San Diego County
Local Agency Formation Commission
Regional Service Planning | Subdivision of the State of California

6b

AGENDA REPORT
Public Hearing

November 7, 2022

TO: Commissioners

FROM: Keene Simonds, Executive Officer
Priscilla Mumpower, Analyst II

SUBJECT: **Final Addendum and Related Actions:**
Municipal Service Review on the City of Escondido | Part Two

SUMMARY

The San Diego County Local Agency Formation Commission (LAFCO) will receive a final addendum prepared as part of a phased scheduled municipal service review on the Escondido region. The addendum has been prepared by LAFCO staff and supplements a comprehensive municipal service review report on the City of Escondido separately prepared by the City via Concordia Homes. The addendum returns to the Commission substantially intact following its initial draft presentation in August with a continued function to expand and bridge the analysis gap on topics of elevated interest to the Commission – and specifically core City functions (water, wastewater, and fire protection) and finances. Limited revisions are summarized and marked by the addition of a new recommendation for LAFCO to assess the connectivity between its own growth policies for places like Escondido with other regional governments. Staff recommends the Commission formally accept the addendum and adopt a resolution to codify the addendum's recommendations and related determinative statements as required under the municipal service review statute.

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BACKGROUND

Municipal Service Reviews

State law directs San Diego LAFCO to regularly prepare municipal service reviews in conjunction with updating each local agency's sphere of influence. The legislative intent of the municipal service review and its five-year cycle requirement is to proactively inform the Commission regarding the availability and sufficiency of governmental services relative to current and future community needs. Municipal service reviews statutorily inform required sphere of influence updates and may also lead the Commission to take other actions under its authority, such as forming, consolidating, or dissolving special districts. These documents also serve as an opportunity for the Commission to telegraph and encourage community discussion and/or action on future jurisdictional changes.

Adopted Workplan | Municipal Service Review on the Escondido Region: Part II

San Diego LAFCO's 2021-2022 workplan was adopted at a noticed hearing in June 2022 and outlines specific project goals for the fiscal year. This includes completing the final phase of a two-part municipal service review on the Escondido region. The earlier phase – "Part One" – was completed in October 2019 and covered the two principal local special districts serving the region, Deer Springs Fire Protection District and Rincon del Diablo Municipal Water District. The second phase – "Part Two" – involves the City of Escondido. Part Two is further divided into two distinct documents: (a) a municipal service review report prepared by Escondido via Concordia Homes – proponent of the Harvest Hills project – and an (b) addendum prepared by LAFCO staff.[1]

A summary outline of the two documents in terms of scope and purpose follows.

- **Municipal Service Review Report**
  This document has been prepared by the City of Escondido via Concordia Homes with input from LAFCO staff. It provides an expanded detailing of City functions and headlined by community development, fire protection, libraries, parks and recreation, police protection, roads, storm management, water, and wastewater. The document largely relies on a five-year window between 2013-2014 and 2017-2018 in comparing capacities and demands. The document also includes its own set of determinations in addressing factors required under the municipal service review statute. This includes determining that one or more new fire stations will be needed to accommodate additional growth in the northwest and southeast sections of the City. A corresponding analysis of potential sphere changes is also part of this document.

[1] The preparation of the addendum ties to an earlier staff agreement in 2017 between the former LAFCO Executive Officer and former Escondido City Manager to partner on a regional municipal service review.

A copy of the report is www.sdlafco.org/meetings.

- **Addendum to the Municipal Service Review Report**
  This document has been prepared by San Diego LAFCO staff and expands on information in the municipal service review report prepared by the City of Escondido. This includes bridging the analysis gap on topics of elevated interest to LAFCO and presented to mirror LAFCO's own form and practice. Topics addressed in the addendum include core City functions – fire protection, water, and wastewater – and finances. An Executive Summary (Chapter Two) anchors the addendum and outlines the key conclusions and recommendations. The Executive Summary also includes determinative statements addressing the mandatory factors required under statute and local policy anytime LAFCO performs a municipal service review.

Presentation on Draft Addendum and Subsequent Public Review and Comment Period

At its August 1, 2022 meeting, San Diego LAFCO received a presentation from staff on Part Two of the scheduled municipal service review on the Escondido region. Both documents comprising Part Two –the municipal service review report prepared by the City of Escondido via Concordia Homes and the addendum prepared by LAFCO staff – were presented with a focus on the addendum in its draft form. This included detailing the draft addendum's key conclusions and recommendations for Commission discussion and feedback. Following its discussion and testimony provided by interested parties, the Commission proceeded to direct staff to initiate a 45-day public review and comment period with details footnoted.[2] Written comments submitted by the October 28th deadline were received from the following agencies, organizations, and others have been added as an appendix to the final addendum:

Comments Received from Local Agencies

- City of Escondido, Andrew Firestine, Director of Development Services
- County of San Diego PDS, Dahvia Lynch, Director
- Rincon del Diablo MWD, Clint R. Baze, General Manager

Comments Received from Local Organizations

- Buena Vista Audubon Society, Barbara Swanson
- California Native Plant Society, Frank Landis, Conservation Chair
- Center for Biological Diversity, Elizabeth Reid-Wainscoat, Campaigner
- Clean Earth 4 Kids, Suzanne Hume
- Climate Action Campaign, Madison Coleman
- Coastal Environmental Rights Foundation, Livia Borak Beaudin
- Endangered Habitats League, Dan Silver
- Environmental Center of San Diego, Pam Heatherington, Board of Directors

[2] Notice of the public review and comment period was provided to the affected agencies and other interested parties. The notice was also published in the local newspaper and posted on the LAFCO website.

- Escondido Chamber of Citizens, Jerry Harmon
- Escondido Neighbors United, Tina Iki
- Friends of Goodan Ranch and Sycamore Canyon Open Space, Robert Laudy
- Friends of Hedionda Creek, Sandra Farrell
- Friends of Rose Creek, Karin Zirk, Executive Director
- Preserve Calavera, Diane Nygaard
- Preserve Wild Santee, Van Collinsworth
- San Diegans for Managed Growth, Susan B. Baldwin
- San Diego Audubon Society, Jim Peugh
- San Pasqual Valley Preservation Alliance, NeySa Ely
- Sierra Club North County Group, Laura Hunter
- Sierra Club San Diego Chapter, Peter Anderson
- Southwest Wetlands Interpretive Association, Bill Tippets

Comments Received from Others

- Concordia Homes
- Anna Mein
- Barbara Diederichs
- Bob Glaser
- Christie Rideout
- Dara Cerwonka
- Kevin Kearney
- Joanne Tenney
- Kelly Conrad
- Marian Sedio
- Patricia Borchmann
- Richard Crosland
- Robert. A. Leiter

Any additional written comments received through the close of the November 7th public hearing will be added to the appendix in the final addendum.

DISCUSSION

This item is for San Diego LAFCO to complete its scheduled municipal service review on the Escondido region and specifically Part Two and its focus on the availability, demands, and performance of City of Escondido in meeting current and future community needs. This includes receiving a final addendum prepared by LAFCO staff and highlighted by an Executive Summary outlining key conclusions and recommendations. The addendum and associated resolution making required determinative statements are being presented to the Commission for formal action and would serve to complete the scheduled municipal service review on the Escondido region.

As referenced, the addendum before San Diego LAFCO remains substantially intact from the earlier draft version presented in August and subsequently circulated for public review. A limited number of substantive revisions – nonetheless – are included in the addendum based on public comments and/or further analysis and summarized below.

- **Additional Conclusion:**
  "Connecting Escondido's Growth and Regional Influences"
  Staff has added a new conclusion – identified as No. 7 in the final addendum – disclosing a potential disconnect between LAFCO and other regional agencies in applying different growth objectives applying to the City of Escondido.

- **Revision to Existing Conclusion:**
  "Becoming Whole: Literally + Figuratively"
  Staff has revised a conclusion – identified as No. 8 in the final addendum – addressing the merits for the City of Escondido and LAFCO to coordinate efforts in prioritizing the annexation and related elimination of existing "islands" that are substantially and/or entirely surrounded by City limits. Staff has expanded this conclusion to recognize these efforts should relatedly account for the financial feasibility for the City to assume services and associated improvements on an island-by-island basis.

- **Additional Recommendation:**
  Addressing Other Regional Agencies' Growth Priorities
  Staff has added a new recommendation – identified as No. 2 in the final addendum – for LAFCO to prepare an informational report to assess the relationship of its own growth management policies – like prioritizing the City of Escondido as an urban growth center – with other regional agencies (SANDAG, etc.) and their own policies.

- **Revision to Existing Recommendation:**
  Coordinating the Elimination of City Islands
  Staff has revised a recommendation – identified as No. 8 in the final addendum – directing LAFCO and City of Escondido to focus on eliminating existing islands to also address the financial impacts and possible remedies for the City to assume new service responsibilities and potential public improvements.

- **Revision to Existing Recommendation:**
  Establishment of One or More Study Areas – Including Harvest Hills Site
  Staff has revised a recommendation – identified as No. 10 in the final addendum – for LAFCO to proceed with establishing one or more study areas for the City of Escondido's sphere of influence with reference to the Harvest Hills project site as a merited example. Staff has revised this recommendation to include a condition specific to the Harvest Hills site to require additional evaluation of fire risks and evacuation controls in consideration of any action to formally add to the sphere.

No changes have been made to the municipal service review report prepared by the City of Escondido via Concordia Homes.

ANALYSIS

The final addendum before San Diego LAFCO serves to complete the scheduled municipal service review on the Escondido region and specific to the Commission's task to independently evaluate the City of Escondido. The addendum ties to an otherwise unique agreement between Escondido and LAFCO to allow the City to prepare a comprehensive report on the municipal service review paired with supplemental analysis performed by LAFCO via the addendum process. The addendum provides the gap analysis between the two documents with respect to address core service functions of elevated interest to the Commission (fire, water, and wastewater) as well as finances. Key conclusions and recommendations generated in the addendum process are summarized in the attached prospectus. Written determinations addressing all the factors required for consideration as part of the municipal service review directive are detailed in Chapter Two of the addendum and included in the draft resolution also before the Commission.

RECOMMENDATION

It is recommended San Diego LAFCO formally accept the final addendum prepared on Part Two of the scheduled municipal service review on the Escondido region as well as adopt the draft resolution making determinative statements. This recommendation aligns with the proceeding actions identified as "Alternative One" and collectively serve to attest the addendum satisfies the Commission's task in completing a municipal service review on the City of Escondido and adequately informs the associated determinative statements.

ALTERNATIVES FOR ACTION

The following alternative actions are available to San Diego LAFCO and can be accomplished through a single-approved motion.

Alternative One (recommended):

a) Accept the attached final addendum prepared on the municipal service review report prepared on the City of Escondido and in doing so attest to its completeness.

b) Adopt the attached resolution making the requisite determinations as required as part of the municipal service review directive on the City of Escondido.

Alternative Two:
Continue the item and request additional information from staff as needed.

PROCEDURES

This item has been placed on San Diego LAFCO's agenda for action as part of a noticed public hearing. The following procedures are recommended in the consideration of this item:

1) Disclose any disclosures.
2) Receive verbal presentation from staff unless waived.
3) Open the hearing and invite comments.
4) Discuss item and consider the staff recommendations.

On behalf of the Executive Officer,



Priscilla Mumpower
Analyst II

Appendices:

A) City of Escondido Map
B) City of Escondido/Concordia Homes: Proposed SOI Updates Map

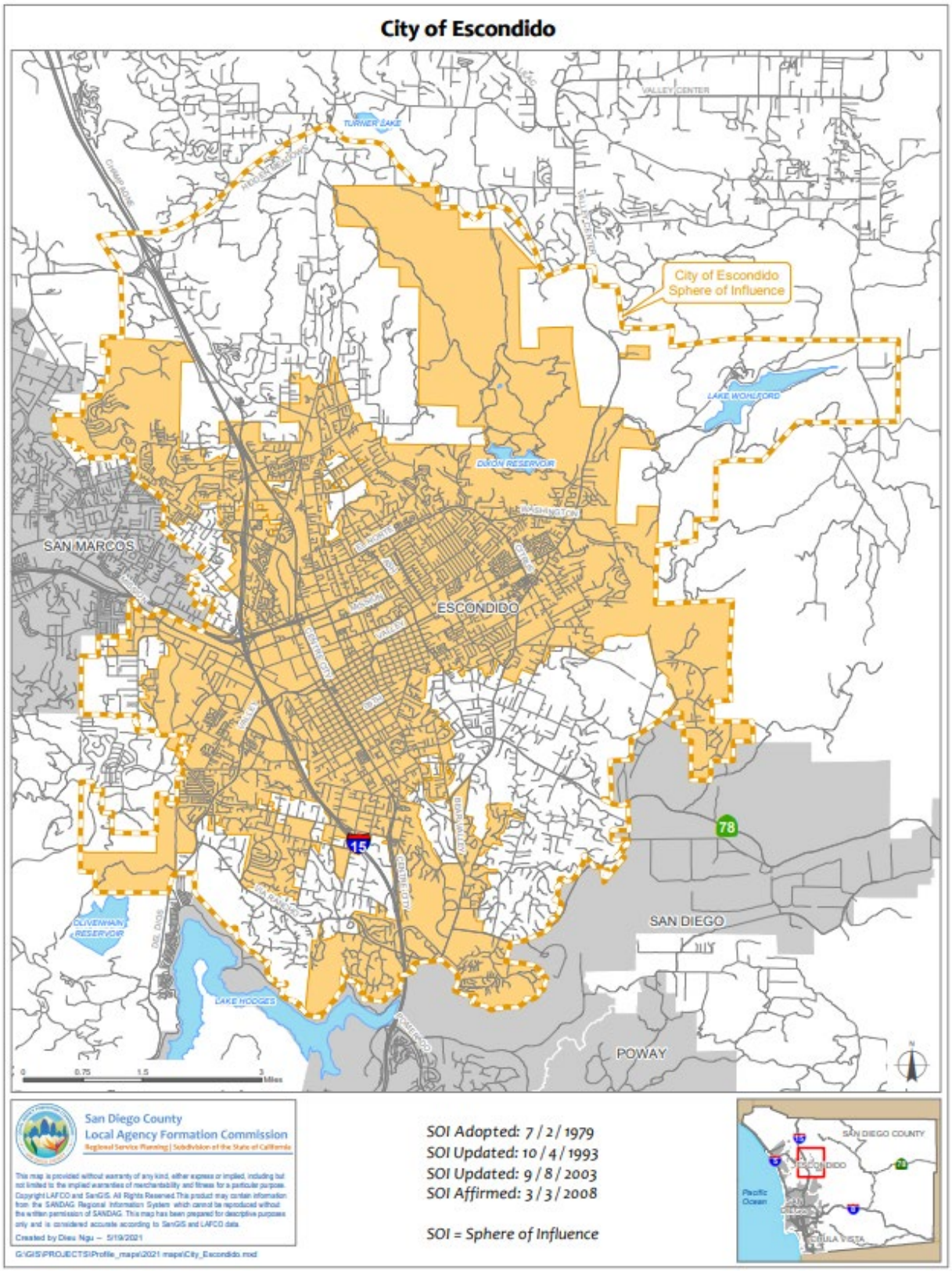
Attachments:

1) Prospectus on the Final Addendum: Key Conclusions and Recommendations
2) Draft Resolution Making Determinative Statements
3) Final Addendum to Municipal Service Review on the City of Escondido: Part Two
4) Report on the Municipal Service Review on the City of Escondido (online only)

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APPENDIX A

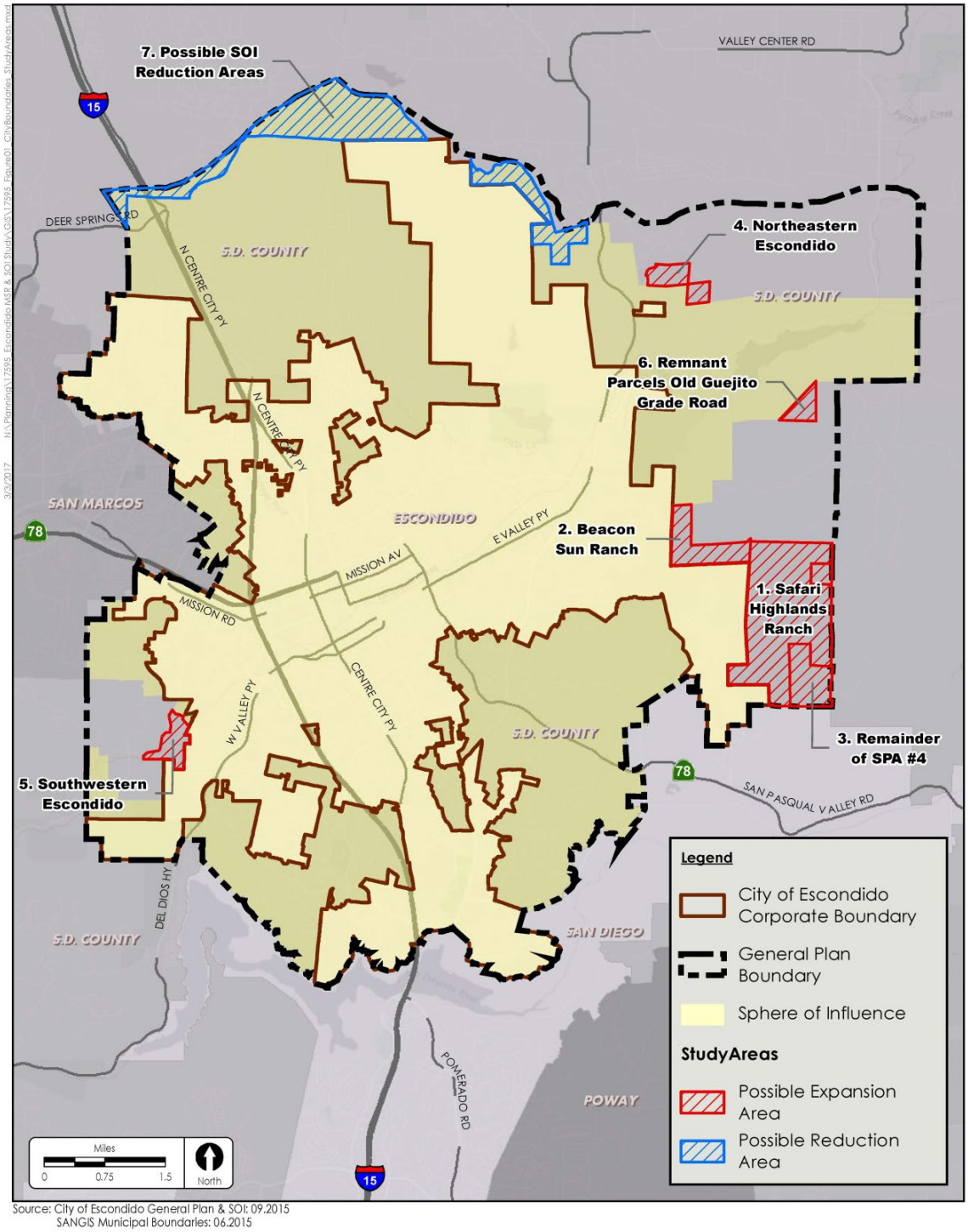
CITY OF ESCONDIDO MAP



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APPENDIX B

CITY OF ESCONDIDO / CONCORDIA HOMES
PROPOSED SPHERE OF INFLUENCE UPDATES MAP



Source: City of Escondido General Plan & SOI: 09.2015
SANGIS Municipal Boundaries: 06.2015

RICK ENGINEERING COMPANY

City of Escondido
Corporate Boundaries and Sphere of Influence

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Municipal Service Review

ESCONDIDO REGION

FINAL • PART 2

REPORT SUMMARY | November 2022

General Themes and Conclusions

The Escondido region encompasses a geographically distinct subarea of "North County" removed from the coast and bisected by two of San Diego County's most traveled commute corridors in Interstate 15 and State Route 78. The region's distinctions are also reflected and tenured in local government with two of the earliest city and special district establishments in San Diego County with the City of Escondido incorporating in 1888 and the Escondido Irrigation District forming in 1891; the latter being subsequently dissolved with its water system eventually divided between the City and Rincon del Diablo MWD at the time of its formation in 1954. Deer Springs FPD's formation in 1981 completes the current and relatively confined concentration of local government in the region among these three agencies.

The City of Escondido and its full-range of municipal services anchors the region's social and economic interests and is the focus of this addendum.

A review of City of Escondido relative to San Diego LAFCO's growth management tasks and interests produces nine central themes or conclusions. These conclusions collectively address the availability, need, and adequacy of municipal services Escondido and range in substance from addressing governance dynamics to financial standing. The conclusions also address potential sphere of influence amendments. The conclusions are independently drawn and sourced to information collected and analyzed in the municipal service review prepared Escondido via Concordia Homes and substantively supplement by this addendum.

The City of Escondido is a general law municipality incorporated in October 1888 with a total population estimate of nearly 150,779. This estimate produces a population density of 6.3 residents per acre and makes the region the 4th largest City in San Diego County.

No. 1
Introductory Municipal Service Review

This municipal service review and addendum herein serve as the Commission's first comprehensive municipal service review covering the City of Escondido. The report and this addendum consequently serve as a dual introduction. This is marked by introducing Escondido and their constituents in real-time to an otherwise unfamiliar outside planning process. The introduction similarly introduces the Commission to Escondido and their service activities at depths previously unvisited with the underlying goal of establishing baseline information to track and measure going forward.

No. 2
Changes in Leadership + Governance

The City of Escondido has experienced significant changes in elected and appointed leadership at the end of the addendum period and suggests substantive transitions in the City's approach to governance – including goal and priority setting – will follow. Markedly, and without the imposition of term limits, four of the five Council positions changed during the period with three of the four being new to elected public office. This change in leadership also extends to several senior staff positions and highlighted by the City Council recently appointing its first outside candidate to City Manager since 1989.



Maple Street Plaza Arch Sign in Escondido.

No. 3
General Fund Stresses + High Debt Levels

Actuals during the addendum period signal the City of Escondido's General Fund is becoming imbalanced with the rate of new expenses surpassing the rate of new revenues by more than one-fifth and the inability to satisfy its own reserve policy in four of the five years covered. It appears the primary stress factor ties to increasing pension debt payments – which have risen by nearly one-half in the addendum period – and now account for nearly two-fifths of all payroll expenses. The cumulative effect of increasing pension costs plus other financing decisions has substantively cut Escondido's capital levels and reflected in a debt-to-net asset measurement of 101% at the end of the period.

No. 4
Adequate Service Capacities with a Big Qualifier

The City of Escondido has established adequate and excess service capacities and related resources in meeting current demands and highlighted in this addendum with respect to potable water, wastewater, and integrated fire protection, emergency medical, and ambulance. However, it is reasonable to apply qualifiers given increasing stresses in the General Fund will relatedly stress capacities and resources for associated City services and most notably community development, public safety, and parks and recreation. This dynamic suggests added caution for LAFCO in considering annexations and their potential impact – advantageous and disadvantageous – on the General Fund.

No. 5
Growth Challenges

Recent population growth in the City of Escondido has been relatively modest during the addendum period with an average annual change of 0.5%. This otherwise modest population growth has nonetheless proportionally exceeded housing construction in Escondido with LAFCO estimating an annual period shortfall of (64) housing units in the City necessary to maintain current household sizes. Pivoting forward, and in order to help curb this existing shortage, LAFCO estimates the average number of new housing units needed in Escondido in each of the next five years to proportionally keep pace with expected growth in population is 225 units.

No. 6
Growth Opportunities + LAFCO Support

The City of Escondido is favorably positioned to plan and accommodate additional growth and become a focal urban center for North County. This opportunity ties to Escondido's role as a full-service municipality and the controls it provides paired with its physical location along existing major transportation corridors as well as planned expansions – including a station stop on California's high-speed rail project. This opportunity further ties and can be supported by LAFCO's own interests and duties to facilitate orderly and city-centered growth.

No. 7
Connecting Escondido's Growth with Regional Influences

The City of Escondido's growth and development is the final responsibility of its City Council, but regional agencies – like LAFCO, SANDAG, and the County of San Diego – create policies that substantively influence the local decision-making. And while LAFCO can and should support Escondido's becoming of a focal urban center for North County, the policy direction of SANDAG, County, and others on this topic is less certain and merits attention to help connect and otherwise coordinate regional messaging for the benefit of the City.



Completed in 1988, City Hall was the first phase of the Escondido Civic Center.

No. 8
Becoming Whole: Literally + Figuratively

There are over a dozen unincorporated islands that are substantially or entirely surrounded by the City of Escondido with a LAFCO estimated population of 12,376. All of these islands lie within Escondido' sphere of influence and their continued existence perpetuate service inefficiencies for both the City and County of San Diego as well as raise social justice considerations for those within islands and/or for those outside the islands. It would be appropriate for Escondido and LAFCO to coordinate resources and work to gradually make the City whole with due consideration to the economic feasibility and impact on City resources.

No. 9
Assessing the Escondido + Rincon del Diablo Relationship

LAFCO concluded in Part One of the municipal service review it would be prudent to independently assess options to consolidate – politically or functionally and/or partially or entirely – the City of Escondido and Rincon del Diablo MWD. This earlier determination relied on preliminary analysis and highlighted by the agencies' overlapping boundaries and common service functions. Part Two of the municipal service review of this addendum further affirms this earlier conclusion and supports adding the governance study to the LAFCO workplan.

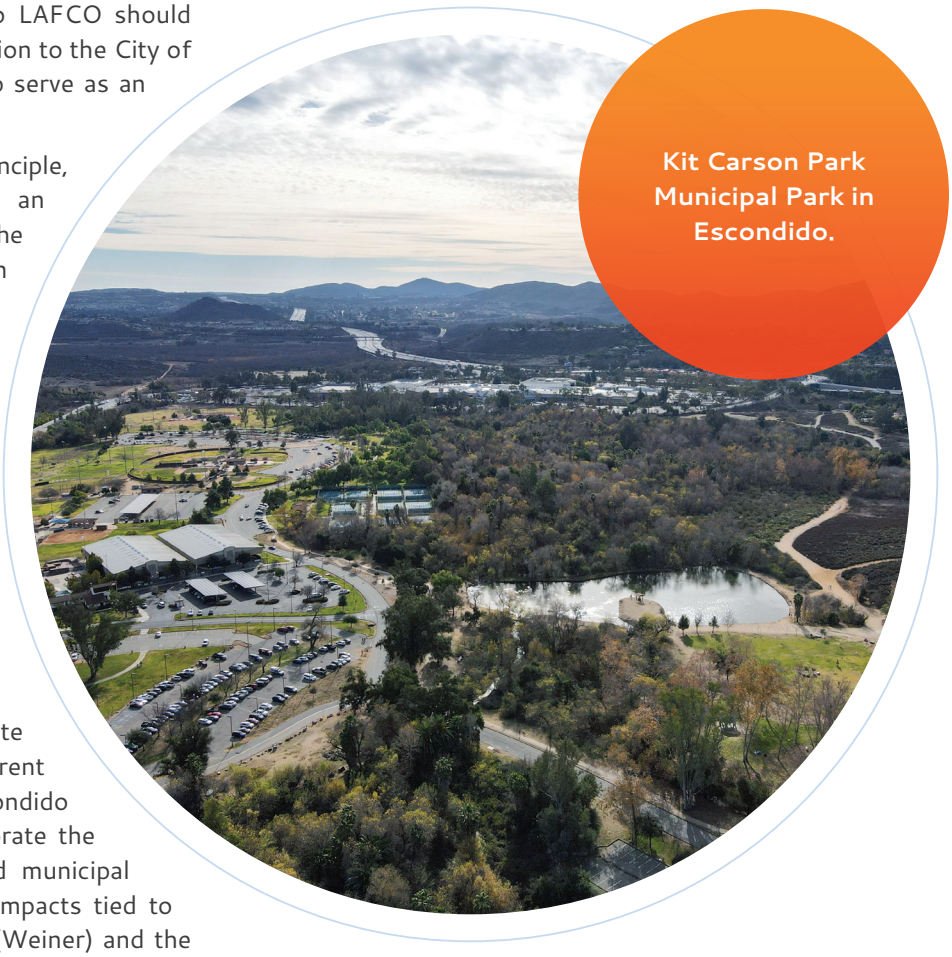
No. 10
Proceeding with a Limited Sphere of Influence Update

It would be appropriate for LAFCO to proceed with a limited sphere of influence update for the City of Escondido and defer an otherwise needed comprehensive action to a future municipal service cycle. The approach would involve proceeding with limited changes to the sphere to better align with parcel boundaries and/or other geographic markers. It would also – pertinently – establish one or more specific special study areas to memorialize areas the Commission would allow to come forward over the next five-year period without requiring a new municipal service review.

Recommendations

The following recommendations call for specific action either from San Diego LAFCO, City of Escondido, or other local agencies based on information generated as part of this addendum and outlined below in order of their placement in Section 5.0 (Written Determinations). Recommendations for Commission action involving additional studies are dependent on a subsequent directive from the membership and through the annually adopted work plan.

1. As a long-term principle, San Diego LAFCO should prioritize and direct growth in the region to the City of Escondido and its appropriate role to serve as an urban center.
2. In support of the preceding principle, San Diego LAFCO should prepare an informational report to assess the relationship of the Commission's own growth management policies – such as prioritizing City of Escondido as an urban growth center through sphere and jurisdictional changes – with other regional land use and housing policies. This includes – but not limited to – assessing connectivity to SANDAG's mobility hubs and the County of San Diego's recently adopted transportation study guide establishing vehicle miles traveled thresholds under Senate Bill 743.
3. San Diego LAFCO should coordinate with SANDAG to develop current buildout estimates in the City of Escondido and sphere of influence and incorporate the information into the next scheduled municipal service review. This should include impacts tied to the recent passage of Senate Bill 9 (Weiner) and the allowance for additional lot splitting.
4. As an immediate principle in the timeframe of this addendum, San Diego LAFCO should require all jurisdictional changes involving annexations to the City of Escondido demonstrate de minimis impacts to the City General Fund unless overriding policy considerations are made by the Commission on a case-by-case basis.
5. San Diego LAFCO should coordinate with the County of San Diego to identify the scope and scale of active groundwater wells and septic systems within the City of Escondido and the sphere of influence and incorporate this information into the next scheduled municipal service review.



Kit Carson Park Municipal Park in Escondido.

6. The City of Escondido should consider joint-use arrangements with local school districts to make available additional and needed greenery and play spaces to enhance recreational opportunities that are within walkable distance for residents.
7. San Diego LAFCO affirms its own previous determination that a governance study is merited to independently assess reorganization options to consolidate – politically or functionally – the City of Escondido and Rincon del Diablo MWD. The Commission should proceed with the governance study.



Pedestrian Bridge across Lake Hodges, the world's longest stress ribbon bridge

» Recommendations

8. San Diego LAFCO should exercise additional discretion when considering jurisdictional changes involving the City of Escondido to prompt and/or otherwise require concurrent or future annexation of the existing unincorporated islands in the sphere of influence. with due consideration to the economic feasibility and impact on City resources.

9. The City of Escondido should coordinate with San Diego LAFCO to ensure existing municipal services provided outside the City that are subject to material changes – intensify or de-intensify – remain in compliance with Government Code Section 56133.

10. San Diego LAFCO should proceed with a limited sphere of influence update for the City of Escondido. The limited update should focus on aligning the sphere of influence wherever practical with parcel boundaries, roads, and other geographic markers that have adjusted and/or emerged since the last Commission action in 2003.

    a) San Diego LAFCO should defer an otherwise merited comprehensive sphere of influence update for the City of Escondido to a future municipal service review.

    b) Notwithstanding other determinations, San Diego LAFCO should proceed to establish one or more special study areas for the City of Escondido sphere of influence as part of a limited update and provide the affected areas eligibility to proceed in the next five years with an actual amendment without necessitating a new municipal service review. This includes a special study area for the Harvest Hills (previously Safari Highlands) project site.

    c) Establishment of a special study area for the Harvest Hills project site and any subsequent accommodation to formally add to the City of Escondido's sphere of influence over the preceding 60-month period should be conditioned on further evaluation on potential fire risks and evacuation controls given local conditions – including community input to date.

11. San Diego LAFCO should revisit and expand on its inaugural analysis of pollution burdens and impacts on susceptible populations within the City of Escondido as part of future municipal service reviews.

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RESOLUTION NO.___

RESOLUTION OF THE
SAN DIEGO COUNTY LOCAL AGENCY FORMATION COMMISSION
MAKING DETERMINATIONS

PART TWO MUNICIPAL SERVICE REVIEW ON THE ESCONDIDO REGION

WHEREAS, the San Diego County Local Agency Formation Commission, hereinafter referred to as the "Commission", is a political subdivision of the State of California with regulatory and planning responsibilities to facilitate orderly municipal growth and development under the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000; and

WHEREAS, the Commission is responsible under Government Code Section 56430 to regularly prepare municipal service reviews to independently and comprehensively evaluate the sufficiency of local governmental services to inform its regulatory and other planning activities; and

WHEREAS, the Commission adopted a workplan calendaring projects for 2021-2022; and

WHEREAS, the Commission's Executive Officer and staff prepared a city-specific addendum to the municipal service review on the Escondido area consistent with statute and the adopted workplan; and

WHEREAS, the Executive Officer's written report on the municipal service review was presented to the Commission in a manner provided by law; and

WHEREAS, the Commission heard and fully considered all the evidence presented at public meetings involving the municipal service review on August 1, 2022 and November 7, 2022;

WHEREAS, as part of the municipal service review, the Commission is required pursuant to Government Code Section 56430(a) to make a statement of written determinations with regards to certain factors.

NOW, THEREFORE, BE IT RESOLVED, the Commission hereby finds, determines, and orders the following:

1. The Commission determines this municipal service review is a project under the California Environmental Quality Act but qualifies for an exemption from further action as an informational document consistent with State Guidelines Section 15306.

2. The Commission has duly considered the Executive Officer's written report on the municipal service review and recommendations therein on the availability, need, and sufficiency of public services provided within the City of Escondido relative to community needs.

3. The Commission adopts the statement of written determinations generated from information presented in the Executive Officer's written report on the municipal service review as set forth in Exhibit "A."

4. The Commission refers the public to the Executive Officer's written report on the municipal service review for additional details and important context.

PASSED AND ADOPTED by the Commission on November 7, 2022 by the following vote:

AYES:

NOES:

ABSENT:

ABSTAINING:

ATTEST:

_____
Keene Simonds
Executive Officer

EXHIBIT A

PART TWO MUNICIPAL SERVICE REVIEW ON THE ESCONDIDO REGION

STATEMENT OF DETERMINATIONS
GOVERNMENT CODE SECTION 56430

The following statements have been generated from the final report prepared as part of the scheduled municipal service review on the Escondido region and specific attention to the City of Escondido. Abbreviations and/or acronyms, accordingly, are incorporated into the statements below for brevity.

I. With respect to growth and population projections for the affected area as required under Section 56430(a)(1), the Commission independently determines the following.

1. San Diego LAFCO independently estimates there are 150,799 fulltime residents in the City of Escondido at the end of the addendum period. This estimate makes Escondido the 4th largest populated incorporated community in all of San Diego County.

2. San Diego LAFCO independently estimates the City of Escondido has added approximately 3,285 new residents during the addendum period. This new growth translates to an average increase of 657 new residents each year.

3. San Diego LAFCO separately estimates the City of Escondido has added approximately 740 new housing units during the addendum period. This new development translates to an annual increase of 148 new units each year.

4. The rate of new residents compared to the rate of new housing in the City of Escondido during the addendum period produces a ratio of 4.4 to 1.0. This ratio exceeds the current average household size of 3.1 persons during the addendum period and quantifies an existing and increasing shortfall in housing production in Escondido.

    a) In order to maintain a baseline household size of 3.1 persons, the rate of actual new housing in Escondido during the period would need to have increased by an additional 70% from an average year production of 148 units to 212 units.

5. It is reasonable to project the fulltime population will increase within the City of Escondido consistent with contemporary trends – or 0.46% annually – and add another 3,483 residents through the timeframe of this addendum and reach 154,282 by 2026.

6. Accommodating the projected population growth within the City of Escondido to 2026 will require the overall construction of 1,124 new housing units – or 225 units each year – to maintain the baseline household size of 3.1 persons

7. It is reasonable to assume the shortfall in housing supply within the City of Escondido during the addendum period is affecting housing costs with the average monthly expense totaling $1,836, which is 15% higher than the countywide mean.

a) Average rent and mortgage costs at the end of the period in Escondido equals 29% of household incomes.

8. The City of Escondido's location along existing transportation corridors and inclusion in the San Diego County Water Authority and Metropolitan Water District of Southern California's wholesale water jurisdictions positions the City to experience accelerated growth beyond the timeframe of this addendum.

9. Proportionally directing more growth towards the City of Escondido during and beyond the addendum timeframe merits consideration by San Diego LAFCO as well as other regional planning bodies and may serve as additional justification for the Commission to accommodate jurisdictional changes.

10. San Diego LAFCO should prepare an informational report to assess the relationship of the Commission's own growth management policies – such as prioritizing the City of Escondido as an urban growth center through sphere and jurisdictional changes – with other regional land use and housing policies. This includes assessing connectivity to SANDAG's mobility hubs and the County of San Diego's recently adopted transportation study guide establishing vehicle miles traveled thresholds under Senate Bill 743.

11. San Diego LAFCO should coordinate with SANDAG to develop current buildout estimates within the Escondido region and incorporate the information into the next scheduled municipal service review. This should include assessing potential impacts tied to the recent passage of Senate Bill 9 (Weiner) and allowance for additional lot splitting.

12. With respect to pertinent demographics within the City of Escondido during the addendum period, San Diego LAFCO independently makes the following statements.

    a) Residents within Escondido tend to be older with a median age of forty relative to the countywide average of 35.

    b) Residents in Escondido have experienced a modest increase in their average median household income with an ending five-year sum of $76,544.

    c) Approximately one out of every five adults 25 years or older in Escondido hold four-year college degrees at the end of the addendum period. This ratio paired with the relatively high median home income suggests a sizeable portion of the workforce residing in the City is blue-collar.

13. The number of counted homeless in the City of Escondido has been gradually decreasing during the addendum period from a beginning count of 523 to an ending count of 447 – a difference of (14.5%). The portion of homeless in Escondido relative to all of San Diego County – nonetheless – has increased by 2.0% during the period.

14. While experiencing an overall decrease, the amount of homeless counted in the City of Escondido remains comparatively high at the end of the addendum period. This point is

illustrated with Escondido's last count being the third highest among local municipalities, and – with the exclusion of counts in the City of San Diego – accounts for close to one out of every five homeless persons in San Diego County.

II. With respect to the location and characteristics of disadvantaged unincorporated communities within the affected areas as required under Section 56430(a)(2), the Commission independently determines the following.

1. There are two distinct areas immediately adjacent to the City of Escondido that qualify as disadvantaged unincorporated communities under San Diego LAFCO policy. These two communities lie within Citrus Valley and within the current sphere of influence designated for the City. LAFCO estimates the combined population within these communities is 348.

2. Additional details and discussion on the two disadvantaged unincorporated community within the City of Escondido's sphere of influence is provided within the municipal service review prepared by the City of Escondido via Concordia Homes.

III. With respect to the capacity of public facilities and infrastructure needs and deficiencies within the affected areas as required under Section 56430(a)(3), the Commission independently determines the following.

1. The City of Escondido provides a full range of municipal services within its jurisdictional boundary. This addendum focuses on three specific service functions underlying Escondido's growth and development: (a) potable water; (b) wastewater; and (c) integrated fire protection, emergency medical, and ambulance services.

2. San Diego LAFCO attests the other key municipal service functions of the City of Escondido – including community development, parks and recreation, roads and streets, recycled water, and police protection – are adequately addressed in the municipal service review report prepared by the City via Concordia Homes.

3. San Diego LAFCO determines the three service functions provided by the City of Escondido that are the focus of this addendum – albeit with variations – have adequate capacities in meeting current demands through the timeframe of this analysis.

4. Financial constraints for the City of Escondido are intensifying within its General Fund and it is reasonable to assume all dependent service functions – like fire protection – will become increasingly challenged to maintain current levels absent a course correction. This dynamic merits attention by the Commission in its review of future jurisdictional change proposals during the timeframe of the addendum and specifically added consideration of potential service impacts on the City General Fund.

5. With respect to the City of Escondido's potable water function, San Diego LAFCO makes the following statements:

a) Escondido's potable water function commenced in the early 1900's and classified as retail class only by the Executive Officer consistent with LAFCO statute.

b) Escondido's potable water function covers close to three-fifths of the incorporated boundary and extends into adjacent unincorporated areas of Citrus Valley, Felicita Park, and San Pasqual Valley. San Diego LAFCO estimates the total resident population served by the Escondido water system is 143,490.

c) Escondido's membership with the San Diego County Water Authority allows the City to purchase an unrestricted amount of untreated water largely originating from the Colorado River and Sacramento Bay Delta based on availability. These imported supplies typically account for no less than four-fifths of water retailed by Escondido with the remainder drawn from the San Luis Rey River Watershed.

d) San Diego LAFCO estimates Escondido's current infrastructure capacities at the end of the addendum period can accommodate a maximum day potable supply potential of up to 434-acre feet – or notionally up to 112,863 acre-feet annually.

e) Escondido's overall daily potable water demands have averaged 55.7 acre-feet during the addendum period with an estimated daily per capita use of 129 gallons. Overall water demands have increased by 8.3% during the period and largely attributed to higher rainfall totals in 2017 and 2019.

f) Additional analysis is needed to assess whether the portion of daily uses for Escondido is dedicated to indoor use and the relationship therein in meeting the State of California's advisory target to limit capita usage to fifty-five gallons.

g) The average daily and annual potable water demands during the addendum period for Escondido's entire distribution system equals 13% and 18%, respectively, of accessible supply and associated infrastructure capacities under normal periods.

h) With regard to more micro-measurements involving the potable water system:

- The average peak-day potable water demand generated during the addendum period for the entire distribution system equals 21% of Escondido's accessible supply and associated infrastructure capacities under normal conditions.

- The average day potable water demand generated during the addendum period for the entire distribution system represents 30% of Escondido's available capacity at the Escondido-Vista WTP.

- The average peak-day potable water demand generated during the addendum period for the entire distribution system represents 48% of Escondido's available capacity at the Escondido-Vista WTP.

- The average peak-day potable water demand generated during the addendum period for the entire distribution system equal 125% of Escondido's existing online storage capacity (not including Lakes Wolford and Dixon).

i) Online storage capacity can accommodate up to 1.28 days of average day potable demands generated over the addendum period without recharge. Additional storage capacity is needed to abate current stresses in the ability of Escondido to accommodate high usage periods and/or interruptions in WTP operations.

j) Escondido ratepayers receive two related charges for potable water service: (a) fixed availability and (b) variable usage with the former including pass-throughs from County Water Authority and Metropolitan Water District. Rates have increased for most customers (single-family) by 24% during the addendum period and attributed to costs associated with improvements to Lake Wohlford's Dam, replacing aging water tanks, and rehabilitating the water treatment plant.

k) Escondido's average monthly potable water service charge for single-family customers at the end of the addendum period is $123 and divided between $47 in fixed and $76 in usage fees with the later based on delivering 10,000 gallons.

l) Annual actual potable water revenues have averaged $62.5 million during the addendum period compared to $61.6 million in expenses. Recent rate increases – however – have produced a correction with revenues exceeding expenses over the final two years of the addendum period.

m) The scope and scale of groundwater use within Escondido's potable water service area is unknown. San Diego LAFCO should coordinate with the County of San Diego to identify active groundwater wells and incorporate the information into the next scheduled municipal service review.

n) As of the end of the addendum period there is one mutual water company operating outside the City of Escondido's sphere of influence – the Del Dios Mutual Water Company. This private water provider was formed in 1934 and serves an estimated 330 residents from its groundwater source. Additional analysis is needed to assess the future viability of the City extending and/or annexing this site.

6. With respect to the City of Escondido's wastewater function, San Diego LAFCO makes the following statements:

   a) Escondido's wastewater function commenced in the early 1920's. This active service function is classified as collection, treatment, and discharge by the Executive Officer consistent with LAFCO statue.

   b) Escondido's wastewater services span most of the City and extend into the adjacent unincorporated community of Felicita Park.

   c) Escondido's daily permitted capacity at its Hale Avenue Resource Recovery Facility (HARRF) is 18.0 million gallons and involves secondary treated effluent. HARRF is also able to produce up to 9.0 million gallons of tertiary effluent for subsequent recycled water uses and/or retailing.

   d) Escondido's average daily wastewater flows collected during the addendum period has been 12.9 million gallons and includes approximately 3.2 million gallons received under contract from the City of San Diego. This average flow during the period represents 72% of HARF's permitted treatment capacity.

   e) Overall average day wastewater flows collected by Escondido during the addendum period have decreased by (7.0%) and largely attributed to improvements associated with building code compliance and conservation program efforts.

   f) With regard to more micro-measurements involving the wastewater system:

      - Average daily dry-weather wastewater flows during the addendum period have been 12.9 million gallons and mirrors overall average demands, which reflects the predominance of dry-weather conditions in the service area. Daily dry-weather flows tallied 11.9 million gallons at the addendum term and produces a net (10%) change during the 60-month period.

      - Average daily wet-weather wastewater flows during the addendum period have been 13.1 million gallons. This flow typically is recorded between November and April and assists in measuring the amount of inflow and infiltration entering the collection system. Daily wet-weather flows tallied 12.0 million gallons at the addendum term with an overall decrease of (10%) during the 60-month period.

      - Average daily peak-day wastewater flows over the addendum period have been 25.9 million gallons. This latter amount produces a peak-factor relative to average day demands of 2.0 and below the facility's design criteria of 2.17.

g) Escondido's average monthly wastewater service charge for most ratepayers (single-family customers) at the end of the addendum period is $67.

h) Escondido's actual annual actual wastewater revenues have averaged $35.5 million during the addendum period compared to $23.4 million in expenses.

i) The scope and scale of septic systems within Escondido's wastewater service area is unknown. San Diego LAFCO should coordinate with the County of San Diego Environmental Health Department to identify active septic systems within the City and incorporate the information into the next scheduled municipal service review.

7. With respect to integrated fire protection, emergency medical, and ambulance services:

a) Escondido's integrated fire protection, emergency medical, and ambulance services function dates to the 1910s. The Executive Officer makes the following designations consistent with LAFCO statute:

- Fire protection is categorized as structural with several ancillary classes – prevention, support services, administration, and disaster preparedness.

- Emergency medical services are categorized as advanced life support.

- Ambulance services are categorized as direct.

b) Escondido's integrated fire protection, emergency medical, and ambulance service capacties are largely dependent on staffing resources. Budgeted staffing for public safety personnel at the end of the addendum period totals 111 and divided between 93 firefighters and 18 medical personnel (paramedics/EMTs).There have been no changes in this budgeted staffing during the period.

c) Actual fire protection, emergency medical, and ambulance services for Escondido are delivered out of seven stations based on direction from their joint police-fire emergency communication center. The two newest fire stations – No. 6 and No. 7 – were both built in 2008 and serve the western and northeast neighborhoods and reflects more recent and outward development patterns in the City.

d) Actual onsite demands on Escondido for fire proteciton and emergency medical services during the addendum period have averaged 42.3 per day with an overall and minimal change of 1.7%. This average demand is further quantifed into a ratio of 0.26 onsite incidents for every 1,000 residents.

e) Close to one-half of all dispatch calls for Escondido and its fire protection and emergency medical services during the addendum period have been directed to Stations No. 1 and No. 7 and involve incidents in the City's central and northeast neigborhoods. These stations – also – notably serve as first responders for incidents along Interstate 15 and State Route 78.

f) Escondido's existing fire protection and emergency medcial services allow it to respond – exclusively or in combination with outside agencies – to 98% of all onsite incidents within the City during the addendum period.

g) Additional analysis is needed to determine the extent of other agencies assisting Escondido in meeting fire proteciton and emergency medical service demands during the addendum period.

h) Additional analysis is needed to determine the extent of fire protection and emergency medical service demands on Escondido during the addendum period that occurred outside the City limits.

i) Actual demands on Escondido for ambulance transport services during the addendum period have averaged 29.6 per day with an overall increase of 10.6%. This average demand is further quantifed into a ratio of 0.18 onsite incidents for every 1,000 residents.

j) The average percentage of onsite fire protection and emergency medical incidents for Escondido resulting in subsquent ambulance transport has been 70.1% during the addneum period with an overall change of (10.0%).

k) Escondido's integrated fire protection, emergency medical, and ambulance services are dependent on discretionary monies allocated by the City Council and have accounted for 24.7% of all General Fund expenses during the addendum period. The overall portion of General Fund expenses directed towards supporting this integrated function has increased by 17.1% during the period.

IV. With respect to the financial ability of agencies to provide services within the affected areas as required under Section 56430(a)(4), the Commission independently determines the following.

1. The City of Escondido's net position covering all City activities – General and Business – has increased by 7.7% during the addendum period from $417.9 to $473.4 million. More than one-half of the ending net position ties to the City's enterprise assets involving the water and wastewater systems.

2. The unrestricted portion of City of Escondido's net position at the end of the addendum period less accrued retiree liabilities totals $119.8 million and equals 5.8 months of actual total expenses in 2020-2021. This ratio has increased and improved by 26.1% during the period and initial coverage of 4.6 months in 2016-2017.

3. The City of Escondido finished the addendum period with a closely matching amount of average year actual revenues and expenses within its General Fund at $101.9 million and $101.6 million, respectively – a difference of less than 0.2%. This difference – pertinently – has been narrowing with the rate of actual expenses in the General Fund exceeding the rate of actual revenues by more than one-fifth during the period.

4. Recent trends in the General Fund signals the City of Escondido has and/or is becoming structurally imbalanced, and in the absence of course corrections it is reasonable to assume non-enterprise functions – community development, parks and recreation, public safety, etc. – will become increasingly stressed in maintaining existing levels.

5. Standard measurements used to assess the City of Escondido's financial standing during the addendum period shows a notable distinction between the City's relatively sufficient short-term resources (liquidity) and otherwise strained longer-term resources (capital and margin). With this context, the following statements apply.

    a) Liquidity levels as measured by comparing the Escondido's current assets against its current liabilities over a one-year horizon shows the City finished the period with an adequate – though decreasing – current ratio of 6.5 to 1.0. A separate and more immediate measurement of liquidity comparing Escondido's available cash against current liabilities similarly shows the City finished the period with an adequate – and modestly improving – cash ratio of 3.5 to 1.0

    b) Capital levels as measured by comparing Escondido's long-term debt against its accumulated net worth shows the City finished the period with a high debt-to-net position percentage of 101.1%. This high level of debt also shows in matching the City's total assets against total liabilities at the end of the period, which produces a debt ratio – i.e., the portion of assets being financed – at 55.2%

    c) Margin levels as measured by comparing the City of Escondido's overall revenues against overall expenses within the General Fund shows the City finished with a positive average total margin of 2.4%. However, adjusting this measurement to exclude the final year in 2020-0021 resets the average total margin to (1.3%) with negative returns in three of the four years.

    d) The replacement rate of Escondido's capital infrastructure (i.e., buildings, equipment, streets, etc.) has decreased by (9.0%) during the addendum period from 24 to 27 years.

6. The City of Escondido's composite funded ratio for pension obligations with CalPERS at the end of 2019-2020 – which marks the most recently published data for the addendum period – tallies 68.4% and considered substandard. The ratio – nonetheless – has slightly improved over the prior five-year period by 1.8%

7. The City of Escondido's annual employer pension contribution between 2015-2016 and 2019-2020 – which follows the last five years of published data by CalPERS – has increased by nearly one-half – or 45%. The percentage of the City's payroll dedicated to pension costs is similarly increasing from 29.0% to 39.0% over the same timeframe.

8. San Diego LAFCO should revisit fire protection and emergency medical services and costs in the City of Escondido and surrounding region as part of an update to the Commission's countywide fire service study.

V. With respect to the status and opportunities therein for shared services within the affected areas as required under Section 56430(a)(5), the Commission independently determines the following.

1. The City of Escondido has made a concerted effort to invest resources during the addendum period to address homelessness through various partnerships with other local agencies and non-profit organizations in North County through its membership in the Alliance for Regional Services. Escondido has also supplemented this regional approach to addressing homelessness by establishing a local think-tank on remedying homeless issues within the City through a dedicated Community Advisory Group.

2. The City of Escondido and Rincon del Diablo MWD have developed several unique and resource-saving arrangements involving their potable water systems that collectively benefit their constituents. These beneficial arrangements are headlined by relying on the others' distribution system to serve their ratepayers and in doing so avoid costs and inefficiencies in building duplicative infrastructure.

3. The City of Escondido contracts a dedicated portion of its wastewater treatment capacity to the City of San Diego to accommodate flows generated within the Rancho Bernardo area. This long-stand arrangement has proven beneficial to both agencies and marked by allowing Escondido to monetize excess and otherwise unused capacity to help fund other capital improvements to the wastewater system.

4. At the start of the addendum period, the City of Escondido chose to outsource the day-to-day operations of its public library to a national private vendor - Library Systems & Services. The decision survived an immediate legal challenge and premised on the projected annual savings of $0.400 million in reduced employee costs plus commitments by the vendor to increase weekly operating hours from 51 to 60. Both premises have materialized through the end of the addendum period.

5. Approximately two-thirds of the City of Escondido's parkland acreage lies along its exterior and beyond walkable distance for most City residents. The City should consider joint-use arrangements with the local school districts to make available additional green and play spaces to enhance recreational opportunities within the urban core.

VI. With respect to accountability and opportunities and merits therein for governance alternatives as required under Section 56430(a)(6), the Commission independently determines the following.

1. The City of Escondido operates as a general-law municipality and draws on corporate and police powers delegated by the State Legislature and authorized by voters in approving incorporation in 1888.

2. The City of Escondido uses six standing committees through the end of the addendum period comprising appointed residents to further inform City decision-making: (a) Building Advisory and Appeals Board; (b) Historic Preservation Commission; (c) Library Board of Trustees; (d) Planning Commission; (e) Public Art Commission; and (f) Transportation and Community Safety Commission. These standing committees – markedly – reflect areas of elevated importance to the City Council, past and present.

3. The City of Escondido has experienced a significant change in elected leadership during the addendum period with four of the five Council positions changing. This change in leadership also extends to several senior staff positions and marked by the City Council recently appointing its first outside candidate to City Manager since 1989. It is reasonable to assume these changes will bring new approaches in governance.

4. The City of Escondido provides ongoing opportunities for constituents to engage the Council by regularly holding meetings on the first four Wednesdays of every month at 5:00 P.M. with live and recorded online streaming. Cancellations are rare with the City Council holding an annual average of 124 public meetings with no cancellations during the addendum period.

5. Several special districts' jurisdictional boundaries overlap with the City of Escondido and provide one or more municipal service functions in most and/or all of the City. These special districts include the North County Cemetery District, North County Transit District, Palomar Healthcare District, Rincon del Diablo MWD, and Resource Conservation District of Greater San Diego. Among these special districts only Rincon del Diablo MWD is geographically positioned to come into eligibility range in the foreseeable future for possible reorganization into a subsidiary district of the City.

6. San Diego LAFCO previously determined in Part One of this municipal service review a governance study is warranted for the Commission to independently assess reorganization options to consolidate – politically or functionally – the City of Escondido and Rincon del Diablo MWD. This addendum affirms the earlier determination and LAFCO should proceed with the governance study.

7. The City of Escondido surrounds – substantially or entirely – nearly two dozen unincorporated islands that perpetuate substantive service inefficiencies for both the City and County of San Diego as well as raise social justice considerations. As other jurisdictional changes come forward, San Diego LAFCO should consider options to prompt and/or require annexation of these islands on a case-by-case basis with due consideration to the economic feasibility and impact on City resources.

8. The City of Escondido has been diligent in requesting and receiving approval from San Diego LAFCO to provide new water and/or sewer services beyond the incorporated boundary under Government Code Section 56133. Escondido and LAFCO should similarly consult and establish related protocols to address City requests to provide "extended" services under statute.

9. San Diego LAFCO should proceed with a limited sphere of influence update for the City of Escondido. The limited update should focus on aligning the sphere of influence wherever practical with parcel boundaries, roads, and other geographic markers that have emerged and/or adjusted since the last Commission action in 2003.

10. San Diego LAFCO should defer an otherwise merited comprehensive sphere of influence update for the City of Escondido to a future municipal service review. This would allow the Commission to first complete a governance study to explore reorganization options involving the City and Rincon de Diablo MWD to include – but not limited to – possible consolidation of the agencies and/or one or more of their shared service functions.

11. Notwithstanding other determinations, there is sufficient merit for San Diego LAFCO to establish one or more special study areas for the City of Escondido sphere of influence as part of a limited update. This includes a special study area for the Harvest Hills project site, which has been part of a multi-year planning process with the City and ongoing discussions with LAFCO staff.

    a) Establishing this and possibly other special study areas serve as formal placeholders for the Commission under policy to consider actual sphere amendments and annexations anytime over the next five years without requiring a new municipal service review to be prepared.

    b) Establishment of a special study area for the Harvest Hills Project site and any subsequent accommodation to formally add to the City of Escondido's sphere of influence over the preceding 60-month period should be conditioned on further evaluation on potential fire risks and evacuation controls given local conditions – including community input to date.

VII. With respect to environmental justice as required under local policy and compliance with Section 56430(a)(7), the Commission independently determines the following.

1. San Diego LAFCO's analysis of available data available from the California Environmental Protection Agency shows the City of Escondido's composite pollution burden and residents' susceptibility therein to core effects is moderate relative to statewide conditions based on percentile scores of 36% and 40%, respectively. These composite measurements, however, conceal extremes with individual areas in the City having pollution burdens ranging between 3% to 78% with the latter marked by exposure in central Escondido to high levels of ultraviolet light radiation and impaired waters.

2. San Diego LAFCO should revisit and expand on its inaugural analysis of pollution burdens and impacts on susceptible populations within the City of Escondido as part of future municipal service reviews.

