fund (LTF) revenues are also being increased by $72,500 to reflect the additional amount received in the Program. The proposed amendment related to the additional position in the I-REN Program will increase salaries by approximately $65,000 and benefits by $25,000 in the Program under the Workforce Education and Training budget.

Attachment(s):

Attachment 1 - FY 2022/2023 1st Quarter Budget Amendments
Attachment 2 - September 2022 Agency Financials
Attachment 3 - FY 2022/2023 Budget Amendment for Approval.pdf

Attachment

FY 2022/2023 Q1 Budget Amendments

Budget Amendment Request Form

Requester

Name: Olivia Sanchez **Date:** 8/30/2022

Department: Environment

From Programs: 73107 Events

To Programs: 65101 Legal

Summary of Request

Move $1000 from 73107 (Events) to 65101 (Legal) to pay for invoice from BBK in the amount of $270.40

Reason for Request

(What Changed? What's the impact if we approve / don't approve it?)

The budget for Legal does not have any money budgeted and there is an invoice for $270.40 due to BBK for legal services related to service agreements for SB 1383 planning capacity work for the cities of Moreno Valley, San Jacinto and Jurupa Valley. A transfer of $1000 from 73107 Events to 65101 Legal will cover the invoice. This amount will cover any other legal services that require review during FY 22/23. The work came in late from the three aforementioned cities as they had not returned the agreements previous to June 30, 2022.

Amounts to be Moved

Program	Funds	GLA Code	Old Amount	New Amount
1038	Event Support	73107	$3000	$2000 ✓
1038	Legal	65101	$0	$1000 ✓

Authority

Executive Director	X	(Please explain why this request can be approved under the selected authority) This change is of a technical nature which falls under the Executive Director's authority to make budget adjustments.
Executive Committee		
General Assembly		

Authorization

Department Director Approval: DocuSigned by: _____ **Date:** 8/31/2022

Chief Financial Officer Approval: DocuSigned by: _____ **Date:** 9/7/2022

Executive Director Approval: DocuSigned by: _____ **Date:** 9/13/2022

Attachments

Original and modified budgets need to be attached to this form.

Form Approved by Executive Director

Budget Amendment Request Form

Requester

Name: Olivia Sanchez **Date:** 9/20/2022

Department: Environment - 1038

From Programs: 1038

To Programs: 1038

Summary of Request

Increase revenues in 40301 (SB 1383) from $0 to $117,593.43 and increase expenditure 85101 (Consulting Labor) from $11,963 by $117,593.43 for a total of $129,556.43.

Reason for Request

(What Changed? What's the impact if we approve / don't approve it?)

Funds coming into Revenue 40301 (SB 1383) are from agreements/PO's with member WRCOG cities to have MSW Consultants perform a capacity planning study for organics and food recovery. The revenues are new for 2022/2023, they are from cities participating in the SB 1383 organic capacity study. These funds were not originally budgeted . However local jurisdictions recently received funding allocated from the State of California for SB 1383 projects and this project was not able to be included as a budgeted project when WRCOG budget was prepared.

Amounts to be Moved

Program	Funds	GLA Code	Old Amount	New Amount
1038	110	40301	$0	$117,593.43 ✓
1038	110	85101	$11,963	$129,556.43 ✓

Extra lines on second page if needed.

Authority

Executive Director	X	(The Executive Director has the authority to make revisions as long as they are of a technical nature and consistent with the intent of the Board; otherwise the Executive Committee or General Assembly will need to approve.)
Executive Committee		The Executive Director is allowed to make revisions as long as they are of a technical nature and consistent with the intent of the Board.
General Assembly		

Authorization

Department Director Approval: DocuSigned by: **Date:** 9/22/2022

Chief Financial Officer Approval: DocuSigned by: **Date:** 9/23/2022

Executive Director Approval: DocuSigned by: **Date:** 10/5/2022

Attachments

Original and modified budgets need to be attached to this form.

Form Approved by Executive Director

Budget Amendment Request Form

Requester

Name: Benjamin Druyon **Date:** 9/9/2022

Department: Energy

From Programs: I-REN - Public Sector

To Programs: I-REN - Public Sector

Summary of Request

I-REN Public Sector has expenses that were not initially budgeted for, such as fees for conferences, travel, hotels, meals, etc., for WRCOG staff and its partner COG's staff. We are fine-tuning each of I-REN's Sector budgets to account for these other expenses.

Reason for Request

(What Changed? What's the Impact if we approve / don't approve it?)

As I-REN begins to ramp up and WRCOG, CVAG, and SANBAG staff participate more actively in Statewide forums, meetings, and conferences, there is need to adjust the budget to accommodate for these expenses. Previously, I-REN anticipated releasing one of its Public Sector RFPs at a higher not-to-exceed amount. After closer review prior to release of the RFP, we reduced the NTE amount by $100K (reduced from 85101 - Consulting Labor), which we have now re-distributed in the Public Sector portion of the budget to account for these anticipated expenses.

If this budget amendment is not approved, WRCOG, CVAG, and SANBAG staff will not be able to participate and represent I-REN in various relevant events throughout the year and bill them to the I-REN budget.

Amounts to be Moved

Program	Funds	GLA Code	Old Amount	New Amount
REN	180	65505 - Bank Fees	0	1500
REN	180	73102 - Parking Validations	0	1000
REN	180	73113 - Membership Dues	10000	25000
REN	180	73117 - Other Expenses	0	1000
REN	180	73120 - Printing Services	0	2500

Extra lines on second page if needed.

Authority

Executive Director X	(The Executive Director has the authority to make revisions as long as they are of a technical nature and consistent with the intent of the Board; otherwise the Executive Committee or General Assembly will need to approve.)
Executive Committee	The Executive Director may revise the schedule of any appropriation made in this resolution where the revision is of a technical nature and is consistent with the intent of the Board. Notice of any revisions shall be included in subsequent budget updates to the Board.
General Assembly	

Authorization

Department Director Approval: DocuSigned by: _____ **Date:** 9/19/2022

Chief Financial Officer Approval: DocuSigned by: _____ **Date:** 9/24/2022

Executive Director Approval: DocuSigned by: _____ **Date:** 9/28/2022

Attachments

Original and modified budgets need to be attached to this form.

Form Approved by Executive Director

Budget Amendment Request Form Second Page

Amounts to be Moved Cont.				
Program	**Funds**	**GLA Code**	**Old Amount**	**New Amount**
REN	180	73122 - Computer Hardware	0	1000
REN	180	73125 - Misc Office Equipment	0	1000
REN	180	73204 - Cell Phones	0	3600
REN	180	73601 - Seminars/Conferences	0	10000
REN	180	73611 - Travel - Mileage Reimbursement	0	10530
REN	180	73612 - Travel - Ground Transportation	0	5000
REN	180	73613 - Travel - AirFare	0	25000
REN	180	73620 - Lodging	0	70000
REN	180	73630 - Meals	0	2880
REN	180	73703 - Supplies/Materials	0	1000
REN	180	85101 - Consulting Labor	3101430	2940420

Budget Amendment Request Form

Requester

Name: Taylor York **Date:** 8/24/2022

Department: Energy and Environment

From Programs: Clean Cities

To Programs: Clean Cities

Summary of Request

The following requested changes will better align budget line items with planned program activities. These changes reduce "consulting Labor" budget and redistribute funds to travel and event support categories related to the AltCar Expo, the Clean Cities Equity training, and the Annual Clean Cities Coordinator Workshop.

