

# Opposition to Quail Meadows Apartments Project, Case # MULTI-003751-2020; DR-003759-2020 & CDP-003761-2020



Focused Concern:  
Drainage Plan

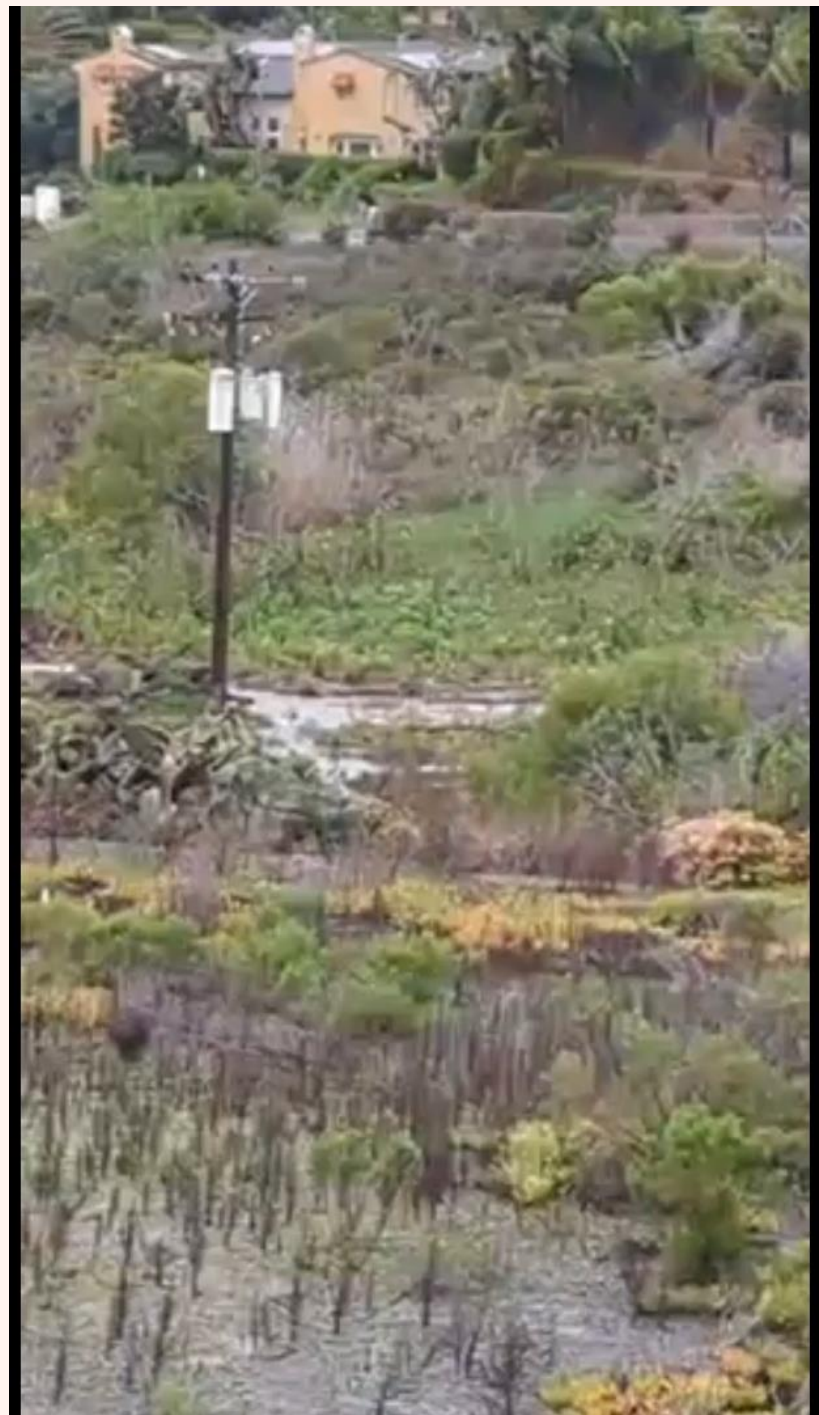
Aerial photo taken February 8, 2024 showing flooding, seasonal creek, and erosion along flow pathway

Kathleen McDowell  
October 03, 2024

# Seasonal Creek on Property

- Seasonal creek observable annually from approx. November through March
- Significant erosion and flooding due to storm events
- Heavy rainfall due to an atmospheric river resulted in ~2.4 inches of precipitation between February 5 and 7, 2024<sup>1</sup>
- Video shows active water flow on February 6, 2024

October 3, 2024



# Drainage Plan Assumptions Are Flawed



Photo of 48" pipe taken February 2024

- Relies on existing 48" corrugated metal pipe and historic headwall<sup>2</sup> of uncertain integrity or functionality
- No permitting information available