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SAN DIEGO COUNTY
LOCAL AGENCY FORMATION COMMISSION



ADDENDUM
ESCONDIDO REGION: PART II
Municipal Service Review | Government Code 56430

Affected Agencies:
City of Escondido

Final | November 2022

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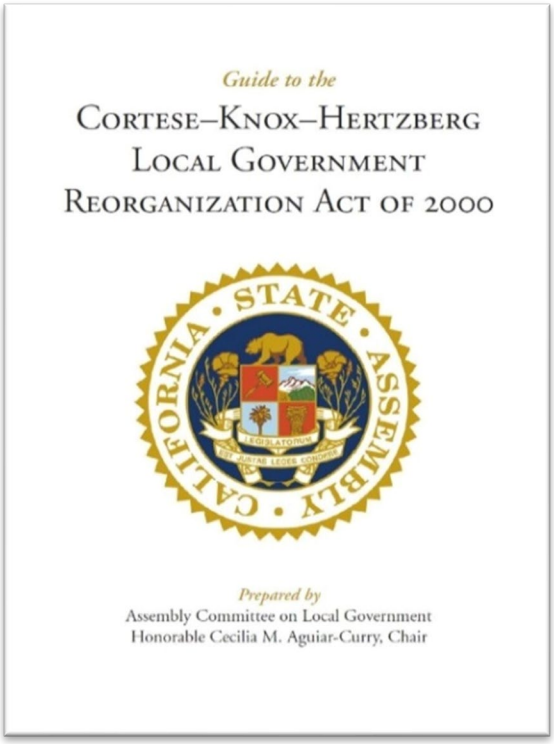
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CHAPTER ONE
INTRODUCTION

1.0 LOCAL AGENCY FORMATION COMMISSIONS

1.1 Authority and Objectives



Local Agency Formation Commissions (LAFCOs) were established in 1963 and are political subdivisions of the State of California responsible for providing regional growth management services in all 58 counties. LAFCOs' authority is currently codified under the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 ("CKH") with principal oversight provided by the Assembly Committee on Local Government.[1] LAFCOs are comprised of locally elected and appointed officials with regulatory and planning powers delegated by the Legislature to coordinate and oversee the establishment, expansion, and organization of cities, towns, and special districts as well as their municipal service areas. LAFCOs' creation were engendered by Governor Edmund "Pat" Brown Sr. (1959-1967) to more effectively address the needs of California's growing and diversifying population with an emphasis on promoting governmental efficiencies. Towards this end, LAFCOs are referred to as the Legislature's "watchdog" for local governance issues.[2]

Guiding LAFCOs' regulatory and planning powers is to fulfill specific purposes and objectives that collectively construct the Legislature's regional growth management priorities outlined under Government Code (G.C.) Section 56301. This statute reads:

> *"Among the purposes of the commission are discouraging urban sprawl, preserving open space and prime agricultural lands, efficiently providing governmental services, and encouraging the orderly formation and development of local agencies based upon local conditions. One of the objects of the commission is to make studies and furnish information to contribute to the logical and reasonable development of local agencies in each county and to shape the development of local agencies so as to advantageously provide for the present and future needs of each county and its communities."*

[1] Reference California Government Code Section 56000 et. seq.
[2] In its ruling on City of Ceres v. City of Modesto, the 5th District Court of Appeals referred to LAFCOs as the "watchdog" of the Legislature to "guard against the wasteful duplication of services." (July 1969)

LAFCO decisions are legislative in nature and therefore are not subject to an outside appeal process; only courts can overturn LAFCO decisions. LAFCOs also have broad powers with respect to conditioning regulatory and planning approvals so long as not establishing any terms that directly effects land use density or intensity, property development, or subdivision requirements.

1.2 Regulatory Responsibilities

LAFCOs have been responsible since 1963 to oversee formation, expansion, reorganization, and dissolution actions involving cities, towns, and special districts in California with limited exceptions.

LAFCOs' principal regulatory responsibility involves approving or disapproving all jurisdictional changes involving the establishment, expansion, and reorganization of cities, towns, and most special districts in California.[3] LAFCOs are also tasked with overseeing the approval process for cities, towns, and special districts to provide new or extended services beyond their jurisdictional boundaries by contracts or agreements. LAFCOs also oversee special district actions to either activate new service functions and service classes or divest existing services. LAFCOs generally exercise their regulatory authority in response to applications submitted by affected agencies, landowners, or registered voters. Recent amendments to CKH also authorize and encourage LAFCOs to initiate jurisdictional changes to form, consolidate, and/or dissolve special districts consistent with community needs.

1.3 Planning Responsibilities

LAFCOs are tasked with planning the location of future urban uses through two interrelated activities: (a) establish and update spheres of influence as gatekeepers to future jurisdictional changes and (b) prepare municipal service reviews to independently evaluate the availability and performance of governmental services relative to community needs.

LAFCOs inform their regulatory actions through two central planning responsibilities: (a) making sphere of influence ("sphere") determinations and (b) preparing municipal service reviews. Sphere determinations have been a core planning function of LAFCOs since 1971 and serve as the Legislature's version of "urban growth boundaries" with regard to cumulatively delineating the appropriate interface between urban and non-urban uses within each county. Municipal service reviews, in contrast, are a relatively new planning responsibility enacted as part of CKH and intended to inform – among other activities – sphere determinations. The Legislature mandates, notably, all sphere changes as of 2001 be accompanied by preceding municipal service reviews to help ensure LAFCOs are effectively aligning governmental services with current and anticipated community needs. An expanded summary of the function and role of these two planning responsibilities follows.

[3] CKH defines "special district" to mean any agency of the State formed pursuant to general law or special act for the local performance of governmental or proprietary functions within limited boundaries. All special districts in California are subject to LAFCO with the following exceptions: school districts; community college districts; assessment districts; improvement districts; community facilities districts; and air pollution control districts.

Spheres of Influence

LAFCOs establish, amend, and update spheres for all cities, towns, and most special districts in California to designate the territory it independently believes represents the appropriate and probable future service areas and jurisdictional boundaries of the affected agencies. Importantly, all jurisdictional changes, such as annexations and detachments, must be consistent with the spheres of the affected local agencies with limited exceptions as footnoted.[4] An increasingly important role involving sphere determinations relate to their use by regional councils of governments as planning areas in allocating housing need assignments for counties and cities.

Starting January 1, 2008, LAFCOs must review and update all local agencies' spheres every five years. In making sphere determinations, LAFCOs are required to prepare written statements addressing five specific planning factors listed under G.C. Section 56425. These mandatory factors range from evaluating current and future land uses to the existence of pertinent communities of interest. The intent in preparing the written statements is to orient LAFCOs in addressing the core principles underlying the sensible development of local agencies consistent with the anticipated needs of the affected communities. The five mandated planning factors are summarized in short-form below.

> Spheres serve as the Legislature's version of urban growth boundaries and – among other items – delineates where cities, towns, or districts may seek future annexations or outside service approvals with LAFCOs. All jurisdictional changes must be consistent with the affected agencies' spheres with limited exceptions.

1. Present and planned land uses in the area, including agricultural and open-space.

2. Present and probable need for public facilities and services in the area.

3. Present capacity of public facilities and adequacy of public services the agency provides or is authorized to provide.

4. Existence of any social or economic communities of interest in the area.

5. If the city or special district provides water, sewer, or fire, the need for those services in any disadvantaged unincorporated communities in the existing sphere.

[4] Exceptions where jurisdictional boundary changes do not require consistency with the affected agencies' spheres include annexations of State correctional facilities or annexations to cities/towns involving city/town owned lands used for municipal purposes.

Municipal Service Reviews

Municipal service reviews serve as a centerpiece to CKH's enactment in 2001 and represent comprehensive studies of the level, range, and performance of governmental services provided within defined geographic areas. LAFCOs generally prepare municipal service reviews to explicitly inform subsequent sphere determinations. LAFCOs also prepare municipal service reviews irrespective of making any specific sphere determinations in order to obtain and furnish information to contribute to the overall orderly development of local communities. Municipal service reviews vary in scope and can focus on a particular agency or governmental service. LAFCOs may use the information generated from municipal service reviews to initiate other actions under their authority, such as forming, consolidating, or dissolving one or more local agencies. Advisory guidelines on the preparation of municipal service reviews were published by the Governor's Office of Planning and Research in 2003 and remain the lone statewide document advising LAFCOs in fulfilling this mandate.

All municipal service reviews – regardless of their intended purpose – culminate with LAFCOs preparing written statements addressing seven specific service factors listed under G.C. Section 56430. This includes, most notably, infrastructure needs or deficiencies, growth and population trends, and financial standing. The seven mandated service factors are summarized below in short-form with additional details footnoted.[5]

> Municipal service reviews fulfill the Legislature's interests in LAFCOs regularly assessing the adequacy and performance of local governmental services in order to inform potential future actions ranging from sphere determinations to reorganizations.

1. Growth and population projections for the affected area.

2. Location and characteristics of any disadvantaged unincorporated communities within or contiguous to affected spheres of influence.

3. Present and planned capacity of public facilities, adequacy of public services, and infrastructure needs or deficiencies.

4. Financial ability of agencies to provide services.

5. Status and opportunities for shared facilities.

[5] Determination No. 5 was added to the municipal service review process by Senate Bill 244 effective January 1, 2012. The definition of "disadvantaged unincorporated community" is defined under G.C. Section 56330.5 to mean inhabited territory that constitutes all or a portion of an area with an annual median household income that is less than 80 percent of the *statewide* annual median household income; the latter amount currently totaling $53,735 (*emphasis*).

6. Accountability for community service needs, including structure and operational efficiencies.

7. Matters relating to effective or efficient service delivery as required by policy.

1.4 LAFCO Decision-Making

LAFCOs are generally governed by 11-member board comprising three county supervisors, three city councilmembers, three independent special district members, and two representatives of the general public. Some larger LAFCOs – including San Diego – also have additional board seats dedicated to specific cities as a result of special legislation. All members serve four-year terms and divided between "regulars" and "alternates" and must exercise their independent judgment on behalf of the interests of residents, landowners, and the public as a whole.

> State law directs all LAFCO members to independently discharge their responsibilities for the good of the region and irrespective of the interests of their appointing authorities.

LAFCO members are subject to standard disclosure requirements and must file annual statements of economic interests. LAFCOs have sole authority in administering its legislative responsibilities and decisions therein are not subject to an outside appeal process. All LAFCOs are independent of local government with the majority employing their own staff; an increasingly smaller portion of LAFCOs, however, choose to contract with their local county government for staff support services. All LAFCOs, nevertheless, must appoint their own Executive Officers to manage agency activities and provide written recommendations on all regulatory and planning actions before the membership. All LAFCOs must also appoint their own legal counsel.

1.5 Prescriptive Funding

CKH prescribes local agencies fully fund LAFCOs' annual operating costs. Counties are generally responsible for funding one-third of LAFCO's annual operating costs with remainder one-third portions allocated to the cities/towns and independent special districts. The allocations to cities/towns and special districts are calculated based on standard formula using general tax revenues unless an alternative method has been approved by most of the local agencies. The funding proportions will also differ should the LAFCO have additional representation as a result of special legislation. LAFCOs are also authorized to collect proposal fees to offset local agency contributions.

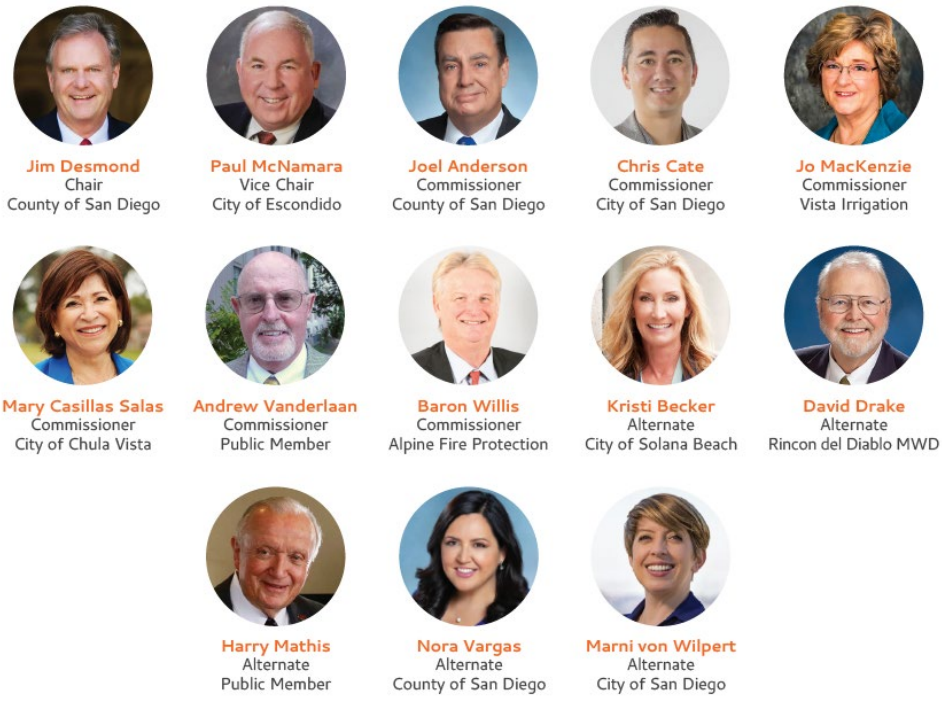
2.0 SAN DIEGO LAFCO

2.1 Adopted Policies and Procedures

The majority of San Diego LAFCO's ("Commission") existing policies and procedures were initially established in the 1970s and subsequently updated in the 2000s in step with the enactment of CKH. These policies and procedures collectively guide the Commission in implementing LAFCO law in a manner consistent with regional growth management priorities as determined by the membership with discretion to address local conditions. The Commission has also established pertinent policies and procedures specific to preparing sphere updates and municipal service reviews. This includes direction to the Executive Officer to regularly prepare municipal service reviews in appropriate scope and level to inform the Commission in updating spheres in regular five-year intervals (L-109).

2.2 Commission Information

San Diego LAFCO is governed by a 13-member "Commission" comprising county, city, special district, and public members. The Commission is further distinguished between eight regular or voting members and five alternates. All Commissioners are appointed elected officials with the exception of the two public members. The Commission holds regular meetings on the first Monday of each month at the County of San Diego Administration Center located at 1600 Pacific Highway in San Diego, California. Meetings start at 9:00 A.M in Room 301 and live streamed at www.sdlafco.org. The Commission roster as of August 2022 follows.



2.3 Administration Information

San Diego LAFCO's administrative office is located in the Bankers Hill (West Park) section of San Diego at 2550 Fifth Avenue, Suite 725 in the Manchester Financial Centre. Metered street parking is readily available. While LAFCO is open to the public Monday through Friday during normal business hours (8:00 A.M. to 5:00 P.M), appointments to discuss proposals, studies, or other matters are encouraged to ensure staff availability and can be scheduled by calling 619.321.3380. Communication by e-mail is also welcome and should be directed to lafco@sdcounty.ca.gov. Additional information regarding San Diego LAFCO's programs and activities is also available online by visiting www.sdlafco.org. LAFCO is also available on most social media platforms.

On behalf of San Diego LAFCO,



Keene Simonds
Executive Officer

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CHAPTER TWO
EXECUTIVE SUMMARY

1.0 ADDENDUM OVERVIEW

This addendum has been prepared by San Diego LAFCO at the direction of the Executive Officer to provide additional analysis as part of a scheduled municipal service review on the Escondido region specific to the City of Escondido. The preparation of the addendum ties to an earlier staff agreement with the City of Escondido to partner on a regional municipal service review divided between local special districts (Part I) and the City of Escondido (Part II). LAFCO completed Part I in October 2019 and its attention on Rincon Del Diablo Municipal Water District (MWD) and Deer Springs Fire Protection District (FPD). Escondido – via its own arrangement with Concordia Homes with input from LAFCO staff – has prepared Part II with a draft report concurrently released with this addendum. The addendum is an explicit extension of Part II.

> The addendum is an extension of Part II of the scheduled municipal service review on the Escondido region. The addendum bridges the analysis gap between the municipal service review report prepared by the City of Escondido via Concordia Homes and LAFCO's own form and practice.

The additional analysis included in this addendum expands and/or updates information in the municipal service review report prepared by the City of Escondido via Concordia Homes with respect to the City's demographics, core service functions, and financial standing. (The analysis on demographics includes discussion on environmental justice as required under new LAFCO policy.) The additional analysis is presented to mirror LAFCO's own form and practice and includes its own set of determinations in addressing all of the factors required of the Commission as part of the municipal service review statute. Both the municipal service review report and addendum collectively complete Part II and will be used by the Commission in (a) guiding subsequent sphere of influence updates, (b) informing future boundary changes, and – if merited – (c) initiating government reorganizations, such as district formations, consolidations, and/or dissolutions, in the region over the next five-year period.

> The municipal service review report and addendum will be used by LAFCO in informing sphere updates, boundary changes, and possible special district reorganizations over the next five years.

1.1 Key Premises, Assumptions, and Benchmarks

The municipal service review report and addendum is intended to serve as an ongoing monitoring program on the City of Escondido relative to San Diego LAFCO's growth management responsibilities in the region. It is expected San Diego LAFCO will revisit key assumptions and benchmarks in these documents in the next municipal service review in

approximately five years consistent with the timetable set by the Legislature and memorialized under adopted policy. This will allow the Commission – among other tasks – to assess the accuracy of earlier projections and make appropriate changes in approach as needed as part of future reports. Key premises, assumptions, and benchmarks specific to the preparation of this addendum follows.

Defining Scope and Scale

The addendum serves to bridge the analysis gap between the municipal service review report prepared by the City of Escondido via Concordia Homes and LAFCO's own form and practice. This includes defining the scope of the addendum to focus on expanding and/or updating information on three pertinent topics involving demographics, core service functions, and financial standing. Core service functions are further limited to water, wastewater, and integrated fire protection, ambulance, and emergency medical.[6] The scale of the addendum and its analysis is oriented to reflect LAFCO's established approach in addressing these topics as further described.

> This addendum expands and updates information presented in the municipal service review report prepared by the City of Escondido via Concordia Homes with respect to three specific topics: (a) demographics – including environmental justice items; (b) core service functions comprising water, wastewater, and fire protection; and (c) financial standing.

Data Collection Range

The addendum period for collecting data to inform LAFCO's analysis and related projections on the designated topics – demographics, core service functions, and financial standing – covers fiscal years' 2017 to 2021 with limited exceptions. The addendum period expands on the 2014-2018 period reflected in the municipal service review report prepared by the City of Escondido via Concordia Homes and provides data trends that appear most relevant in making near-term determinations under statute; i.e., data from the last five years is most pertinent in projecting trends over the next five years.

[6] All other municipal service functions provided by the City of Escondido (e.g., community planning, streets, police, etc.) are deferred to the municipal service review report.

Calculating Population Estimates and Projections

Recent and current residential population estimates in the addendum draw on data generated by Esri and their own mapping analyses of census tracts that overlay the City of Escondido. This approach differs from LAFCO policy to utilize estimates by the San Diego Association of Governments and reflects recent practice in preparing municipal service reviews given the ability of Esri's mapping software to readily synchronize with special district boundaries. Projections over the succeeding five-year period are made by LAFCO and apply the estimated growth trend over the last 60 months, i.e., population growth over the last five years is generally expected to hold over the next five years.

Macro-Level Focus on Service Functions

The addendum focuses on central service outputs with respect to quantifying availability, demand, and adequacy of the City of Escondido's core municipal services – water, wastewater, and fire protection + emergency medical – selected for analysis. A prominent example involves focusing on annual system-wide demands generated during the five-year addendum period as opposed to specific service areas or zones. This approach informs macro-level determinations, and when applicable, the addendum notes the need for more micro-level analysis as part of separate addendums or future municipal service reviews.

Benchmarking Infrastructure Needs and Deficiencies

Similar to the preceding factor the addendum and its analysis focuses on average system demands generated within the City of Escondido during the 60-month study period in benchmarking infrastructure needs or deficiencies in the targeted service functions (water, wastewater, and fire protection + emergency medical). This broader focus on averages provides a more reasonable account of system demands and helps to control against one-year outliers in analyzing overall relationships with capacities in the targeted functions.

Benchmarking Fiscal Solvency

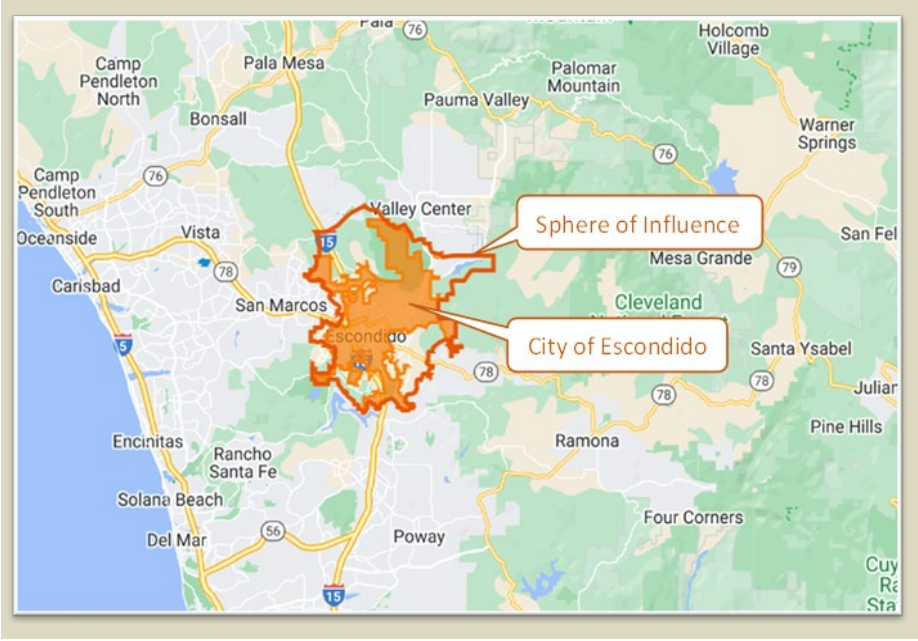
Several diagnostic tools are used to assess and make related determinations in the addendum regarding the City of Escondido's financial standing based on a review of available audited information. This includes an emphasis on analyzing cash ratio, debt-to-net assets, and total margin. These diagnostics provide LAFCO with reasonable benchmarks to evaluate liquidity, capital, and margin with an emphasis on trends.

2.0 ADDENDUM ORGANIZATION

This chapter serves as the Executive Summary and outlines the key conclusions, recommendations, and determinations generated in Phase II of the municipal service review on the Escondido region and its focus on the City of Escondido.[7] This includes drawing on information provided in the municipal service review report prepared by the City via Concordia Homes coupled with the supplemental analysis provided in this addendum. The Executive Summary is proceeded by an abbreviated agency profile (Chapter Three) that houses the addendum's analysis on the City's demographics, core service functions, and financial standing.

3.0 GEOGRAPHIC AREA

The geographic area designated for this municipal service review and its two distinct phases – Parts One and Two – is close to 100 square miles in size.[8] The geographic area has been purposefully designated by the Executive Officer to include all three local agencies in the greater Escondido region under San Diego LAFCO oversight that separately provide one or more urban supporting services, including – but not limited to – community planning, fire protection and emergency medical, recreation and parks, roads and street lighting, potable water, recycled water, police, and wastewater. The City of Escondido's jurisdictional boundary - as the focal point - and its sphere of influence are shown in the vicinity map below.



[7] The Executive Summary purposefully distinguishes between "conclusions," "determinations," and "recommendations." Conclusions refer to general policy takeaways. Determinations address specific legislative factors. Recommendations address specific actions that are drawn from the determinations.

[8] The geographic area generally follows the City of Escondido's General Plan Land Use Map with notable deviations to include the boundaries of Deer Springs FPD and Rincon del Diablo MWD.

4.0 ADDENDUM SUMMARY

4.1 General Themes and Conclusions

The Escondido region encompasses a geographically distinct subarea of "North County" removed from the coast and bisected by two of San Diego County's most traveled commute corridors, Interstate 15 and State Route 78.[9] The region's distinctions are also reflected and tenured in local government with two of the earliest city and special district establishments in San Diego County with the City of Escondido incorporating in 1888 and the Escondido Irrigation District forming in 1891; the latter being subsequently dissolved with its water system eventually divided between the City and Rincon del Diablo MWD at the time of its formation in 1954.[10] Deer Springs FPD's formation in 1981 completes the current and relatively confined concentration of local government in the region among these three agencies.

> The City of Escondido is a general law municipality incorporated in October 1888 with a total population estimate of nearly 150,779. This estimate produces a population density of 6.3 residents per acre and makes the region the 4th largest City in San Diego County.

The City of Escondido and its full range of municipal services anchors the region's social and economic interests and is the focus of this addendum.

A review of City of Escondido relative to San Diego LAFCO's growth management tasks and interests produces nine central themes or conclusions. These conclusions collectively address the availability, need, and adequacy of municipal services in Escondido and range in substance from addressing governance dynamics to financial standing. The conclusions also address potential sphere of influence amendments. The conclusions are independently drawn and sourced to information collected and analyzed in the municipal service review prepared by Escondido via Concordia Homes and substantively supplemented by this addendum.

- **No. 1 | Introductory Municipal Service Review**
  This municipal service review and addendum herein serve as the Commission's first comprehensive municipal service review covering the City of Escondido. The report and this addendum consequently serve as a dual introduction. This is marked by introducing Escondido and their constituents in real-time to an otherwise unfamiliar outside planning process. The introduction similarly introduces the Commission to Escondido and their service activities at depths previously unvisited with the underlying goal of establishing baseline information to track and measure going forward.

[9] Reference to SANDAG's State of the Commute, 2015-2016.
[10] An interim entity – Escondido Mutual Water Company – bridged the dissolution of the Escondido Irrigation District in the early 1900s and later transfer of the original water system to the City of Escondido and Rincon del Diablo MWD.

- **No. 2 | Changes in Leadership + Governance**
  The City of Escondido has experienced significant changes in elected and appointed leadership at the end of the addendum period and suggests substantive transitions in the City's approach to governance – including goal and priority setting – will follow. Markedly, and without the imposition of term limits, four of the five Council positions changed during the period with three of the four being new to elected public office. This change in leadership also extends to several senior staff positions and highlighted by the City Council recently appointing its first outside candidate to City Manager since 1989.

- **No. 3 | General Fund Stresses + High Debt Levels**
  Actuals during the addendum period signal the City of Escondido's General Fund is becoming imbalanced with the rate of new expenses surpassing the rate of new revenues by more than one-fifth and the inability to satisfy its own reserve policy in four of the five years covered. It appears the primary stress factor ties to increasing pension debt payments – which have risen by nearly one-half in the addendum period – and now account for nearly two-fifths of all payroll expenses. The cumulative effect of increasing pension costs plus other financing decisions has substantively cut Escondido's capital levels and reflected in a debt-to-net asset measurement of 101% at the end of the period.

- **No. 4 | Adequate Service Capacities with a Big Qualifier**
  The City of Escondido has established adequate and excess service capacities and related resources in meeting current demands and highlighted in this addendum with respect to potable water, wastewater, and integrated fire protection, emergency medical, and ambulance. However, it is reasonable to apply qualifiers given increasing stresses in the General Fund will relatedly stress capacities and resources for associated City services and most notably community development, public safety, and parks and recreation. This dynamic suggests added caution for LAFCO in considering annexations and their potential impact – advantageous and disadvantageous – on the General Fund.

- **No. 5 | Growth Challenges**
  Recent population growth in the City of Escondido has been relatively modest during the addendum period with an average annual change of 0.5%. This otherwise modest population growth has nonetheless proportionally exceeded housing construction in Escondido with LAFCO estimating an annual period shortfall of (64) housing units in the City necessary to maintain current household sizes. Pivoting forward, and in order to help curb this existing shortage, LAFCO estimates the average number of new housing units needed in Escondido in each of the next five years to proportionally keep pace with expected growth in population is 225 units.

- **No. 6 | Growth Opportunities + LAFCO Support**
  The City of Escondido is favorably positioned to plan and accommodate additional growth and become a focal urban center for North County. This opportunity ties to Escondido's role as a full-service municipality and the controls it provides paired with its physical location along existing major transportation corridors as well as planned expansions – including a station stop on California's high-speed rail project. This opportunity further ties and can be supported by LAFCO's own interests and duties to facilitate orderly and city-centered growth.

- **No. 7 | Connecting Escondido's Growth with Regional Influences**
  The City of Escondido's growth and development is the final responsibility of its City Council, but regional agencies – like LAFCO, SANDAG, and the County of San Diego – create policies that substantively influence the local decision-making. And while LAFCO can and should support Escondido's becoming of a focal urban center for North County, the policy direction of SANDAG, County, and others on this topic is less certain and merits attention to help connect and otherwise coordinate regional messaging for the benefit of the City.

- **No. 8 | Becoming Whole: Literally + Figuratively**
  There are over a dozen unincorporated islands that are substantially or entirely surrounded by the City of Escondido with a LAFCO estimated population of 12,376. All of these islands lie within Escondido' sphere of influence and their continued existence perpetuate service inefficiencies for both the City and County of San Diego as well as raise social justice considerations for those within islands and/or for those outside the islands. It would be appropriate for Escondido and LAFCO to coordinate resources and work to gradually make the City whole with due consideration to the economic feasibility and impact on City resources.

- **No. 9 | Assessing the Escondido + Rincon del Diablo Relationship**
  LAFCO concluded in Part One of the municipal service review it would be prudent to independently assess options to consolidate – politically or functionally and/or partially or entirely – the City of Escondido and Rincon del Diablo MWD. This earlier determination relied on preliminary analysis and highlighted by the agencies' overlapping boundaries and common service functions. Part Two of the municipal service review of this addendum further affirms this earlier conclusion and supports adding the governance study to the LAFCO workplan.

- **No. 10 | Proceeding with a Limited Sphere of Influence Update**
  It would be appropriate for LAFCO to proceed with a limited sphere of influence update for the City of Escondido and defer an otherwise needed comprehensive action to a future municipal service cycle. The approach would involve proceeding with limited changes to the sphere to better align with parcel boundaries and/or other geographic markers. It would also – pertinently – establish one or more specific special study areas to memorialize areas the Commission would allow to come forward over the next five-year period without requiring a new municipal service review.

4.2 Recommendations

The following recommendations call for specific action either from San Diego LAFCO, City of Escondido, or other local agencies based on information generated as part of this addendum and outlined below in order of their placement in Section 5.0 (Written Determinations). Recommendations for Commission action involving additional studies are dependent on a subsequent directive from the membership and through the annually adopted work plan.

1. As a long-term principle, San Diego LAFCO should prioritize and direct growth in the region to the City of Escondido and its appropriate role to serve as an urban center.

2. In support of the preceding principle, San Diego LAFCO should prepare an informational report to assess the relationship of the Commission's own growth management policies – such as prioritizing City of Escondido as an urban growth center through sphere and jurisdictional changes – with other regional land use and housing policies. This includes – but not limited to – assessing connectivity to SANDAG's mobility hubs and the County of San Diego's recently adopted transportation study guide establishing vehicle miles traveled thresholds under Senate Bill 743.

3. San Diego LAFCO should coordinate with SANDAG to develop current buildout estimates in the City of Escondido and sphere of influence and incorporate the information into the next scheduled municipal service review. This should include impacts tied to the recent passage of Senate Bill 9 (Weiner) and the allowance for additional lot splitting.

4. As an immediate principle in the timeframe of this addendum, San Diego LAFCO should require all jurisdictional changes involving annexations to the City of Escondido demonstrate de minimis impacts to the City General Fund unless overriding policy considerations are made by the Commission on a case-by-case basis.

5. San Diego LAFCO should coordinate with the County of San Diego to identify the scope and scale of active groundwater wells and septic systems within the City of Escondido and the sphere of influence and incorporate this information into the next scheduled municipal service review.

6. The City of Escondido should consider joint-use arrangements with local school districts to make available additional and needed greenery and play spaces to enhance recreational opportunities that are within walkable distance for residents.

7. San Diego LAFCO affirms its own previous determination that a governance study is merited to independently assess reorganization options to consolidate – politically or functionally – the City of Escondido and Rincon del Diablo MWD. The Commission should proceed with the governance study.

8. San Diego LAFCO should exercise additional discretion when considering jurisdictional changes involving the City of Escondido to prompt and/or otherwise require concurrent or future annexation of the existing unincorporated islands in the sphere of influence. with due consideration to the economic feasibility and impact on City resources.

9. The City of Escondido should coordinate with San Diego LAFCO to ensure existing municipal services provided outside the City that are subject to material changes – intensify or de-intensify – remain in compliance with Government Code Section 56133.

10. San Diego LAFCO should proceed with a limited sphere of influence update for the City of Escondido. The limited update should focus on aligning the sphere of influence wherever practical with parcel boundaries, roads, and other geographic markers that have adjusted and/or emerged since the last Commission action in 2003.

    a) San Diego LAFCO should defer an otherwise merited comprehensive sphere of influence update for the City of Escondido to a future municipal service review.

    b) Notwithstanding other determinations, San Diego LAFCO should proceed to establish one or more special study areas for the City of Escondido sphere of influence as part of a limited update and provide the affected areas eligibility to proceed in the next five years with an actual amendment without necessitating a new municipal service review. This includes a special study area for the Harvest Hills (previously Safari Highlands) project site.

c) Establishment of a special study area for the Harvest Hills project site and any subsequent accommodation to formally add to the City of Escondido's sphere of influence over the preceding 60-month period should be conditioned on further evaluation on potential fire risks and evacuation controls given local conditions – including community input to date.

11. San Diego LAFCO should revisit and expand on its inaugural analysis of pollution burdens and impacts on susceptible populations within the City of Escondido as part of future municipal service reviews.

5.0 WRITTEN DETERMINATIONS

San Diego LAFCO is directed to prepare written determinations to address the multiple governance factors enumerated under Government Code Section 56430 as part of the municipal service review process. These determinations serve as independent statements based on information collected, analyzed, and presented in this report. The underlying intent of the determinations are to provide a succinct detailing of all pertinent issues relating to the funding, administration, and delivery of public services provided by the City of Escondido specific to the Commission's growth management role and responsibilities in San Diego County. An abbreviated version of these determinations will be separately prepared for Commission consideration and adoption in conjunction with receiving the final report at a noticed hearing.

> These determinations address factors required in statute and local policy (environmental justice) as part of the municipal service review process. The determinations represent statements of reasonable facts or deductions as legislatively determined by San Diego LAFCO and based on information within the municipal service review prepared by Concordia Homes and City of Escondido and supplemented by this addendum.

5.1 Growth Projections & Related Demographics

1. San Diego LAFCO independently estimates there are 150,799 fulltime residents in the City of Escondido at the end of the addendum period. This estimate makes Escondido the 4th largest populated incorporated community in all of San Diego County.

2. San Diego LAFCO independently estimates the City of Escondido has added approximately 3,285 new residents during the addendum period. This new growth translates to an average increase of 657 new residents each year.

3. San Diego LAFCO separately estimates the City of Escondido has added approximately 740 new housing units during the addendum period. This new development translates to an annual increase of 148 new units each year.

4. The rate of new residents compared to the rate of new housing in the City of Escondido during the addendum period produces a ratio of 4.4 to 1.0. This ratio exceeds the current average household size of 3.1 persons during the addendum period and quantifies an existing and increasing shortfall in housing production in Escondido.

    a) In order to maintain a baseline household size of 3.1 persons, the rate of actual new housing in Escondido during the period would need to have increased by an additional 70% from an average year production of 148 units to 212 units.

5. It is reasonable to project the fulltime population will increase within the City of Escondido consistent with contemporary trends – or 0.46% annually – and add another 3,483 residents through the timeframe of this addendum and reach 154,282 by 2026.

6. Accommodating the projected population growth within the City of Escondido to 2026 will require the overall construction of 1,124 new housing units – or 225 units each year – to maintain the baseline household size of 3.1 persons

7. It is reasonable to assume the shortfall in housing supply within the City of Escondido during the addendum period is affecting housing costs with the average monthly expense totaling $1,836, which is 15% higher than the countywide mean.

    a) Average rent and mortgage costs at the end of the period in Escondido equals 29% of household incomes.

8. The City of Escondido's location along existing transportation corridors and inclusion in the San Diego County Water Authority and Metropolitan Water District of Southern California's wholesale water jurisdictions positions the City to experience accelerated growth beyond the timeframe of this addendum.

9. Proportionally directing more growth towards the City of Escondido during and beyond the addendum timeframe merits consideration by San Diego LAFCO as well as other regional planning bodies and may serve as additional justification for the Commission to accommodate jurisdictional changes.

10. San Diego LAFCO should prepare an informational report to assess the relationship of the Commission's own growth management policies – such as prioritizing the City of Escondido as an urban growth center through sphere and jurisdictional changes – with other regional land use and housing policies. This includes assessing connectivity to SANDAG's mobility hubs and the County of San Diego's recently adopted transportation study guide establishing vehicle miles traveled thresholds under Senate Bill 743.

11. San Diego LAFCO should coordinate with SANDAG to develop current buildout estimates within the Escondido region and incorporate the information into the next scheduled municipal service review. This should include assessing potential impacts tied to the recent passage of Senate Bill 9 (Weiner) and allowance for additional lot splitting.

12. With respect to pertinent demographics within the City of Escondido during the addendum period, San Diego LAFCO independently makes the following statements.

    a) Residents within Escondido tend to be older with a median age of forty relative to the countywide average of 35.

    b) Residents in Escondido have experienced a modest increase in their average median household income with an ending five-year sum of $76,544.

    c) Approximately one out of every five adults 25 years or older in Escondido hold four-year college degrees at the end of the addendum period. This ratio paired with the relatively high median home income suggests a sizeable portion of the workforce residing in the City is blue-collar.

13. The number of counted homeless in the City of Escondido has been gradually decreasing during the addendum period from a beginning count of 523 to an ending count of 447 – a difference of (14.5%). The portion of homeless in Escondido relative to all of San Diego County – nonetheless – has increased by 2.0% during the period.

14. While experiencing an overall decrease, the amount of homeless counted in the City of Escondido remains comparatively high at the end of the addendum period. This point is illustrated with Escondido's last count being the third highest among local municipalities, and – with the exclusion of counts in the City of San Diego – accounts for close to one out of every five homeless persons in San Diego County.

5.2 Location and Characteristics of Any Disadvantaged Unincorporated Communities & Relevant Information on Water, Wastewater, and Fire Protection

1. There are two distinct areas immediately adjacent to the City of Escondido that qualify as disadvantaged unincorporated communities under San Diego LAFCO policy. These two communities lie within Citrus Valley and within the current sphere of influence designated for the City. LAFCO estimates the combined population within these communities is 348.

2. Additional details and discussion on the two disadvantaged unincorporated community within the City of Escondido's sphere of influence is provided within the municipal service review prepared by the City of Escondido via Concordia Homes.

5.3 Capacity of Public Facilities and Infrastructure Needs and Deficiencies

1. The City of Escondido provides a full range of municipal services within its jurisdictional boundary. This addendum focuses on three specific service functions underlying Escondido's growth and development: (a) potable water; (b) wastewater; and (c) integrated fire protection, emergency medical, and ambulance services.

2. San Diego LAFCO attests the other key municipal service functions of the City of Escondido – including community development, parks and recreation, roads and streets, recycled water, and police protection – are adequately addressed in the municipal service review report prepared by the City via Concordia Homes.

3. San Diego LAFCO determines the three service functions provided by the City of Escondido that are the focus of this addendum – albeit with variations – have adequate capacities in meeting current demands through the timeframe of this analysis.

4. Financial constraints for the City of Escondido are intensifying within its General Fund and it is reasonable to assume all dependent service functions – like fire protection – will become increasingly challenged to maintain current levels absent a course correction. This dynamic merits attention by the Commission in its review of future jurisdictional change proposals during the timeframe of the addendum and specifically added consideration of potential service impacts on the City General Fund.

5. With respect to the City of Escondido's potable water function, San Diego LAFCO makes the following statements:

a) Escondido's potable water function commenced in the early 1900's and classified as retail class only by the Executive Officer consistent with LAFCO statute.

b) Escondido's potable water function covers close to three-fifths of the incorporated boundary and extends into adjacent unincorporated areas of Citrus Valley, Felicita Park, and San Pasqual Valley. San Diego LAFCO estimates the total resident population served by the Escondido water system is 143,490.

c) Escondido's membership with the San Diego County Water Authority allows the City to purchase an unrestricted amount of untreated water largely originating from the Colorado River and Sacramento Bay Delta based on availability. These imported supplies typically account for no less than four-fifths of water retailed by Escondido with the remainder drawn from the San Luis Rey River Watershed.

d) San Diego LAFCO estimates Escondido's current infrastructure capacities at the end of the addendum period can accommodate a maximum day potable supply potential of up to 434-acre feet – or notionally up to 112,863 acre-feet annually.

e) Escondido's overall daily potable water demands have averaged 55.7 acre-feet during the addendum period with an estimated daily per capita use of 129 gallons. Overall water demands have increased by 8.3% during the period and largely attributed to higher rainfall totals in 2017 and 2019.

f) Additional analysis is needed to assess whether the portion of daily uses for Escondido is dedicated to indoor use and the relationship therein in meeting the State of California's advisory target to limit capita usage to fifty-five gallons.

g) The average daily and annual potable water demands during the addendum period for Escondido's entire distribution system equals 13% and 18%, respectively, of accessible supply and associated infrastructure capacities under normal periods.

h) With regard to more micro-measurements involving the potable water system:

- The average peak-day potable water demand generated during the addendum period for the entire distribution system equals 21% of Escondido's accessible supply and associated infrastructure capacities under normal conditions.

- The average day potable water demand generated during the addendum period for the entire distribution system represents 30% of Escondido's available capacity at the Escondido-Vista WTP.

- The average peak-day potable water demand generated during the addendum period for the entire distribution system represents 48% of Escondido's available capacity at the Escondido-Vista WTP.

- The average peak-day potable water demand generated during the addendum period for the entire distribution system equal 125% of Escondido's existing online storage capacity (not including Lakes Wolford and Dixon).

i) Online storage capacity can accommodate up to 1.28 days of average day potable demands generated over the addendum period without recharge. Additional storage capacity is needed to abate current stresses in the ability of Escondido to accommodate high usage periods and/or interruptions in WTP operations.

j) Escondido ratepayers receive two related charges for potable water service: (a) fixed availability and (b) variable usage with the former including pass-throughs from County Water Authority and Metropolitan Water District. Rates have increased for most customers (single-family) by 24% during the addendum period and attributed to costs associated with improvements to Lake Wohlford's Dam, replacing aging water tanks, and rehabilitating the water treatment plant.

k) Escondido's average monthly potable water service charge for single-family customers at the end of the addendum period is $123 and divided between $47 in fixed and $76 in usage fees with the later based on delivering 10,000 gallons.

l) Annual actual potable water revenues have averaged $62.5 million during the addendum period compared to $61.6 million in expenses. Recent rate increases – however – have produced a correction with revenues exceeding expenses over the final two years of the addendum period.

m) The scope and scale of groundwater use within Escondido's potable water service area is unknown. San Diego LAFCO should coordinate with the County of San Diego to identify active groundwater wells and incorporate the information into the next scheduled municipal service review.

n) As of the end of the addendum period there is one mutual water company operating just outside the City of Escondido's sphere of influence – the Del Dios Mutual Water Company. This private water provider was formed in 1934 and serves an estimated 330 residents from its groundwater source. Additional analysis is needed to assess the future viability of the City extending and/or annexing this site.

6. With respect to the City of Escondido's wastewater function, San Diego LAFCO makes the following statements:

a) Escondido's wastewater function commenced in the early 1920's. This active service function is classified as collection, treatment, and discharge by the Executive Officer consistent with LAFCO statue.

b) Escondido's wastewater services span most of the City and extend into the adjacent unincorporated community of Felicita Park.

c) Escondido's daily permitted capacity at its Hale Avenue Resource Recovery Facility (HARRF) is 18.0 million gallons and involves secondary treated effluent. HARRF is also able to produce up to 9.0 million gallons of tertiary effluent for subsequent recycled water uses and/or retailing.

d) Escondido's average daily wastewater flows collected during the addendum period has been 12.9 million gallons and includes approximately 3.2 million gallons received under contract from the City of San Diego. This average flow during the period represents 72% of HARF's permitted treatment capacity.

e) Overall average day wastewater flows collected by Escondido during the addendum period have decreased by (7.0%) and largely attributed to improvements associated with building code compliance and conservation program efforts.

f) With regard to more micro-measurements involving the wastewater system:

- Average daily dry-weather wastewater flows during the addendum period have been 12.9 million gallons and mirrors overall average demands, which reflects the predominance of dry-weather conditions in the service area. Daily dry-weather flows tallied 11.9 million gallons at the addendum term and produces a net (10%) change during the 60-month period.

- Average daily wet-weather wastewater flows during the addendum period have been 13.1 million gallons. This flow typically is recorded between November and April and assists in measuring the amount of inflow and infiltration entering the collection system. Daily wet-weather flows tallied 12.0 million gallons at the addendum term with an overall decrease of (10%) during the 60-month period.

- Average daily peak-day wastewater flows over the addendum period have been 25.9 million gallons. This latter amount produces a peak-factor relative to average day demands of 2.0 and below the facility's design criteria of 2.17.

g) Escondido's average monthly wastewater service charge for most ratepayers (single-family customers) at the end of the addendum period is $67.

h) Escondido's actual annual actual wastewater revenues have averaged $35.5 million during the addendum period compared to $23.4 million in expenses.

i) The scope and scale of septic systems within Escondido's wastewater service area is unknown. San Diego LAFCO should coordinate with the County of San Diego Environmental Health Department to identify active septic systems within the City and incorporate the information into the next scheduled municipal service review.

7. With respect to integrated fire protection, emergency medical, and ambulance services:

a) Escondido's integrated fire protection, emergency medical, and ambulance services function dates to the 1910s. The Executive Officer makes the following designations consistent with LAFCO statute:

- Fire protection is categorized as structural with several ancillary classes – prevention, support services, administration, and disaster preparedness.

- Emergency medical services are categorized as advanced life support.

- Ambulance services are categorized as direct.

b) Escondido's integrated fire protection, emergency medical, and ambulance service capacities are largely dependent on staffing resources. Budgeted staffing for public safety personnel at the end of the addendum period totals 111 and divided between 93 firefighters and 18 medical personnel (paramedics/EMTs).There have been no changes in this budgeted staffing during the period.

c) Actual fire protection, emergency medical, and ambulance services for Escondido are delivered out of seven stations based on direction from their joint police-fire emergency communication center. The two newest fire stations – No. 6 and No. 7 – were both built in 2008 and serve the western and northeast neighborhoods and reflects more recent and outward development patterns in the City.

d) Actual onsite demands on Escondido for fire proteciton and emergency medical services during the addendum period have averaged 42.3 per day with an overall and minimal change of 1.7%. This average demand is further quantifed into a ratio of 0.26 onsite incidents for every 1,000 residents.

e) Close to one-half of all dispatch calls for Escondido and its fire protection and emergency medical services during the addendum period have been directed to Stations No. 1 and No. 7 and involve incidents in the City's central and northeast neigborhoods. These stations – also – notably serve as first responders for incidents along Interstate 15 and State Route 78.

f) Escondido's existing fire protection and emergency medcial services allow it to respond – exclusively or in combination with outside agencies – to 98% of all onsite incidents within the City during the addendum period.

g) Additional analysis is needed to determine the extent of other agencies assisting Escondido in meeting fire proteciton and emergency medical service demands during the addendum period.

h) Additional analysis is needed to determine the extent of fire protection and emergency medical service demands on Escondido during the addendum period that occurred outside the City limits.

i) Actual demands on Escondido for ambulance transport services during the addendum period have averaged 29.6 per day with an overall increase of 10.6%. This average demand is further quantifed into a ratio of 0.18 onsite incidents for every 1,000 residents.

j) The average percentage of onsite fire protection and emergency medical incidents for Escondido resulting in subsquent ambulance transport has been 70.1% during the addneum period with an overall change of (10.0%).

k) Escondido's integrated fire protection, emergency medical, and ambulance services are dependent on discretionary monies allocated by the City Council and have accounted for 24.7% of all General Fund expenses during the addendum period. The overall portion of General Fund expenses directed towards supporting this integrated function has increased by 17.1% during the period.

5.4 Agencies' Financial Ability to Provide Services

1. The City of Escondido's net position covering all City activities – General and Business – has increased by 7.7% during the addendum period from $417.9 to $473.4 million. More than one-half of the ending net position ties to the City's enterprise assets involving the water and wastewater systems.

2. The unrestricted portion of City of Escondido's net position at the end of the addendum period less accrued retiree liabilities totals $119.8 million and equals 5.8 months of actual total expenses in 2020-2021. This ratio has increased and improved by 26.1% during the period and initial coverage of 4.6 months in 2016-2017.

3. The City of Escondido finished the addendum period with a closely matching amount of average year actual revenues and expenses within its General Fund at $101.9 million and $101.6 million, respectively – a difference of less than 0.2%. This difference – pertinently – has been narrowing with the rate of actual expenses in the General Fund exceeding the rate of actual revenues by more than one-fifth during the period.

4. Recent trends in the General Fund signals the City of Escondido has and/or is becoming structurally imbalanced, and in the absence of course corrections it is reasonable to assume non-enterprise functions – community development, parks and recreation, public safety, etc. – will become increasingly stressed in maintaining existing levels.

5. Standard measurements used to assess the City of Escondido's financial standing during the addendum period shows a notable distinction between the City's relatively sufficient short-term resources (liquidity) and otherwise strained longer-term resources (capital and margin). With this context, the following statements apply.

   a) Liquidity levels as measured by comparing the Escondido's current assets against its current liabilities over a one-year horizon shows the City finished the period with an adequate – though decreasing – current ratio of 6.5 to 1.0. A separate and more immediate measurement of liquidity comparing Escondido's available cash against

current liabilities similarly shows the City finished the period with an adequate – and modestly improving – cash ratio of 3.5 to 1.0

b) Capital levels as measured by comparing Escondido's long-term debt against its accumulated net worth shows the City finished the period with a high debt-to-net position percentage of 101.1%. This high level of debt also shows in matching the City's total assets against total liabilities at the end of the period, which produces a debt ratio – i.e., the portion of assets being financed – at 55.2%

c) Margin levels as measured by comparing the City of Escondido's overall revenues against overall expenses within the General Fund shows the City finished with a positive average total margin of 2.4%. However, adjusting this measurement to exclude the final year in 2020-0021 resets the average total margin to (1.3%) with negative returns in three of the four years.

d) The replacement rate of Escondido's capital infrastructure (i.e., buildings, equipment, streets, etc.) has decreased by (9.0%) during the addendum period from 24 to 27 years.

6. The City of Escondido's composite funded ratio for pension obligations with CalPERS at the end of 2019-2020 – which marks the most recently published data for the addendum period – tallies 68.4% and considered substandard. The ratio – nonetheless – has slightly improved over the prior five-year period by 1.8%

7. The City of Escondido's annual employer pension contribution between 2015-2016 and 2019-2020 – which follows the last five years of published data by CalPERS – has increased by nearly one-half – or 45%. The percentage of the City's payroll dedicated to pension costs is similarly increasing from 29.0% to 39.0% over the same timeframe.

8. San Diego LAFCO should revisit fire protection and emergency medical services and costs in the City of Escondido and surrounding region as part of an update to the Commission's countywide fire service study.

5.5 Status and Opportunities for Greater Efficiencies, Shared Facilities, & Resources

1. The City of Escondido has made a concerted effort to invest resources during the addendum period to address homelessness through various partnerships with other local agencies and non-profit organizations in North County through its membership in

the Alliance for Regional Services. Escondido has also supplemented this regional approach to addressing homelessness by establishing a local think-tank on remedying homeless issues within the City through a dedicated Community Advisory Group.

2. The City of Escondido and Rincon del Diablo MWD have developed several unique and resource-saving arrangements involving their potable water systems that collectively benefit their constituents. These beneficial arrangements are headlined by relying on the others' distribution system to serve their ratepayers and in doing so avoid costs and inefficiencies in building duplicative infrastructure.

3. The City of Escondido contracts a dedicated portion of its wastewater treatment capacity to the City of San Diego to accommodate flows generated within the Rancho Bernardo area. This long-stand arrangement has proven beneficial to both agencies and marked by allowing Escondido to monetize excess and otherwise unused capacity to help fund other capital improvements to the wastewater system.

4. At the start of the addendum period, the City of Escondido chose to outsource the day-to-day operations of its public library to a national private vendor - Library Systems & Services. The decision survived an immediate legal challenge and premised on the projected annual savings of $0.400 million in reduced employee costs plus commitments by the vendor to increase weekly operating hours from 51 to 60. Both premises have materialized through the end of the addendum period.

5. Approximately two-thirds of the City of Escondido's parkland acreage lies along its exterior and beyond walkable distance for most City residents. The City should consider joint-use arrangements with the local school districts to make available additional green and play spaces to enhance recreational opportunities within the urban core.

5.6 Local Accountability and Government Restructure Options

1. The City of Escondido operates as a general-law municipality and draws on corporate and police powers delegated by the State Legislature and authorized by voters in approving incorporation in 1888.

2. The City of Escondido uses six standing committees through the end of the addendum period comprising appointed residents to further inform City decision-making: (a) Building Advisory and Appeals Board; (b) Historic Preservation Commission; (c) Library Board of Trustees; (d) Planning Commission; (e) Public Art Commission; and (f)

Transportation and Community Safety Commission. These standing committees – markedly – reflect areas of elevated importance to the City Council, past and present.

3. The City of Escondido has experienced a significant change in elected leadership during the addendum period with four of the five Council positions changing. This change in leadership also extends to several senior staff positions and marked by the City Council recently appointing its first outside candidate to City Manager since 1989. It is reasonable to assume these changes will bring new approaches in governance.

4. The City of Escondido provides ongoing opportunities for constituents to engage the Council by regularly holding meetings on the first four Wednesdays of every month at 5:00 P.M. with live and recorded online streaming. Cancellations are rare with the City Council holding an annual average of 124 public meetings with no cancellations during the addendum period.

5. Several special districts' jurisdictional boundaries overlap with the City of Escondido and provide one or more municipal service functions in most and/or all of the City. These special districts include the North County Cemetery District, North County Transit District, Palomar Healthcare District, Rincon del Diablo MWD, and Resource Conservation District of Greater San Diego. Among these special districts only Rincon del Diablo MWD is geographically positioned to come into eligibility range in the foreseeable future for possible reorganization into a subsidiary district of the City.

6. San Diego LAFCO previously determined in Part One of this municipal service review a governance study is warranted for the Commission to independently assess reorganization options to consolidate – politically or functionally – the City of Escondido and Rincon del Diablo MWD. This addendum affirms the earlier determination and LAFCO should proceed with the governance study.

7. The City of Escondido surrounds – substantially or entirely – nearly two dozen unincorporated islands that perpetuate substantive service inefficiencies for both the City and County of San Diego as well as raise social justice considerations. As other jurisdictional changes come forward, San Diego LAFCO should consider options to prompt and/or require annexation of these islands on a case-by-case basis with due consideration to the economic feasibility and impact on City resources.

8. The City of Escondido has been diligent in requesting and receiving approval from San Diego LAFCO to provide new water and/or sewer services beyond the incorporated boundary under Government Code Section 56133. Escondido and LAFCO should similarly consult and establish related protocols to address City requests to provide "extended" services under statute.

9. San Diego LAFCO should proceed with a limited sphere of influence update for the City of Escondido. The limited update should focus on aligning the sphere of influence wherever practical with parcel boundaries, roads, and other geographic markers that have emerged and/or adjusted since the last Commission action in 2003.

10. San Diego LAFCO should defer an otherwise merited comprehensive sphere of influence update for the City of Escondido to a future municipal service review. This would allow the Commission to first complete a governance study to explore reorganization options involving the City and Rincon de Diablo MWD to include – but not limited to – possible consolidation of the agencies and/or one or more of their shared service functions.

11. Notwithstanding other determinations, there is sufficient merit for San Diego LAFCO to establish one or more special study areas for the City of Escondido sphere of influence as part of a limited update. This includes a special study area for the Harvest Hills project site, which has been part of a multi-year planning process with the City and ongoing discussions with LAFCO staff.

    a) Establishing this and possibly other special study areas serve as formal placeholders for the Commission under policy to consider actual sphere amendments and annexations anytime over the next five years without requiring a new municipal service review to be prepared.

    b) Establishment of a special study area for the Harvest Hills Project site and any subsequent accommodation to formally add to the City of Escondido's sphere of influence over the preceding 60-month period should be conditioned on further evaluation on potential fire risks and evacuation controls given local conditions – including community input to date.

5.7 Environmental Justice (Adopted Policy)

1. San Diego LAFCO's analysis of available data available from the California Environmental Protection Agency shows the City of Escondido's composite pollution burden and residents' susceptibility therein to core effects is moderate relative to statewide conditions based on percentile scores of 36% and 40%, respectively. These composite measurements, however, conceal extremes with individual areas in the City having pollution burdens ranging between 3% to 78% with the latter marked by exposure in central Escondido to high levels of ultraviolet light radiation and impaired waters.

2. San Diego LAFCO should revisit and expand on its inaugural analysis of pollution burdens and impacts on susceptible populations within the City of Escondido as part of future municipal service reviews.

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CHAPTER THREE
ABBREVIATED AGENCY PROFILE

1.0 CITY OF ESCONDIDO OVERVIEW

Downtown City of Escondido
Intersection of Centre City Parkway and Grand Avenue



Photo Credit: City of Escondido

The City of Escondido is a general law municipality incorporated in October 1888 and self-identified as the "City of Choice." Escondido's incorporation was the fourth in San Diego County and the biproduct of a series of land transactions bookended by the creation of the Rancho Rincon del Diablo in 1843 and the eventual purchase by the Escondido Land and Town Company in 1883; the latter having recorded the first subdivision of the area in 1886. Escondido's current jurisdictional boundary spans 37 square miles coving 23,971 acres with an elevation range between 100 to 1,800 feet above sea level. Two-thirds of the jurisdictional acreage falls under private ownership with 26% of this amount – or 4,128 acres – remaining entirely undeveloped without any assessed structures or improvements. Governance is provided through a council-manager format with a directly elected mayor. The average tenure on the Council among current members is relatively low at 4.8 years with the longest tenure belonging to Michael Morasco at 12 years. There are no term limits on the Council.

Escondido is a full-service municipality and headlined by directly providing community planning, fire protection, parks and recreation, police protection, wastewater, and water services. Several local special districts also overlap Escondido's jurisdictional boundary and generally provide specialized services beyond the scope of the City with the largest examples being North County Cemetery District and Palomar Healthcare District. Escondido separately maintains a unique boundary overlap with Rincon del Diablo MWD with the latter sharing 62.6% of its boundary with the City.

> The City of Escondido is a full-service municipality, and this includes directly providing fire, police, wastewater, and water. Staffing these four specific functions accounts for nearly two-thirds of all City budgeted employees at the end of the addendum period.

Escondido's actual operating budget expense at the end of the addendum period in 2020-2021 is $207.1 million and reflects an overall change of 13.6% over the prior five years. The per capita expense has separately changed during the addendum period from $1,230 to $1,373 or 11.6%. The audited net position at the end of the addendum period totals $473.4 million with the

unrestricted portion tallying ($108.8 million). The unrestricted amount is adjusted to $119.8 million less actuarial accrued pension and related retiree liabilities and equivalent to covering seven months of recent actual operating expenses.