Reason for Request

(What Changed? What's the impact if we approve / don't approve it?)

Expenditures on consulting labor for Coalition work will be reduced. The current budget does not accurately reflect anticipated expenses related to event support and travel for multiple coalition activities. These changes ensure that unused funds currently identified for consulting labor can be used to cover these expenses. Both original budget and proposed changes are attached, with proposed changes highlighted in red.

Amounts to be Moved

Program	Funds	GLA Code	Old Amount	New Amount
1010	120	73107	3,000	10,000 ✓
1010	120	73612	100	250 ✓
1010	120	73613	0	3,500 ✓
1010	120	73620	0	3,500 ✓
1010	120	85101	40,000	25,850 ✓

Authority

Executive Director	X	(Please explain why this request can be approved under the selected authority) The Executive Director has authority to approve changes of a technical nature, under which these changes fall. Proposed changes do not impact overall budget amount, but reduce funding in certain GLA codes to increase funding in others.
Executive Committee		
General Assembly		

Authorization

Department Director Approval: DocuSigned by: _____ **Date:** 8/24/2022

Chief Financial Officer Approval: DocuSigned by: _____ **Date:** 8/24/2022

Executive Director Approval: DocuSigned by: _____ **Date:** 8/25/2022

Attachments

Original and modified budgets need to be attached to this form.

Form Approved by Executive Director

Budget Amendment Request Form

Requester

Name: Daniel Soltero **Date:** 9/1/2022

Department: Energy

From Programs: CA Resilience Challenge & Streetlights

To Programs: CA Resilience Challenge & Streetlights

Summary of Request

The CA Resilience Challenge (CRC) budget (110-67-2225) is being amended to accommodate a First Amendment to the PSA with AECOM valued at $3500 and related Legal costs at $250, and to revise Salaries and Benefits to accurately reflect the updated WRCOG revenue from the CA Resilience Challenge grant. The CA Resilience Challenge budget net change is a decrease of $992; this budget is funded by the CA Resilience Challenge grant. The Streetlight Program budget (110-67-2026) is being revised to balance the changes to the CA Resilience Challenge budget's Salaries, Benefits, and Legal costs; is revising Seminars/Conferences and Lodging to cover hotel stays for conferences; and to account for increased office supplies/materials to accommodate a streetlight commemorative shadow box for the office. The Streetlight Program budget net change is $0.

Reason for Request

(What Changed? What's the Impact if we approve / don't approve it?)

The CA Resilience Challenge budget (110-67-2225) is being revised to cover the cost of a First Amendment for to the PSA with AECOM for extra work valued at $3,500 and related legal costs at $250. The extra work is necessary to complete the Energy Resilience Plan and consist of a microgrid analysis/conceptual design at a fourth facility. If this extra work is not completed, the result is a microgrid analysis/conceptual design on a facility in Jurupa Valley that will not meet the goals and intentions of the Energy Resilience Plan. The $250 increase in Legal is to cover legal costs from drafting and reviewing agreements related to the Energy Resilience Plan. If legal costs are not authorized, legal costs will have to be paid from a different program budget, likely the Streetlight Program budget. The $992 decrease in the CA Resilience Challenge budget is to reflect the current figure for WRCOG revenue coming from the CA Resilience Challenge grant which is $11,670. If this change is not reflected in the CA Resilience Challenge budget, it will create inflated expenses for Salaries and Benefits in the budget which would not match with the allocation of grant funds from the CA Resilience Challenge grant. The Streetlight Program budget's (110-67-2026) Salaries, Benefits, Bank Fees, and Consulting Labor are being amended to balance the amendments to the CA Resilience Challenge budget's Salaries, Benefits, Legal, and Consulting Labor. If these changes are not authorized, the overall E&E Department Salaries & Benefits will experience a shortfall which will impact compensation for staff. The Streetlight Program's Event Support, Meeting Support Services, and Supplies/Materials are being revised to accommodate a commemorative frame/shadow box for the Streetlight Program for the office; if these line items are not authorized there may be a potential shortfall in Supplies/Materials by the end of the fiscal year. The Seminars/Conferences and Lodging are being revised to accommodate hotel stays for staff attending conferences this fiscal year. If these costs are not authorized there will be a potential shortfall in the Lodging line item.

Amounts to be Moved

Program	Funds	GLA Code	Old Amount	New Amount
CA Resilience Challeng	$(3,092.79)	110-67-2225-60001 Salaries	$11,127.79	$8,035.00 ✓
CA Resilience Challeng	$(1,649.08)	110-67-2225-61000 Benefits	$5,284.08	$3,635.00 ✓
CA Resilience Challeng	$250.00	110-67-2225-65101 Legal	$0	$250.00 ✓
CA Resilience Challeng	$3,500.00	110-67-2225-85101 Consulting Labor	$115,627.00	$119,127 ✓
Streetlights	$(3,092.79)	110-67-2026-60001 Salaries	$60,686.29	$63,779.08 ✓

Extra lines on second page if needed.

Authority

Executive Director X	(The Executive Director has the authority to make revisions as long as they are of a technical nature and consistent with the intent of the Board; otherwise the Executive Committee or General Assembly will need to approve.)
Executive Committee	The First Amendment to the PSA with AECOM is going to the Administration & Finance Committee for approval on 09/14/2022. If approved, the Executive Director will have authority to increase contract amount and extra work. As such the CA Resilience Challenge and Streetlights budgets must be amended.
General Assembly	

Authorization

Department Director Approval: DocuSigned by: [signature] **Date:** 9/6/2022

Chief Financial Officer Approval: DocuSigned by: [signature] **Date:** 9/7/2022

Executive Director Approval: DocuSigned by: [signature] **Date:** 9/13/2022

Attachments

Original and modified budgets need to be attached to this form.

