



COUNCIL MINUTES

June 24, 2021

The City Council of the City of Mesa met in a Study Session in the lower-level meeting room of the Council Chambers, 57 East 1st Street, on June 24, 2021, at 7:34 a.m.

COUNCIL PRESENT

John Giles
Jennifer Duff
Mark Freeman
Francisco Heredia
David Luna
Julie Spilsbury
Kevin Thompson

COUNCIL ABSENT

None

OFFICERS PRESENT

Christopher Brady
Dee Ann Mickelsen
Jim Smith

Mayor Giles conducted a roll call.

1. Review and discuss items on the agenda for the July 1, 2021, Regular Council meeting.

All of the items on the agenda were reviewed among Council and staff and the following was noted:

Conflict of interest: None

Items removed from the consent agenda: None

Chief Information Officer Travis Cutright displayed a PowerPoint presentation to provide information regarding Item 4-d, **(Purchase of Outdoor Wireless Access Points (Replacement) for the Department of Innovation and Technology (Smart Cities Initiative) (Citywide))**, on the July 1, 2021, Regular Council meeting agenda. **(See Attachment 1)**

Mr. Cutright advised that the project specifically refers to replacing the public wi-fi within a one-square mile in the Downtown area. He commented that in order to help bridge the digital divide, the City has been working with Mesa Public Schools (MPS). He presented a map showing the areas identified through a survey conducted of MPS families where students have little or no access to internet connectivity. He said the City has been working on expanding public wi-fi utilizing a private cellular service that the City of Mesa (COM) would own and control and each tower could serve three square miles. (See Page 1 of Attachment 1)

Mr. Cutright stated the underserved area between Country Club and Mesa Drive, Broadway and University will be where the project begins to provide high-speed internet to the public. He indicated Phase 2 would continue to expand coverage using the American Rescue Plan Act

(ARPA) funds to fully build out the whole underserved area. (See Pages 4 and 5 of Attachment 1)

In response to a question from Mayor Giles, Mr. Cutright clarified the half million dollars would cover one square mile.

Responding to a question posed by Councilmember Luna regarding the cellular service, Mr. Cutright stated the COM is partnering with a company to provide communication services. He said the company is standing up a proof of concept at the communications facility that will cover three square miles. He remarked the idea is to hand out mobile hot spots to qualified families for internet connectivity through the private cellular network at no cost.

In response to a question from Mayor Giles regarding the internet capacity, Mr. Cutright revealed the throughput for the public wi-fi will be the same internet connectivity that is received in homes leveraging wi-fi. He said in a perfect condition, it is possible to get up to two gigabytes of throughput. He said currently the throughput for the public internet is throttled back to 10 megabits per second and there have been no complaints.

In response to a series of questions from Vice Mayor Duff, Mr. Cutright explained the project will add more access points to expand and overlap for better coverage. He explained the City leverages its fiber optic network to hook up the wi-fi which then connects back to the City's broader network which is a wireless connection from that point.

In response to a question from Vice Mayor Duff regarding whether businesses utilizing the City's public wi-fi can implement measures to protect their own information, Mr. Cutright explained the disclaimer that citizens must accept when connecting to the wi-fi, and that the City segments the public wi-fi from the City network with protective measures so the network cannot be infiltrated.

In response to a question posed by Councilmember Luna regarding using a Virtual Private Network, (VPN) as a way for businesses to protect themselves, Mr. Cutright agreed and said a VPN is used when employees are working remotely and is a secure method.

Mayor Giles thanked Mr. Cutright for the presentation.

2-a. Hear an update from the Maricopa Association of Governments regarding homelessness in Maricopa County, and an overview on the process and timeline to draft regional, data-driven strategies to address and coordinate homeless regional response priorities and participation.

Deputy City Manager Natalie Lewis introduced Amy St. Peter, Maricopa Association of Governments (MAG) Deputy Executive Director, and displayed a PowerPoint presentation. **(See Attachment 2)**

Ms. Lewis stated the COM has been working diligently on building infrastructure in Mesa to serve the homeless in an efficient and effective way. She commented parallel to the City's process and work is the regional effort which has now broadened to the entire area of Maricopa County.

Ms. St. Peter identified the goal of the presentation today is to share information about the regional efforts, but more importantly to hear Council's priorities and concerns on the regional efforts that are relevant, support the priorities, meet the needs of Mesa's housed and unhoused residents, while providing a level of consistency across the region in terms of how homelessness is addressed. She noted the importance of recognizing that every community is in a different place

when it comes to homelessness and the goal is to develop a regional process that honors these differences and supports each community.

Ms. St. Peter commented the topics being discussed are laying the groundwork for what is being done, what is being built together, looking at the reasons for the need to ramp up the regional response to homelessness, and what the next steps are. (See Page 2 of Attachment 2)

Ms. St. Peter stated the focus throughout the efforts is building an action plan because many communities throughout the region are straining beneath the burden of trying to care for people who are experiencing homelessness and we need better regional approaches. She summarized the three main areas of focus. (See Page 4 of Attachment 2)

Ms. St. Peter remarked the COM is a key partner who has been very active in the events surrounding the outreach for these regional efforts. She added MAG has been fortunate to work with many trusted non-profits that have deep expertise in this space such as Save the Family and Mesa United Way. (See Page 5 of Attachment 2)

Ms. St. Peter remarked more and more people are experiencing homelessness throughout the region and that for the fourth year in a row homelessness has increased, which is a similar trend seen across the country. She said for the first time ever there are more people unsheltered than can be accommodated in shelters. She reported Arizona ranks among the highest for general homelessness and single individuals and is the fifth highest in the country for families experiencing homelessness. (See Page 7 of Attachment 2)

Ms. St. Peter noted the unsheltered count has continued to increase over the last five years. She commented one reason for the increase, particularly after the economic impact of Covid-19, is that low-wage workers have been disproportionately impacted. (See Pages 8 and 9 of Attachment 2)

Ms. St. Peter indicated another factor more particular to our region is the lack of affordable housing and the increasing housing costs putting more people at risk. She mentioned while Mesa is focused on building higher wage jobs and housing, the underlying impact could be loss of affordability as well. (See Page 10 of Attachment 2)

Ms. St. Peter pointed out throughout the region and county the moratorium on evictions has helped keep people in their homes during the pandemic. She continued by saying many people could soon be locked out when the moratorium is lifted. She predicted the number of individuals being evicted and locked out will be high. (See Page 11 of Attachment 2)

Ms. St. Peter highlighted that Mesa has invested more than \$22 million in rent and utility assistance in the last year and served more than 10,000 people, which has helped the residents in Mesa considerably. (See Page 12 of Attachment 2)

Ms. St. Peter stated there are a variety of different reasons people experience homelessness, adding the top three are family disputes, economic, and eviction. She described the number of people who cite mental health issues and substance use as being the primary reason for them losing their homes is between 10% to 15%; however, the rates of mental health issues and the rates of substance use are much higher. She commented on the way Mesa is raising the bar on addressing mental health issues by shifting police responses to include non-police personnel. (See Page 13 of Attachment 2)

Ms. St. Peter advised MAG is looking at different sources of data to understand those who may be at risk of losing their homes. She indicated people are losing their homes throughout the entire region, some in higher concentrations than others. She provided statistics on unemployment claims that have been filed in Arizona and Mesa. (See Page 14 of Attachment 2)

Ms. St. Peter explained another indicator of people at risk of losing their homes are those who are paying more than 30% of their income each month on housing. She emphasized prevention or diversion may be the best strategy upfront to keep individuals from experiencing homelessness, which is more cost effective and humane. (See Page 15 of Attachment 2)

Ms. St. Peter noted another indicator for people who may be at risk are those calling 2-1-1 for housing assistance and homeless assistance program referrals. She discussed the importance of considering a range of solutions that specifically meets the needs of residents and individual communities, then assessing those needs at the regional level to ensure there are no gaps. (See Page 16 of Attachment 2)

Ms. St. Peter mentioned while there is some level of need throughout the region, there is not consistent support available. She remarked the locations of homeless shelters and housing available for those experiencing homelessness are not consistently present in the region and the goal through the regional work is to expand available housing. (See Page 17 of Attachment 2)

Ms. St. Peter indicated MAG's efforts began in the fall after receiving requests to strengthen the regional response to homelessness. She reported MAG adopted the 14 regional strategies that were developed at the MAG regional council and the strategies include developing an action plan and identifying specific tactics with measurable outcomes, as well as identifying possible funding sources, partners, and other stakeholders in this work. (See Page 19 of Attachment 2)

Ms. St. Peter highlighted that the vision and mission revolve around sharing the responsibility and ensuring that all communities in the region are strong, safe, and healthy. She stated that the focus is on working with regional coordinated efforts to make sure when homelessness does occur, it is brief and rare, and support is provided quickly to maintain a level of long-term stability. (See Page 20 of Attachment 2)

Ms. St. Peter said the process began with identifying local communities as a foundation and developing different strategies by learning what is working throughout the region, as well as the country, as it pertains to regional approaches to homelessness. She continued by saying through additional research and outreach, 14 viable opportunities for regional action were identified and the regional portfolio was accepted by regional council last month. (See Page 21 of Attachment 2)

Ms. St. Peter explained hearing from diverse people is critical and noted 10 different forums have been held reaching more than 700 people, adding it is critically important to draw expertise from a variety of backgrounds for a more holistic response to homelessness. (See Pages 22 and 23 of Attachment 2)

Ms. St. Peter stated a number of surveys have been conducted at the regional level to ensure opportunities to provide input. She pointed out the COM has also conducted surveys to better understand the priorities of Mesa residents and that more than 60% of the people living in Mesa cited strategies for reducing homelessness as among their highest priority. She added residents also expressed interest in having police and non-police alternatives address mental health and substance use calls. (See Page 24 of Attachment 2)

Ms. St. Peter commented data analysis has included analyzing possible funding sources, identify investments that address homelessness, and understand what additional investments are needed to implement the strategies and tactics identified. (See Page 26 of Attachment 2)

Ms. St. Peter indicated strategies have been identified within five categories and provided examples. (See Page 28 of Attachment 2)

Ms. St. Peter explained the Homelessness Assets and Needs Data for Unified Planning (HANDUP) tool is an interactive mapping tool that includes populations of people who are currently experiencing homelessness as well as those who may be at risk. (See Page 30 of Attachment 2)

Ms. St. Peter explained currently the HANDUP link is password protected until Council feedback is gathered. (See Page 31 of Attachment 2)

Ms. St. Peter mentioned MAG has been working closely with Solari Crisis and Human Services and Arizona State University (ASU) to identify a data-driven approach to project the number of people who will be in need of services and the number of shelter beds and housing units that will be required. She outlined the next steps in the process. (See page 32 of Attachment 2)

Councilmember Thompson thanked Mr. Brady for making this a regional discussion. He pointed out inaccuracies on the percentage of vulnerable households within District 6. He questioned the accuracy of the data when the maps are incorrect. He noted the data for Arizona 2-1-1 calls requesting housing assistance also shows areas where there is no housing. He mentioned in talking with police officers, there is a high percentage of homeless that are encountered who do not want help or services. He inquired whether it is easier to put the funds towards keeping people housed or trying to get the people that are already homeless back into some type of housing?

Ms. St. Peter advised she would follow up with staff regarding how the maps were developed and verify their accuracy. She added feedback is one of the reasons having these discussions is important, to make sure the data is correct. She remarked many homeless individuals have experienced high levels of trauma which has resulted in low levels of trust and is a major reason that services are turned down. She indicated other reasons could include wanting to stay with a partner or pet, not wanting to lose their belongings, and other mental health and substance abuse issues. She understands the frustration when trying to help individuals who are turning away assistance.

In response to a question from Councilmember Luna regarding what other communities are doing and whether the funding from the American Rescue Plan Act can be utilized, Ms. St. Peter announced some communities are using Covid relief dollars or General funds to subsidize the costs. She indicated over the summer MAG will be identifying the best ways for communities to participate in the regional efforts and looking at a variety of funding sources.

Mr. Brady mentioned there was concern expressed by neighborhoods regarding concentrations of low-income housing and finding available property close to transportation. He mentioned the added challenge of making sure individuals have access to the wraparound services needed as isolation creates a formula for failure.

Mayor Giles outlined a conversation with Tom Simplot, the new State Housing Director, regarding dispelling the impression that Mesa is not supportive of the Low-Income Housing Tax Credit (LIHTC) but welcomes LIHTC housing in the underserved parts of Mesa. He invited Housing and

Community Development Director Michelle Albanese to address this issue at a subsequent meeting and discuss what needs to be done to encourage more LIHTC housing.

Councilmember Spilsbury expressed her concern that the median one-bedroom apartment is going for \$1,100 and the difficulty in finding affordable housing.

Ms. St. Peter stated a balanced housing plan is critical to achieving more affordable housing, as well as being proactive in offering assistance upfront as a prevention strategy, and engaging more landlords to accept vouchers. She mentioned it is important to address the immediate need and develop a long-term plan to have a sustainable portfolio of options. She added on a regional basis a better mix of housing options needs to be provided to ensure individuals do not lose their homes.

In response to a series of questions posed by Councilmember Heredia related to what the law enforcement strategies look like in the plan, Ms. St. Peter discussed the good practices taking place locally that MAG would like to implement regionally, such as the misdemeanor repeat offender program, and noted the importance of having a consistent response from law enforcement. She pointed out the need to measure the outcomes to identify needed corrections. She said scenarios are being developed to reduce the numbers of unsheltered, family, and the chronically homeless. She identified a variety of different mechanisms that are being explored to deal with the expiration of the moratorium on evictions and providing the needed rental assistance. She agreed that transportation is a key factor to consider and said the HANDUP mapping tool has a layer to view the light rail and fixed route bus lines which can help when planning at the local level.

In response to a question from Vice Mayor Duff, Ms. Lewis stated the City is working with the courts and constables through the Emergency Rental Assistance Program. She described the possibility of having regional diversion specialists working with justice courts to deal with evictions and working with MPS and non-profits to identify families in eviction situations.

Discussion ensued relative to regional homeless strategies, the metrics, and the need for all partners to come together to accomplish the regional goals.

Mayor Giles thanked Ms. St. Peter and staff for the presentation.

(A brief recess occurred at 9:08 a.m. The Study Session resumed at 9:14 a.m.)

2-b. Hear a presentation, discuss, and provide direction on the challenges facing electric utilities in the southwest energy markets this summer and methods to mitigate the impacts on Mesa's electric customers.

Energy Resources Department Director Frank McRae introduced Energy Resources Program Manager Anthony Cadorin, who displayed a PowerPoint presentation. **(See Attachment 3)**

Mr. McRae announced in his 40 years in the energy industry he has never experienced anything like what is occurring today with the energy markets. He remarked the rules for planning and acquiring energy supplies are dramatically different and continue to change and evolve based on multiple complex events.

Mr. Cadorin stated electricity must be generated when needed and supply is constantly adjusted to match the demand. He mentioned storage is a new technology and will be a growing factor for

the future. He discussed the concept of reserve margin, adding there is an extreme tightening of the reserve margin as demand grows. (See Page 2 of Attachment 3)

Mr. Cadorin provided examples of what happens when reserve margins tighten, such as the rolling blackouts that occurred in California and Texas. He pointed out the retirement of large generating plants and not seeing adequate building of new plants contributes to the issue, especially as the West is experiencing the fastest population growth in the country. (See Page 3 of Attachment 3)

Mr. Cadorin remarked record demand, combined with very low generator availability led to the direct cause of outages. He presented the reserve margins for the past five years, adding the percentage is expected to continue to decrease for 2021 and 2022. (See Page 4 of Attachment 3)

Mr. Cadorin presented a graph showing the demand and resources for a typical summer day. He explained the base loads is power supplied 24/7, 365 days a year and the peak purchases in the summer are provided during those peak hours. He continued by saying the gap between resources and customer demand is subject to market pricing. (See Page 5 of Attachment 3)

Mr. Cadorin indicated in 2009/2010 the City's annual supply budget for electric power was close to \$17 million and through leveraging efforts to increase competition were able to drop the budget to \$11.6 million last year with the savings passed directly to customers. He said currently prices are increasing 250% to 700% on the market and looking forward staff is only able to forecast a range. (See Page 6 of Attachment 3)

Mr. Cadorin advised the Integrated Resource Plan (IRP) was put together and brought to Council in 2019 which was to keep 20% hydro resources and continue increasing competition for the remaining 80%. He indicated the City was able to foresee the tightening market and added contingencies to diversify approximately a third of the peak capacity away from the market by 2023; however, the tightening came much faster and more drastic than predicted. (See Page 7 of Attachment 3)

Mr. Cadorin reported Energy Resources is working with City departments to reduce usage during peak hours to help shift demand, communicating with customers to ask for assistance in conserving energy during peak hours, and working with conservation programs and organizations as mitigation efforts. (See Page 8 of Attachment 3)

Mr. Cadorin highlighted the long-term focus will be to diversify the City's portfolio. He added a study will be done on service area generation to hopefully insulate customers from market fluctuations. He added the utility scale solar is in negotiations but will not be available until 2023/24. He shared additional strategies on the supply and demand side. (See Page 9 of Attachment 3)

Mr. McRae stated one of the tools within the Smart Meter Program will allow pre-payment, which is a very effective conservation method for lower-income customers. He remarked once the Smart meters are in place, the programs will be developed.

Mr. Cadorin presented a graph on what the City's portfolio could look like in Fiscal Year 23/24 by following the altered path. He said currently the City is purchasing about 80% of the supply on the market and the shifted plan will reduce that to 40%. He commented Energy Resources would

like a third-party evaluation of where the utility should go with generation. (See Page 10 of Attachment 3)

In response to a question from Mayor Giles regarding how the changes will impact rates for customers, Mr. McRae answered plans are still in development; however, the City would like to maintain some level of comparability with Salt River Project (SRP) and will have to increase rates in order to ensure the financial viability of electric. He added the City will not recover the full cost of the impacts in the near term and would increase the rates through the electric energy cost adjustment factor mechanism to not go any higher than 5% above SRP's rates.

Mr. Brady elaborated by saying there are two parts to the electric and gas rates: the base rate for operations and the actual energy costs that are passed through to the customer. He said under a typical scenario, the Council-approved rate does not change; however, energy costs continue to be passed on to the customer. He explained one reason the City has an Enterprise Fund is so the water, wastewater, gas, electric, and solid waste are under one large fund; and when fluctuations occur, the City can self-absorb the increases. He noted the scenario being played out currently is not sustainable and options to recover some of the costs will need to be explored. He said the decision has been made not to impact the customers right now but will come back to Council in the fall to present the long-term plan on recovering the significant increase to electric costs.

Responding to a question posed by Mayor Giles, Mr. McRae reported every utility he has talked to in the desert Southwest is facing a similar situation. He continued by saying Mesa is unique in that 80% of the energy supplies are purchased from regional markets and is more dependent upon the short-term market than others, adding SRP is taking steps that have never been needed before to meet their supply requirements. He said partnering with SRP to take advantage of their core competencies in designing, building, and constructing power plants to create opportunities will assist the City.

Councilmember Thompson commented looking at the increases, at some point in time the City needs to decide if the return on the investment is worth keeping and maintaining an electric grid, or is the City better off allowing SRP to absorb the City utilities to stabilize the rates. He suggested having conversations with SRP to see if they would want to take over the electric grid and what that would look like for Mesa long-term considering the continuing trend.

Mr. McRae clarified Mesa's cost structure is set up to where the electric utility is not being subsidized.

Councilmember Thompson agreed to date the electric is not being subsidized; however, with the increase, Enterprise funds from the gas, water, or solid waste side would need to subsidize the electric costs in order to not pass the costs on to the customers. He mentioned the City is already subsidizing customers through the Low Income Home Energy Assistance Program (LIHEAP) or the Summer Assistance Program.

Mr. McRae stated for the last 18 years revenues from electric customers have more than offset the costs and contributed to the Enterprise ending fund balance. He admitted there is the possibility of having to tap into the Enterprise Fund to offset costs but ultimately the costs will be recovered from customers.

In response to a question from Councilmember Heredia related to whether the change will be long term, Mr. McRae said there is so much uncertainty in the market and the market is reacting

to that uncertainty. He mentioned typically the City would receive six or seven respondents to a request for proposal, and this year two were received on one product and zero on the other. He remarked so much depends on whether the market corrects itself and whether participants are able to generate capacity and maintain reserve margins. He added the market was steady in terms of the prices which were declining, and the City was able to take advantage of those prices and pass the reduced costs on to the customers.

Further discussion ensued related to mitigating the City's exposure, strategies to diversify the portfolio with items such as gas generation power or battery storage in response to the changing market, and steps to create opportunities to offset the costs.