LAFCO independently estimates the fulltime resident population within Escondido's jurisdictional boundary is 150,799 at the end of the addendum period. It is also projected the estimate of fulltime residents represents an overall increase of 7,228 since the 2010 census reset – or 657 annually – with a resulting annual growth rate of 0.46%. The estimated population is directly supported by 49,530 housing units in Escondido, which has increased since 2010 with the construction or otherwise addition of 1,623 new units and equates to 148 annually. Escondido residents are currently spending 28.8% of their household income on rent or mortgage payments.

> LAFCO estimates the City of Escondido on average has added 657 new residents each year during the addendum period. It is also estimated the City has added 148 new housing units each year. The collective result is a new resident to housing ratio of 4.4 to 1.

2.0 DEMOGRAPHICS

2.1 Population and Housing

The City of Escondido's total fulltime resident population within its jurisdictional boundary is independently estimated by LAFCO at 150,799 at the end of the five-year addendum period. This amount represents 4.6% of the countywide total. It is also estimated the fulltime population has risen overall by 5.0% from 143,571 in 2010 and the last census reset. This translates to an annual change of 657 or 0.46%, which is slightly below the overall countywide rate of 0.56%. The current estimate produces a population density of 6.3 residents for every one acre and underlies the overall urban suburban character of the jurisdictional boundary. (For context, the population density for the City of Poway to the southeast at the end of the addendum period was 2.0 residents for every one acre.) It is projected the current growth rate will continue into the near-term and result in the fulltime population reaching 154,282 by 2026.

> It is estimated there are 150,799 fulltime residents in the City of Escondido at the end of the addendum period. It is projected the fulltime population will increase consistent with recent trends – or 0.46% annually – and add another 3,483 residents and reach 154,282 by 2026.

City of Escondido
Resident Population
Table 2.1a (Source: Esri and San Diego LAFCO)

Factor	2010 Estimate	2017 Estimate	2021 Estimate	Annual Change	2026 Projection
City of Escondido	143,571	148,171	150,799	0.46%	154,282
San Diego County	3,095,264	3,127,402	3,287,195	0.56%	3,380,896

LAFCO separately estimates there are 49,530 residential housing units within Escondido at the end of the five-year addendum period. This amount represents an overall increase of 1,623 – or 3.4% – since 2010 for an annual change of 148 or 0.3%. The overall ratio of residents to housing units during the 60 months has increased by 12.2%.

The City of Escondido has averaged 148 new units each year during the addendum period. This results in Escondido adding one new home (unit) for every 4.4 new residents during the period.

Other notable housing characteristics follows.

- Slightly more than one-half – or 50.3% – of housing units in Escondido are owner-occupied with 44.9% being renter-occupied at the end of the addendum period. The remaining amount are vacant at 4.8%.
- The five-year average household size is 3.1 residents.
- The five-year mean housing cost is $1,836.
- Households are spending 28.8% of their income on rent or mortgage payments.

City of Escondido
Housing Characteristics
Table 2.1b (Source: Esri and San Diego LAFCO)

Factor	City of Escondido	San Diego County
2010 Housing Units	47,907	1,164,766
2021 Housing Units	49,530	1,232,419
… % Annual Change	0.31%	0.53%
… Net Change	1,623	67,653
Household Size (5-year average 2007-2011)	3.04	2.79
Household Size (5-year average 2012-2016)	3.14	2.87
… % Annual Change	3.29%	2.87%
Monthly Housing Cost (5-year average 2007-2011)	$1,903.39	$1,540.00
Monthly Housing Cost (5-year average 2012-2016)	$1,835.99	$1,578.00
… % Annual Change	(3.54%)	2.47%
2010 Vacancy Rate	5.33%	6.69%
2021 Vacancy Rate	4.79%	5.94%
… % Overall Change	(10.13%)	(11.21%)

2.2 Age Distribution

The median age of residents in the City of Escondido is 40.0 based on the current five-year period average. This amount shows the population continues to age with the median age experiencing an increase of 4.2% from 38.4 over the preceding five-year period average. The current median age in Escondido remains substantively higher than the countywide average of 35.3. Residents in the prime working age group defined as ages 25 to 64 – and the prime tax generating group – make up more than one-half of the estimated total population at 53.7%.

Residents within the City of Escondido tend to be older with a median age of 40 relative to the countywide average of 35.

City of Escondido
Median Age of Residents
Table 2.2a (Source: SD LAFCO and ESRI)

Category	Past Average 2007-2011 Period	Current Average 2012-2016 Period	Change %
City of Escondido	38.4	40.0	4.2%
San Diego County	34.6	35.3	2.0%

City of Escondido
Prime Working Age, 25-64
Table 2.2b (Source: American Community Survey and San Diego LAFCO)

Category	Past Average 2007-2011 Period	Current Average 2012-2016 Period	Change %
City of Escondido	54.4%	53.7%	(1.2%)
San Diego County	53.4%	47.0%	(11.9%)

2.3 Income Characteristics

The median household income in the City of Escondido is $76,544 based on the current five-year period average. This amount shows fulltime residents are receiving moderately more pay with the median income experiencing an overall increase of 4.3% from the preceding five-year period average of $73,413. Escondido's median household income also remains relatively high in comparison given it is 15.1% above the current countywide median of $66,529. Other related measurements show economic distresses and marked by an overall increase of 4.4% in the total

Residents in the City of Escondido have experienced a modest increase in their average median household income with an ending five-year average of $76,544. Separately, poverty rates in Escondido have slightly increased by 4.4%.

percent of residents living below the poverty level. This amount – nonetheless – remains below the countywide average of 14.0%.

City of Escondido
Median Household Income
Table 2.3a (Source: SD LAFCO and ESRI)

Category	Past Average 2007-2011 Period	Current Average 2012-2016 Period	Change %
City of Escondido	$73,413	$76,544	4.27%
San Diego County	$63,857	$66,529	4.18%

City of Escondido
Resident Poverty Rates
Table 2.3b (Source: SD LAFCO and ESRI)

Category	Past Average 2007-2011 Period	Current Average 2012-2016 Period	Change %
City of Escondido	10.96%	11.45%	4.4%
San Diego County	13.0%	14.0%	7.7%

2.4 Socioeconomic Indicators

Unemployment levels within the City of Escondido are relatively low at 4.3% based on the current five-year period average. This amount is close to one-seventh – or 14.0% – below the corresponding countywide average rate of 4.9%. Unemployment levels within Escondido have also decreased by one-fourth – (25.0%) – from the previous five-year average of 5.7%. With respect to other measurements, more than one out of every five residents in Escondido currently collects retirement income. Education levels within Escondido as measured by four-year college graduates, has slightly increased during the report period but remains somewhat low at 31.13% in comparison to the countywide rate of 36.5. The non-English speaking percentage of the population has decreased during this period from 16.2% to 14.0%; an overall difference of (13.3%).

> Approximately one out of every five adults in Escondido hold four-year college degrees at the end of the report period. This ratio paired with the relatively high median home income in the jurisdiction suggests a blue-collar workforce resides in the City.

City of Escondido
Unemployment Levels
Table 2.4a (Source: SD LAFCO and ESRI)

Category	Past Average 2007-2011 Period	Current Average 2012-2016 Period	Change %
City of Escondido	5.71%	4.28%	(25.01%)
San Diego County	5.60%	4.90%	(12.50%)

City of Escondido
Collecting Retirement
Table 2.4b (Source: SD LAFCO and ESRI)

Category	Past Average 2007-2011 Period	Current Average 2012-2016 Period	Change %
City of Escondido	18.05%	19.91%	10.27%
San Diego County	16.70%	17.70%	5.99%

City of Escondido
Non-English-Speaking Households
Table 2.4c (Source: SD LAFCO and ESRI)

Category	Past Average 2007-2011 Period	Current Average 2012-2016 Period	Change %
City of Escondido	16.15%	14.00%	(13.33%)
San Diego County	16.10%	15.00%	(6.83%)

2.5 Homelessness and Related Support

The City of Escondido participates in an annual Point In Time (PIT) Count for homelessness and Housing Inventory Count (HIC) administered by the region's Continuum of Care "CoC" provider – or San Diego Regional Task Force on the Homeless. The count is performed by volunteers during the last week of January in all 18 cities as well as several unincorporated communities in San Diego County. Full counts were performed for the first four years of the five-year addendum period and shows the average number of homeless in Escondido has been 433 with an overall decrease of 14.5% over the first 48 months.[11] The total number of counted homeless at the end of the abbreviated period in Escondido totals 447 with 59.0% – or 264 – being unsheltered and residing in cars, public places, or the street. The remaining 183 homeless counted in Escondido at the end of the abbreviated period are sheltered and reside in an emergency shelter, homeless shelter, or transitional housing.

> The number of counted homeless in the City of Escondido has been decreasing and at the end of the abbreviated addendum period totals 447. This amount – however – represents the third highest total among local jurisdictions. It also – notably and less the City of San Diego – accounts for the remaining 16% of counted homeless in San Diego County.

[11] Due to the COVID-19 pandemic the County of San Diego's regional Continuum of Care "CoC" provider applied for and was granted an exception from conducting the 2021 annual Point-in-Time Count for the regions unsheltered homeless by the Department of Housing and Urban Development (HUD).

City of Escondido | Point-in-Time Homeless Counts
Table 2.5a (Source: Regional Taskforce on Homeless in San Diego County and SD LAFCO)

Category	2017	2018	2019	2020	2021	Average	Trend
Sheltered	269	148	109	183	154	172.6	(42.8%)
Unsheltered	254	263	241	264	n/a	255.50	3.9%
Total	**523**	**411**	**350**	**447**	**n/a**	**432.75**	**(14.53%)**
… % of San Diego County	5.74%	4.79%	4.32%	5.85%	n/a	5.85%	2.01%
… % less City of San Diego	15.0%	11.2%	11.6%	16.2%	n/a	13.5%	8.6%

Escondido presently partners with nearly two dozen local non-profit organizations that provide one or more homeless support services within the City limits. Key services include providing emergency shelter and ancillary drug, mental health, and/or family crisis counseling.[12] The HIC shows the total number of utilized beds – specific to emergency shelters – in Escondido at the end of the abbreviated addendum period and concurrent with the PIT count is 115. Overall, the total number of beds (emergency, transitional, safe haven shelters, etc.) in the City of Escondido in the same period is 428.

2.6 Environmental Justice

State law directs LAFCO to address several factors anytime the Commission considers jurisdictional changes, including environmental justice. This factor was added to statute beginning on January 1, 2008 and defined to mean the fair treatment of people of all races, cultures, and incomes with respect to the location of public facilities and the provision of public services. LAFCO adopted a policy in 2022 to formally guide its consideration of environmental justice and this includes proactively incorporating the topic – and specifically pollution burdens and their associated economic impacts – in the Commission's municipal service review program.

> LAFCO's consideration of environmental justice in this addendum draws from the California Environmental Protection Agency and provides percentile rankings relative to all of California as it relates to (a) pollution burdens and (b) susceptible populations to pollution burdens.

Consideration of environmental justice factors draw on staff analyzing data available from the California Environmental Protection Agency through its online assessment tool (CalEnviroScreen 4.0). Two composite percentile rankings for Escondido and surrounding unincorporated lands within the sphere of influence are generated within this analysis and based on a composite of all underlying census tracts. These involve (a) pollution burdens and (b) susceptible population to pollution burdens as a percentile to all census tracts in California.

[12] State law requires all municipalities allow for the operation of emergency shelters.

Escondido's composite pollution burden ranking at the end of the addendum period falls in the 36 percentile with an internal range among census tracts between 3 to 73 percentiles. Nine out of 13 tracked pollution burdens exceed the 33 percentile and involve ozone, diesel PM, traffic, drinking water, lead in housing, groundwater threats, hazardous waste, impaired water, and solid waste and considered moderate in magnitude. One of these nine pollution burdens – impaired or contaminated water – also falls only .07 short of being in the 70 percentile and is considered significant in magnitude. Escondido's composite susceptible population ranking falls in the 40 percentile with an internal range among census tracts between 2 to 78 percentiles. Seven of the eight at-risk groups exceed the 33 percentile and involve persons with low birth weight, cardiovascular disease, limited education, linguistic isolation, poverty, unemployment, and housing burden. A summary of overall tracked pollution burdens and susceptible population follows.

City of Escondido
Pollution Burdens and Susceptible Population
Table 2.6a (Source: California Environmental Protection Agency and SD LAFCO)

Factor	Escondido + Surrounding Lands
No. of Census Tracts	35
Estimated Population	187,851
Pollution Burden	**Weighted Percentile**
... Composite Score	4.49
... Percentile	**35.81**
Indicator | Air Quality: Ozone	52.58
Indicator | Air Quality: PM 2.5:	15.51
Indicator | Air Quality: Diesel PM:	43.45
Indicator |Pesticides:	27.77
Indicator | Toxic Releases:	11.56
Indicator |Traffic:	39.09
Indicator | Drinking Water Contaminants:	43.27
Indicator | Lead in Housing:	37.87
Effects | Cleanup Sites:	15.05
Effects | Groundwater Threats:	46.77
Effects | Hazardous Waste:	46.82
Effects | Impaired Water:	69.03
Effects | Solid Waste:	35.37
Sensitive Population	**Weighted Percentile**
... Percentile	**39.73**
Population | Asthma:	25.48
Population | Low Birth Weight:	43.55
Population | Cardiovascular Disease:	39.72
Population | Education:	56.59
Population | Linguistic Isolation:	45.92
Population | Poverty:	53.49
Population | Unemployment:	38.04
Population | Housing Burden:	53.34

3.0 MUNICIPAL SERVICE FUNCTIONS (PRIMARY)

The City of Escondido directly provides a full range of municipal services within its jurisdictional boundary. This addendum and succeeding analysis focus on three specific service functions underlying Escondido's growth and development and of particular interest to LAFCO. These specific service functions are (a) potable water; (b) wastewater; and (c) integrated fire protection, emergency medical, and ambulance services. The analysis of these three service functions serves to supplement and update information provided in the accompanying municipal service review report prepared by the City of Escondido via Concordia Homes. A summary analysis of these three specific functions follows with respect to capacities, demands, and performance during the five-year addendum period between 2017 and 2021.

3.1 Potable Water Service

The City of Escondido's potable water services represent its largest business (enterprise) activity and involves retail class only. Escondido established this service function in the early 1910s by initially developing its own distribution system to accommodate new development outside of "Old Escondido" with supplies generated by groundwater paired with diversions from Escondido Creek. Over the next several decades Escondido expanded the public water system in step with accommodating outward growth. This eventually included – notably – assuming service for Old Escondido in connection with acquiring the Escondido Mutual Water Company, which also netted the City an additional water source from the San Luis Rey River via Lake Henshaw. Escondido established imported supplies in 1954 by annexing into the San Diego County Water Authority and receiving wholesale supplies from the Colorado River and later the Sacramento Bay Delta via the State Water Project.

City of Escondido's potable water service is retail class only and covers close to three-fifths of incorporated boundary with most of the remaining City served by Rincon del Diablo MWD.

Escondido's potable water system at the end of the five-year addendum period spans 440 miles of distribution lines over 16 connected pressure zones. The distribution system expanded by 10 miles during the addendum period. The topography in the distribution system ranges from 300 to 1,140 feet above sea level and managed through five public pump stations and eleven reservoirs. The water service area does not align with the incorporated boundary. The service area includes 22 square miles within the 37.5 square mile incorporated boundary along with nine square miles outside the City – namely in San Pasqual Valley. Rincon del Diablo MWD is the primary public water service provider for the remaining incorporated area with smaller portions of the City limits also served by Vista Irrigation District, Valley Center MWD, and Vallecitos Water District.

Escondido's total number of active connections at the end of addendum period is 27,286 with 24,064 – or 87.6% – classified as residential. The number of active connections increased over the period by 2.2%. LAFCO estimates the water service area population at the end of the addendum period is 143,490.[13] Additional analysis is needed to estimate the portion of the population served by the Escondido water system located outside the City limits.

LAFCO estimates the total resident population served by the City of Escondido water system is 143,490 and includes both City and non-City residents.

Service Capacities and Related Resources

Most of the City of Escondido's water supplies – typically no less than four-fifths and more during dry periods – are imported through a membership agreement with the County Water Authority. The membership agreement allows the City to purchase for subsequent retailing an unrestricted amount of water based on availability from the County Water Authority through its own wholesaler-transport relationship with the Metropolitan Water District of Southern California. All water purchased by the City during the addendum period has been an untreated blend from the Colorado River and Sacramento Bay-Delta. The remaining supplies available to Escondido are drawn from the San Luis Rey Watershed and accessed via Lakes Wolford and Dixon.[14]

The City of Escondido's membership with the County Water Authority allows the City to purchase an unrestricted amount of untreated water originating from the Colorado River and Sacramento Bay Delta based on availability. These imported supplies typically account for no less than four-fifths of water delivered by Escondido with the remainder drawn from the San Luis Rey River Watershed.

Escondido has direct access to County Water Authority untreated supplies through two active transmission line connections. The combined capacity among the active connections to water supply purchases from the County Water Authority is estimated at 149 cubic feet per second and translates to a maximum day amount or volume of 296 acre-feet, and notionally translate to an annual sum of 107,863 acre-feet. Supplies generated from Lakes Wohlford and Dixon and their associated infrastructure capacities provides a maximum day volume of 138 acre-feet. It is separately projected the maximum annual supply from Lakes Wohlford and Dixon is 5,000 acre-feet.[15]

LAFCO estimates the City of Escondido's current infrastructure capacities accommodate a max day supply potential to 434-acre feet. The maximum annual supply is separately estimated at 112,863 acre-feet.

[13] LAFCO's estimated water service population is based on the following formula: ((22,586 single-family connections x 3.71 residents per unit) + (1,321 multi-family connections x 44.38 residents per unit)) and draw on a similar formula in the 2020 Urban Water Management Plan.
[14] Lake Wohlford includes supplies conveyed via an open canal from Lake Henshaw.
[15] Annual maximum supply from Lakes Wohlford and Dixon based on City of Escondido projection in Urban Water Management Plan (2020).

City of Escondido
Available Potable Water Supplies
Table 3.1a (Source: SDCWA and SD LAFCO)

Direct Source	Maximum Daily Infrastructure Capacity	Maximum Annual Infrastructure Capacity
County Water Authority (Colorado River and Bay Delta)	96 million gallons or 296 acre-feet	35.0 billion gallons or 107,863 acre-feet
Lakes Wohlford and Dixon (San Luis Rey River)	45 million gallons or 138 acre-feet	1.849 billion gallons or 5,000 acre-feet
TOTAL	141 million gallons or 434 acre-feet	36.78 billion gallons or 112,863 acre-feet

The City of Escondido's allocated daily capacity at the Escondido-Vista WTP is 60.0 million gallons.

Purchased untreated water is directed to the Escondido-Vista Water Treatment Plant (WTP) located near Dixon Lake in the northern portion of the City's water service area. The City shares ownership of the WTP with the Vista ID. The WTP is designed to treat up to 75.0 million gallons per day with 80% – or 60.0 million gallons – apportioned to Escondido. The WTP was built in 1976 and received major upgrades last in 2017, including the installation a modern on-site chlorine dioxide generation and emergency power generators capable of managing the demands during a power outage.[16]

The City of Escondido's distribution system includes 11 covered potable storage tanks with a combined capacity of 71.2 acre-feet.

Pressure within the Escondido distribution system is maintained by covered steel storage tanks located within each pressure zone. The combined capacity of the eleven covered storage tanks is 23.2 million gallons or 71.2 acre-feet. Additional storage is available – albeit dependent on pumping – to the City through the San Luis Rey River Watershed via Lakes Wolford and Dixon.

With respect to staff resources, Escondido's water function is directly provided by a division within the City's Utilities Department. Budgeted staffing for water services totals 123.0 fulltime equivalent employees at the end of the addendum period. This amount reflects an overall increase of six fulltime positions over the preceding 60 months. Overall, budgeted staffing dedicated for water services equals 13.3% of the City total in 2021.

[16] Vista ID's water is delivered through a separate distribution system and gravity flows through most of its own pressure zones.

With respect to financial resources, the City of Escondido's potable water services largely operate as an enterprise fund and are intended to be self-supporting through user charges and associated fees. Actual water expenses (operating only) during the addendum period have averaged $62.5 million with the most recent year amount totaling $69.6 million. Actual operating expenses have increased overall by 21.4% over the prior five-year period. The largest actual expense source involves water purchases and accounts for 43.7% of all operating costs during the period. Actual water revenue (operating only) during the addendum period have averaged $61.6 million with the most recent year amount totaling $73.1 million. Actual revenues have increased overall by 31.8%.

> City of Escondido's actual potable water operating expenses have increased by 21.4% over the report period while actual revenues have increased by 31.8%.

Escondido's potable water rates are billed monthly and divided between fixed availability fees and variable usage charges. Fixed availability fees covers' infrastructure access to the City's distribution system along with related pass-throughs from the County Water Authority and Metropolitan Water District. Most ratepayers – single-family residences – pay $47 in fixed fees at the end of the addendum period. These same ratepayers also pay usage based on an escalating tiered system in units of 1,000 gallons with the average ratepayer (i.e., 10,000 gallons per month) billed $76.18. Overall, the monthly water service charge for single-family users has increased by 24% over the prior 60 months.

> The average single-family residential customer at the end of the addendum period pays the City of Escondido $123 monthly for water services.

Service Demands

The City of Escondido's average annual demand for potable water over the five-year addendum period has been 6.629 billion gallons or 20,345 acre-feet. These annual amounts translate to daily averages of 18.16 million gallons and 55.7 acre-feet, respectively, and further refined into a per capita amount of 129 gallons. The average peak-day demand – the highest one-day sum in a single year – over the addendum period has been 29.1 million gallons or 89.3 acre-feet. This latter amount produces an average peaking factor of 1.60 and shows high-demand periods increase usage by more than 60.0% or 33 acre-feet per day.

> The City of Escondido's overall annual potable water demands have averaged 20,345 acre-feet during the addendum period with an estimated daily per capita use of 129 gallons.

With respect to overall trends, Escondido has experienced a total change of 8.3% in potable water demands over the five-year addendum period. The estimated per capita demand also changed with an overall increase of 4.5% from 124 to 130 gallons. The difference between overall and per capita trends with the former nearly doubling the latter signals non-residential uses are underlying the higher demands. Overall demands and trends for the addendum period follow.

> Overall water demands have increased by 8.3% during the addendum period and largely attributed to higher rainfall totals in 2017 and 2019.

City of Escondido | Potable Water Demands
Table 3.1b (Source: Escondido and SD LAFCO)

Category	2017	2018	2019	2020	2021	Average	Trend
Annual Total	6.280 bg 19,273 af	7.092 bg 21,766 af	6.249 bg 19,177 af	6.721 bg 20,626 af	6.804 bg 20,881 af	6.629 bg 20,345 af	8.3%
Average Day Total	17.206 mg	19.431 mg	17.120 mg	18.413 mg	18.641 mg	18.162 mg	8.3%
… Per Resident	124.35 g	139.15 g	121.50 g	129.50 g	129.91 g	128.88 g	4.5%
Peak Day Total	27.1 mg	29.8 mg	28.2 mg	30.3 mg	30.1 mg	29.1 mg	(11%)
… Peaking Factor	1.58	1.53	1.65	1.65	1.61	1.60	1.9%

af = acre feet
bg = billion gallons
mg = million gallons
g = gallons

Service Performance

The City of Escondido's potable water system is operating with sufficient and excess capacities in supply, treatment, and storage in accommodating current demands based on usage generated during the five-year addendum period. These capacities are similarly expected to accommodate anticipated demands over the next five-year period with variables – including resiliency during different hydrological periods – having been appropriately evaluated and currently being employed by Escondido in its Urban Water Management Plan, which was updated during the report period in June 2021.

> The City of Escondido has sufficient potable water infrastructure and related capacities to meet current and near-term demands under normal conditions. This statement is highlighted by average demands equaling no more than 19% of the City's accessible supplies under normal conditions.

The following statements summarize and quantify existing and projected relationships between Escondido's capacities and demands now and going forward through 2026. This includes referencing California's Waterworks Standards (Title 22) and its requirements, among other benchmarks, that all public community water systems have sufficient source, treatment, and storage capacities to meet peak day demand system wide. LAFCO's focus

– notably – is premised on assessing demands-to-capacities under normal conditions. It also addresses water quality and rates.

Water Supply:

- The average annual and daily potable water demands generated during the addendum period for the entire distribution system equals 18.0% and 13.0% respectively of Escondido's accessible supply and associated infrastructure capacities under normal periods.

- The average peak-day potable water demand generated during the addendum period for the entire distribution system equals 21.0% of Escondido's accessible supply and associated infrastructure capacities under normal conditions.

Water Treatment:

- The average day potable water demand generated during the addendum period for the entire distribution system represents 30.0% of Escondido's available capacity at the Escondido-Vista WTP.

- The average peak-day potable water demand generated during the addendum period for the entire distribution system represents 48.0% of Escondido's available capacity at the Escondido-Vista WTP.

Water Storage:

- The average peak-day potable water demand generated during the addendum period for the entire distribution system equal 125.0% of Escondido's existing online storage capacity.

- Online storage capacity can accommodate up to 1.28 days of average day demands generated over the addendum period without recharge.

Water Quality:

- A review of records maintained by the State Water Quality Control Board shows there have been no violations issued for drinking water standards to Escondido during the addendum period.

- Escondido's most recent water quality report was issued February 2021 and reports the results of self-monitoring conducted in the final year of the report period, 2020. No excessive primary or secondary contaminants were reported.

Water Rates

- Escondido ratepayers receive two related charges for potable water service: (a) fixed availability and (b) variable usage with the former including pass-throughs from the County Water Authority and Metropolitan Water District. Rates have increased for most customers (single-family) by 24% during the addendum period.

- Escondido's average monthly potable water service charge for single-family customers at the end of the addendum period is $123, which is divided between $47 in fixed and $72 in usage fees with the later based on delivering 10,000 gallons.

3.2 Wastewater Services

Escondido's wastewater service functions date to the early 1920s with the construction of drains – initially uncovered and later covered – in Old Escondido to collect and discharge raw sewage and other runoff into the Escondido Creek and/or its smaller tributaries. The collection system expanded in conjunction with both development and increasing regulatory requirements leading to the construction of Escondido's first facility to provide primary treatment of wastewater before discharge into Escondido Creek in 1959. The current facility – Hale Avenue Resource Recovery Facility (HARRF) – was constructed at the same site in 1965.

The wastewater system comprises three distinct classes – collection, treatment, and discharge – with the former comprising 380 miles of total pipelines and 7,500 manholes at the end of the addendum period. The topography in the collection system ranges from 300 to 1,140 feet above sea level and managed through 11 lift stations and ties to approximately 14 miles of force mains. The collection

> The City of Escondido's wastewater function comprises collection, treatment, and discharge classes with an estimated service population of 142,000 at the end of the five-year addendum period.

system spans most of the City with the exception of the eastern boundary with these development areas remaining on septic. The collection system also spans outside the City to serve a small number of unincorporated properties in the Felicita Avenue and Bear Valley areas. Escondido also receives via a contractual arrangement with the City of San Diego wastewater flows from Rancho Bernardo.

Escondido's total number of active connections to the wastewater system at the end of addendum period is 48,823. Close to 95% are classified as residential (single-family and multi-family). Escondido implemented a reclassification of connections between 2017 and 2018 with the latter marker leading to an overall increase of 731 – otherwise 183 or 1.5% annually – during the last 60 months. LAFCO estimates the wastewater service area population at the end of the addendum period is 142,000.

Service Capacities and Related Capacities

Escondido's wastewater service function is anchored by its treatment facility – HARRF – owned and operated exclusively by the City. HARRF was built in 1965 and most recently updated as part of a $8.1 million capital improvement upgrade – specific to bio-gas co-generation – completed in 2019. The daily design capacity is 18.0 million gallons with 5.5 million gallons allocated to the City of San Diego to receive flows from Rancho Bernardo. In addition to the normal operating design capacity, HARRF is also capable of an instantaneous 36.0 million gallons per day of treatment during wet-periods. Both modes of operation and capacities are recognized in HARRF's operating permit.

> The City of Escondido's daily permitted capacity at HARRF is 18.0 million gallons and involves secondary treated effluent. HARRF is also able to produce up to 9.0 million gallons of tertiary effluent for recycled water use.

HARRF treats all wastewater to a minimum of secondary standards. This involves screening, aeration, and settling procedures to separate solids followed by treating liquids with chemical coagulation and flocculation agents. Ultraviolet light and/or chlorination is used to complete the secondary treatment before most of the effluent is discharged via a 14-mile outfall pipe to the Pacific Ocean. The outfall is owned by the San Elijio Joint Powers Authority with a total daily capacity of 25.5 million gallons with 19.2 million gallons contracted to Escondido. The remaining effluent receives additional treatment at HARRF to tertiary standards for subsequent recycled water

> The City of Escondido's daily discharge capacity at the San Elijio Outfall is 19.2 million gallons.

retailing since 2004. Escondido also now wholesales recycled water to Rincon del Diablo MWD. The amount of recycled water HARRF can produce is 9.0 million gallons daily.[17]

With respect to staff resources, Escondido's wastewater function is directly provided by a division within the City's Utilities Department. Budgeted staffing for wastewater services totals 75.0 fulltime equivalent employees at the end of the addendum period. This amount reflects an overall increase of two fulltime positions over the preceding 60 months. Overall, budgeted staffing dedicated for wastewater services equals 8.0% of the City total in 2021.

Escondido's actual wastewater expenses have increased 11.1% over the report period while actual revenues have increased 8.8%.

With respect to financial resources, Escondido's wastewater services operate as an enterprise fund and intended to be entirely self-supporting through user charges and associated fees. Actual wastewater expenses during the addendum period have averaged $23.4 million with the most recent year amount totaling $25.1 million. Actual expenses overall have increased by 11.1%. The largest actual expense source involves labor and represents 43% of all operating costs during the period. Actual wastewater revenues during the addendum period have averaged $35.5 million with the most recent year amount totaling $37.1 million. Actual revenues have increased overall by 8.8%.

The average single-family residential customer pays the City of Escondido $67 monthly for wastewater services.

Escondido's wastewater rates are billed monthly and divided between a fixed availability fee and a variable usage charge. The fixed fees covers' infrastructure with nearly all ratepayers being charged $25.90 monthly at the end of the addendum period. Variable rates vary among ratepayer classes based on potable water use. Single-family residential ratepayers receive a variable rate equal to $5.14 for every 1,000 gallons of metered water use up to the first 10,000 gallons. Single-family residences consuming 10,000 gallons or more of potable water are billed $67.02 every month for wastewater service. Additional rate information is footnoted.[18] Overall, the monthly wastewater charge for single-family users has increased by 25% over the prior 60 months.

[17] The remaining biosolids generated as part of the treatment process are trucked to Yuima Arizona for reuse as animal feed.
[18] The highest rate applies to meat departments within grocery stores at $15.24 for every 1,000 gallons.

Service Demands

Average annual wastewater demands generated during the five-year addendum period have been approximately 4.71 billion gallons. This amount serves as a macro-overview of system demands and represents a daily average flow of 12.9 million gallons. It also translates over the addendum period to an estimated 0.096 million gallons per active connection. Average daily demands have decreased by 7.0% during the addendum period. It is estimated the portion of average wastewater flow generated from the City of San Diego's Rancho Bernardo area accounts for 24% of the total collected, treated, and discharged by Escondido.

> The average daily wastewater flows generated during the report period in the Escondido service area has been 12.9 million gallons with an overall change (7.0)%.

Supplementary micro measurements of recent wastewater demands are summarized below and further reflected in the proceeding table.

- Average daily dry-weather wastewater flows over the five-year addendum period have been 12.9 million gallons. This flow typically is recorded between May and October and assists in measuring household demands entering the collection system. Daily dry-weather flows tallied 11.9 million gallons at the addendum term and produces a net (10.0%) change during the 60-month period.

- Average daily wet-weather wastewater flows over the five-year addendum period have been 13.1 million gallons. This flow typically is recorded between November and April and assists in measuring the amount of inflow and infiltration entering the collection system. Daily wet-weather flows tallied 12.0 million gallons at the addendum term with an overall increase of (10.0%) during the 60-month period.

- Average daily peak-day wastewater flows over the five-year addendum period have been 25.9 million gallons. This latter amount produces a peak-factor relative to average day demands of 2.0.

City of Escondido
Recent Wastewater Demands
Table 3.2a (Source: City of Escondido)

Year	Average Average Daily Flows	Average Dry-Weather Flows	Average Wet-Weather Flows	Recorded Peak-Day Flows
2017	12.8 mgd	12.4 mgd	13.3 mgd	26.0 mgd
2018	12.4 mgd	12.4 mgd	12.5 mgd	25.0 mgd
2019	14.0 mgd	13.7 mgd	14.2 mgd	27.7 mgd
2020	13.6 mgd	13.8 mgd	13.5 mgd	27.1 mgd
2021	11.9 mgd	11.9 mgd	12.0 mgd	23.8 mgd
Average	12.9 mgd	12.9 mgd	13.1 mgd	25.9 mgd
Trend	(7%)	(4%)	(10%)	(8.5%)

Notes: all in millions of gallons per day (MGD)

Service Performance

Escondido is currently operating with sufficient and excess wastewater capacity in accommodating existing estimated user demands generated during the five-year addendum period under *normal conditions* (emphasis). This statement is substantiated with average day demands during the addendum period equaling 72.0% of the design treatment and discharge capacity at the HARRF. The capacity consumption significantly increases during high-rain periods with an average peak-day flow of 25.9 million gallons, which is 44% above normal capacity during the report period. (The HARRF has the ability to expand daily capacity from 18.0 to 36.0 million gallons during wet months.)

> The City of Escondido's wastewater service is presently operating at 72% of its designed capacity under normal conditions. The system – however – is regularly exceeding its normal capacity with an average peak-day factor of 2.0, which suggest excessive inflow and infiltration is occurring and threatening future and significant spills.

With respect to other performance measurements, the following item is noted.

- A review of the records maintained by the State Water Quality Control Board shows there have been twelve distinct violations issued for discharge permit standards to the City of Escondido during the addendum period. These violations collectively involved 111,909 gallons with 13.2% – or 14,823 gallons – recovered before reaching surface waters.

3.3 Integrated Fire Protection, Emergency Medical, and Ambulance Services

The City of Escondido provides integrated fire protection, emergency medical, and ambulance services within the City as well as a 7,556 acre unincorporated area – with an estimated population of 14,469 – under contract with Rincon del Diablo MWD.[19] The latter arrangement was established in 1984 and extends Escondido's role as a first responder to a total area of 50 square miles or 33,000 acres with a total population at the end of the addendum period being 165,268. Escondido's fire protection services are classified as structural and date to 1914 with the purchase of the City's first fire truck and staffed by an all-volunteer operating company. Services were formalized into a Fire Department in 1924 paired

> The City of Escondido's fire protection services are categorized as structural with several ancillary classes – such as prevention, support services, administration, and disaster preparedness. Emergency medical services are categorized as advanced life support or ALS. Ambulance services are categorized as direct.

[19] Escondido's contract to serve Rincon del Diablo MWD's unincorporated boundary is internally identified as Improvement District E or ID-E. Funding for this contract service area ties to the collection of property tax and a benefit assessment fee originating in ID-E.

with dedicated annual City funding with the latter leading to the first permanent fire station in 1939 in Old Escondido. Full time career firefighters were also budgeted by the 1940s and additional fire stations being gradually built over the next several decades with the support of voter approved measures in 1961 and 2004. Paramedic and ambulance functions were added in 1977 and classified by LAFCO as advance life and direct, respectively.[20] A description of the integrated function's capacities, demands and performances follow.

Service Capacities and Related Resources

The City of Escondido's integrated fire protection, emergency medical, and ambulance services were budgeted with 111 public safety employees at the end of the addendum period. This amount is divided between 93 firefighters and 18 medical personnel (paramedics/EMTs).

Escondido's integrated fire protection, emergency medical, and ambulance functions are primarily dependent on human resources through its own staffing arrangements and headlined by the memorandum of understanding – or MOU – with the Escondido Firefighters' Association. The current MOU expiries in December 2022 and specifies an average 56-hour work week – otherwise known as a traditional "Kelly" – schedule and means public safety employees work a 24-hour shift followed by 24 hours off, alternating for 8 days and followed by either 4 or 6 consecutive full days off resulting in an average of 8 working days in a 24-day work cycle. The entry annual pay for a first-year firefighter/paramedic at Escondido under the MOU is $68,424.

The overall budgeted staffing at the end of the addendum period tallies 121.25 full-time equivalent employees. This amount represents an overall reduction of one position – or (0.8%) – over the prior 60 months. Budgeted staffing is divided between public safety and non-public safety positions with the former consisting of both multi-purpose (firefighters) and single-purpose (paramedics and emergency medical technicians) personnel. Total public safety personnel budgeted at the end of the addendum period equals 111 with the remaining amount – 10.25 positions – involving non-public safety.

[20] The ambulance function is enabled by the County of San Diego's Health and Human Services Agency (HHS), which designates the City as the exclusive transport provider for both the City and the surrounding unincorporated communities within the Rincon Del Diablo MWD.

City of Escondido
Budgeted Staffing: Fire Protection, Emergency Medical + Ambulance
Table 3.3a | Source: City of Escondido

Category	FY 2017	FY 2021	Average	Trend
Public Safety: Fire and Rescue	93.0	93.0	93.0	0.0%
Public Safety Single Role: Paramedics + EMTs	18.0	18.0	18.0	0.0%
Non-Public Safety	10.3	10.3	10.3	(0.0%)
Total	121.3	121.3	121.3	(0.0%)
Per 1,000 Residents*	1.21	1.21	1.21	0.0%

*City of Escondido (150,799 residents) + Rincon MWD ID-E (14,469) = 165,268 residents

The City of Escondido's minimum staffing is three for both fire engines and fire trucks and two for ambulances.

Escondido's Fire Chief Rick Vogt has served in the position for the duration of the addendum period and oversees five divisions. The Operations Division is managed by the Deputy Chief who leads three Battalion Chiefs with the latter collectively tasked with managing seven engine companies equally divided between seven stations. A Division Chief oversees Emergency Medical Services, Health & Safety, and training. All seven stations are continuously staffed by 36 public safety personnel per 24-hour shift. Each fire engine and each ambulance are staffed with at least one paramedic, providing at least two paramedics on every call for medical service. All fire stations or staffed with full-time, cross trained fire/medical personnel, with five stations also staffed with single-role paramedics and EMTs. One fire station houses a ladder truck. The adopted minimum staffing standard for engines is three personnel. The minimum staffing standard for ambulances and ladder trucks is two and four personnel, respectively.

Actual fire protection, emergency medical, and ambulance services for Escondido are delivered out of the City's seven stations dispatched by their joint police-fire emergency communication center.[21] Current station details are as follows.

- Station No. 1 is located adjacent to downtown Escondido at 310 N. Quince Street. It underwent a major remodel in 2009 and typically responds to the highest number of dispatched calls with an average onsite response demand of 10.96 calls per day – or 24% of the daily total demand – during the addendum period. Station No. 1 is assigned 10 public safety personnel every 24-hour period.[22]

[21] Escondido's joint police-fire dispatch center is located at 1163 Centre City Parkway and part of a common administrative headquarters for public safety. The facility opened in 2010.

[22] Station No. 1 operates a Shift Battalion Chief, a Type-1 paramedic engine, a Truck company, a Rescue ambulance, and cross-staffs a Type 6 brush patrol staffed with a battalion chief, 2 captains, 2 engineers, 4 firefighter-paramedics, and one single-role paramedic/EMT.

- Station No. 2 is in east Escondido at 421 North Midway. It underwent a major remodel in 1995 and typically responds to the 3rd highest number of dispatched calls, with an average onsite response demand of 8.31 calls per day – or 18% of the daily total demand – during the addendum period. Station No. 2 is assigned five public safety personnel every 24-hour period.[23]

- Station No. 3 is located in north Escondido at 1808 Nutmeg Street. It was built in 2008 and typically responds to the 4th highest number of dispatched calls, with an average onsite response demand of 5.1 calls per day – or 11% of the daily total demand – during the addendum period. Station No. 3 is assigned five public safety personnel every 24-hour period.[24]

- Station No. 4 is located in southeast Escondido adjacent to Kit Carson Park at 3301 Bear Valley Parkway. It underwent a significant renovation in 2012 and typically responds to the 7th highest number of dispatched calls, with an average onsite response demand of 2.6 calls per day – or 6% of the daily total demand – during the addendum period. Station No. 4 is assigned three public safety personnel every 24-hour period.[25]

- Station No. 5 is located in southwest Escondido at 2319 Felicita Boulevard. It was built in 1984 and typically responds to the 6th highest number of dispatched calls with an average onsite response demand of 3.79 calls per day – or 8% of the daily total demand – during the addendum period. Station No. 5 is assigned five public safety personnel every 24-hour period.[26]

- Station No. 6 is located in west Escondido at 1735 Del Dios Road. It was built in 2008 and typically responds to the 5th highest number of dispatched calls, with an average onsite response demand of 3.86 calls per day – or 8% of the daily total demand – during the addendum period. Station No. 6 is assigned three public safety personnel every 24-hour period.[27]

[23] Station No. 2 operates a Type-1 paramedic engine and a Rescue ambulance, and cross-staffs a Type 6 brush patrol staffed with a captain, engineer, two firefighter-paramedics and a single-role Paramedic/EMT.
[24] Station No. 3 operates a Type 1 paramedic engine, a Rescue ambulance, and cross-staffs a Type 3 brush fire engine with a captain, engineer, two firefighter-paramedics, and a single-role Paramedic/EMT.
[25] Station No. 4 operates a Type 1 paramedic engine and cross-staffs a Type 3 brushfire engine, and is staffed with a captain, engineer, and one firefighter-paramedic.
[26] Station No. 5 operates a Type 1 paramedic engine, a Rescue ambulance, and cross-staffs a Type 3 brush fire engine with a captain, engineer, two firefighter-paramedics, and a single-role Paramedic/EMT.
[27] Station No. 6 operates a Type 1 paramedic engine and cross-staffs a Type 3 brushfire engine, and is staffed with a captain, engineer and one firefighter-paramedic.

- Station No. 7 is located in northeast Escondido at 1220 North Ash Street. It was built in 2008 and typically responds to the 2nd highest number of dispatched calls with an average onsite response demand of 9.09 calls per day – or 20% of the daily total demand – during the addendum period. Station No. 7 is assigned five public safety personnel every 24-hour period.[28]

Specific to the placement of ambulance resources, Escondido operates five ALS ambulances on a 24-hour basis each staffed with one Firefighter/paramedic and one single role Paramedic/EMT.[29] Ambulance services are delivered out of Stations No. 1, 2, 3, 5 and 7. The following table summarizes station staffing and fleet vehicle assignments.

Escondido Fire Department
Fire Stations' Assignments as of FY2021
Table 3.3b (Source: City of Escondido)

Factor	Station 1 Quince	Station 2 Midway	Station 3 Nutmeg	Station 4 Bear Valley	Station 5 Felicita	Station 6 Del Dios	Station 7 N. Ash	Total
24 hr. Staffing	10	5	5	3	5	3	5	36
Fire Engines	3	2	1	1	1	1	1	10
Ambulance	2	2	1	0	1	1	2	9
Brush Engines	1	1	1	1	1	1	0	6
Truck Company	2	0	0	0	0	0	0	2
Command Vehicles	2	1	0	1	0	0	0	4
Other Fleet Vehicles	3	0	1	0	0	0	0	4

Note: Apparatus totals include front line and reserve amounts.

Escondido also supplements its own fire protection and emergency medical service resources by maintaining reciprocal automatic aid agreements with surrounding jurisdictions. Escondido is signatory to the San Diego North Zone Auto Aid Agreement and also has an Auto Aid Agreement with the City of San Diego. All agencies in these agreements provide fire and emergency medical services response based on which unit is closest or upon request, including processing time. In addition, Escondido, CAL FIRE and several other local agencies have signed a Wildland Fire Mutual Threat Zone Agreement. Additional details on the volume of automatic aid agreement transactions during the five-year report period are provided in the proceeding section on demands.

[28] Station No. 7 operates a Type 1 paramedic engine and a Rescue ambulance and is staffed with a captain, engineer, two firefighter-paramedics, and a single-role Paramedic/EMT.

[29] Advance Life Support (ALS) is a higher level of emergency care procedures that may include defibrillation, airway management and invasive techniques such as IV therapy, intubation and/ or drug administration.

With respect to financial resources, Escondido's integrated fire protection, emergency medical, and ambulance services largely operate as a non-enterprise and supported by the General Fund. The average actual expense for the integrated function during the addendum period has been $25.153 million and accounts for 24.7% of all General Fund expenses during the addendum period. Actual expenses have increased over the 60-months by 17.1%.

The City of Escondido's integrated fire protection, emergency medical, and ambulance services are supported through the General Fund. Actual expenses during the addendum period have increased by 17.1% and slightly under the overall increase in General Fund revenues (property taxes, sales tax, etc.) at 17.8%.

Ambulance service and transport service revenue goes into the General Fund and has increased during the addendum period from $5.636 to $6.724 million – or 19.3%.[30]

Service Demands

Overall service demands for integrated fire protection, emergency medical, and ambulance services for the City of Escondido during the five-year addendum period have averaged 16,153 dispatched calls annually or 44.25 daily. Approximately 4.5% of all dispatched calls assigned to Escondido were canceled and resulted in onsite arrivals averaging 15,424 annually or 42.25 daily. Overall, annual onsite incident demands increased modestly during the 60 months with an overall change of 1.7%.[31] The peak demand for onsite incidents was recorded at the beginning of the period with a daily onsite response of 44 calls per day.

Actual onsite demands on the City of Escondido have averaged 42.25 per day over the addendum period with a modest overall increase of 1.7%.

A breakdown of actual onsite arrivals shows Escondido responded to 98.1% of all fire protection and emergency medical incidents during the abbreviated report period within its jurisdictional boundary.[32] The following table summarizes annual calls and onsite arrivals – including agency responders – as well as trends during the abbreviated report period.

[30] The City of Escondido notes budgeted revenue from the contract with the Rincon Del Diablo Fire Protection District increased during the addendum period from $2.02 to $2.37 million or 17%. These two major revenue sources, along with other fees and revenue, offset the impact to the general fund.
[31] The City of Escondido notes 2020 was an anomaly. Virtually all emergency services providers experienced a dramatic decrease that year due to the COVID-19 pandemic. The 10-year increase in onsite demands for service was 30%.
[32] With data provided from several dispatch agencies, unable to differentiate between auto aid responses with one Escondido resource arriving at scene against those handled exclusively by auto aid resources.

City of Escondido
Fire Protection and EMS Demands
Table 3.3c | Source: City of Escondido

Category	FY2017	FY2018	FY2019	FY2020	FY2021	Average	Trend
Total Dispatched Incidents	16,646	15,951	15,966	15,267	16,934	16,153	1.73%
Total Cancelled Calls	573	595	779	754	945	729	27.23%
Total Onsite Responses	16,073	15,356	15,187	14,513	15,989	15,424	1.73%
- Responded by Escondido	15,660	15,047	14,955	14,265	15,648	15,115	-0.08%
- Responded by Escondido + Others	n/a	n/a	n/a	n/a	n/a	n/a	n/a
- Responded by Other Agencies Only	n/a	n/a	n/a	n/a	n/a	n/a	n/a
- % Automatic Aid Received	2.48%	1.94%	1.40%	1.62%	2.01%	1.89%	-18.95%
- % Automatic Aid Provided	1.89%	1.72%	1.38%	1.95%	2.08%	1.80%	10.05%

Only 308 – or 1.9% – of all onsite incidents within the City of Escondido during the report period necessitated auto-aid from outside agencies and represents a 19.0% decrease during the reporting period. Comparatively, Escondido provided an amount of auto-aid equal to 1.8% of all assigned incidents and represents a 10% increase.

With respect to the portion of demands necessitating transport to area hospitals, the City of Escondido averaged 10,810 ambulance trips per year during the abbreviated report period. This amount produces a daily average of 29.62 total onsite trips with an overall decrease of one-tenth or – 10.57%.[33] Nearly 99.4% of all ambulance transports were in Escondido's jurisdictional boundary. The trend of ambulance demands – in the jurisdictional boundary – have also decreased by one-tenth or 10.9%.

Over the report period actual onsite demands for ambulance transport for the City of Escondido have averaged 29.62 daily and decreased by 10.57%.

City of Escondido
Ambulance Transport Demands Only
Table 3.3d | Source: Wittman Enterprises

Year	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Average	Trend
Total Dispatched Incidents	13,352	12,708	12,575	11,883	13,326	12,769	-0.19%
Total Ambulance Calls-No Transport	1,647	1,531	1,671	2,088	2,858	1959	7.40%
Total Onsite Incidents	11,705	11,177	10,904	9,795	10,468	10,810	-10.57%
...Within Jurisdictional Boundary	11,656	11,112	10,828	9,733	10,385	10,743	-10.90%
... Outside Jurisdictional Boundary	49	82	76	62	83	70	23.72%

[33] The City of Escondido notes the 10-year perspective indicates an upward trend of 14.7%

Service Performance

City of Escondido's capacities as measured by staffing and equipment appear sufficiently sized to readily accommodate existing demands within its jurisdictional boundary through the timeframe of this report.[34] This sufficiency is quantified with Escondido having the resources to respond to 98.1% of all onsite incidents within its jurisdictional boundary during the five-year reporting period. This sufficiently is similarly quantified by the City's low dependency on outside agencies during the report period with only 1.9% of onsite incidents necessitating assistance from outside agencies. Other key performance measurements follow:

> Key measurements generated over the abbreviated reporting period show City of Escondido has sufficient resources to meet current and near term demands and headlined by a low dependency on outside agencies to meet onsite incidences.

- Escondido's most recent evaluation of structural fire protection capabilities from the Insurance Services Office (ISO) was completed in 2019 and resulted in a Class 2/2X rating for the City. This rating is considered admirable for an incorporated city that also protects a large unincorporated semi-rural area, and above the current average 4/4x rating among the 890 fire agencies in California reviewed by ISO.[35]
- The 2012 General Plan identifies the following Quality of Life standard for providing fire protection services as it pertains to response time:

In urbanized areas of the city, an initial response time of seven and one-half (7½) minutes for all structure fire and emergency Paramedic Assessment Unit (PAU) calls and a maximum response time of ten (10) minutes for supporting companies shall be maintained. A minimum of seven (7) total fire stations each staffed with a PAU engine company shall be in place prior to General Plan build-out. For outlying areas beyond a five (5) minute travel time or further than three (3) miles from the nearest fire station, all new structures shall be protected by fire sprinkler systems or an equivalent system as approved by the Fire Chief. […] The Fire Department intends to meet these times for no less than 90 percent of all emergency responses by engine companies.

Per the California Residential Code, State fire sprinkler system requirements have been updated. Overall staffing levels are derived from the above Quality of Life Standard and the expectations of the community.

[34] The City of Escondido notes emergency incident demand is only one of several factors that determine if the capability of the fire department is sufficient for existing and future demands. Unit hour utilization extended off load delays and additional horizontal and vertical travel time due to various kinds of development can reduce emergency responder availability and increase response times. In addition, rising demands on staff time due to training, maintenance, public education, pre-incident planning and inspections may require additional resources.

[35] The ISO classifications are ranked between 1 and 10 and designed to evaluate a fire service provider's ability to protect local communities based on uniform measurements. Fire departments use the data to help measure the effectiveness of their fire-protection services while insurance companies use it when establishing premiums for fire insurance. A Class 1 rating generally represents superior property fire protection and can lower the price of insurance within a community.

City of Escondido: Response Standards		
First Due Resource	Supporting Resources	
7.5 minutes 88% compliance[36]	10 minutes n/a% compliance	

4.0 FINANCES

4.1 Budget Information

The City of Escondido's total adopted budget at the end of the addendum period (2020-2021) totaled $418.8 million. This amount is divided between operating and capital funds with the former totaling $204.6 million – or 48.9% of the sum – and covered anticipated day-to-day costs of providing municipal service functions and ancillary support activities via the General and Enterprise Funds. The General Fund is the principal funding source via tax collection for most public-facing services and budgeted at $107.6 million with two-thirds dedicated to public safety (police and fire). The Enterprise Fund separately ties to self-supporting activities – namely water and wastewater – via user charges and fees and accounts for the remaining $89.0 million in budgeted operating funds at the end of the addendum period. Additional details on the capital fund is footnoted.[37]

The City of Escondido's total adopted budget at the end of the addendum period tallied $418.8 million and divided between operating and capital funds. Escondido's budgeted operating costs totaled $204.6 million – or 49% of the sum – and has increased by 11% over the five-year addendum period. Conversely, adopted operating revenues have decreased by (7%).

City of Escondido
Operating Budget: Expenses
Table 4.1a (Source: City of Escondido Adopted Operating Budgets, FY17 to FY21)

Category	2016-2017 Budgeted	2017-2018 Budgeted	2018-2019 Budgeted	2019-2020 Budgeted	2020-2021 Budgeted	Average	Trend
General Fund	92,644,125	98,683,295	102,630,230	106,803,545	107,596,800	101,671,599	16.14%
Special Revenue Funds	6,372,130	3,635,410	3,715,460	3,515,730	2,937,190	4,035,184	(53.91%)
Trust Funds	978,400	746,150	368,775	250,000	-	468,665	(100.00%)
Debt Funds	4,430,600	5,103,900	5,118,845	5,126,120	5,122,950	4,980,483	15.63%
Enterprise Funds	79,952,690	81,375,190	83,327,745	86,834,920	88,969,430	84,091,995	11.28%
Total	**184,377,945**	**189,543,945**	**195,161,055**	**202,530,315**	**204,626,370**	**195,247,926**	**10.98**
Expenses Per 1,000 Residents	**1,244,362.24**	**1,273,579.52**	**1,305,557.70**	**1,348,925.93**	**1,356,947.79**	**1,305,874.64**	**9.05%**

[36] The City of Escondido notes a Standards of Cover Study is planned to determine the factors affecting the recent trend of reduced response time standard compliance.

[37] At the end of the addendum period (FY21/22) the City projected funding approximately $67.0 million in improvements from the Capital Improvement Program (CIP) fund and directed toward ongoing street projects, including the Citracado Extension Project, and utility infrastructure as well as the ongoing construction of the Recycled Water Easterly Main Tank and Extension and the undergrounding for San Pasqual through the Escondido Canal.

City of Escondido
Operating Budget: Revenues
Table 4.1b (Source: City of Escondido Adopted Operating Budgets, FY17 to FY21)

Category	2016-2017 Budgeted	2017-2018 Budgeted	2018-2019 Budgeted	2019-2020 Budgeted	2020-2021 Budgeted	Average	Trend
General Fund	91,416,000	97,295,015	101,109,750	105,388,885	102,504,630	99,542,856	12.13%
Special Revenue Funds	11,210,415	13,818,350	15,847,335	12,612,135	11,275,110	12,952,669	0.58%
Trust Funds	22,445,760	7,063,650	12,199,905	3,672,575	6,750,020	10,426,382	(69.93%)
Debt Funds	4,430,600	4,735,050	4,752,050	4,760,425	4,759,680	4,687,561	7.43%
Enterprise Funds	141,434,660	149,048,525	118,274,000	144,181,650	126,822,630	135,952,293	(10.33%)
Total	**270,937,435**	**271,960,590**	**252,183,040**	**270,615,670**	**252,112,070**	**263,561,761**	**(6.95%)**
Expenses Per 1,000 Residents	1,828,550.12	1,827,351.63	1,687,014.39	1,802,399.29	1,671,841.79	1,763,431	(8.57%)

A closer review of the General Fund and its use shows actual expenses over the addendum period have increased by 17.8% with rises in each one of the five years covered. The overall average expense has been $101.6 million with the ending period amount tallying $110.0 million. The overall change in actual expenses within the General Fund is largely attributed and closely tracks with fire and police costs with these public safety departments expanding by 17.1 % and 16.3%, respectively. The overall General Fund expense per capita has relatedly increased from $1.2 million to $1.4 million.

> Actual expenses in the General Fund have increased 18% with public safety costs pacing the change by rising by one-third over the addendum period.

Actual revenues within the General Fund during the addendum period have increased by 14.0%. The overall average revenue has been $101.9 million with the ending period tally of $105.0 million. Sales taxes serve as the single largest revenue source for Escondido and accounts for 37.6% of the total amount at the end of the period. The next largest revenue source involves property taxes and equals 28.6% of the ending total. The overall General Fund revenue per capita has relatedly increased from $1.4 million to $1.7 million.

> Actual revenues in the General Fund have increased 14% during the addendum period. Sales and property taxes account for two-thirds of all revenues with the latter having increased by 20% over the prior 60-months.

A summary of recent actual General Fund expenses and revenues follows.

City of Escondido
Actual General Fund Expenses v. Revenues
Table 4.1c (Source: City of Escondido Adopted Operating Budgets, FY17 to FY21)

Category	2016-2017 Actual	2017-2018 Actual	2018-2019 Actual	2019-2020 Actual	2020-2021 Actual	Average	Trend
Expenses	93,392,761	98,392,359	101,378,420	105,006,417	110,010,900	101,636,171	17.79%
Revenues	92,092,238	102,284,401	102,460,655	107,575,867	104,995,660	101,881,762	14.01%
Expenses Per 1,000 Residents	1,230,368.42	1,283,203.62	1,284,503.62	1,321,916.57	1,373,310.70	**1,298,660.59**	**11.62%**
Revenues Per 1,000 Residents	1,430,268.49	1,570,968.15	1,500,027.63	1,537,743.84	1,688,360.67	**1,545,473.75**	**18.05%**

With respect to budget management, Escondido maintains a reserve policy to maintain a balance within the General Fund equal to no less than 25% of its annual operating revenues. This policy requirement was established in 2015 for the stated purpose to protect against risks, unforeseen capital needs, and/or cash flow requirements. Escondido's spendable and unrestricted General Fund balance at the end of the addendum period totaled $33.4 million and above the minimum policy reserve requirement of $25.6 million based on average budgeted operating revenues. However, the final year of the addendum period is the only year where Escondido satisfied the minimum General Fund balance requirement. Overall, the ending General Fund balance tallied $24.0 million compared to the average minimum reserve requirement of $24.9 million and produces an overall period shortfall of (3.8%).

The City of Escondido is directed by policy to maintain a 25% reserve balance within the General Fund. Escondido did not meet this reserve threshold in four of the five years comprising the addendum period.

