CALIFORNIA COASTAL COMMISSION
455 MARKET STREET, SUITE 300
SAN FRANCISCO, CA 94105
PHONE: (415) 904-5260
FAX (415) 904-5400
WEB: WWW.COASTAL.CA.GOV

F18b

A-2-PAC-20-0073 (San Pedro Valley LLC Mixed Use)

OCTOBER 15, 2021

CORRESPONDENCE

FW: CDP-409-19: RE 1300 Danmann Kent Appeal FLAN

KoppmanNorton, Julia@Coastal <julia.koppmannorton@coastal.ca.gov>

Fri 9/24/2021 9:48 AM

To: Targ, Sylvia@Coastal <sylvia.targ@coastal.ca.gov>

1 attachments (7 MB)

1300DanmannPublicCommentFiles.pdf;

From: Cherie Chan <chan.cherie@gmail.com>
Sent: Wednesday, November 11, 2020 12:48 AM
To: KoppmanNorton, Julia@Coastal <julia.koppmannorton@coastal.ca.gov>
Cc: Sam Casillas <SamuelCasillas@hotmail.com>; Joanne Gold <joannegold@yahoo.com>
Subject: CDP-409-19: RE 1300 Danmann Kent Appeal FLAN

Hello there Julia and Happy Veteran's Day!
Hope you are having a fabulous, well-deserved day off.
As predicted, the Pacifica City Council voted 4-1 (Mayor Martin no) for the revised Danmann property.
The meeting starts at 2:18:30, Item 11.
I typically prefer to write in my objections, but did muster up the courage to provide some oral testimony at 2:45:00,. There were dozens of letters sent in opposition to the project which also did not make it into the City's official record, here: Attachment L - Public Comments Received (36 pages), yet I counted 85 pages of letters of opposition, attached.
The Planning Commissioner's comments at 2:53:55 accurately represents the extensive discussion they had about the color and siding, while disregarding our comments about CEQA, Coastal Erosion, Hazard Zones, and Sea Level Rise.
At this point, could our coalition schedule a quick Zoom discussion with you to go through the Appeals process? I have the forms, but would like to make sure I understand the substantive issues which would be helpful to catalog.
Thank you again for all you do to protect our Coast and our financial future.
With gratitude and respect, Cherie (510) 703-3748

On Mon, Nov 9, 2020 at 5:37 PM Cherie Chan <chan.cherie@gmail.com> wrote:

> Thank you again for always being so helpful, and giving public servants a good name!
>
> On Mon, Nov 9, 2020 at 3:15 PM KoppmanNorton, Julia@Coastal <julia.koppmannorton@coastal.ca.gov> wrote:
>
> > Hi Cherie,
> >
> > Thank you so much for your email and for outlining the key changes to the revised project. It's much appreciated! As I think you're aware, we've submitted comments to the City regarding this project proposal (both prior to the Planning Commission and City Council hearings). Given that the City is moving forward with the project tonight, it seems unlikely that they will backtrack to require further geotechnical review, but I would certainly recommend submitting public comment and speaking during the public hearing to that effect. And ultimately, if the City Council decides that the Planning Commission's decision will stand, if you think that there are LCP-consistency issues you have the right to appeal the decision to the Coastal Commission (although you didn't file the local appeal, the Coastal Act stipulates that you have the right to

appeal if the local government – City of Pacifica – charges a fee to appeal the decision locally). Please let me know if you have further questions. Hope you're otherwise doing well!

Best,
Julia

From: Cherie Chan <chan.cherie@gmail.com>
Date: Monday, November 9, 2020 at 7:49 AM
To: "KoppmanNorton, Julia@Coastal" <julia.koppmannorton@coastal.ca.gov>, Sam Casillas <SamuelCasillas@hotmail.com>, Joanne Gold <joannegold@yahoo.com>
Subject: Fwd: 1300 Danmann Kent Appeal FLAN

Hi there Julia,
Hope you are well. As you may have heard, at Tonight's Pacifica Night's City Council meeting, Council is moving to approve the new development at the Llama field.