Form Approved by Executive Director

Budget Amendment Request Form Second Page

Amounts to be Moved Cont.				
Program	**Funds**	**GLA Code**	**Old Amount**	**New Amount**
Streetlights	$1,649.08	110-67-2026-61000 Benefits	$29,383.00	$31,032.00 ✓
Streetlights	$(992.00)	110-67-2026-65505 Bank Fees	$1,500.00	$508.00 ✓
Streetlights	$(3,750.00)	110-67-2026-85101 Consulting Labor	$19,183.00	$15,433.00 ✓
Streetlights	$(1,000.00)	110-67-2026-73107 Event Support	$2,000.00	$1,000.00 ✓
Streetlights	$(400.00)	110-67-2026-73115 Meeting Support Services	$1,000.00	$600.00 ✓
Streetlights	$1,400.00	110-67-2026-73703 Supplies/Materials	$1,500.00	$2,900.00 ✓
Streetlights	$(800.00)	110-67-2026-73601 Seminars/Conferences	$2,000.00	$1,200.00 ✓
Streetlights	$800.00	110-67-2026-73620 Lodging	$0	$800.00 ✓

Attachment

FY 2022/2023 1st Quarter
Agency Financials

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Description	Actual	FY 23 Budget	Variance
Revenues			
Member Dues	$ 294,410	$ 294,410	$ -
Fellowship	-	100,000	(100,000)
Operating Transfer Out	443,120	2,476,847	2,033,727
Solid Waste - SB1383	117,593	117,593	-
PACE Revenue	6,375	-	(6,375)
Hero Admin Fees	183,300	2,725,000	2,541,700
WRCOG HERO CAFTA Revenue	-	150,000	150,000
PACE Commercial Sponsor Revenue	-	50,000	50,000
Regional Streetlights Revenue	43,276	135,542	92,266
Solid Waste	124,206	173,157	48,951
Used Oil Grants	198,398	198,398	-
Air Quality - Other Reimburse	126,000	270,167	144,167
IREN - Public Sector	173,185	10,038,349	9,865,164
REAP Revenue	151,479	1,050,000	898,521
LTF Revenue	70,000	70,000	-
Operations and Maintenance	-	-	-
LTF Revenue	1,002,500	930,000	(72,500)
Other Misc Revenue-RIVTAM	7,000	25,000	18,000
Commerical/Service	324,767	1,560,000	1,235,233
Retail	464,807	4,160,000	3,695,193
Industrial	6,369,701	8,320,000	1,950,299
Residential/Multi/Single	12,463,156	36,400,000	23,936,844
Multi-Family	3,854,841	4,680,000	825,159
Beaumont TUMF Settlement Revenue	1,500,000	900,000	(600,000)
Interest Revenue - Other	16,946	5,000	(11,946)
Citizens Trust Investment Interest	-	275,000	275,000
Total Revenues	**$ 27,935,061**	**$ 75,104,463**	**$ 46,969,402**
Expenses			
Salaries & Wages - Fulltime	$ 556,169	$ 3,064,926	$ 2,508,756
Fringe Benefits	654,865	1,399,419	744,555
Overhead Allocation	443,120	2,174,586	1,731,466
General Legal Services	500,051	1,551,600	639,717
Audit Svcs - Professional Fees	-	30,000	30,000
Bank Fees	-	67,008	67,008
Commissioners Per Diem	17,100	72,000	54,900
Parking Cost	7,241	28,000	20,759
Office Lease	87,702	340,000	252,298
WRCOG Auto Fuels Expenses	41	1,000	959
WRCOG Auto Maintenance Expense	-	500	500
Parking Validations	711	14,100	13,390
Staff Recognition	1,660	3,100	1,440
Coffee and Supplies	97	2,500	2,403
Event Support	46,010	165,000	118,990
Program/Office Supplies	5,429	22,800	17,371
Computer Equipment/Supplies	-	7,000	7,000
Computer Software	20,907	104,500	83,593
Rent/Lease Equipment	2,534	15,000	12,466
Membership Dues	9,561	59,250	49,689
Subscription/Publications	8,780	8,950	170
Meeting Support Services	96	3,350	3,[illegible]

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Description	Actual	FY 23 Budget	Variance
Postage	773	8,250	7,477
Other Household Exp	784	2,600	1,816
Storage	1,299	5,500	4,201
Printing Services	1,324	4,650	3,326
Computer Hardware	60	9,000	8,940
Misc. Office Equipment	58	1,000	942
Communications - Regular Phone	5,535	17,500	11,965
Communications - Cellular Phones	2,046	16,900	14,854
Communications - Computer Services	5,372	40,000	34,628
Communications - Web Site	-	8,000	8,000
Equipment Maintenance - Comp/Software	-	7,500	7,500
Maintenance - Building and Improvement	5,353	12,000	6,647
Insurance - Errors & Omissions	-	50,000	50,000
Insurance - Gen/Busi Liab/Auto	7,001	54,266	47,265
WRCOG Auto Insurance	-	6,000	6,000
Data Processing Support	1,776	8,000	6,224
Recording Fee-PACE	1,331	14,000	12,669
Seminars/Conferences	158	24,850	24,692
Travel - Mileage Reimbursement	100	20,030	19,930
Travel - Ground Transportation	124	10,300	10,176
Travel - Airfare	-	36,750	36,750
Lodging	2,983	80,600	77,617
Meals	390	10,730	10,340
Other Incidentals	-	1,500	1,500
Training	120	33,250	33,130
OPEB Repayment	-	110,526	110,526
Supplies/Materials	-	8,900	8,900
Advertising Media - Newspaper Ad	29,000	29,048	48
Staff Education Reimbursement	-	7,500	7,500
Compliance Settlements	40,280	200,000	159,720
Direct Costs	-	1,660,177	1,660,177
Consulting Labor	391,226	8,018,122	7,626,896
TUMF Project Reimbursement	-	25,000,000	25,000,000
COG REN Reimbursement	-	1,474,000	1,474,000
Total Expenses	**$ 2,859,167**	**$ 46,126,038**	**$ 42,855,038**

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
					Administration			
					Revenues			
110	12	40001	0	0	Member Dues	$ 294,410	$ 294,410	$ -
110	12	49001	0	0	Interest Revenue - Other	16,946	5,000	(11,946)
110	12	97001	0	0	Operating Transfer Out	443,120	2,476,847	2,033,727
					Total Revenues	**$ 754,476**	**$ 2,776,257**	**$ 2,021,780**
					Expenses			
110	12	60001	0	0	Salaries & Wages - Fulltime	$ 185,707	$ 944,788	$ 759,081
110	12	61000	0	0	Fringe Benefits	324,496	449,211	124,715
110	12	65101	0	0	General Legal Services	19,313	115,000	95,687
110	12	65401	0	0	Audit Svcs - Professional Fees	-	30,000	30,000
110	12	65505	0	0	Bank Fees	-	2,000	2,000
110	12	65507	0	0	Commissioners Per Diem	17,100	70,000	52,900
110	12	71615	0	0	Parking Cost	7,241	28,000	20,759
110	12	73001	0	0	Office Lease	87,702	340,000	252,298
110	12	73003	0	0	WRCOG Auto Fuels Expenses	41	1,000	959
110	12	73004	0	0	WRCOG Auto Maintenance Expense	-	500	500
110	12	73102	0	0	Parking Validations	711	10,000	9,290
110	12	73104	0	0	Staff Recognition	1,160	3,100	1,940
110	12	73106	0	0	Coffee and Supplies	97	2,500	2,403
110	12	73107	0	0	Event Support	7,590	45,000	37,410
110	12	73108	0	0	Program/Office Supplies	5,429	20,000	14,571
110	12	73109	0	0	Computer Equipment/Supplies	-	5,500	5,500
110	12	73110	0	0	Computer Software	11,957	35,000	23,043
110	12	73111	0	0	Rent/Lease Equipment	2,534	15,000	12,466
110	12	73113	0	0	Membership Dues	8,061	30,000	21,939
110	12	73114	0	0	Subscription/Publications	8,764	6,000	(2,764)
110	12	73115	0	0	Meeting Support Services	80	500	420
110	12	73116	0	0	Postage	603	5,000	4,397
110	12	73117	0	0	Other Household Exp	784	1,500	716
110	12	73119	0	0	Storage	-	1,500	1,500
110	12	73120	0	0	Printing Services	1,324	1,000	(32[illegible]