City of Escondido
General Fund Balance v. Reserve Policy
Table 4.1d (Source: City of Escondido Audited Financial Statements, FY17 to FY21)

Category	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	Average	Trend
Unrestricted Balance - Committed - Assigned - Unassigned	21,175,350	21,994,712	21,578,643	21,651,574	33,418,692	23,963,794	57.82%
25% Policy Requirement	22,854,000	24,323,754	25,277,438	26,347,221	25,626,158	24,885,714	12.13%
Outcome	☑	☑	☑	☑	☑	☑	

4.2 Financial Statements

City of Escondido contracts with an outside accounting firm to prepare an annual report to review the City's financial statements in accordance with established governmental accounting standards. This includes auditing Escondido's statements with respect to verifying overall assets, liabilities, and net position. These audited statements provide quantitative measurements in assessing the City of Escondido's short and long-term fiscal health with specific focus on delivering its activated service functions. The current outside consultant is The Pun Group LLP (San Diego). The City was awarded a Certificate in Achievement for Excellence in Financial Reporting for Fiscal Years 2017, 2018, 2019, and 2020.

City of Escondido's most recent financial statements for the five-year addendum period were issued for 2020-2021.[38] These statements show Escondido experienced a marked improvement over the prior fiscal year as the overall net position (regular accrual basis) increased by 7.7% from $439.5 million to $473.4 million for reasons addressed in the proceeding sections. Adjusting the net position to exclude long term retiree obligations consistent with pre GASB 68 (2015) and 75 (2017) standards changes the ending net position to $702.0 million.[39] The accompanying auditor's report did not identify any material weaknesses or related accounting concerns. A detailing of year-end totals and trends during the five-year addendum period follows with respect to assets, liabilities, and net position.

Most Recent Year-Ending Financial Statements (2020-2021)	
Assets	970.178,392
Liabilities	535,293,254
Deferred Outflow/Inflow	(1,415,031)
Net Position	$473,419,502
Adjusted Net Position (less retiree liabilities)	$701,988,900

Agency Assets

City of Escondido's audited assets at the end of 2020-2021 totaled $970.2 million. This amount is 3.6% higher than the average year-end amount of $898.6 million documented during the five-year addendum period and reflects an overall upward direction. Assets classified as current with the expectation they could be liquidated within a year represented more than one-third of the total amount – or $356.1 million – and primarily tied to cash and investments with $74.969 million invested in the Local Agency Investment Fund or LAIF. Assets classified as non-current and not readily liquid make up the remainder of the total amount – or $614.1 million – and primarily tied to depreciable capital assets with three-fifths associated with the water and wastewater systems. Overall assets for Escondido have increased by 14.5%.

> The City of Escondido's assets increased by 15% during the addendum period from $847.4 to $970.2 million. Increases in current assets – and specifically involving cash investments – underlie the change over the 60-month period.

City of Escondido
Audited Assets
Table 4.2a (Source: City of Escondido Financial Statements, FY17 to FY21)

Category	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	Average	Trend
Current	261,945,685	267,600,628	274,328,377	329,150,277	356,114,911	297,827,976	35.95%
Non-Current	585,440,659	597,600,160	599,829,600	607,012,786	614,063,481	600,063,337	4.89%
	847,386,344	865,200,788	874,157,977	936,163,063	970,178,392	**898,617,313**	**14.49%**

[38] The audit for 2020-2021 was issued by The Pun Group LLP on December 27, 2021.
[39] The adjustment to the net position was performed by LAFCO.

Agency Liabilities

City of Escondido's audited liabilities at the end of 2020-2021 totaled $535.3 million. This amount is 1.0% higher than the average year-end amount of $508.2 million documented during the five-year addendum period. Liabilities classified as current and representing obligations owed within the year accounted for just one-tenth of the amount and primarily tied to payments on long-term debt due over the following year.[40] Liabilities classified as non-current and considered long-term obligations make up the remainder and bulk of the total amount with the majority tied to employee pension commitments. Overall liabilities for Escondido have increased by 11.9%.

The City of Escondido's liabilities increased by 12% during the addendum period from $478.6 to $535.3 million. A 20% increase in long term pension obligations underlies the overall increase during the 60-month period.

City of Escondido
Audited Liabilities
Table 4.2b (Source: City of Escondido Financial Statements, FY17 to FY21)

Category	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	Average	Trend
Current	36,387,258	43,846,520	39,532,821	55,958,419	56,736,428	46,492,289	55.92%
Non-Current	442,189,230	464,523,185	449,239,873	473,875,822	478,556,826	461,676,987	8.22%
	478,576,488	508,369,705	488,772,694	529,834,241	535,293,254	**508,169,276**	**11.85%**

Net Position

City of Escondido's audited net position or equity at the end of 2020-2021 totaled $473.4 million and represents the difference between the City's total assets and total liabilities along with adjusting for deferred resources (i.e., pension outflows and inflows). This most recent year-end amount is 7.7% more than the average year-end sum of $435.7 million documented during the five-year addendum period with 88.7% – or $419.8 million – of the total tied to capital assets. The remainder is comprised of restricted and unrestricted designations with the latter showing a negative balance – ($108.8 million) – in conjunction with booking actuarial retiree obligations as further detailed. Overall, the net position increased by $55.5 million or 13.29% over the corresponding 60-month period.

The City of Escondido's net position has increased over the addendum period by $55.5 million from $417.9 to $473.4 million; a difference of 7.7%

[40] Most of the long-term debt for Escondido at the end of the addendum period not related to retiree obligations involves the balance of $127.0 million in various water and wastewater revenue bonds issued between 2012 and 2019.

Adjusting the net position to exclude the City of Escondido's actuarial accrued retiree obligations consistent with pre GASB 68 and 75 reporting requirements the total balance increases over the addendum period by 18.89% to $702.0 million.

City of Escondido
Audited Net Position
Table 4.2c (Source: City of Escondido Financial Statements, FY17 to FY21)

Category	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	Trend	Average
Capital Assets	407,352,999	402,757,142	414,576,866	406,507,355	419,792,940	3.05%	410,197,460
Restricted	100,550,008	108,493,998	116,613,186	140,354,200	162,425,163	61.54%	125,687,311
Unrestricted	(90,027,532)	(90,898,130)	(103,767,979)	(107,394,810)	(108,798,601)	20.85%	(100,177,810)
Total	**417,875,475**	**420,353,010**	**427,422,073**	**439,466,745**	**473,419,502**	**13.29%**	**$435,706,961**
Adjusted…	**590,471,399**	**608,755,924**	**626,883,448**	**660,612,531**	**701,988,900**	**18.89%**	**637,742,440**

"Adjusted" excludes GASB 68 and 75 reporting requirements to book actuarial accrued pension and other post-employment costs.

The unrestricted portion of the City of Escondido's net position as of the last audited fiscal year totaled ($108.8 million) and represents the actuarial accrued spendable portion of the fund balance. The adjusted amount less long-term employee obligations is $119.8 million and equals 7.0 months of City operating expenses based on actuals at the end of the report period.

> The unrestricted fund balance less projected retiree liabilities at the end of the report period is sufficient to cover 7.0 months of operating expenses.

4.3 Measurements | Liquidity, Capital, Margin and Asset Management

LAFCO's review of the audited financial statements issued by City of Escondido covering the five-year addendum period shows the City experienced mixed results within the four measurement categories – liquidity, capital, margin, and asset management – utilized in this document. Some improvements also appear to have contributed to the decline in other measurements. An example of this latter sentiment involves the overall improvement in liquidity with Escondido's short-term cash resources increasing during the period while asset management declined with the deferral of capital improvements. The topic of mixed results also applies within a single measurement category and shown with Escondido's overall margins (total and operating) improving while creating disruption in the General Fund.

> Standard measurements used to assess the City of Escondido's financial standing shows the City experienced a mix of positive and negative trends and reflects an overall uncertainty in fiscal health during the addendum period.

With respect to measurements at the end of the addendum period, liquidity levels via Escondido's current, quick, and cash ratios signal the City has sufficient cash resources to meet near-term obligations. Escondido's ability to meet longer terms debts, however, is less certain given capital levels are strained with already high debt levels. Escondido also finished the addendum period with a high percent of accumulated depreciation with more than two-thirds of its capital assets nearing the end of their useful life. A summary of liquidity, capital, margin, and asset management ratios follow.

The City of Escondido finished with high debt and accumulated depreciation levels.

City of Escondido
Financial Measurements
Table 4.3a (Source: San Diego LAFCO)

Measurement	2017	2018	2019	2020	2021	Average	Status
Liquidity							
… Current Ratio	7.2 to 1	6.1 to 1	6.9 to 1	5.9 to 1	6.3 to 1	6.5 to 1	→
… Cash Ratio	3.3 to 1	3.3 to 1	3.8 to 1	3.1 to 1	3.7 to 1	3.7 to 1	→
… Days' Cash	257	285	293	328	375	308	→
Capital							
… Debt to Net Position	105.8%	110.5%	105.1%	107.8%	101.1%	106.1%	→
… Debt Ratio	56.5%	58.8%	55.9%	56.6%	55.2%	56.6%	→
… Cash Flow to Total Debt	6.9%	4.0%	5.1%	3.9%	9.4%	5.9%	→
Margin							
… Total	8.1%	1.9%	4.3%	2.5%	12.5%	5.9%	→
… Operating	3.2%	6.9%	6.6%	4.3%	11.4%	6.5%	→
… Total within General Fund	(2.4%)	(0.2%)	1.5%	(0.7%)	13.9%	2.4%	→
… Operating within General Fund	(3.1%)	(4.0%)	(3.6%)	(7.3%)	4.8%	(2.6%)	→
Asset Management							
… Accumulated Depreciation to Capital Assets	64.2%	66.1%	66.5%	67.7%	68.9%	66.7%	→
… Accounting Age of Capital Assets (years)	24.4	26.1	28.2	29.8	26.6	27.0%	→

4.4 Pension Obligations

City of Escondido provides a defined benefit plan to its employees through an investment risk-pool contract with the California Public Employees Retirement System (CalPERS). This pension contract provides employees with specified retirement benefits based on the date of hire and placement in two categories: "miscellaneous," and "safety." Additional pension details based on actuarial valuations issued by CalPERS during the five-year report period with respect to formulas, enrollees, contributions, and funded status follows.

Pension Enrollees and Benefit Types

Escondido finished the with 2,770 enrollees within its pension program with CalPERS as of 2019-2020; an increase of 12% over the prior 60-months. The active-to-retiree employee ratio in 2019-2020 ratio is 1.5.

The last annual valuation issued during the five-year report period was in 2019-2020 and identified 2,770 total participants within Escondido's pension program with CalPERS. This total represents an overall increase of 299 enrollees during an amended addendum period dating back to 2015-2016. The total is also divided between enrollee type (i.e., active, separated, transferred, and retired) and produces an active-to-retiree employee ratio of 1.5 to 1.0. This ratio has decreased over the amended addendum period by 10.3% and on pace to fall below the 1.0-1.0 threshold by 2041.

City of Escondido
Pension Enrollee Information
Table 4.4a (Source: CalPERS and SD LAFCO)

Type	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	Trend
Active	1,554	1,597	1,602	1,616	1,671	(2.52%)
Retiree	917	944	1,003	1,057	1,099	19.85%
Total Enrollees	2,471	2,541	2,605	2,673	2,770	12.10%
Active to Non-Active	1.69 to 1.0	1.69 to 1.0	1.60 to 1.0	1.53 to 1.0	1.52 to 1.0	(10.28%)

Escondido experienced nearly a one-fifth increase in retirees during the amended addendum period between 2015-2016 and 2019-2020.

Miscellaneous employees make up 74.6% of total pension enrollees at the end of the amended addendum period. These employees are divided into three tiers for purposes of defining pension compensation. Tier 1 applies to employees hired before December 23, 2012 and involves a benefit formula of 3% at 60. Tier 2 applies to employees hired thereafter through December 31, 2012 and involves a benefit formula of 2% at 60. Tier 3 applies to new hires beginning January 1, 2013 and involves a benefit formula of 2% at 62.

- Tier 1 miscellaneous employees with 25 years of service that retire at 60 with a three-year high salary total of $85,000 will receive an annual pension of $63,750.

- Tier 3 miscellaneous employees with 25 years of service that retire at 62 with a three-year high salary total of $85,000 will receive an annual pension of $42,500.

Safety employees make up the remaining 25.4% of total pension enrollees at the end of the amended addendum period. These employees are also divided into three tiers for purposes of defining pension compensation. Tier 1 applies to employees hired before May 27, 2012

and involves a benefit formula of 3% at 50. Tier 2 applies to employees hired thereafter through December 31, 2012 and involves a benefit formula of 2% at 50. Tier 3 applies to new hires beginning January 1, 2013 and involves a benefit formula of 2.7% at 57.

- Tier 1 safety employees with 25 years of service that retire at 50 with a three-year high salary total of $100,000 will receive an annual pension of $75,000.

- Tier 3 safety employees with 25 years of service that retire at 57 with a three-year high salary total of $100,000 will receive an annual pension of $67,500.

Annual Contributions

The City of Escondido's total annual pension contribution at the end of the amended addendum period in 2019-2020 tallied $14.7 million. This latest contribution amount equals 39.0% of the citywide payroll total. The most recent contribution amount also reflects an increase of 45.3% over the prior 60-month period.

City of Escondido's annual employer pension contribution has increased by 45% – or 9% per year on average – during the amended addendum period.

City of Escondido
Annual Pension Contributions
Table 4.4b (Source: City of Escondido and SD LAFCO)

Category	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	Trend
Total Contribution	10,112,303	11,179,205	11,929,230	13,300,378	14,696,078	45.3%
Percent of Payroll	29.0%	30.1%	31.9%	35.3%	39.0%	34.4%

Funding Status

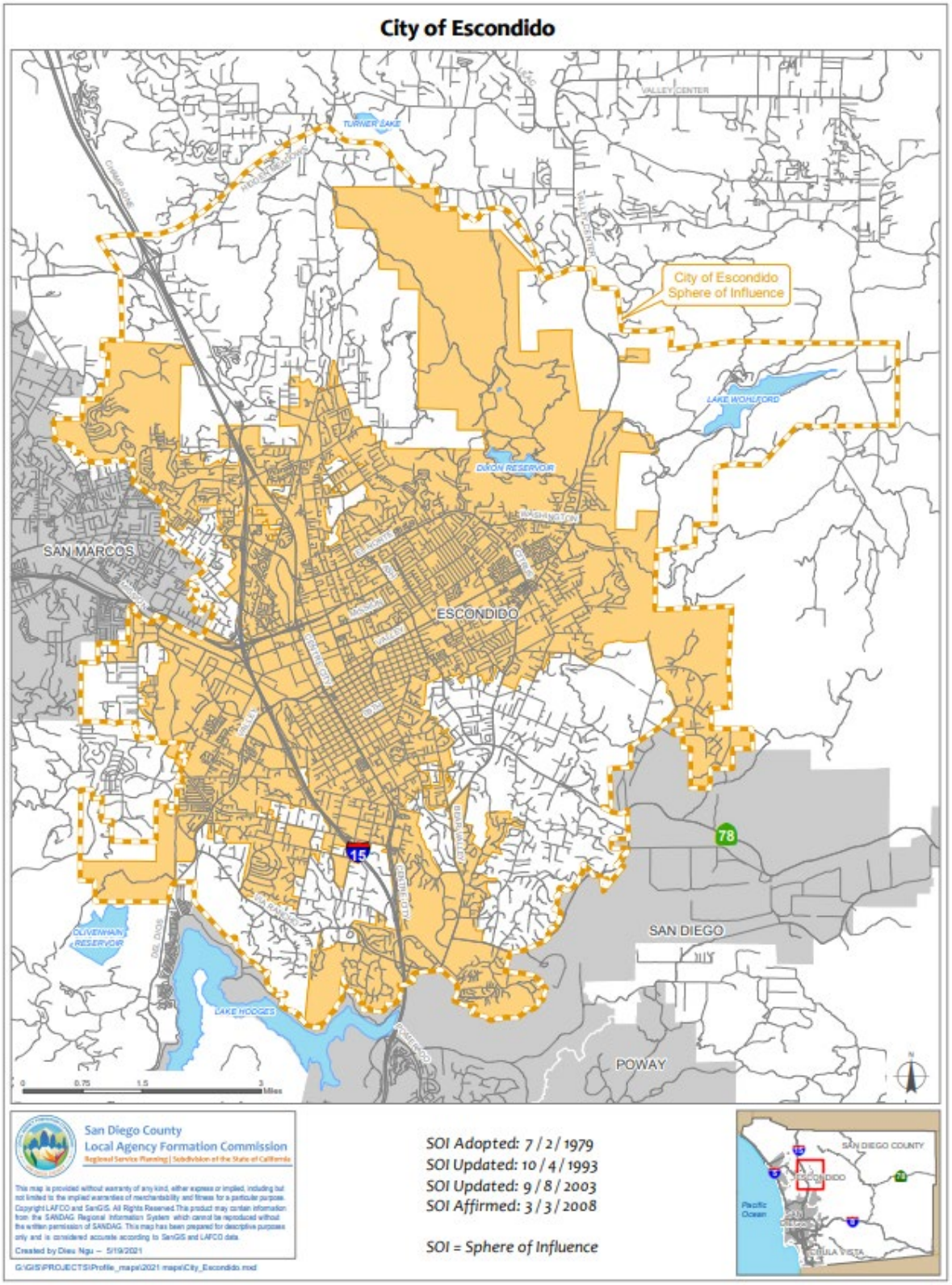
The City of Escondido's total and composite unfunded liability in the most recent valuation issued at the end of the amended addendum period in 2019-2020 totaled ($331.2 million). This amount reflects the accrued pension monies owned to all employees and not covered by assets and translates to a composite funded ratio of 68.4% based on market value.

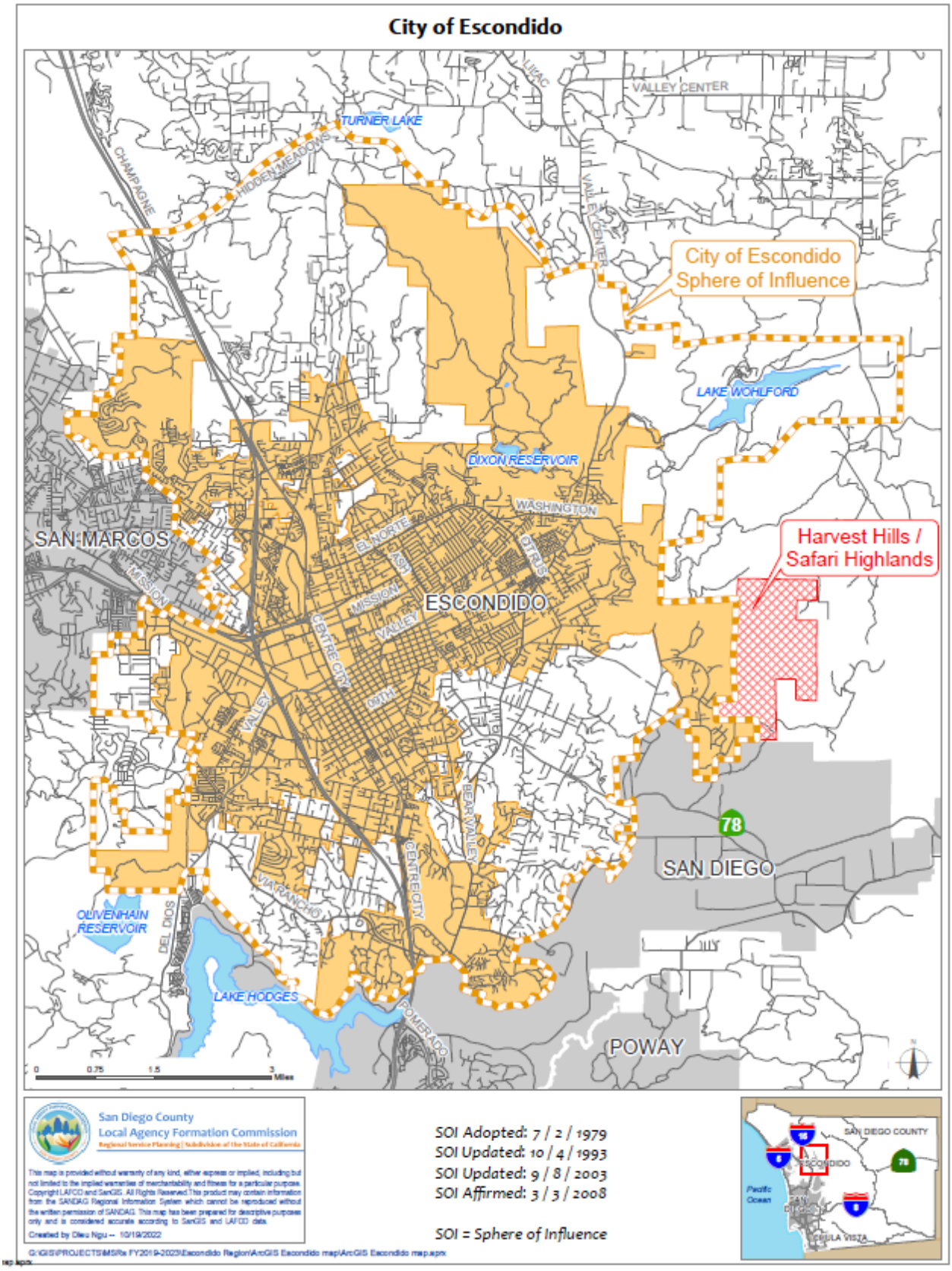
Escondido's combined funded ratio as of the last annual valuation is 68.4%. This ratio has slightly increased over the prior 60-month period and underlies an unfunded liability $331.2 million.

City of Escondido
Composite Pension Funding Status
Table 4.4c (Source: CalPERS and SD LAFCO)

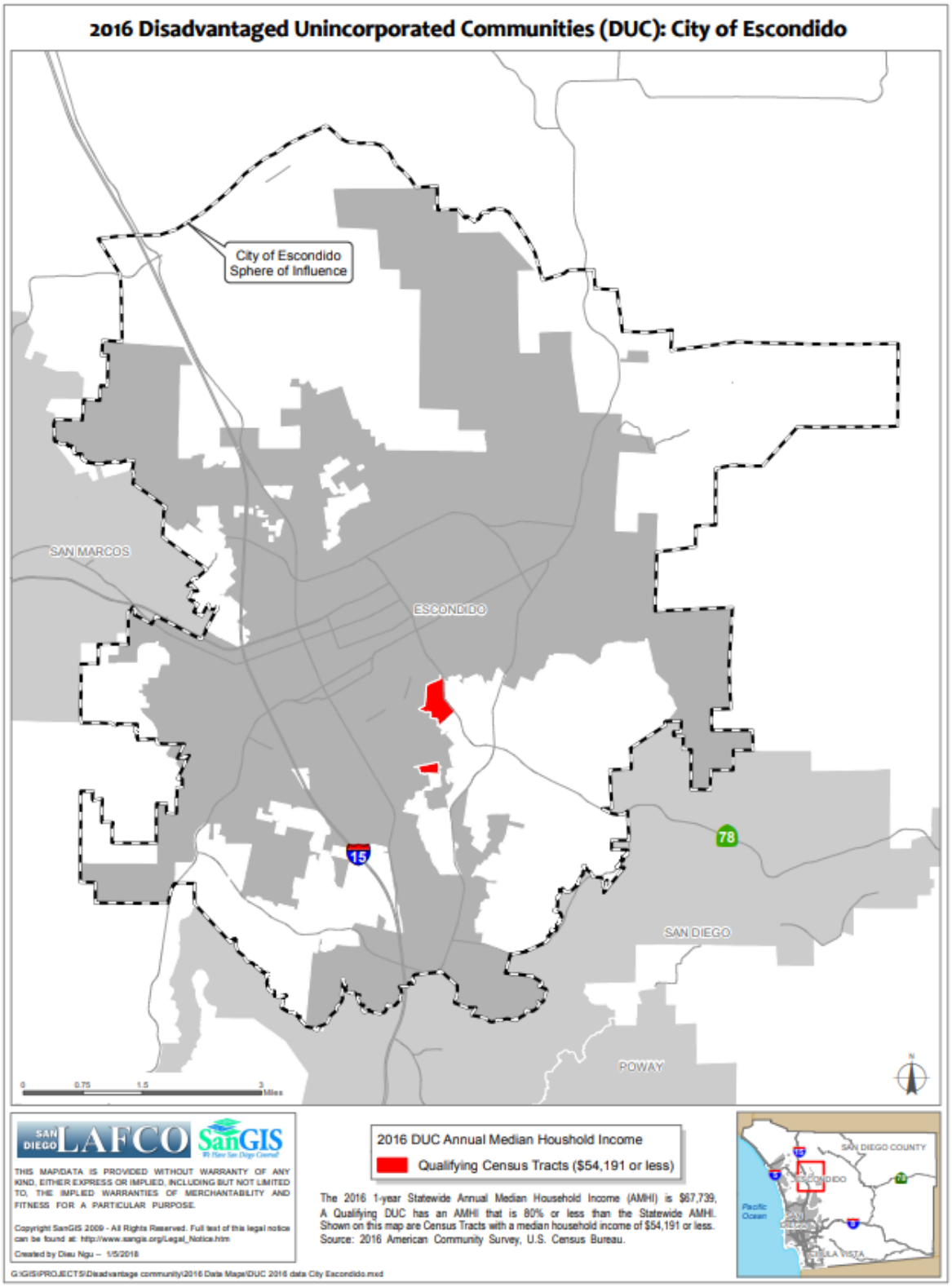
Category	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	Trend
Pension Assets (MVA)	499,056,573	544,896,521	580,209,314	607,393,410	625,277,459	25.29%
Pension Liabilities (AL)	743,398,457	782,631,827	843,949,680	877,831,789	914,558,541	23.02%
Unfunded Liability	**($244,341,884)**	**($237,735,306)**	**($263,740,366)**	**($270,438,379)**	**($331,149,384)**	**35.53%**
Funded Ratio	**67.1%**	**69.6%**	**68.7%**	**69.2%**	**68.4%**	**1.84%**

Appendix A
Maps of City of Escondido




City of Escondido
City of Escondido Sphere of Influence
Harvest Hills / Safari Highlands
TURNER LAKE
HIDDEN MEADOWS
CHAMPAGNE
LILAC
VALLEY CENTER
LAKE WOHLFORD
DIXON RESERVOIR
WASHINGTON
SAN MARCOS
ESCONDIDO
EL NORTE
ASH
CITRUS
MISSION
VALLEY
CENTRE CITY
6TH
78
SAN DIEGO
BEAR VALLEY
VIA RANCHO
OLIVENHAIN RESERVOIR
DEL DIOS
LAKE HODGES
POMERADO
POWAY
0 0.75 1.5 3 Miles
San Diego County
Local Agency Formation Commission
Regional Service Planning | Subdivision of the State of California
This map is provided without warranty of any kind, either express or implied, including but not limited to the implied warranties of merchantability and fitness for a particular purpose. Copyright LAFCO and SanGIS. All Rights Reserved. This product may contain information from the SANDAG Regional Information System which cannot be reproduced without the written permission of SANDAG. This map has been prepared for descriptive purposes only and is considered accurate according to SanGIS and LAFCO data.
Created by Dieu Ngu -- 10/19/2022
SOI Adopted: 7 / 2 / 1979
SOI Updated: 10 / 4 / 1993
SOI Updated: 9 / 8 / 2003
SOI Affirmed: 3 / 3 / 2008
SOI = Sphere of Influence
SAN DIEGO COUNTY
ESCONDIDO
Pacific Ocean
CHULA VISTA
G:\GIS\PROJECTS\MSRs FY2019-2023\Escondido Region\ArcGIS Escondido map\ArcGIS Escondido map.aprx

Appendix B
Disadvantaged Unincorporated Communities (DUC) Maps



Appendix C
Document Sources

Outside Sources

Agency Contacts

City of Escondido
Andrew Firestine, Director of Development Services
Adam Finestone, City Planner
Christopher McKinney, Deputy City Manager
Serena Kirkbride, Management Analyst II
Rick Vogt, Fire Chief
Laura Costello, Administrative Services Manager
DeAnna Peterson, Administrative Coordinator
Jeffrey Epp, City Manager (former)
Mike Strong, Community Development Director (former)
John Helman, Contract Planner (former)

Websites

American Community Survey / Demographic Information
www.census.gov

California Integrated Water Quality System
www.ciwqs.waterboards.ca.gov

California Environmental Protection Agency
https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40

California Public Employees Retirement System / Local Agency Pension Information
www.calpers.ca.gov

City of Escondido
https://www.escondido.org/

Environmental Systems Research Institute
www.esri.com

San Diego History Center
https://sandiegohistory.org/

Wittmann Enterprises
http://www.webillems.com/

Publications / Documents

City of Escondido. Adopted Operating Budgets. FY 2016-2017 through 2020-2021.
City of Escondido. Audited Financial Statements. FY 2016-2017 through 2020-2021.
City of Escondido. Annual Comprehensive Financial Reports. FY 2016-2017 through 2020-2021.
City of Escondido. General Plan
City of Escondido. Sewer System Management & Sewer Overflow Response Plan
City of Escondido. Urban Water Management Plan (2020).
City of Escondido. Water Shortage Contingency Plan (2021).
City of Escondido. Wastewater Master Plan
City of Escondido. Watershed Sanitary Survey Update (January 2022).
Concordia Homes. Municipal Service Review and Sphere of Influence Study. May 2021.
San Diego Regional Task Force on the Homeless. Housing Inventory Count. 2017-2021.
San Diego Regional Task Force on the Homeless. Point in Time Count. 2017-2021.
San Diego LAFCO Background Files

A complete source list is available by contacting San Diego LAFCO.

Appendix D
Written Comments Received on Draft Report

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ESCONDIDO
City of Choice

October 7, 2022

Priscilla Mumpower, Local Government Analyst II
San Diego Local Area Formation Commission (LAFCO)
2550 Fifth Avenue, Suite 725
San Diego, CA 92103-6624

Re: Municipal Service Review on the Escondido Region (MSR) Comments

Thank you for the opportunity to provide review comments on the Municipal Service Review on the Escondido Region (MSR). In response, the City of Escondido offers the following comments:

1. In Section 4.2, it is unclear what additional discretion should be exercised by San Diego LAFCO in Recommendation No. 7 pertaining to "jurisdictional changes involving the City of Escondido to prompt and/or otherwise require concurrent or future annexation of the existing unincorporated islands in the sphere of influence." Elements of this are similarly repeated in Section 5.6 that the "San Diego LAFCO should consider options to prompt and/or require annexation of these islands on a case-by-case basis" and are summarized on page 17 with the title "No. 7 | Becoming Whole: Literally + Figuratively."

   The City of Escondido agrees that these unincorporated islands perpetuate service inefficiencies and that these warrant further study. Many of these islands have substandard infrastructure and there are significant challenges and cost burdens to elevate these service levels to an urban service level standard. It is in this sense that the City agrees with the spirit expressed in the summary on page 17 that there should be a collaborative effort to coordinate resources to address these issues.

   The City requests clarification, however, on what is meant in Section 4.2 and Section 5.6 on the additional discretion and options that may prompt the annexation of these islands. The City of Escondido offers the following alterative language for Recommendation No. 7 in Section 4.2 for consideration:

   > *San Diego LAFCO should further concurrent or future annexation of the existing unincorporated islands in the sphere of influence by proactively working with the County of San Diego and City of Escondido to make such annexations economically feasible, including evaluating appropriate infrastructure improvements, negotiating proportionate property tax shares, and considering other potential funding mechanisms.*

   For Section 5.6, the City suggests that any consideration be done in conjunction with the City of Escondido and the County of San Diego.

2. Please refer to the attached excerpts from the draft document with specific comments on the City's service capacities and resources and service demands / performance, notably corrections to fire department staffing and apparatus.

Again, the City of Escondido appreciates the opportunity to participate in the MSR process.

Sincerely,

Andrew Firestine, AICP
Director of Development Services

Attachment

Cc: Rick Vogt, Fire Chief
Adam Finestone, City Planner
Julie Procopio, City Engineer

with dedicated annual City funding with the latter leading to the first permanent fire station in 1939 in Old Escondido. Full time career firefighters were also budgeted by the 1940s and additional fire stations being gradually built over the next several decades with the support of voter approved measures in 1961 and 2004. Paramedic and ambulance functions were added in 1977 and classified by LAFCO as advance life and direct, respectively.[20] A description of the integrated function's capacities, demands and performances follow.

Service Capacities and Related Resources

Escondido's integrated fire protection, emergency medical, and ambulance functions are primarily dependent on human resources through its own staffing arrangements and headlined by the memorandum of understanding – or MOU – with the Escondido Firefighters' Association. The current MOU expiries in December 2022 and specifies an average 56-hour work week – otherwise known as a traditional "Kelly" – schedule and means public safety employees work a 24-hour shift followed by 24 hours off, alternating for 8 days and followed by either 4 or 6 consecutive full days off resulting in an average of 8 working days in a 24-day work cycle. The entry annual base pay for a first-year firefighter/paramedic at Escondido under the MOU is $68,424.

The City of Escondido's integrated fire protection, emergency medical, and ambulance services were budgeted with 108 public safety employees at the end of the addendum period. This amount is divided between 90 firefighters and 18 medical personnel (paramedics/EMTs).

The overall budgeted staffing at the end of the addendum period tallies 1212.256 full-time equivalent employees. This amount represents ~~an overall reduction of one position – or (0.8%) –~~no change over the prior 60 months. Budgeted staffing is divided between public safety and non-public safety positions with the former consisting of both multi-purpose (firefighters) and single-purpose (paramedics and emergency medical technicians) personnel. Total public safety personnel budgeted at the end of the addendum period equals 1198 with the remaining amount – ~~14.6~~10.25 positions – involving non-public safety.

Commented [RV1]: The numbers we originally provided contained an error. The full-time equivalent was 121.25 between 2017 and 2021

Commented [RV2]: Including the Chief, Deputy Chief and Division Chief positions which are all safety / response positions.

[20] The ambulance function is enabled by the County of San Diego's Health and Human Services Agency (H HS), which designates the City as the exclusive transport provider for both the City and the surrounding unincorporated communities with n the Rincon Del Diablo MWD.

City of Escondido
Budgeted Staffing: Fire Protection, Emergency Medical + Ambulance
Table 3.3a | Source: City of Escondido

Category	FY 2017	FY 2021	Average	Trend
Public Safety: Fire and Rescue	930.0	930.0	930.0	0.0%
Public Safety Single Role: Paramedics + EMTs	18.0	18.0	18.0	0.0%
Non-Public Safety	~~15.6~~10.25	~~14.6~~10.25	10.25~~15.2~~	0.0% ~~(6.4%)~~
Total	1231.625	1221.625	1213.25	(0.80%)
Per 1,000 Residents*	2134	3521	1.2134	0.820%

*City of Escondido (150,799 residents) + Rincon MWD ID-E (14,469) = 165,268 residents

Commented [RV3]: Adjusted calculations withrevised numbers

Escondido's Fire Chief Rick Vogt has served in the position for the duration of the addendum period and oversees five divisions. The Operations Division is managed by the Deputy Chief who leads three shift Battalion Chiefs ~~and one Division Chief followed by three Battalion Chiefs~~ with the latter collectively tasked with managing seven engine companies equally divided between seven stations. A Division Chief oversees Emergency Medical Services, Health & Safety and Training. All seven stations are continuously staffed by 36 public safety personnel per 24-hour shift. Each fire engine and each ambulance areis staffed with at least one paramedic, providing at least two paramedics on every call for medical service. All fire stations are staffed with full-time, cross trained fire/medical personnel, with five stations also staffed with single-role paramedics ~~and~~ or EMTs. One fire station houses a ladder truck. The adopted minimum staffing standard for engines is three personnel. The minimum staffing standard for ambulances is two personnel. The minimum staffing standard for the ladder truck is four personnel.

> The City of Escondido's minimum staffing is three for both fire engines and fire trucks and two for ambulances.

Commented [RV4]: Original text isincorrect. Corrections inserted

Commented [RV5]: Added clarification, corrected errors and added info abot te ladder truk

Actual fire protection, emergency medical, and ambulance services for Escondido are delivered out of the City's seven stations ~~based on direction from~~dispatched by their joint police-fire ~~dispatch~~ emergency communication center~~center~~.[21] Current station details are as follows.

- Station No. 1 is located adjacent to downtown Escondido at 310 N. Quince Street. It underwent a major remodel in 2009 and typically responds to the highest number of dispatched calls with an average onsite response demand of 10.96 calls per day – or 24% of the daily total demand – during the addendum period. Station No. 1 is assigned 10 public safety personnel every 24-hour period.[22]

[21] Escondido's joint police-fire dispatch center is located at 1163 Centre City Parkway and part of a common administrative headquarters for public safety. The facility opened in 2010.
[22] Station No. 1 operates a Shift Battalion Chief, a Type-1 paramedic engine, a Truck company, a Rescue ambulance, and cross-staffs a Type 6 brush patrol staffed with a battalion chief, 2 captains, 2 engineers, 4 firefighter-paramedics, and one single-role paramedic/EMT.

- Station No. 2 is in east Escondido at 421 North Midway. It underwent a major remodel in 1995 and typically responds to the 3rd highest number of dispatched calls, with an average onsite response demand of 8.31 calls per day – or 18% of the daily total demand – during the addendum period. Station No. 2 is assigned five public safety personnel every 24-hour period.[23]

- Station No. 3 is located in north Escondido at 1808 Nutmeg Street. It was built in 2008 and typically responds to the 4th highest number of dispatched calls, with an average onsite response demand of 5.1 calls per day – or 11% of the daily total demand – during the addendum period. Station No. 3 is assigned five public safety personnel every 24-hour period.[24]

- Station No. 4 is located in southeast Escondido adjacent to Kit Carson Park at 3301 Bear Valley Parkway. It underwent a significant renovation in 2012 and typically responds to the 7th highest number of dispatched calls, with an average onsite response demand of 2.6 calls per day – or 6% of the daily total demand – during the addendum period. Station No. 4 is assigned three public safety personnel every 24-hour period.[25]

- Station No. 5 is located in southwest Escondido at 2319 Felicita Boulevard. It was built in 1984 and typically responds to the 6th highest number of dispatched calls with an average onsite response demand of 3.79 calls per day – or 8% of the daily total demand – during the addendum period. Station No. 5 is assigned five public safety personnel every 24-hour period.[26]

- Station No. 6 is located in west Escondido at 1735 Del Dios Road. It was built in 2008 and typically responds to the 5th highest number of dispatched calls, with an average onsite response demand of 3.86 calls per day – or 8% of the daily total demand –

[23] Station No. 2 operates a Type-1 paramedic engine and a Rescue ambulance, and cross-staffs a Type 6 brush patrol staffed with a captain, engineer, two firefighter-paramedics and a single-role Paramedic/EMT.
[24] Station No. 3 operates a Type 1 paramedic engine, a Rescue ambulance, and cross-staffs a Type 3 brush fire engine with a captain, engineer, two firefighter-paramedics, and a single-role Paramedic/EMT.
[25] Station No. 4 operates a Type 1 paramedic engine and cross-staffs a Type 3 brushfire engine, and is staffed with a captain, engineer, and one firefighter-paramedic.
[26] Station No. 5 operates a Type 1 paramedic engine, a Rescue ambulance, and cross-staffs a Type 3 brush fire engine with a captain, engineer, two firefighter-paramedics, and a single-role Paramedic/EMT.

during the addendum period. Station No. 6 is assigned three public safety personnel every 24-hour period.[27]

- Station No. 7 is located in northeast Escondido at 1220 North Ash Street. It was built in 2008 and typically responds to the 2nd highest number of dispatched calls with an average onsite response demand of 9.09 calls per day – or 20% of the daily total demand – during the addendum period. Station No. 7 is assigned five public safety personnel every 24-hour period.[28]

Specific to the placement of ambulance resources, Escondido operates five ALS ambulances on a 24-hour basis each staffed with one Firefighter/paramedic and one single role Paramedic/EMT.[29] Ambulance services are delivered out of Stations No. 1, 2, 3, 5 and 7. The following table summarizes station staffing and fleet vehicle assignments.

Escondido Fire Department
Fire Stations' Assignments as of FY2021
Table 3.3b (Source: City of Escondido)

Factor	Station 1 Quince	Station 2 Midway	Station 3 Nutmeg	Station 4 Bear Valley	Station 5 Felicita	Station 6 Del Dios	Station 7 N. Ash	Total
24 hr. Staffing	10	5	5	3	5	3	5	36
Fire Engines	3	2	1	1	1	1	1	10
Ambulance	2	2	1	0	1	1	2	9
Brush Engines	1	1	1	1	1	1	0	6
Truck Company	2	0	0	0	0	0	0	2
Command Vehicles	2	1	0	1	0	0	0	4
Other Fleet Vehicles	3	0	1	0	0	0	0	4

*Apparatus totals include front line and reserve.

Escondido also supplements its own fire protection and emergency medical service resources by maintaining reciprocal automatic aid agreements with surrounding jurisdictions. Escondido is signatory to the San Diego North Zone Auto Aid Agreement and also has an Auto Aid Agreement with the City of San Diego. All agencies in these agreements provide fire and emergency medical services response based on which unit is closest or upon request, including processing time. In addition, Escondido, CAL FIRE and several other local agencies have signed a Wildland Fire Mutual Threat Zone Agreement. Additional details on the volume of automatic aid agreement transactions during the five-year report period are provided in the proceeding section on demands.

Commented [RV6]: Clarifies that the numbe of appratus includes reserves

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[27] Station No. 6 operates a Type 1 paramedic engine and cross-staffs a Type 3 brushfire engine, and is staffed with a captain, engineer and one firefighter-paramedic.
[28] Station No. 7 operates a Type 1 paramedic engine and a Rescue ambulance and is staffed with a captain, engineer, two firefighter-paramedics, and a single-role Paramedic/EMT.
[29] Advance Life Support (ALS) is a higher level of emergency care procedures that may include defibrillation, airway management and invasive techniques such as IV therapy, intubation and/ or drug administration.

With respect to financial resources, Escondido's integrated fire protection, emergency medical, and ambulance services largely operate as a non-enterprise and supported by the General Fund. The average actual expense for the integrated function during the addendum period has been $25.153 million and accounts for 24.7% of all General Fund expenses during the addendum period. Actual expenses have increased over the 60-months by 17.1%.

The City of Escondido's integrated fire protection, emergency medical, and ambulance services are supported through the General Fund. Actual expenses during the addendum period have increased by 17.1% and slightly under the overall increase in General Fund revenues (property taxes, sales tax, etc.) at 17.8%.

Ambulance service and transport service revenue goes into the General Fund and has increased during the addendum period from $5.636 to $6.724 million or 19.3%. Budgeted revenue from the contract with the Rincon Del Diablo Fire Protection District increased during the addendum period from $2.02 to $2.37 million or 17%. These two major revenue sources, along with other fees and revenue, offset the impact to the general fund.

Service Demands

Overall service demands for integrated fire protection, emergency medical, and ambulance services for the City of Escondido during the five-year addendum period have averaged 16,153 dispatched calls annually or 44.25 daily. Approximately 4.5% of all dispatched calls assigned to Escondido were canceled and resulted in onsite arrivals averaging 15,424 annually or 42.25 daily. Overall, annual onsite incident demands increased modestly during the 60 months with an overall change of 1.7%. However, it is important to note that 2020 was an anomaly. Virtually all emergency services providers experienced a dramatic decrease that year due to the COVID-19 pandemic. The 10-year increase in onsite demands for service was 30%. The peak demand for onsite incidents was recorded at the beginning of the period with a daily onsite response of 44 calls per day.

Actual onsite demands on the City of Escondido have averaged 42.25 per day over the addendum period with a modest overall increase of 1.7%.

Commented [RV7]: Due to the drastic reduction in call volume in 2020, a five-year analysis could be misleading. A ten-year analysis is more revealing.

A breakdown of actual onsite arrivals shows Escondido responded to 98.1% of all fire protection and emergency medical incidents during the abbreviated report period within its jurisdictional boundary.[30] The following table summarizes annual calls and onsite arrivals – including agency responders – as well as trends during the abbreviated report period.

[30] With data provided from several dispatch agencies, unable to differentiate between auto aid responses with one Escondido resource arriving at scene against those handled exclusively by auto aid resources.

City of Escondido
Fire Protection and EMS Demands
Table 3.3c | Source: City of Escondido

Category	FY2017	FY2018	FY2019	FY2020	FY2021	Average	Trend
Total Dispatched Incidents	16646	15951	15,966	15,267	16,934	16,153	1.73%
Total Cancelled Calls	573	595	779	754	945	729	27.23%
Total Onsite Responses	16,073	15,356	15,187	14,513	15,989	15,424	1.73%
- Responded by Escondido	15,660	15,047	14,955	14,265	15,648	15,115	-0.08%
- Responded by Escondido + Others	n/a	n/a	n/a	n/a	n/a	n/a	n/a
- Responded by Other Agencies Only	n/a	n/a	n/a	n/a	n/a	n/a	n/a
- % Automatic Aid Received	2.48%	1.94%	1.40%	1.62%	2.01%	1.89%	-18.95%
- % Automatic Aid Provided	1.89%	1.72%	1.38%	1.95%	2.08%	1.80%	10.05%

Only 308 – or 1.9% – of all onsite incidents within the City of Escondido during the report period necessitated auto-aid from outside agencies and represents a 19.0% decrease during the reporting period. Comparatively, Escondido provided an amount of auto-aid equal to 1.8% of all assigned incidents and represents a 10% increase.

With respect to the portion of demands necessitating transport to area hospitals, the City of Escondido averaged 10,810 ambulance trips per year during the abbreviated report period. This amount produces a daily average of 29.62 trips with an overall decrease of one-tenth or – 10.57%. The 10-year perspective, however, indicates an upward trend of 14.7% Nearly 99.4% of all ambulance transports were in Escondido's jurisdictional boundary. ~~The trend of ambulance demands in the jurisdictional boundary have also decreased by one-tenth or 10.9%.~~

Over the report period actual onsite demands for ambulance transport for the City of Escondido have averaged 29.62 daily and decreased by 10.57%.

Commented [RV8]: 2020 was an extreme outlier that skewed a 5-year perspective. Expanding the perspective to ten years shows a 14.7% increase (which is a 25% difference)

2011: 9,124
2021: 10,468

Commented [RV9]: Redundant

City of Escondido
Ambulance Transport Demands Only
Table 3.3d | Source: Wittman Enterprises

Year	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	Average	Trend
Total Dispatched Incidents	13,352	12,708	12,575	11,883	13,326	12,769	-0.19%
Total Ambulance Calls-No Transport Needed~~Total Cancelled Calls~~	1,647	1,531	1,671	2,088	2,858	1959	7.40%
Total Onsite Incidents	11,705	11,177	10,904	9,795	10,468	10,810	-10.57%
… Within Jurisdictional Boundary	11,656	11,112	10,828	9,733	10,385	10,743	-10.90%

Commented [RV10]: These are calls where EFD arrived on scene, however, transport to the hospital was not needed or was refused.

… Outside Jurisdictional Boundary	49	82	76	62	83	70	23.72%

Service Performance

City of Escondido's capacities as measured by staffing and equipment appear sufficiently sized to readily accommodate existing demands within its jurisdictional boundary through the timeframe of this report. This sufficiency is quantified with Escondido having the resources to respond to 98.1% of all onsite incidents within its jurisdictional boundary during the five-year reporting period. This sufficiently is similarly quantified by the City's low dependency on outside agencies during the report period with only 1.9% of onsite incidents necessitating assistance from outside agencies. Other key performance measurements follow:

Key measurements generated over the abbreviated reporting period show City of Escondido has sufficient resources to meet current and near term demands and headlined by a low dependency on outside agencies to meet onsite incidences.

Commented [RV11]: Emergency incident demand is only one of several factors that determine if the capability of the fire department is sufficient for existing and future demands. Unit hour utilization, extended off load delays and additional horizontal and vertical travel time due to various kinds of development can reduce emergency responder availability and increase response times. In addition, rising demands on staff time due to training, maintenance, public education, pre-incident planning and inspections may require additional resources.

- Escondido's most recent evaluation of structural fire protection capabilities from the Insurance Services Office (ISO) was completed in 2019 and resulted in a Class 2/2X rating for the City. This rating is considered admirable for an incorporated city that also protects a large unincorporated semi-rural area, and above the current average 4/4x rating among the 890 fire agencies in California reviewed by ISO.[31]

- The 2012 General Plan identifies the following Quality of Life standard for providing fire protection services as it pertains to response time:

In urbanized areas of the city, an initial response time of seven and one-half (7½) minutes for all structure fire and emergency Paramedic Assessment Unit (PAU) calls and a maximum response time of ten (10) minutes for supporting companies shall be maintained. A minimum of seven (7) total fire stations each staffed with a PAU engine company shall be in place prior to General Plan build-out. For outlying areas beyond a five (5) minute travel

[31] The ISO classifications are ranked between 1 and 10 and designed to evaluate a fire service provider's ability to protect local communities based on uniform measurements. Fire departments use the data to help measure the effectiveness of their fire-protection services while insurance companies use it when establishing premiums for fire insurance. A Class 1 rating generally represents superior property fire protection and can lower the price of insurance within a community.

time or further than three (3) miles from the nearest fire station, all new structures shall be protected by fire sprinkler systems or an equivalent system as approved by the Fire Chief. […] The Fire Department intends to meet these times for no less than 90 percent of all emergency responses by engine companies.

Per the California Residential Code, State fire sprinkler system requirements have been updated. Overall staffing levels are derived from the above Quality of Life Standard and the expectations of the community.

City of Escondido: Response Standards

First Due Resource	Supporting Resources
7.5 minutes	10 minutes
88% compliance	n/a% compliance

Commented [RV12]: A Standards of Cover Study is planned to determine the factors affecting the recent trend of reduced response time standard compliance.

4.0 FINANCES

4.1 Budget Information

The City of Escondido's total adopted budget at the end of the addendum period (2020-2021) totaled $418.8 million. This amount is divided between operating and capital funds with the former totaling $204.6 million – or 48.9% of the sum – and covered anticipated day-to-day costs of providing municipal service functions and ancillary support activities via the General and Enterprise Funds. The General Fund is the principal funding source via tax collection for most public-facing services and budgeted at $107.6 million with two-thirds dedicated to public safety (police and fire). The Enterprise Fund separately ties to self-supporting activities – namely water and wastewater – via user charges and fees and accounts for the remaining $89.0 million in budgeted operating funds at the end of the addendum period. Additional details on the capital fund is footnoted.[32]

The City of Escondido's total adopted budget at the end of the addendum period tallied $418.8 million and divided between operating and capital funds. Escondido's budgeted operating costs totaled $204.6 million – or 49% of the sum – and has increased by 11% over the five-year addendum period. Conversely, adopted operating revenues have decreased by (7%).

City of Escondido
Operating Budget: Expenses
Table 4.1a (Source: City of Escondido Adopted Operating Budgets, FY17 to FY21)

Category	2016-2017 Budgeted	2017-2018 Budgeted	2018-2019 Budgeted	2019-2020 Budgeted	2020-2021 Budgeted	Average	Trend
General Fund	92,644,125	98,683,295	102,630,230	106,803,545	107,596,800	101,671,599	16.14%

[32] At the end of the addendum period (FY21/22) the City projected funding approximately $67.0 million in improvements from the C pital Improvement Program (CIP) fund and directed toward ongoing street projects, including the Citracado Extension Project, and utility infrastructure as w l as the ongoing construction of the Recycled Water Easterly Main Tank and Extension and the undergrounding for San Pasqual through the Escondido Canal.

HARVEST HILLS

October 12, 2022

Priscilla Mumpower
Local Government Analyst II
San Diego Local Agency Formation Commission (LAFCO)
Subdivision of the State of California | Regional Service Planning
2550 Fifth Avenue, Suite 725
San Diego, California 92103-6624

RE: Municipal Services Review – City of Escondido

Dear Priscilla and LAFCO Board Members,

As you know and have discussed with us, Harvest Hills prepared the City wide Municipal Services Review ("MSR") on behalf of the City of Escondido that is currently being considered for adoption. This City wide MSR was initiated and fully funded by Harvest Hills and prepared by our consultant, Rick Engineering. The document was contemplated by all parties to be attached to the Harvest Hills Final Environmental Impact Report as part of its approval and path to annexation.

Concordia Homes has been diligently pursuing entitlements for Harvest Hills since 2013. During this time, we have also worked diligently to facilitate all of the revisions that have been suggested by LAFCO staff pertaining to the MSR and Sphere Update. We have also attempted to expedite and follow up on all of the updated information required of the City of Escondido to complete the document that is now ready to be finalized.

Back in April of 2022, we were approached by LAFCO staff and asked if we would allow the MSR to be detached from our project and presented to the Board as a standalone document. While we recognized the risk that all of our effort and expense in preparing this citywide document could be taken advantage of if the document were bifurcated from our EIR, we were assured that our work, effort and expense could equitably be preserved through the creation of a special study area for Harvest Hills. This would allow this project (sphere and annexation) to come forward over the next five years without the need to re-prepare another document when we have resolved the issues with the City of Escondido that have impeded Harvest Hills from moving forward to this point.

We are very much in favor of this option as the only equitable solution to allow this MSR to move forward without Harvest Hills, which is not yet ready to come forward, but we hope soon will be.

HARVEST HILLS

The comments we have heard suggesting that Harvest Hills is somehow getting "fast-tracked" or getting a "free-ride" could not be further from the truth. We have paid for and worked diligently on the very document you are now considering, and we have worked fervently for nearly 9 years pursuing entitlements in the City of Escondido and we are continuing to respond with solutions to every new roadblock that has been laid before us.

We very much look forward to bringing forward a project in Harvest Hills that the City of Escondido is thrilled about and that you see the tremendous benefit of. However, in the meantime, we respectfully request the Board to approve what is before it, which is not the merits of our project, but LAFCO staff's recommendation to establish a special study area for Harvest Hills.

Sincerely,

CONCORDIA COMMUNITIES, LLC

Don Underwood

Don Underwood
Managing Member

Jeb B. Hall, Esq.

Jeb B. Hall, Esq.
Managing Member

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County of San Diego

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DAHVIA LYNCH
DIRECTOR

October 21, 2022

Priscilla Mumpower
Local Government Analyst
San Diego Local Agency Formation Commission
2550 Fifth Avenue, Suite 725
San Diego, CA 92103-6624

Via e-mail to: priscilla.mumpower@sdcounty.ca.gov

COMMENTS ON THE MUNICIPAL SERVICE REVIEW AND SPHERE OF INFLUENCE UPDATE ON THE ESCONDIDO REGION

Pursuant to notification from the San Diego Local Agency Formation Commission (LAFCO) received via e-mail on August 25, 2022, the County of San Diego's (County) Department of Planning and Development Services (PDS) would like to offer comments in response to the following documents:

- The City of Escondido's Municipal Service Review Report prepared by the City of Escondido (City) via Concordia Homes with input from LAFCO staff dated June 2022 (MSR Report)

- The Addendum to the MSR Report prepared by LAFCO staff, which includes key conclusions and LAFCO staff recommendations to the Commission (Addendum)

The County appreciates the opportunity to review the MSR Report and offers the following comments for the LAFCO Commission's consideration at the November 7, 2022 meeting, where final versions of both documents are to be formally received and determinations included in the Addendum are to be brought forward for adoption.

The purpose of these comments is to clarify the MSR Report's summarization of the County's General Plan policies and highlight relevant General Plan policies related to annexation and interjurisdictional collaboration that were not included in the MSR Report. Please note that the County's comments should not be construed as support or opposition to any proposed projects, annexations, or updates to the sphere of influence mentioned in the MSR Study by the County.

The County finds that the omitted land use, conservation, and open space policies in the County's General Plan are relevant, given the existing interface between urban and non-urban uses along the jurisdictional boundary between the County and the City. Identification and inclusion of these policies into the MSR Report is essential to render a decision on the proposed LAFCO recommendations.

Applicable County of San Diego Land Use Element Policies

The County of San Diego's Land Use Element of the General Plan is a framework that provides maps, goals, and policies that guide planners, the general public, property owners, developers, and decision-makers as to how lands are to be conserved and developed in the unincorporated county. This framework defines a Community Development Model that uses three regional categories – Village, Semi-Rural, and Rural Lands – to broadly reflect the differing character of county lands ranging from communities with substantial populations to predominantly undeveloped backcountry areas.

The County's Land Use Element policies acknowledge that planning by other agencies with responsibilities within, around, or overlapping the unincorporated lands will also affect how this Community Development Model is implemented. The following County of San Diego General Plan policies were not included in the MSR Report submitted to the LAFCO Commission on August 1, 2022:

- Policy LU-1.5: "Relationship of County Land Use Designations with Adjoining Jurisdictions. Prohibit the use of established or planned land use patterns in nearby or adjacent jurisdictions as the primary precedent or justification for adjusting land use designations of unincorporated County lands. Coordinate with adjacent cities to ensure that land use designations are consistent with existing and planned infrastructure capacities and capabilities."

- Policy LU-2.6: "Development near Neighboring Jurisdictions. Require that development in the proximity of neighboring jurisdictions retain the character of the unincorporated community and use buffers or other techniques where development in the neighboring jurisdiction is incompatible."

- Policy LU-4.5: "Annexations with Incompatible Land Uses. Coordinate with LAFCO to oppose annexations by neighboring cities that would result in land uses incompatible with unincorporated lands."

Applicable County of San Diego Conservation and Open Space Element Policies

The primary focus of the Conservation and Open Space Element is to provide direction to future growth and development in the County of San Diego with respect to the conservation, management, and utilization of natural and cultural resources, the protection and preservation of open space, and the provision of park and recreation resources. The following County of San Diego General Plan policies were not included in the MSR Report submitted to the LAFCO Commission on August 1, 2022:

- Policy COS-1.1: "Coordinated Preserve System. Identify and develop a coordinated biological preserve system that includes Pre-Approved Mitigation Areas, Biological Resource Core Areas, wildlife corridors, and linkages to allow wildlife to travel throughout their habitat ranges."

- Policy COS-1.4: "Collaboration with Other Jurisdictions. Collaborate with other jurisdictions and trustee agencies to achieve well-defined common resource preservation and management goals."

- Policy COS-2.1: "Protection, Restoration and Enhancement. Protect and enhance natural wildlife habitat outside of preserves as development occurs according to the underlying land use designation. Limit the degradation of regionally important natural habitats within the Semi-Rural and Rural Lands regional categories, as well as within Village lands where appropriate."

While the purpose of the November 7, 2022 LAFCO meeting is not to approve any annexation of land into the City's incorporated limits, sphere of influence determinations "serve as the Legislature's version of 'urban growth boundaries' with regard to cumulatively delineating the appropriate interface between

urban and non-urban uses within each county" (Addendum, pg. 4), and it is important that County of San Diego General Plan policies be identified and included into the MSR Report prior to a decision being rendered by LAFCO.

Recommendation 9b of the Addendum recommends establishing one or more special study areas for the City's sphere of influence as part of a limited update, providing the affected areas eligibility to proceed in the next five years with an actual amendment without necessitating a new municipal service review. This includes a special study area for the Harvest Hills (previously Safari Highlands) project site (Figure 18, MSR Report).