A neighbor filed a formal legal appeal , and the settling parties (neither myself nor Sam) agreed to a proposed new building on the old Llama field. Danmann was not part of the deal. The key changes are that the new project is now (according to a champion of the settlement):

1. **Proximity to cliff**
   The building on the ocean side was moved further away from ocean cliff. The west (uphill) side of the project is now 132 feet from the cliff, the east side of the project is now 175 feet from the cliff.
2. **Size of project**
   The revised project is 37% smaller in square feet, now a total of 3186 sq ft for 4 residential apartments, and 2495 sq ft for commercial space. The original design had 6 apartments and 9,007 sq ft total.
3. **Setbacks**
   1. Danmann: originally zero setback from sidewalk, now 5 feet for ground floor and 10 ft for second floor
   2. Kent Rd: was zero setback from sidewalk, now 10 ft
   3. Beau Rivage (the dirt road on ocean side): was 8-13', now 18'-23'
4. **Roof Heights:**
   1. Danmann/Kent: was 29 ft, now 27' at peak
   2. Beau: was 34' (3 stories), now 29' (2 stories) at peak
5. **Roof Design**
   New design is gabled, sloping down toward street. This will reduce the bulkiness and shadows cast from the buildings
6. **Cladding of exterior materials**
   Original was various including metal. Now only stone (typically on first level) and cedar shingle on second level, no metal.
7. **Parking.**
   Prior design had 21 parking spaces, new project has 19.

While this is progress, it still creates a new building in an area known to have high erosion risk. While the building is an improvement and I am less concerned about the aesthetics, I do have concerns about the underlying Attachment H - Geotechnical Hazard Analysis. Despite your earlier email, GeoForensics is still relying on the November 2019 report, which includes the following: "Our ocean bluff retreat study has indicated that the rate of bluff retreat over the next 50 years is likely to be rather minimal, and not likely to cross Shelter Cove Road." Geoforensics continue to rely on historic photos--suspiciously stopping at 2000--as the basis for their Cliff Retreat study which results in erosion rates from 0.1 to 0.35 feet per year, as opposed to the USGS historical retreat rate you referenced of 2.3 ft/yr which would erode 230 feet within 80 yrs. Sam and I

watched the Beach Blvd Proceeding like starry-eyed K-pop stars, and now understand that new residential structures require even more protection.

I am going to incur the wrath of my neighbors, the contractor, if I file an appeal, especially tonight. However, I do want to make sure the CCC has an opportunity to review this thoroughly. Could I please give you a call so we can figure out the most effective way to work through the City processes to ensure this project receives the Geotechnical review it needs?

Thanks.
Cherie in Pacifica
(510) 703-3748

---------- Forwarded message ---------
From: **KoppmanNorton, Julia@Coastal** <julia.koppmannorton@coastal.ca.gov>
Date: Mon, Sep 28, 2020 at 10:20 AM
Subject: Re: 277 Kent Appeal FLAN
To: Samuel Casillas <samuelcasillas@hotmail.com>
Cc: cherie chan <chan.cherie@gmail.com>

Hi Sam,

My understanding was that 1300 Danmann got postponed to the 10/12 City Council hearing, so I don't have an update on this at this time. Please feel free to check back in after the City Council hearing!

Best,
Julia

From: Samuel Casillas <samuelcasillas@hotmail.com>
Date: Thursday, September 24, 2020 at 7:36 PM
To: "KoppmanNorton, Julia@Coastal" <julia.koppmannorton@coastal.ca.gov>
Cc: cherie chan <chan.cherie@gmail.com>
Subject: Re: 277 Kent Appeal FLAN

Hi Julia
Can you please let us know when the FLAN is filed for the Danmann project?

Thank you
Sam

Sent from my iPhone

On Aug 27, 2020, at 2:06 PM, KoppmanNorton, Julia@Coastal <julia.koppmannorton@coastal.ca.gov> wrote:

> Hi Sam,
>
> Once we have the additional information we need on this one, and feel that we have enough to make a recommendation to the Commission, it isn't likely that we'd hold up the process for 277 Kent. However, if there is an appeal on 1300 Danmann that comes in and we are able to get the additional information we need on that one and the timing seems to be fairly well-aligned with that of 277 Kent, it may be possible. Hard to say at this point.

Best,
Julia

From: Samuel Casillas <samuelcasillas@hotmail.com>
Date: Thursday, August 27, 2020 at 1:51 PM
To: "KoppmanNorton, Julia@Coastal" <julia.koppmannorton@coastal.ca.gov>
Subject: Re: 277 Kent Appeal FLAN

Thanks Julia! Is there any chance the two projects would be heard at the same time, therefore postponing the Kent project CCC hearing until the Danmann project comes through since they are so closely connected?

From: KoppmanNorton, Julia@Coastal <julia.koppmannorton@coastal.ca.gov>
Sent: Thursday, August 27, 2020 4:47 PM
To: Samuel Casillas <samuelcasillas@hotmail.com>
Subject: Re: 277 Kent Appeal FLAN

Hi Sam,

You are correct in that the Danmann project has not yet been heard by the City, and therefore a FLAN has not been filed.