In response to a series of questions from Councilmember Luna, Mr. McRae explained Mesa's electric service area (ESA) is five and a half square miles centered in Downtown Mesa. He noted the Red Mountain Library branch is a direct customer of SRP. He indicated once the Smart meters are in place in approximately two years, the time-of-use rate service and pre-pay service will be implemented.

In response to a question posed by Councilmember Luna whether the residents living in the Central Corridor will experience increases, Mr. Brady acknowledged some costs are being passed on now with the intention of spreading out the increases over time.

Councilmember Freeman discussed the \$19 million swing from last year to current which reinforces that the City needs to be more self-reliant. He described concepts to offset the costs, including gas turbines added to the City's infrastructure that creates more leverage and a valuable asset. He inquired whether Energy Resources is looking at additional power purchase agreements.

Mr. McRae stated he has reached out to every supplier he is aware of to compare notes, and everyone is in the same situation. He affirmed Energy Resources is looking at power purchase agreements and is in discussions with SRP on obtaining a piece of their solar projects. He elaborated on the reliable improvements that are being used today.

In response to multiple questions from Vice Mayor Duff, Mr. McRae confirmed the low levels in the lakes will have an effect on the supply. He said as the City gets ready to bring on things like solar, an additional resource will be needed to pick up the demand, as well as finding a way to either acquire renewable natural gas on the market or providing the renewable natural gas in order to go from a hydrocarbon that is fossil fuel based to a waste recovery type source which is also helping meet the goals in the Climate Action Plan. He stated the initial flow of renewable natural gas is earmarked for the solid waste fleet; however, as more feedstocks are identified to go into the water reclamation plants and the capability is expanded to produce the renewable natural gas, the excess can be used for generation assets. He commented that the City will find the energy needed to keep customers out of a blackout situation. He said the issue is the delicate balance between supply and demand and the region is getting close to where demand exceeds supply. He said figuring out a way to conserve and reduce consumption is essential. He guessed the minimum lead time to get the gas generating turbines online is approximately 24 months.

Mayor Giles thanked staff for the presentation.

3. Current events summary including meetings and conferences attended.

Vice Mayor Duff –

One Community summits

Councilmember Luna – Falcon Field community meeting
NAELO virtual conference
Mesa community forum with Chief Cost

Councilmembers Freeman and Spilsbury visited the Mesa Police Department Youth Academy.

Councilmember Luna announced the 80th anniversary ice cream social on July 10, 2021, at Falcon Field.

4. Scheduling of meetings.

City Manager Christopher Brady stated that the schedule of meetings is as follows:

Thursday, July 1, 2021, 5:15 p.m. – Study Session

Thursday, July 1, 2021, 5:45 p.m. – Regular Meeting

Thursday, July 8, 2021, 5:15 p.m. – Study Session

Thursday, July 8, 2021, 5:45 p.m. – Regular Meeting

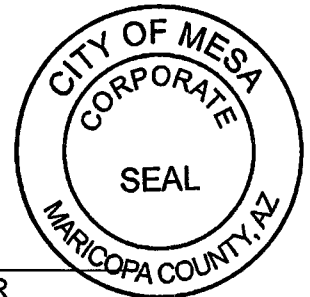
Mr. Brady advised City buildings will open to the general public beginning August 2, 2021, and the public will be invited back to the first Council meeting on Thursday, August 19, 2021. He verified the online and remote services provided during the pandemic will continue.

5. Adjournment.

Without objection, the Study Session adjourned at 10:19 a.m.



JOHN GILES, MAYOR



ATTEST:



DEE ANN MICKELSEN, CITY CLERK

I hereby certify that the foregoing minutes are a true and correct copy of the minutes of the Study Session of the City Council of Mesa, Arizona, held on the 24th day of June 2021. I further certify that the meeting was duly called and held and that a quorum was present.

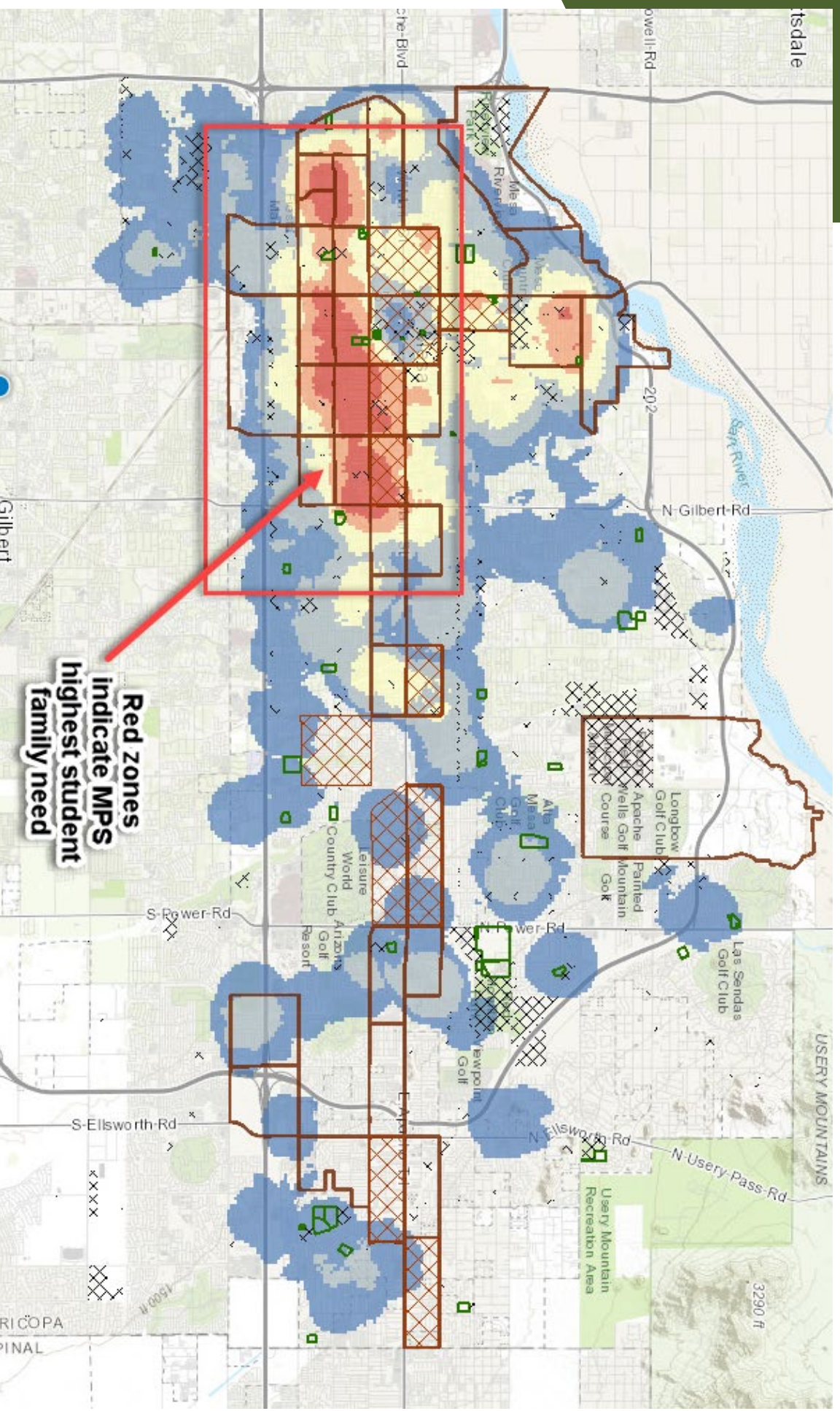


DEE ANN MICKELSEN, CITY CLERK

Mesa CDBG Zones and Student Internet Access

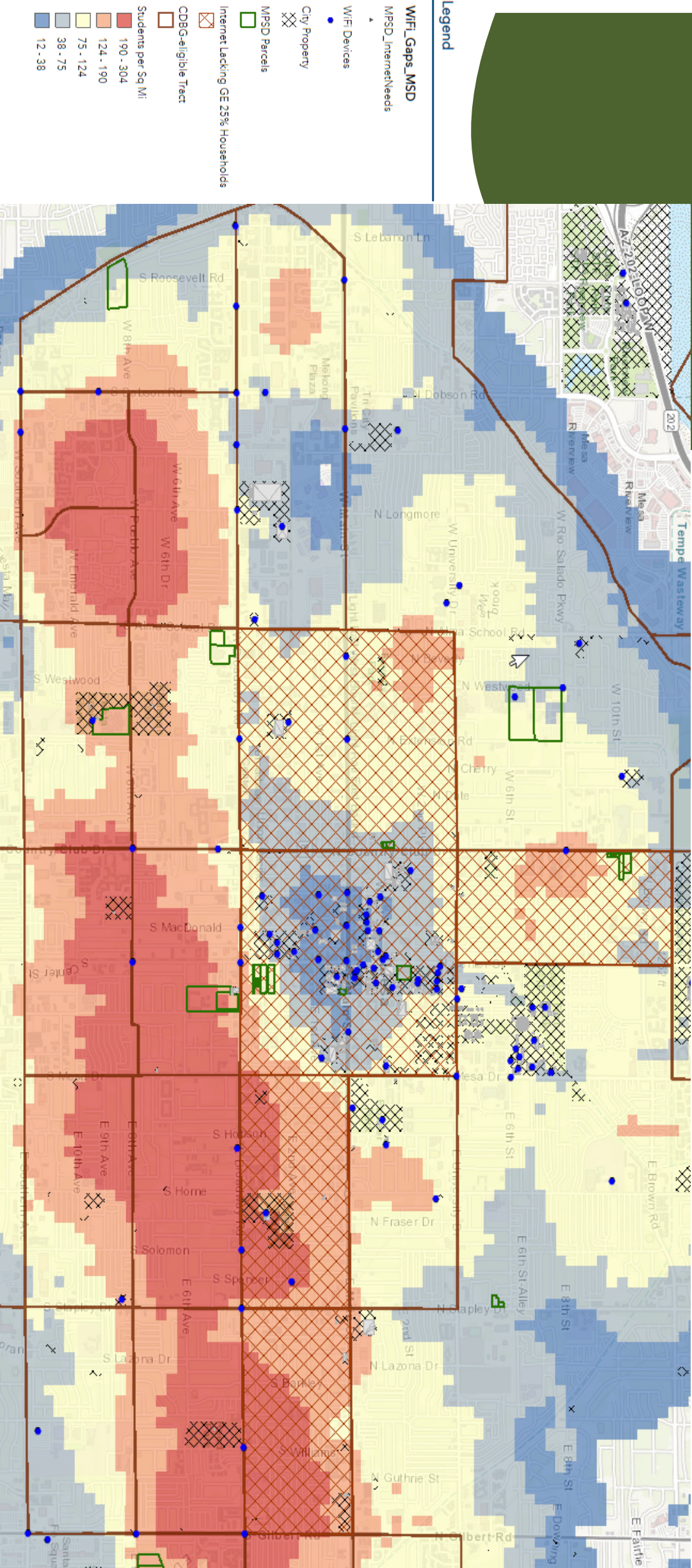
CDBG Tracks overlaid with MPS Student Internet Need. Red areas are targeted tracts for under-served families. The following maps focus on areas in the red box.

- WiFi_Gaps_MSD
- MPSD_InternetNeeds
- WiFi_Devices
- City_Property
- MPSD_Parcels
- Internet Lacking (E 25% Households)
- CDBG-eligible Tract
- Students per Sq Mi
- 190 - 304
- 124 - 190
- 75 - 124
- 38 - 75
- 12 - 38



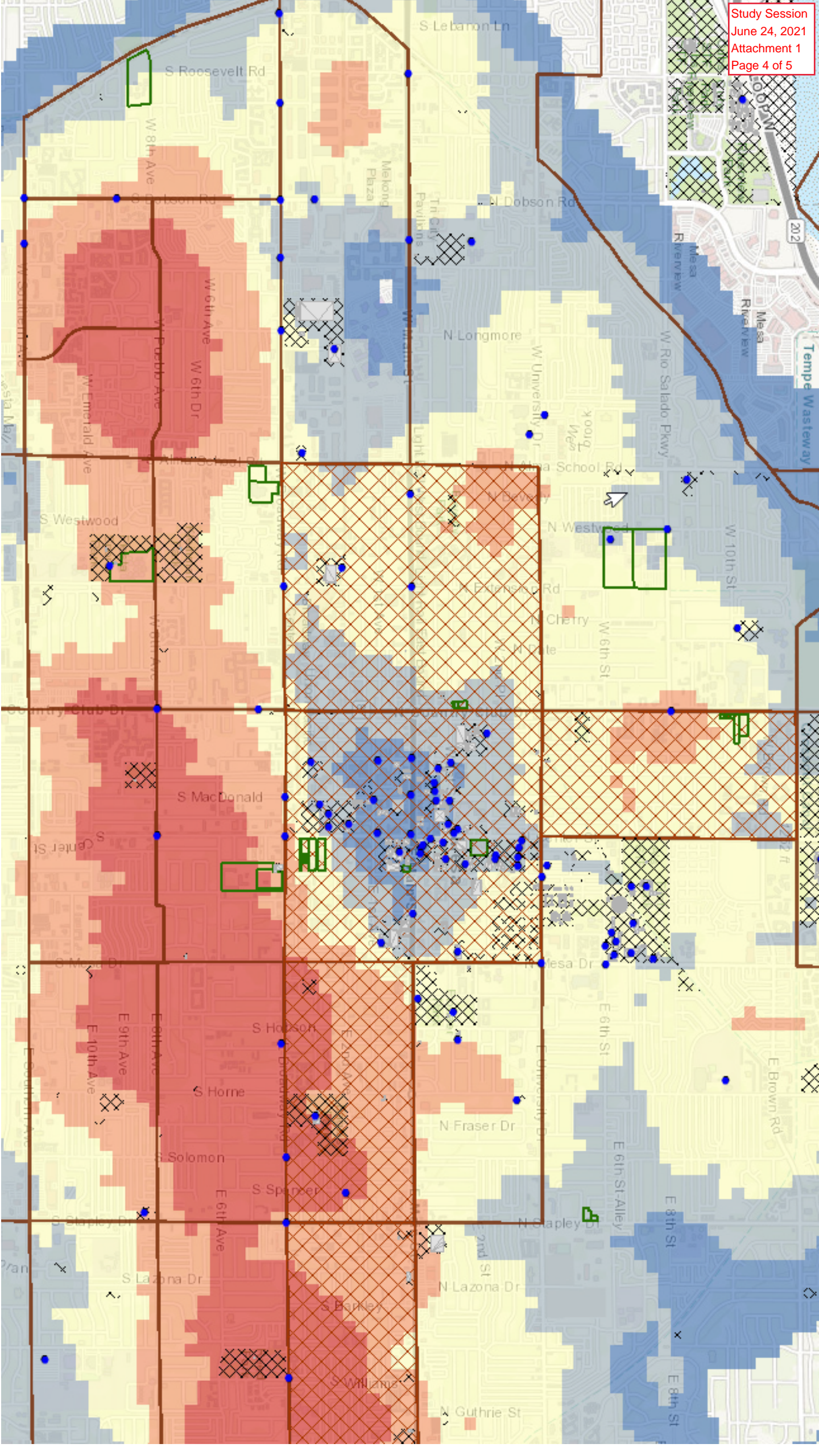
Mesa-Targeted Areas of Highest Need

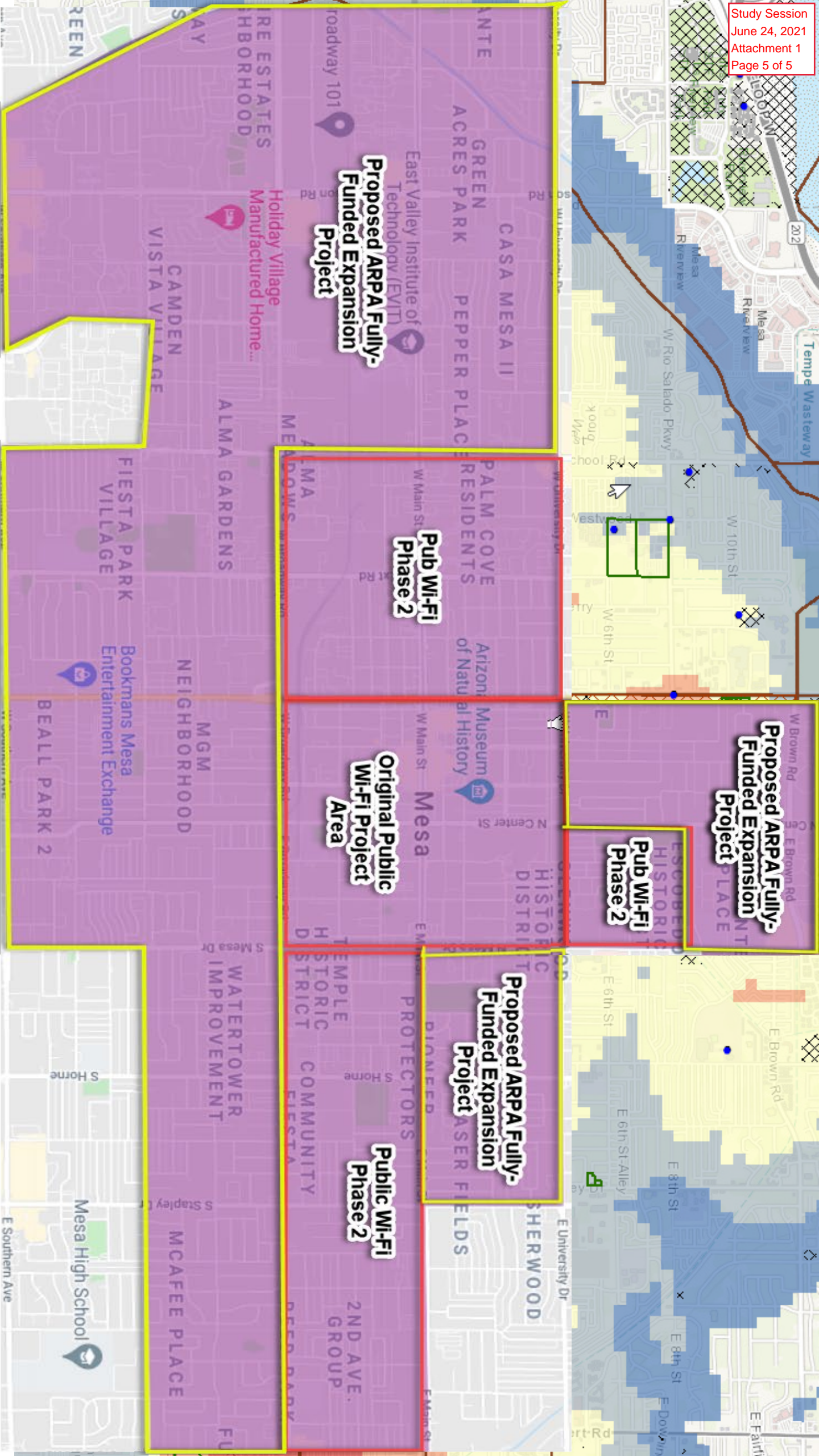
CDBG Tracks overlaid with MPS Student Internet Need. Red areas are targeted tracts for under-served families.



Info Presented on the Next Two Slides

- Slide 1
 - Heat map showing the CDBG Zones overlaid with the Mesa Public Schools data for student families with inadequate internet services.
 - Pink and Red areas are tracts of greatest need.
- Slide 2
 - Same Map with the HUD Pre-qualified Tracts shaded in purple.
 - Project Phase/Funding Overlays
 - Phase 1 City Project to replace the existing Public Wi-Fi Infrastructure and to expand the downtown coverage to 1 Square Mile (outlined in Red)
 - Request ARPA funds to replace City funds
 - Phase 2 City Project to expand the Public Wi-Fi footprint into adjacent tracts, north to Athletics Way, and east to Alma School
 - Request ARPA funds to fully replace City funds
 - Phase 3 ARPA Fully-Funded Proposed coverage area (outlined in Yellow)
 - Request Fully-Funded by ARPA
 - Total Coverage is 10 square miles of HUD Pre-qualified Tracts





Mobilizing the Regional Response to Homelessness: *Action Plan* *Development*

June 2021

Mesa Council Meeting



Topics

- ▶ What are we building?
- ▶ Why are we doing this?
- ▶ How are we doing this?
- ▶ What are the next steps?

What are we building?



Focus

- **Through a coordinated, regional approach, build an action plan that:**
 - Reduces the number of people experiencing homelessness.
 - Increases access to homeless assistance programs throughout the entire region.
 - Keeps people housed during and after the pandemic.