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
110	12	73122	0	0	Computer Hardware	60	8,000	7,940
110	12	73201	0	0	Communications - Regular Phone	5,535	17,500	11,965
110	12	73204	0	0	Communications - Cellular Phones	802	7,500	6,698
110	12	73206	0	0	Communications - Computer Services	5,372	40,000	34,628
110	12	73209	0	0	Communications - Web Site	-	8,000	8,000
110	12	73302	0	0	Equipment Maintenance - Comp/Software	-	5,000	5,000
110	12	73303	0	0	Maintenance - Building and Improvement	5,353	12,000	6,647
110	12	73401	0	0	Insurance - Errors & Omissions	-	50,000	50,000
110	12	73405	0	0	Insurance - Gen/Busi Liab/Auto	7,001	50,266	43,265
110	12	73407	0	0	WRCOG Auto Insurance	-	6,000	6,000
110	12	73601	0	0	Seminars/Conferences	-	3,500	3,500
110	12	73611	0	0	Travel - Mileage Reimbursement	2	3,500	3,498
110	12	73612	0	0	Travel - Ground Transportation	-	1,500	1,500
110	12	73613	0	0	Travel - Airfare	-	3,000	3,000
110	12	73620	0	0	Lodging	-	1,500	1,500
110	12	73630	0	0	Meals	260	3,500	3,240
110	12	73650	0	0	Training	-	30,000	30,000
110	12	73660	0	0	OPEB Repayment	-	110,526	110,526
110	12	73801	0	0	Staff Education Reimbursement	-	7,500	7,500
110	12	85100	0	0	Direct Costs	-	160,177	160,177
110	12	85101	0	0	Consulting Labor	56,715	250,000	193,285
					Total Expenses	**$ 863,943**	**$ 2,941,068**	**$ 2,077,125**

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
					Fellowship			
					Revenues			
110	12	40009	4700	0	Fellowship	$ -	$ 100,000	$ (100,000)
					Total Revenues	**$ -**	**$ 100,000**	**$ (100,000)**
					Expenses			
110	12	60001	4700	0	Salaries & Wages - Fulltime	$ 18,840	$ 174,412	$ 155,572
110	12	61000	4700	0	Fringe Benefits	1,723	15,660	13,937
110	12	65101	4700	0	General Legal Services	-	100	100
110	12	73102	4700	0	Parking Validations	-	1,000	1,000
110	12	73107	4700	0	Event Support	-	1,000	1,000
110	12	73108	4700	0	Program/Office Supplies	-	500	500
110	12	73115	4700	0	Meeting Support Services	-	250	250
110	12	73116	4700	0	Postage	-	100	100
110	12	73601	4700	0	Seminars/Conferences	-	150	150
110	12	73611	4700	0	Travel - Mileage Reimbursement	-	1,000	1,000
110	12	73612	4700	0	Travel - Ground Transportation	-	150	150
110	12	73630	4700	0	Meals	-	350	350
110	12	73650	4700	0	Training	-	250	250
110	12	85101	4700	0	Consulting Labor	-	500	500
					Total Expenses	**$ 20,563**	**$ 195,422**	**$ 174,859**

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
					TUMF Administration			
					Revenues			
110	65	43001	1148	0	Commerical/Service	$ 12,991	$ 62,400	$ 49,409
110	65	43002	1148	0	Retail	18,592	166,400	147,808
110	65	43003	1148	0	Industrial	254,788	332,800	78,012
110	65	43004	1148	0	Residential/Multi/Single	498,526	1,456,000	957,474
110	65	43005	1148	0	Multi-Family	154,194	187,200	33,006
110	65	43027	1148	0	Beaumont TUMF Settlement Revenue	-	36,000	36,000
					Total Revenues	**$ 939,091**	**$ 2,240,800**	**$ 1,301,709**
					Expenses			
110	65	60001	1148	0	Salaries & Wages Fulltime	$ 77,061	$ 389,173	$ 312,112
110	65	61000	1148	0	Fringe Benefits	24,707	177,218	152,511
110	65	63000	1148	0	Overhead Allocation	200,000	800,000	600,000
110	65	65101	1148	0	General Legal Services	12,669	75,000	62,331
110	65	65505	1148	0	Bank Fees	-	15,000	15,000
110	65	73102	1148	0	Parking Validations	-	500	500
110	65	73108	1148	0	General Supplies	-	500	500
110	65	73109	1148	0	Computer Supplies	-	500	500
110	65	73110	1148	0	Computer Software	8,950	65,000	56,050
110	65	73113	1148	0	Membership Dues	-	1,500	1,500
110	65	73114	1148	0	Subscriptions/Publications	16	100	84
110	65	73116	1148	0	POSTAGE	-	100	100
110	65	73117	1148	0	Other Household Expenses	-	100	100
110	65	73120	1148	0	Printing Services	-	150	150
110	65	73204	1148	0	Cellular Phone	507	3,000	2,493
110	65	73302	1148	0	Equipment Maintenance	-	2,500	2,500
110	65	73405	1148	0	Insurance - Gen/Busi Liab/Auto	-	3,000	3,000
110	65	73601	1148	0	Seminar/Conferences	-	1,500	1,500
110	65	73611	1148	0	Travel - Mileage Reimbursement	-	1,500	1,500
110	65	73612	1148	0	Travel - Ground Transportation	-	250	250

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
110	65	73613	1148	0	Travel-AirFare	-	750	750
110	65	73620	1148	0	Lodging	-	800	800
110	65	73630	1148	0	Meals	-	1,000	1,000
110	65	73640	1148	0	Other Incidentals	-	500	500
110	65	85101	1148	0	Outside Consultants	99,503	450,000	350,497
					Total Expenses	**$ 423,413**	**$ 1,989,641**	**$ 1,566,228**
					TUMF			
					Revenues			
220	65	43001	1148	0	Commercial/Svcs	$311,776	$1,497,600	$1,185,824
220	65	43002	1148	0	Retail	$446,215	$3,993,600	$3,547,385
220	65	43003	1148	0	Industrial	$6,114,913	$7,987,200	$1,872,287
220	65	43004	1148	0	Residential/Multi/Single	$11,964,630	$34,944,000	$22,979,370
220	65	43005	1148	0	Multi Family	$3,700,647	$4,492,800	$792,153
220	65	43027	1148	0	Beaumont TUMF Settlement Revenue	$1,500,000	$864,000	($636,000)
220	65	49104	1148	0	Citizens Trust Investment Interest	$0	$275,000	$275,000
					Total Revenues	**$24,038,181**	**$54,054,200**	**$30,016,019**
					Expenses			
220	65	65101	1148	3307	Beaumon Legal Srvs-URBAN LOGIC	$ 287	$ 287	$ -
220	65	65101	1148	3310	General Legal Services	258,684	392,653	133,969
220	65	65101	1148	3311	General Legal Services	7,060	7,060	-
220	65	85160	1148	0	TUMF Project Reimbursement	-	25,000,000	25,000,000
					Total Expenses	**$ 266,031**	**$ 25,400,000**	**$ 25,133,969**