Alison West did file an appeal with us for 277 Kent. "Switching out" an appellant for 277 Kent is not possible as the appeal period has ended for that one, but as a member of the public you would still be able to make comments, etc. With regards to 277 Kent, Commission staff has determined additional information needs and I have passed that along to the applicant. We won't move forward with scheduling it for a hearing until we get the additional information we've requested and had time to review with our technical staff and determine what recommendation to make. Please let me know if you have further questions – thanks!

Best,

Julia

From: Samuel Casillas <samuelcasillas@hotmail.com>
Date: Thursday, August 27, 2020 at 12:56 PM
To: "KoppmanNorton, Julia@Coastal" <julia.koppmannorton@coastal.ca.gov>
Subject: Re: 277 Kent Appeal FLAN

Hi Julia,

I wanted to ask you a process question for the appeal of both CDP-409-19 (1200 Danmann) and CDP-413-19 (277 Kent).

Are both projects still appealable directly to the CCC from a different appalment? The Danmann project has not yet been heard by the city so I don't think a FLAN has been filed, but I think the appeal by Allison West was filed to the CCC for the Kent project after the city filed the FLAN (but I need confirmation of this).

I am just not sure of the process of going directly to CCC with a different appellant would be and/or if we could switch out an appellant for 277 Kent since Allison was moving forward with that one.

thanks,

Sam

From: KoppmanNorton, Julia@Coastal <julia.koppmannorton@coastal.ca.gov>
Sent: Monday, July 20, 2020 1:02 PM
To: Samuel Casillas <samuelcasillas@hotmail.com>
Subject: Re: 277 Kent Appeal FLAN

Sure, no problem.

Julia

From: Samuel Casillas <samuelcasillas@hotmail.com>
Date: Monday, July 20, 2020 at 9:54 AM
To: "KoppmanNorton, Julia@Coastal" <julia.koppmannorton@coastal.ca.gov>
Subject: Re: 277 Kent Appeal FLAN

Thanks Julia!

Do you mind if Allison West (appellant) and Cherie Chan also join the call? They want to ask a couple of questions too.

Sam

From: KoppmanNorton, Julia@Coastal <julia.koppmannorton@coastal.ca.gov>
Sent: Monday, July 20, 2020 12:25 PM
To: Samuel Casillas <samuelcasillas@hotmail.com>
Subject: Re: 277 Kent Appeal FLAN

11 AM works – Stephanie will be joining the call as well. Please call in to: (877) 411-9748, with access code: 816-122. Thanks!

Julia

From: Samuel Casillas <samuelcasillas@hotmail.com>
Date: Monday, July 20, 2020 at 9:01 AM
To: "KoppmanNorton, Julia@Coastal" <julia.koppmannorton@coastal.ca.gov>
Subject: Re: 277 Kent Appeal FLAN

Thank you! But LMK if you want a later time

Sent from my iPhone

On Jul 20, 2020, at 8:40 AM, KoppmanNorton, Julia@Coastal <julia.koppmannorton@coastal.ca.gov> wrote:

> Sorry, Sam – I was out on Friday. I think this should still work, but will loop back around shortly with a conference line to confirm.
>
> Julia

From: Samuel Casillas <samuelcasillas@hotmail.com>
Date: Thursday, July 16, 2020 at 10:17 PM
To: "KoppmanNorton, Julia@Coastal" <julia.koppmannorton@coastal.ca.gov>
Cc: Allison West <akwest365@gmail.com>
Subject: Re: 277 Kent Appeal FLAN

That works. Thanks

Sent from my iPhone

On Jul 16, 2020, at 3:59 PM, KoppmanNorton, Julia@Coastal <julia.koppmannorton@coastal.ca.gov> wrote:

> Hi Sam,
>
> Sure – how about 11 AM on Monday? I can send you a conference call number if that works for you.
>
> Best,
>
> Julia

> **From:** Samuel Casillas <samuelcasillas@hotmail.com>
> **Date:** Thursday, July 16, 2020 at 3:10 PM
> **To:** "KoppmanNorton, Julia@Coastal" <julia.koppmannorton@coastal.ca.gov>, Allison West <akwest365@gmail.com>
> **Subject:** Re: 277 Kent Appeal FLAN
>
> Hi Julia,
>
> Do you have a few minutes tomorrow or next week to take a few questions I have on this project? I'm not sure how much you can answer on CEQA, hydrology and cliffside parking but I would like to chat with you.
>
> thanks

Sam

From: KoppmanNorton, Julia@Coastal <julia.koppmannorton@coastal.ca.gov>
Sent: Thursday, July 16, 2020 4:40 PM
To: Allison West <akwest365@gmail.com>
Cc: Samuel Casillas <samuelcasillas@hotmail.com>
Subject: Re: 277 Kent Appeal FLAN

I noticed that as well – looks like that hasn't yet been updated, but it should be shortly. Regardless, I can confirm that we have received it and the appeal period is as listed below. Thanks!