Many Thanks to All Our Partners:

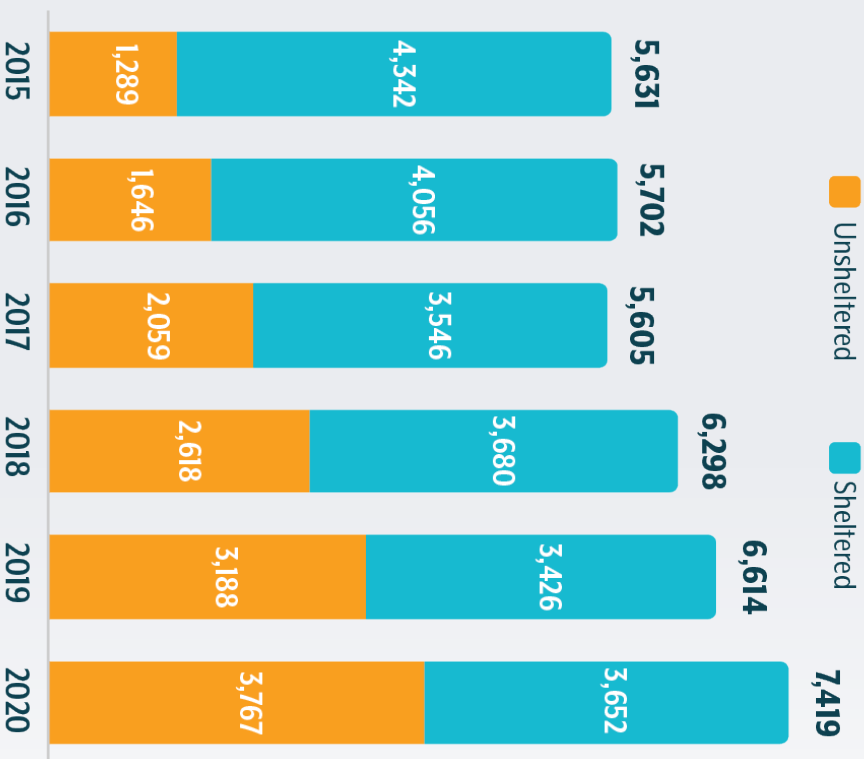
- Maricopa Regional Continuum of Care.
- Nonprofit agencies such as Save the Family and Mesa United Way.
- Regional Collaborative on Homelessness.
- Solari Crisis and Human Services.
- MAG member agencies, including the municipal Human Services and intergovernmental staff.
- Forum, survey, and strategy session participants; speakers; and planning teams.
- People with lived experience.
- MAG human services, RAD, and policy teams.
- Applied Economics.
- Arizona Housing Coalition.
- HomeBase.
- Corporation for Supportive Housing.
- Arizona Town Hall.
- Focus Strategies.

Why are we doing this?



Overall Point in Time (PIT) Count Rising for the Past 4 Years

Total PIT Count, 2015-2020



Growth Rate from 2019-2020

Total PIT Count

+12%

Unsheltered Count

+18%

Sheltered Count

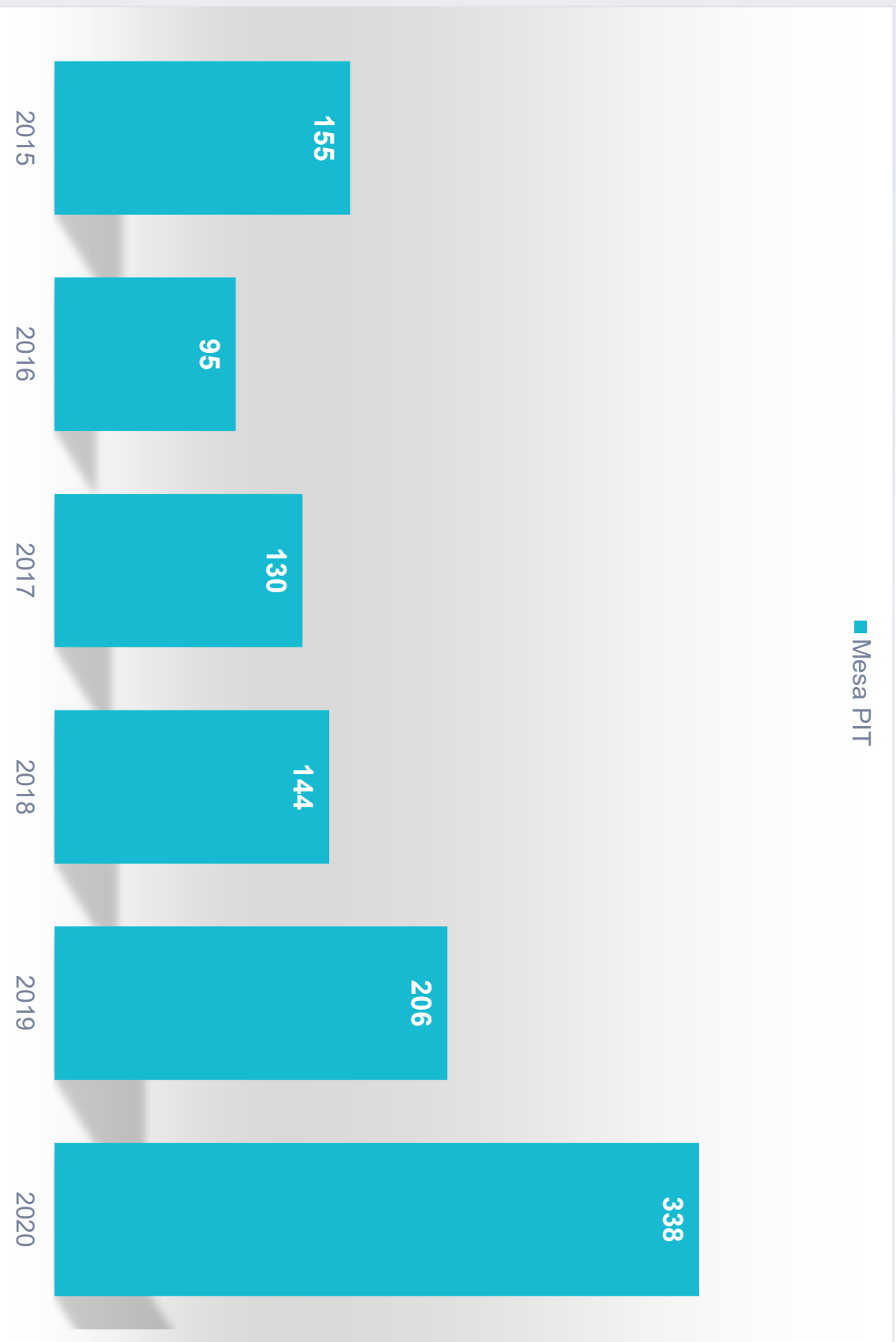
+7%

The unsheltered count increased at a **higher rate** than the sheltered and overall PIT Count.

Source: Maricopa Regional Continuum of Care
 PIT Count, 2015-2020

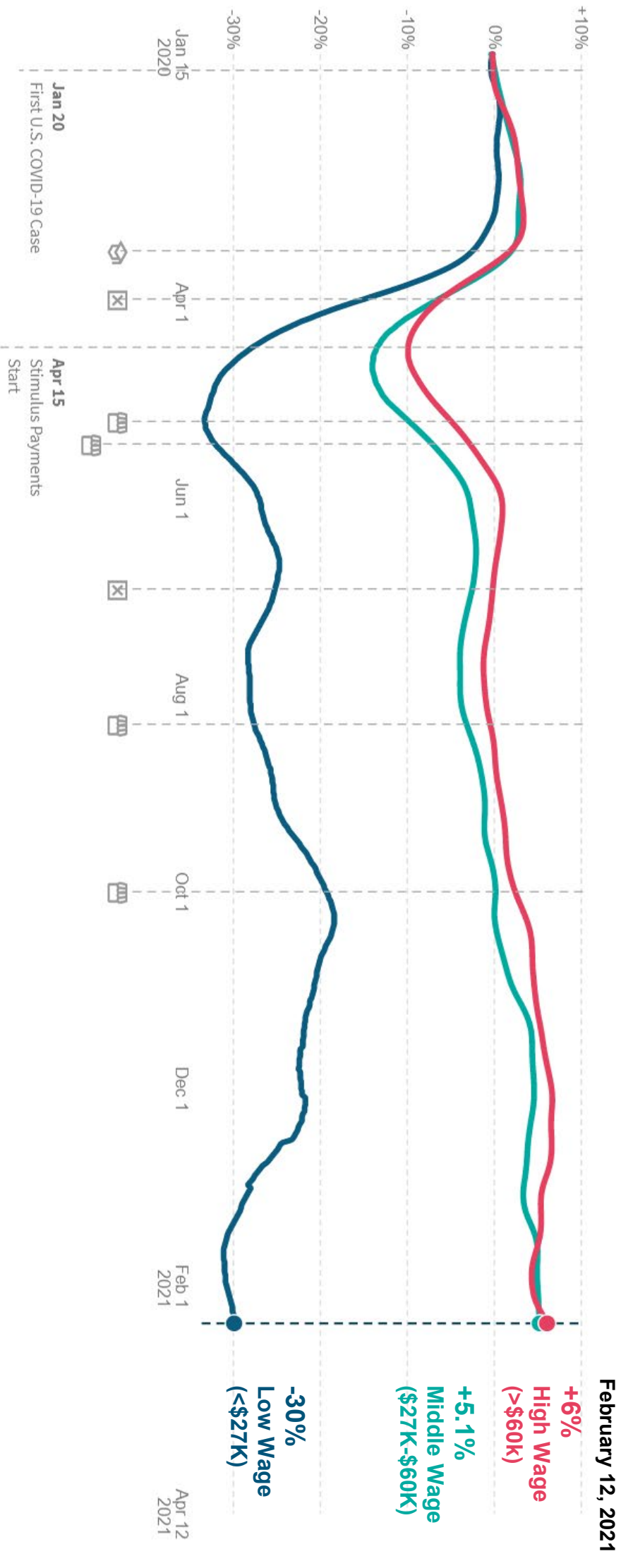


Point in Time (PIT) Unsheltered Count Rising in Mesa



Low Wage Workers Disproportionately Impacted - 30% of Jobs Lost

Percent Change in Employment*, Phoenix/Mesa Metro



Source: Opportunity Insights Economic Tracker, tracktherecovery.org April 2021

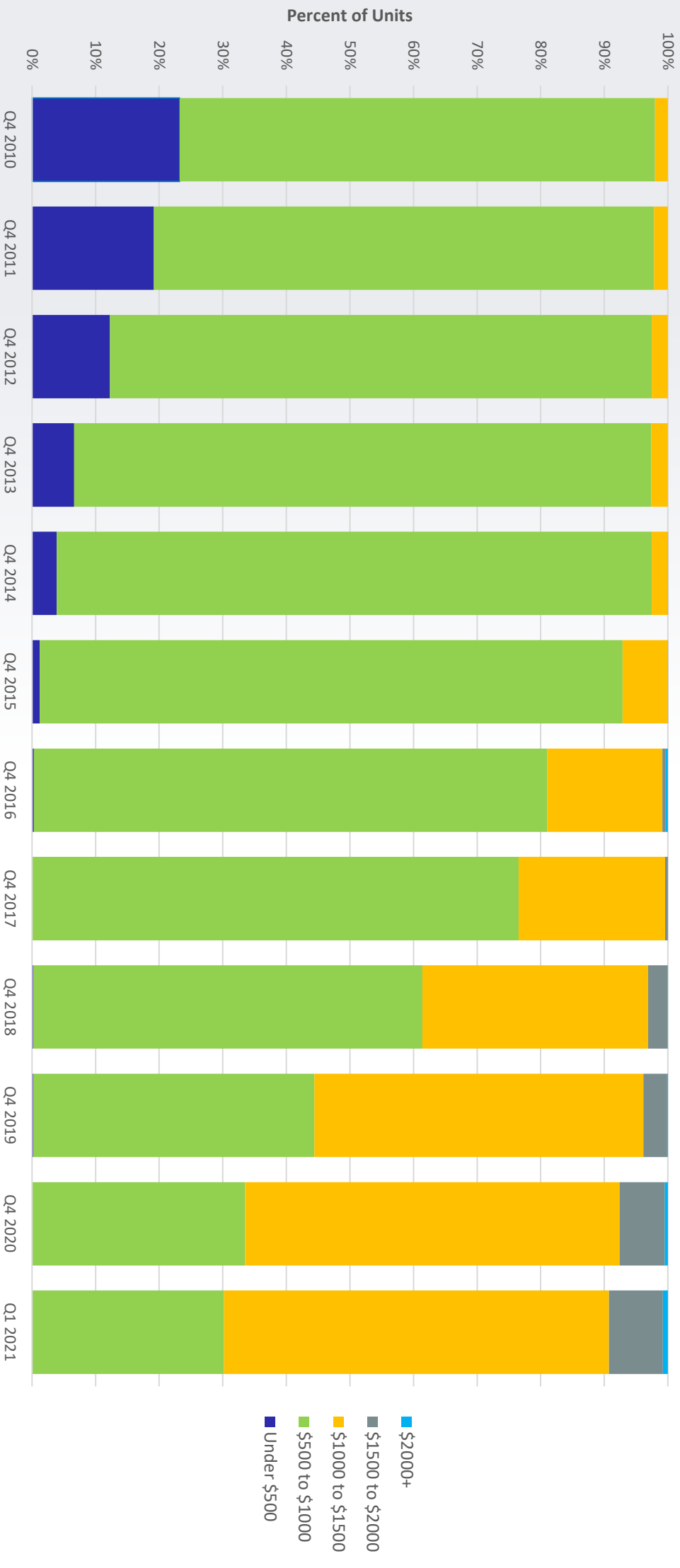
*Change in employment rates (not seasonally adjusted), indexed to January 4-31, 2020. This series is based on payroll data from Paychex and Intuit, worker-level data on employment and earnings from Earning, and timesheet data from Kronos.



\$1,000 has decreased by more than 60% in the past 10 years.

the City of Mesa, availability of apartment units with rent under

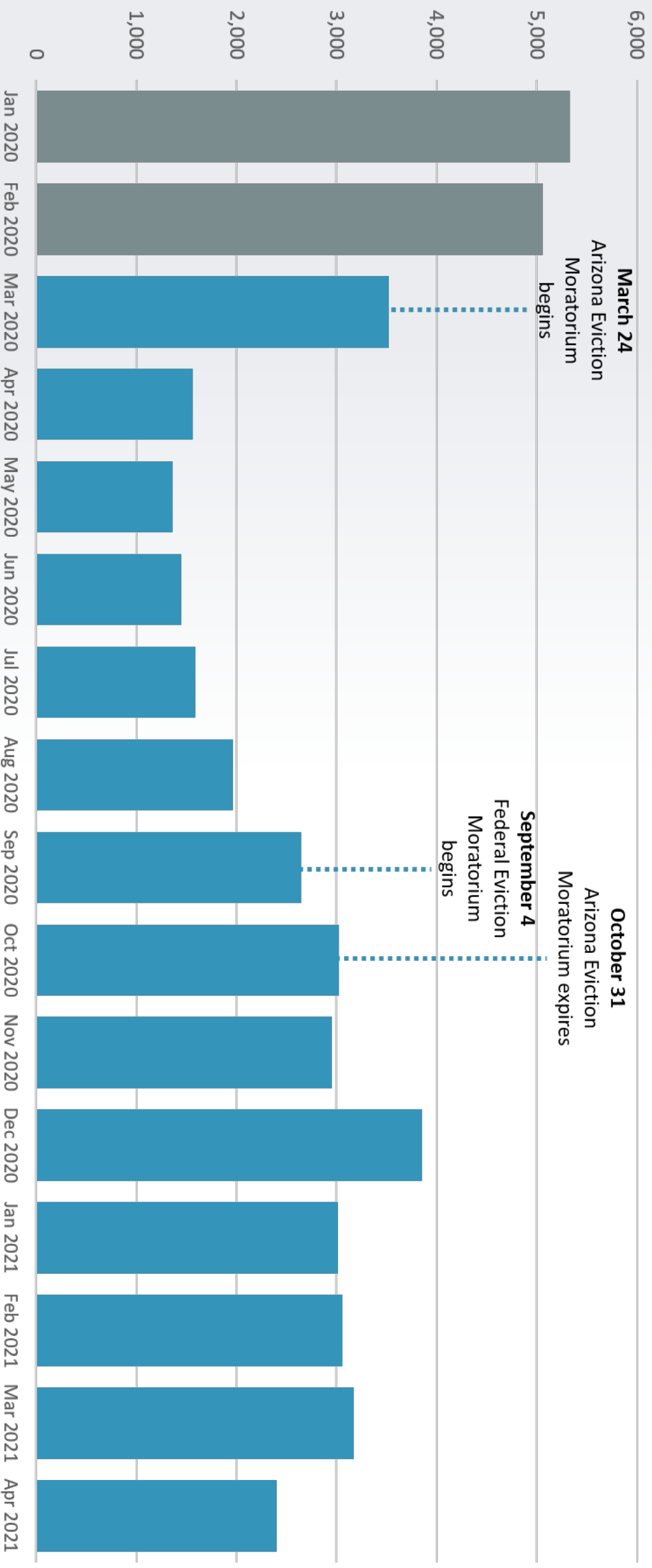
Apartment Rents, 2010-2021



Source: RealData, Inc.