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
					Grant Writing			
					Expenses			
110	65	85101	1300	0	Consulting Labor	$ -	$ 20,000	$ 20,000
					Total Expenses	**$ -**	**$ 20,000**	**$ 20,000**
					Local Transportation Fund			
					Revenues			
210	65	41701	1400	0	LTF Revenue	$ 1,002,500	$ 930,000	$ (72,500)
					Total Revenues	$ 1,002,500	$ 930,000	$ (72,500)
					Expenses			
210	65	60001	1400	0	Salaries & Wages - Fulltime	$ 45,012	$ 346,880	$ 301,868
210	65	61000	1400	0	Fringe Benefits	14,703	153,100	138,397
210	65	63000	1400	0	Overhead Allocation	45,000	180,000	135,000
210	65	65101	1400	0	General Legal Services	-	2,500	2,500
210	65	73102	1400	0	Parking Validations	-	500	500
210	65	73107	1400	0	Event Support	-	500	500
210	65	73108	1400	0	Program/Office Supplies	-	500	500
210	65	73110	1400	0	Computer Software	-	2,500	2,500
210	65	73113	1400	0	Membership Dues	1,500	750	(750)
210	65	73116	1400	0	Postage	-	500	500
210	65	73204	1400	0	Communications - Cellular Phones	-	100	100
210	65	73601	1400	0	Seminars/Conferences	-	3,500	3,500
210	65	73611	1400	0	Travel - Mileage Reimbursement	-	1,000	1,000
210	65	73612	1400	0	Travel - Ground Transportation	-	1,500	1,500
210	65	73613	1400	0	Travel - Airfare	-	750	750
210	65	73620	1400	0	Lodging	-	2,500	2,500
210	65	73630	1400	0	Meals	85	750	665
210	65	73703	1400	0	Supplies/Materials	-	1,000	1,000
210	65	85101	1400	0	Consulting Labor	40,581	250,000	209,419
					Total Expenses	**$ 146,881**	**$ 948,829**	**$ 801,949**

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
					RIVTAM			
					Revenues			
110	65	42001	2039	0	Other Misc Revenue-RIVTAM	$ 7,000	$ 25,000	$ 18,000
					Total Revenues	**$ 5,000**	**$ 25,000**	**$ (20,000)**
					Expenses			
110	65	60001	2039	0	Salaries & Wages - Fulltime	$ 1,094	$ 6,353	$ 5,260
110	65	61000	2039	0	Fringe Benefits	331	3,504	3,173
110	65	85101	2039	0	Consulting Labor	-	15,000	15,000
					Total Expenses	**$ 1,425**	**$ 24,858**	**$ 23,433**
					Regional Early Action Planning (REAP)			
					Revenues			
110	65	41606	2235	0	REAP Revenue	$ 151,479	$ 1,050,000	$ 898,521
					Total Revenues	**$ 151,479**	**$ 1,050,000**	**$ 898,521**
					Expenses			
110	65	60001	2235	0	Salaries & Wages - Fulltime	$ 16,767	$ 79,264	$ 62,496
110	65	61000	2235	0	Fringe Benefits	5,277	35,872	30,595
110	65	63000	2235	0	Overhead Allocation	17,673	125,383	107,710
110	65	65101	2235	6001	General Legal Services	1,251	-	(1,251)
110	65	85101	2235	0	Consulting Labor	110,511	809,101	698,590
					Total Expenses	**$ 151,479**	**$ 1,049,620**	**$ 898,141**

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
					Clean Cities			
					Revenues			
120	80	41402	1010	0	Air Quality - Other Reimburse	$ 126,000	$ 270,167	$ 144,167
120	80	41701	1010	0	LTF Revenue	70,000	70,000	-
					Total Revenues	**$ 196,000**	**$ 340,167**	**$ 144,167**
					Expenses			
120	80	60001	1010	0	Salaries & Wages - Fulltime	$ 21,893	$ 170,523	$ 148,630
120	80	61000	1010	0	Fringe Benefits	6,803	86,260	79,457
120	80	63000	1010	0	Overhead Allocation	9,000	36,000	27,000
120	80	73107	1010	0	Event Support	-	10,000	10,000
120	80	73115	1010	0	Meeting Support Services	-	500	500
120	80	73116	1010	0	Postage	-	400	400
120	80	73116	1010	0	Communications - Cellular Phones	51	-	(51)
120	80	73611	1010	0	Travel - Mileage Reimbursement	26	500	474
120	80	73612	1010	0	Travel - Ground Transportation	52	250	198
120	80	73613	1010	100	Travel - Airfare	-	3,500	3,500
120	80	73620	1010	100	Lodging	842	3,500	2,658
120	80	73630	1010	0	Meals	-	500	500
120	80	73640	1010	0	Other Incidentals	-	500	500
120	80	73703	1010	0	Supplies/Materials	-	1,500	1,500
120	80	85101	1010	0	Consulting Labor	14,668	25,850	11,182
					Total Expenses	**$ 53,334**	**$ 339,783**	**$ 286,449**

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
					Love Your Neighborhood			
					Revenues			
110	80	41201	1035	0	Solid Waste	$ -	$ 50,000	$ 50,000
					Total Revenues	**$ -**	**$ 50,000**	**$ 50,000**
					Expenses			
110	80	73107	1035	0	Event Support	$ -	$ 10,000	$ 10,000
110	80	85101	1035	0	Consulting Labor	-	40,000	40,000
					Total Expenses	**$ -**	**$ 50,000**	**$ 50,000**
					Solid Waste			
					Revenues			
110	80	40301	1038	0	Solid Waste - SB1383	$ 117,593	$ 117,593	$ -
110	80	41201	1038	0	Solid Waste	124,206	123,157	(1,049)
					Total Revenues	**$ 241,800**	**$ 240,750**	**$ (1,049)**
					Expenses			
110	80	60001	1038	0	Salaries	$ 12,995	$ 61,429	$ 48,434
110	80	61000	1038	0	Fringe Benefits	3,933	31,224	27,291
110	80	63000	1038	0	Overhead Allocation	3,000	12,000	9,000
110	80	65101	1038	0	Legal	270	1,000	730
110	80	73102	1038	0	Parking Validations	-	500	500
110	80	73107	1038	0	Event Support	-	2,000	2,000
110	80	73114	1038	0	Subscriptions/Publications	-	250	250
110	80	73204	1038	0	Cell Phone Expense	175	500	325
110	80	73601	1038	0	Seminars/Conferences	-	500	500
110	80	73611	1038	0	Mileage Reimbursement	-	250	250
110	80	73612	1038	0	Ground Transportation	-	150	150
110	80	73613	1038	0	Airfare	-	250	250
110	80	73630	1038	0	Meals	-	500	500
110	80	73650	1038	0	Training	-	500	500
110	80	85101	1038	0	Consulting Labor	55,136	129,556	74,420
					Total Expenses	**$ 75,509**	**$ 240,609**	**$ 165,100**