Best,

Julia

From: Allison West <akwest365@gmail.com>
Date: Thursday, July 16, 2020 at 1:37 PM
To: "KoppmanNorton, Julia@Coastal" <julia.koppmannorton@coastal.ca.gov>
Cc: Samuel Casillas <samuelcasillas@hotmail.com>
Subject: Re: 277 Kent Appeal FLAN

Thanks for reaching out, Julia. I looked at the CC website yesterday and today and didn't see the appeal on the list. Just curious if there is a delay in posting.

Thank you,

Allison

On Thu, Jul 16, 2020 at 1:11 PM KoppmanNorton, Julia@Coastal <julia.koppmannorton@coastal.ca.gov> wrote:

Hi Allison and Sam,

Looping back around with you both to let you know that we received the Final Local Action Notice (FLAN) for 277 Kent on 7/14, and thus the appeal period runs from 7/15 – 7/28. You can find information on process, FAQs, and the required appeal forms at this link, and please let me know if you have any questions. Please note that we need to receive any such appeal **via both hard copy at the following new mailing address as our offices are moving, as well as via PDF given the current situation, by 7/28**.

455 Market Street

Suite 228

San Francisco, CA 94105

Thanks!

Best,

Julia

--
Cherie Chan
(510) 703-3748

--
Cherie Chan
(510) 703-3748

--
Cherie Chan
(510) 703-3748

Murdock, Christian

From: Dan Shugar <dshugar@NEXTracker.com>
Sent: Monday, May 4, 2020 6:05 PM
To: Murdock, Christian; Coffey, Sarah
Cc: julia.koppmannorton@coastal.ca.gov; Stephanie.Rexing@coastal.ca.gov
Subject: Opposition to project File No. 2019-025 PSD-843-19

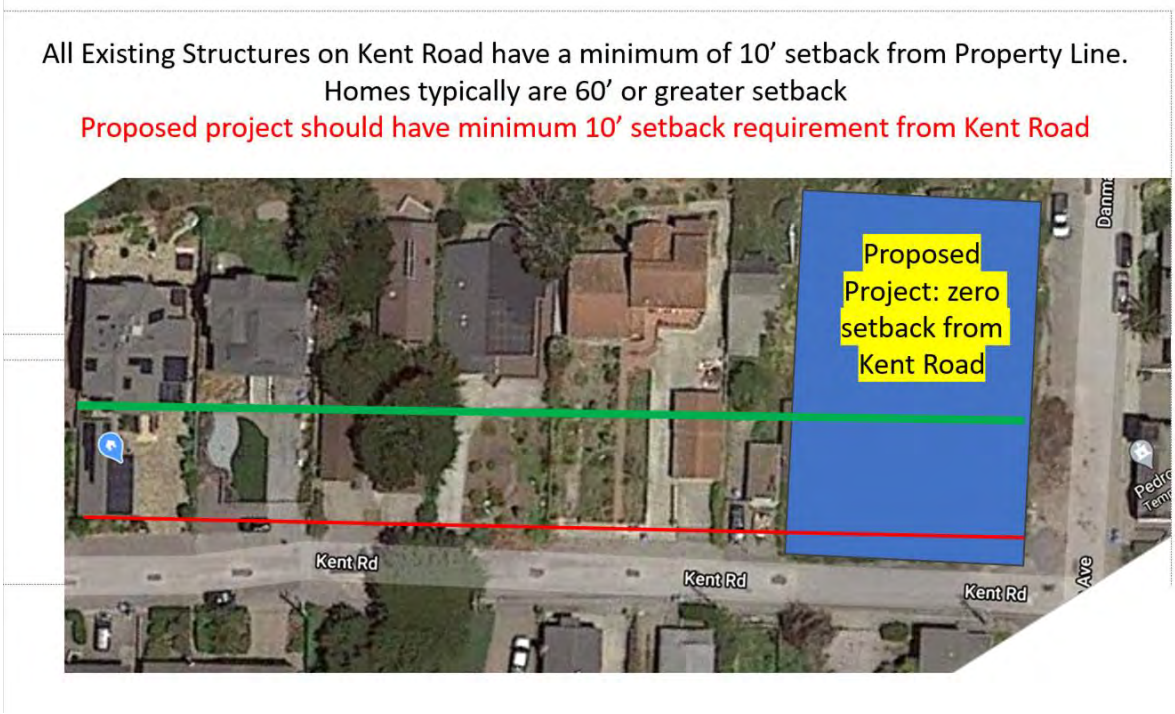
[CAUTION: External Email]