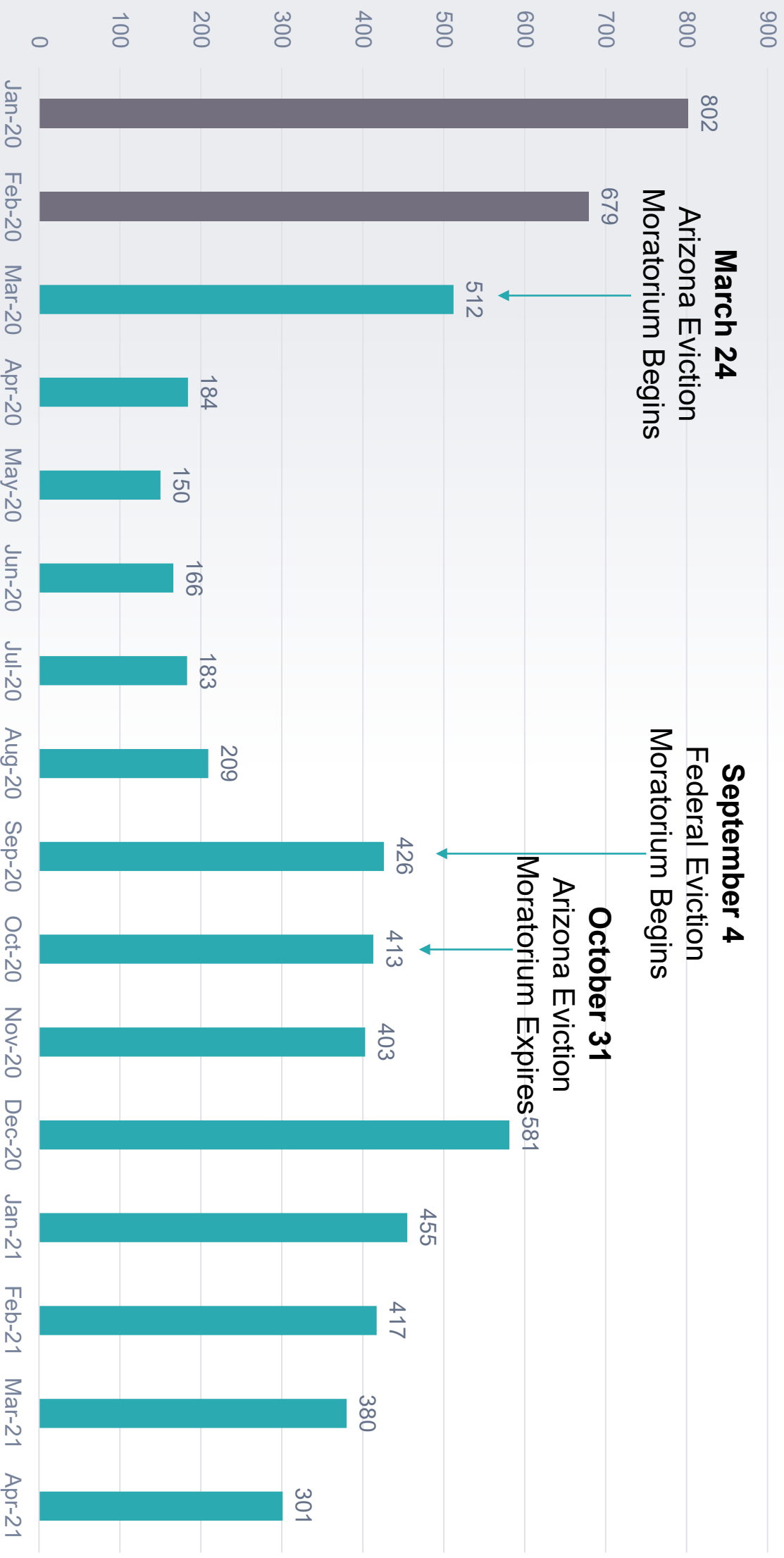


Maricopa County Evictions, 2020-2021 -55%



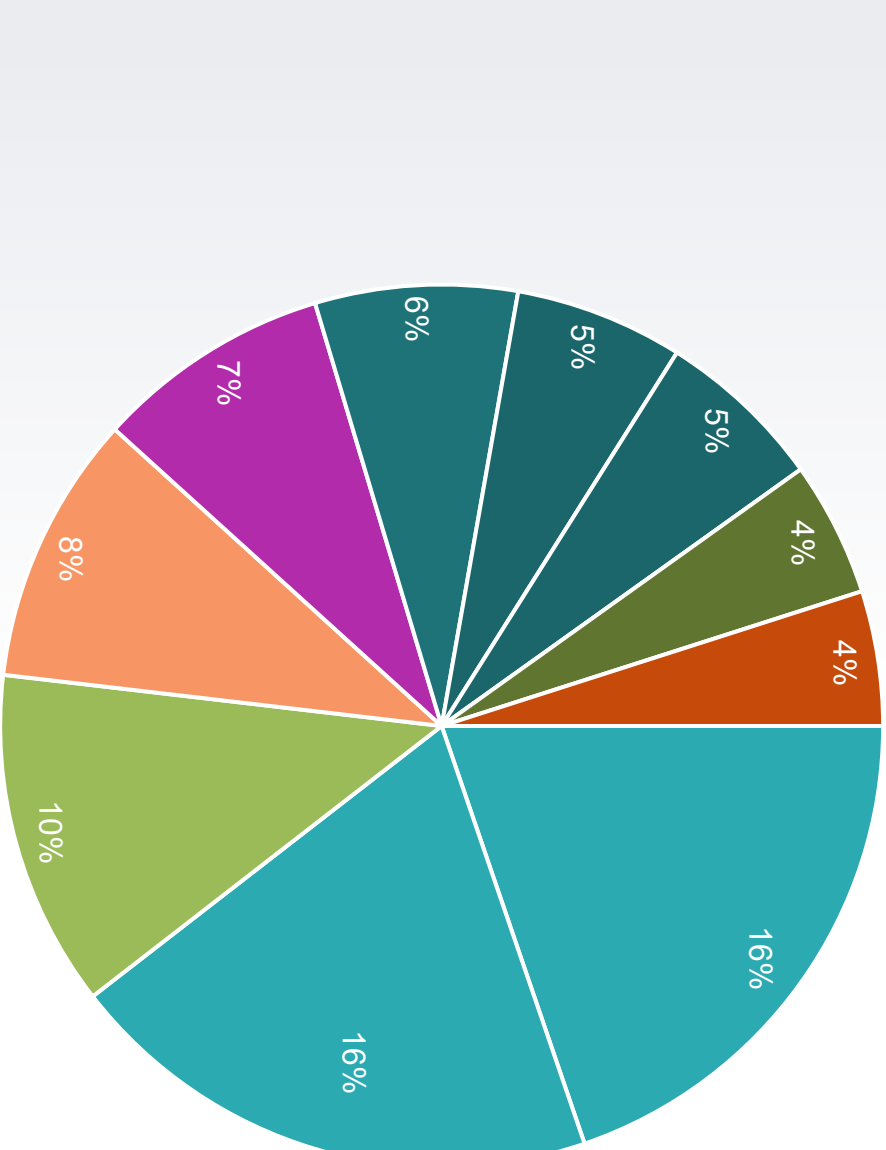
Source: Maricopa County Justice Courts

Mesa Evictions, 2020-2021 -62%



Self-reported Reasons for Homelessness

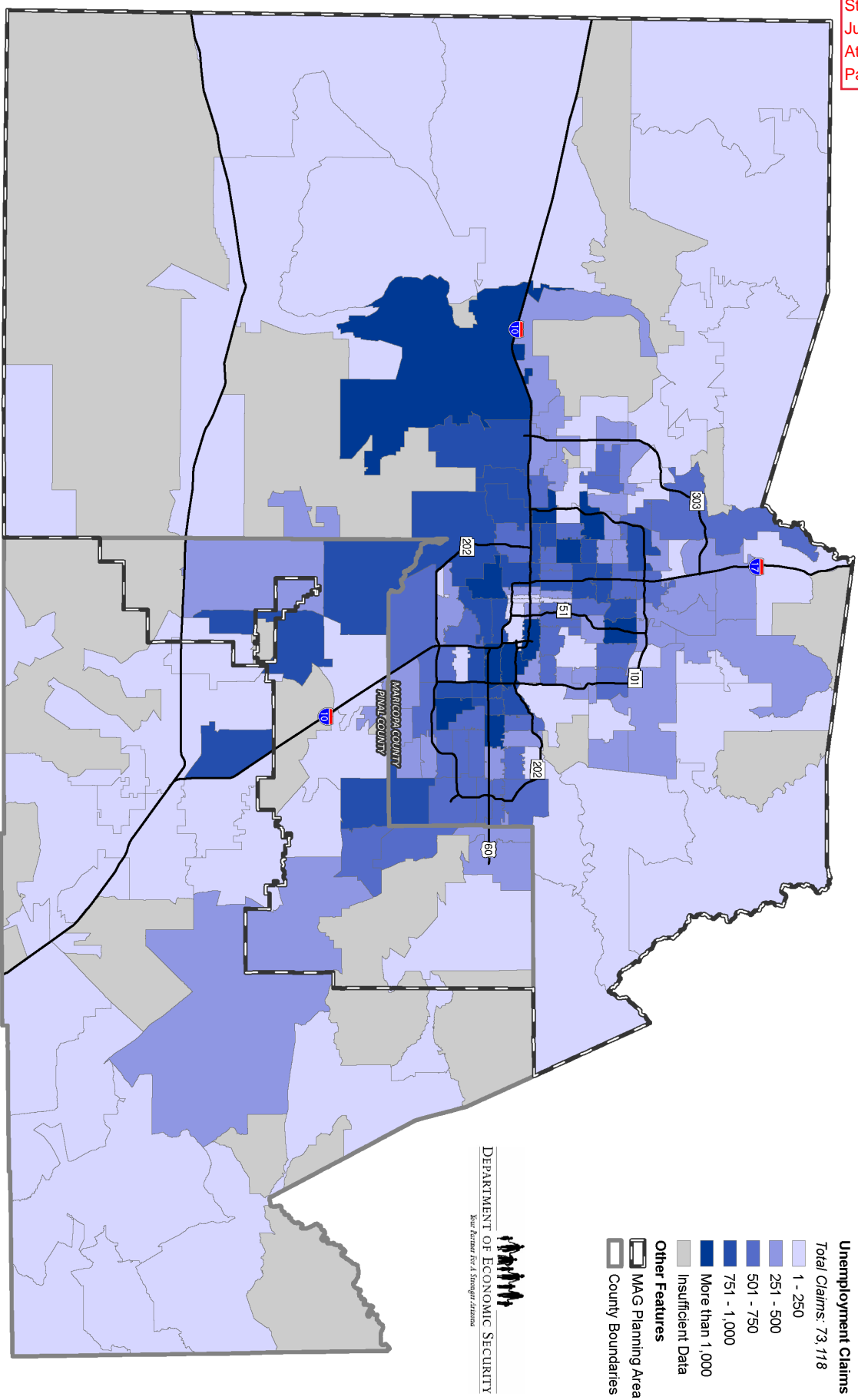
May 2020-April 2021



- Family dispute
- Economic
- Eviction
- Mental health
- Lost job
- Medical
- Jail/prison release
- New to area
- Violence/abuse
- Substance use

Top 10 reasons self-reported by clients who stayed in emergency shelter, transitional housing, or safe haven programs during this time period, per HMIS.

Total Claimants Issued Benefits in the Phoenix MSA by Zip Code, April 7 to May 6, 2021



Unemployment

Benefits Paid

Unemployment Insurance Recipients, April 7 to May 6, 2021

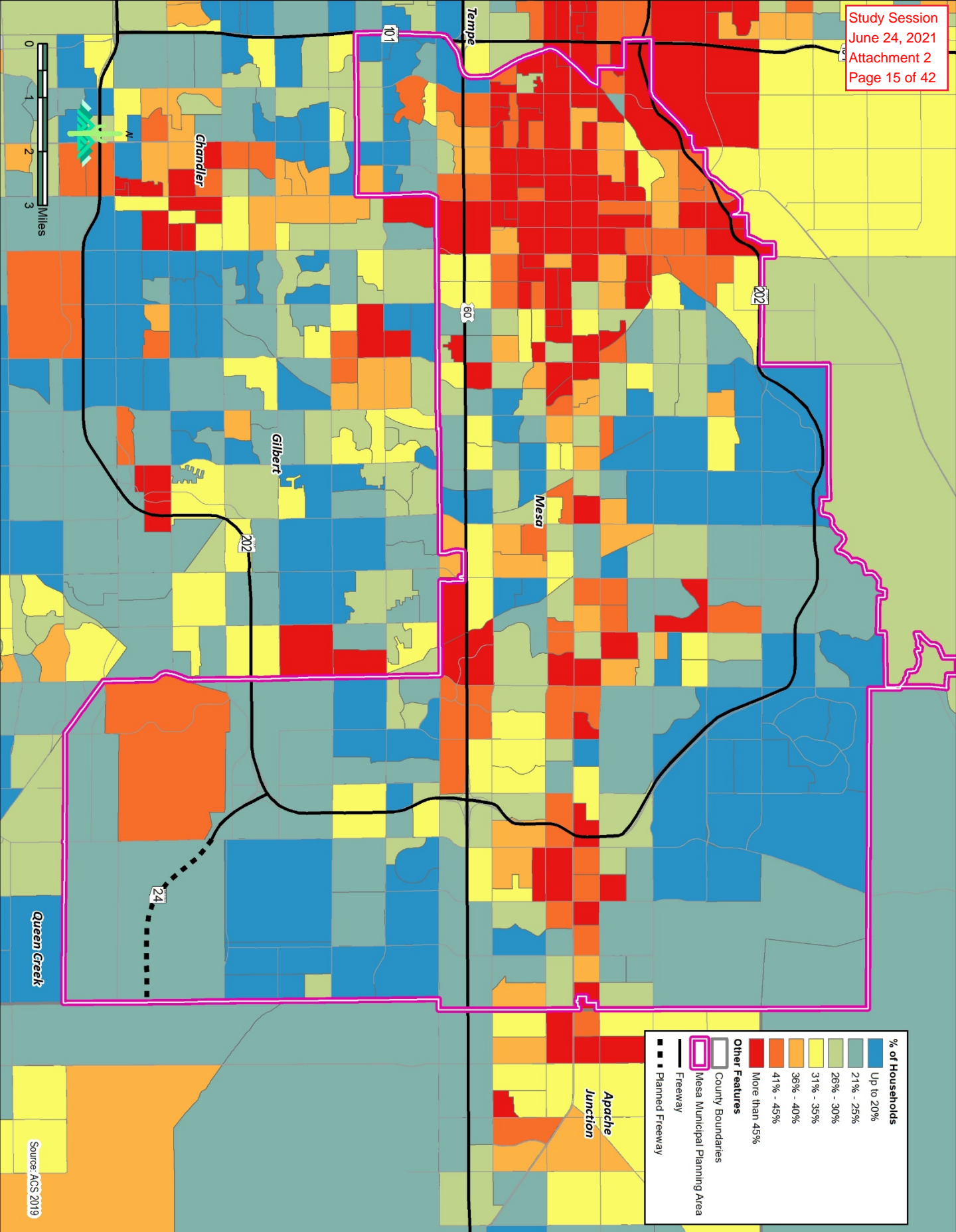
- ▶ Arizona: 114,786
- ▶ Phoenix/Mesa Metro: 73,118
- ▶ Mesa: 7,971

Source: Arizona Department of Economic Security

Total Initial Claims

- ▶ March 14, 2020 to May 6, 2021
- ▶ Arizona: 948,700
- ▶ Phoenix/Mesa Metro: 649,884
- ▶ Mesa: 71,057

Source: Arizona Department of Economic Security
<https://azmag.gov/Unemployment-Claims>



Mesa: Vulnerable Households

Income Spent on Housing

- 58,000 households spend more than 30%
 - 32% of 181,130
- 26,000 households spend more than 50%
 - 14% of 181,130

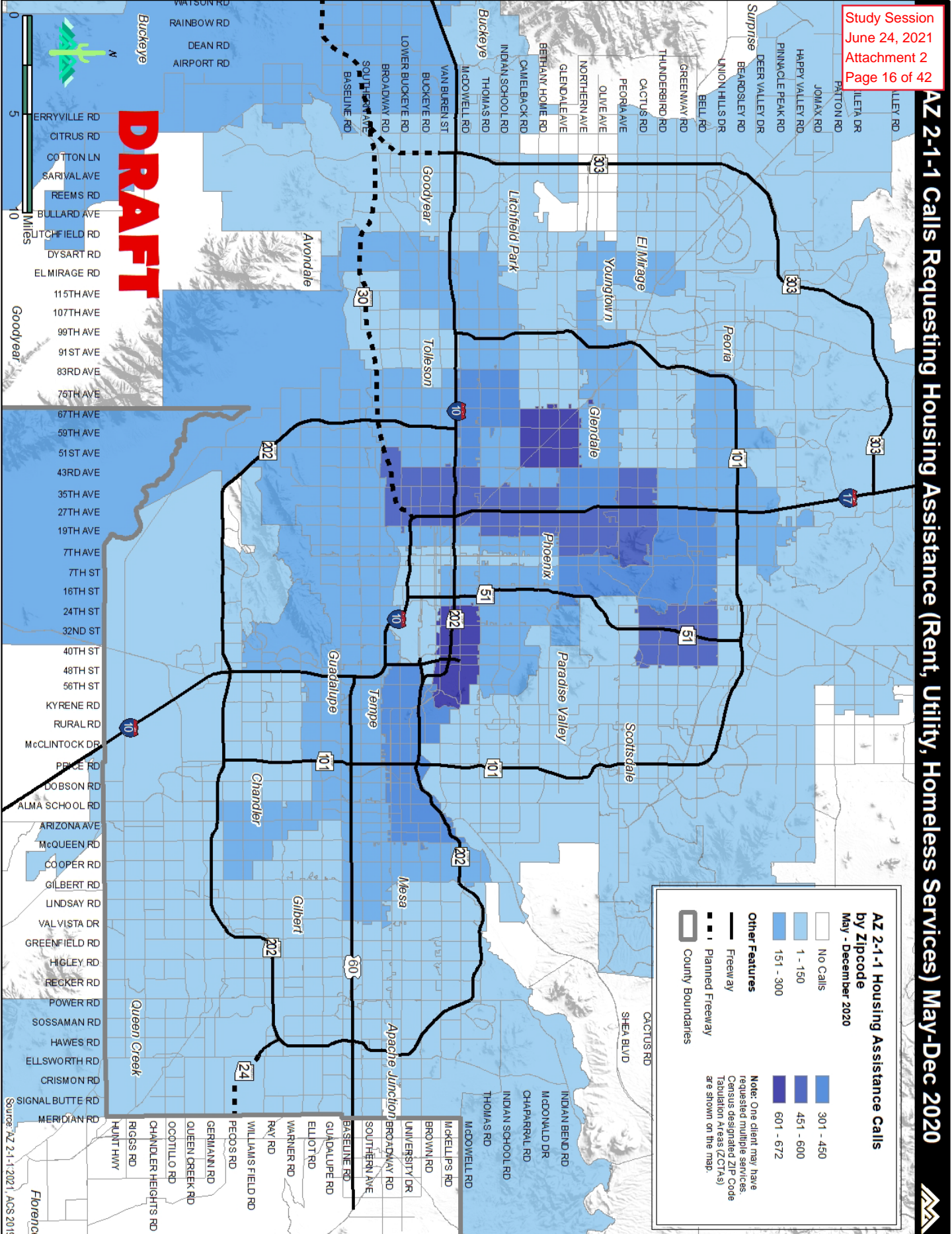
Households spending over 30%:

- ▶ **96%** are households with income below \$75k
- ▶ **84%** are households with income below \$50k

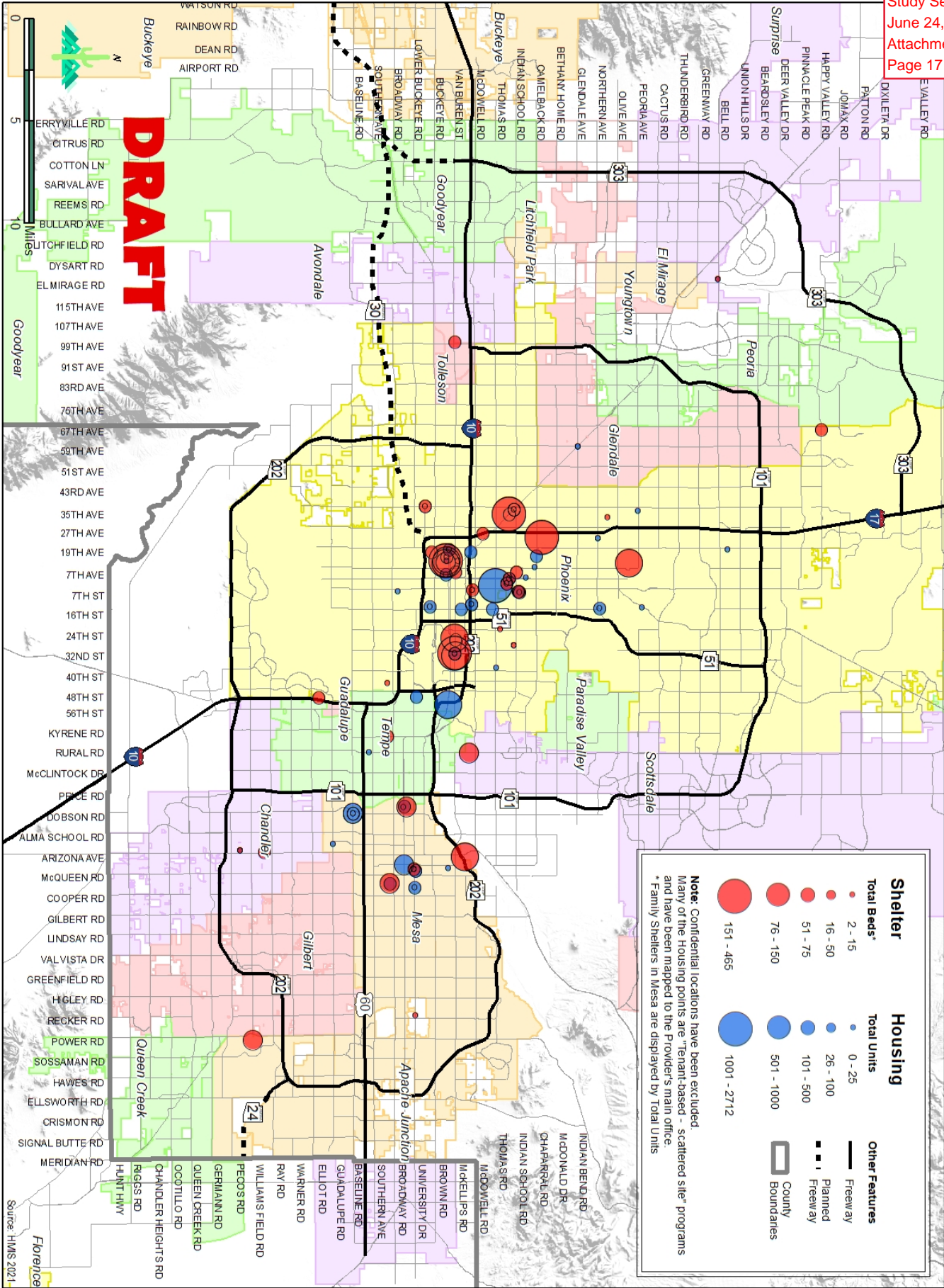
Source: American Community Survey (2015-2019)