Harvest Hills is approximately 1,100 acres where Concordia Homes is currently in the review process with the City to propose a residential project to construct 550 single-family units along with private parks, a fire station, approximately 760 acres of permanently preserved open space with trails available to the public, and community center. The Harvest Hills project is located within the City's General Plan's designated "SPA #4" area, a 1,590-acre area allowing for a total of 800 dwelling units.

The County's General Plan Designation for this area is Rural Lands (RL-40), allowing up to 1 unit per 40 gross acres. Under this designation, the Harvest Hills site would only be allowed to accommodate approximately 27 single-family units. The Rural Lands category is applied to large open space and very low density private and publicly owned lands that provide for agriculture, managed resource production, conservation, and recreation and thereby retain the rural character for which much of unincorporated County is known.

The policies mentioned in this letter should be considered along with the policies referenced in the MSR Report to more comprehensively assess the existing and planned interface between urban and non-urban uses along the jurisdictional boundary between the County and the City and/or consideration of establishment of one or more study areas.

The County appreciates the opportunity to comment on this Municipal Service Review and Sphere of Influence update and look forward to providing any additional clarification on these comments at your request. If you have any questions regarding these comments, please contact Mike Madrid, Land Use/Environmental Planner, at (619) 964-6918, or via e-mail at michael.madrid@sdcounty.ca.gov.

Sincerely,



Dahvia Lynch
Director, Planning & Development Services
County of San Diego

Rincon del Diablo Water

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OUR VALUES

- Resource Stewardship
- Integrity
- Continuous Improvement
- Proud to serve the Greater Escondido Valley since 1954

October 20, 2022

Keene Simonds
Executive Officer
San Diego Local Agency Formation Commission
2550 Fifth Avenue, Suite 725
San Diego, California 92103

RECEIVED
OCT 24 2022
SAN DIEGO LAFCO

Re: City of Escondido Municipal Service Review

Dear Mr. Simonds:

On behalf of the Board of Directors of Rincon del Diablo Municipal Water District (Rincon Water), we appreciate the hard work and dedication of the Local Agency Formation Commission (LAFCO) staff. This was an arduous task, spread over multiple years, involving numerous points of contact, and several sources of information. The following comments are provided related to the draft Municipal Service Review (MSR) for the Escondido Region, Part II. Rincon Water is one of four water districts that along with the City of Escondido (City) provide water service within the City's sphere of Influence. Others include Vallecitos Municipal Water District, Valley Center Municipal Water District, and Vista Irrigation District.

Rincon Water was formed under the Municipal Water Act of 1911 and California Water Code Sections 71000-73001. As a municipal water district, we are multifunctional and provide a wide range of municipal services including water, wastewater, recycled water, and fire protection services. More importantly, these services are provided irrespective of jurisdictional limitations, such as city and unincorporated county defined boundaries. For example, Rincon Water currently provides services in the City of Escondido, City of San Marcos, City of San Diego, and unincorporated areas of San Diego County. In these instances, maximum efficiency is realized by localizing the costs and benefits specifically to those receiving the services. Residents residing in these unincorporated areas are presently represented by a five-member Board of Directors. Assuming the City achieved its goal of consolidation, as implied many times in the addendum and MSR, these residents would be disenfranchised and no longer have political representation regarding water rates, fees, and charges. These areas would likely present the City with similar challenges as they are facing with the annexation of the unincorporated islands mentioned in the MSR.

Since 1954 Rincon Water has worked closely with the City, as well as other neighboring agencies across the region and the state, to expand knowledge and capabilities, address regulations and legislation, promote cooperation and joint projects/programs, and improve delivery of services to the end user. This is done in the spirit of cooperation, mutual support, and professionalism as indicated by previous inter-agency and inter-operability agreements between Rincon Water and the City.

As an example: Rincon Water routinely augments the City's potable water system so that maintenance can be performed at the City's water treatment plant and when raw water shutdowns occur. On multiple occasions the City's wastewater personnel have set up highlines so that recycled water can be stored in Rincon Water's wet weather storage facility. In all these instances agency cooperation was demonstrated, potentially saving the City millions of dollars in capital investments.

The draft MSR Part II and the addendum validate the wisdom of the state legislature enacting the statutory requirement that all local public agencies be subject to LAFCO conducting an MSR every five years. This was the first for the City and the revelations are startling. First, the former LAFCO Executive Officer allowing the City to complete their own MSR is unusual. Secondly, and even more unusual is the fact that the MSR was created by a developer, Concordia Homes, purporting to act on the City's behalf. Multiple drafts of the developer prepared MSR were submitted between 2017 and 2019. For reasons unknown to Rincon Water, the previous submissions were rejected, and the current LAFCO Executive Officer and staff prepared and addendum to fill in the gaps to avoid further delays. Given that the Escondido region MSR was originally scheduled to be completed in 2018, there was ample time to bring the data current, nonetheless, our review finds the City's MSR consists of obsolete information. The lack of current information is quite concerning and does not support the City's push for consolidation. Furthermore, without the availability of current information it does not make reasonable sense to continue with a governance study at this time.

Before continuing with specific comments, it is important to mention that both the addendum, prepared by LAFCO, describes the City as having overall uncertainty in fiscal health, and the MSR submitted by the City states that "The growing cost of services has outpaced revenues and the City is projected to experience a structural budget shortfall over the **next 20 years**." (Page 134, emphasis added.)

Specific Comments to LAFCO Recommendations

Page 4, Recommendation No. 6 - San Diego LAFCO affirms its own previous determination that a governance study is merited to independently assess reorganization options to consolidate – politically or functionally – the City of Escondido and Rincon del Diablo MWD. The Commission should proceed with the governance study immediately:
Rincon Water disagrees with this recommendation and believes that it is premature to add the governance study to the LAFCO workplan. By its own admission in the MSR, and the findings of the State Auditor the financial situation of the City is dire. This is also confirmed in the addendum prepared by LAFCO. The documents include obsolete information that were most likely provided by City staff or consultants (see attachment A). Either way, these documents should not be used to consider any form of consolidation or relied upon for inclusion or as a justification to conduct a governance study. It would be

more prudent for the City to prepare planning documents that fall within the five-year MSR requirement, thereby remaining consistent with all Financial, Master Facilities, and Capital Improvement Plans.

Page 5, Recommendation No. 9, a): San Diego LAFCO should defer an otherwise merited comprehensive sphere of influence update for the City of Escondido to a future municipal service review: Rincon Water agrees LAFCO should defer a comprehensive sphere of influence update for the City of Escondido to a future municipal service review for the same reasons as listed above. Additionally, as indicated on page 135 of the MSR, the City finds itself in the position that with every new residential unit the costs of the services by the City exceeds revenues every year thereafter.

- For a new single-family residence, the City loses: $536/year
- For new Multiple residential the City loses: $725 to $783/year
- For annexed new single family residential the City loses: $744/year
- For annexed existing single family residential the City loses: $944/year

Why would expanding the City's sphere of influence be a good thing if the expansion merely adds to the City's financial problems?

Specific Comments LAFCO Addendum

Page 12, Data Collection Range: The City of Escondido's most recent Water Facilities Master Plan was completed in 2012. Our review of the MSR documents, a website search, the Capital Improvement Program, and the most current adopted budget, shows no indication the City plans to develop a new Water Facilities Master Plan or conduct an update. These plans are essential to keep pace with population growth, to meet new regulations, to deliver adequate services, and to protect public health and the environment. They are important to define the capital improvement strategy by identifying system needs, identifying an implementation schedule and a financial plan to identify how to pay for it. Most water utilities complete Water Facilities Master Plans or updates every five years.

The MSR prepared by Concordia Homes on behalf of the City relies primarily on the ten-year-old Water Facilities Master Plan and the 2015 Urban Water Management Plan (UWMP). The City approved and published the new 2020 UWMP in June of 2021, however, the data in the submitted MSR was not updated to reflect the current UWMP plan. Additionally, the California Department of Water Resources has specific requirements to ensure data between the Water Facilities Master Plan and the UWMP are consistent.

It is our opinion that the preparers of the addendum were at a disadvantage in evaluating data that covers fiscal years' 2017 to 2021 using data from 2012 and 2015, respectively. It is unknown how much data was augmented by the City because there are no referenced documents that can be validated. It is again concerning the City did not try to ensure the MSR consisted of current information before final submission.

Rincon Water adopted a Water Facilities Master Plan in 2014 and is in the process of an update as of FY2021. Rincon Water also approved an UWMP in 2020. Based on plans, field observations, and system knowledge, Rincon Water prepares a rolling seven-year Capital Improvement Program. Rincon Water maintains current plans that keep the Board of Directors, the public, staff, and regulators fully informed of the financial and physical health of Rincon Water.

Page 16, Section 4.0, No. 3, General Fund Stresses + High Debt Levels: According to the City's Annual Operating Budgets, the City increased staffing levels of the City's Water, Wastewater, and Water Reuse Divisions from 2019 to 2023. Since 2019, staffing for the City's water and wastewater funds combined have increased by 18.7 FTEs, or 9.1%, which is a considerable increase in staffing and a direct influence on increasing operating and pension costs.

California Government Code Section 8546.10 authorizes the California State Auditor to establish a high-risk local government agency audit program to identify cities that are at high-risk for the potential of waste, fraud, abuse, or mismanagement, or that have major challenges associated with their economy, efficiency, or effectiveness. During its initial evaluation in Fiscal Year 2017, the State Auditor found the City's pension costs and pension funding status to be "high-risk." In their most recent evaluation (Fiscal Year 2020), the high-risk status was assessed, in part, because of their high net pension obligation as it relates to their total revenue. Throughout the course of the State Auditor's evaluations, the City has shown no improvement from its "high-risk" status.

The City's level of debt and annual debt service requirements is also of significant concern. Research indicates that debt service in FY2027 will be over 29 million. Assuming revenue growth of 4% per year based on projected FY2023 revenues, debt service would represent 8% of total FY2027 revenues of $209,819,900. The FY2021 Annual Comprehensive Financial Report shows debt coverage requirements (revenues over annual debt service) of 1.20 for the Water Fund and 1.15 for the Wastewater Fund. A rough calculation shows that the City Water Fund would need to almost double net income, from $13.8 million in FY2021 to $25.8 million in FY2027 in order to meet this requirement. The Wastewater Fund would require net income of $15.5 million in FY2027 in contrast to $12.7 million in FY2021. As can be seen, these Funds would require an influx of financing in order to meet debt service ratios.

Page 16, Section 4, No. 4, Adequate Service Capacities with a Big Qualifier: We disagree with the statement of adequate and excess service capacities. The increasing pension costs and extreme debt have a direct negative impact on the City's ability to provide service. The City has placed a tax initiative on the November 2022 ballot, which would increase local sales tax as a way to increase revenue. If the tax initiative fails, the City could potentially be forced to make drastic personnel changes that will ultimately create service shortfalls. Even if the sales tax measure passes, these funds were not earmarked for eliminating the City's unfunded pension and/or significant debt liabilities. Instead, they will be placed in the General Fund and can be spent on anything, leaving City residents with little assurance that the increased tax revenue will be spent on eliminating debt. With hundreds of millions of dollars at stake in unfunded pension liability, a California State Auditor rating of City's pension liability as "high risk," and the City losing money with each new residential dwelling unit added within the City limits. Given the City's expected budget shortfall over the next twenty years, any consolidation of Rincon Water with the City would be a high-risk proposition for Rincon Water customers. It is more likely that the City will have to make difficult choices and dismantle services to manage its budget and the unfunded pension liability crises.

Page 17, Section 4, No. 8, Assessing the Escondido + Rincon del Diablo Relationship: We do not believe that Part Two of the MSR and the addendum affirms the earlier conclusion and supports adding the governance study to the LAFCO workplan. As stated above, obsolete information should not be used to consider any form of consolidation or relied on for inclusion or as a justification to conduct a governance study. The City should prepare current Water and Wastewater Facilities Master Plans, which are within the five-year MSR requirement and consistent with all City financial and Capital Improvement Planning documents.

The primary purpose for a governance study is to develop a case for consolidation, however, consolidation of Rincon Water and the City would not benefit Rincon Water's 8,508 (8,380 potable and 128 recycled connections/population of 32,019) customers and would likely result in more complex local governance, a weaker financial position, and reduced service levels. Any consolidation should ensure that all participating organizations and customers are better off, conversely it is undesirable to have one agency's customer/constituents benefit at the expense of another agency's customers/constituents. The justifications for a potential consolidation of Rincon Water into the City are twofold: the City desiring to control future development in the unincorporated areas surrounding the City and to utilized Rincon Water's assets and resources to enhance the financial position of City and its utilities. However, these justifications do not benefit Rincon Water ratepayers and are not consistent with LAFCO's purpose and objectives.

With respect to the possible partial functional consolidation of Rincon Water and the City, there are agreements that already exist to purchase potable and recycled water from the

City. Both agencies have been operating under the "Settlement and Operational Agreement Between City of Escondido and Rincon Del Diablo Municipal Water District" since December 1, 1994. Additionally, the City and Rincon Water worked cooperatively to develop a 34-year recycled water agreement that began February of 1999. This agreement ensured the majority of open spaced areas, street medians, and fire services could take advantage of over 4,500 acre/feet of recycled water annually.

Page 23, Chapter 5: This section includes data related to the City of Escondido's potable water functions, however, omits the key metric of water losses. System water losses measure the difference between the actual volume of treated water delivered into the distribution system and actual metered consumption. The delta between these two numbers is lost water through the system, because of leaks, inaccurate meters, evaporation, and other means.

Rincon Water's most recent UWMP, published in June of 2021, showed water loss to be 2.7% in 2019. 2020 data will be available in the 2025 UWMP. The City's most recent UWMP, approved in 2020, indicated a water loss of 13% for 2019. The American Water Works Association recommends losses to be 10% under total purchases. By this metric, Rincon Water can be deemed significantly more reliable than the City in providing water to customers and can be considered a better steward of the precious water resource while saving money through less loss. It is also likely that the City's long term financial crises will not permit significant capital investments in water/sewer infrastructure, likely resulting in even higher water losses for the City. Whereas Rincon Water's superior financial position has allowed it to proactively manage its water infrastructure by making appropriate capital investments and dramatically decreasing its water losses, saving its ratepayers money.

Page 24, Chapter 5, section i): Available storage capacity for the City accommodates up to 1.28 days of average potable demands while Rincon Water has the storage capacity to serve 7 days at current average day demand and is consistent with the 7-day outage requirement suggested by the San Diego County Water Authority. This fact is another testament to the efficient and effective management of Rincon Water's infrastructure compared to the City.

Page 25, Chapter 5, section n): Our review of available maps and document research finds this section to be incorrect. The Del Dios Mutual Water Company is not within the City of Escondido's sphere of influence. LAFCOs recent 2021 Sphere of Influence Study confirms this.

In summary, with a dozen unincorporated islands within the city, reliance on stale data, documented inefficiencies in providing water and wastewater services, and the City's persistent financial crises, it would be at best premature to move forward with a governance study. To be consistent with the purpose and objectives for which LAFCO

was established, the City would first have to address its growing debt challenges, annex the unincorporated islands, and position itself to be a self-sufficient and efficient provider of water and wastewater services. The data provided in Rincon Water's MSR of 2019 clearly establishes that Rincon Water is an efficient, fiscally responsible, and well-run water district.

The City's MSR appears to be little more than a request to have Rincon Water customers help solve the City's financial problems by paying more for the same water services, which would unfairly shift the burden of paying the City's debts to Rincon Water customers; a significant number of whom are not within the City's boundaries. Accordingly, moving to a governance study based upon the City's deficient MSR at this point would be premature and not an efficient use of LAFCO's limited resources.

Sincerely,

Clint R. Baze
General Manager

Attachment

Attachment A

Attached are additional comments regarding stale, or incorrect statements appearing in the City of Escondido Municipal Service Review And Sphere Of Influence Study.

Page 27, Chapter Two: Both documents referred to in this section are obsolete and cannot be relied on to represent current indoor or outdoor water use standards.

Page 32, Water Demand: This section refers to past mandatory water use restrictions and indicates demands will increase with improved economic conditions. It forecasts the GPCD will increase from 142 GPCD in 2015 to 147 GPCD in 2040. This section is consistent with earlier comments that the data is obsolete.

Page 38, Recycled Water: Rincon Water currently has 128 recycled water services of which 89 are served from water treated at the Hale Avenue Resource Recovery Facility. The remaining 39 services deliver water treated at the Harmony Grove Village Water Reclamation Facility (HGVRF) which is rated at .180 MGD and is currently producing .098 MGD. The HGVRF serves 742 residential units and has the capacity to serve an additional 155 units.

Page 38, Water Infrastructure: This section claims that three projects to provide an emergency supply from the San Diego County Water Authority would reduce dependency on the Rincon del Diablo Municipal Water District for emergency supply. There are no projects identified in the City's Capital Improvement Program that support this statement. There is, however, a project to expand capacity from a Rincon connection to serve this purpose, thereby increasing the City's reliance on Rincon assets.

Page 42, Table 18: Projected Water Operating Revenues: The data represented in this table is forecasting projected revenue for years that have already passed. It would be more beneficial to include recent actuals or updated projections. For example: The City's Water and Wastewater Non-Operating expenditures increased from $7.2 million dollars in 2019 to $68 million dollars in 2023 representing an increase in 845%.

Page 57, Table 23: Expected Future Water Supply Projects or Programs: This data was also projected ten years ago and does not reflect the impacts related to water conservation and the decline in inflow.

Page 59, Unincorporated Area, paragraph 2: This paragraph is incorrect and should read: Rincon Water began wastewater services in 2019 with LAFCO's approval of the Harmony Grove Village Reorganization and authorization to serve this new development of 742 residential units. As of 2019, the wastewater facilities had an excess capacity to accommodate an additional 155 units without further expansion.

Page 62, Table 26: Projected Wastewater Operating Revenues: The data represented in this table is forecasting projected revenue for years that have already passed. It would be more beneficial to include recent actuals or updated projections.

Page 64, Table 26: Projected Wastewater O&M Expenses: The data represented in this table is forecasting projected revenue for years that have already passed. It would be more beneficial to include recent actuals or updated projections.

Page 69, Table 28: Projected Wastewater Capital Revenue: The data represented in this table is forecasting projected revenue for years that have already passed. It would be more beneficial to include recent actuals or updated projections.

Page 119, Fire Protection: This should say: Citrus Valley is located within the Rincon del Diablo MWD – Improvement District E but is served by the City of Escondido Fire Department through a contractual relationship that began in 1987.

Page 135: Concerning the section that clearly describes the deficiency in development charges. In lieu of accurately recovering development charges directly, the City formed a Citywide Community Facilities District (CFD) to provide a streamlined way for new development to offset costs. Unfortunately, this plan has led to number of legal disputes, most notably the lawsuit filed by the Building Industry Association that claims the CFD imposes unlawful and arbitrary new special taxes. See *BIA sues city over Mello-Roos ordinance, Ross, David, Escondido Times-Advocate, October 27, 2021.*

Page 142, Goal 2, Policy 2: Support City annexation incentive program: Given there are a dozen islands of unincorporated territory, each resulting in confusing service responsibilities between the City and the County of San Diego, it seems reasonable that the immediate focus for the next five years should be to evaluate the financial and other impacts on the City's ability to provide services and process the annexations of those islands to the City.

Page 150, Sewer/Wastewater: There is no such agreement as Rincon Water owns this plant.

Page 196, Sewer: This area is directly adjacent to the Rincon del Diablo MWD wastewater service area. The District intends to provide sewer service to this area.

Page 220, Study Area #5: Southwestern Escondido: This area is directly adjacent to the Rincon del Diablo MWD wastewater service area. The District intends to provide sewer service to this area. Residents in this area have also expressed to Rincon that they would like to obtain sewer service.

Page 222, (3): The present capacity of public facilities and adequacy of public services that the agency provides or is authorized to provide, paragraph 2. The City is overdue in preparing the plans listed in this section. Most are at least ten years old and insufficient to support the current MSR.

Page 224, Study Area #5: Southwestern Escondido: The statement reads: Furthermore, residents within this area have expressed an interest in eventually annexing into the City's corporate boundaries and receiving municipal services. This is an unsubstantiated statement that has no place in the MSR.

Blom, Erica

From: Elizabeth Reid-Wainscoat <ereidwainscoat@biologicaldiversity.org>
Sent: Friday, July 29, 2022 12:36 PM
To: Blom, Erica; Mumpower, Priscilla
Subject: [External] Comment on LAFCO Agenda item 7a- Request amendment to Staff Adendum, removal of recommendation 9b.

Dear Commissioners,

Since 2015 almost 200 people in California have been killed in wildfires, more than 50,000 structures have burned down, hundreds of thousands have had to evacuate their homes and endure power outages, and millions have been exposed to unhealthy levels of smoke and air pollution.

Policymakers must reckon with California's wildfire history and acknowledge that reckless land-use policies are increasing wildfire risk and putting more people in harm's way. We need to invest in land-use practices that reduce our risk to wildfires. This includes the prohibition of new homes in highly fire-prone wildlands and retrofit existing homes with high fire risk.

Harvest Hills is one of located in one of the most dangerous areas in the San Diego region. For this reason, it is opposed by over 50 organizations.

We recognize the need for the Escondido MSR and, in general, we support the recommendations in the LAFCO staff addendum with one exception.While Recommendation 9(a) is sound and we support it, **we recommend elimination of 9b.** A major change in municipal services, such as for the Harvest Hills project, should be part of a comprehensive services and sphere review rather than considered in a piecemeal fashion.

The proposed Harvest Hills project goes against the best available science and presents a significant wildfire risk to the future residents as well as the region as a whole. It should not be fast-tracked in any way and only considered as part of a comprehensive review.

Thank you for your time and consideration.

Sincerely,

Elizabeth

Elizabeth Reid-Wainscoat (she/her)
Urban Wildlands Campaigner
CENTER *for* BIOLOGICAL DIVERSITY
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Los Angeles, CA 90017
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Blom, Erica

From: Frank Landis <franklandis03@yahoo.com>
Sent: Friday, July 29, 2022 1:01 PM
To: Blom, Erica; Mumpower, Priscilla; Simonds,Keene; Laura Hunter
Cc: Adam Finestone; afirestine@escondido.org; Paul McNamara; Rvogt
Subject: [External] CNPSSD Comment on LAFCO Agenda item 7a- Request amendment to Staff Adendum, removal of recommendation 9b.
Attachments: CNPSSD comment on Fanita Ranch RFEIR 20220721.pdf

Please distribute to all LAFCO Commissioners and Alternates, Thank you.

Dear Commissioners,

Harvest Hills is one of the worst and most dangerously located development projects in the region. It is opposed by over 50 organizations, including the California Native Plant Society.

Although we have not fully reviewed all of the documentation, we recognize the need for the Escondido MSR and, in general, we support the recommendations in the LAFCO staff addendum with one exception.

While Recommendation 9(a) is sound and we support it, **we recommend elimination of 9b.**

A major change in municipal services, such as for the Harvest Hills project, should be part of a comprehensive services and sphere review rather than considered in a piecemeal fashion.

This project has failed to advance over a multi-decade period. The reasons for this include recent information on the project's insurmountable fire and evacuation issues. There is even more evidence of the severe threat that this project would pose to existing neighbors and neighboring communities, including the San Diego Zoo Safari Park.

Please find attached a letter submitted last Monday to the City of Santee, over the latest Fanita Ranch EIR. The problems are similar between Harvest Hills and Fanita Ranch.

To extrapolate from the letter, the fire analysis on Harvest Hills is incomplete, because the area gets hit by two types of fires (small and big). Small fires can be successfully fought. Big fires have an energy release on par with a medium-sized hurricane, and they are disasters to be managed through evacuating people and building fire resistant buildings. However, the California Building Code was never meant to create fireproof buildings, as it says in the purpose of Chapter 7A itself. Recent analysis (quoted in the letter) shows, when hit by giant fires like the Witch and Guejito fires, on average 20% of single family homes built to code will burn. Once they burn, it will cost ca. $150,000 per home to clean up the site, displace the homeowners for years while their homes are rebuilt, and probably cost over a million dollars to rebuild each home.

In Harvest Hills, with 550 single family homes, that's an estimated loss of 110 homes and $110,000,000 for every major fire that hits the site, and major fires will hit every decade or two. Everyone bears that loss, including those of us for whom fire insurance is becoming unaffordable for fairly obvious reasons.

Worse, Harvest Hills really only has one road out, so preventing people from getting trapped is going to be difficult. Couple predictable human endangerment with predictable huge costs to rebuild after each fire, and the project becomes increasingly problematic with each fire.

The problems with Harvest Hills are insurmountable and the project is dangerous. It should not be fast-tracked in any way and only considered as part of a comprehensive review.

Thank you for considering this input.

Frank Landis, PhD

Conservation Chair

California Native Plant Society, San Diego Chapter.

California Native Plant Society

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conservation@cnpssd.org | www.cnpssd.org

July 25, 2022

Chris Jacobs, Principal Planner
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Telephone: (619) 258-4100, extension 182
By email to: cjacobs@cityofsanteeca.gov

RE: Recirculated Sections of the Final Revised EIR for Fanita Ranch

Dear Mr. Jacobs,

Thank you for the opportunity to comment on the draft of the Final Revised EIR ("FREIR") for Fanita Ranch ("Project"). CNPS promotes sound plant science as the backbone of effective natural areas protection. We work closely with decision-makers, scientists, and local planners to advocate for well informed and environmentally friendly policies, regulations, and land management practices. Our focus is on California's native plants, the vegetation they form, and climate change as it affects both.

This letter is divided into two sections. The first is the CNPS response to the analysis and mitigation of fire threats, both of which are lacking and which need to incorporate information and analysis that was available when the FREIR was written.

The second section is new information on the sensitive Crotch's Bumblebee (*Bombus c…i*), which, due to a recent appeals court ruling, is a candidate for listing under the California Endangered Species Act. It is documented to occur on Mission Trails and on Miramar within three miles of the Project site, but it was never surveyed for, although suitable habitat and food plants exist on site. Since CNPS does not officially advocate for insects, this comment is made by the writer of this letter (Frank Landis) as a member of the public.

Fire Impacts and Incomplete Analysis

One basic fire impact question is whether the project would "expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?" Per the FREIR (p. 4.18-35) "The wildland fire risk and features prescribed in the FPP (Appendix P1) have been analyzed and developed to reduce risk to acceptable levels at Fanita Ranch by applying comprehensive guidelines developed by a technical panel of 17 professional fire prevention officers and fire protection specialists and planners" and (p. 4.18-37) "The project's redundant fire protection features, quick emergency response, evacuation routes and plans, and the contingency option of sheltering on site in protected spaces would ensure that people and

structures would not be exposed to a significant risk of loss, injury or death involving wildland fires."

This is misleading. If there is no risk to significant risk to structures, why the elaborate evacuation plan? The analysis tries to have it both ways: that people will be efficiently evacuated, so they're safe. and even if they can't be evacuated, they'll be perfectly safe in their homes, because their homes will not burn. Will any firefighter or consultant actually stand up and promise this? Of course not. **The Project is proposed for a dangerous site that is mapped as "very high fire hazard" because it has burned multiple times. That danger needs to be understood, the risk needs to be quantified, and the people and legal entities who are impacted by a fire on the Project site need to have a real voice in the deciding whether the Project is approved, and with what binding conditions.**

In the FREIR, the risk was incorrectly analyzed. The Project site faces two types of wildfires, not one. While mitigation measures to both types of fires were discussed, the analysis mixes and confuses them, making the incorrect conclusion that the risks for both types were adequately mitigated, when in fact only the risks of the lesser wildfire type was. Below we will start to disentangle the mess.

The FREIR risk analysis is also incomplete, in that it did not include financial impacts of fire. These appear to be substantial, over nine times the City of Santee's current annual budget.

A variety of people and legal entities will be impacted by a fire on the Project site, not just the residents. Their input and concurrence is needed to help mitigate these impacts. It is unclear whether all of them were identified in the FREIR and notified of their potential vulnerability, so that they could comment on the process. These concerns are detailed below.

Two Types of Fires and Mitigating For Each

As background, not all fires are equal. Every year, California experiences many tiny fires and a few extreme monsters, a "fire ants and Godzilla" distribution. Between 2008 and 2021, California dealt with between 4,923 and 9,917 fires every year. Of these fires, only between 17 and 95 grew to burn more than 1,000 acres. This is illustrated in Wikipedia's list of fires that were over 1,000 acres, called "Big Fires" in Table 1 on the next page.

As noted, there were only 17 to 95 "Big Fires" every year, or less than 2% of the total number of fires. Unfortunately, these 1,000 acre-plus fires burned between 75 and 99% of the total acres burned every year.

Worse, the biggest 2 to 8 fires each year (The "Godzillas") burned over 50% of the total acreage burned in California that year. These monsters are inevitably wind-driven catastrophes that burn for days to months, whose total energy release (around 10^{17} joules) is on the same scale as the winds in a medium-sized hurricane. There's a scaling problem with assuming that humans can stop this kind of energy release, even if they're trained wildland firefighters.

This is why the metaphor of "fire ants and Godzilla" is apt. If all of the fires California firefighters deal with every year are tiny "fire ants," the firefighting strategic equivalent of applying insecticide (building fire breaks, putting out small fires) is the best answer, and California's firefighters are extremely good at this. At least 98% of all fires in any given year are kept to under two square miles (1,280 acres).

The problem is that "fire ant" measures don't work on big wind-driven fires, the Godzillas, where embers can fly for miles past fire breaks to ignite spot fires. Techniques that are effective in extinguishing small fires are ineffective in dealing with wind-blown wildfires. In a majority of cases, weather changes eventually halt the biggest fires.

Table 1. Summary fire data from 2008 to 2021, per Wikipedia, as scraped from Cal Fire official documents. Total acres burned per year and number of fires/year are self explanatory. Wikipedia broke out fires >1000 acres, which here are labeled "Big Fires." Invariably, only a few big fires (2-8) accounted for over 50% of the total acres burned that year in each state. The Big Fires accounted for 75-99% of all acres burned, even though they are always less than 2 percent of the number of fires in the state.

Year	Total Acres Burned/Yr	#Fires/Yr	Number of "Big Fires" (>1,000 Acres)	Number of Big Fires that burned >50% of total acres/yr	Percent of Total Acreage Burned by Big Fires
2008	1,593,690	4,923	95	8	92.36%
2009	422,147	9,159	38	2	96.49%
2010	109,529	6,554	17	6	63.68%
2011	168,545	7,989	24	4	87.70%
2012	869,599	7,950	43	4	82.34%
2013	601,625	9,907	28	3	87.86%
2014	625,540	7,865	37	4	84.13%
2015	893,362	8,745	23	5	77.61%
2016	669,534	7,349	33	6	75.37%
2017	1,381,405	9,133	61	7	92.97%
2018	1,893,913	8,527	58	5	83.17%
2019	259,823	7,860	36	2	99.40%
2020	4,397,809	9,917	74	5	94.70%
2021	2,569,009	8,527	39	3	97.00%

Thus there are two sets of necessary fire mitigation measures. For small-scale fires, having defensible space around structures, building fire breaks, clearing annual weeds away from road edges and houses, and directly fighting fires work quite well.

For big fires, the major tactics are evacuating people out of harm's way, and using fire-resistant landscaping and building techniques to minimize ignition from flying embers. As a desperation defense or in purpose-designed systems, sheltering in place can work. Unfortunately, none of these are foolproof, especially sheltering in place in a building built to code.

Building to code helps reduce the chance of a building burning down, but it is not intended to make buildings fireproof. Chapter 7A of the California Building Code states that "[t]he purpose of this chapter is to establish minimum standards for the protection of life and property by increasing the ability of a building located in any Fire Hazard Severity Zone within State Responsibility Areas or any Wildland-Urban Interface Fire Area to resist the intrusion of flames or burning embers projected by a vegetation fire and contributes to a systematic reduction in conflagration losses."

Chapter 7A *does not warranty* that a building built to code is fireproof or even suitable for shelter in place. While we agree that sheltering in a new home might be somewhat safer than

getting stuck in a car as in the tragic Paradise fire, it is a far cry from designed for true shelter in place. **Why was it labeled as such?**

In summary, the Project's fire protection plan has to protect against two kinds of fires, and it does have some mitigation features to protect against both. Furthermore, we agree that small fires, a category which includes the majority of the fires that have occurred on the site, are unlikely to cause damage to humans or buildings. **Resistance to small fires is necessary, not sufficient, to reduce fire risk on the site, because the majority of the risk comes from Big Fires and especially from Godzilla-scale fires like the Cedar or Witch fires of years past.**

We disagree that the measures taken are sufficient to protect humans and property from harm by large, wind-driven fires. Since two of these monsters have burned the site, any project built on it is vulnerable. As the data from California show, almost all losses of buildings and lives happen in the big fires. The FREIR recognizes this in its evacuation plan, but it mistakenly asserts that the measures it proposes will reduce the risk during extreme, wind-driven fires, to "below significance." This is a mistake, because there are no quantitative measures of safety provided, only assertions by people who have worn uniforms. **What substantial, quantitative evidence exists to demonstrate what the threshold for non-significant fire impacts to people and structures is? What evidence and analysis demonstrates that the Project's measures lower risks from big fires below this threshold?**

What Working Shelter-In-Place Looks Like

The Project proposes that buildings built to code can be used for safe shelter in place. The code makes no such assertion. To illustrate the difference between "built to code" and "safe for shelter in place," we need an example.

The best-known local example of a true shelter-in-place system for three thousand people is Pepperdine University,[1] which has deployed their continually-updated system successfully in a number of big fires. The differences between their current version and the Proposed Project are instructive, because they demonstrate why shelter-in-place on the Project site is a last resort in a growing disaster.

Pepperdine's sits at the mouth of fire-prone Malibu Canyon. Even when the campus was designed in the 1970s, the site was known to burn, and in fact it did burn while the buildings were under construction. Pepperdine's problem is that many of its students don't have cars, so they can't easily evacuate down Pacific Coast Highway, even if the normal evacuation gridlock would let them leave. Because of its large and vulnerable population, the campus was designed to be fire resistant with its distinctive "Modernist Mediterranean" style, and the huge lawn surrounding it is supposed to be a fire defense. Nevertheless, the real defense is that everyone on campus shelters in the library and administration during big fires, while ten fire engines from the nearby Malibu Fire Department stand guard around those buildings. Campus staff stock emergency supplies in the shelter buildings and regularly conduct full fire drills for everyone. The backbone of the system are the staff, not the residents, and the staff work regularly to update their safety program in concert with the City of Malibu.

This is the only large-scale shelter-in-place system we know of in Southern California. **What additional planning, staffing, resources, and structures, and coordination with the City of Santee and firefighting agencies would the Project have to add to provide safety comparable to what Pepperdine has demonstrated? This is what is needed for shelter in place.**

[111] https://la.curbed.com/2018/11/20/18097889/wildfire-pepperdine-malibu-shelter-in-place

Financial Impacts of Fire on the Project Site

The *financial costs* implicit in "acceptable levels of risk" were not analyzed. **Why not?**

Here is an estimate of such costs. It is based on working paper 29621 published in December 2021, by two researchers from the National Bureau of Economic Research, Patrick Baylis and Judson Boomhower.[2] Their work is not focused on Fanita Ranch, but rather on the benefits and costs of California's building code with respect to wildfire losses. California's 2007 building code is the strictest in the nation. They wanted to determine whether it actually reduced the number of homes lost to wildfires, what the costs for rebuilding a burned home in California are, whether it is cost-effective to build to the 2007 code, and cost-effective to retrofit other homes to meet modern standards. In doing this work, they compiled a detailed database of over 46,000 single-family homes in California that were damaged or destroyed by wildfires. Their analysis is useful in this case because it is impartial with respect to the FREIR, and importantly because it puts quantitative estimates on the Project's fire risk, something largely missing from the FREIR.

Briefly, what Baylis and Boomhower discovered was that about 35% of California homes built before 1989 burned when hit by a wildfire, while homes built after 2007 burned about 20% of the time. Thus they conclude that the current building code does reduce fire risk substantially. By their estimate, if a single-family home burns in California, it costs around $150,000 to haul away debris and clean up the site, $61,696 for the displaced family to rent a dwelling for two years while their home is rebuilt, and $766,725 to rebuild the home, for a total cost per home burned of $978,421.

How much would a wildfire hitting the proposed Fanita Ranch project cost? If we assume that 2,514 single-family homes would be built on Fanita Ranch and that 20 percent of these homes burn, we estimate that 503 homes will burn every time a major wildfire burns the Project. It would cost an estimated $75,450,000 to haul away the remnants of those homes and clean the site, an estimated $31, 033,088 to house the 503 displaced families while their homes are being rebuilt, and an estimated $385,662,675 to rebuild the 503 single-family homes, for a total estimated cost of $492,145,763 per large fire.

Note that $492,145,763 is a gross underestimate of the Project's total "acceptable risk." It includes losses only to single-family homes, not to townhomes, condominiums, businesses, or other structures. It makes the optimistic assumption that the cost model is accurate for Santee, although San Diego County has one of the most expensive housing markets in the nation. It also does not account for the impacted rental market, long permitting times, possible litigation delays, or inflation. Among other things.

Why is this at such sharp odds from the FREIR's conclusion? As noted in the previous section, the FREIR analysis is largely qualitative. It is predicated on the notion that the site has to prepare only for generic wildfires when the evidence strongly suggests that little fires and wind-driven infernos are radically different and require radically different strategies. Small fires can be fought, but in wind-driven infernos, evacuation and structure design are what cause the 20% losses.

While we present quantitative evidence that 20 percent of built-to-code homes are lost in wildfires, this shouldn't have been news, because similar losses were reported in the Paradise, Woolsey, and other fires years ago. **Why did the FREIR not contain an analysis of the**

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[2] Baylis, PW and J Boomhower. 2021. Mandated vs. Voluntary Adaptation to Natural Disasters: The Case of U.S. Wildfires. http://www.nber.org/papers/w29621

limitations of the building code? It is the best in the US, but it does not make for fireproof homes.

In this section, we point out that the CEQA question--would the project "expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?"—**does not specify that the people impacted are only the site residents. Someone has to pay for the damage, and they are impacted by this project. The impacts from even 20% of Fanita Ranch burning dwarf the City of Santee's annual budget.**

Who is impacted by Project wildfire losses?

- Residents
- The owners of homes and buildings
- Workers in the businesses and other employees and contractors
- Companies insuring homes, buildings, and businesses
- The City of Santee, for lost property taxes, damage and cleanup expenses, firefighting, etc.
- Those who plan to minimize the amount of organic debris going into landfills (County and State)
- The area rental market (for displaced Project residents)
- Stormwater facilities downstream
- State of California, who will likely be asked to make good on uninsured losses. The California Attorney General's office has intervened in multiple fire-related CEQA cases. Were they notified?
- Federal government, who will also likely be asked to make good on uninsured losses.

Were the proper representatives of all of these groups notified that this Project could impact them or their interests? Which ones were left out? What is the plan to notify the ones left out? Will comments be reopened?

The widespread and unmitigated financial impacts of this Project strongly suggest that the Project needs to go before the voters. Will it? If the Santee City Council decides that a half-billion dollar financial risk is insignificant, perhaps it is worth asking the voters if they agree?

In sum, the impacts to wildfire have not been mitigated below the level of significance by the FREIR. More work needs to be done before this document is complete. If quantitative estimates of the impacts cannot be estimated, and if the Projects impacts cannot be lowered below the level of significance, given the enormous financial risks the Project holds, it is probably more prudent to avoid the risks entirely by not building it.

NEW INFORMATION: Crotch's bumblebee (*Bombus crotchii*)

The following section is attached with permission of CNPS by Frank Landis, who is writing as a member of the public in this section, not representing CNPS. This happens when a review of a document turns up an omission that other groups are not advocating for. CNPS does not advocate for insects, although pollinators are critically important to the continued survival of native plants.

The issue here is Crotch's Bumblebee (*Bombus crotchii*). This rare bumblebee is currently a candidate for listing under the California Endangered Species Act, and as such, it is entitled to the protection it would receive as if it were listed, until CDFW makes a final determination of its status.

In April, 2019, the Fish and Game Commission voted to give Crotch's Bumblebee candidate status. That decision was legally challenged in September 2019, and overruled in November 2020. On May 31, 2022, before the FREIR was sent out for public comment, the appellate court overturned the lower court's ruling and reinstated Crotch's bumblebee as a candidate species.

This matters because, according to the CNDDB, Crotch's bumblebee has been collected five times in Mission Trails and East Elliott between May 2011 and late July 2020. It was also captured in June 2010 on Miramar just south of Poway. All these collections are within about three miles of the Project site. All its known food plants are documented as occurring on the site in the May 2020 Biological Technical report for the previous DREIR on the Project. The vegetation communities described for the Project site in that document are also consistent with known Crotch's bumblebee habitat.

Why was Crotch's Bumblebee not surveyed for in the previous iteration of the Project EIR? This question should be answered in the response, but it is quite evident that no effort was made to survey for bees or flies for the EIR. Butterflies were the only pollinators systematically surveyed for, and the only wasp recorded was the large, obvious Tarantula Hawk that even botanists readily notice. There is no mention even of honeybees being observed in the field, let alone bumblebees. Had any attempt been made to search for bees, surely the ubiquitous presence of honeybees would have been noted!

Thus, the Project has a high likelihood of a candidate listed species on the site, and no attempt was made to survey for that species. The species' legal condition changed before the DFEIR was issued in June, so it should have been the subject of focused surveys, and those surveys should have been performed in the last few months. This was not done, even though it is a straightforward effort.

The solution is simple: conduct focused surveys for Crotch's bumblebee on the Project site during the appropriate season (spring and summer). If the species is present, determine if it will be impacted by the Project or not. If it will be impacted, create suitable mitigations. If existing mitigation plans already protect it, present substantial evidence that this is the case. If it is not present on the site, present evidence of a suitable search.

This species was not covered by previous litigation, nor by previous EIRs. Here I present substantial evidence to warrant a survey to determine its status on the Project site, whether the Project impacts a population, and how to avoid or mitigate any impacts as required.

Thank you for taking these comments. Please keep CNPSSD informed of all developments with this project and associated documents and meetings, through email to conservation@cnpssd.org and franklandis03@yahoo.com.

Sincerely,



Frank Landis, PhD
Conservation Chair
California Native Plant Society, San Diego Chapter

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Blom, Erica

From: Friends of Rose Creek <info@saverosecreek.org>
Sent: Friday, July 29, 2022 1:18 PM
To: Blom, Erica; Mumpower, Priscilla
Subject: [External] Comment on LAFCO Agenda item 7a- Request amendment to Staff Addendum, removal of recommendation 9b

On behalf of the Friends of Rose Creek, I am providing the following comments,

Dear Commissioners,

Harvest Hills is one of the worst and most dangerously located development projects in the region. It is opposed by over 50 organizations including the Friends of Rose Creek.

While Recommendation 9(a) is sound and we support it, **we recommend elimination of 9b.**

A major change in municipal services, such as for the Harvest Hills project, should be part of a comprehensive services and sphere review rather than considered in a piecemeal fashion.

This project has failed to advance over a multi-decade period. The reasons for this include recent information on the project's insurmountable fire and evacuation issues. There is even more evidence of the severe threat that this project would pose to existing neighbors and neighboring communities, including the San Diego Zoo Safari Park – a world class research institution that is preserving biodiversity for many species on the brink of extinction.

We fully support the comments of the following organizations previously submitted:

- Sierra Club North County Group
- Endangered Habitats League
- San Pasqual Valley Preservation Alliance

Thank you for taking the time to review our comments.

Warmly,

Karin Zirk, Ph.D. (she/her/hers)
Executive Director
Friends of Rose Creek
***** Connecting Our Communities *****
https://www.saverosecreek.org

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Blom, Erica

From: Pam Heatherington San Diego <contactecosd@gmail.com>
Sent: Friday, July 29, 2022 1:28 PM
To: Blom, Erica; Mumpower, Priscilla
Subject: [External] Comment on LAFCO Agenda item 7a- Request removal of recommendation 9b.

Dear Commissioners,

The Environmental Center of San Diego works to protect and enhance the natural environment throughout San Diego. We support the letter from the Sierra Club North County Group, Endangered Habitats League, and San Pasqual Valley Preservation Alliance requesting the ***removal*** of 9b in Agenda item 7a.

Thank you,
Pamela Heatherington
Board of Directors
Environmental Center of San Diego

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Blom, Erica

From: Joanne Tenney <joannetenney@hotmail.com>
Sent: Friday, July 29, 2022 2:02 PM
To: Blom, Erica
Subject: [External] Fire Risk Assessment

Support removing Recommendation 9B.

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Blom, Erica

From: Susan Baldwin <susanbaldwin@aol.com>
Sent: Friday, July 29, 2022 3:58 PM
To: Blom, Erica; Mumpower, Priscilla
Cc: laurahunter744@gmail.com; dsilverla@me.com
Subject: [External] Comment on LAFCO Agenda Item 7a: Request elimination of Recommendation 9b in the MSR Report Summary

Dear LAFCO Commissioners,

I am writing to support the recommendation in the letter you received from Laura Hunter, Dan Silver, and NeySa Ely regarding Agenda Item 7a to eliminate Recommendation 9b in the Municipal Service Review REPORT SUMMARY | July 2022.

A major change in municipal services, such as for the Harvest Hills project, should be part of a comprehensive services and sphere review rather than considered in a piecemeal fashion.

Thank you for your consideration.

Sincerely,

Susan B. Baldwin, AICP
San Diegans for Managed Growth
susanbaldwin@aol.com
619-867-5028

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Blom, Erica

From:	Laura Hunter <laurahunter744@gmail.com>
Sent:	Friday, July 29, 2022 11:36 AM
To:	Blom, Erica; Mumpower, Priscilla; Simonds,Keene
Cc:	Adam Finestone; afirestine@escondido.org; Paul McNamara; Rvogt
Subject:	[External] Comment on LAFCO Agenda item 7a- Request amendment to Staff Adendum, removal of recommendation 9b.
Attachments:	FireRisk Assessment 24AUGUST2021.pdf; GCTC Harvest Hills Evacuation Memo - 2-17-22.pdf; Vogt_Rhode Memo 21Sept2021.pdf

Please distribute to all LAFCO Commissioners and Alternates,

Thank you

Dear Commissioners,

The wildfire this week, in the Witch Creek area again, is an on-going reminder that development in high-risk fire areas is unacceptable and unsafe.

Harvest Hills is one of the worst and most dangerously located development projects in the region. It is opposed by over 50 organizations.

Although we have not fully reviewed all of the documentation, we recognize the need for the Escondido MSR and, in general, we support the recommendations in the LAFCO staff addendum with one exception.

While Recommendation 9(a) is sound and we support it, **we recommend elimination of 9b.**

A major change in municipal services, such as for the Harvest Hills project, should be part of a comprehensive services and sphere review rather than considered in a piecemeal fashion.

This project has failed to advance over a multi-decade period. The reasons for this include recent information on the project's insurmountable fire and evacuation issues. There is even more evidence of the severe threat that this project would pose to existing neighbors and neighboring communities, including the San Diego Zoo Safari Park.

Please find three attached reports highly relevant to the fire situation of Harvest Hills,

1. Fire Risk Assessment of Harvest Hills, August 26, 2021. Rohde and Associates was commissioned by the city of Escondido for a Fire Risk Assessment of the project and to review Harvest Hills' Fire Protection Plan. They found it grossly deficient. The findings are devastating and the 'fixes' and highly expensive and have not been evaluated in any of the environmental review. Fire Risk Assessment, August 26, 2021.

2. We also attach a review of the Rohde report by expert firm Griffin Cove Transportation Consulting, February 17, 2022. This analysis looked at several scenarios and found gridlock, stranding, and failures of evacuation. It demonstrates that, even **with** the Rohde recommendations, …*none of the evacuation scenarios provide sufficient road capacity to allow for safe evacuation of Harvest Hills or the neighboring communities.*

3. A Memorandum from Chief Rick Vogt in response to the Rohde Report listing nine major areas of concern. September 21, 2021

The problems with Harvest Hills are insurmountable and the project is dangerous. It should not be fast-tracked in any way and only considered as part of a comprehensive review.

Thank you for considering our input

Laura Hunter, Sierra Club North County Group

Dan Silver, Endangered Habitats League

NeySa Ely, San Pasqual Valley Preservation Alliance

Blom, Erica

From: Bob Glaser <bobglaser@aol.com>
Sent: Friday, July 29, 2022 1:16 PM
To: Blom, Erica
Subject: [External] Harvest Hills Item

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The problems with Harvest Hills are insurmountable and the project is dangerous. It should not be fast-tracked in any way and only considered as part of a comprehensive review.

Thank you for considering my input.

Sent from the all new AOL app for Android

HARVEST HILLS

Planned Community Development

FIRE RISK ASSESSMENT



Prepared for the City of Escondido by:
Rohde & Associates

August 24, 2021

HARVEST HILLS
FIRE RISK ASSESSMENT

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The Project

Harvest Hills is a proposed planned community development in the western San Pasqual Valley, an unincorporated area of San Diego County, California. The proposed development would be incorporated into the City of Escondido, if approved for development. Collectively, this development is referred to in this study as the "Project". The proposed planned community includes 550 single family dwellings, for approximately 1,716 residents on a 1,098-acre project site. Lot sizes within the project will range from 8,000-200,000 square feet. Seven project development phases are proposed in the project scope (Dudek, 2020). The Harvest Hills village core will include a 2-acre community center with a clubhouse ("The Farm House"), pool, and tennis facilities and an adjacent 2.3-acre fire station site. No other public facilities are currently planned for inclusion in the development

A development plan has been under discussion with the City of Escondido for over six years. Previously, the project was referred to under the name "Safari Highlands Ranch". The development is currently engaged in governmental review and the preparation of an Environmental Impact Report pursuant to CEQA and has submitted a Fire Protection Plan (v.2, Dec. 2020). Rohde & Associates LLC, fire safety consultants, have been retained by the City of Escondido to conduct a fire risk assessment of the project, including specifically those aspects that deal with wildfire and structural fire and life safety.

The project would be located west of the San Diego Zoo Safari Park, east of the residential neighborhood of Cloverdale, and north of State Highway 78/San Pasqual Valley Road. The development site is located generally along ridgelines rising above rugged terrain and steep slopes.

Project aerial view looking west to east



The Project Site

The greater project area is located in the Santa Ysabel creek watershed area of North San Diego County, in an area also known as San Pasqual Valley. The creek drainage is a predominantly east-west oriented significant canyon located immediately east of the City of Escondido. The canyon is traversed by State Route 78, which is a primary route between coastal communities and inland areas including the Community of Ramona to the east. The site currently consists of private agricultural/rural lands along the canyon floor and undeveloped lands along slopes and ridges. The project has adjacency to the 1,800-acre San Diego Zoo Safari Park on its east flank. The 50-acre San Pasqual Battlefield State Historic Park is located immediately east of the zoo. The San Diego County San Pasqual Academy, a large foster youth group home is located east of the State Park. Both the State Park and Academy are located along the valley floor. Upland and ridge areas north of SR78 and east of the project are currently occupied by large animal pens near the zoo, some abandoned orchard facilities, and is dotted with a few rural homes. The project proposes siting of larger homes ranging to estate size, prominently located along ridgelines to the north of SR78 and immediately west of the zoo properties. West of the proposed development and along a valley floor is an existing community of Cloverdale within the City of Escondido. A steep, undeveloped slope separates the project from Cloverdale, although an access road to the project is expected to traverse from the valley floor into the project.

The project site is currently covered by grass and shrub vegetation, including both sage and heavier chaparral shrubs. Some riparian and oak areas are present within the project site. The majority of proposed development will be constructed along ridgelines where slopes of up to 50% rise from the valley floor to a maximum elevation of 1,820 feet. The valley elevation at the lower end of the project is 420 feet. The entire project area is within State designated Very High Fire Hazard Severity Zone.

<u>Analysis Approach</u>

Rohde and Associates has assigned four staff members to this project with over 130 years of collective fire service experience in Southern California, including a nationally recognized wildfire behavior analyst. This team conducted a fire risk assessment both of the proposed Harvest Hills project and for the greater planning area. On-site reviews were performed by the team during the period June-July, 2021.

Since wildfire has been determined by agencies to be the predominant fire risk to the development site, the consultants have been tasked to conduct a wildland fire-centric study. The analysis of related data has included:

a. Fire Protection Plan (and appendices), prepared on behalf of the project proponent Concordia Homes, by Dudek of Encinitas, CA. (v.2) December, 2020.

b. An Emergency Evacuation Analysis within the project's Fire Protection Plan (Dudek 2020)

c. Harvest Hills Specific Plan, related maps, water services reports, and plan appendices, prepared by the project proponent for the City of Escondido, November, 2019.

d. Traffic Technical Memorandum, prepared by the project proponent for the City of Escondido, November, 2019

e. County of San Diego High/Very High Fire Severity Zone data.

f. San Diego County fuels and topographic mapping.

g. State of California Forest Resource and Protection Program (FRAP) data.

h. Fire history map data for the San Pasqual Valley region

i. Potential Fire behavior data produced by BehavePlus, FlamMap, and LANDFIRE applications.

j. Wildland-Urban Interface Fire Emergency Response Plans, San Diego County Fire Chiefs Association, 2015- 2021 (Cloverdale, San Pasqual-Safari Park, and Community of Ramona area: Ramona North, Ramona West Plans).

k. Wildland Fire Evacuation Plans, City of Ramona area, and San Diego Zoo Safari Park.

Site Characterization and Fire Behavior

Climate

The site is subject to a Mediterranean Climate with dry, warm summers, and brief, wet winters. This historically results in summer and fall critical fire weather on the project site. Critical fire weather periods have occurred in every month of the year, although a fall through winter foehn wind condition, the Santa Ana winds, historically leads to the most critical fire-weather episodes. Climate change has caused uncertainty with historical fire weather patterns, and periods of prolonged drought has increased fire severity, total burned acreage, and extended a seasonal fire condition to a "year-round" risk.

Fire History

The proposed project lies within an active historical fire corridor subject to repeated occurrence of large, Santa Ana (east-northeast) wind-driven wildfires. Additionally, smaller fires affected by daily onshore (west-southwest) wind

conditions are not uncommon within the area. Large fires have repeatedly swept the Santa Ysabel creek drainage and wildfire rates of spread have been documented averaging 3+ MPH for most fires and up to 6 MPH during peak runs. Large fires have been recorded in the region since 1910 including 1910, 1911, 1912, 1913, 1914,1919, 1927, 1938, 1943, 1945, 1946, 1949, 1950, 1951, 1952, 1955, 1956, 1962, 1965, 1967, 1970, 1972,1974, 1975, 1978, 1979, 1980, 1981, 1984, 1985, 1987, 1988, 1989, 1991, 1993, 1995, 1997, 2003, 2004, 2007, and 2013, all burning within 5 miles of the project site. The site was burned completely in the 1910s, 1950s, 1993 (Guejito Fire), and 2007 (Witch Fire) and was partially burned in the 1930s. This information excludes fires less than 10 acres. (FRAP, Dudek 2020). This fire history presents one of the most frequent fire-return-interval rates in Southern California.

Witch Creek Fire

Of the largest and most recent fires, the October 22, 2007 Witch Creek Fire (a.k.a. "Witch") burned 1,265 homes and 587 outbuildings, and caused the evacuation of 500,000, burning 240,207 acres and contributing to two civilian deaths. Wind gusts in the San Pasqual Valley during the fire were recorded over 100 MPH. While the Witch Creek and Poomacha wildfires burned together, the Witch Creek fire alone burned 197,990 acres. The California Highway Patrol was forced to close both State Route 78 and Interstate 15 to civilian vehicle traffic during the height of the fire, complicating evacuations. Insured loss for the fire exceeded $1.142 Billion, and suppression costs exceeded $1.3 Billion. This was one of the largest and most damaging fires in San Diego County history. While the entire Harvest Hills project site was burned during the fire, no developed properties were lost here at that time, as the property was undeveloped.

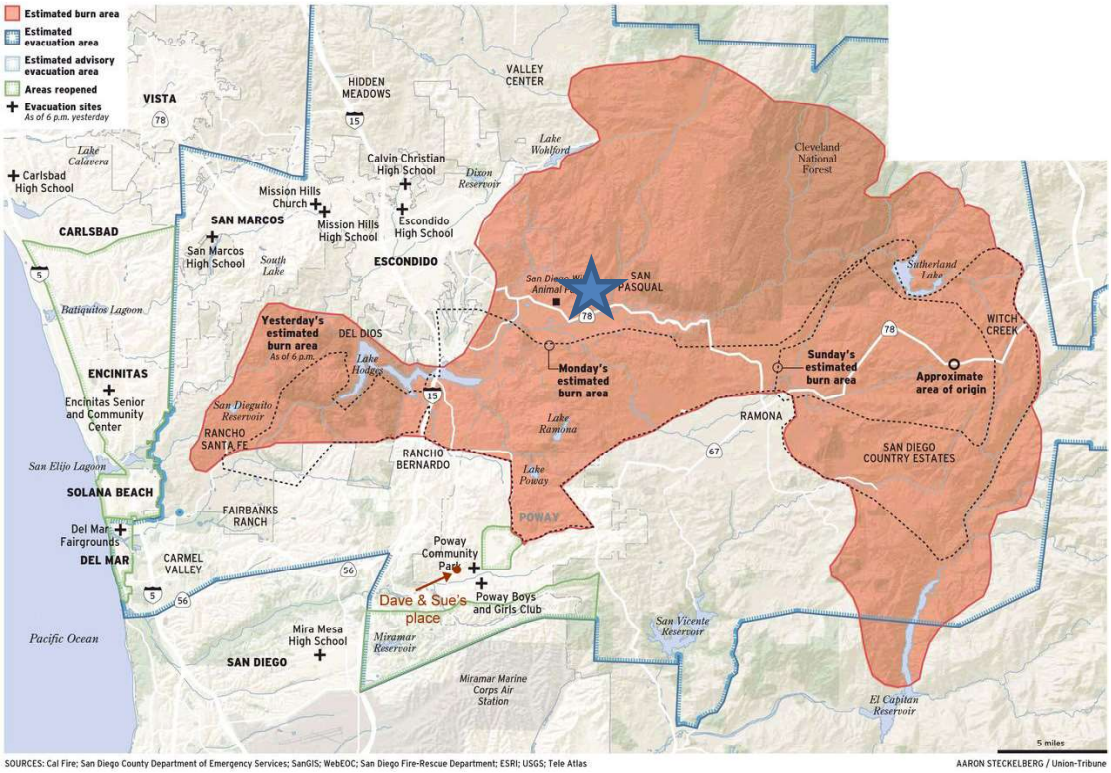
This fire offers a perspective common of many San Diego County wildfire occurrences in that large area was affected, multiple large fires occurred simultaneously, and the large scale of the emergency drove a need firefighting and evacuation on a regional rather than local basis. This concept underscores the importance of consideration of developmental impacts on the broader community-at- risk. Since many of these fires repeat historical spread patterns, it is likely that future wildfires will affect this entire historical wildfire corridor in similar ways to past wildfire occurrence. Project evacuation planning must be in scope and concurrent with those of the broader region.