# Drainage Plan Assumptions Are Flawed

A wetland area is located north of the project site that receives off-site flow from the north. A headwall is located at the south limits of the wetland and connects to a 48-inch corrugated metal pipe (CMP) that conveys flows from the wetland to the above-mentioned 84-inch RCP located at the south limits of the project site. The site currently receives off-site flows 515 cubic feet second (cfs) pursuant to the report titled *Precise Grading Drainage Study for Quail Meadows*, prepared by Hunsaker & Associates, dated April 21, 2008, the wetland area receives a peak flow rate a 515 cfs from adjacent properties to the north of the site. Flows in excess of the 48-inch CMP capacity, estimated to be 425 cfs (see Section 3.1 for additional information on this estimate), will overtop the headwall at the south end of the wetland area and flow south across the project site and into a low area located near the south project site boundary where a storm drain lateral conveys the flow to the 84-inch RCP.

Based on existing topography data, at a depth of approximately 2.5 feet, water will begin to flow over the top-of-slope of the low areas and continue to flow south and off-site. In order to quantify the exact storm event return frequency and peak flow rate that will result flow leaving the south boundary of the site, detail two-dimensional modeling would be required to account for surface storage across the site and is beyond the scope of this project. Qualitatively, when considering the size of the lateral to the 84-inch RCP convey flows at the south low point area (i.e., 24-inch RCP per As-Built Drawing 9215-I, Sheet 3 of 4), the 100-year frequency storm event flow rate is expected to exceed a depth of 2.5 feet at the south limits of the project site and will result in off-site flows onto the south adjacent property in the existing condition. Please see Section 3.2 for additional information on the evaluation of surface flow across the project site.

- Data for flow conditions and pipe capacity is modeled based on information from 2008
- Pipe's estimated capacity is only 18% of the peak flow rate from 2008
- Applicant deemed modeling to quantify exact storm event return frequency and peak flow rate for an assessment of current conditions was out-of-scope.<sup>2</sup>

# Significant Weather Events affecting North County Coastal Region, 2008 – 2023\*

Date	Impacts
01/27/08	Debris flows, highway closures
09/02/09	4" of mud and water on highway 78
12/13/12	Numerous roadways flooded, garages inundated with water
07/27/14	Flash flooding along coastal region
01/05/16 – 01/07/16	Flooding nearly everywhere throughout San Diego County
01/19/17 – 01/23/17	Widespread flooding, damage to homes and businesses, numerous stranded vehicles in several feet of water.
02/27/17 – 02/28/17	Numerous roadways closed. Vehicles flooded and destroyed.
12/26/19	Flooding of intersections and lowlying areas county-wide.

Date	Impacts
04/08/2020 – 04/10/2020	Flood waters combined with mud, boulders and debris in Oceanside, Carlsbad, Encinitas. Highway 78 closed in both directions.
08/10/21	Mesoscale convection system produced heavy showers and thunderstorms at the coast, in the desert, and mountains.
12/31/22 – 01/01/23	Floodwaters 2.5 ft. deep closed highway 76 near I-5 in Oceanside
01/14/23 – 01/16/23	County-wide flooding, heavy rainfall in San Diego county, 2-4" at the coast. Evacuations in low-lying areas.

\*Data retrieved from the National Weather Service<sup>3</sup>

# Sunshine Gardens Flooding 04/08/20 – 04/10/20 Storm Event



View of Sunshine Gardens facing Encinitas Blvd. Photo taken April 10, 2020  
and retrieved from North Coast Current<sup>4</sup>

# Drainage Plan is Insufficient

- Relies on questionable existing infrastructure integrity which has not been sufficiently assessed.
- Uses outdated information to model potential conditions at the site.
- Outdated information will result in improper drainage planning; inundated stormwater systems likely to fail as severe weather patterns become our new normal.
- Flooding and poor stormwater management has a high potential for negative impacts to public safety.
- Planning Commission should consider this plan as part of a greater mitigation and cumulative impact strategy rather than on a per-project basis.

# References

1. Weather Spark.com. Daily Precipitation in February 2024 in Encinitas.  
<https://weatherspark.com/h/m/1841/2024/2/Historical-Weather-in-February-2024-in-Encinitas-California-United-States>
2. Rick Engineering Company. (2023, October 16). Draft Drainage Study for Quail Meadows (Preliminary Engineering).
3. National Weather Service. (2024, March). A History of Significant Weather Events in Southern California Organized by Weather Type. Retrieved from Weather History:  
<https://www.weather.gov/media/sgx/documents/weatherhistory.pdf>
4. Shapiro, J. (2020, April 24). *Sunshine Gardens, Encinitas shops work to recover from flood*. Retrieved from North Coast Current: <https://www.northcoastcurrent.com/coastline/2020/04/sunshine-gardens-encinitas-shops-work-to-recover-from-flood/#>