Arizona 2-1-1 Calls Requesting Housing Assistance

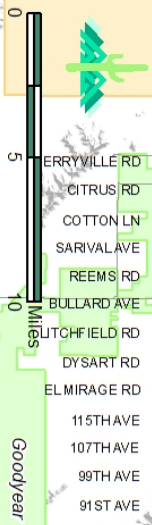


Preliminary 2021 HIC Shelter (Bed) and Housing (Unit) Counts



Preliminary
 2021 Housing
 Inventory
 Chart Data for
 Shelter (Bed
 and Housing
 Unit) Counts

DRAFT

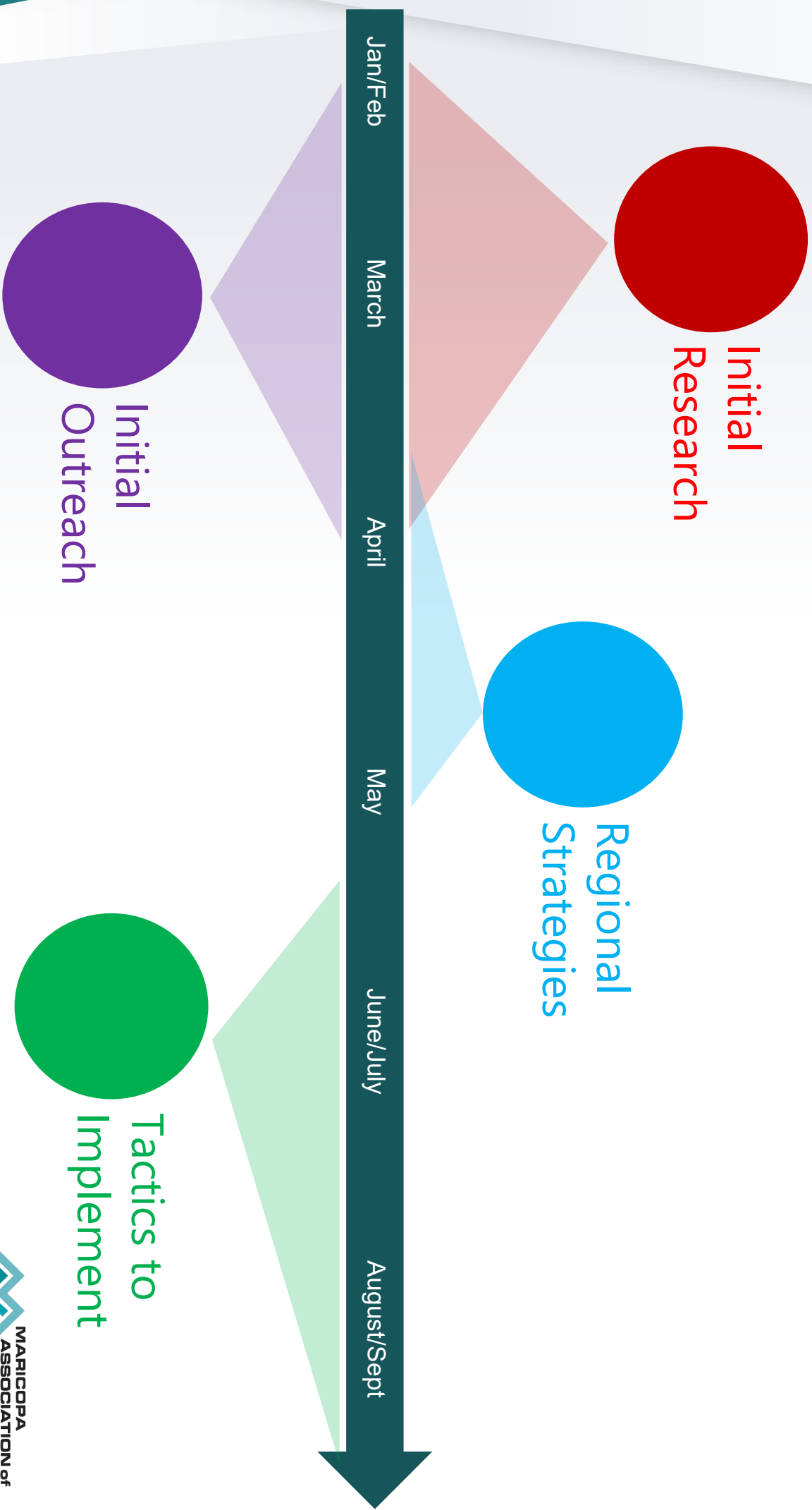


- WATSON RD
- RAINBOW RD
- DEAN RD
- AIRPORT RD
- Buckeye
- ERRYVILLE RD
- CITRUS RD
- COTTON LN
- SARIVAL AVE
- REEMS RD
- BULLARD AVE
- LITCHFIELD RD
- DYSART RD
- EL MIRAGE RD
- 115TH AVE
- 107TH AVE
- 99TH AVE
- 91ST AVE
- 83RD AVE
- 76TH AVE
- 67TH AVE
- 59TH AVE
- 51ST AVE
- 43RD AVE
- 35TH AVE
- 27TH AVE
- 19TH AVE
- 7TH AVE
- 7TH ST
- 16TH ST
- 24TH ST
- 32ND ST
- 40TH ST
- 48TH ST
- 56TH ST
- KYRENE RD
- RURAL RD
- McCLINTOCK DR
- PRICE RD
- DOBSON RD
- ALMA SCHOOL RD
- ARIZONA AVE
- McQUEEN RD
- COOPER RD
- GILBERT RD
- LINDSAY RD
- VAL VISTA DR
- GREENFIELD RD
- HIGLEY RD
- RECKER RD
- POWER RD
- SOSSAMAN RD
- HAWES RD
- ELLSWORTH RD
- CRISMON RD
- SIGNAL BUTTE RD
- MERIDIAN RD
- Queen Creek
- HUNT HWY
- CHANDLER HEIGHTS RD
- RIGGS RD
- PECOS RD
- GERMANN RD
- QUEEN CREEK RD
- OCOTILLO RD
- WILLIAMS FIELD RD
- RAY RD
- WARNER RD
- ELLIOT RD
- GUADALUPE RD
- BASELINE RD
- SOUTHERN AVE
- BROADWAY RD
- UNIVERSITY DR
- BROWN RD
- McKELLIPS RD
- INDIAN BEND RD
- MCDONALD DR
- CHARPARRAL RD
- INDIAN SCHOOL RD
- THOMAS RD
- MCDOWELL RD
- INDIAN BEND RD
- MCDONALD DR
- CHARPARRAL RD
- INDIAN SCHOOL RD
- THOMAS RD
- MCDOWELL RD
- Goodyear
- Avondale
- Phoenix
- Paradise Valley
- Scottsdale
- Chandler
- Gilbert
- Mesa
- Apache Junction
- Queen Creek
- Florence

Source: HMS 2021

How are we doing this?

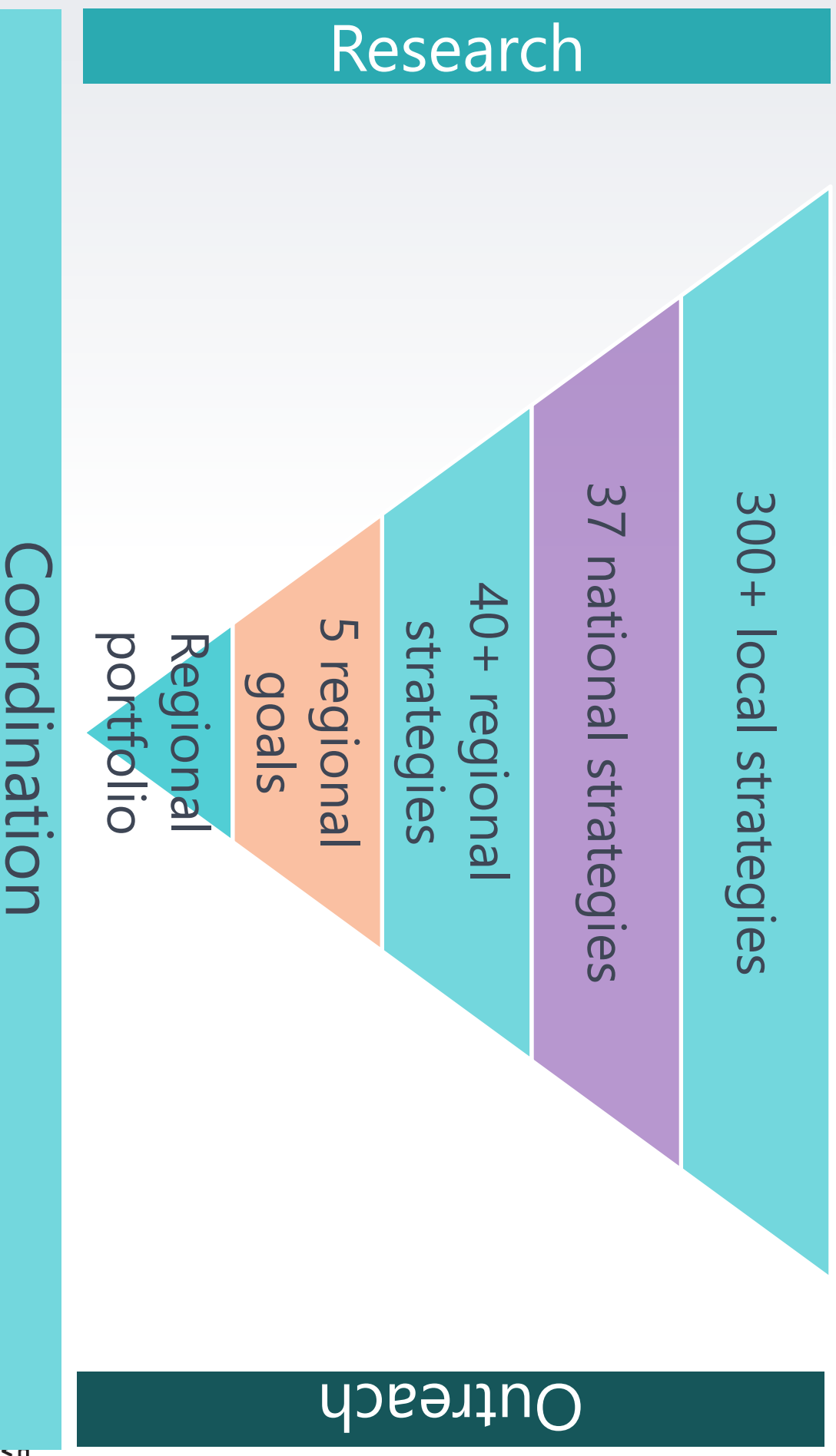
Regional Response Timeline



Vision and Mission


- **Vision:** All communities in the region are strong, safe and healthy communities.
- **Mission:** Reduce and prevent homelessness through collaboration across all sectors, making homelessness rare, brief, and one time.

Regional Process to Develop Strategies



Outreach

**Regional Homelessness
Forum on Housing**
Wednesday, February 17, 2021



**Faith Forum
on Regional
Homelessness**
Thursday,
Feb. 25, 2021



**Business Forum
on Regional
Homelessness**
Thursday, March 11, 2021

HOMELESS



**MUNICIPAL STAFF FORUM ON REGIONAL
HOMELESSNESS EVENT AGENDA**
MARCH 30, 2021; 2-4 P.M.
#PartneringToEndHomelessness



Forums: 700+ people and key sector partners

- Forum with CEOs of homeless shelter and service providers.
- Two forums with nonprofit staff to accommodate different shifts.
- Housing Forum.
- Business Forum.
- Faith Community Forum.
- Domestic Violence Shelter and Service Provider Forum.
- Philanthropy Forum.
- Municipal Staff Forum.
- Elected Official Forum.
- Capstone event.

Surveys

- Field surveys with persons with lived experience: 163+ surveys collected to date.
- Online survey with law enforcement about role and training needs: 280 surveys completed.
- Online survey with first responders about role and training needs: 268 surveys completed.
- Post-event surveys with all forum participants about satisfaction with the forum and to gather additional input about questions in forum.
- Survey to all forum participants to select top three priority strategies.

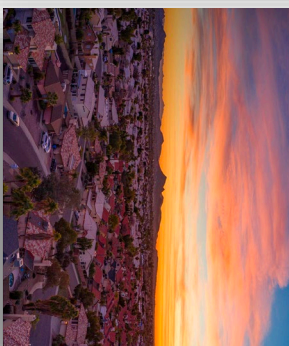
Data Analysis

Advancing Health and Equity
through Workforce Housing
a component of
STABILITY, TOLDS, AND EQUITIES
equitable, financially workable housing in the Phoenix metro region



Arizona
City of Tempe

Arizona
Housing Coalition
Best Practice Toolkit for Municipalities,
for Increasing the Supply of Affordable
Housing in Arizona
Created by Joseph K. & Jennifer M. Heringhausen
Masters of Public Administration



EMERGENCY RENTAL ASSISTANCE CASE STUDY
Seena Olan-Cohen, Homelessness Prevention Specialist
COMMUNITY EMERGENCY PREVENTION PROGRAM

Background
The City of Tempe is a rapidly growing city with a diverse population. The city is currently experiencing a housing crisis, with a significant number of residents experiencing homelessness. The City of Tempe is committed to providing affordable housing and preventing homelessness. The City of Tempe is currently implementing the Community Emergency Prevention Program (CEPP) to provide emergency rental assistance to eligible residents.

Key Program Outcomes
The CEPP program has successfully provided emergency rental assistance to a significant number of eligible residents, preventing homelessness and providing a path to stable housing. The program has also provided financial counseling and other supportive services to residents, helping them to address the underlying causes of their housing instability.

Strategy 1: Identify and partner with community groups that can help reach the most vulnerable populations.
The CEPP program has successfully identified and partnered with a variety of community groups, including churches, social service agencies, and neighborhood organizations. These partnerships have been essential in reaching the most vulnerable populations and providing them with the support and resources they need to access the program.

Strategy 2: Streamline the application process and reduce barriers to access.
The CEPP program has successfully streamlined the application process and reduced barriers to access, making it easier for eligible residents to apply for and receive assistance. This has resulted in a significant increase in the number of residents who have accessed the program and received the assistance they need.

Strategy 3: Provide financial counseling and other supportive services.
The CEPP program has successfully provided financial counseling and other supportive services to residents, helping them to address the underlying causes of their housing instability. This has resulted in a significant number of residents who have been able to maintain their housing and avoid homelessness.

Conclusion
The CEPP program has successfully provided emergency rental assistance to a significant number of eligible residents, preventing homelessness and providing a path to stable housing. The program has also provided financial counseling and other supportive services to residents, helping them to address the underlying causes of their housing instability. The CEPP program is a model of effective emergency rental assistance and a key component of a comprehensive housing strategy.

THE STATE OF THE NATION'S HOUSING 2020
FROM CENTERS FOR HOUSING STUDIES OF HARVARD UNIVERSITY



2020 Point-in-Time (PIT) Count Report
Maricopa County
City of Glendale
City of Phoenix

7,419 people experiencing homelessness January 21, 2020

49% of people experiencing homelessness are sheltered
51% of people experiencing homelessness are unsheltered

Total PIT Count, 2015-2020

Year	Sheltered	Unsheltered	Total
2015	1,400	1,100	2,500
2016	1,400	1,100	2,500
2017	1,400	1,100	2,500
2018	1,400	1,100	2,500
2019	1,400	1,100	2,500
2020	3,600	3,800	7,400

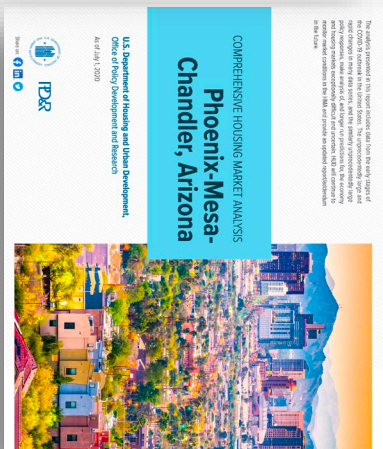
Why It's Important
The 2020 PIT count shows a significant increase in homelessness, with a 200% increase in unsheltered homelessness and a 100% increase in sheltered homelessness. This is a clear sign of a housing crisis that is affecting a large number of people in Maricopa County. The increase in homelessness is likely due to a combination of factors, including a decline in the economy, a rise in unemployment, and a shortage of affordable housing. The increase in homelessness is also a result of the COVID-19 pandemic, which has led to a loss of income for many people and a rise in evictions. The increase in homelessness is a serious problem that needs to be addressed immediately.

One crisis Housing Stability for Arizonans on the Margin
Rethinking Housing Stability for Arizonans on the Margin
David Schickel, Ph.D. Director of Housing Policy, HUD
Kara Olan-Medina, PhD
April 2020
FSLI HOUSING INITIATIVE
A HOUSING INITIATIVE OF THE FEDERAL SHELTER INVESTMENT LIAISON
PROGRAM (FSLI) AND THE HOUSING ASSISTANCE DATA SYSTEM (HADS)



Crisis Response Network *July/August 2020*
City of Tempe
RACIAL EQUITY
in data and service provision in Maricopa County
Nicki Stevens and TJ Reed

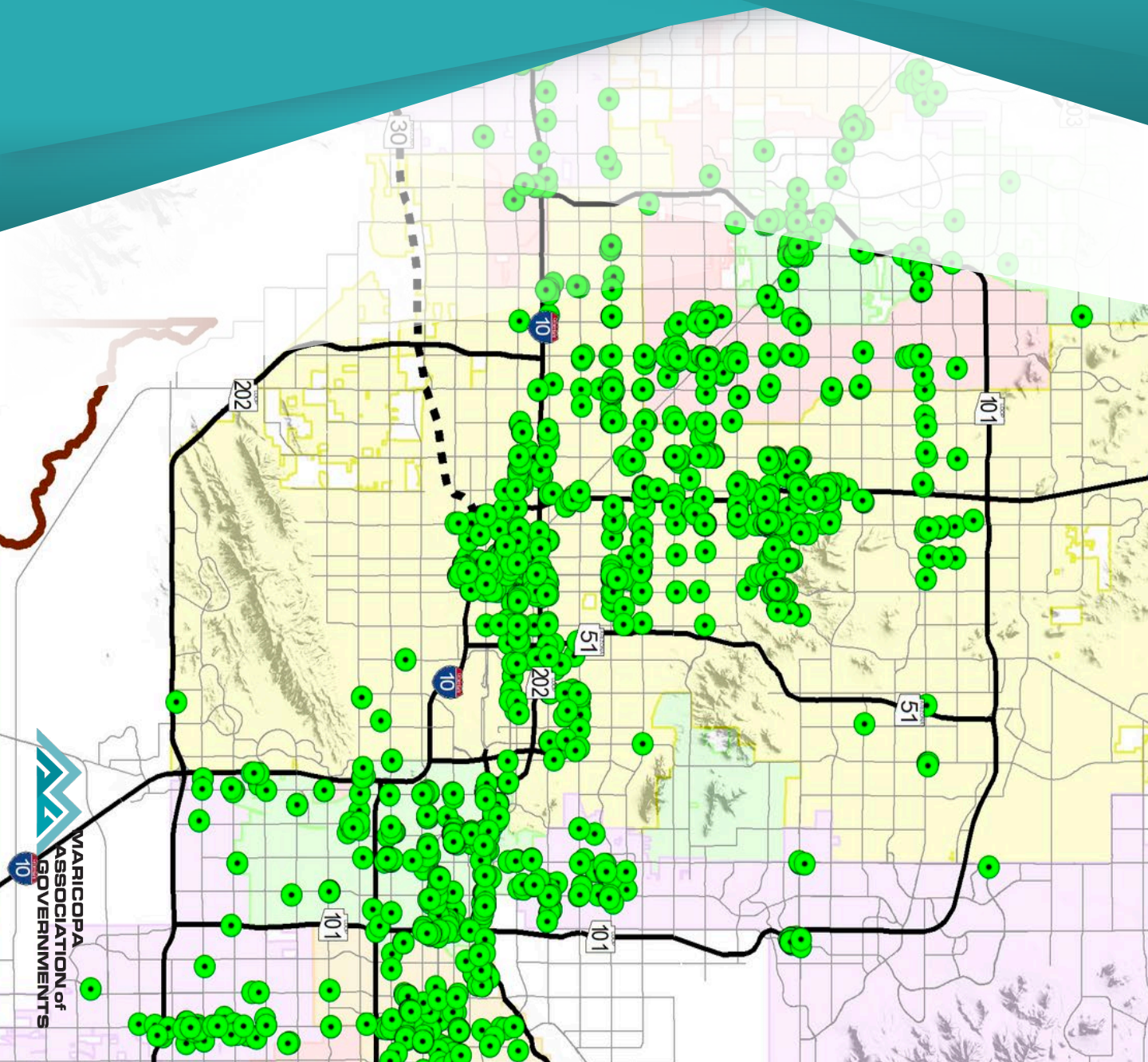
COMPREHENSIVE HOUSING MARKET ANALYSIS
Phoenix-Mesa-Chandler, Arizona
U.S. Department of Housing and Urban Development,
Office of Policy Development and Research
April 1, 2020
HUD
FEDERAL RESERVE BANK OF PHOENIX



Research Conducted

- Extensive **literature review**.
- **Inventory** of 300 local plans, strategies and priorities.
- **National research** into 37 of the most effective regional strategies.
- Ongoing **analysis of funding** sources, eligible activities, and possible partnerships.
- Study of considerations to take into account when **siting** new homeless shelter, services and housing.
- **Expenditure analysis** of 20 municipal budgets for revenue sources and allocations.