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
					Streetlights			
					Revenues			
110	67	40615	2026	0	Regional Streetlights Revenue	$ 43,276	$ 135,542	$ 92,266
					Total Revenues	**$ 43,276**	**$ 135,542**	**$ 92,266**
					Expenses			
110	67	60001	2026	0	Salaries	$ 12,768	$ 63,779	$ 51,011
110	67	61000	2026	0	Fringe Benefits	4,248	31,032	26,784
110	67	63000	2026	0	Overhead Allocation	3,000	12,000	9,000
110	67	65101	2026	0	Legal	237	750	513
110	67	65505	2026	0	Streetllights Bank Fees	-	508	508
110	67	73102	2026	0	Parking Validations	-	150	150
110	67	73104	2026	0	Staff Recognition	500	-	(500)
110	67	73107	2026	0	Event Support	-	1,000	1,000
110	67	73108	2026	0	Program/Office Supplies	-	500	500
110	67	73114	2026	0	Subscriptions/Publications	-	1,600	1,600
110	67	73115	2026	0	Meeting&Support	-	600	600
110	67	73116	2026	0	Postage	33	150	117
110	67	73204	2026	0	Communications - Cellular Phones	102	500	399
110	67	73601	2026	0	Seminars/Conferences	-	1,200	1,200
110	67	73611	2026	0	Travel - Mileage Reimbursement	72	250	178
110	67	73612	2026	0	Travel-Ground Transportation	72	500	428
110	67	73613	2026	0	Travel - Airfare	-	1,000	1,000
110	67	73620	2026	0	Lodging	364	800	436
110	67	73630	2026	0	Meals	32	250	218
110	67	73650	2026	0	Training	-	500	500
110	67	73703	2026	0	Supplies/Materials	-	2,900	2,900
110	67	85101	2026	0	Consulting Labor	-	15,433	15,433
					Total Expenses	**$ 21,427**	**$ 135,402**	**$ 113,975**

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
					Inland Regional Energy Network			
					Revenues	**Actual**	**FY 23 Budget**	**Variance**
180	67	41480	2080	71XX	IREN - Public Sector	$ 92,806	$ 6,239,958	$ 6,147,152
180	67	41480	2080	72XX	IREN - Workforce Education and Training	41,069	2,323,361	2,282,292
180	67	41480	2080	73XX	IREN - Codes and Standards	39,310	1,475,030	1,435,720
					Total Revenues	**$ 173,185**	**$ 10,038,349**	**$ 9,865,164**
					Expenses	**Actual**	**FY 23 Budget**	**Variance**
180	67	60001	2080	7101	Salaries & Wages - Fulltime	$ 31,881	$ 221,281	$ 189,400
180	67	60001	2080	7201	Salaries & Wages - Fulltime	10,242	71,088	60,846
180	67	60001	2080	7301	Salaries & Wages - Fulltime	9,572	66,439	56,867
180	67	61000	2080	7101	Fringe Benefits	10,718	100,535	89,817
180	67	61000	2080	7201	Fringe Benefits	3,443	31,124	27,681
180	67	61000	2080	7301	Fringe Benefits	3,218	28,691	25,473
180	67	63000	2080	7101	Overhead Allocation	33,603	350,457	316,854
180	67	63000	2080	7201	Overhead Allocation	10,795	111,309	100,514
180	67	63000	2080	7301	Overhead Allocation	10,089	103,597	93,508
180	67	65101	2080	7101	General Legal Services	1,600	13,400	11,800
180	67	65101	2080	7111	General Legal Services	1,600	1,600	-
180	67	65101	2080	7201	General Legal Services	1,600	13,400	11,800
180	67	65101	2080	7211	General Legal Services	1,600	1,600	-
180	67	65101	2080	7301	General Legal Services	1,600	13,400	11,800
180	67	65101	2080	7311	General Legal Services	1,600	1,600	-
180	67	65505	2080	7101	Bank Fees	-	1,500	1,500
180	67	73102	2080	7101	Parking Validations	-	1,000	1,000
180	67	73107	2080	7103	Event Support	4,167	20,833	16,667
180	67	73107	2080	7113	Event Support	4,167	4,167	-
180	67	73107	2080	7203	Event Support	4,167	20,833	16,667
180	67	73107	2080	7213	Event Support	4,167	4,167	-
180	67	73107	2080	7303	Event Support	4,167	20,833	16,667
180	67	73107	2080	7313	Event Support	4,167	4,167	-
180	67	73113	2080	7101	Membership Dues	-	25,000	25,000
180	67	73117	2080	7101	Other Household Exp	-	1,000	1,000
180	67	73120	2080	7101	Printing Services	-	2,500	2,500

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
180	67	73122	2080	7101	Computer Hardware	-	1,000	1,000
180	67	73125	2080	7101	Misc. Office Equipment	58	1,000	942
180	67	73204	2080	7101	Communications - Cellular Phones	116	3,600	3,484
180	67	73601	2080	7203	Seminars/Conferences	79	9,921	9,842
180	67	73601	2080	7213	Seminars/Conferences	79	79	-
180	67	73611	2080	7101	Travel - Mileage Reimbursement	-	10,530	10,530
180	67	73612	2080	7101	Travel - Ground Transportation	-	5,000	5,000
180	67	73613	2080	7101	Travel - Airfare	-	25,000	25,000
180	67	73620	2080	7101	Lodging	148	69,259	69,111
180	67	73620	2080	7111	Lodging	148	148	-
180	67	73620	2080	7201	Lodging	148	148	-
180	67	73620	2080	7211	Lodging	148	148	-
180	67	73620	2080	7301	Lodging	148	148	-
180	67	73620	2080	7311	Lodging	148	148	-
180	67	73630	2080	7101	Meals	-	2,880	2,880
180	67	73703	2080	7101	Supplies/Materials	-	1,000	1,000
180	67	85100	2080	7101	Direct Costs	-	1,500,000	1,500,000
180	67	85101	2080	7101	Consulting Labor	2,056	2,937,874	2,935,819
180	67	85101	2080	7103	Consulting Labor	245	245	-
180	67	85101	2080	7111	Consulting Labor	2,056	2,056	-
180	67	85101	2080	7113	Consulting Labor	245	245	-
180	67	85101	2080	7201	Consulting Labor	2,056	1,726,119	1,724,064
180	67	85101	2080	7203	Consulting Labor	245	245	-
180	67	85101	2080	7211	Consulting Labor	2,056	2,056	-
180	67	85101	2080	7213	Consulting Labor	245	245	-
180	67	85101	2080	7301	Consulting Labor	2,056	1,017,167	1,015,112
180	67	85101	2080	7303	Consulting Labor	245	245	-
180	67	85101	2080	7311	Consulting Labor	2,056	2,056	-
180	67	85101	2080	7313	Consulting Labor	245	245	-
180	67	85182	2080	7101	COG REN Reimbursement	-	916,256	916,256
180	67	85182	2080	7201	COG REN Reimbursement	-	341,155	341,155
180	67	85182	2080	7301	COG REN Reimbursement	-	216,589	216,589
					Total Expenses	**$ 173,185**	**$ 10,028,330**	**$ 9,855,145**