Witch Creek Fire in Rancho Bernardo



While the proposed project development footprint and manner of development may aid in developing new ignition and spread resistance to fires and buffer some existing development from direct fire assault, the community's proposed position within the historic fire corridor will ensure its exposure over time to large and high intensity wildfires, as wildfire historically will reburn over past fire footprints.

Witch Creek Fire Map- Project location indicated by blue star



Fire Weather and Behavior

Offshore winds

Santa Ana winds are an offshore foehn wind condition which characteristically critically dries vegetation, develops high wind speeds and low relative humidity, and spawns' wildfires throughout the region. Santa Ana winds typically flow in an offshore, east or northeast pattern and have occurred in every month of the year, but are characteristic of the September through April period. Peak burning conditions occurring with Santa Anas often include high thermal outputs, long-range spotting in excess of 1-mile, "fire whirl" tornadic like activity, high rates of spread, and other extreme fire behavior. The offshore gradient of these winds may continue day or night until casual atmospheric pressure gradients relax.

Average Santa Ana wind speeds within the project may range from 25 to 35 MPH, with gusts to 60 MPH+ on exposed sites. Gusts have been recorded in excess of 100 MPH adjacent to the project area, San Pasqual Valley frequently is

topographically aligned with Santa Ana wind patterns with a north-east or east wind vector, accentuating fire or wind effects in the project area. Peak windspeeds may be expected at planned development sites along ridgelines where winds are unobstructed.

When a north-easterly or east pattern is present, San Pasqual Valley feels the full effects of Santa Ana wind. In the case of wind obstructed sites such as the lee sides of ridges, winds may be expected to be variable in direction and turbulent. The physical alignment of the Santa Ysabel creek drainage with Santa Ana winds has the potential to produce maximum fire intensity and cause fire trajectory to be channeled to exposed home sites. As such, additional mitigations are necessary for these sites for fire safety. Fire behavior and weather review has indicated historical trends, reflected in the chart below:

Harvest Hills Project Site - Santa Ana fire conditions- 50-year average

Max. Temp.- offshore winds	**Min. Relative Humidity (RH)- offshore winds**	**Average offshore wind speed**	**Average offshore gusts**	**Flame Lengths**	**Spotting Distance**	**Rate of Spread**
100-108 degrees F.	3-5%	25-35 MPH	50 MPH	45-65 ft.	¾ mile	2.5-3.5 MPH

Onshore Winds

During normal diurnal conditions, onshore winds of low to moderate intensity will likely affect the project site daily, beginning with solar heating early in the day, with onshore/up-canyon winds diminishing after sunset. Light, down-canyon winds will be the routine condition after dark. Summertime critical fire weather events can occur and are frequently associated with prolonged periods of hot temperatures, low relative humidity, low fuel moistures associated with seasonal drought, strong/dominant high pressure and moderate diurnal/ onshore winds. While fire behavior can be critical under these conditions, wind speeds are typically less severe than during Santa Ana wind events. Fire behavior and weather review has indicated historical trends, reflected in the chart below:

Harvest Hills Project Site - peak summer diurnal fire conditions- 50-year average

Max. Temp.- Onshore winds	**Min. Relative Humidity (RH)- onshore**	**Average onshore wind speed**	**Average onshore gusts**	**Flame Lengths**	**Spotting Distance**	**Rate of Spread**
90-100 degrees F.	<15%	7 MPH	20-30 MPH	20-25 ft.	¼ mile	1-2 MPH

Fuel Conditions

The project area is largely composed of vegetation typical of Southern California coastal and interior chaparral communities. In addition to Southern Mixed Chaparral and Diegan Coastal Sage Scrub, small areas of riparian vegetation, coast live oak woodland, eucalyptus, and both native and non-native grasslands exist on and near the site. Grazing and agricultural use has been common on lower elevation sites. The spatial area of each habitat type is adequately reflected in maps included within the project proponent's Fire Protection Plan (Dudek, 2020). Grass and sage scrub dominate the lower elevations, and mixed chaparral dominate higher elevation sites. Vegetative cover within the project area was burned in 2007 and is recovering. Fuel loading for the project site is estimated to be .4 to.5 tons per acre for grass, 6 tons per acre for sage scrub, and 8-10 tons per acre for mixed chaparral.

Typical wildland fuels in the project area



Effect of fuels

Current fuel conditions are of moderate to old age class, recovering from the effects of the 2007 Witch Creek Fire in many locations. Some project locations were spared by the Witch Creek Fire and currently support higher density "islands" of fuels. The overall condition may support high intensity or large wildfires under wind-driven or extreme burning conditions. As fuel conditions continue to age and mature, large fire energy release potential and spotting fire behavior may be expected to increase. These fuel beds should achieve climax conditions within 25 to 30 years post-fire.

A principal effect in fire behavior is demonstrated by flame length production. This is an important factor which relates to difficulty to control, potential for direct flame impingement upon structures, demands for fuel modification width, or for fire obstruction of roadways used for evacuations. Given the fuels condition present, flame lengths may be reduced by up to 1/3 that of climax fuels potential in this area. We forecast that near-climax shrub fuels may generate flame lengths of

40-60 feet. This generally agrees with the proponent's initial Fire Protection Plan (Dudek, 2020) findings. Much of the development proposed by the project is located above steep slopes ranging to 50%. These slopes will accentuate fuels driven fire behavior by a factor of 2-3x, especially when slopes are in alignment with wind. This condition drives the need for enhanced fuel modification distances, structural setbacks, and construction aspects which may resist these enhanced fire intensities.

Rates of spread are likely to be higher in the sub-climax fuel condition due to the higher percentiles of small woody and grass-like fuel structure present. Rates of spread for the current fuel condition was calculated using area historical averages for Santa Ana winds. This calculation resulted in an average wildfire rate of spread for shrub fuels of 2.5 to 3.5 MPH, although peak rates of spread have been observed on area fires at near twice that rate, especially in locations where wind, topography, and fuels were in alignment, or where a heavier grass component were present. The Dudek report (2020) generally concurs with these calculations.

As shrub fuel conditions reach post fire climax, under critical burning conditions the risk for spotting will increase and fire intensities may increase with the availability of heavier fuels. Spotting may become particularly problematic near ridgelines where fires may loft burning materials up and over. This issue suggests that ember cast from Santa Ana wind driven fires into the project will become an increasing risk as fuels continue to recover from the 2007 burn condition. Spotting may become particularly problematic downwind from heavier fuel beds as they mature.

National fire research by Cohen (2008) and Manzello (2014) have identified that fire brand casting is a principal factor in ignition of structures in the Wildland-Urban Interface. This consideration should cause planners to consider extensive protection from fire branding for the proposed development in structural design, use and placement of ornamental vegetation, placement and design of structural features such as decks, gazebos and external structures, structural setbacks from vegetation, modification of native fuels in internal community islands, and related actions to reduce ignition by fire branding. These conditions should include focus on attic vents, eaves, roofing materials, exterior fencing materials, and ornamental vegetation restrictions. Such actions are all required by fire and building codes for the area and are recognized in the project Fire Protection Plan (Dudek, 2020).

<u>Ember Production</u>

The principal means of structural ignition (Cohen) is ember cast from fires burning in adjacent wildland fuels. Embers may cross significant distances to land in receptive fuels or locations, spreading spot fires considerable distances from fire fronts. Ember cast has occurred historically at long range in this area due to its frequent and high Santa Ana winds and adjacency of native fuels. Ember ignition resistance is chiefly developed within the project through compliance with local and State building and fire codes, the use of fire resistive materials and methods, and the restriction of yard structures and combustible features.

Ember cast and spotting will be a significant feature in most large wildfires, with distant spotting ahead of the fire becoming problematic in both onshore and offshore wind driven fire behavior. The effects of slope on fire behavior will be significant contributors to increased spotting, especially where wind direction, slope, and heavier fuel beds are aligned to maximize potential fire behavior.



Ember cast during Wildland-Urban Interface Fire

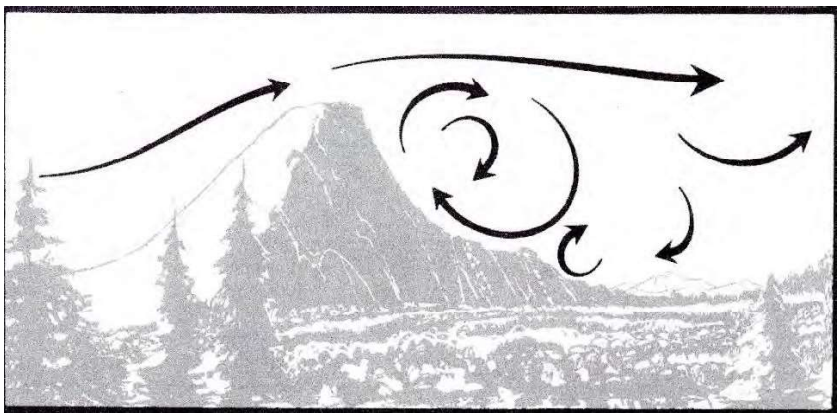
Topography

Elevations range within the Project from near 420 feet on the San Pasqual Valley floor near SR 78 to 1,820 feet along ridgelines north of SR 78. The area includes rugged topography of steep mountains interspersed among inland valleys. Rugged canyons with slopes ranging from 16% to 50% are common. The San Pasqual Valley rises from west to east into the Community of Ramona on the east. Many wildfires originating near or east of Ramona have run the valley into the City of Escondido. The potential for soil instability post-fire is well understood but not addressed in the Fire Protection Plan. This issue should be addressed by project geologic studies as part of its CEQA compliance.

Terrain has the potential to accentuate fire behavior potential within the project area. Homes are proposed for placement on ridgelines above canyons that will offer wind and slope aligned exposure for wildfires approaching from either onshore or offshore wind conditions. This will accentuate all fire behavior effects, particularly flame lengths and spotting. Ridgelines are also a fire whirl favored location, which offers tornadic like wind influences during wildfire passage.

Ridgeline roll-eddy effects on spotting may also be significant in the upper portions of the project. (Schroeder & Buck, 1970). As ridge top winds along the ridgelines may form horizontal roll vortices on the lee side of ridges. Spot fires which occur in this region may be driven by eddy winds, causing fires to threaten ridgeline homes with force from both the wind facing side of the slope, as well as the lee side. This dynamic has potential to negate the benefit of alternate means of ember control such as ember resistant fencing when installed alone as a structural defense. Such fences themselves may be subject to smaller roll vortices affecting ember movement and

overcoming such barriers. Careful consideration for placement of such structures and consideration of fuels adjacent to fencing is important to the success of such a defense. In the case of this project, 200 feet of fuel modification is proposed in conjunction with these walls which, in the opinion of this study, will reduce fire behavior and ember production effectively, allowing for the likely success of the proposed installation.



Large roll eddies are typical on the lee side of ridges perpendicular to winds

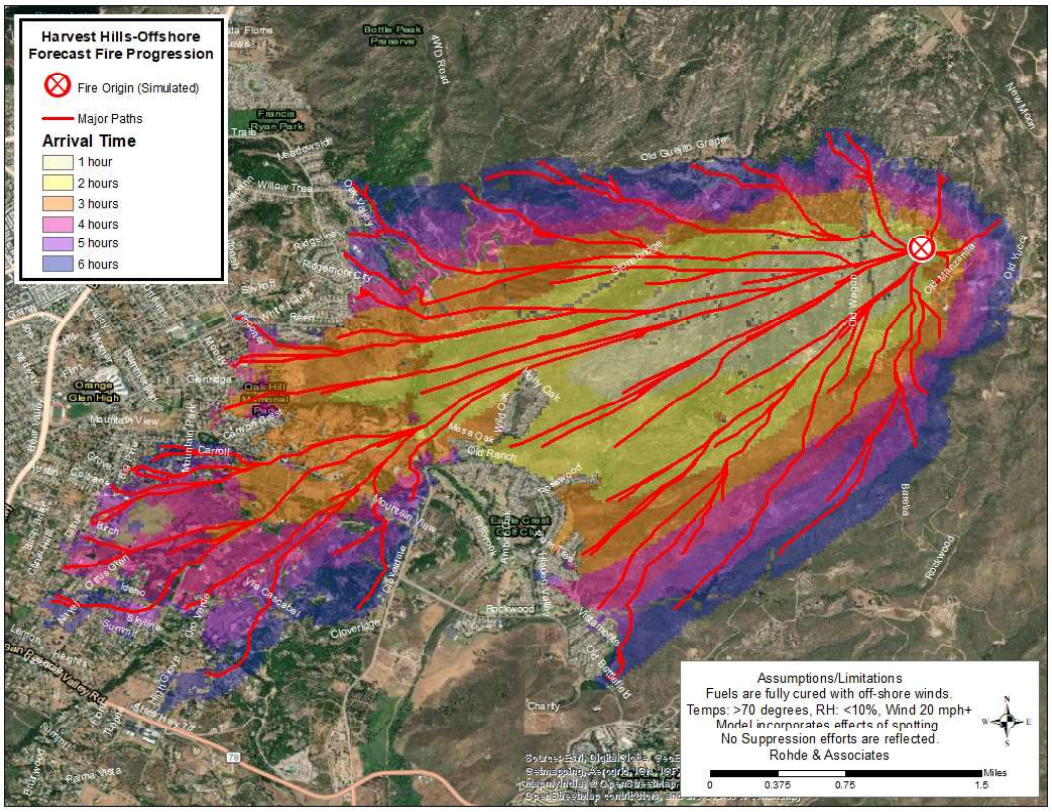
Fire Behavior Studies

Wildfire behavior was calculated during this study by a Certified Fire Behavior Analyst using BehavePlus, LandFire, FARSITE, and FlamMap applications. Fifty years of recorded weather data from nearby National Weather Service recording locations was utilized to determine trends in project area fire conditions. Outputs from these studies indicated potential for extreme fire behavior and rates of spread for both onshore and offshore wind driven fires at the project site. These results are consistent with observed fire behavior in and near the project site by a number of interviewed experienced wildfire professionals when dealing with area wildfires. The attached fire behavior maps depict a six-hour rate of spread from a modeled wildfire ignition.

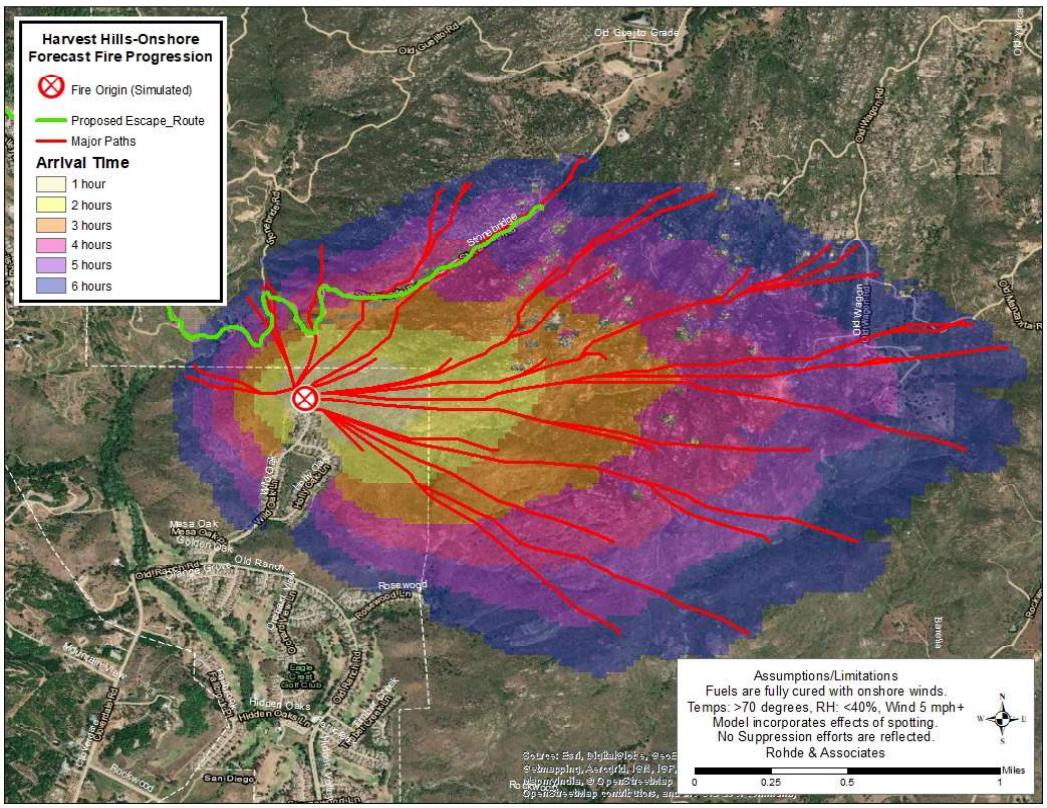
Chief implications from these studies indicate a likelihood of rapid to extreme fire growth for fires escaping initial attack in the project area during average-peak wildfire conditions. Rapid rates of spread will only offer limited time for evacuation under these circumstances, and temporary shelter in place may be necessary and prudent rather than movement during short-notice or proximal wildfire onset.

Modeling outputs verified that average Santa Ana winds in the area may be expected to develop wildfire rates of spread in shrub fuels in the 3 to 4 MPH range, including Coastal Sage Scrub and mixed chaparral. CAL FIRE has identified that any rate of spread exceeding 3 MPH is extreme. Higher rates of spread may be expected in grass fuels, and in locations where fuel, topography and winds are in alignment. This rate of spread may also be accentuated 2x to 3x on slopes. Additionally, spread will be enhanced by spotting and fire branding ahead of the main fire front, which can be significant, especially when fires burn heavy, old-age class fuel beds.

Offshore wind six-hour fire projection with average Santa Ana wind condition



Onshore wind six-hour fire projection during average on-shore wind conditions



Potential wildfire trajectories were calculated for rates of spread and timed trajectory from the eastern San Pasqual Valley to the project site. Outputs ranged from 2 to 3 hours under average Santa Ana winds. Under peak observed fire conditions during the 2007 Witch Creek fire it was reported by observers to have spread that distance at a rate of 3.5 MPH. During onshore winds, trajectory outputs from Cloverdale to the project site ranged from less than 1 hour during peak fire weather to 2 hours.

Development of the Harvest Hills community will likely shield surrounding areas of Cloverdale and the Safari Park from some, but not all wildfire effects, but may introduce new sources of human ignition.

Fire Ignition Sources

Numerous studies have identified that human wildfire ignition is directly tied to population growth (CAL FIRE, Keeley, et. al.) and is an inescapable result of any development in the Wildland-Urban Interface. Additional studies have determined that major transportation corridors, such as State Route 78, are a significant source of wildland fire ignitions. This factor is of concern, given the position of the SR 78 to the project, in a valley where wildfire ignitions have historically driven fires toward the Project area.

Evacuations

A separate evacuation plan has not yet been prepared by the project; however, the subject is covered within the project's Fire Protection Plan (Dudek, 2020). A strategy is proposed by the proponent allowing for a primary route of access to the project site, and two emergency roads leading north or east of the project. Portions of the eastern emergency road will also serve as a temporary residential access during early construction phases.

Estimates for travel capacity of roads are stated within the Fire Protection Plan (Dudek, 2020) but it is unclear if these estimations are the result of a certified professional traffic study. The project needs to clarify the origin of these findings and confirm the certified results. If a certified study has not been undertaken, this study recommends assumptions be verified by this method. Certified studies are needed for all project roads, including emergency routes, and for SR78 between Zoo road and the Escondido urban fringe, and should be evaluated by City staff for meeting needed capacity.

The project proposes that the primary, two-lane project access road consist of 21 to 24-foot paved lane width, accessing State Route 78 within ¾ mile of the development. The road would be developed to City of Escondido standards and equipped with 50 feet of fuel modification on either side. This is a proposed permanent road feature and would be a primary evacuation route for the project in perpetuity. Other secondary roads within the project leading to this road are proposed to include 20 feet of fuel modification on each side when exposed to wildlands. This report recommends all project roads be upgraded to 50 feet of fuel modification where there is a wildland fuels abutment.

Project proposed emergency access roads would be more phased and transitional. The first emergency access road would be a 1-mile-long, temporary, two-lane paved access from the community center to Zoo Road on the south-east. This road would have two 12-foot paved traffic lanes with 10 feet of fuel modification on each side, and provide temporary access under an initial configuration until the completion of the second escape route later in project phasing. At the phase-in of the Northern evacuation road the Zoo Road access would be modified, eliminating initial connectors with the main entrance roadways near the community center, leaving the access as a gated road below its former connection with community streets. The project proposes to leave the road in this final condition for emergency access.

The second, Northern emergency road would be constructed later in project phasing and would be an emergency evacuation route only, connecting with Stonebridge Road in the City of Escondido via a remote route through 2.4 miles of difficult topography through open wildlands. This evacuation road would consist of two paved lanes of 12 feet each with 10 feet of fuel modification on either side. This road would be gated and locked and augment Zoo Road upon completion as a second emergency access, best serving the northern development of the community. Cistern supplied fire hydrants are proposed and some turnouts along the Northern Road.

Significant areas of concern exist for both proposed emergency evacuation routes. Both routes travel through and across steep terrain with moderate to heavy fuels. Neither route is developed to municipal road standards and travel safety, especially during presence of fire or smoke, will likely be hazardous. Proposed road widths may be inadequate for simultaneous movement of evacuees and responding fire equipment. Public gate access and unlocking methods during emergencies are not stated in the Fire Protection Plan and clarification is needed how the gates will be opened during emergencies. The project should not rely on Police or Fire personnel availability during fire emergencies for this purpose.

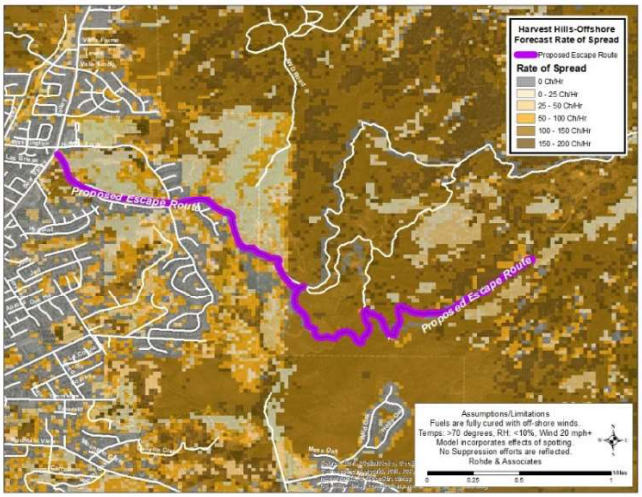
Potential fire behavior was modeled by this study for landscapes near the emergency roads. Flame length potential adjacent to the roads from 40 feet to 60 feet was determined. Such an occurrence would completely overwhelm road and fuel modification widths and could be fatal to persons in vehicles trapped on these roads. A similar road width and fuel condition led to entrapment of two vehicles with 4 fatalities during the Cedar Fire in 2003 near Lakeside, CA. Similarly, fatalities occurred on Skyline Drive near Paradise, CA in 2018 due to similar conditions. It is the opinion of this study that residents may more rapidly achieve safety by descending via the primary route to SR78 then into Escondido, or by sheltering in place and a designated facility within the community.



The project, looking east from Escondido, and Northern Escape Route alignment

The summary opinion of this report is that an adequate secondary access road to the Harvest Hills planned community has not been proposed by the project in compliance with City/County Wildland-Urban Interface standards or best practice. Significant hazards for public use during wildfire have been identified with the proposed route in this study. It is recommended that evacuation routes be upgraded with the following features to potentially meet these standards:

a. Addition of a third access lane (center divider lane) and development to City/County road standards
b. Addition of fuel modification to 50 feet on both sides of all community roads with wildland abutment
c. Creation of large turnouts every ¼ to ½ mile for gathering if fire trajectory blocks movement or for relocation of disabled vehicles
d. Addition of road safety barriers along slopes and lighting
e. Development of gate access during emergencies not dependent on emergency services for activation
f. Maintenance of cistern water supplies during fire hazard periods has not been addressed. The project needs to define how water availability will be maintained.



Fire rate of spread challenges safe drive times along much of Northern Escape Route. Fire ROS 10,000 to 13,200 ft/hr. (2.5 MPH), even without significant winds.

Emergency Route Alternatives

This study recommends development of alternate emergency access other than the Northern Escape Route, and enhancement of the Zoo Road escape route. This is due to findings of potential extreme fire behavior and severe entrapment potential along both routes, and estimated extensive travel time. This report recommends that best alternatives for population protection likely involve rapid movement of civilians into safety in the City of Escondido via higher capacity/speed access routes, or temporary safe refuge within the community when evacuation cannot be accomplished safely due to time constraints and fire movement.

A preferred road travel alternative is already offered by the project as an emergency use only route. The Zoo Road emergency access has potential for development as a more permanent and safer alternative, and is recommended by this study in lieu of both emergency roads proposed by the project. The Zoo Road accesses SR78, and although it would funnel evacuees to a location 1.5 miles different from the primary road, it would move evacuees with better efficiency and speed than the Northern Access Road and avoid dangerous terrain and fire behavior.

The following improvements are recommended for the emergency access to Zoo Road, with the intent to convert its use to full time-secondary access:

a. Improvement of the Zoo Road access to City/County road standards
b. Addition of fuel modification to 50 feet on both sides of the road
c. Creation of large turnouts every ¼ to ½ mile for gathering if fire trajectory blocks movement or for relocation of disabled vehicles
d. Addition of road safety barriers along slopes and lighting
e. Removal of gate-controlled emergency only access, transition to full time road
e. Placement of fire hydrants with municipal supplies.
f. Improvement of SR78 from Zoo drive into the City of Escondido (possible addition of median or third lane or other alternatives, to be determined by certified traffic study)

Considerable daily and evacuation traffic is currently experienced on SR78, and past emergency evacuations have been cumbersome when evacuating the community of Ramona and the San Diego Zoo Safari Park along this route. It is recommended that a traffic study consider SR78 daily and evacuation demand. Currently, SR78 is proposed for signaling and turning improvements but no additional lane capacity. Additional improvements may be required in order to accommodate project loads along SR78, to be determined by certified traffic study.

Any traffic study should not include the use of “contra-flow” as a means of evacuation. Contra flow considers transition of all vehicle lanes outbound to a single direction of travel. Configuration of such travel is law enforcement intensive and generally exceeds the capacity of law enforcement during early critical hours of a wildfire emergency. Contra flow was utilized in the evacuation of Paradise, CA from the Camp Fire in 2018 with poor outcomes. Lack of law enforcement to actively control the activity led to an 8-mile gridlock on the principal evacuation

route with burn-over fatalities occurring in trapped vehicles, and blockage of emergency responder access.

Temporary Shelter-in-Place

The project's Fire Protection Plan (Dudek, 2020) has identified the use of the Community Center ("The Farm House") facility and fire station as emergency temporary safe refuge for the community population during wildfire. The Community Center will have an assigned occupancy rating for 500. The report has also discussed the availability of temporary safe refuge among some community streets during wildfire passage.

Harvest Hills Community Center ("The Farm House")



This report cites several issues with these findings by Dudek:

a. Parking capacity at Community Center appears inadequate for the intended occupancy and may only accommodate 1/3 of the Community Center occupancy. Parking should be expanded to better meet facility occupancy limits.
b. While the Dudek plan identifies emergency public parking at the fire station, the facility will be gated and inaccessible to the public for security measures. The Fire Station may also be used by public safety as a command post. In either case it will likely be inaccessible for this public use, and as such should be eliminated in planning for public safe refuge.
c. Proposed overflow parking is designated in the Dudek plan as the ball field, but lack of all-weather access is problematic for vehicle access here.
d. Potential roadside parking or abandonment of vehicles nearby may lead to congestion and blocked access for responding emergency equipment or evacuation. Roadside parking should not be considered as an emergency use option.

In order to meet temporary safe refuge needs, paved parking area needs to be expanded at the Community Center to better accommodate expected occupancy. Parking areas should be configured to provide a buffer to wildlands for the Community Center facilities. The facility itself has been identified for code compliant fire resistive construction. This facility should also be equipped with temporary

emergency power supply and lighting.

“Temporary Safe Refuge Areas” are also discussed in the Fire Protection Plan (Dudek, 2020) among residential streets within the project. This concept is a tactic identified in California Statewide fire training as an emergency action by firefighters for temporary retreat from an aggressive fire front. It is dependent on trained firefighter knowledge to select an appropriate location, to conduct effective analysis for when conditions change to become hazardous, and requires recognition when and where to move in alternate actions. The “in-street” refuge discussed in the Fire Protection Plan (Dudek, 2020) is only relevant and safe for professional firefighters and should not be considered safe or temporary refuge for civilian populations who lack such training. Such a distinction needs to be made in the Dudek plan.

Additional Safe Refuge Needed

Distances from later development phases in the north end of the project to emergency temporary safe refuge at the Community Center are considerable and require travel over exposed ridgeline roads. Additional development is needed in later phases of open, park like facilities that residents may access quickly to provide for proximal temporary safe refuge. The minimum size of such a facility should be 2.5 acres of open space.

Historical evacuation experience during past San Diego County wildfires has found limited participation by large percentiles of affected populations to evacuation warnings until late in evacuation periods, leading to traffic congestion during peak threat times. It will be important to stress the dangers associated with delay of evacuation in emergency messaging and public outreach. A wildfire prevention and Ready-Set-Go public education outreach has been proposed by the project proponent for the community.

Evacuation triggers

Best evacuation involves rapid movement of civilians into developed areas of the City of Escondido as the principal objective. Our analysis highlights that early notice and evacuation will be essential to the success of such a tactic. In a meeting of local fire professionals to review site risks, consensus was developed for “trigger points” (aka: “Management Action Points”) as indicators for initiation of evacuation of the project. These Management Action Points include:

Evacuation Initiation:

a. Santa Ana (north-east) wind driven fire: Fire escaping initial attack or major fire spreading south and west of Ramona, Lake Sutherland, or Black Canyon. and developing trajectory towards Harvest Hills.

b. Onshore wind-driven fire: Significant fire approaching Harvest Hills from the west from the community of Cloverdale or Escondido.

Discontinue evacuation and seek temporary shelter in place:

Fire is threatening principal evacuation roads, or Santa Ana wind driven

fire is at the east side of San Diego Zoo Safari Park.

These Management Action Points have been recommended to provide sufficient time necessary to evacuate Harvest Hills prior to wildfire arrival within the community, estimated to be around 1 to 1.5 hour. Fires occurring closer than the noted locations, or moving very fast may offer less evacuation time.

Emergency Messaging

Detailed but succinct evacuation information should be broadcast to the media and via the Alert SD reverse 911 system and the County's Wireless Emergency Alert (WEA) network. Evacuations should be directed to facilities distant enough from the fire area to ensure complete removal of threat, as well as promote freedom of access by emergency responders. Evacuation information should include both human and large animal evacuation guidance. This information is slated to be developed by the Community Association per the project Fire Protection Plan (Dudek, 2020).

Fire Protection Services

Regional fire protection services are provided by a number of agencies since the site is an area of jurisdictional convergence. With the proposed annexation, structural and wildland fire and emergency medical services to the project would be provided by the City of Escondido Fire Department. Adjacent unincorporated areas receive municipal fire services from the San Diego County Fire Protection District (SDCFPD) and wildland fire protection by the California Department of Forestry and Fire Protection (CAL FIRE). CAL FIRE also contracts as the operational service provider for the SDCFPD. The San Diego Zoo Safari Park and areas along and south of SR78 are within the City of San Diego and are the responsibility of the San Diego Fire Department. Given automatic aid agreements within San Diego County which call for the response of the closest available unit, the City of Escondido already provides initial response in the area as the closest provider.



Escondido Fire Department equipment

The proponent has considered fire service emergency response times and services in its report (Dudek, 2020). Response time analysis has been conducted and the project will be within a 5-minute response time of the proposed community fire station facility. Fire sprinklers have been proposed for all occupied structural development.

Project Area Fire Stations and response time to Harvest Hills entrance:

New Escondido FS Harvest Hills	Village Core-To be built <5 minutes	-Type 1 Paramedic Engine, - Possibly co-staffed type 3 engine (3 ff's/shift)
Escondido FS 4 3301 Bear Valley Rd. Escondido	6.1 miles/ 10 min.	-Type 1 or Type 3 Paramedic Engine Rescue Ambulance
Escondido FS 2 421 N. Midway, Escondido	6.2 miles/12 min.	-Type 1 or Type 3 Paramedic Engine -Rescue Ambulance
Escondido FS 1 310 N. Quince St. Escondido	7.3 miles/15 min.	Type 1 Paramedic Engine Truck Rescue Ambulance Battalion Chief
SDCo. FPD FS 84 17701 San Pasqual Valley Rd., Escondido (San Pasqual Academy)	7 miles/12 min.	Type 6 Patrol Engine
San Diego FD FS 33 16966 Bernardo Center San Diego (Rancho Bernardo)	10.5 miles/ 18 min.	Type 1 Engine

<u>Response Times</u>

Fire services response times have been studied in the project proponent's Fire Protection Plan (Dudek, 2020) and determined that with the addition of a new fire station facility within the project, that 100% of the project will meet the City of Escondido standard of 7.5-minute travel time 90% of the time, as defined from the time fire services departs the station enroute to a reported incident. Other fire stations within the region will provide for augmented response to multi-company calls but will not achieve response within the response standard for the first-due company. The project will also achieve compliance for multi-unit response times (structure fires, etc.) for the entire first alarm/augmented response.

The project proposes to construct a fire station facility within the project, providing for the facility construction, its outfitting, a fire apparatus, and staffing. The improvement is proposed to be financed ultimately by Community Facilities District bonds. The

design, timing, and financing of this facility and staffing is the subject of separate negotiations between the project proponent and the City. Response time analysis, however, clearly indicates the station is needed to provide adequate response times. Siting of a fire station in this area will also address long-term coverage issues in a multi-jurisdictional service area. The project's Fire Protection Plan (Dudek, 2020) has calculated a call demand of 172 calls annually from the proposed project, well within the response capacity for the new fire station.

The new fire station is proposed for occupancy with the 275th dwelling unit for the project. Experience of the consultant team identifies that this may be late with regard to the need for service. In a similar situation in the City of Lake Forest Foothill Ranch Planned Community development in Orange County, CA, a structure fire occurred early in a project's phasing that resulted in a fire fatality. Although this new community had planned to add a fire station, it had not yet occurred and a delay of response time was cited as a significant factor in life loss. It should be noted that many other jurisdictions require full fire station siting prior to completion of the 100 to 150th occupancy. As a mitigation, the project has proposed possible staffing of a two-person crew in a temporary facility from the 1st occupancy permit through dwelling #274. In this study's finding, no fire agency is positioned to provide timely response to this site and fire protection services will be needed from the onset of the project.

For EMS response, life-saving standards, especially those associated with cardiac care require the onsite arrival of paramedics within 5 minutes. This standard is also met by the development of a new fire station within the project.

For wildland fire response, the City of Escondido maintains wildland fire apparatus (Type 3 engines) at stations close to the project. CAL FIRE/San Diego County Fire Protection District maintains a robust inventory of wildland fire resources within San Diego County that would serve the project during wildfire occurrence. This additional resource includes specialized equipment including 3 dozers, 6 hand crews from 4 fire camps, two air tankers, 2 medium helicopters, and air-attack command aircraft. The nearest Air Attack base in Ramona, the base location for all State aircraft, maintains a flight response time to the area of under 10 minutes to the project site.

Water Systems

The proponent's Fire Protection Plan (Dudek, 2020) and developer supplemental notes discuss fire hydrant distribution, water delivery systems, pump stations, and elevated reservoir capacity will be planned to meet suburban development standards, as recommended by the California Fire and Building Code. At the time of the study, insufficient detail was available regarding the physical siting of reservoirs, planned lift stations, or hardening of water systems infrastructure against wildfire. This will be an area of continuing review by the City of Escondido. Hydrants have been proposed in the Fire Protection Plan as located on average every 500 feet

within the project and would be equipped with one 4” and two 2.5” connections.

It is recommended that all water system infrastructure be hardened for fire resistance and resiliency during wildfire. Minimum water storage for duration of flow in the system should be maintained at all times with at least 2 hours capacity, and reservoirs should be filled to maximum capacity prior to any predicted Red Flag weather events. Areas supported by lift stations alone should be avoided, with gravity fed supply being the principal source, whenever possible. Water system critical infrastructure such as pump stations should be supplied with uninterruptable backup power sources.

Development Mitigation Measures

Fire risk mitigations have been proposed by the project proponent that are compliant with the current City of Escondido Fire and Building Code, including Chapter 7-A (which includes the amended 2016 California Building Code). Chapter 7-A addresses ember and flame impingement resistance from wildfire in high fire hazard areas. The City of Escondido code has recently been enhanced in Wildland-Urban Interface specific areas of concern and is currently one of the most stringent in the State of California.

Proposed development mitigations include:

- Annually maintained defensible space/fuel modification of 150 to 200 feet surrounding development (200 ft. on north and east sides)
- Automatic fire sprinkler systems in all structures (NFPA 13 compliant systems)
- Heat deflecting walls for up to 14 lots at the top of slopes were noted
- Ignition and ember resistant structural roofs and attic vents
- Construction setback limitations
- Limited building zones on lot perimeters controlling positions of ignitable yard features and landscape
- 50 feet of fuel modification on each side of major roads have been proposed by the project. This should be enhanced to 50 feet for all roads with wildland-abutment project wide, including emergency roads
- Non-combustible roofs and exterior walls
- Multi-pane tempered glass windows
- 20-foot fuel management zones for connector roads
- 10 feet of fuel modification in each side of emergency access roads
- Wildfire Evacuation Plan using Ready-Set-Go model and public outreach
- Ornamental plans to be consistent with County approved fire resistive plant lists and planting specifications.
- Overhanging decks, turbine roof ventilators, and other construction features of concern are prohibited.

- Yard structures must meet fire safe code restrictions and setback requirements

Fuel Modification

Fuel modification dimensions, vegetation clearance, and construction aspects were reviewed in the project's Fire Protection Plan (Dudek, 2020) and found to be consistent with best practice for protection of homes. The study will make additional recommendations regarding protection of roadways.

The project has proposed fuel modification from 150-200 feet adjacent to structures throughout the project. (200 feet on the north and east sides that are exposed to Santa Ana winds). This is consistent with findings in both the Dudek Fire Protection Plan and this study regarding potential flame lengths and fire line intensity risk on the project boundaries, and is appropriate for mitigation of the presence of up to 50% slope onsite. All structures developed within the project will be provided with this fuel modification to a combination of an accepted fire resistive plant pallet of irrigated landscape, and at least 50% reduction of native fuels. Irrigated areas will be maintained in perpetuity for fuel modification. Emergency access to fuel modification and open space will be provided on average every 650 feet, and in no case greater than 1,300 feet. This study concludes that fuel modification proposed by the project to be adequate.

The project has proposed that primary roads will be treated with 50 feet of fuels clearance on each side, and secondary roads will be treated with 20 feet. Evacuation roads are proposed for 10 feet of clearance on each side. Given potential flame lengths and fire behavior from fuels adjacent to roads, this study recommends 50-feet of clearance on each side of all roads with a wildland abutment, including emergency access roads in order to protect against direct flame exposure from adjacent fuels on passing vehicles and allows conditions potentially hazardous to human life.

Since it is the intent to offer the Community Center as a temporary safe refuge location, it is recommended that at least 200 feet of fuel modification be provided for this site. Parking areas may be calculated into the fuel modification requirement.

Building Construction & Access

All structures will be constructed using current State and local building and fire standards, including wildland urban interface standards. Building materials and methods would be fire resistive, and placement of structural components within yards adjacent to homes would be regulated. The project will comply with County of San Diego, City of Escondido, and State of California standards, including Chapter 7A of the Uniform Building Code. Road access and parking controls consistent with current requirements for fire apparatus access will be met. Traffic calming features such as speed bumps and roadway vertical height clearance that

may hinder the response of emergency apparatus shall be prohibited within the project. All security property gates will be equipped with a Knox automatic gate opening feature or lock, and maximum grades for drive ways shall not exceed 15%.

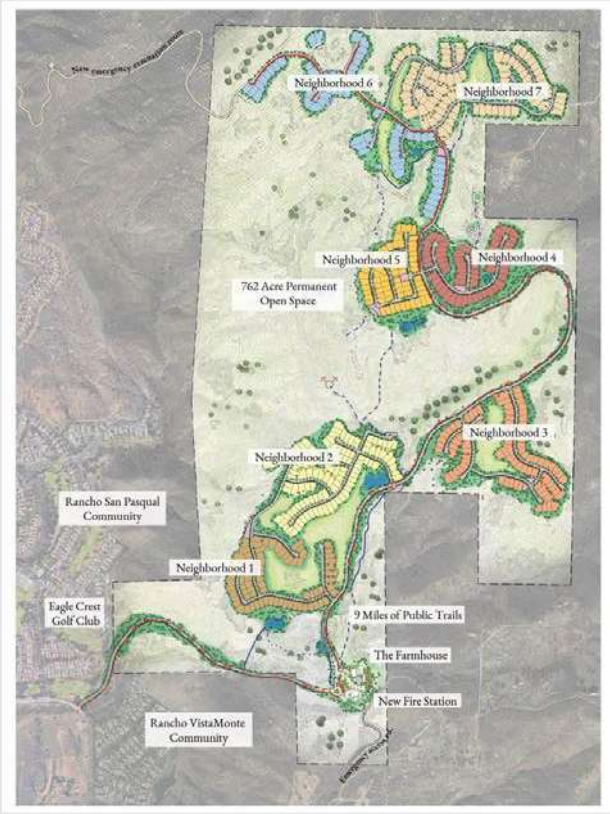
Utilities

Public utilities for the Harvest Hills community are proposed for underground placement, eliminating concern for many electrical and transmission related hazards and wildfire ignition sources.

Alternative Means

Additional mitigation is proposed in the Fire Protection Plan (Dudek, 2019) for 14 lots. These lots currently possess at least 15 feet of top-of-ridge setback, allowing for single story construction. The project has suggested that 2-story construction may be requested, and that alternate means for compliance with the two-story 30 feet requirement may be desired. The Dudek plan (2020) suggests use of a 1 to 2-foot masonry block base with 4 to 5 feet of dual plane tempered glass combination as an ember resistant wall to reduce fire ignition potential along the lot edge. The 14 potential lots are identified in mapping within the project's fire protection plan, and all of these lots would also be subject to 200 feet of fuel modification. This study has reviewed this potential application and is in agreement this is an adequate means of mitigating the risk and recommends approval of the condition.

Harvest Hills project phasing map



Implications for Wildfire Response

Structural defense and evacuation of the Harvest Hills community from wildfire will be a dynamic and significant challenge for emergency services, but typical of challenges faced by many modern communities within San Diego County. Community fire resistive features including building construction style, fuel modification, fire sprinklers and water systems, and related improvements will significantly reduce the potential risk to both civilians and public safety responders.

Along perimeter streets and homes, active structural defense will be necessary. Where adequate defensible space is provided and maintained, the chief risk will be from flying embers and spot fires developing among combustible yard improvements or ornamental vegetation. Left unchecked, such sources can contribute to significant structural loss. Chief concern will be for homes at the head of the fire, and for homes on the community perimeter above canyons or drainages. Firefighters should expect strong uphill runs on slopes, especially when in alignment with winds. Fire fronts should be greatly abated by fuel modification, however ember cast may be heavy in some cases.

It is anticipated that residential streets will generally offer Temporary Safe Refuge for firefighters involved in structural defense, and that withdrawal to these streets during assault by heat pulses from wildfire will be a successful alternative for responder safety. Following safety withdrawal, rapid reengagement or fire-front-following as heat pulses subside would be a critical tactic to keep structural loss to a minimum.

Civilian populations will be planned for complete evacuation into urban areas of the City of Escondido. Late departing evacuees or evacuations under high rate of spread conditions may require civilians to congregate in temporary safe refuge in the Community Center area as an evacuation alternative. This will require responders to deploy protective measures on the community center to protect these populations.

<u>Estimated Potential Fire Loss</u>

Worst-case wildfire conditions for the Project include severe Santa Ana winds, critical fire weather, and extreme fire behavior. The estimated structural loss from a short notice, worst case wildfire condition, affecting fire resistive, modern construction can be extrapolated from loss experience during the 2007 Witch and Guejito Fires (Maranghides & Mell, 2009), and 2014 Poinsettia Fire (San Diego Co. OES, 2014) and range from 3% to 7%. Structural loss would likely be concentrated on the community perimeters due to proximity to fire and fuels or fire branding. Sites with compromised or diminished defensible space may be at higher risk for fire ignition.

Community interior spot fires may develop in ornamental vegetation, yard storage,

or within structures. Once structures become involved, extension of fire to surrounding and exposed structures often results in a group loss in this community type.

In this worst-case scenario, fire resources may not achieve desired deployment levels due to reflex time or due to regional resource drawdowns due to multiple fires. Lesser fire conditions, or availability of adequate emergency mass resources may alleviate worst case potential loss, especially where defensible space is robust.

Estimated Potential Structural Loss

Total number of homes = 550

Total number of perimeter homes: Approximately 200

a. Witch/Guejito Fire comparison: Loss of 3% to 7% of perimeter homes (worst case fire condition) = 6-14 homes

b. Dudek/County average comparison for similar fire-resistive community loss during catastrophic wildfire = 2% to 4% (Dudek, 2015) = 4-8 homes

Modern, fire resistive home burning, Witch Fire, Rancho Bernardo, CA 2007



Summary of Findings

1. **ASSESSMENT OF PROPONENT'S REPORT**: The project Fire Protection Plan (Dudek, 2020) has accurately portrayed the physical characteristics of the project site, its fire behavior potential, past fire history, and likely fire trajectories and intensity. The plan has correspondingly incorporated a number of proposals that are enhancements to code requirements and are appropriate given the project's recognition of fire risk.

a. Significant wildfire risk mitigations have been proposed for the Project including Wildland-Urban Interface code compliant building construction, structural setbacks, enhanced fuel modification, utility undergrounding, and related features that meet state-of-the-art for community development resistance to wildfire. These mitigations should serve to significantly reduce the potential for life or structural loss during wildfire.

b. Structural risk mitigations and fuel modification should be extended to all critical facilities whenever possible, including water pump/lift stations, cell phone facilities, and related assets.

c. Restrictions and limitations of yard construction and the limitation of combustible homeowner improvements as a fire safety measure needs to be better emphasized and stated in the report as a means of prevention of ember cast ignition.

2. **ALTERNATE MITIGATIONS**: Special, alternate mitigations are provided for up to 14 lots with limited clearance for construction setbacks along ridgelines. These lots have effective setbacks for single story construction (15 feet), but lack enough clearance for two-story construction (30 feet). As a proposed mitigation, the plan calls for addition of a minimum 6-foot ember resistant wall to be placed across the developed property line of these 14 lots, in addition to 200 feet of fuel modification. This alternate mitigation has been reviewed by this study and determined to be effective mitigation. The proposal is recommended for approval by the City of Escondido.

3. **ROADS**: Requirements for development include two means of road access to the proposed development. The project proposes to achieve this through the provision of a principal roadway constructed to City/County road standards, and two emergency access routes that are not full-time accessible and are locked and gated. Both emergency routes are paved with two 12-foot lanes, but otherwise are not proposed to meet City/County road standards. Both emergency roads are proposed for fitting with an unstated number of emergency turnouts, but are not provided with lighting. Fuel modification is proposed for all primary, secondary, and emergency roads but is very limited for emergency roads, only 10 feet on either side which does not provide adequate clearance given fire behavior studies.

a. In the opinion of this study, the provision of a locked gate and part time status road does not meet road standards for Wildland-Urban Interface development and does not provide an effective secondary project access. The gated access is problematic during emergencies, and no provision has been stated for how the gate will be unlocked for pubic emergency use. This report assumes the project intends for public safety personnel to unlock the gate, but this is likely unreasonable given the demands for emergency services during such periods. The project proponent needs to define how this gate may be operated without impacting emergency services, or eliminate gate closure.

b. Both proposed emergency roads traverse terrain that is subject to fire movement, is steeply sloped, and among moderate to heavy wildland fuels. The Zoo Road access traverses a distance of one mile. The Northern Emergency Route covers a distance of 2.4 miles. Both roads are proposed for fuel modification of 10 feet on either side. In this study, fire behavior assessment was conducted for these emergency roads and potential for flame lengths of 40 to 60 feet and slope guidance of fire onto roadways was identified. This indicates that these roadways have significant potential for blockage or entrapment during fire passage and present high risk to the safety of users as currently proposed. As such, these emergency road proposals, as currently configured, are identified by this study as hazardous and unsafe for public use.

c. This study has identified that critical rates of spread are common to Santa Ana wind driven wildfires in the area of the project. In the opinion of this study, best options for public safety are rapid evacuation into the City of Escondido urban area or effective temporary safe refuge within the community as fires close evacuation options and movement becomes unsafe. As such, development of road options that expedite travel to Escondido are highly desirable. As a recommendation, this report suggests review of State Route 78 for potential lane addition or improvement between Safari Park and the City of Escondido urban boundary in lieu of the Northern Emergency Road, and upgrade of the Zoo Road emergency access to City/County road standards and retaining of this road as a full time, drivable, ungated option as the community's second means of access. Use of the Zoo Road access alternative also could resolve ongoing discussions on emergency road phasing due to its early availability in project construction.

d. Fuel modification has been proposed for 50 feet on both sides of the community primary access road, 20 feet on secondary roads, and 10 feet on emergency roads. Since much of the project development is along ridgelines above heavily fueled and steep slopes, flame lengths affecting these roads were calculated at 40 to 60 feet. It is the opinion of this study that fuel modification less than 50 feet presents unsafe conditions for project roads where there is a wildland abutment. This report recommends that all project primary, secondary, and emergency roads maintain at

least 50 feet of fuel modification on both sides with a minimum lane width of 12 feet where there is wildland abutment. Emergency roads should be situated with turnouts at least every ½ mile to facilitate movement of broken-down vehicles and for safe gathering of entrapped users, if required. Emergency roads are also recommended to be configured with a third median lane when possible to ensure fire apparatus access and to defer blockage by broken or stranded vehicles.

e. While assumptions have been presented within the Fire Protection Plan regarding traffic engineering and road capacity assessment, it is unclear whether these calculations were certified or conducted by a professional traffic engineer. It is recommended that the project be required to provide professional/certified traffic engineering studies regarding road travel capacities to provide valid confirmation of assumptions. All primary, secondary, and emergency routes proposed by the project should be included in such study, and the impacts for State Route 78 should be better determined between the Safari Park and the Escondido urban boundary. Study criteria should include consideration that SR 78 is an emergency evacuation route for the Community of Ramona, Cloverdale, and the Safari Park, in addition to the project. Calculations should not include an assumption for “contra-flow”, or conversion of major routes to all one direction of travel, as this is a law enforcement intensive method with a history of wildfire fatality occurrences in both San Diego and Butte Counties.

The traffic study should determine in particular what improvements may be necessary to State Route 78, which serves as a major transportation route and serves the greater region as a primary evacuation corridor. The study should determine how SR78 may be improved to not further degrade its capacity to manage peak load or evacuation traffic generated from the San Pasqual Valley, Safari Park, and upper Ramona region. This highway currently experiences backup traffic during peak times as traffic approaches the City of Escondido west-bound, primarily due to narrowing road width. During such conditions, traffic frequently backs-up from the urban boundary into wildland areas. Should this occur during wildfire, evacuees stranded in back-up may be exposed to dangerous conditions. Roadways may need improvement to ensure such backup conditions do not occur before evacuation traffic would be safe inside urban areas. The urban area boundary is currently found near SR 78 and Bear Valley Parkway. It is reasonable to expect that all project residents should be able to obtain safety within 1.5 hours of evacuation initiation.

f. The proposed Northern Emergency Route is not recommended for development by this study in that it is exposed to slope and potential fire behavior that significantly questions the safety of this route, and presents travel speed restrictions and limitations. Smoke is also likely to obscure limited visibility on this mountainous route. To make this route safe, road improvements to City/County standards including guard rails, additional fuel modification, and potentially road lighting and road widening with a third, median lane would be needed. Costs associated with

such improvement may be better applied to other road alternatives that would achieve a faster evacuation of residents to safety, such as improvements to existing SR78. It is noted that land ownership and access restrictions along the proposed route may also prohibit development of some of these recommended enhancements, particularly for road and fuel modification width.

4. **TEMPORARY SAFE REFUGE**: The project Fire Protection Plan (Dudek, 2020) identifies the Community Center ("The Farm House") as a temporary safe refuge location for the community. The Community Center is located near the project's main, southern entrance, has dedicated off street parking, and an occupancy limit of 500. This facility offers good opportunities for use for this purpose.

a. It is recommended that fuel modification around this structure be a minimum of 200 feet. Parking lots may be counted in this distance.

b. It is recommended that parking for this facility be improved to include parking availability closer to the facility's occupancy limit. Currently stated plans that the ball fields may be used for overflow parking are unreasonable, given that all weather access by vehicles is not offered here. Nearby on-street parking is insufficient given potential for blockage of evacuation and emergency vehicle access.

c. It is recommended that the Community Center be outfitted with emergency power sources, and conditions be established for rapid access to the facility during off-hour emergencies.

d. The Fire Protection Plan has identified the fire station site for use for civilian emergency parking. This condition should be removed as the fire station will be secured from public access as a homeland security measure, may be used as a fire command post, and civilian use may block fire apparatus Station access/egress.

e. The final phases of northern project development do not have an independent safe refuge area and are located distant from the Community Center. Travel to the Community Center will require vehicle travel over ridgeline roads which may be exposed to fire and smoke conditions. For these reasons, development of an alternate "park-like", or otherwise non-combustible, open space of at least 2.5 acres (minimum size to withstand expected fire effects) is recommended in the northern area of the project to provide an alternate temporary safe refuge site. The site should be reasonably level and handicap accessible.

f. The Fire Protection Plan (Dudek, 2020) references "Temporary Safe Refuge" among streets in developed portions of the community, citing California state fire training literature for such designation. Such sites require firefighter-trained judgement, the availability of protective equipment, and fire behavior knowledge for safe usage. This report recommends such sites not be used by the general public

for these purposes and this recommendation be struck from the Fire Protection Plan.

5. **EMERGENCY RESPONSE TIMES**: Both the project Fire Protection Report (Dudek, 2020) and this study concur that the project will reside outside of current emergency response time standards for the City of Escondido. Both reports conclude that the addition of a fire station facility within the project is needed to provide timely emergency services response.

6. **FIRE STATION TIMING**: The project has proposed construction and operation of a fire station facility within the project starting with the 250th home, and temporary service by a smaller crew from development of the first home. This study recommends earlier opening of the fire station facility to match risk development.

7. **WATER SYSTEMS**: Detailed information was not provided for review of water system features for the project. Information is needed regarding reservoir and lift station placement, distribution pressures, critical facility wildfire hardening, and related topics. These are important issues that will require full consideration by the City of Escondido. Lift stations as the principal means of distribution should be avoided whenever possible, and only be used for redundancy. Gravity flow systems are preferred. Any critical facility for water systems should receive structural and fuel modification to prevent loss. Critical water systems should also be equipped with secondary power sources.

8. **UTILITIES**: Any critical facility should receive structural and fuel modification to prevent loss. Critical systems should also be equipped with secondary power sources. This includes cell phone sites, telecommunications facilities, key electrical and natural gas facilities, and other critical community infrastructure.

References

1. "Fire Protection Plan", prepared on behalf of Harvest Hills, Concordia Homes (Developer) and appendices. Dudek Environmental Consultants, Encinitas, CA. December, 2020

2. "Wildland-Urban Interface Fire Emergency Response Plans", San Diego County Fire Chiefs Association, 2015-2021 by Rohde & Associates, Rancho Santa Margarita, CA.

3. "The Wildland Urban Interface Fire Problem", Jack Cohen, Forest History Today, Fall, 2008

4. Manzello, S.L., 2014. "Investigation of Structure Vulnerabilities to Wind-Driven Firebrand Showers in Wildland-Urban Interface (WUI) Fires". Fire Safe. Sci. 11 IBHS, 2014

5. “Fire Management of California Scrubland Landscapes”, Kelley, J.E., Environmental Management, Vol. 29, March 2002,

6. “A Case Study of a Community Affected by the Witch and Guejito Fires”, National Institute of Standards & Technology, Alexander Maranghides, William Mell, April 2009

7. “Mountain Meteorology”, Fundamentals and Applications, C. David Whitman, Oxford University Press, 2000

8. Schroeder M.J and Buck, C.C., “Fire Weather-Agricultural Handbook #360”, U.S. Department of Agriculture, Forest Service, May 1970.

9. Fire Resources & Assessment Program (FRAP), State of California, Department of Forestry and Fire Protection (CAL FIRE), online resource, frap.fire.ca.gov/

10. May 2014 “San Diego County Wildfires-After Action Report”, County of San Diego Office of Emergency Services, June 2014

11.“Fire Protection Plan” prepared on behalf of Newland Sierra LLC. Dudek Environmental Consultants, Encinitas, CA. May 2015.

13. “Initial study of fire loss factors for the Freeway Complex Fire” (draft), C.J. Fotheringham, University of California, Los Angeles, March 2010

14. “Factors Associated with Structural Loss in 2013-2018 California Wildfires”, A.D Syphard and Jon Keeley, August 2019

15. “How Paradise Ignored Warnings and Became a Death Trap”, Los Angeles Times, Dec. 30, 2018

16. Specific Plan and appendices, prepared by the project proponent for the City of Escondido, December, 2020

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M E M O R A N D U M

TO: Dan Silver, Endangered Habitats League

COPY: Laura Hunter, Sierra Club North County Group
NeySa Ely, San Pasqual Valley Preservation Alliance

FROM: Neal K. Liddicoat, P.E., Principal

DATE: February 17, 2022

SUBJECT: ***Harvest Hills Evacuation Plan Review - Escondido, California***

Griffin Cove Transportation Consulting, PLLC (GCTC) has completed a review of a number of documents related to the proposed Harvest Hills project in Escondido, California ("Project"). Of particular interest in our review was the ability to evacuate the proposed Project safely in the event of a wildfire. This memorandum presents the results of our review.

PROJECT DESCRIPTION

The Harvest Hills project (previously known as Safari Highlands Ranch) is proposed to be developed on a 1,098-acre site in unincorporated San Diego County. The Project would consist of 550 single-family residential homes, as well as a community center/clubhouse and a fire station. Approval of the Project would also include annexation into the City of Escondido.