Regional Strategies



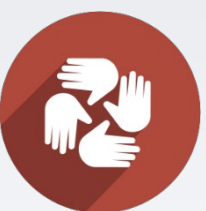
Emerging Strategies in Regional Portfolio



Diversion/Prevention.



Housing.



Coordination.



Services.

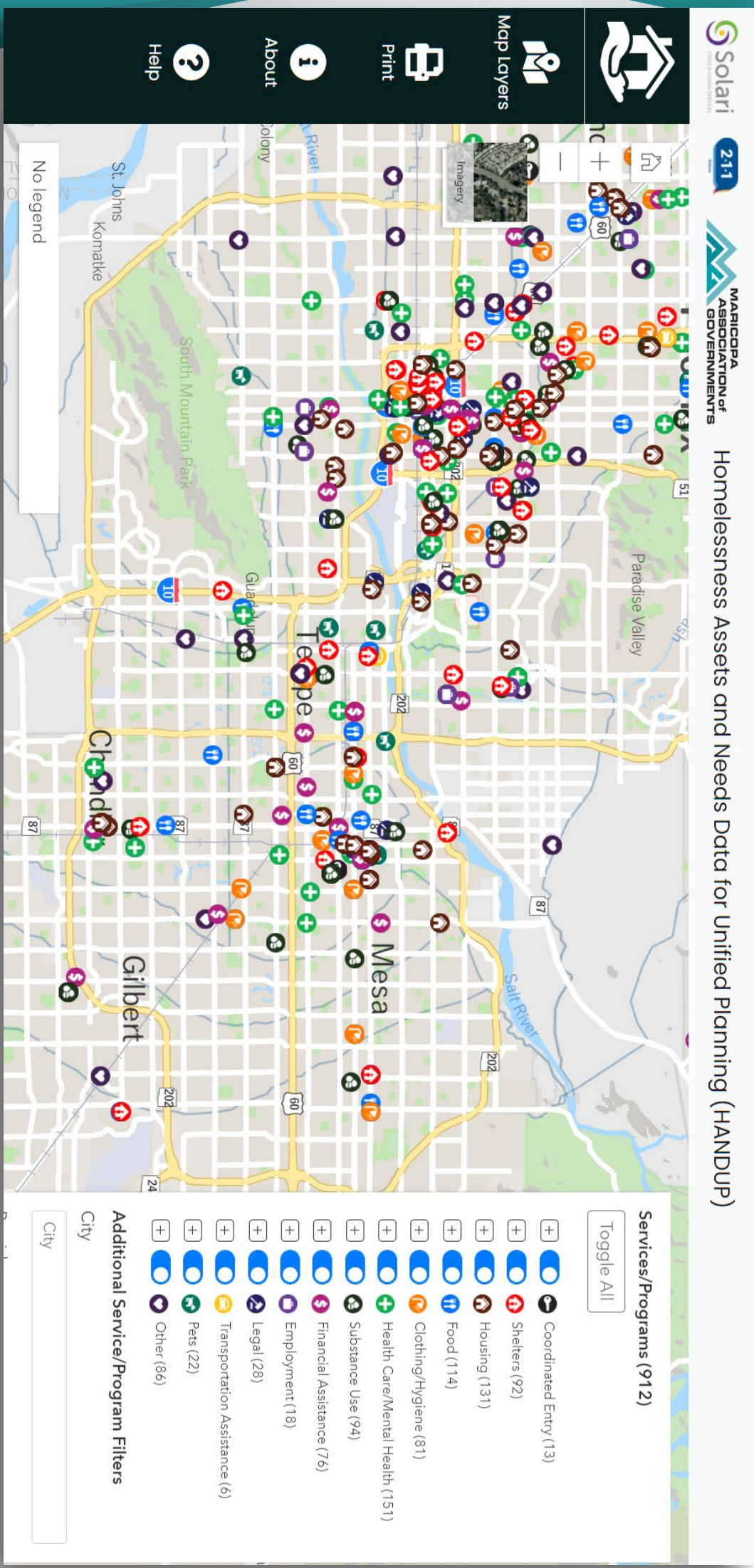


Temporary Housing.

What are the next steps?



HANDUP- Homelessness Assets and Needs Data for Unified Planning



<https://geo.azmag.gov/maps/HomelessServices/>

HANDUP- Homelessness Assets and Needs Data for Unified Planning



Homelessness Assets and Needs Data for Unified Planning (HANDUP)

Emergency Shelter

Service Provider/Program: I-HELP Mesa
Address: 5946 E University Dr 85205 AZ
Hours: Daily 4pm-4:30pm intake
Description: Provides emergency shelter for homeless women. Religious congregations participate on a rotating basis.
Eligibility: Women without children experiencing homelessness; does not accept sex offenders
Intake / Application Process: *OPEN REGULAR HOURS. COVID-19 PROTOCOLS IN PLACE. * Visit office
Languages: English, Spanish; others available

Zoom to

1 of 2

Additional Service/Program Filters

- City
- City
- Legal (28)
- Transportation Assistance (6)
- Pets (22)
- Other (86)

grams (912)

- Coordinated Entry (13)
- Shelters (92)
- Housing (131)
- Food (114)
- Clothing/Hygiene (81)
- Health Care/Mental Health (151)
- Substance Use (94)
- Financial Assistance (76)
- Employment (18)

Next Steps

- Develop **regional funding targets and scenarios** by:
 - Projecting the number of housing units, shelter beds and diversion services needed regionally.
 - Conducting a cost analysis for the tactics and strategies.
- Finetune the **HANDUP** homelessness assets and needs planning tool.
- Analyze and integrate findings from the **capstone event**.
- Develop an **action plan** for approval.
 - (June) Complete the regional scenarios analysis.
 - (July-August) Support communities in identifying tactics relevant to needs of their housed and unhoused residents.
 - (September-October) Identify additional actions needed to ensure ownership throughout the region.

For More Information

Amy St. Peter

Maricopa Association of Governments

astpeter@azmag.gov; 602-452-5049

<https://azmag.gov/Programs/Homelessness>

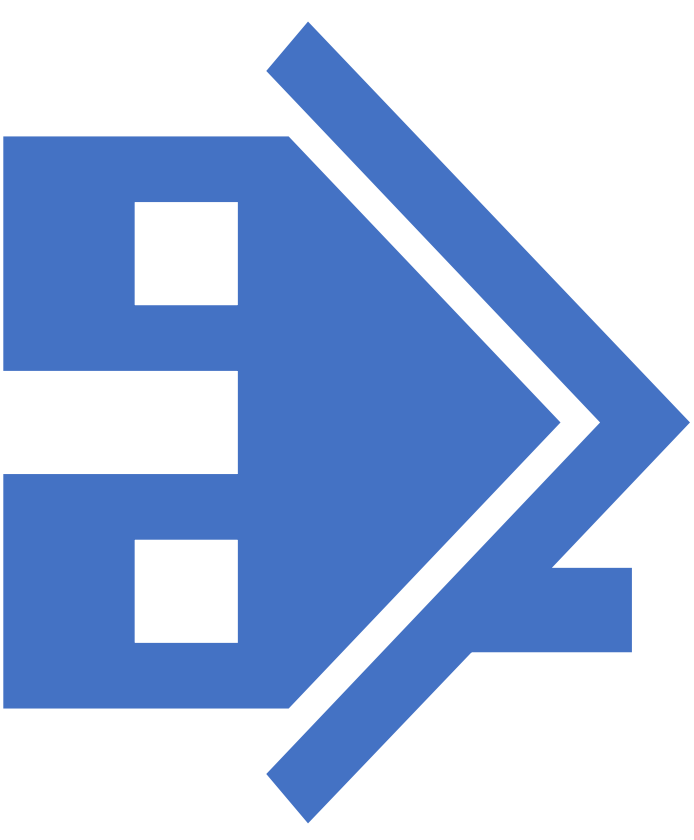
m.e.s.a.az



Existing Services and Concepts

May 2020-June 2021

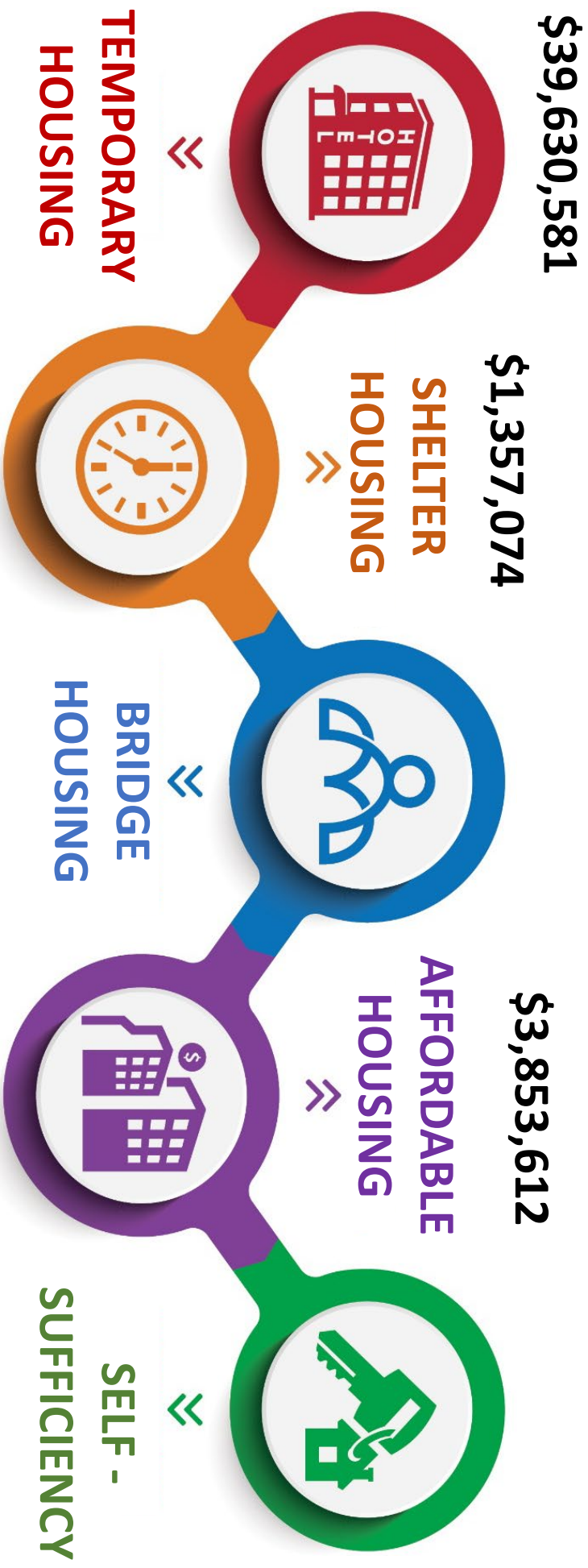
Homelessness and Workforce Development



\$44,841,267

Housing Path to Recovery-- Homeless-related Pandemic Support and Recovery

Mar 2020 - June 2021



Commit to
Recovery

Structure
and Skills

Stability

Diversion Prevention

Mesa

EXISTING STRATEGIES

Emergency vouchers

Rent and Utility Assistance

Use of hotels for temporary,
rapid placement

CONCEPTS BEING EXPLORED

Diversion specialists to prevent
evictions and divert families to
transitional/bridge housing

Diversion: Bridge housing

Diversion: Landlord incentive
program

Housing Mesa

EXISTING STRATEGIES

Emergency vouchers, Rent and Utility Assistance and rehab funding

Use of hotels as emergency placement

Supporting local shelters; federal funding

CONCEPTS BEING EXPLORED

Bridge housing options (families, foster aged-out youth, single men)

Workforce Development/Jobs Access Center—skilling up people.

Advocacy for State Housing Trust Fund; National Housing as Infrastructure

Balanced Housing Plan—w/General Plan Update



Temporary Housing Mesa

EXISTING STRATEGIES

CONCEPTS BEING EXPLORED

Emergency vouchers

Landlord incentive program

Rent and Utility Assistance

Diversion program/eviction
vulnerable

Use of hotels as emergency
placement (Off-the-Streets)

Workforce Development/Jobs
Access Center and regional
coordination

Support domestic violence
shelters

Bridge housing options

Services Mesa

EXISTING STRATEGIES

CONCEPTS BEING EXPLORED

Navigation, Outreach

Diversion Program

Fund non-profits: Shelters, Food/Meals, clothing, showers, basic needs, transit, pet care, financial planning, job training

Workforce
development jobs
access center

Safety— libraries, parks, urban camping enforcement, emergency medical, crisis/mental health, community court, encampment cleanups

Removing or
increasing
CDBG Public
Service Cap

Support smaller agencies via human service funding

Supporting early childhood education and higher learning



Coordination Mesa

EXISTING STRATEGIES

Regional action planning;
align Mesa’s strategic plan
with regional plan/terms.

CONCEPTS BEING EXPLORED

Landlord incentive program
(Local and regional strategy)

Rent and Utility Assistance
(Mesa and Mesa CAN)

Coordination with eviction
lawyers, Constables– eviction
prevention safety net (local and
regional)

Use of hotels as emergency
placement (Mesa and Mesa United
Way)

Regional by-name listing and
coordination; regional public
outreach/education.

Mayor-CEOs– national
strategies and advocacy–
homeless, housing

Consider racial disparities; input
from those who are homeless
(local and regional)

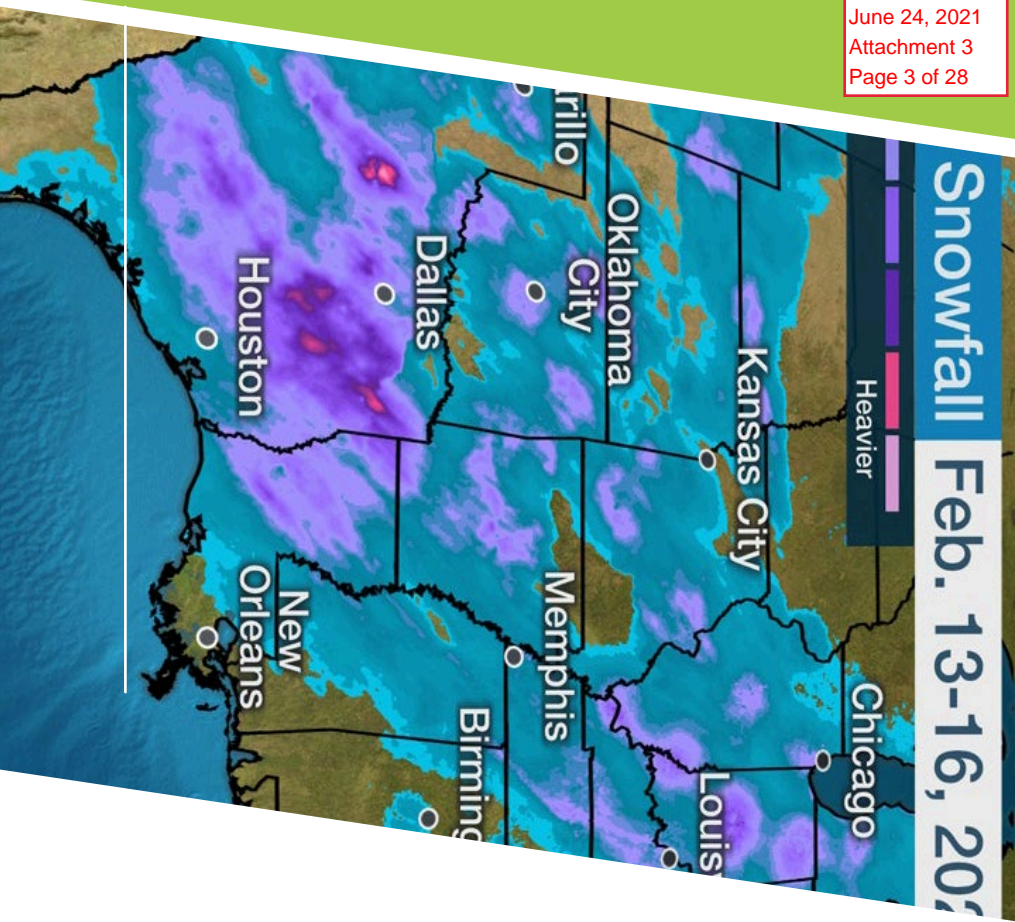
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Summer 2021 Electric Supply

Electric Energy Markets

- Electricity must be generated instantaneously
 - Supply constantly adjusted to match demand
- Reserves & Reserve Margin
 - Electric generation assets over and above forecasted demand
 - Minimize the risks of the loss of generation
 - Reserve Margin: % of reserves above demand
- Reserve Margin targets based on calculating risk of certain events:
 - Unexpected increases in customer consumption
 - Unscheduled shutdowns of an electric generation plant or transmission



CALIFORNIA

California has first rolling blackouts in 19 years — and everyone faces blame

While California braced for another round of rolling blackouts Monday night, the state's grid operator held off for a second straight night.