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
					PACE Funding			
					Revenues			
110	67	40601	2104	0	PACE Revenue	$ 6,375	$ -	$ (6,375)
					Total Revenues	**$ 6,375**	**$ -**	**$ 6,375**
					Expenses			
110	67	73506	2104	0	Recording Fee-PACE	$ 34	$ -	$ (34)
					Total Expenses	**$ 34**	**$ -**	**$ (34)**
					Greenworks			
					Revenues			
110	67	40604	2105	0	WRCOG HERO CAFTA Revenue	$ -	$ 150,000	$ 150,000
					Total Revenues	**$ -**	**$ 150,000**	**$ 150,000**
					Expenses			
110	67	60001	2105	0	Salaries & Wages -Greenworks Lending	$ 12,039	$ 58,176	$ 46,137
110	67	61000	2105	0	Fringe Benefits	4,013	30,934	$ 26,921
110	67	63000	2105	0	Overhead Allocation	6,000	24,000	$ 18,000
110	67	73506	2105	0	Recording Fee	-	2,000	$ 2,000
110	67	85101	2105	0	Consulting Labor	-	34,757	$ 34,757
					Total Expenses	**$ 22,052**	**$ 149,866**	**$ 127,814**
					Twain			
					Revenues			
110	67	40607	2115	0	PACE Commercial Sponsor Revenue	$ -	$ 50,000	$ 50,000
					Total Revenues	**$ -**	**$ 50,000**	**$ 50,000**
					Expenses			
110	67	65101	2115	0	General Legal Services	$ -	$ 6,000	$ 6,000
110	67	73506	2115	0	Recording Fee	-	2,000	2,000
110	67	85101	2115	0	Consulting Labor	-	10,000	10,000
					Total Expenses	**$ -**	**$ 18,000**	**$ 18,000**

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
					Clean Fund			
					Expenses			
110	67	65101	2120	0	General Legal Services	$ -	$ 5,000	$ 5,000
					Total Expenses	**$ -**	**$ 5,000**	**$ 5,000**
					California Resiliency Challenge			
					Expenses			
110	67	60001	2225	0	Salaries & Wages - Fulltime	$ 2,423	$ 8,035	$ 5,612
110	67	61000	2225	0	Fringe Benefits	806	3,635	2,829
110	67	65101	2225	0	General Legal Services	101	250	149
110	67	85101	2225	0	Consulting Labor	-	119,127	119,127
					Total Expenses	**$ 3,331**	**$ 131,047**	**$ 127,716**

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
					HERO			
					Revenues			
110	67	40603	5000	0	Hero Admin Fees	$ 183,300	$ 2,725,000	$ 2,541,700
					Total Revenues	**$ 183,300**	**$ 2,725,000**	**$ 2,541,700**
					Expenses			
110	67	60001	5000	0	Stwide AB811 Salaries & Wages	$ 80,191	$ 326,906	$ 246,716
110	67	61000	5000	0	Fringe Benefit	25,750	182,932	157,182
110	67	63000	5000	0	Overhead Allocation	100,000	400,000	300,000
110	67	65101	5000	0	GENERAL LEGAL SERVICES	190,580	900,000	709,420
110	67	65505	5000	0	Bank Fee	-	48,000	48,000
110	67	65507	5000	0	Commissioners Per Diem	-	2,000	2,000
110	67	73102	5000	0	Parking Validations	-	200	200
110	67	73107	5000	0	Statewide - Event Support	-	500	500
110	67	73108	5000	0	General Supplies	-	300	300
110	67	73109	5000	0	Computer Supplies	-	1,000	1,000
110	67	73110	5000	0	Computer Software	-	2,000	2,000
110	67	73113	5000	0	NWCC- Membership Dues	-	1,500	1,500
110	67	73114	5000	0	Subscriptions/Publications	-	1,000	1,000
110	67	73115	5000	0	Meeting Support Services	16	500	484
110	67	73116	5000	0	Postage	86	2,000	1,914
110	67	73204	5000	0	Cellular Phone	268	1,500	1,232
110	67	73504	5000	0	Data Processing Support	1,776	8,000	6,224
110	67	73506	5000	0	Recording Fee	1,297	10,000	8,703
110	67	73601	5000	0	Seminar/Conferences	-	2,500	2,500
110	67	73611	5000	0	Travel - Mileage Reimbursement	-	500	500
110	67	73612	5000	0	Travel - Ground Transportatoin	-	500	500

Western Riverside Council of Governments
Budget-to-Actuals
As of September 30, 2022

Fund	Department	Account	Project	Location	Description	Actual	FY 23 Budget	Variance
110	67	73613	5000	0	Travel - Airfare	-	2,500	2,500
110	67	73620	5000	0	Lodging	889	1,500	611
110	67	73630	5000	0	Meals	13	500	487
110	67	73640	5000	0	Statewide Other Incidentals	-	500	500
110	67	73650	5000	0	Training	120	2,000	1,880
110	67	73703	5000	0	Supplies/Materials	-	1,500	1,500
110	67	81010	5000	0	Compliance Settlements	40,280	200,000	159,720
110	67	85101	5000	0	CA HERO Direct Exp	309	160,000	159,691
					Total Expenses	**$ 441,574**	**$ 2,260,338**	**$ 1,818,764**