SUMMARY

The documents that we reviewed are described in the following section. Those documents concluded that the proposed Project could be safely evacuated within an acceptable period of time in the event of a wildfire. However, our review revealed that this conclusion is based on flawed assumptions and analysis procedures. In particular, we determined that:

- The roadway capacity assumptions are substantially flawed and, specifically, they overstate the capacity of the evacuation roadways.
- The travel speeds assumed in the analysis are unsupported by facts or analysis.
- The methodology used to derive travel times was flawed and represents a failure to understand the basic characteristics of traffic flow, particularly under conditions when traffic demand exceeds the capacity of a road. The methodology further fails to represent an understanding of traffic flow when drivers are under extreme duress, as during a wildfire evacuation.
- The analysis includes traffic only from the proposed Project and nearby communities; it ignores ambient traffic that is already on the area road system at the time an evacuation is ordered, as well as other evacuating traffic, such as vehicles departing Ramona along State Route 78 (SR 78).
- The evacuation times presented are incomplete and misleading, as they ignore pre-evacuation notification and preparation time.

- Insufficient consideration has been given to the potential for the northern segment of the Project to be cut off from safety by a fire encroaching on the middle segment of Safari Highlands Ranch Road. Topography in the area would seem to favor rapid fire spread, increasing the chances of the road being cut off.

In addition, we have provided a revised analysis that we believe provides a more accurate depiction of traffic conditions during a wildfire evacuation. The results of that analysis include the following points:

- Based on well-documented adjustment factors, the capacities of the roads on the evacuation routes are as much as 29 percent lower than the values employed in the Project's Fire Protection Plan.
- Under all of the "with Project" scenarios addressed in the Fire Protection Plan, as well as additional scenarios reflecting recommendations presented in a Fire Risk Assessment prepared for the City of Escondido, the traffic demand associated with an evacuation will be substantially greater than the capacities of key evacuation routes (as much as 54 percent greater).
- If ambient traffic on SR 78 is considered, it is possible that evacuating traffic demand will exceed capacity on that highway by as much as 64 percent.
- The simultaneous evacuation of Ramona could potentially overwhelm SR 78, consuming all of the available capacity on that highway.
- Given the anticipated high westbound traffic volumes on SR 78, drivers evacuating via Zoo Road or the Safari Park exit are likely to have extreme difficulty in entering the SR 78 traffic flow.
- In all cases, traffic flow on the evacuation routes will be unstable and susceptible to major disruptions, including significant levels of congestion and stop-and-go operation resulting in increased frustration, anxiety, and stress for evacuees.
- None of the evacuation scenarios provide sufficient road capacity to allow for safe evacuation of Harvest Hills or the neighboring communities.
- A significant risk exists that residents in the northern portion of the Project could be stranded with no means of escape if fire encroaches upon the middle segment of Safari Highlands Ranch Road. That road passes through an area with challenging topography, potentially increasing the odds of the road being cut off by fire. This is a particular concern given that a fire risk assessment commissioned by the City of Escondido specifically recommended that the proposed north evacuation route not be included in the evacuation road system.

The documents that we reviewed and our specific concerns are described in detail below.

DOCUMENTS REVIEWED

The key document included in our review was the Project's *Fire Protection Plan – Harvest* Hills (Dudek, Revised December 2020). In addition to this most recent version of the FPP, we reviewed a previous version dated July 2017.

Appendix I to the FPP contains an "Updated Evacuation Analysis Responding to City Requests." The memorandum presented in this appendix is intended to provide evacuation travel times for the proposed Project (Dudek, January 16, 2020, with previous versions dated January 9, 2020 and November 23, 2019).

Attachment A to the Dudek evacuation analysis memorandum is an additional memorandum report prepared by Linscott, Law & Greenspan Engineers (LLG) and dated October 10, 2019, which provides a "roadway capacity assessment" for the various potential evacuation routes serving Harvest Hills. Specifically, this document provides roadway capacity estimates for those roads based on a series of assumptions.

In addition, we reviewed a *Fire Risk Assessment* completed for the City of Escondido by Rohde & Associates. That document, which is described in greater detail later, provided a detailed critique of the Dudek FPP, including a number of comments and recommendations regarding the proposed evacuation road system.

FIRE PROTECTION PLAN REVIEW

Roadway Capacity Assumptions

The December 2020 Dudek Fire Protection Plan (p. 75) lists road capacities for the anticipated evacuation routes, as follows:

- Rockwood Road – 2,600 vehicles per hour,
- Zoo Road – 1,900 vehicles per hour,
- Cloverdale Road – minimum 2,600 vehicles per hour, and
- Northerly emergency evacuation route – 500 vehicles per hour.

However, as noted above, the roadway capacity assumptions employed in the Dudek evacuation travel time analysis memorandum were provided by LLG. Presumably, those values supersede the numbers listed above. The LLG capacity assumptions were based initially on the results of research documented in an October 2017 Federal Highway Administration (FHWA) report entitled, *Simplified Highway Capacity Calculation Method for the Highway Performance Monitoring System*.

As noted in the LLG memo, that document addresses "two lane highways with no traffic control," a situation that they state would likely exist during an evacuation, as one of the basic evacuation plan assumptions is that intersections and other critical points on the road system would be controlled by law enforcement officers, rather than the typical traffic control devices (e.g., traffic signals or stop signs). According to the FHWA report, the one-way capacity of such a roadway is 1,490 vehicles per hour per lane (VPHPL) under base conditions. LLG also notes that this value is subject to adjustment to reflect the physical characteristics of the road as well as the nature of the traffic using the road (e.g., the number of trucks).

Based on this, LLG applied various assumed adjustment factors to the base condition value of 1,490 VPHPL in an attempt to reflect the characteristics of the evacuation routes. Table 1 summarizes the specific adjustment factors applied to each of the key roadways and the resulting estimated capacity values.

As shown, the assumed capacity reductions range from 10 percent to 50 percent. Based on these assumptions, the adjusted capacity values range from as low as 745 VPHPL for the proposed North Evacuation Route and Stonebridge Road to a maximum of 1,340 VPHPL for several other roads, including SR 78.

However, no rational basis is provided for any of these assumed adjustment factors. Presumably, they represent the judgement of the LLG analyst but, absent any delineation of the thought process involved and the specific reasons for each of the adjustments, the factors are simply not credible.

We also note that the LLG memo addresses the additional capacity provided in connection with the provision of dual left-turn lanes on the westbound approach to the intersection of Rockwood Road/Cloverdale Road, as well as a second southbound right-turn lane at the Cloverdale Road/SR 78 intersection. In both cases, LLG concludes that these additional lanes would enhance the intersection capacity by 1,500 VPHPL. This is, of course, highly questionable, as it seems extremely unlikely that an intersection turn lane would have a higher capacity value than the corresponding value for a through lane along a straight segment of roadway, given the obvious need for drivers to slow down prior to entering a turn lane.

Table 1
Estimated Roadway Capacity Adjustments[1]

Road	Adjustment Factor	Estimated Capacity
Rockwood Road	10% Reduction	1,340 VPHPL[2]
Cloverdale Road	10% Reduction	1,340 VPHPL
State Route 78	10% Reduction	1,340 VPHPL
San Pasqual Road	15% Reduction	1,260 VPHPL
Safari Highlands Ranch Road	20% Reduction	1,190 VPHPL
Zoo Road	40% Reduction	890 VPHPL
North Evacuation Route (Stonebridge Road)	50% Reduction	745 VPHPL

Notes:
[1] Source: Linscott, Law & Greenspan Engineers, "Safari Highlands Ranch – Roadway Capacity Assessment, Evacuation Event," October 10, 2019.
[2] Vehicles per hour per lane.

In short, the assumed roadway capacity values employed in developing evacuation-related travel times are not credible and need to be evaluated further.

Revised Roadway Capacity Estimates

More realistic and credible road capacity values can be derived using historical information published in the *Highway Capacity Manual* (HCM). Although recent editions of that document base the capacity of two-lane roads on somewhat esoteric parameters such as "percent time spent following," the 1985 version of the HCM provides a methodology to determine capacity directly based on traffic volumes with application of appropriate adjustment factors. Key to the 1985 HCM procedure is the ability to adjust the basic capacity of a two-lane road to reflect terrain (e.g., level or rolling), the directional distribution of traffic (i.e., how much is traveling in each direction), the characteristics of vehicles in the traffic stream

(e.g., trucks and recreational vehicles), and the physical nature of the road (specifically, lane width and shoulder width).

We have undertaken a process to adjust the basic capacity value of 1,490 VPHPL using factors provided in the 1985 HCM. Specific adjustments were made to reflect the following characteristics of the roads and the evacuating traffic stream:

- Directional distribution: 100% / 0% (All traffic flowing in one direction, away from a wildfire)
- Heavy vehicles: Trucks 1% (Including all vehicles with more than four wheels on the ground, such as garbage trucks, delivery vehicles, service vehicles, etc.) / Recreational vehicles 4% (Including motor homes, towed travel trailers, and towed boats)
- Rolling terrain adjustment applied to Safari Highlands Ranch Road, Zoo Road, and the North Evacuation Route; others considered level
- Lane and shoulder width: Adjustment applied to Zoo Road and North Evacuation Route due to reduced shoulder width (Shoulders three-feet wide on one side only)

Table 2 summarizes the results of this adjustment process.

Table 2
Modified Roadway Capacity Adjustments[1]

Road	Estimated Capacity	Compared to LLG Estimate
Rockwood Road	1,020 VPHPL[2]	-24%
Cloverdale Road	1,020 VPHPL	-24%
State Route 78	1,020 VPHPL	-24%
San Pasqual Road	1,020 VPHPL	-19%
Safari Highlands Ranch Road	840 VPHPL	-29%
Zoo Road	770 VPHPL	-13%
North Evacuation Route (Stonebridge Road)	770 VPHPL	+3%

Notes:
[1] Reference: Transportation Research Board, *Highway Capacity Manual*, Special Report 209, 1985.
[2] Vehicles per hour per lane.

As shown, application of the 1985 HCM adjustment factors to the basic capacity value of 1,490 VPHPL generally results in lower roadway capacities, with the exception of the North Evacuation Route/Stonebridge Road where the estimated capacity is slightly higher.

Travel Speed Assumptions

It appears that the evacuation travel time estimates were derived using two approaches, the first of which employed assumptions regarding travel speeds. According to the January 16, 2020 Dudek memorandum included in Appendix I to the FPP, ". . . speeds range between 6 and 9 mph in this study . . ." (p. 2) Later, that same memorandum (p. 4) states that, ". . . the analysis considers an average 8 mph travel speed . . ." Other similar statements occur elsewhere in the document.

Although, on the surface, these assumed speeds might seem reasonable, the document provides no rational basis for their use. No documentation is provided as to the validity of these speeds and no analysis or evaluation is provided to demonstrate their legitimacy. We note also that the derived travel times using these speeds were uniformly substantially shorter than the times estimated using the second methodology, which reinforces the likelihood that the assumed speeds are invalid.

Travel Time Derivation Methodology

As noted above, two methods were apparently used to derive the evacuation travel times. The speed-related method described above consistently provided travel time estimates that were simply not credible; in approximately two-thirds of the cases evaluated, the estimated travel time was in the range of 9.01 – 15.18 minutes. (We should note that this information is not readily apparent to the casual reader, as the travel time estimates we reference here are located in Attachment E to Attachment A to Appendix I of the FPP.)

The second method, which generally served as the basis for the evacuation travel times reported in the FPP, directly employed the road capacity estimates discussed above. We have already described why those estimates are not valid, but a further discussion of this method is warranted, as there are additional deficiencies in the analysis. In general, the analysis reflects a failure to understand certain basic characteristics of traffic flow, particularly when traffic demand exceeds roadway capacity.

Dudek's January 16, 2020 evacuation travel time memorandum states (p. 2):

> *Using these* [roadway capacity] *averages, it is possible to approximate the length of time it will take for the number of vehicles within a community to be moved past a given point. This is accomplished by dividing the number of vehicles that need to evacuate by the total hourly roadway capacity.*

Unfortunately, the results of this calculation were inappropriately translated into a travel time value. For example, if the result of the calculation was 1.00, the conclusion was that the travel time was exactly 1.00 hour (i.e., 60 minutes). A calculation result of 0.75 was interpreted to mean a travel time of 0.75 hour, or 45 minutes, and a result of 1.50 was believed to indicate a travel time of 1.50 hours or 90 minutes.

The problem is that this calculation does not provide a measure of evacuation time. In order to provide an indication of time (and, in particular, the travel time associated with an evacuation), there must be a distance component in the calculation. In other words, the calculation must answer the question, "How long will it take me to get from Point A (e.g., my home in the proposed Project) to Point B (e.g., a safe location some distance from the wildfire)?" That distance component is lacking from the calculation.

In reality, the calculation described in the evacuation plan provides a volume/capacity (V/C) ratio for a given point on a given road. Attachment A to the Dudek memo provides the LLG "Road Evacuation Capacity Analysis" referenced above, and Attachment E to the LLG memo provides the "Travel Time Calculation Assumptions," which lays out how the travel times were estimated. As an example, the

second page of that attachment shows the "Scenario 1 – Existing" analysis for "Safari Park Evacuation to South of San Pasqual/SR-78 Intersection." Specifically, it evaluates "1866 vehicles at 1350 v/h capacity" and concludes that the travel time will be 83.55 minutes.

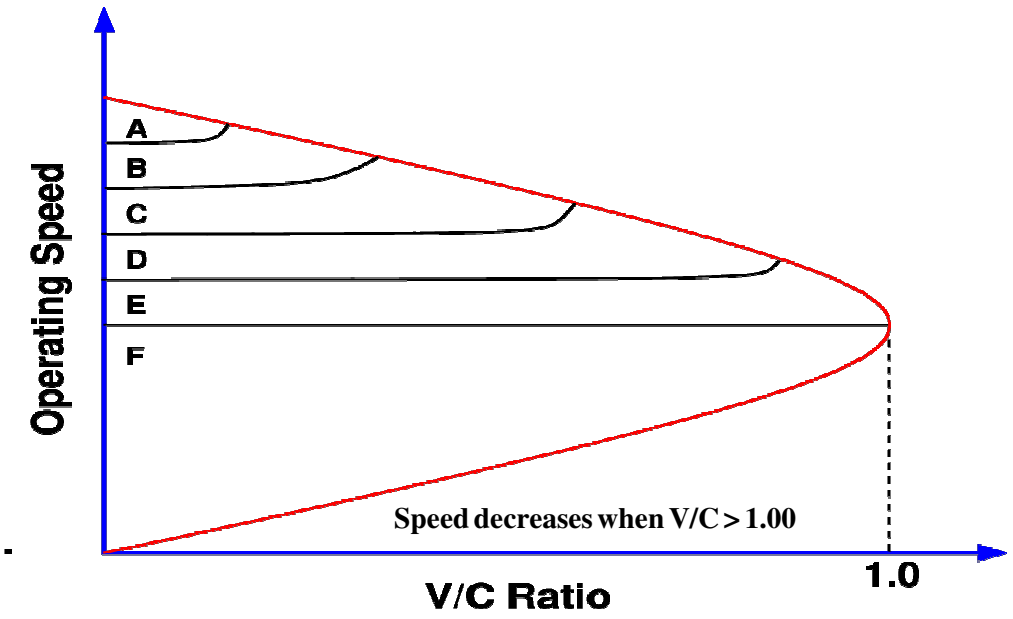
First, we note that the calculation misstates the assumed capacity of SR 78 – the actual assumption is 1,340 VPH, not 1,350. (The calculation reflects the correct capacity, but this error might be misleading.) As suggested above, the 83.55 minute value is derived by dividing 1,866 by 1,340 (1,866 / 1,340 = 1.39) and multiplying that result by 60 minutes/hour (1.39 X 60 = 83.55).

However, as we pointed out above, the actual result of this calculation is a V/C ratio not a time value, so when the analysis divides 1,866 vehicles by a capacity of 1,340 vehicles per hour, what it is really finding is that the traffic demand is equivalent to 1.39 times the capacity of the road (i.e., it has a V/C ratio of 1.39). In other words, the traffic demand is 39 percent greater than the capacity of the road.

To provide additional perspective regarding traffic operations, the quality of flow on a road is described in terms of "level of service" (LOS), which ranges from LOS A (free-flowing conditions) to LOS F (highly congested; V/C > 1.00). A V/C ratio of 1.39 indicates operation substantially in excess of the road's capacity and, by definition, represents LOS F. According to the *Highway Capacity Manual* (Transportation Research Board, Sixth Edition, 2016, p. 12-18):

> *Oversaturated conditions are represented by LOS F. LOS F describes unstable flow. . . . breakdown occurs when the ratio of existing demand to actual capacity, or of forecast demand to estimated capacity, exceeds 1.00.*

Unstable flow will be manifested in high levels of congestion and stop-and-go traffic, which will increase not only the time needed to evacuate, but also the levels of stress and anxiety for evacuees. The following graphic illustrates the relationship between LOS and travel speed. As shown, when a roadway reaches LOS F (i.e., V/C > 1.00), the operating speed rapidly declines.



The speed reduction illustrated here will directly translate into increased travel time. The Dudek/LLG analysis has incorrectly suggested that travel speed is linearly related to V/C ratio, which is not the case when traffic demand is near or beyond the road's capacity. Instead, the higher the V/C ratio, the greater the level of traffic flow instability and congestion, with stop-and-go operation and increasing levels of driver frustration and stress.

In addition, the analysis has inherently assumed that traffic will enter the evacuation in a uniform manner, so that the added traffic will be spread out relatively evenly over time. However, vehicles do not flow smoothly and uniformly, especially in the course of evacuating during an emergency. Instead, sudden surges in traffic would occur during an evacuation; it is extremely unlikely that traffic would be evenly distributed over time. That is, there will be variable pulses in traffic demand, just as there are in everyday traffic flows. These surges in demand will further contribute to the instability of the traffic stream.

In summary, the travel time analysis is fatally flawed, as it fails to represent a meaningful understanding of certain critical characteristics of traffic flow. Later in this memorandum we provide a revised analysis, which follows this basic approach, but more accurately reflects traffic operations during an evacuation.

Traffic Volume Estimates

The Dudek analysis includes evacuation traffic generated by the following locations:

- Proposed Harvest Hills Project (1,210 vehicles),
- Rancho San Pasqual (1,276 vehicles),
- Rancho Vistamonte (176 vehicles),
- San Pasqual Elementary School (200 vehicles), and
- San Diego Safari park (1,866 vehicles).

However, it ignores any ambient traffic that is already on the various evacuation routes when an emergency evacuation is ordered. Particularly noteworthy is the failure to consider ambient traffic on SR 78. For perspective, according to Caltrans 2019 traffic volume data, that state highway carries an average of 10,200 vehicles per day (VPD) east of Cloverdale Road and 13,300 VPD west of there. In the peak hour, SR 78 carries 1,300 VPH east of Cloverdale Road and 1,000 VPH to the west.

Looking at the directional distribution of the SR 78 peak hour traffic, about 75 percent of those vehicles are westbound, equivalent to almost 1,000 westbound vehicles on the SR 78 segment east of Cloverdale Road. Based on the revised road capacity value described above (1,020 VPHPL) and recognizing that westbound SR 78 has two lanes in that area (total capacity of 2,040 VPH), the existing peak hour traffic consumes about half of the total capacity of the road, thereby limiting the amount of evacuation traffic that can be accommodated. It is not unreasonable to expect that similar conditions apply to the other evacuation routes.

Further, the Dudek analysis ignores that other communities will also need to evacuate and, in some cases, will also be consuming the capacity of the routes addressed in the FPP. One obvious example is the community of Ramona, for which SR 78 is a primary evacuation route. The 2010 U.S. Census shows that Ramona has a population of 20,292. Using the SANDAG average household size of 3.12 occupants per dwelling employed in the Dudek FPP (p. 47) indicates the presence of about 6,500 households in Ramona. Those 6,500 households would generate evacuation traffic of 14,300 vehicles, based on the 2.2

vehicles per household average presented in the Dudek report (based on data from Cal Poly – San Luis Obispo, 2016).

In summary, the failure to account for the additional ambient and evacuation traffic on the area road system is a major deficiency in the Fire Protection Plan. In effect, the travel times documented in the FPP are rendered meaningless.

Pre-evacuation Notification and Preparation Time

The travel time estimates documented in the FPP only represent the time to travel from the specified communities (Harvest Hills, Rancho San Pasqual, etc.) to the vicinity of the intersection of SR 78/Cloverdale Road. First, we note that this destination is completely inadequate, as it is unlikely to represent safety for evacuees. Undoubtedly, residents fleeing a fire approaching from the east or northeast will want to be farther away than this relatively nearby location. A more realistic destination would be Interstate 15 (I-15), from which evacuees would have greater ability to depart the area safely.

Beyond this, however, we note that the evacuation time information presented in the FPP specifically and intentionally excludes the time needed for residents to receive notifications of the emergency and then to prepare to evacuate. The FPP (p. 76) provides a detailed listing of time requirements for various pre-evacuation activities totaling 125 minutes (i.e., just over two hours), plus an additional 30 minutes of "contingency time," leading to a total of 155 minutes (2.6 hours) for pre-evacuation activities. The FPP goes on to say:

> *Total minimum time that may be needed for a large-scale evacuation from the detection of a fire until the last person is out of harm's way is 90 to 180 minutes.*

Again, this period of up to three hours is in addition to the travel time estimates presented in the Dudek FPP. We believe the failure to include this critical time period in the evacuation time estimates is misleading and provides an unwarranted sense of certainty that a safe evacuation can be accomplished in a reasonable amount of time.

REVISED EVACUATION TRAFFIC ANALYSIS

As described above, the evacuation travel time analysis presented in the Dudek Fire Protection Plan is significantly flawed and, as a result, provides misleading information. To provide a more realistic and reasonable indication of traffic flow and operations in the course of an emergency evacuation, we developed a revised traffic analysis. Because we recognize the instability and uncertainty associated with traffic flow when demand exceeds road capacity, our analysis focuses on determining whether the evacuation routes can accommodate the number of vehicles that might be evacuating.

We have not attempted to provide travel time estimates, as we believe that meaningful estimates can only be derived through the conduct of a sophisticated traffic simulation analysis performed by an experienced traffic engineer who specializes in such analyses. Within such an analysis it will be particularly critical to carefully calibrate and validate the traffic simulation model to ensure that it adequately reflects traffic flow under extreme circumstances such as a wildfire evacuation.

Our analysis incorporates the following basic parameters:

- Traffic volume estimates as presented in the Dudek FPP,
- Modified roadway capacity values as presented in Table 2 above, and

- Analysis Scenarios 2 and 3 from the Dudek FPP, as well as two scenarios related to recommendations in the *Fire Risk Assessment* prepared for the City of Escondido by Rohde & Associates (Rohde) dated August 24, 2021. This document is briefly described below.

Rohde Fire Risk Assessment

Rohde was retained by the City to perform a fire risk assessment, particularly addressing issues related to wildfire, structural fire and life safety, Key recommendations presented in the report include:

- The north evacuation route should not be included in the Project's evacuation plan due to topographic considerations and potential fire behavior issues that might endanger users of that route.
- The two remaining evacuation routes (Safari Highlands Road and Zoo Road) should be improved to fully conform to City of Escondido standards and should be widened to provide three full-width lanes, two for evacuating traffic and one for inbound emergency vehicles. Neither of these roads should be gated.
- A detailed traffic study should be performed by a professional/certified traffic engineer. This suggests that the study should performed by professional civil or traffic engineer licensed by the State of California.
- The traffic study should evaluate the need for improvements to SR 78, including the potential need for one or more additional lanes. The study should also recognize that SR 78 is an evacuation route for Ramona and other communities.
- The Rohde study identifies the area near SR 78/Bear Valley Parkway as the Escondido urban area boundary, which it considers the immediate destination for evacuating traffic.

Revised Evacuation Traffic Analysis

Attachment 1 contains a table summarizing our revised evacuation traffic analysis incorporating the basic parameters listed above. Four "with Project" scenarios were considered:

- Dudek Scenario 2 – Evacuation via Cloverdale Road only. The North Evacuation Route and Zoo Road would be unavailable.
- Dudek Scenario 3 – All three evacuation routes would be available.
- With Rohde Recommendations – The North Evacuation Route would not be available, but Safari Highlands Road and Zoo Road would be improved to meet City standards and widened to provide three lanes, including two for outbound/evacuating traffic.
- Modified Rohde Recommendations – The North Evacuation Route would not be available, and Safari Highlands Road and Zoo Road would not be improved as recommended.

The Dudek scenarios evaluated here reflect the specific details included in the January 16, 2020 evacuation travel time memorandum; in some cases, those assumptions differ from earlier versions of the memo, particularly with regard to the geographic distribution of evacuating traffic. Note that we have not evaluated Dudek Scenario 1, which addresses existing conditions and excludes Project-related traffic.

We have also provided a limited analysis of the effects of ambient SR 78 traffic. As described above, Caltrans traffic volume data indicate that approximately 1,000 VPH travel westbound on SR 78 in the

peak hour. The two bottom rows of the table in Attachment 1 reflect inclusion of this traffic. Traffic on SR 78 that would arise from simultaneous evacuation of Ramona was not included, however.

In all cases, the analysis reflects the road improvements identified for Rockwood Road (a second westbound lane) and Cloverdale Road (a second southbound lane) as well as the corresponding intersection modifications (second turn lanes).

On the table, we have highlighted road segments projected to operate near or beyond capacity. Specifically, yellow highlights indicate segments that are expected to operate between 90 and 100 percent of capacity; traffic flow on those segments will be unstable and susceptible to major disruptions. Orange highlighted segments are projected to exceed capacity, with significant levels of congestion and stop-and-go operation.

Dudek Scenario 2 – Cloverdale Road Only

If only Cloverdale Road is available to accommodate evacuating traffic, major disruptions to traffic flow are projected. Road segments that are expected to exceed capacity include:

- Safari Highlands Road throughout much of the Project (V/C = 1.44),
- Rockwood Road, west of the elementary school (V/C = 1.09),
- Cloverdale Road (V/C = 1.40),
- SR 78, west of Cloverdale Road (V/C = 1.54), and
- San Pasqual Road, south of SR 78 (V/C = 1.55).

In addition, the segments of SR 78 east of Zoo Road and between Zoo Road and Cloverdale Road will operate at 91 percent of capacity (V/C = 0.91).

With consideration of ambient traffic on SR 78, the segments of that highway east and west of Zoo Road are expected to operate at 40 percent beyond capacity (V/C = 1.40), compared to V/C = 0.91 without considering that traffic.

We also note that, if Cloverdale Road is the only evacuation route available to Project residents, a significant risk exists that the northern sections of the Project could be cut off from the southern sections (and the sole evacuation route) if fire encroaches upon the roadway at this point. The slopes and overall topography in this area of the Project site would appear to be favorable to rapid fire spread, potentially increasing the chances of the road being cut off. In this event, the northern residents would be stranded, with no means of escape.

These results suggest that this scenario is untenable in the event of an emergency evacuation.

Dudek Scenario 3 – All Three Evacuation Routes Available

Provision of all three evacuation routes improves traffic operations within the Project site, but still results in major operational deficiencies. Three road segments will exceed capacity:

- SR 78, between Zoo Road and Cloverdale Road (V/C = 1.01),
- SR 78, west of Cloverdale Road (V/C = 1.29), and
- San Pasqual Road, south of SR 78 (V/C = 1.29).

Three additional routes will be at or near capacity:

- Cloverdale Road (V/C = 0.93),
- North Evacuation Route (V/C = 1.00), and
- SR 78, east of Zoo Road (V/C = 0.91).

Ambient traffic on SR 78 increases the V/C ratio on the segment east of Zoo Road from 0.91 to 1.40, and on the segment between Zoo Road and Cloverdale Road from 1.01 to 1.50.

Again, these results provide no certainty that Project residents will be able to evacuate safely.

With Rohde Recommendations

As described above, Rohde recommended that the North Evacuation Route not be used and that Safari Highlands Road and Zoo Road be improved to City standards plus the addition of a third lane to ensure two lanes are available for evacuating vehicles.

Even with full implementation of those recommendations, our analysis indicates that the following road segments will exceed capacity:

- Cloverdale Road (V/C = 1.20),
- SR 78, between Zoo Road and Cloverdale Road (V/C = 1.12),
- SR 78, west of Cloverdale Road (V/C = 1.54), and
- San Pasqual Road, south of SR 78 (V/C = 1.55).

Also, SR 78 east of Zoo Road is expected to operate at 91 percent of capacity (V/C = 0.91).

Ambient traffic on SR 78 will exacerbate conditions, resulting in operations 40 and 61 percent beyond capacity east and west of Zoo Road, respectively.

Thus, while the Rohde recommendations will result in acceptable traffic operations near the site (i.e., on Safari Highlands Road and Rockwood Road) and along Zoo Road, significant problems are anticipated on the other evacuation routes (i.e., Cloverdale Road, SR 78, and San Pasqual Road).

In addition, elimination of the North Evacuation Route again creates a substantial risk that residents in the northern portion of the Project will be stranded.

Modified Rohde Recommendations

This scenario addressed a condition under which the North Evacuation Route is not used and the Rohde-recommended improvements to Safari Highlands Ranch Road and Zoo Road are not implemented.

Traffic operations are again unacceptable. Road segments that would operate in excess of capacity include:

- Safari Highlands Road, north of the Zoo Road connection (V/C = 1.44),
- Cloverdale Road (V/C = 1.20),
- SR 78, between Zoo Road and Cloverdale Road (V/C = 1.12),

- SR 78, west of Cloverdale Road (V/C = 1.54), and
- San Pasqual Road, south of SR 78 (V/C = 1.55).

The segments of Safari Highlands Road south of the Zoo Road connection (V/C = 0.95) and SR 78 east of Zoo Road (V/C = 0.91) would be approaching capacity. As with the "With Rohde Recommendations" scenario, addition of ambient traffic on SR 78 causes the key segments of that highway to operate at 40 – 61 percent above capacity.

Similar to the other conditions evaluated here, traffic operations under this scenario will be unacceptable throughout much of the study area.

Ramona Evacuation Impacts

The revised evacuation analysis presented here does not include traffic associated with the simultaneous evacuation of the Ramona community, which is located east of the Project along SR 78. As described earlier, using parameters presented in the Dudek FPP, Ramona could be expected to generate evacuation traffic of up to 14,300 vehicles. If only 15 percent of those vehicles (i.e., about 2,150 vehicles) attempt to evacuate Ramona within a short timeframe, they will consume all of the available capacity on SR 78 in the vicinity of the Project. Further, given that SR 78 provides only one westbound lane between Ramona and the Safari Park, that section of highway would be completely overwhelmed by this traffic. In fact, as few as eight percent of the Ramona-related traffic (i.e., about 1,140 vehicles would exceed the capacity of that two-lane segment of SR 78.

Conclusion – Revised Evacuation Traffic Analysis

None of the four evacuation scenarios addressed here provide sufficient road capacity to allow for safe evacuation of Harvest Hills or the neighboring communities. Consideration of the pre-existing traffic on SR 78 results in further exacerbation of traffic operations. Addition of vehicles evacuating from Ramona or other areas will cause traffic operations to deteriorate further. This will also be the case as evacuees travel to the west, toward safety; as they travel away from the emergency, they will become part of a larger traffic stream made up of other evacuees and traffic operations will continue to worsen.

Two other points are also apparent from this analysis:

- A significant risk exists that residents in the northern portion of the Project will be stranded if fire encroaches upon the middle segment of Safari Highlands Ranch Road. That segment of road passes through an area with challenging topography, including substantial slopes, which might increase the odds of the road being cut off by fire. This is a particular concern given that the experts at Rohde & Associates have specifically recommended that the north evacuation route not be considered as part of the evacuation road system.
- No consideration has been given to the difficulties likely to be experienced by drivers evacuating via Zoo Road or the Safari Park exit at the point where they need to enter SR 78. Given the anticipated high westbound traffic volumes on SR 78, those vehicles are likely to have extreme difficulty in entering the SR 78 traffic flow.

CONCLUSION

The evacuation travel time analysis presented in the Fire Protection Plan is substantially flawed. Critical inputs to the analysis including, in particular, the road capacity assumptions are not supported by facts or

analysis. Further, the travel time results are misleading and incomplete as they fail to include essential pre-evacuation notification and preparation times.

An analysis using modified road capacity values derived using well-documented adjustment factors found that under any of the previously-considered evacuation scenarios evacuating traffic demand will exceed the capacity of the roads. Consequently, significant congestion and stop-and-go traffic will prevail along the evacuation routes, resulting in increased travel times as well as high levels of frustration, anxiety, and stress for evacuees.

In summary, none of the evacuation scenarios provide sufficient road capacity to allow for safe evacuation of Harvest Hills or the neighboring communities.

ATTACHMENT 1

HARVEST HILLS
EVACUATION TRAFFIC ANALYSIS SUMMARY TABLE

ATTACHMENT 1
HARVEST HILLS EVACUATION TRAFFIC ANALYSIS
TRAFFIC VOLUMES, CAPACITIES & VOLUME/CAPACITY RATIOS

		ANALYSIS SCENARIO (1)								
		Dudek				Rohde				
		Scenario 2		Scenario 3		With Rohde Recommendations			Modified Rohde Recommendations		
		Cloverdale Rd. Only		All 3 Routes Available		No North Route / Improved Safari Highlands Rd. & Zoo Rd.			No North Route / Safari Highlands Rd. & Zoo Rd. Not Improved		
ROAD	CAPACITY	VOLUME	V/C	VOLUME	V/C	CAPACITY	VOLUME	V/C	CAPACITY	VOLUME	V/C
Safari Highlands Rd. - North of Zoo Rd. Connection	840 VPH (2)	1,210	1.44	442	0.53	1,680 (8)	1,210	0.72	840	1,210	1.44
Safari Highlands Rd. - South of Zoo Rd. Connection	840 VPH (2)	1,210	1.44	242	0.29	1,680 (8)	800 (9)	0.48	840	800 (9)	0.95
Rockwood Rd. - East of Old Ranch Rd.	2,040 VPH (3)	1,386	0.68	418	0.20	2,040	976	0.48	2,040	976	0.48
Rockwood Rd. - Between Old Ranch Rd. & School	2,040 VPH (3)	2,024	0.99	1,056	0.52	2,040	1,614	0.79	2,040	1,614	0.79
Rockwood Rd. - West of School	2,040 VPH (3)	2,224	1.09	1,256	0.62	2,040	1,814	0.89	2,040	1,814	0.89
Cloverdale Rd.	2,040 VPH (4)	2,862	1.40	1,894	0.93	2,040	2,452	1.20	2,040	2,452	1.20
Zoo Rd.	770 VPH (5)	0	0.00	200	0.26	1,680 (8)	410 (9)	0.24	770	410 (9)	0.53
North Evacuation Route	770 VPH (5)	0	0.00	768	1.00	--	0	--	--	0	--
State Route 78 - East of Zoo Rd.	2,040 VPH (3)	1,866	0.91	1,866	0.91	2,040	1,866	0.91	2,040	1,866	0.91
State Route 78 - Between Zoo Rd. & Cloverdale Rd.	2,040 VPH (3)	1,866	0.91	2,066	1.01	2,040	2,276	1.12	2,040	2,276	1.12
State Route 78 - West of Cloverdale Rd.	2,040 VPH (3)	3,150 (6)	1.54	2,640	1.29	2,040	3,150	1.54	2,040	3,150	1.54
San Pasqual Rd. - South of SR 78	1,020 VPH (2)	1,578 (7)	1.55	1,320	1.29	1,020	1,578	1.55	1,020	1,578	1.55
With SR 78 PM Peak Hour Traffic (1,000 VPH)											
State Route 78 - East of Zoo Rd.	2,040 VPH (3)	2,866	1.40	2,866	1.40	2,040	2,866	1.40	2,040	2,866	1.40
State Route 78 - Between Zoo Rd. & Cloverdale Rd.	2,040 VPH (3)	2,866	1.40	3,066	1.50	2,040	3,276	1.61	2,040	3,276	1.61

NOTES:
(1) Project & nearby communities only; Excludes background traffic + other evacuees (See below)
(2) One southbound/outbound lane
(3) Two westbound/outbound lanes (Use center turn lane, where necessary)
(4) Two southbund/outbound lanes (Use center turn lane & traffic cones, where necessary)
(5) One outbound lane; Limited shoulder width
(6) Approx. 2/3 of evacuees
(7) Approx. 1/3 of evacuees
(8) Improved to three lanes; Two outbound lanes at City standards
(9) Assumes approx. 2/3 use Safari Highlands Rd. & 1/3 use Zoo Rd.

1.xx Traffic demand exceeds capacity

0.9x Trafic demand approaching capacity

ESCONDIDO
City of Choice

MEMORANDUM

September 10, 2021

TO: Adam Finestone, Interim Director of Community Development

FROM: Rick Vogt, Fire Chief

SUBJECT: Harvest Hills Fire Risk Assessment Report (Rohde & Associates)

After reviewing the final draft of the Rohde & Associates Fire Risk Assessment Report (study) for the proposed Harvest Hills development, I believe that the report should now be provided to the proponents. The Summary of Findings on pages 28 through 32 provide a comprehensive list of the key wildfire and evacuation issues associated with the Harvest Hills development.

The following items need to be addressed:

- The study identifies that the Fire Protection Plan estimates for roadway travel capacity need to be verified in a traffic study prepared by a professional traffic engineer. The study must include project roads, emergency routes and transportation corridors from the project to the urban fringe identified as Highway 78 and Bear Valley Parkway. This traffic study must consider the effect of traffic from Ramona, Safari Park and the Cloverdale area.
- The study concludes that the evacuation routes and roads proposed are inadequate. The proponent must propose a modification that ensures adequate capacity and limits the potential danger to those who will have to use the routes, including civilians and emergency responders. The study indicates that:
    - — Stonebridge Road (northern route) as proposed, regardless of its completion timeline, is inadequate due to the expected fire behavior that is likely to overwhelm the route.
    - — Large turnouts every ¼ to ½ mile are needed along all evacuation routes.
    - — All access roads need to be used full time, meet city standards, and not have locked gates that restricts egress.
    - — All roads along evacuation routes shall have 50’ of fuel modification where adjacent to wildland fuels.
    - — All roads along evacuation routes shall include lighting, and safety barriers when adjacent to slopes.

  - All roads along evacuation routes must be a minimum of 24’ wide. The study further indicates that the evacuation routes from the development to the urban fringe should have the capacity for at least three lanes (one of which can be a median) to ensure that egress is maintained while allowing ingress of emergency vehicles.
  - The study recommends that the proponent propose an alternate to the Stonebridge Road evacuation route. The study suggests that, in addition to adding necessary emergency shelter in place locations, all proposed temporary roads be made permanent and that additional capacity be established from the development to the urban fringe, identified as Highway 78 and Bear Valley Parkway. This alternate proposal would need to be validated by a traffic study prepared by a licensed traffic engineer and reviewed by city staff and consultants.

- The study concludes that the “Temporary Shelter in Place” provisions of the Fire Protection Plan are inadequate. The proponents plan for the community center needs to address parking needs that includes an all-weather surface and does not include roadside parking. The plan must not include the fire station as a point of refuge for civilians. The plan must also not include “roadside refuge” for civilians.
- The study recommends that the Fire Protection Plan needs to better emphasize and state restrictions and limitation of yard construction and combustible home improvements.
- The study recommends that the Fire Protection Plan identify the viability of a water supply for firefighting for at least two hours. If water supply and pressure is dependent on anything other than gravity, adequate systems need to be in place such as backup generators.
- The study identifies the need for the proponent to develop additional safe refuge areas where residents can be reasonably safe during a fire impacting the community. Specifically, at least 2.5 acres of open land located in the later development phase areas are needed. The proposed areas and specifications would need to be reviewed and approved by City staff.
- Due to the effect that a wildfire may have in the areas surrounding Harvest Hills, the report recommends a geologic study to determine the potential for soil instability post-wildfire. The study should determine if there would be risks of land or mud slides that could affect the development and/or the areas nearby. The study suggests that this is a CEQA requirement.

- The study indicates that the required Fire Station be operational sooner than proposed. The timeline for a temporary station with apparatus and equipment and a permanent station needs to be developed that considers the cost and reflex time to construct facilities and acquire apparatus and equipment.

  Although the funding for the start-up and ongoing operations of the proposed fire station was not a part of the study, I am still concerned that sustainable funding for staffing a fully functional municipal fire station has not been yet been identified.

Cc: Chris McKinney, Deputy City Manager
Julie Procopio, Director of Engineering Services
Ed Varso, Chief of Police
Kurt Whitman, Senior Deputy City Attorney

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Blom, Erica

From: rleiter
Sent: Monday, August 01, 2022 9:26 AM
To: Blom, Erica
Cc: Mumpower, Priscilla
Subject: [External] Public Comment on Agenda Item 7a on San Diego LAFCO Meeting Agenda for August 1, 2022

Importance: High

To: Honorable LAFCO Board

I am not able to attend today's hearing. However, I would like to support the recommendations of the Sierra Club North County Group, Endangered Habitats League, and San Pasqual Valley Preservation Alliance **to remove Recommendation 9b from the Staff Addendum for Agenda Item 7a.**

In addition to the reasons stated by other commenters for removing Recommendation 9a, I think it is important to consider the requirements of **California Senate Bill 379**, which states that all local governments must update the Safety Elements of their General Plans **no later than January 1, 2022**, to, among other things, address the impacts of climate change on the frequency and severity of wildfires, along with its impacts on other types of safety and health hazards. To my knowledge, the City of Escondido has not adopted an update to the Safety Element of its General Plan as required by SB 379. I think it would be prudent for the LAFCO Board to remove Recommendation 9b of the Staff Addendum until the City of Escondido has completed this update.

Best regards,

Robert A. Leiter, FAICP

From: Starfleet Mom
Sent: Friday, September 2, 2022 7:49 PM
To: Blom, Erica; Priscilla Mumpower
Subject: [External] Comment on draft Escondido MSR review, request for amendment

Harvest Hills is one of the most dangerously located development projects in the region. It has had more than enough time (eight years since first proposed as Safari Highlands Ranch in April of 2014 and 20 years since Valley View Estates) to complete the process.

It didn't make sense then and it doesn't make sense now!

The location for a sprawl project like this is infeasible and indefensible. As someone who lives adjacent to this property and experienced the 2003 and 2007 firestorms, I can't imagine that this development is even being considered given the high fire risk, steep terrain, and difficult evacuation and emergency services access.

The drought and difficulty for the surrounding properties to pump sufficient water from the local aquifer also make this project unfeasible. So does the increased traffic and lack of space in the small local school, and the proximity to the Safari Park.

The problems with Harvest Hills are insurmountable and the project is dangerous. *It should not be fast-tracked in any way.*

Christine Rideout

From: Barbara Diederichs
Sent: Sunday, September 4, 2022 12:49 PM
To: Mumpower, Priscilla
Subject: [External] Harvest Hills

Dear Commissioners,

Although I do not live in Escondido but in Poway, I would like to encourage you to not give special study status to the proposed Harvest Hills project. It increases already destructive sprawl in our region, makes our whole region more vulnerable to fire disaster, and increases our climate footprint. Please do everything in your power to prevent this terrible project from becoming reality. At a minimum, it should be evaluated within the normal LAFCO process.
Thank you very much!

Barbara Diederichs

From: Richard Crosland
Sent: Sunday, September 4, 2022 4:50 PM
To: Mumpower, Priscilla
Subject: [External] : Comment on draft Escondido MSR review, request for amendment

Dear Commissioners,

I wish to object to the recommendation for 'special study' status for the Harvest Hills project in the draft Escondido MSR action. Harvest Hills is a dangerous project that threatens all of us who live in the region. The issues of fire risk and evacuation alone make this project untenable. It is time to start in-filling existing areas rather than continuing sprawl. The Harvest Hills project should not be given accommodation to be evaluated out of synch with the normal LAFCO process.

Please remove condition #9-B special study status for Harvest Hills.

Thank you

Richard Crosland

From: Laura Hunter
Sent: Monday, September 5, 2022 4:25 PM
To: Blom, Erica; Mumpower, Priscilla; Simonds,Keene
Cc: Paul McNamara; Adam Finestone; Andrew Firestine; Julie Procopio; Rvogt; Sean McGlynn; Veronica Morones; jmurdock
Subject: [External] Coalition Comment letter to LAFCO on Escondido MSR draft

Dear Mr. Simonds, Ms. Mumpower, and Ms. Blom,
Please find our formal comment letter attached on the Escondido MSR.
Please contact me with any questions.
Please distribute to the LAFCO commissioners.
Thank you,
Laura Hunter

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September 6, 2022

Chair Desmond and Commissioners
Mr. Keene Simonds
Ms. Priscilla Mumpower
LAFCO
Via Email

RE: **Opposition to special consideration for Harvest Hills in Escondido MSR**

Dear Commissioners, Mr. Simonds, and Ms. Mumpower:

The undersigned organizations are submitting this comment letter to urge the removal of staff recommendation 9 (b) of the draft Staff Addendum to the Escondido MSR.

It is unusual and concerning that the proponent of Harvest Hills was secured to write the MSR for the entire city of Escondido. That said, we support the wisdom of the staff addendum in rectifying the deficiencies in the Concordia proposal.

However, making the accommodation provided in 9 (b) is unacceptable. A 'special study' designation would allow the project to be brought forth out of synch with the normal comprehensive LAFCO sphere and services analysis and is tantamount to fast-tracking this complex and dangerous project. It is inappropriate and contrary to the public interest.

The 9 (b) recommendation reads:

> *9. … b) Notwithstanding other determinations, San Diego LAFCO should proceed to establish one or more special study areas for the City of Escondido sphere of influence as part of a limited update and provide the affected areas eligibility to proceed in the next five years with an actual amendment without necessitating a new municipal service review. This includes a special study area for the Harvest Hills (previously Safari Highlands) project site.*

We request that staff recommend and the Commission eliminate recommendation 9 (b) from the staff addendum.

There are several existing conditions with this project proposal that require it to follow the normal LAFCO review process. These are discussed below:

A. Harvest Hills would result in a major impact on the region and the City, and must have a full and comprehensive analysis prior to any SOI adjustment or annexation.

Harvest Hills is one of the most dangerously located development projects in the region, and probably the state. It has had more than enough time (eight years since first proposed as Safari Highlands Ranch in April of 2014 and 20 years since Valley View Estates) to complete the process. The failure of the development interests to bring this project forward in a timely manner should not be rewarded with special consideration that, effectively, reduces the comprehensiveness of the analysis required.

A major change in municipal services, such as would be required for the Harvest Hills project, should be part of a comprehensive services and sphere review rather than considered in a piecemeal fashion.

This project, and others before it, have failed to advance over a multi-decade period for good reasons. The location for a sprawl project like this is infeasible and indefensible.

The reasons for this include recent information on the project's insurmountable fire and evacuation issues. There is even more evidence of the severe threat that this project would pose to existing neighbors and neighboring communities, including the San Diego Zoo Safari Park. Under these circumstances, waiting for the next comprehensive review is eminently justified and should be required.

B. New analyses demonstrate excessive fire and evacuation danger from project.

Four expert reports and reviews clearly demonstrating the significant fire threat of Harvest Hills are attached for your convenience and summarized below. We request that these be included in the record and reflected in the analysis of staff final recommendation.

1. **Fire Risk Assessment of Harvest Hills,** August 26, 2021. Rohde and Associates

This report was commissioned by the City of Escondido for a fire risk assessment of the project and analysis of Harvest Hills' proposed Fire Protection Plan. They found the plan's proposed evacuation strategies deficient and the tenuous 'shelter-in-place' strategy unworkable.

Many concerns are raised in this assessment. Here are just a few:

- Proposed secondary access road is not in compliance with standards.
- Significant hazards for public use during wildfire have been identified with the proposed routes in this study.
- Numerous studies have identified that human wildfire ignition is directly tied to population growth and is an inescapable outcome of any development in the Wildland-Urban Interface.
- Lack of a certified traffic study.
- Lack of a specific, detailed evacuation plan.
- Shelter-in-place provisions are inadequate.
- Expected fire behavior that is likely to overwhelm the evacuation routes given topography.
- Inadequate fuel reduction zones.
- Consideration of 'in-street' refuge should not be considered for the public.
- **Significant areas of concern exist for both proposed emergency evacuation routes.** Both routes travel through and across steep terrain with moderate to heavy fuels. Neither route is developed to municipal road standards and travel safety, especially during presence of fire or smoke, will likely be hazardous.
- Outputs from these studies indicate potential for extreme fire behavior and rates of spread for <u>both</u> onshore and offshore wind driven fires at the project site; wind gusts in the area have reached 100 mph in past fires.

Although Rohde made several recommendations, they would be very costly and have not been evaluated in any of the environmental review for this project. Further, as the next report demonstrates, the recommendations do not resolve the problems noted.

2. **Harvest Hills Evacuation Plan Review** by Neal Liddicoat[1] of Griffin Cove Transportation Consulting, February 17, 2022.

This analysis looked at five fire documents[2] evaluating the effectiveness of the proposed plans and analyzed several evacuation scenarios. The findings of the proposed Harvest Hills analysis showed many additional deficiencies including:

- The roadway capacity assumptions are substantially flawed and, specifically, they overstate the capacity of the evacuation roadways.
- The travel speeds assumed in the analysis are unsupported by facts or analysis.

[1] Mr. Liddicoat is a licensed civil engineer with a particular expertise in the analysis of traffic operations at major event centers, at which large volumes of traffic arrive and depart in short periods of time such as event centers, amusement parks, and convention centers. As traffic operations principles in these analyses are similar to those that apply to wildfire evacuation planning, he is frequently retained to provide expert comments on the evacuation effects of large-scale residential and mixed-use projects,

[2] Dudek, *Fire Protection Plan* (Dec. 2020, Dudek *Evacuation Analysis* Memo, Jan. 16, 2020; LLG *Road Capacity Assessment Memo*, Oct. 10, 2019; LLC *Travel Time Calculation Assumptions*; Rohde *Fire Risk Assessment* prepare for City of Escondido.

- The methodology used to derive travel times was flawed and represents a failure to understand the basic characteristics of traffic flow, particularly under conditions when traffic demand exceeds the capacity of a road. The methodology further fails to represent an understanding of traffic flow when drivers are under extreme duress, as they would be during a wildfire evacuation.
- The analysis includes traffic only from the proposed Project and nearby communities; it ignores ambient traffic that is already on the area road system at the time an evacuation is ordered, as well as other evacuating traffic, such as vehicles departing Ramona along State Route 78 (SR 78).
- The evacuation times presented are incomplete and misleading, as they ignore pre-evacuation notification and preparation time.
- Insufficient consideration has been given to the potential for the northern segment of the Project to be cut off from safety by a fire encroaching on the middle segment of Safari Highlands Ranch Road.
- Topography in the area would favor rapid fire spread, increasing the chances of Safari Highlands Ranch Road and the proposed northern evacuation route being cut off.

The findings of the GCTC Revised Evacuation Traffic Analysis include:

- None of the evacuation scenarios provide sufficient road capacity to allow for safe evacuation of Harvest Hills or nearby communities
- Evacuation traffic demand will exceed road capacities by as much as 54%
- If SR 78 traffic is included, demand will exceed capacity by up to 64%
- Simultaneous evacuation of Ramona would potentially overwhelm SR 78, consuming all available capacity
- Drivers evacuating via Zoo Rd. will have extreme difficulty entering SR 78 flow
- Traffic flow on evacuation routes will be unstable and susceptible to major disruptions
- Significant congestion & stop-and-go operation will prevail
- Safari Highlands Ranch Rd. passes through an area with steep slopes potentially increasing the odds of road being cut off by fire

We direct your attention to Attachment 1 of this memo which clearly demonstrates that in every scenario, **even with** the Rohde recommendations, traffic capacities and volumes are exceeded, meaning … *none of the evacuation scenarios provide sufficient road capacity to allow for safe evacuation of Harvest Hills or the neighboring communities.*

Last, stranding of future residents within the project is a critical concern. GCTC found:

> *A significant risk exists that residents in the northern portion of the Project could be stranded with no means of escape if fire encroaches upon the middle segment of Safari Highlands Ranch Road. That road passes through an area with challenging topography, potentially increasing the odds of the road being cut off by fire. This is a particular concern given that a fire risk assessment commissioned by the City of Escondido specifically recommended that the proposed north evacuation route not be included in the evacuation road system*.

It is clear the current northern evacuation route is unworkable, which leaves the project without a viable second evacuation route.

3. **A Memorandum from Chief Rick Vogt in response to the Rohde Assessment listing nine major areas of concern. September 21, 2021**

   Chief Vogt's memo, attached, requests nine major areas be addressed, including identifying if a source of sustainable funding exists to staff a fully functional municipal fire station.

4. **Review of Fire Safety Engineering Issues Presentation**, March 3, 2022, by Joseph B. Zicherman[3], Ph.D., SFPE, Berkeley Engineering and Research

Dr. Zicherman's review of the plans yielded comparable concerns about evacuation and highlighted additional fire-related issues as well. His review of the DEIR the fire evacuation plan found:

- Dependence on these tortuous and unfamiliar private roads as emergency routes and ensuring their availability to evacuate the project is inconsistent with reasonable minimum safety standards.
- Dependence on unfamiliar and irregularly routed roads for evacuation which can take place in darkness and/or with smoke obscuration and reduced visibility are extremely likely to result in injuries and loss of life.[4]

His recent findings included:

- Project site is a high hazard area with a verified risk of repeated wildland fires.
- The project would be built at a site with a 1,400 foot elevation gain – which on a macroscale supports accelerations of wind that are far greater than accelerations and flame-lengths affecting lesser slopes.
- Beyond unfavorable traffic flow analysis during emergency situations, project design with separate pods of homes connected by a single two-lane road creates a highly dangerous situation of potential entrapment during fire events.
- A single accident would cut off northerly areas of project from the southerly areas.
- Other factors of note include the following:
    - Road-width issues
    - Roads between neighborhoods follow surface contours made necessary by project topography and as a result are irregular with twisted contours.
    - Evacuation routes would be unfamiliar to drivers. Some would be on private roads, inaccessible during normal times and therefore unfamiliar during emergencies.
    - Smoke obscuration along unfamiliar roads would make matters worse. Additionally, a single vehicle accident resulting from drivers attempting to evacuate on unfamiliar roads in exigent circumstances could block the 2-lane evacuation route and leave many evacuees trapped.

[3] Dr. Zicherman is a leading scientist specializing in the fire performance of materials and systems. His analyses have been used to guide policy for the California Department of Forestry and Fire Protection.
[4]Review of Safari Highlands Ranch EIR of October 2017 https://www.spvpa.org/wp-content/uploads/2018/01/Zicherman-Report-and-CV-2017-12-27.pdf

    - Availability and maintenance of Fire Department and other first responder ingress is questionable during a foreseeable wildland fire.
- Shelter in place proposals are not adequate for foreseeable numbers of residents and emergency flows of residents, pets, and vehicles.
- Suggestions that the proposed shelter in place safe havens will provide fail safe areas of refuge are not supported by project concepts or in project design.
- Consumer products and furnishings cannot be regulated and pose serious ignition hazards from flying embers.

Finally, Dr. Zicherman stated that:

- Project has highest level of fire risk seen by reviewer in any area in Northern or Southern California**.**

This statement by a very experienced fire analyst should be meaningful to LAFCO.

C. **Evacuation with a high number of animal trailers coming from San Diego Zoo Safari Park and the San Pasqual Valley Ranch Horse stables has not been fully accounted for.**

While assumptions have included an average or assumed amount of animal trailers, none have fully assessed the potential impact of the evacuation of 3,600 endangered and other animal species from the 1,800-acre San Diego Zoo Safari Park and horses from the San Pasqual Valley Ranch, a large horse boarding and training center nearby.

D. Harvest Hills is not 'orderly' development and does not comply with Govt. Code 56301.

The justification at the August 1, 2022 hearing for considering Harvest Hills out of process in the name of LAFCO's role of ensuring 'orderly development' was misleading. Harvest Hills is one of the worst examples of urban sprawl in the County. There is no scenario under which this project can be considered 'orderly formation and development'. While municipal annexation of unincorporated islands and consolidation of areas adjacent to existing urban development is 'orderly' under many circumstances, in this case the term is inapplicable. The site is a *leapfrog development* away from urban areas, jumping over limited and isolated low density hillside subdivisions that are themselves problematic for fire safety and municipal services, and open space. **Annexation of this area, not even included in the current sphere of influence, is an expansion of the city in a fully 'disorderly' manner.** We are compelled to point out that the beginning of the LAFCO statute quoted at the hearing begins with,

> "*Among the purposes of the commission* ***are discouraging urban sprawl, preserving open space….*****"** (Government Code Section 56301. Emphasis added)

Chaos and panic are the predictable results of evacuation failure in a fire emergency and *cannot* be the consequences of truly orderly patterns of growth. Harvest Hills is exactly the kind of project LAFCO was designed to prevent.

E. City financial issues worse than reported.

In addition, although the staff addendum analysis notes that, as of FY 2020-2021, the City is meeting its financial commitments, a more recent staff report finding tells a different story going forward:

> *WHEREAS, projections for budget deficits over at least the next 20 years reflect dramatic increases in expenditures and obligations that far exceed anticipated revenues resulting in a structural budget gap; (from 2022-15, staff report for item 10 on July 27, 2022 meeting.)*[5]
>
> and
>
> *WHEREAS, the City's ability to create and collect revenue has not been able to keep pace with the growing costs of providing municipal services and thereby threatens the City's ability to provide the needed services to ensure safe neighborhoods and quality services to support its residents;…*[6]*(from resolution 2022-99)*

Further, in recent meetings with local activists seeking to partner with the City on funding proposals such as CALFIRE Community Forestry and the California Strategic Growth Partnership, staff stated that the City was so understaffed that they were unable to implement the grant funding the City had already received, much less apply for any additional grants.

We request that this dire funding reality be updated and reflected in the Staff Addendum.

F. The required Safety Element Update has not yet been adopted; Housing Element in non-compliance.

A relevant point was raised in the August 1, 2022 hearing by Mr. Bob Leiter and should also be considered in the staff analysis and recommendation. We do not believe Escondido can bring this project forward until the requirements of California Senate Bill 379 are met. . California Senate Bill 379 states that all local governments must update the Safety Elements of their General Plans no later than January 1, 2022, to, among other things, address the impacts of climate change on the frequency and severity of wildfires, along with its impacts on other types of safety and health hazards. The City of Escondido has not yet adopted this required update to the Safety Element.

Further, on August 2, 2022, CA Housing and Community Development sent the City of Escondido a notice that their Housing Element is still non-compliant. We believe this renders the Escondido General Plan in non-compliance with state law. All documents would need to be brought into compliance prior to advancing a project like Harvest Hills.