By DEBRA KAHN and COLBY BERMELE | 08/18/2020 12:19 AM EDT | Updated 08/18/2020 01:24 PM EDT

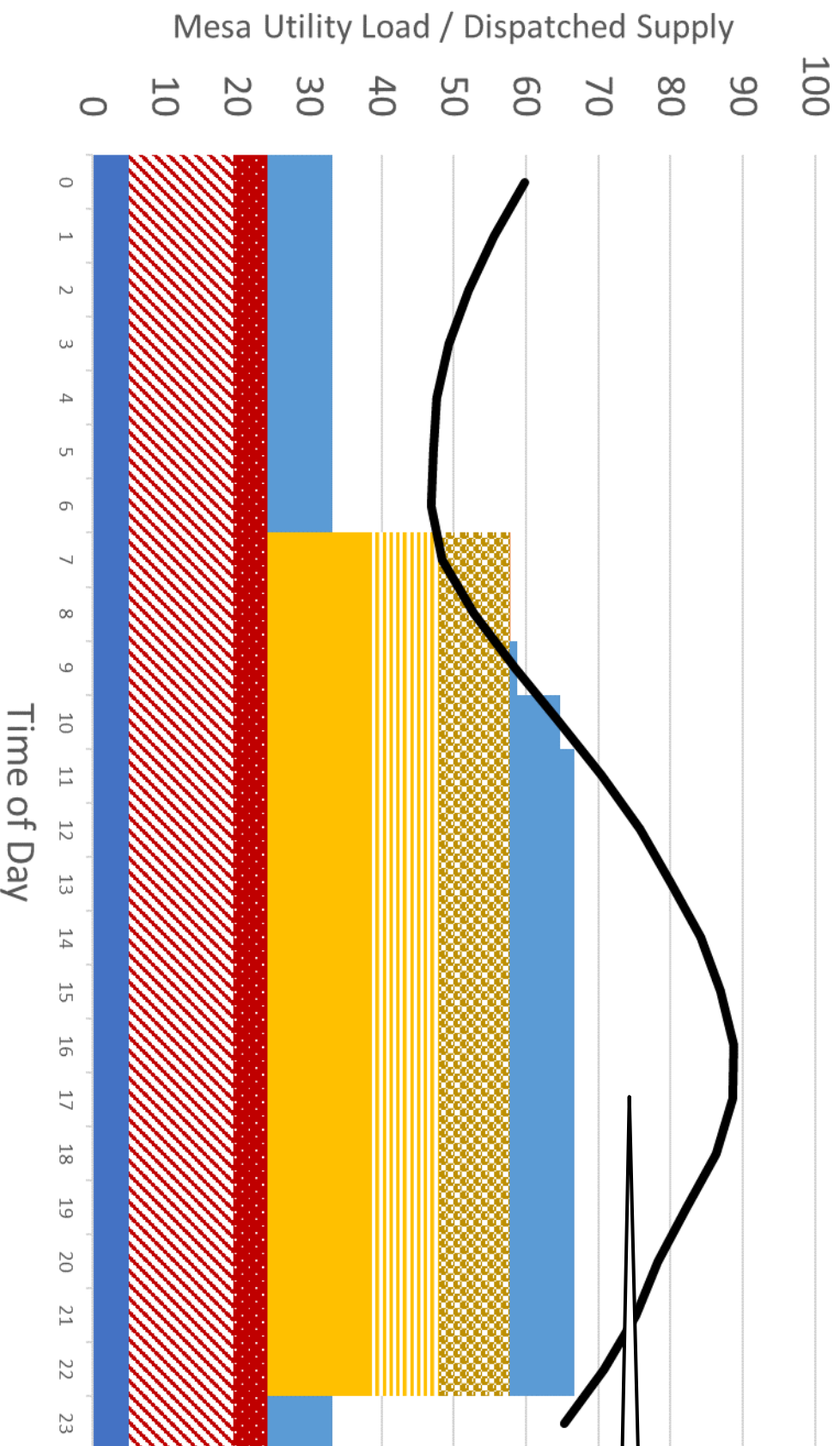
- August 2020 and February 2021 we saw the results of shrinking reserve margins and unexpected shutdowns of generation
- Western Market experiencing:
 1. Retirement of large generating plants
 2. WITHOUT adequate new plant builds
 3. Fastest customer growth in the country

Reserve Margins & Demand

Summer	California/N. Baja MX Demand	Desert Southwest Demand
2016	54,621 (25.4% reserves)	23,773 (26.5% reserves)
2017	54,774	23,207
2018	54,112	23,883
2019	55,109	24,286
2020	54,214 (17.2% reserves)	24,571 (20.5% reserves)
2021 (Projected)	55,721	25,652
2022 (Projected)	53,451	26,128

Peak Day Load and Supply - Summer 2021

Peak Day Load and Dispatched Resources



Gaps subject to market pricing

Load-Following Hydro

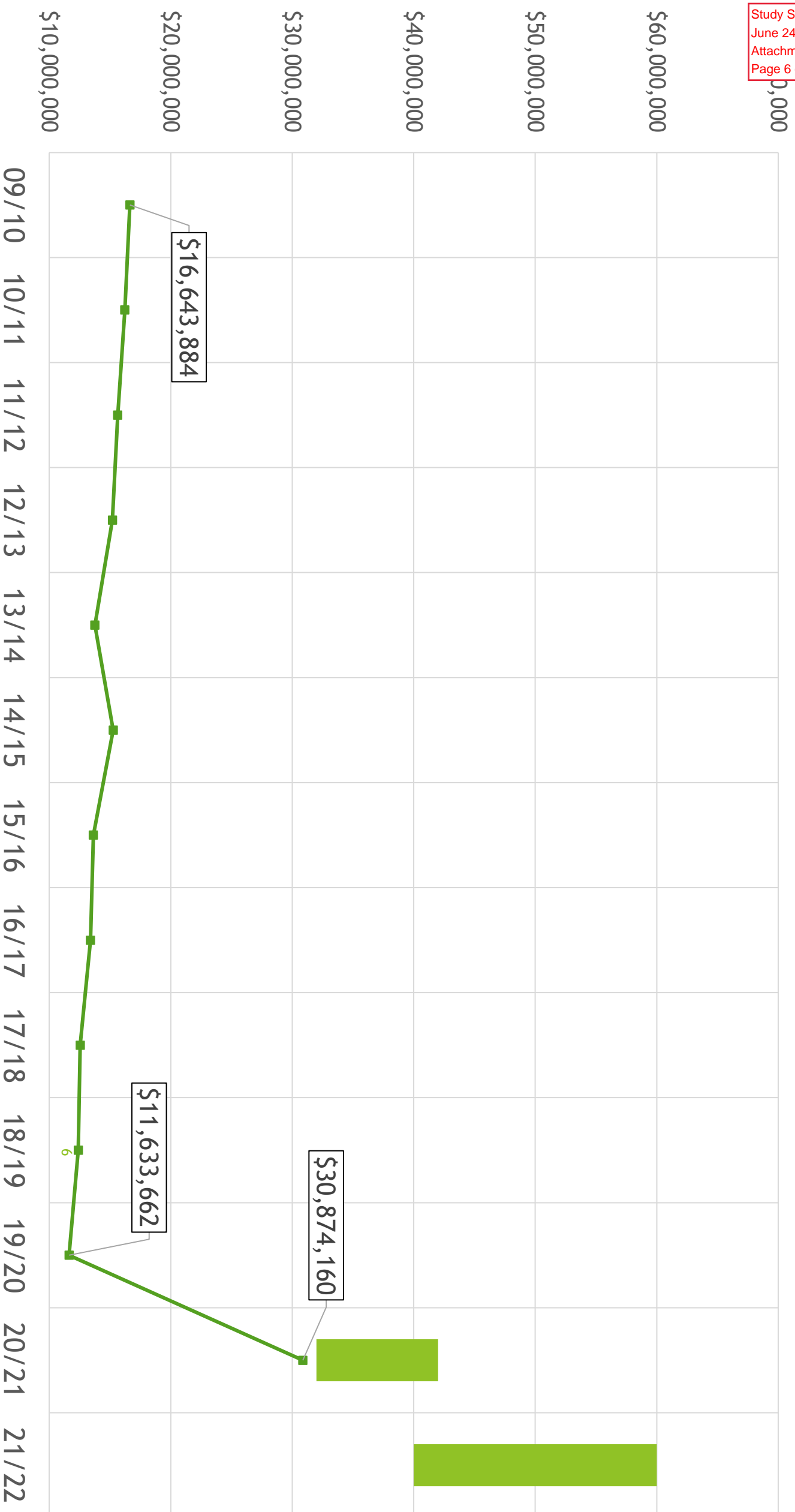
Summer Peak Purchases

Citigroup Base (Exp. 12/31/2021)

Base Purchase

Base load hydro

Annual Electric Power Supply Costs by Fiscal Year



Mesa's Electric Energy Supply Strategies

- ▶ Integrated Resource Planning (IRP) used to plan for electric supplies
- ▶ Maintain hydroelectric supplies: 20% hydroelectric power under long-term contracts
- ▶ Increase competition for market purchases: 80% wholesale energy procurements
 - ▶ 1-5 Year term purchases via competitive RFP
 - ▶ Spot market/short term purchases through Western RMS

Resource Type	IRP Plan by 2023	Progress
Utility Scale Solar	20 MW	First 15 MW by 2023
Internal ESA Solar	2 MW	820 kW @ ASU, Plaza, MCP, 55 N
Energy Efficiency/Conserv.	2.3 MW	AMI in progress, plan for federal funding
Customer-Owned Solar	1.2 MW	1 MW
Internal Fast-Ramping Gen.	4.2 MW	3 MW applied for via fed. grant
	29 MW @ Peak	

Strategies to Mitigate - Near Term

- ▶ Reduce Peak Usage at City Facilities
- ▶ Customer messaging
- ▶ Customer conservation programs
 - ▶ Seeking funding through LIHEAP and Federal Funding
- ▶ Summer Energy Assistance Program
- ▶ Working with local relief organizations
- ▶ Rate Impact Mitigation

Strategies to Mitigate - Mid-Long Term

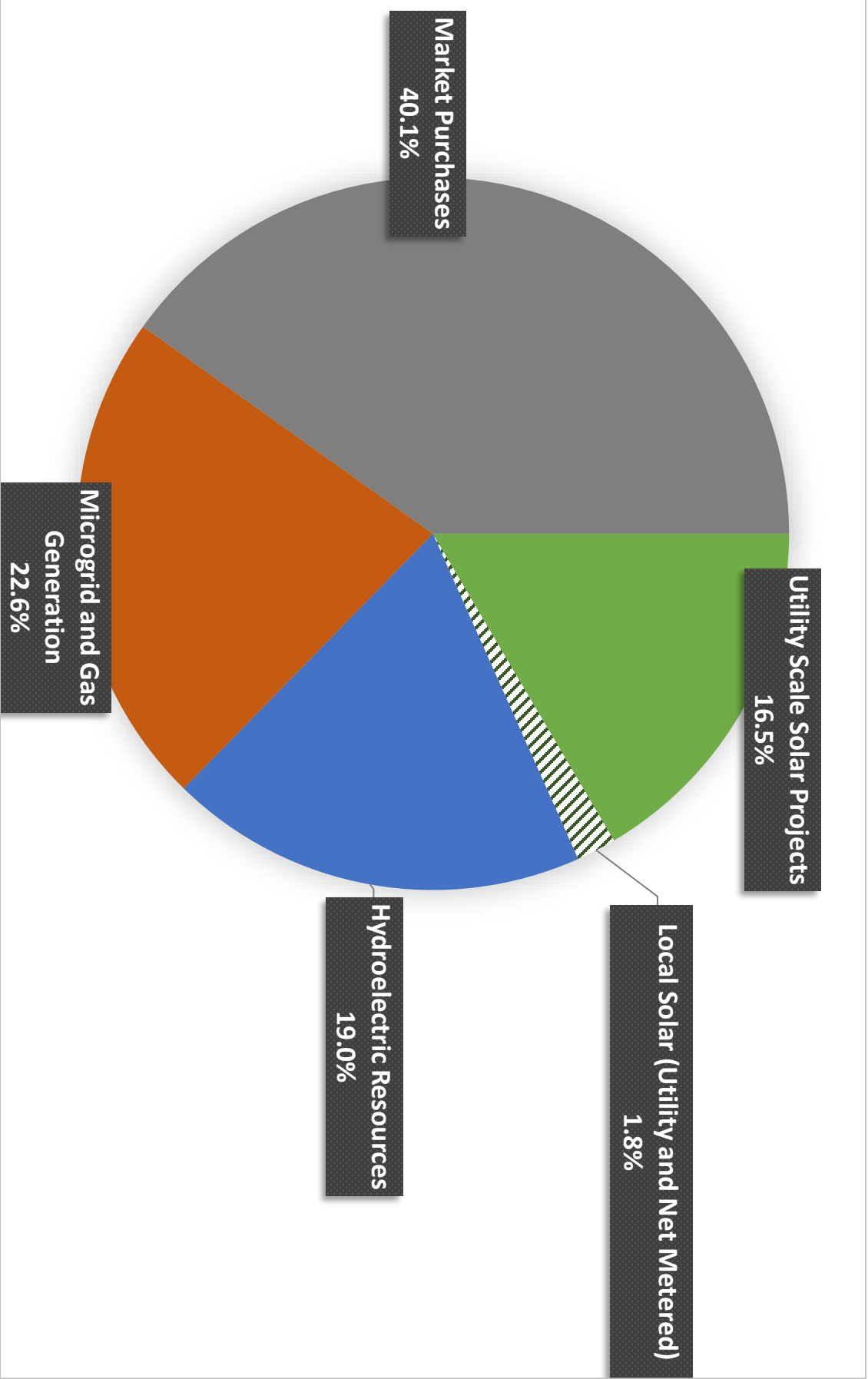
▶ 1. Supply Side

- ▶ **Gas Generation in ESA
- ▶ Utility Scale Solar - 2023-2024
- ▶ Local Solar at City Facilities
- ▶ Microgrids

▶ 2. Demand Side

- ▶ City Building Demand Reduction
- ▶ Customer programs
- ▶ AMI/AMR - Rates
- ▶ Customer Net Metering Program

FY23/24 - Power Supply Portfolio by Source with Utility Solar, Public Safety Microgrid, 10 MW Internal Gas Generation

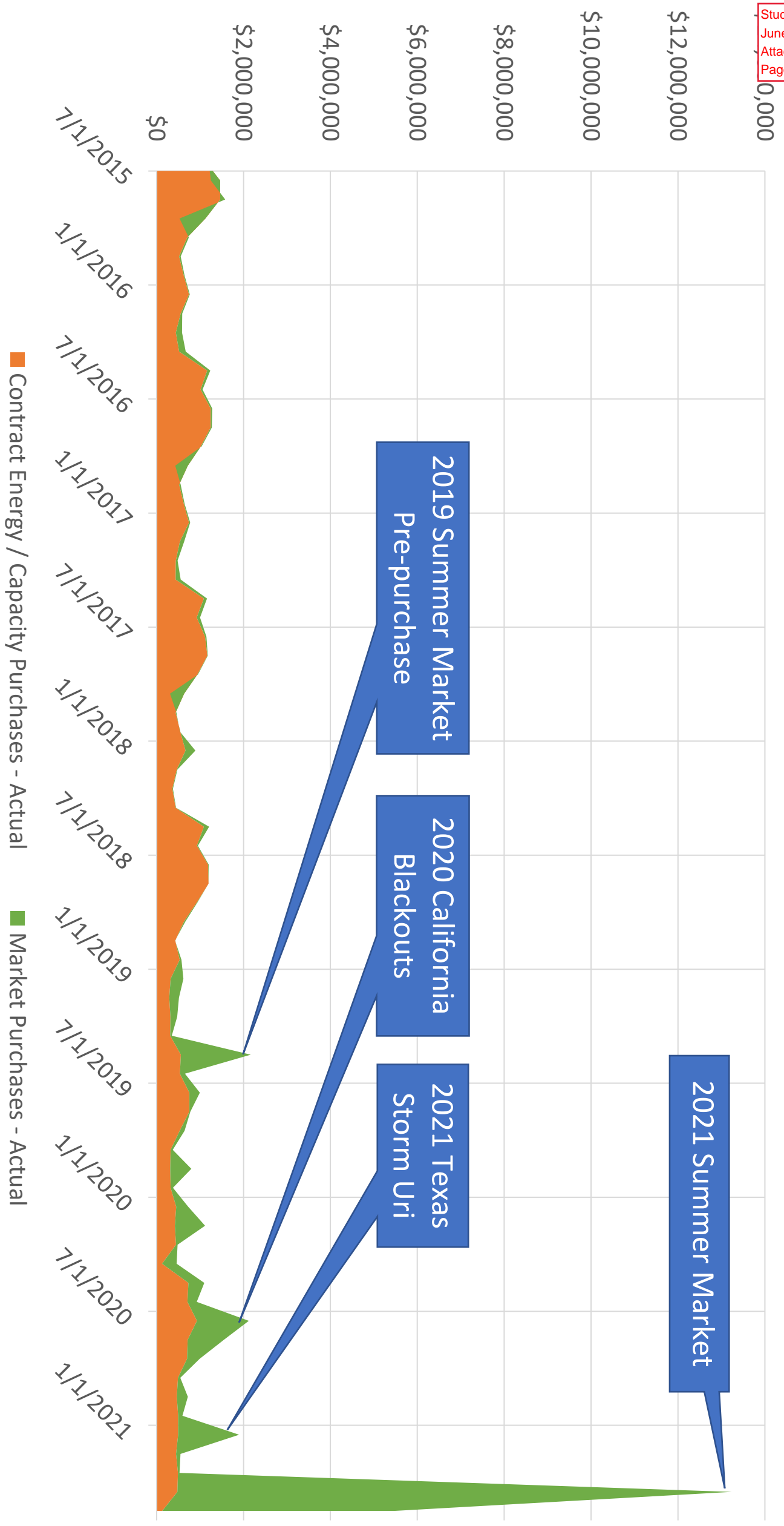


Questions?

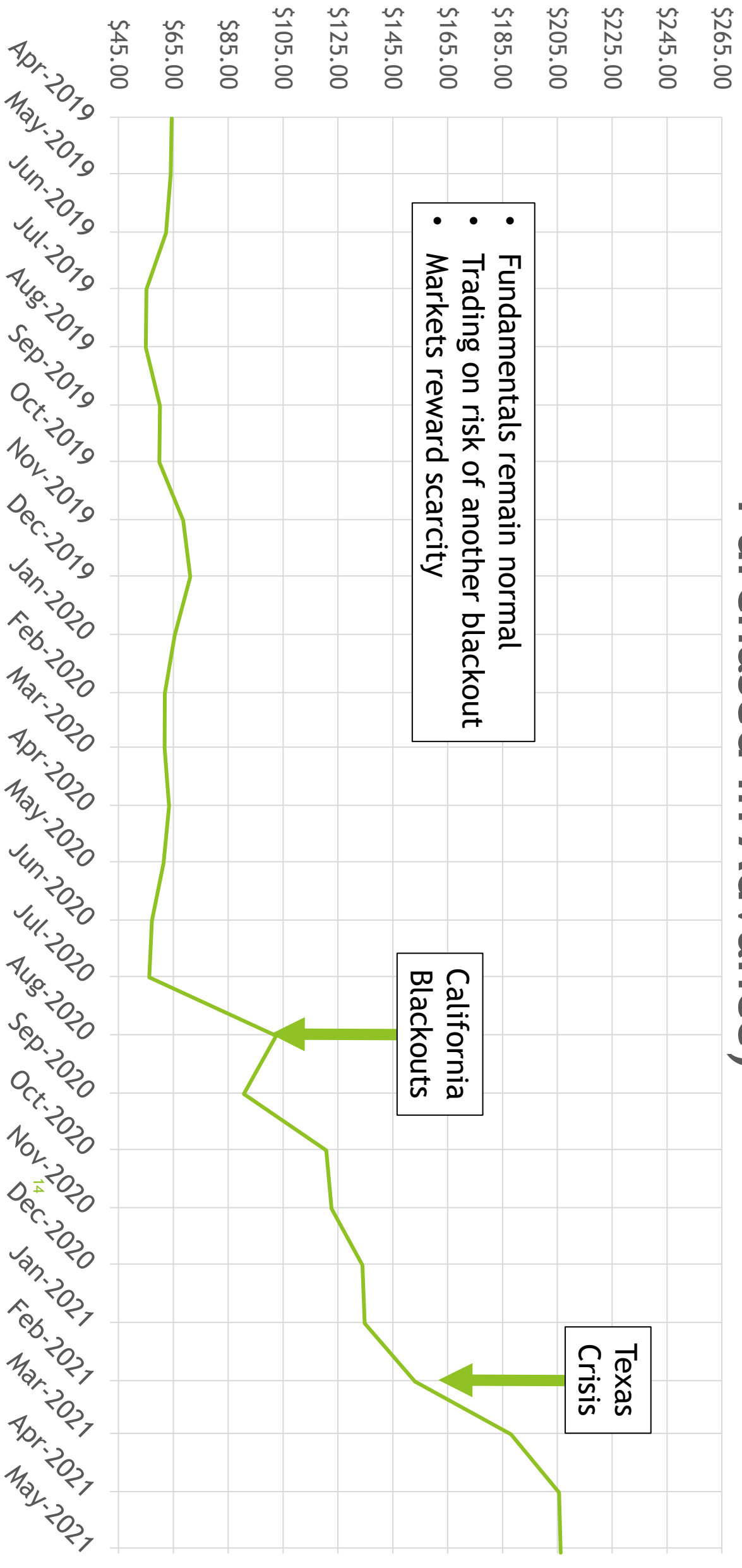
Reserve Margins & Demand

Summer	California/N. Baja MX Reserve Margin	Desert Southwest Reserve Margin
2016	25.4%	26.5%
2017	20.3%	27.7%
2018	19.2%	23.7%
2019	23.3%	30.8%
2020	17.2%	20.5%
2021 (Proj.)	21.4%	18.1%
2022 (Proj.)	27.8%	17.3%