Attachment

FY 2022/2023 Budget Amendment for Approval

Western Riverside Council of Governments
Fiscal Year 2022/2023 Budget Amendment

Fund	Department	Account	Project	Description	Actual	FY 23 Budget	Variance	Amendment
				TUMF Administration				
				Revenues				
110	65	43001	1148	Commerical/Service	$ 12,991	$ 62,400	$ 49,409	
110	65	43002	1148	Retail	18,592	166,400	147,808	
110	65	43003	1148	Industrial	254,788	332,800	78,012	
110	65	43004	1148	Residential/Multi/Single	498,526	1,456,000	957,474	
110	65	43005	1148	Multi-Family	154,194	187,200	33,006	
110	65	43027	1148	Beaumont TUMF Settlement Revenue	-	36,000	36,000	$ 169,932
				Total Revenues	**$ 939,091**	**$ 2,240,800**	**$ 1,301,709**	
				Expenses				
110	65	60001	1148	Salaries & Wages Fulltime	$ 77,061	$ 389,173	$ 312,112	$ 36,008
110	65	61000	1148	Fringe Benefits	24,707	177,218	152,511	$ 12,031
110	65	63000	1148	Overhead Allocation	200,000	800,000	600,000	
110	65	65101	1148	General Legal Services	12,669	75,000	62,331	
110	65	65505	1148	Bank Fees	-	15,000	15,000	
110	65	73102	1148	Parking Validations	-	500	500	
110	65	73108	1148	General Supplies	-	500	500	
110	65	73109	1148	Computer Supplies	-	500	500	
110	65	73110	1148	Computer Software	8,950	65,000	56,050	
110	65	73113	1148	Membership Dues	-	1,500	1,500	
110	65	73114	1148	Subscriptions/Publications	16	100	84	
110	65	73204	1148	Cellular Phone	507	3,000	2,493	
110	65	73302	1148	Equipment Maintenance	-	2,500	2,500	
110	65	73405	1148	Insurance - Gen/Busi Liab/Auto	-	3,000	3,000	
110	65	73601	1148	Seminar/Conferences	-	1,500	1,500	
110	65	73611	1148	Travel - Mileage Reimbursement	-	1,500	1,500	
110	65	73613	1148	Travel-AirFare	-	750	750	
110	65	73620	1148	Lodging	-	800	800	
110	65	73630	1148	Meals	-	1,000	1,000	
110	65	73640	1148	Other Incidentals	-	500	500	
110	65	85101	1148	Outside Consultants	99,503	450,000	350,497	
				Total Expenses	**$ 423,413**	**$ 1,989,641**	**$ 1,566,228**	

Western Riverside Council of Governments
Fiscal Year 2022/2023 Budget Amendment

Fund	Department	Account	Project	Description	Actual	FY 23 Budget	Variance	Amendment
				TUMF				
				Revenues				
220	65	43001	1148	Commercial/Svcs	$311,776	$1,497,600	$1,185,824	
220	65	43002	1148	Retail	$446,215	$3,993,600	$3,547,385	
220	65	43003	1148	Industrial	$6,114,913	$7,987,200	$1,872,287	
220	65	43004	1148	Residential/Multi/Single	$11,964,630	$34,944,000	$22,979,370	
220	65	43005	1148	Multi Family	$3,700,647	$4,492,800	$792,153	
220	65	43027	1148	Beaumont TUMF Settlement Revenue	$1,500,000	$864,000	($636,000)	$ 9,814,068
220	65	49104	1148	Citizens Trust Investment Interest	$0	$275,000	$275,000	
				Total Revenues	**$24,038,181**	**$54,054,200**	**$30,016,019**	
				Expenses				
220	65	65101	1148	Beaumon Legal Srvs-URBAN LOGIC	$ 287	$ 287	$ -	
220	65	65101	1148	General Legal Services	258,684	392,653	133,969	$ 1,000,000
220	65	65101	1148	General Legal Services	7,060	7,060	-	
220	65	85195	1148	Beaumont Settlement Distributions	-	-	-	$ 6,488,595
220	65	85160	1148	TUMF Project Reimbursement	-	25,000,000	25,000,000	
				Total Expenses	**$ 266,031**	**$ 25,400,000**	**$ 25,133,969**	

Western Riverside Council of Governments
Fiscal Year 2022/2023 Budget Amendment

Fund	Department	Account	Project	Description	Actual	FY 23 Budget	Variance	Amendment
				Local Transportation Fund				
				Revenues				
210	65	41701	1400	LTF Revenue	$ 1,002,500	$ 930,000	$ (72,500)	$ 72,500
				Total Revenues	$ 1,002,500	$ 930,000	$ (72,500)	
				Expenses				
210	65	60001	1400	Salaries & Wages - Fulltime	$ 45,012	$ 346,880	$ 301,868	$ 28,992
210	65	61000	1400	Fringe Benefits	14,703	153,100	138,397	$ 12,969
210	65	63000	1400	Overhead Allocation	45,000	180,000	135,000	
210	65	65101	1400	General Legal Services	-	2,500	2,500	
210	65	73102	1400	Parking Validations	-	500	500	
210	65	73107	1400	Event Support	-	500	500	
210	65	73108	1400	Program/Office Supplies	-	500	500	
210	65	73110	1400	Computer Software	-	2,500	2,500	
210	65	73113	1400	Membership Dues	1,500	750	(750)	
210	65	73116	1400	Postage	-	500	500	
210	65	73204	1400	Communications - Cellular Phones	-	100	100	
210	65	73601	1400	Seminars/Conferences	-	3,500	3,500	
210	65	73611	1400	Travel - Mileage Reimbursement	-	1,000	1,000	
210	65	73612	1400	Travel - Ground Transportation	-	1,500	1,500	
210	65	73613	1400	Travel - Airfare	-	750	750	
210	65	73620	1400	Lodging	-	2,500	2,500	
210	65	73630	1400	Meals	85	750	665	
210	65	73703	1400	Supplies/Materials	-	1,000	1,000	
210	65	85101	1400	Consulting Labor	40,581	250,000	209,419	
				Total Expenses	**$ 146,881**	**$ 948,829**	**$ 801,949**	

Western Riverside Council of Governments
Fiscal Year 2022/2023 Budget Amendment

Fund	Department	Account	Project	Description	Actual	FY 23 Budget	Variance	Amendment
				Inland Regional Energy Network - Workforce Education and Training				
				Revenues				
180	67	41480	2080	IREN - Workforce Education and Training	41,069	2,323,361	2,282,292	
				Total Revenues	**$ 41,069**	**$ 2,323,361**	**$ 2,282,292**	
				Expenses				
180	67	60001	2080	Salaries & Wages - Fulltime	10,242	71,088	60,846	$ 65,000
180	67	61000	2080	Fringe Benefits	3,443	31,124	27,681	$ 25,000
180	67	63000	2080	Overhead Allocation	10,795	111,309	100,514	
180	67	65101	2080	General Legal Services	1,600	13,400	11,800	
180	67	65101	2080	General Legal Services	1,600	1,600	-	
180	67	73107	2080	Event Support	4,167	20,833	16,667	
180	67	73107	2080	Event Support	4,167	4,167	-	
180	67	73601	2080	Seminars/Conferences	79		(79)	
180	67	73601	2080	Seminars/Conferences	79		(79)	
180	67	73620	2080	Lodging	148		(148)	
180	67	73620	2080	Lodging	148		(148)	
180	67	85101	2080	Consulting Labor	2,056	1,726,119	1,724,064	$ (90,000)
180	67	85101	2080	Consulting Labor	245	245	-	
180	67	85101	2080	Consulting Labor	2,056	2,056	-	
180	67	85101	2080	Consulting Labor	245	245	-	
180	67	85182	2080	COG REN Reimbursement	-	341,155	341,155	
				Total Expenses	**$ 41,069**	**$ 2,323,341**	**$ 2,282,272**	