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[5] https://mccmeetings.blob.core.usgovcloudapi.net/escondidca-pubu/MEET-Packet-98122d1ba6ab42078309e8345d234dd5.pdf

[6] https://mccmeetings.blob.core.usgovcloudapi.net/escondidca-pubu/MEET-Packet-98122d1ba6ab42078309e8345d234dd5.pdf

In conclusion, we hope, by now, there is no need to go through the litany of fire disasters in our region. If permitted, Harvest Hills will be the next chapter in the deadly fire disasters of San Diego County. This issue alone is enough to require proponents follow the normal process of SIO and annexation review.

The problems with Harvest Hills are insurmountable and the project is dangerous. It should not be fast-tracked in any way and only considered as part of a comprehensive review.

Please contact us at conservation@sierraclubcg.org with any questions or for more information.

Thank you for your consideration,

Dan Silver, Endangered Habitats League
Laura Hunter, Sierra Club North County Group
Peter Anderson, Sierra Club San Diego Chapter
NeySa Ely, San Pasqual Valley Preservation Alliance
Pamela Heatherington, Environmental Center of San Diego
Frank Landis, California Native Plant Society
Elizabeth Reid-Wainscoat. Center for Biological Diversity
Jim Peugh, San Diego Audubon Society
Madison Coleman, Climate Action Campaign
Tina Iki, Escondido Neighbors United
Livia Borak Beaudin, Coastal Environmental Rights Foundation
Van Collinsworth, Preserve Wild Santee
Robert Laudy, Friends of Goodan Ranch and Sycamore Canyon Open Space
Barbara Swanson, Buena Vista Audubon Society
Bill Tippets, Southwest Wetlands Interpretive Association
Diane Nygaard, Preserve Calavera
Jerry Harmon, Escondido Chamber of Citizens
Sandra Farrell, Friends of Hedionda Creek
Suzanne Hume, Clean Earth 4 Kids

Attch:

- *Fire Risk Assessment of Harvest Hills,* August 26, 2021. Rohde and Associates
- *Harvest Hills Evacuation Plan Review* by Neal Liddicoat[7] of Griffin Cove Transportation Consulting, February 17, 2022.
- *Memorandum* from Chief Rick Vogt in response to the Rohde Assessment listing nine major areas of concern. September 21, 2021
- *Review of Fire Safety Engineering Issues Presentation*, Summary slide, March 3, 2022, by Joseph B. Zicherman[8], Ph.D., SFPE, Berkeley Engineering and Research

[7] Mr. Liddicoat is a licensed civil engineer with a particular expertise in the analysis of traffic operations at major event centers, at which large volumes of traffic arrive and depart in short periods of time such as event centers, amusement parks, and convention centers. As traffic operations principles in these analyses are similar to those that apply to wildfire evacuation planning, he is frequently retained to provide expert comments on the evacuation effects of large-scale residential and mixed-use projects,

[8] Dr. Zicherman is a leading scientist specializing in the fire performance of materials and systems. His analyses have been used to guide policy for the California Department of Forestry and Fire Protection.

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Harvest Hills Project
Escondido, California

Presentation to the Escondido Fire Department

Review of Fire safety Engineering Issues

March 3, 2022

Joseph B. Zicherman, Ph.D., SFPE
Berkeley Engineering and Research
BEARINC.com

Berkeley, California

Fire at the Urban Wildland Interface:

Cost-Benefit Evaluation of Proposed California State Fire Marshal Building Construction Regulations

Prepared for:
California Department of Forestry and Fire Protection
Attention: Rodney Slaughter, Deputy State Fire Marshal

Prepared by:

Fire Cause Analysis
213 West Cutting Boulevard
Richmond, CA 94804

Attention: Joseph B. Zicherman, Ph.D., SFPE
joe@fcafire.com

IFB #5CA334189
FCA #05-6369
Reporting Date: 7-28-04

Cover photo: Southern California fire of fall 2003. Courtesy Rolland Crawford.

Fire at the Urban Wildland Interface:

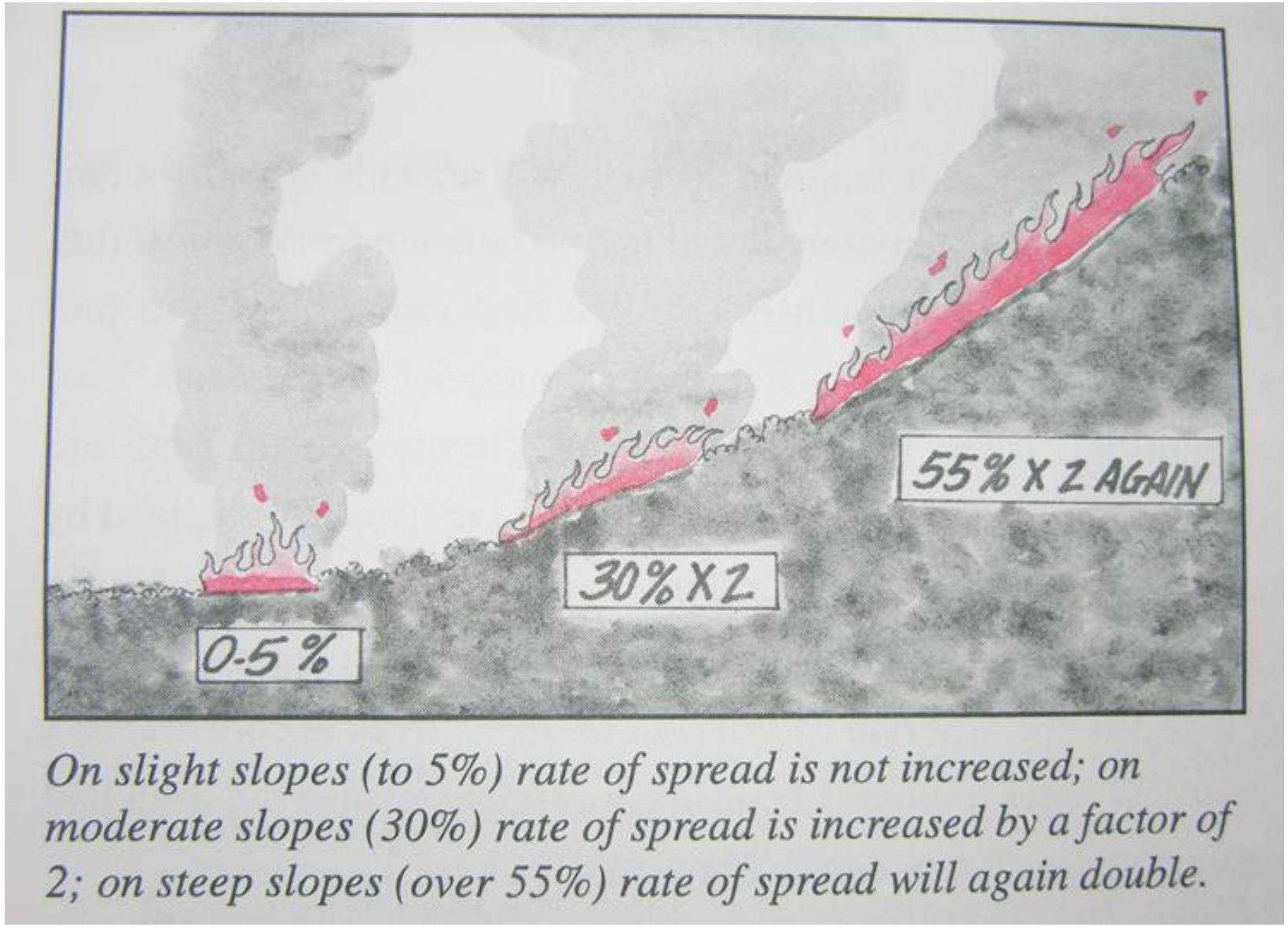
Performance of California Homes and Buildings

Prepared for:
California Department of Forestry and Fire Protection
Attn: Rodney Slaughter, Deputy State Fire Marshal

Prepared by:
Fire Cause Analysis
213 W. Cutting Blvd
Richmond CA 94804
Attn: Joseph Zicherman, Ph.D., SFPE.

IFB No.: 5CA334189
FCA No.: 05-6369
Report Date: 7/28/2004

Cover photo Grand Prix Fire, courtesy of CALMAST:



On slight slopes (to 5%) rate of spread is not increased; on moderate slopes (30%) rate of spread is increased by a factor of 2; on steep slopes (over 55%) rate of spread will again double.

Conclusions

- Project site is a high hazard area with a verified risk of repeated wildland fires.
- It is questionable whether the project can be built at the project site while providing needed assurance of necessary levels of life safety.
- The project would be built at a site with a 1,400 foot elevation gain – which on a macroscale supports accelerations of wind that are far greater than accelerations and flame-length calculations for lesser slopes.
- Beyond unfavorable traffic flow analysis during emergency situations, project design with separate pods of homes connected by a single two-lane road creates a highly dangerous situation of potential isolation during fire events.
- A single accident would cut off northerly areas of project from the southerly areas.
- Other factors of note include the following:
  - Road-width issues
  - Roads between neighborhoods follow surface contours made necessary by project topography and as a result are irregular with twisted contours.
  - Evacuation routes would be unfamiliar to drivers. Some would be on private roads, inaccessible during normal times, unfamiliar during emergencies.
  - Smoke obscuration along unfamiliar roads would make matters worse.
  - Availability and maintenance of Fire Department and other first responder ingress is questionable during a foreseeable wildland fire.
- Shelter in place proposals are not adequate for foreseeable numbers of residents and emergency flows of residents, pets, and vehicles.
- Suggestions that the proposed shelter in place safe havens will provide fail safe areas of refuge are not supported by project concepts or in project design.
- Consumer products and furnishings cannot be regulated and pose serious ignition hazards from flying branches to buildings near-by.
- Project has highest level of fire risk seen by reviewer in any area in Northern or Southern California.

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ESCONDIDO
City of Choice

MEMORANDUM

September 10, 2021

TO: Adam Finestone, Interim Director of Community Development

FROM: Rick Vogt, Fire Chief

SUBJECT: Harvest Hills Fire Risk Assessment Report (Rohde & Associates)

After reviewing the final draft of the Rohde & Associates Fire Risk Assessment Report (study) for the proposed Harvest Hills development, I believe that the report should now be provided to the proponents. The Summary of Findings on pages 28 through 32 provide a comprehensive list of the key wildfire and evacuation issues associated with the Harvest Hills development.

The following items need to be addressed:

- The study identifies that the Fire Protection Plan estimates for roadway travel capacity need to be verified in a traffic study prepared by a professional traffic engineer. The study must include project roads, emergency routes and transportation corridors from the project to the urban fringe identified as Highway 78 and Bear Valley Parkway. This traffic study must consider the effect of traffic from Ramona, Safari Park and the Cloverdale area.
- The study concludes that the evacuation routes and roads proposed are inadequate. The proponent must propose a modification that ensures adequate capacity and limits the potential danger to those who will have to use the routes, including civilians and emergency responders. The study indicates that:
    - — Stonebridge Road (northern route) as proposed, regardless of its completion timeline, is inadequate due to the expected fire behavior that is likely to overwhelm the route.
    - — Large turnouts every ¼ to ½ mile are needed along all evacuation routes.
    - — All access roads need to be used full time, meet city standards, and not have locked gates that restricts egress.
    - — All roads along evacuation routes shall have 50’ of fuel modification where adjacent to wildland fuels.
    - — All roads along evacuation routes shall include lighting, and safety barriers when adjacent to slopes.

  - All roads along evacuation routes must be a minimum of 24’ wide. The study further indicates that the evacuation routes from the development to the urban fringe should have the capacity for at least three lanes (one of which can be a median) to ensure that egress is maintained while allowing ingress of emergency vehicles.
  - The study recommends that the proponent propose an alternate to the Stonebridge Road evacuation route. The study suggests that, in addition to adding necessary emergency shelter in place locations, all proposed temporary roads be made permanent and that additional capacity be established from the development to the urban fringe, identified as Highway 78 and Bear Valley Parkway. This alternate proposal would need to be validated by a traffic study prepared by a licensed traffic engineer and reviewed by city staff and consultants.

- The study concludes that the “Temporary Shelter in Place” provisions of the Fire Protection Plan are inadequate. The proponents plan for the community center needs to address parking needs that includes an all-weather surface and does not include roadside parking. The plan must not include the fire station as a point of refuge for civilians. The plan must also not include “roadside refuge” for civilians.
- The study recommends that the Fire Protection Plan needs to better emphasize and state restrictions and limitation of yard construction and combustible home improvements.
- The study recommends that the Fire Protection Plan identify the viability of a water supply for firefighting for at least two hours. If water supply and pressure is dependent on anything other than gravity, adequate systems need to be in place such as backup generators.
- The study identifies the need for the proponent to develop additional safe refuge areas where residents can be reasonably safe during a fire impacting the community. Specifically, at least 2.5 acres of open land located in the later development phase areas are needed. The proposed areas and specifications would need to be reviewed and approved by City staff.
- Due to the effect that a wildfire may have in the areas surrounding Harvest Hills, the report recommends a geologic study to determine the potential for soil instability post-wildfire. The study should determine if there would be risks of land or mud slides that could affect the development and/or the areas nearby. The study suggests that this is a CEQA requirement.

- The study indicates that the required Fire Station be operational sooner than proposed. The timeline for a temporary station with apparatus and equipment and a permanent station needs to be developed that considers the cost and reflex time to construct facilities and acquire apparatus and equipment.

  Although the funding for the start-up and ongoing operations of the proposed fire station was not a part of the study, I am still concerned that sustainable funding for staffing a fully functional municipal fire station has not been yet been identified.

Cc: Chris McKinney, Deputy City Manager
Julie Procopio, Director of Engineering Services
Ed Varso, Chief of Police
Kurt Whitman, Senior Deputy City Attorney

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M E M O R A N D U M

TO: Dan Silver, Endangered Habitats League

COPY: Laura Hunter, Sierra Club North County Group
NeySa Ely, San Pasqual Valley Preservation Alliance

FROM: Neal K. Liddicoat, P.E., Principal

DATE: February 17, 2022

SUBJECT: ***Harvest Hills Evacuation Plan Review - Escondido, California***

Griffin Cove Transportation Consulting, PLLC (GCTC) has completed a review of a number of documents related to the proposed Harvest Hills project in Escondido, California ("Project"). Of particular interest in our review was the ability to evacuate the proposed Project safely in the event of a wildfire. This memorandum presents the results of our review.

PROJECT DESCRIPTION

The Harvest Hills project (previously known as Safari Highlands Ranch) is proposed to be developed on a 1,098-acre site in unincorporated San Diego County. The Project would consist of 550 single-family residential homes, as well as a community center/clubhouse and a fire station. Approval of the Project would also include annexation into the City of Escondido.

SUMMARY

The documents that we reviewed are described in the following section. Those documents concluded that the proposed Project could be safely evacuated within an acceptable period of time in the event of a wildfire. However, our review revealed that this conclusion is based on flawed assumptions and analysis procedures. In particular, we determined that:

- The roadway capacity assumptions are substantially flawed and, specifically, they overstate the capacity of the evacuation roadways.
- The travel speeds assumed in the analysis are unsupported by facts or analysis.
- The methodology used to derive travel times was flawed and represents a failure to understand the basic characteristics of traffic flow, particularly under conditions when traffic demand exceeds the capacity of a road. The methodology further fails to represent an understanding of traffic flow when drivers are under extreme duress, as during a wildfire evacuation.
- The analysis includes traffic only from the proposed Project and nearby communities; it ignores ambient traffic that is already on the area road system at the time an evacuation is ordered, as well as other evacuating traffic, such as vehicles departing Ramona along State Route 78 (SR 78).
- The evacuation times presented are incomplete and misleading, as they ignore pre-evacuation notification and preparation time.

- Insufficient consideration has been given to the potential for the northern segment of the Project to be cut off from safety by a fire encroaching on the middle segment of Safari Highlands Ranch Road. Topography in the area would seem to favor rapid fire spread, increasing the chances of the road being cut off.

In addition, we have provided a revised analysis that we believe provides a more accurate depiction of traffic conditions during a wildfire evacuation. The results of that analysis include the following points:

- Based on well-documented adjustment factors, the capacities of the roads on the evacuation routes are as much as 29 percent lower than the values employed in the Project's Fire Protection Plan.
- Under all of the "with Project" scenarios addressed in the Fire Protection Plan, as well as additional scenarios reflecting recommendations presented in a Fire Risk Assessment prepared for the City of Escondido, the traffic demand associated with an evacuation will be substantially greater than the capacities of key evacuation routes (as much as 54 percent greater).
- If ambient traffic on SR 78 is considered, it is possible that evacuating traffic demand will exceed capacity on that highway by as much as 64 percent.
- The simultaneous evacuation of Ramona could potentially overwhelm SR 78, consuming all of the available capacity on that highway.
- Given the anticipated high westbound traffic volumes on SR 78, drivers evacuating via Zoo Road or the Safari Park exit are likely to have extreme difficulty in entering the SR 78 traffic flow.
- In all cases, traffic flow on the evacuation routes will be unstable and susceptible to major disruptions, including significant levels of congestion and stop-and-go operation resulting in increased frustration, anxiety, and stress for evacuees.
- None of the evacuation scenarios provide sufficient road capacity to allow for safe evacuation of Harvest Hills or the neighboring communities.
- A significant risk exists that residents in the northern portion of the Project could be stranded with no means of escape if fire encroaches upon the middle segment of Safari Highlands Ranch Road. That road passes through an area with challenging topography, potentially increasing the odds of the road being cut off by fire. This is a particular concern given that a fire risk assessment commissioned by the City of Escondido specifically recommended that the proposed north evacuation route not be included in the evacuation road system.

The documents that we reviewed and our specific concerns are described in detail below.

DOCUMENTS REVIEWED

The key document included in our review was the Project's *Fire Protection Plan – Harvest* Hills (Dudek, Revised December 2020). In addition to this most recent version of the FPP, we reviewed a previous version dated July 2017.

Appendix I to the FPP contains an "Updated Evacuation Analysis Responding to City Requests." The memorandum presented in this appendix is intended to provide evacuation travel times for the proposed Project (Dudek, January 16, 2020, with previous versions dated January 9, 2020 and November 23, 2019).

Attachment A to the Dudek evacuation analysis memorandum is an additional memorandum report prepared by Linscott, Law & Greenspan Engineers (LLG) and dated October 10, 2019, which provides a "roadway capacity assessment" for the various potential evacuation routes serving Harvest Hills. Specifically, this document provides roadway capacity estimates for those roads based on a series of assumptions.

In addition, we reviewed a *Fire Risk Assessment* completed for the City of Escondido by Rohde & Associates. That document, which is described in greater detail later, provided a detailed critique of the Dudek FPP, including a number of comments and recommendations regarding the proposed evacuation road system.

FIRE PROTECTION PLAN REVIEW

Roadway Capacity Assumptions

The December 2020 Dudek Fire Protection Plan (p. 75) lists road capacities for the anticipated evacuation routes, as follows:

- Rockwood Road – 2,600 vehicles per hour,
- Zoo Road – 1,900 vehicles per hour,
- Cloverdale Road – minimum 2,600 vehicles per hour, and
- Northerly emergency evacuation route – 500 vehicles per hour.

However, as noted above, the roadway capacity assumptions employed in the Dudek evacuation travel time analysis memorandum were provided by LLG. Presumably, those values supersede the numbers listed above. The LLG capacity assumptions were based initially on the results of research documented in an October 2017 Federal Highway Administration (FHWA) report entitled, *Simplified Highway Capacity Calculation Method for the Highway Performance Monitoring System*.

As noted in the LLG memo, that document addresses "two lane highways with no traffic control," a situation that they state would likely exist during an evacuation, as one of the basic evacuation plan assumptions is that intersections and other critical points on the road system would be controlled by law enforcement officers, rather than the typical traffic control devices (e.g., traffic signals or stop signs). According to the FHWA report, the one-way capacity of such a roadway is 1,490 vehicles per hour per lane (VPHPL) under base conditions. LLG also notes that this value is subject to adjustment to reflect the physical characteristics of the road as well as the nature of the traffic using the road (e.g., the number of trucks).

Based on this, LLG applied various assumed adjustment factors to the base condition value of 1,490 VPHPL in an attempt to reflect the characteristics of the evacuation routes. Table 1 summarizes the specific adjustment factors applied to each of the key roadways and the resulting estimated capacity values.

As shown, the assumed capacity reductions range from 10 percent to 50 percent. Based on these assumptions, the adjusted capacity values range from as low as 745 VPHPL for the proposed North Evacuation Route and Stonebridge Road to a maximum of 1,340 VPHPL for several other roads, including SR 78.

However, no rational basis is provided for any of these assumed adjustment factors. Presumably, they represent the judgement of the LLG analyst but, absent any delineation of the thought process involved and the specific reasons for each of the adjustments, the factors are simply not credible.

We also note that the LLG memo addresses the additional capacity provided in connection with the provision of dual left-turn lanes on the westbound approach to the intersection of Rockwood Road/Cloverdale Road, as well as a second southbound right-turn lane at the Cloverdale Road/SR 78 intersection. In both cases, LLG concludes that these additional lanes would enhance the intersection capacity by 1,500 VPHPL. This is, of course, highly questionable, as it seems extremely unlikely that an intersection turn lane would have a higher capacity value than the corresponding value for a through lane along a straight segment of roadway, given the obvious need for drivers to slow down prior to entering a turn lane.

Table 1
Estimated Roadway Capacity Adjustments[1]

Road	Adjustment Factor	Estimated Capacity
Rockwood Road	10% Reduction	1,340 VPHPL[2]
Cloverdale Road	10% Reduction	1,340 VPHPL
State Route 78	10% Reduction	1,340 VPHPL
San Pasqual Road	15% Reduction	1,260 VPHPL
Safari Highlands Ranch Road	20% Reduction	1,190 VPHPL
Zoo Road	40% Reduction	890 VPHPL
North Evacuation Route (Stonebridge Road)	50% Reduction	745 VPHPL

Notes:
[1] Source: Linscott, Law & Greenspan Engineers, "Safari Highlands Ranch – Roadway Capacity Assessment, Evacuation Event," October 10, 2019.
[2] Vehicles per hour per lane.

In short, the assumed roadway capacity values employed in developing evacuation-related travel times are not credible and need to be evaluated further.

Revised Roadway Capacity Estimates

More realistic and credible road capacity values can be derived using historical information published in the *Highway Capacity Manual* (HCM). Although recent editions of that document base the capacity of two-lane roads on somewhat esoteric parameters such as "percent time spent following," the 1985 version of the HCM provides a methodology to determine capacity directly based on traffic volumes with application of appropriate adjustment factors. Key to the 1985 HCM procedure is the ability to adjust the basic capacity of a two-lane road to reflect terrain (e.g., level or rolling), the directional distribution of traffic (i.e., how much is traveling in each direction), the characteristics of vehicles in the traffic stream

(e.g., trucks and recreational vehicles), and the physical nature of the road (specifically, lane width and shoulder width).

We have undertaken a process to adjust the basic capacity value of 1,490 VPHPL using factors provided in the 1985 HCM. Specific adjustments were made to reflect the following characteristics of the roads and the evacuating traffic stream:

- Directional distribution: 100% / 0% (All traffic flowing in one direction, away from a wildfire)
- Heavy vehicles: Trucks 1% (Including all vehicles with more than four wheels on the ground, such as garbage trucks, delivery vehicles, service vehicles, etc.) / Recreational vehicles 4% (Including motor homes, towed travel trailers, and towed boats)
- Rolling terrain adjustment applied to Safari Highlands Ranch Road, Zoo Road, and the North Evacuation Route; others considered level
- Lane and shoulder width: Adjustment applied to Zoo Road and North Evacuation Route due to reduced shoulder width (Shoulders three-feet wide on one side only)

Table 2 summarizes the results of this adjustment process.

Table 2
Modified Roadway Capacity Adjustments[1]

Road	Estimated Capacity	Compared to LLG Estimate
Rockwood Road	1,020 VPHPL[2]	-24%
Cloverdale Road	1,020 VPHPL	-24%
State Route 78	1,020 VPHPL	-24%
San Pasqual Road	1,020 VPHPL	-19%
Safari Highlands Ranch Road	840 VPHPL	-29%
Zoo Road	770 VPHPL	-13%
North Evacuation Route (Stonebridge Road)	770 VPHPL	+3%

Notes:
[1] Reference: Transportation Research Board, *Highway Capacity Manual*, Special Report 209, 1985.
[2] Vehicles per hour per lane.

As shown, application of the 1985 HCM adjustment factors to the basic capacity value of 1,490 VPHPL generally results in lower roadway capacities, with the exception of the North Evacuation Route/Stonebridge Road where the estimated capacity is slightly higher.

Travel Speed Assumptions

It appears that the evacuation travel time estimates were derived using two approaches, the first of which employed assumptions regarding travel speeds. According to the January 16, 2020 Dudek memorandum included in Appendix I to the FPP, ". . . speeds range between 6 and 9 mph in this study . . ." (p. 2) Later, that same memorandum (p. 4) states that, ". . . the analysis considers an average 8 mph travel speed . . ." Other similar statements occur elsewhere in the document.

Although, on the surface, these assumed speeds might seem reasonable, the document provides no rational basis for their use. No documentation is provided as to the validity of these speeds and no analysis or evaluation is provided to demonstrate their legitimacy. We note also that the derived travel times using these speeds were uniformly substantially shorter than the times estimated using the second methodology, which reinforces the likelihood that the assumed speeds are invalid.

Travel Time Derivation Methodology

As noted above, two methods were apparently used to derive the evacuation travel times. The speed-related method described above consistently provided travel time estimates that were simply not credible; in approximately two-thirds of the cases evaluated, the estimated travel time was in the range of 9.01 – 15.18 minutes. (We should note that this information is not readily apparent to the casual reader, as the travel time estimates we reference here are located in Attachment E to Attachment A to Appendix I of the FPP.)

The second method, which generally served as the basis for the evacuation travel times reported in the FPP, directly employed the road capacity estimates discussed above. We have already described why those estimates are not valid, but a further discussion of this method is warranted, as there are additional deficiencies in the analysis. In general, the analysis reflects a failure to understand certain basic characteristics of traffic flow, particularly when traffic demand exceeds roadway capacity.

Dudek's January 16, 2020 evacuation travel time memorandum states (p. 2):

> *Using these* [roadway capacity] *averages, it is possible to approximate the length of time it will take for the number of vehicles within a community to be moved past a given point. This is accomplished by dividing the number of vehicles that need to evacuate by the total hourly roadway capacity.*

Unfortunately, the results of this calculation were inappropriately translated into a travel time value. For example, if the result of the calculation was 1.00, the conclusion was that the travel time was exactly 1.00 hour (i.e., 60 minutes). A calculation result of 0.75 was interpreted to mean a travel time of 0.75 hour, or 45 minutes, and a result of 1.50 was believed to indicate a travel time of 1.50 hours or 90 minutes.

The problem is that this calculation does not provide a measure of evacuation time. In order to provide an indication of time (and, in particular, the travel time associated with an evacuation), there must be a distance component in the calculation. In other words, the calculation must answer the question, "How long will it take me to get from Point A (e.g., my home in the proposed Project) to Point B (e.g., a safe location some distance from the wildfire)?" That distance component is lacking from the calculation.

In reality, the calculation described in the evacuation plan provides a volume/capacity (V/C) ratio for a given point on a given road. Attachment A to the Dudek memo provides the LLG "Road Evacuation Capacity Analysis" referenced above, and Attachment E to the LLG memo provides the "Travel Time Calculation Assumptions," which lays out how the travel times were estimated. As an example, the

second page of that attachment shows the "Scenario 1 – Existing" analysis for "Safari Park Evacuation to South of San Pasqual/SR-78 Intersection." Specifically, it evaluates "1866 vehicles at 1350 v/h capacity" and concludes that the travel time will be 83.55 minutes.

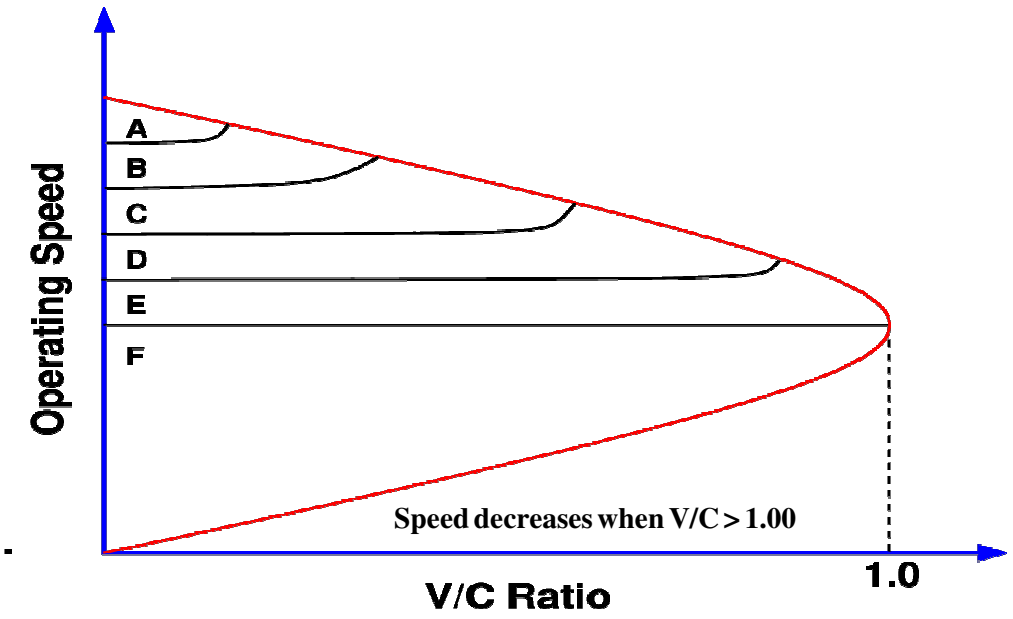
First, we note that the calculation misstates the assumed capacity of SR 78 – the actual assumption is 1,340 VPH, not 1,350. (The calculation reflects the correct capacity, but this error might be misleading.) As suggested above, the 83.55 minute value is derived by dividing 1,866 by 1,340 (1,866 / 1,340 = 1.39) and multiplying that result by 60 minutes/hour (1.39 X 60 = 83.55).

However, as we pointed out above, the actual result of this calculation is a V/C ratio not a time value, so when the analysis divides 1,866 vehicles by a capacity of 1,340 vehicles per hour, what it is really finding is that the traffic demand is equivalent to 1.39 times the capacity of the road (i.e., it has a V/C ratio of 1.39). In other words, the traffic demand is 39 percent greater than the capacity of the road.

To provide additional perspective regarding traffic operations, the quality of flow on a road is described in terms of "level of service" (LOS), which ranges from LOS A (free-flowing conditions) to LOS F (highly congested; V/C > 1.00). A V/C ratio of 1.39 indicates operation substantially in excess of the road's capacity and, by definition, represents LOS F. According to the *Highway Capacity Manual* (Transportation Research Board, Sixth Edition, 2016, p. 12-18):

> *Oversaturated conditions are represented by LOS F. LOS F describes unstable flow. . . . breakdown occurs when the ratio of existing demand to actual capacity, or of forecast demand to estimated capacity, exceeds 1.00.*

Unstable flow will be manifested in high levels of congestion and stop-and-go traffic, which will increase not only the time needed to evacuate, but also the levels of stress and anxiety for evacuees. The following graphic illustrates the relationship between LOS and travel speed. As shown, when a roadway reaches LOS F (i.e., V/C > 1.00), the operating speed rapidly declines.



The speed reduction illustrated here will directly translate into increased travel time. The Dudek/LLG analysis has incorrectly suggested that travel speed is linearly related to V/C ratio, which is not the case when traffic demand is near or beyond the road's capacity. Instead, the higher the V/C ratio, the greater the level of traffic flow instability and congestion, with stop-and-go operation and increasing levels of driver frustration and stress.

In addition, the analysis has inherently assumed that traffic will enter the evacuation in a uniform manner, so that the added traffic will be spread out relatively evenly over time. However, vehicles do not flow smoothly and uniformly, especially in the course of evacuating during an emergency. Instead, sudden surges in traffic would occur during an evacuation; it is extremely unlikely that traffic would be evenly distributed over time. That is, there will be variable pulses in traffic demand, just as there are in everyday traffic flows. These surges in demand will further contribute to the instability of the traffic stream.

In summary, the travel time analysis is fatally flawed, as it fails to represent a meaningful understanding of certain critical characteristics of traffic flow. Later in this memorandum we provide a revised analysis, which follows this basic approach, but more accurately reflects traffic operations during an evacuation.

Traffic Volume Estimates

The Dudek analysis includes evacuation traffic generated by the following locations:

- Proposed Harvest Hills Project (1,210 vehicles),
- Rancho San Pasqual (1,276 vehicles),
- Rancho Vistamonte (176 vehicles),
- San Pasqual Elementary School (200 vehicles), and
- San Diego Safari park (1,866 vehicles).

However, it ignores any ambient traffic that is already on the various evacuation routes when an emergency evacuation is ordered. Particularly noteworthy is the failure to consider ambient traffic on SR 78. For perspective, according to Caltrans 2019 traffic volume data, that state highway carries an average of 10,200 vehicles per day (VPD) east of Cloverdale Road and 13,300 VPD west of there. In the peak hour, SR 78 carries 1,300 VPH east of Cloverdale Road and 1,000 VPH to the west.

Looking at the directional distribution of the SR 78 peak hour traffic, about 75 percent of those vehicles are westbound, equivalent to almost 1,000 westbound vehicles on the SR 78 segment east of Cloverdale Road. Based on the revised road capacity value described above (1,020 VPHPL) and recognizing that westbound SR 78 has two lanes in that area (total capacity of 2,040 VPH), the existing peak hour traffic consumes about half of the total capacity of the road, thereby limiting the amount of evacuation traffic that can be accommodated. It is not unreasonable to expect that similar conditions apply to the other evacuation routes.

Further, the Dudek analysis ignores that other communities will also need to evacuate and, in some cases, will also be consuming the capacity of the routes addressed in the FPP. One obvious example is the community of Ramona, for which SR 78 is a primary evacuation route. The 2010 U.S. Census shows that Ramona has a population of 20,292. Using the SANDAG average household size of 3.12 occupants per dwelling employed in the Dudek FPP (p. 47) indicates the presence of about 6,500 households in Ramona. Those 6,500 households would generate evacuation traffic of 14,300 vehicles, based on the 2.2

vehicles per household average presented in the Dudek report (based on data from Cal Poly – San Luis Obispo, 2016).

In summary, the failure to account for the additional ambient and evacuation traffic on the area road system is a major deficiency in the Fire Protection Plan. In effect, the travel times documented in the FPP are rendered meaningless.

Pre-evacuation Notification and Preparation Time

The travel time estimates documented in the FPP only represent the time to travel from the specified communities (Harvest Hills, Rancho San Pasqual, etc.) to the vicinity of the intersection of SR 78/Cloverdale Road. First, we note that this destination is completely inadequate, as it is unlikely to represent safety for evacuees. Undoubtedly, residents fleeing a fire approaching from the east or northeast will want to be farther away than this relatively nearby location. A more realistic destination would be Interstate 15 (I-15), from which evacuees would have greater ability to depart the area safely.

Beyond this, however, we note that the evacuation time information presented in the FPP specifically and intentionally excludes the time needed for residents to receive notifications of the emergency and then to prepare to evacuate. The FPP (p. 76) provides a detailed listing of time requirements for various pre-evacuation activities totaling 125 minutes (i.e., just over two hours), plus an additional 30 minutes of "contingency time," leading to a total of 155 minutes (2.6 hours) for pre-evacuation activities. The FPP goes on to say:

> *Total minimum time that may be needed for a large-scale evacuation from the detection of a fire until the last person is out of harm's way is 90 to 180 minutes.*

Again, this period of up to three hours is in addition to the travel time estimates presented in the Dudek FPP. We believe the failure to include this critical time period in the evacuation time estimates is misleading and provides an unwarranted sense of certainty that a safe evacuation can be accomplished in a reasonable amount of time.

REVISED EVACUATION TRAFFIC ANALYSIS

As described above, the evacuation travel time analysis presented in the Dudek Fire Protection Plan is significantly flawed and, as a result, provides misleading information. To provide a more realistic and reasonable indication of traffic flow and operations in the course of an emergency evacuation, we developed a revised traffic analysis. Because we recognize the instability and uncertainty associated with traffic flow when demand exceeds road capacity, our analysis focuses on determining whether the evacuation routes can accommodate the number of vehicles that might be evacuating.

We have not attempted to provide travel time estimates, as we believe that meaningful estimates can only be derived through the conduct of a sophisticated traffic simulation analysis performed by an experienced traffic engineer who specializes in such analyses. Within such an analysis it will be particularly critical to carefully calibrate and validate the traffic simulation model to ensure that it adequately reflects traffic flow under extreme circumstances such as a wildfire evacuation.

Our analysis incorporates the following basic parameters:

- Traffic volume estimates as presented in the Dudek FPP,
- Modified roadway capacity values as presented in Table 2 above, and

- Analysis Scenarios 2 and 3 from the Dudek FPP, as well as two scenarios related to recommendations in the *Fire Risk Assessment* prepared for the City of Escondido by Rohde & Associates (Rohde) dated August 24, 2021. This document is briefly described below.

Rohde Fire Risk Assessment

Rohde was retained by the City to perform a fire risk assessment, particularly addressing issues related to wildfire, structural fire and life safety, Key recommendations presented in the report include:

- The north evacuation route should not be included in the Project's evacuation plan due to topographic considerations and potential fire behavior issues that might endanger users of that route.
- The two remaining evacuation routes (Safari Highlands Road and Zoo Road) should be improved to fully conform to City of Escondido standards and should be widened to provide three full-width lanes, two for evacuating traffic and one for inbound emergency vehicles. Neither of these roads should be gated.
- A detailed traffic study should be performed by a professional/certified traffic engineer. This suggests that the study should performed by professional civil or traffic engineer licensed by the State of California.
- The traffic study should evaluate the need for improvements to SR 78, including the potential need for one or more additional lanes. The study should also recognize that SR 78 is an evacuation route for Ramona and other communities.
- The Rohde study identifies the area near SR 78/Bear Valley Parkway as the Escondido urban area boundary, which it considers the immediate destination for evacuating traffic.

Revised Evacuation Traffic Analysis

Attachment 1 contains a table summarizing our revised evacuation traffic analysis incorporating the basic parameters listed above. Four "with Project" scenarios were considered:

- Dudek Scenario 2 – Evacuation via Cloverdale Road only. The North Evacuation Route and Zoo Road would be unavailable.
- Dudek Scenario 3 – All three evacuation routes would be available.
- With Rohde Recommendations – The North Evacuation Route would not be available, but Safari Highlands Road and Zoo Road would be improved to meet City standards and widened to provide three lanes, including two for outbound/evacuating traffic.
- Modified Rohde Recommendations – The North Evacuation Route would not be available, and Safari Highlands Road and Zoo Road would not be improved as recommended.

The Dudek scenarios evaluated here reflect the specific details included in the January 16, 2020 evacuation travel time memorandum; in some cases, those assumptions differ from earlier versions of the memo, particularly with regard to the geographic distribution of evacuating traffic. Note that we have not evaluated Dudek Scenario 1, which addresses existing conditions and excludes Project-related traffic.

We have also provided a limited analysis of the effects of ambient SR 78 traffic. As described above, Caltrans traffic volume data indicate that approximately 1,000 VPH travel westbound on SR 78 in the

peak hour. The two bottom rows of the table in Attachment 1 reflect inclusion of this traffic. Traffic on SR 78 that would arise from simultaneous evacuation of Ramona was not included, however.

In all cases, the analysis reflects the road improvements identified for Rockwood Road (a second westbound lane) and Cloverdale Road (a second southbound lane) as well as the corresponding intersection modifications (second turn lanes).

On the table, we have highlighted road segments projected to operate near or beyond capacity. Specifically, yellow highlights indicate segments that are expected to operate between 90 and 100 percent of capacity; traffic flow on those segments will be unstable and susceptible to major disruptions. Orange highlighted segments are projected to exceed capacity, with significant levels of congestion and stop-and-go operation.

Dudek Scenario 2 – Cloverdale Road Only

If only Cloverdale Road is available to accommodate evacuating traffic, major disruptions to traffic flow are projected. Road segments that are expected to exceed capacity include:

- Safari Highlands Road throughout much of the Project (V/C = 1.44),
- Rockwood Road, west of the elementary school (V/C = 1.09),
- Cloverdale Road (V/C = 1.40),
- SR 78, west of Cloverdale Road (V/C = 1.54), and
- San Pasqual Road, south of SR 78 (V/C = 1.55).

In addition, the segments of SR 78 east of Zoo Road and between Zoo Road and Cloverdale Road will operate at 91 percent of capacity (V/C = 0.91).

With consideration of ambient traffic on SR 78, the segments of that highway east and west of Zoo Road are expected to operate at 40 percent beyond capacity (V/C = 1.40), compared to V/C = 0.91 without considering that traffic.

We also note that, if Cloverdale Road is the only evacuation route available to Project residents, a significant risk exists that the northern sections of the Project could be cut off from the southern sections (and the sole evacuation route) if fire encroaches upon the roadway at this point. The slopes and overall topography in this area of the Project site would appear to be favorable to rapid fire spread, potentially increasing the chances of the road being cut off. In this event, the northern residents would be stranded, with no means of escape.

These results suggest that this scenario is untenable in the event of an emergency evacuation.

Dudek Scenario 3 – All Three Evacuation Routes Available

Provision of all three evacuation routes improves traffic operations within the Project site, but still results in major operational deficiencies. Three road segments will exceed capacity:

- SR 78, between Zoo Road and Cloverdale Road (V/C = 1.01),
- SR 78, west of Cloverdale Road (V/C = 1.29), and
- San Pasqual Road, south of SR 78 (V/C = 1.29).

Three additional routes will be at or near capacity:

- Cloverdale Road (V/C = 0.93),
- North Evacuation Route (V/C = 1.00), and
- SR 78, east of Zoo Road (V/C = 0.91).

Ambient traffic on SR 78 increases the V/C ratio on the segment east of Zoo Road from 0.91 to 1.40, and on the segment between Zoo Road and Cloverdale Road from 1.01 to 1.50.

Again, these results provide no certainty that Project residents will be able to evacuate safely.

With Rohde Recommendations

As described above, Rohde recommended that the North Evacuation Route not be used and that Safari Highlands Road and Zoo Road be improved to City standards plus the addition of a third lane to ensure two lanes are available for evacuating vehicles.

Even with full implementation of those recommendations, our analysis indicates that the following road segments will exceed capacity:

- Cloverdale Road (V/C = 1.20),
- SR 78, between Zoo Road and Cloverdale Road (V/C = 1.12),
- SR 78, west of Cloverdale Road (V/C = 1.54), and
- San Pasqual Road, south of SR 78 (V/C = 1.55).

Also, SR 78 east of Zoo Road is expected to operate at 91 percent of capacity (V/C = 0.91).

Ambient traffic on SR 78 will exacerbate conditions, resulting in operations 40 and 61 percent beyond capacity east and west of Zoo Road, respectively.

Thus, while the Rohde recommendations will result in acceptable traffic operations near the site (i.e., on Safari Highlands Road and Rockwood Road) and along Zoo Road, significant problems are anticipated on the other evacuation routes (i.e., Cloverdale Road, SR 78, and San Pasqual Road).

In addition, elimination of the North Evacuation Route again creates a substantial risk that residents in the northern portion of the Project will be stranded.

Modified Rohde Recommendations

This scenario addressed a condition under which the North Evacuation Route is not used and the Rohde-recommended improvements to Safari Highlands Ranch Road and Zoo Road are not implemented.

Traffic operations are again unacceptable. Road segments that would operate in excess of capacity include:

- Safari Highlands Road, north of the Zoo Road connection (V/C = 1.44),
- Cloverdale Road (V/C = 1.20),
- SR 78, between Zoo Road and Cloverdale Road (V/C = 1.12),

- SR 78, west of Cloverdale Road (V/C = 1.54), and
- San Pasqual Road, south of SR 78 (V/C = 1.55).

The segments of Safari Highlands Road south of the Zoo Road connection (V/C = 0.95) and SR 78 east of Zoo Road (V/C = 0.91) would be approaching capacity. As with the "With Rohde Recommendations" scenario, addition of ambient traffic on SR 78 causes the key segments of that highway to operate at 40 – 61 percent above capacity.

Similar to the other conditions evaluated here, traffic operations under this scenario will be unacceptable throughout much of the study area.

Ramona Evacuation Impacts

The revised evacuation analysis presented here does not include traffic associated with the simultaneous evacuation of the Ramona community, which is located east of the Project along SR 78. As described earlier, using parameters presented in the Dudek FPP, Ramona could be expected to generate evacuation traffic of up to 14,300 vehicles. If only 15 percent of those vehicles (i.e., about 2,150 vehicles) attempt to evacuate Ramona within a short timeframe, they will consume all of the available capacity on SR 78 in the vicinity of the Project. Further, given that SR 78 provides only one westbound lane between Ramona and the Safari Park, that section of highway would be completely overwhelmed by this traffic. In fact, as few as eight percent of the Ramona-related traffic (i.e., about 1,140 vehicles would exceed the capacity of that two-lane segment of SR 78.

Conclusion – Revised Evacuation Traffic Analysis

None of the four evacuation scenarios addressed here provide sufficient road capacity to allow for safe evacuation of Harvest Hills or the neighboring communities. Consideration of the pre-existing traffic on SR 78 results in further exacerbation of traffic operations. Addition of vehicles evacuating from Ramona or other areas will cause traffic operations to deteriorate further. This will also be the case as evacuees travel to the west, toward safety; as they travel away from the emergency, they will become part of a larger traffic stream made up of other evacuees and traffic operations will continue to worsen.

Two other points are also apparent from this analysis:

- A significant risk exists that residents in the northern portion of the Project will be stranded if fire encroaches upon the middle segment of Safari Highlands Ranch Road. That segment of road passes through an area with challenging topography, including substantial slopes, which might increase the odds of the road being cut off by fire. This is a particular concern given that the experts at Rohde & Associates have specifically recommended that the north evacuation route not be considered as part of the evacuation road system.
- No consideration has been given to the difficulties likely to be experienced by drivers evacuating via Zoo Road or the Safari Park exit at the point where they need to enter SR 78. Given the anticipated high westbound traffic volumes on SR 78, those vehicles are likely to have extreme difficulty in entering the SR 78 traffic flow.

CONCLUSION

The evacuation travel time analysis presented in the Fire Protection Plan is substantially flawed. Critical inputs to the analysis including, in particular, the road capacity assumptions are not supported by facts or

analysis. Further, the travel time results are misleading and incomplete as they fail to include essential pre-evacuation notification and preparation times.

An analysis using modified road capacity values derived using well-documented adjustment factors found that under any of the previously-considered evacuation scenarios evacuating traffic demand will exceed the capacity of the roads. Consequently, significant congestion and stop-and-go traffic will prevail along the evacuation routes, resulting in increased travel times as well as high levels of frustration, anxiety, and stress for evacuees.

In summary, none of the evacuation scenarios provide sufficient road capacity to allow for safe evacuation of Harvest Hills or the neighboring communities.

ATTACHMENT 1

HARVEST HILLS
EVACUATION TRAFFIC ANALYSIS SUMMARY TABLE

ATTACHMENT 1
HARVEST HILLS EVACUATION TRAFFIC ANALYSIS
TRAFFIC VOLUMES, CAPACITIES & VOLUME/CAPACITY RATIOS

		ANALYSIS SCENARIO (1)								
		Dudek				Rohde				
		Scenario 2		Scenario 3		With Rohde Recommendations			Modified Rohde Recommendations		
		Cloverdale Rd. Only		All 3 Routes Available		No North Route / Improved Safari Highlands Rd. & Zoo Rd.			No North Route / Safari Highlands Rd. & Zoo Rd. Not Improved		
ROAD	CAPACITY	VOLUME	V/C	VOLUME	V/C	CAPACITY	VOLUME	V/C	CAPACITY	VOLUME	V/C
Safari Highlands Rd. - North of Zoo Rd. Connection	840 VPH (2)	1,210	1.44	442	0.53	1,680 (8)	1,210	0.72	840	1,210	1.44
Safari Highlands Rd. - South of Zoo Rd. Connection	840 VPH (2)	1,210	1.44	242	0.29	1,680 (8)	800 (9)	0.48	840	800 (9)	0.95
Rockwood Rd. - East of Old Ranch Rd.	2,040 VPH (3)	1,386	0.68	418	0.20	2,040	976	0.48	2,040	976	0.48
Rockwood Rd. - Between Old Ranch Rd. & School	2,040 VPH (3)	2,024	0.99	1,056	0.52	2,040	1,614	0.79	2,040	1,614	0.79
Rockwood Rd. - West of School	2,040 VPH (3)	2,224	1.09	1,256	0.62	2,040	1,814	0.89	2,040	1,814	0.89
Cloverdale Rd.	2,040 VPH (4)	2,862	1.40	1,894	0.93	2,040	2,452	1.20	2,040	2,452	1.20
Zoo Rd.	770 VPH (5)	0	0.00	200	0.26	1,680 (8)	410 (9)	0.24	770	410 (9)	0.53
North Evacuation Route	770 VPH (5)	0	0.00	768	1.00	--	0	--	--	0	--
State Route 78 - East of Zoo Rd.	2,040 VPH (3)	1,866	0.91	1,866	0.91	2,040	1,866	0.91	2,040	1,866	0.91
State Route 78 - Between Zoo Rd. & Cloverdale Rd.	2,040 VPH (3)	1,866	0.91	2,066	1.01	2,040	2,276	1.12	2,040	2,276	1.12
State Route 78 - West of Cloverdale Rd.	2,040 VPH (3)	3,150 (6)	1.54	2,640	1.29	2,040	3,150	1.54	2,040	3,150	1.54
San Pasqual Rd. - South of SR 78	1,020 VPH (2)	1,578 (7)	1.55	1,320	1.29	1,020	1,578	1.55	1,020	1,578	1.55
With SR 78 PM Peak Hour Traffic (1,000 VPH)											
State Route 78 - East of Zoo Rd.	2,040 VPH (3)	2,866	1.40	2,866	1.40	2,040	2,866	1.40	2,040	2,866	1.40
State Route 78 - Between Zoo Rd. & Cloverdale Rd.	2,040 VPH (3)	2,866	1.40	3,066	1.50	2,040	3,276	1.61	2,040	3,276	1.61

NOTES:
(1) Project & nearby communities only; Excludes background traffic + other evacuees (See below)
(2) One southbound/outbound lane
(3) Two westbound/outbound lanes (Use center turn lane, where necessary)
(4) Two southbund/outbound lanes (Use center turn lane & traffic cones, where necessary)
(5) One outbound lane; Limited shoulder width
(6) Approx. 2/3 of evacuees
(7) Approx. 1/3 of evacuees
(8) Improved to three lanes; Two outbound lanes at City standards
(9) Assumes approx. 2/3 use Safari Highlands Rd. & 1/3 use Zoo Rd.

1.xx Traffic demand exceeds capacity

0.9x Trafic demand approaching capacity

From: Anna Mein
Sent: Monday, September 26, 2022 2:29 PM
To: Blom, Erica
Cc: Priscilla Mumpower
Subject: [External] Comment on draft Escondido MSR review, request for amendment

Dear Commissioners,

Please listen. I'm writing to object to the recommendation for 'special study' status for Harvest Hills project in the draft Escondido MSR action. I live near the San Pasqual Valley and Harvest Hills is a dangerous project that threatens all of us who live in the region. The issues of fire risk and evacuation alone make this project untenable. At a minimum, it should not be given accommodation to be evaluated out of synch with the normal LAFCO process.

Please remove condition #9-B special study status for Harvest Hills.

With regards,

Anna Mein

Escondido resident

From: Sleepy Pup
Sent: Monday, October 10, 2022 4:28 PM
To: Blom, Erica
Subject: [External] Comment on draft Escondido MSR review, request for amendment

Dear Commissioners,

I'm writing to object to the recommendation for 'special study' status for Harvest Hills project in the draft Escondido MSR action. Harvest Hills is a dangerous project that threatens all of us who live in the region. The issues of fire risk and evacuation alone make this project untenable. At a minimum, it should not be given accommodation to be evaluated out of synch with the normal LAFCO process.

Please remove condition #9-B special study status for Harvest Hills.

Thank you

Kelly Conrad, Escondido Ca

From: Diane Nygaard
Date: Mon, Oct 17, 2022 at 3:51 PM
Subject: Comment on Escondido MSR Review re Harvest Hills
To: Erica Blom, Priscilla Mumpower

Dear Commissioners,

We are very concerned about Recommendation # 9B to provide "special study" designation for the Harvest Hills project..

Having a Municipal Service Review is a key part of the process in considering potential annexations. This sprawl project raises serious fire service concerns that have been documented in the prior project reviews. The limitations of the roadway network will impact both evacuations and response by emergency personnel. If anything, this project should receive a more substantive review than the typical project, not a limited, expedited one as is allowed with a special study designation.

Please remove condition #9B and ensure the harvest Hills project receives the thorough review that is warranted.

Thank you for considering our comments.

Diane Nygaard
On behalf of Preserve Calavera

From: Marian Sedio
Sent: Monday, October 17, 2022 4:00 PM
To: Blom, Erica; Priscilla Mumpower
Subject: [External] Comment on draft Escondido MSR review, request for amendment

Dear Commissioners,

I'm writing to object to the recommendation for 'special study' status for Harvest Hills project in the draft Escondido MSR action. Harvest Hills is a dangerous project that threatens all of us who live in the region. The issues of fire risk and evacuation alone make this project untenable. At a minimum, it should not be given accommodation to be evaluated out of synch with the normal LAFCO process.

Please remove condition #9-B special study status for Harvest Hills.

Sincerely,
Marian Sedio

From: Kevin Kearney
Sent: Tuesday, October 18, 2022 10:18 AM
To: Blom, Erica; Mumpower, Priscilla
Subject: [External] Oppose Dangerous "Harvest Hills"

Dear LAFCO,

Please accept this letter in opposition to the dangerous sprawl-development that is the proposed Harvest Hills.

North County must continue to promote responsible in-fill development and near public transportation options.

We must continue to oppose dangerous sprawl proposals like Harvest Hills. This proposal drastically increases fire danger, harms the local environment, and will cause air pollution and traffic concerns for neighbors.

Thank you for accepting my letter.

Kevin Kearney
English Department, Palomar College

From: Joanne Tenney
Sent: Wednesday, October 19, 2022 2:07 PM
To: Blom, Erica
Subject: [External] Comment on Draft Escondido MSR Review Request for Amendment

I'm writing to oppose the "special study" status for Harvest Hills in the draft Escondido MSR action. Harvest Hills is a dangerous project that threatens all who live in the region. The issues of fire risk and evacuation alone make this project insupportable. It should not be evaluated out of synch with the normal LAFCO process.

Please remove #9-B special study status for Harvest Hills.

Thank you.

From: Dara Cerwonka
Sent: Wednesday, October 19, 2022 5:31 PM
To: Blom, Erica
Subject: [External] Comment on draft Escondido MSR review, request for amendment

Dear Commissioners,

As a homeowner in the proposed intended adjacent community, I'm writing to object to the recommendation for 'special study' status for Harvest Hills project in the draft Escondido MSR action. Harvest Hills is a dangerous project that threatens all of us who live in the region. The issues of fire risk and evacuation alone make this project untenable. At a minimum, it should not be given accommodation to be evaluated out of synch with the normal LAFCO process.

Please remove condition #9-B special study status for Harvest Hills. They should not be given a different route for approval than any other project subject to the regular MSR. This is about fairness.

Thank you.

Dara Czerwonka

From: patricia borchmann
Sent: Friday, October 21, 2022 11:01 AM
To: Blom, Erica; Mumpower, Priscilla
Cc: patricia borchmann
Subject: [External] Objection to Agenda #9b, Request removal of special study status for Harvest Hills

SUBJECT: Comment on draft Escondido MSR review, request for amendment

Dear LAFCO Commissioners,

I'm writing to express my strong objection to the recommendation for 'special study' status for the Harvest Hills project in the draft Escondido MSR action. Harvest Hills is a dangerous sprawl development project that causes a severe threat to existing neighbors and neighboring communities, including visitors, employees and the wildlife at San Diego Zoo Safari Park, and all others who live or travel in the region. Additionally, the project's excessive grading and blasting will cause the destruction of sensitive biological habitat, plus disruption of active regional wildlife corridors (plural), which are supposed to be protected by the Multiple Species Conservation Plan (MSCP).

The critical issues of extreme fire risk and foreseeable emergency evacuation deficiencies alone make this project in a remote rural location untenable, with public safety risks and major liability

issues that still remain unresolved. Four separate Fire Risk Assessment reports by independent experts indicate how new analysis demonstrates excessive fire hazards and emergency evacuation deficiencies have not been reflected in the analysis by staff, or considered thoroughly before the formation of this superficial LAFCO final recommendation.

A major change in municipal services as would be required to serve Harvest Hills **should be required**, as part of a **normal** comprehensive service and sphere review, rather than instead being considered in a piecemeal manner, as currently proposed. There is no valid reason for an exception, especially for a project of this size, scope, magnitude, and public expense When examined thoroughly, evidence from independent experts indicates the Harvest Hills project does not actually comply with the objective application of LAFCO criteria necessary to qualify for consideration as **"orderly development"**. I am among many other local stakeholders who consider it is more than unusual and concerning that the proponent of Harvest Hills (Concordia) was secured to write the MSR for the entire city of Escondido, and therefore I assert that it would be a disservice to the public interest for LAFCO Commission to allow this Harvest Hills to be advanced by an undeserved reward of entitlement as a 'special study' designation, for an intensive non-infill project that will worsen the climate crisis and drain resources away from Escondido's urban center, and an approval action by LAFCO would set an inappropriate precedent. It seems a curious question why LAFCO staff would even prematurely consider approving this 'special study' status to allow fast-tracking the Harvest Hills, when after eight and one half years since the project submittal in 2014, the project proponent (Concordia) has **still** never finalized submittals necessary for the City of Escondido to formalize the submittal and public circulation of a **Final Environmental Impact Report (FEIR),** or ever publicly release the **Responses to Comments.** When the Draft EIR was circulated for public review and extensive public comments were received in 2018 from public stakeholders, public agencies, independent experts from various community and environmental organizations, over 700 comments identified numerous technical deficiencies.

At a minimum, Harvest Hills should not be given accommodation to be evaluated out of synch with the **normal** LAFCO process.

Please remove condition #9-B special study status for Harvest Hills.

Thank you for thoughtful consideration.

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