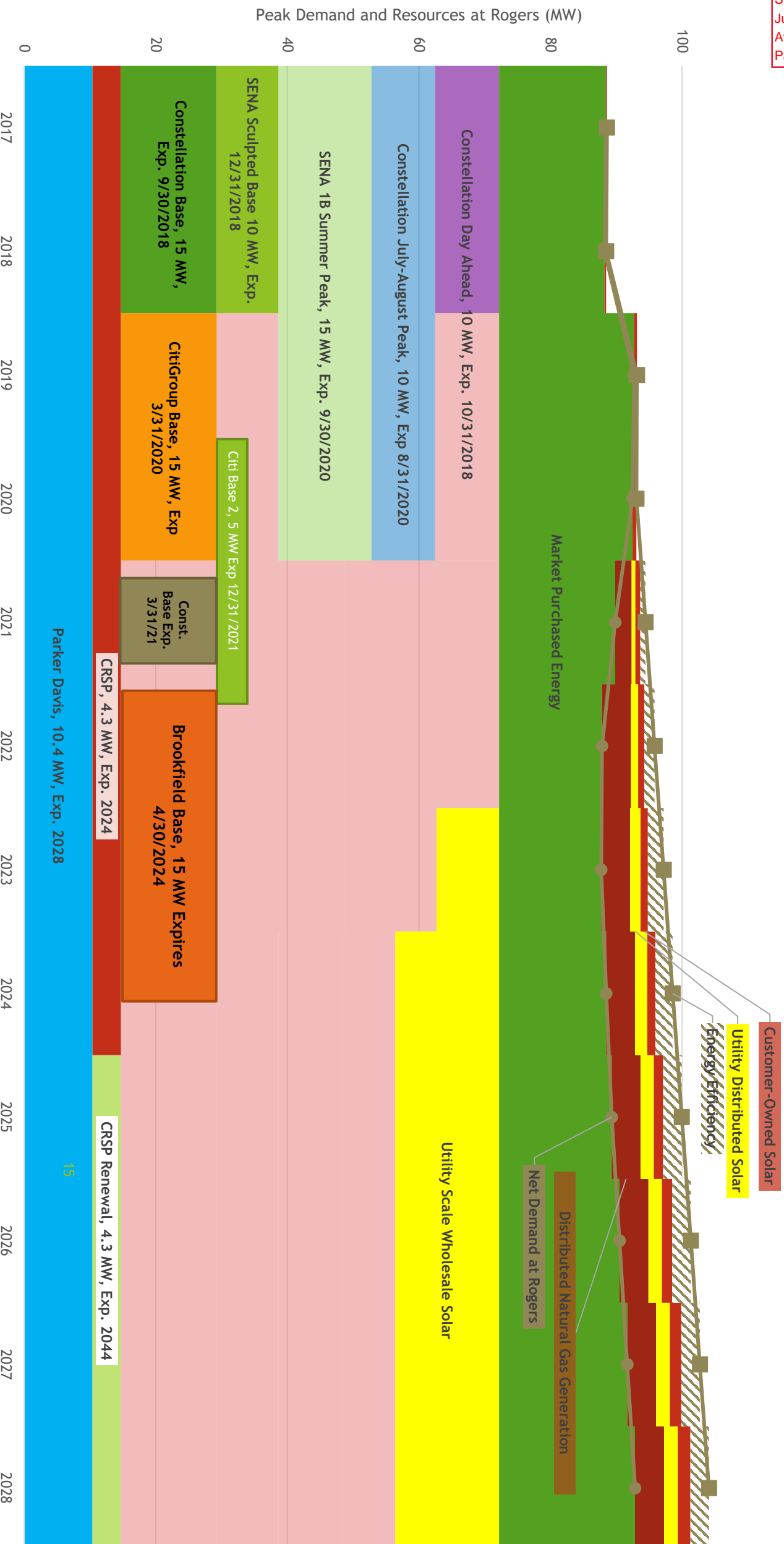
Monthly Market Energy Purchases and Contract Energy Purchases



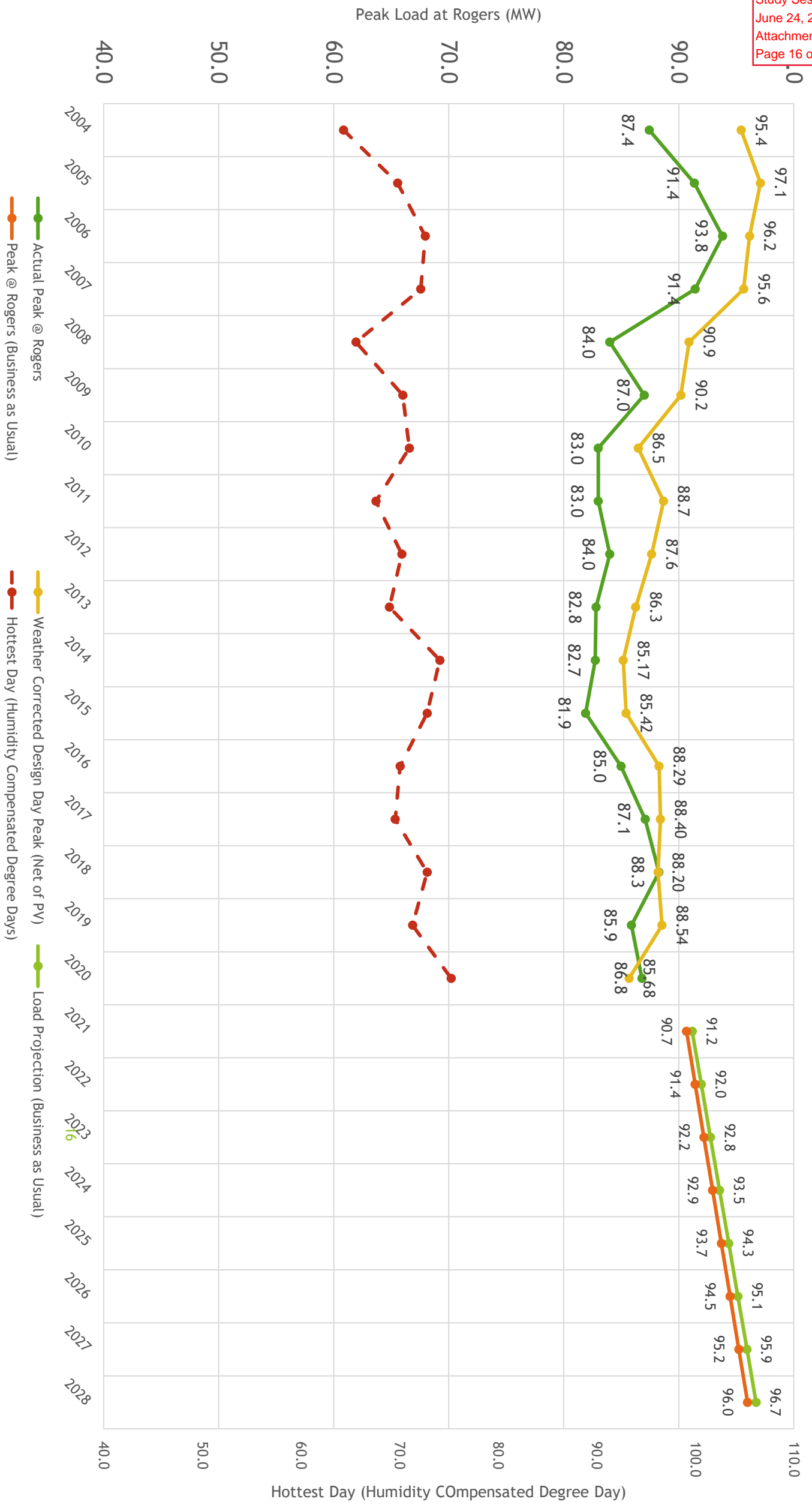
Summer 2021 Electricity Pricing (by Month Purchased in Advance)



City of Mesa Electric Utility Power Requirements and Resources (MW) by Year at Rogers Substation

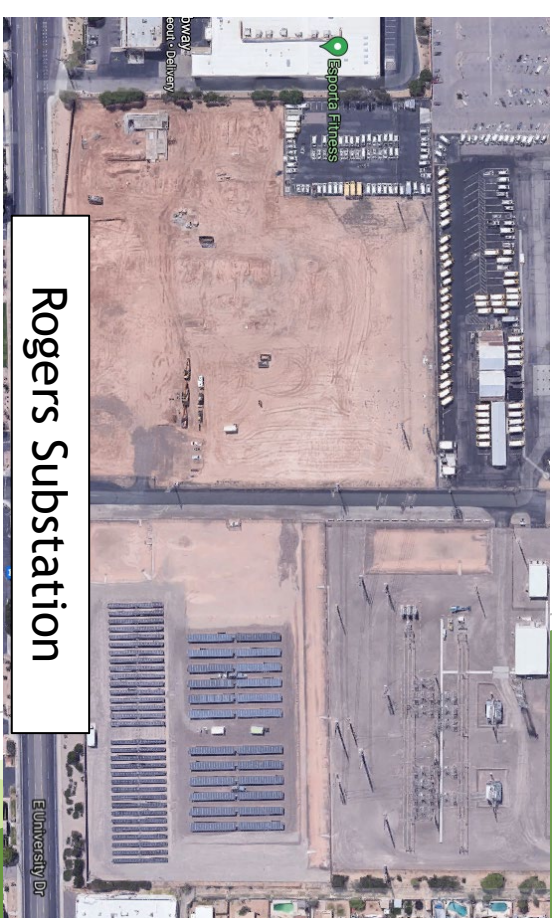


Actual and Design Day Electric Peak by Calendar Year



Generation Opportunities

- ▶ 3rd Party Consultant Evaluation
- ▶ High pressure gas + 69 kV Lines
- ▶ Loftin Rental
- ▶ Wartsila
- ▶ GE Turbine Install
- ▶ GE Turbine Rental



NERC Long Term Reliability Report (12/2020)

Risk of Outages

Most areas are projecting to have adequate resource capacity to meet annual peak demands. However, measures of energy adequacy from the ERO's probabilistic assessment (Proba), which accounts for all hours in selected study years of 2022 and 2024, are cause for concern in several areas. The following explains these concerns in detail:

- Nearly all parts of the Western Interconnection (WI), with the exception of Alberta, face heightened loss of load risk. The WECC-CAMX assessment area (primarily California) which was a subject of concern when the prior Proba was conducted in 2018, could face periods where resources are insufficient to meet energy needs, potentially resulting in up to 22 hours of outage in 2022. The recent experience

“High risk of loss of load” (i.e. outages) means high risk for suppliers which translates to high prices

Risk to Generators

- Natural-gas-fired generation provides 40% of the aggregate on-peak electricity supply capacity in North America, and 41 GW of that capacity is in late-stage planning for addition over the next 10 years. As natural-gas-fired generation continues to increase, vulnerabilities associated with natural gas delivery to generators can potentially result in generator outages due to both insufficient natural gas infrastructure or alternate fuel delivery and/or disruption to natural gas or alternate fuel deliveries. These risks are most heightened in New England, the desert Southwest, and California, where there is increased reliance on natural gas generation and limited back-up fuel.

Risk of Outages

- WECC's 2020 Proba continues to note several hours that pose a potential risk for loss of load for almost all WI areas over studied years. The CAMX area was the only concern in the 2018 probabilistic assessment, but now all areas except Alberta (AESO) are seeing hours of potential loss of load. Exacerbated by the recent western area heat wave event, which saw load shed over the summer, all areas are reviewing the level of resource adequacy considering forecast variability.

WECC Growth



Figure 32: Annual Peak Demand Growth Rate for 10-Year Period by Assessment Area

- The Desert Southwest is seen as the fastest growing area over the next 10 years; generation must keep pace
- Fast growth without commensurate growth in generation capacity = higher risk of outages due to insufficient generation
- Generation capacity type must meet the resource need (i.e. **Peak Demand time capacity is needed**)

California ISO Demand and Generation

Summer	CAISO Generation Additions (prior to year)	CAISO Generation Retirements	July/August Capacity forecast	1 in 2 peak demand forecast	Actual Peak Demand
2018	692	890	51,947	46,625	46,310
2019	1,523	2,702	51,765	46,511	44,148
2020	3,423	1,991	48,555 / 46,903	45,907	46,970
2021	3,961	81	50,734 / 50,010	45,837	

Significant new capacity additions

Almost no retirements

Net capacity increase

Demand continues to decline

CAMX Demand and Generation

Summer	Capacity Forecast (Existing Certain and Net Firm Transfers)	Total Internal Demand
2015	64,102	57,606
2016	66,044	54,621
2017	63,765	54,774
2018	62,658	54,112
2019	64,936	55,109
2020	62,371	54,214
2021	63,569	55,721

Desert Southwest Demand and Generation

Year	Summer Peak Capacity Forecast (NERC)	Peak Demand Forecast	Hours at Risk
2016	29,289	22,635	
2017	29,094	23,207	
2018	29,061	23,883	
2019	30,445	24,286	
2020	28,693	24,571	
2021	29,672	25,652	
2021 (WECC)	29,300 (24,300 @ 5%)	25,700 (29,100 @ 5%)	415/283

Significant decrease, 2019 to 2020

WECC Reserves

Table 9: Planning Reserve Margins (2021–2025)

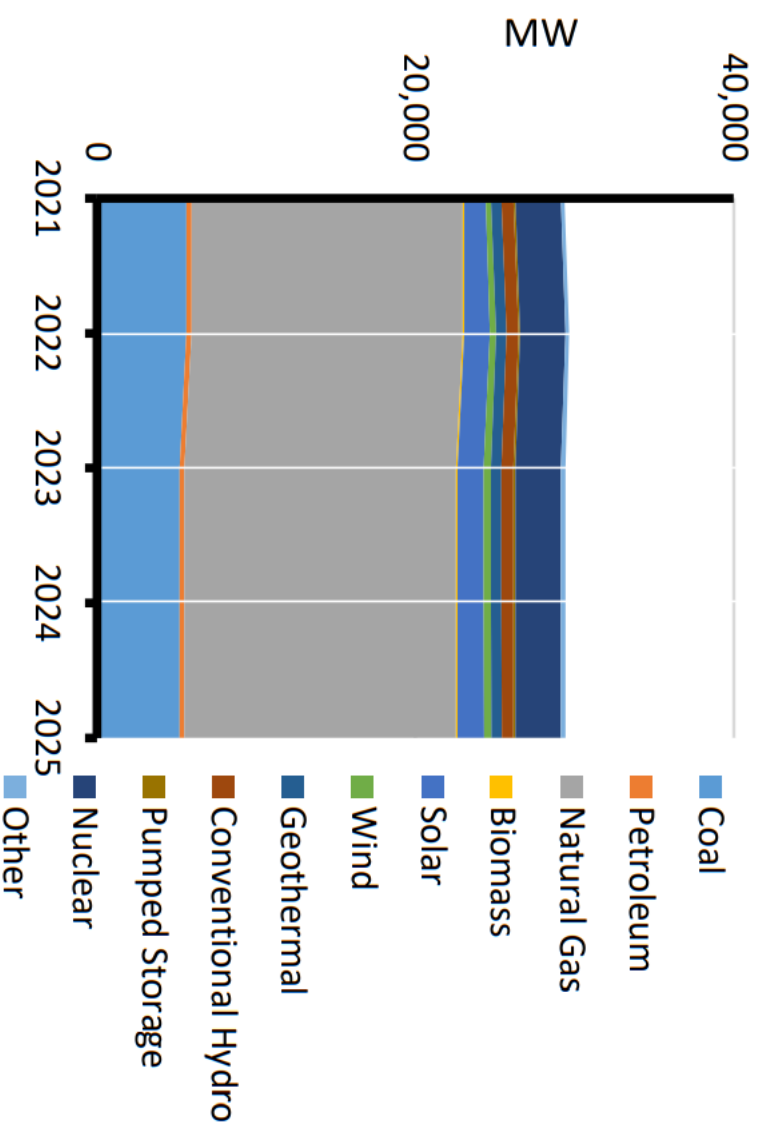
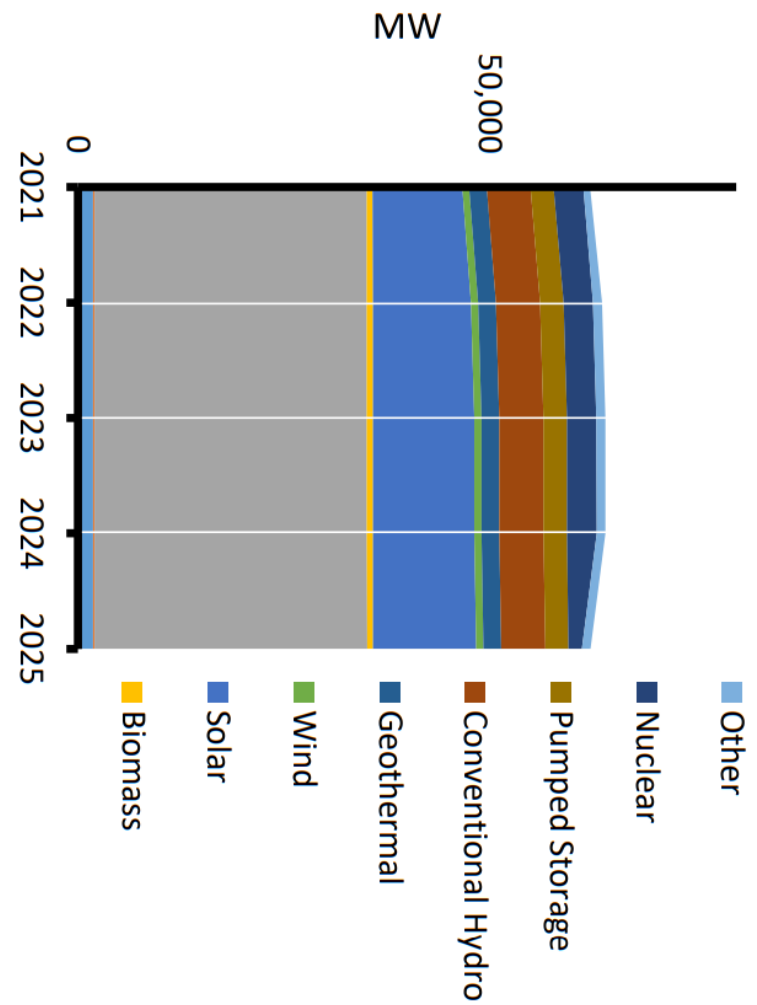
Assessment Area	Reserve Margins (%)	2021	2022	2023	2024	2025
WECC-AB	Anticipated Reserve Margin	22.6%	26.3%	Low 22.8%	24.0%	23.6%
	Prospective Reserve Margin	32.2%	42.1%	50.5%	55.6%	55.1%
	Reference Margin Level	13.8%	12.3%	13.8%	14.1%	14.1%
WECC-BC	Anticipated Reserve Margin	21.4%	20.6%	Low 19.1%	21.2%	24.1%
	Prospective Reserve Margin	21.4%	20.6%	19.1%	21.3%	24.2%
	Reference Margin Level	13.8%	12.3%	13.8%	14.1%	14.1%
WECC-CAMX	Anticipated Reserve Margin	21.4%	27.8%	Up 27.3%	26.8%	22.5%
	Prospective Reserve Margin	21.4%	35.3%	40.8%	41.7%	37.4%
	Reference Margin Level	18.2%	15.8%	19.1%	19.1%	19.1%
WECC-NWPP-US and RMRG	Anticipated Reserve Margin	25.9%	24.6%	23.4%	21.6%	20.8%
	Prospective Reserve Margin	25.9%	24.8%	24.0%	22.2%	21.5%
	Reference Margin Level	15.4%	16.1%	15.2%	15.1%	15.0%
WECC-SRSG	Anticipated Reserve Margin	18.1%	17.3%	17.0%	14.7%	15.5%
	Prospective Reserve Margin	18.1%	18.1%	19.5%	17.2%	17.9%
	Reference Margin Level	10.9%	11.9%	11.0%	10.8%	10.7%

Down

Down

California ISO is the only area with a positive outlook on the reserve margin

Projected Energy Mix - CAMX and SRSRG



CURRENT RESOURCE MANAGEMENT PLAN

- Mesa *currently* purchases ~ 80% of its electric energy supplies from the Western Regional Energy Market (Western Market)
- California ISO is Interconnected with the Western Market
 - What happens in California significantly impacts the West
 - If/When California's and Desert Southwest's electric reserve margins decline, volatility in supply and prices in the West increases and prices increase – sometimes spike
- First sign of challenges we are facing now was August 2020
 - On multiple days for multiple hours, prices began spiking to levels not seen since the California Energy crisis of the early 2000's.

Causes

- ▶ Escalating loss of spinning/thermal resources galvanized with retirement of Navajo Generating station 12/2019
 - ▶ California rolling blackouts of 2020
- ▶ Fundamentals remain normal
 - ▶ Natural gas on margin
 - ▶ Trading at \$2.00 - \$4.00 range
- ▶ Trading purely on risk of another blackout
- ▶ Nobody wants to pay LD on another \$3,000/MWh event
- ▶ Markets reward scarcity
 - ▶ Mesa must evaluate its participation in the market

Mesa Summer Purchases

- ▶ RFP in February resulted in a purchase in base energy for \$55 - \$59/MWh during Q1, Q2, Q4 and \$90/MWh during Q3-22 and Q3-23

Product	Results	Prior Price	Purchase Price/Market Price
Base 15 MW	3 bidders, purchased through Brookfield	\$32.75/MWh	\$
Summer Peak (May - Sept)	No Bids	\$39	
July-August Peak	No Bids	\$65	
Dispatchable Product	No Bids	N/A	

- ▶ Western making purchase via RFP
 - ▶ \$13.5M to make 3 month purchase in advance

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