Planning Commission:

Our family, with a home on 249 Kent Road, strongly opposes the referenced project on Kent Road/Danmann corner. There are so many things wrong with this project for our neighborhood it is hard to begin. It does not meet requires of Scale, Covered Parking, Setback, neighborhood fit. We have reviewed Mr. Casillas's concerns (below) and also agree with those.

We are supportive of reasonable development of this parcel, which could include one or two homes, or a reasonable mixed use project with appropriate setbacks. Please see image below, which should most homes on Kent Road have a 50-60 ft setback, even garages have 10 ft setbacks. Do not allow this monstrosity to be constructed, please.

Respectfully, Dan Shugar



Dan Shugar, P.E.

M 510 368 0192 | D 510 270 2490

May 4, 2020
To: Christian Murdock, Planning Director, City of Pacifica, Pacifica Planning Commission
From Samuel Casillas, Resident of Pedro Point, Pacifica
Subject: Coastal Development Application CDP-409-19 proposed multiple building/unit mixed commercial proposal

Dear Mr. Murdock,
Please be advised that the proposed development on the 1200 block of Danmann (CDP-409-19, UP-118-19, PE-185-19 and S-131-19) is not acceptable and should be denied entirely. Note that any CDP application should also include the adjacent parcel (APNs 023-013-030) since the adjacent lot is a substandard lot and should be merged with these two APNs. There are multiple issues that have not been adequately addressed and require the Planning Department's attention especially considering new data and evidence:

1. **Coastal erosion associated with climate change:** The most serious concern is these two APNs sit directly above Shoreline Drive that is prone to coastal erosion and landslides. The latest USGS modeling and the city's own LCLUP map data in the proposed GPU shows the cliff eroding to Kent Street, additionally the city's data source from the Pacific Institute is from 2009 and all Sea Level rise map projections are now being revised to show more dire outcomes (see exhibits A1-2). This property should be utilized for coastal erosion mitigation in accordance to SB379. I have personally observed the cliffside along Shoreline Dr where there is erosion activity on a regular basis with five feet of earth and fencing falling from one of the home's backyard the past two months. The bluff directly in front of this property has a concrete platform that has recently given way and is falling into the ocean and is only a few feet away from this proposed development. Additionally, there is another 10 feet of the bluff that is ready to fall into the ocean at any time now (see attachment B).
2. **This project is not exempt from CEQA:** The planning department erroneously concludes that a this proposal is exempt from CEQA, but due to the site being in a documented coastal hazard zone the California Coastal Commission has submitted a letter requesting some very concerning conditions for approval and therefore an EIR is required (see exhibit C) . The potential destabilization of the adjacent bluff to this property is well documented. Shoreline Drive has fallen into the ocean where there was previously a two lane road, all platform and driveway structures leading down to the dock area have buckled and the stability of these APNs is questionable. It has also come to my attention that the Coastal Commission has warned the city that the engineering calculations paid for by the applicant (demonstrating implied bias) and utilized for the same applicants proposal of CDP-413-19 minimized and underestimated the level of erosion at a reported historic erosion rates in the range of 0.1 to 0.45 ft/yr while a more scientific and unbiased source (e.g. USGS) reports much higher rates. Based on an assumed design life used for purposes of hazard analysis assumed to be 100 years (bluff erosion hazards through 2100-2120) should utilize a much higher historic erosion rate for this analysis. The USGS average historical retreat rate that the Coastal Commission has recommended is 2.3 ft/yr meaning that 100 feet of this property would only last 43 years; so is the city setting a new California design life standard of 43 years? As the Coastal commission has stated for the adjacent CDP-413-19 and implied here is that "the setback of the proposed residence may not be adequate for the full design life of the project". A more recent publication from the USGS (Bernard, et. al.) also specifically points to Pedro Point because of the areas hazard zone volatility (see attached article in email). This flooding model demonstrates the Sea Level Rise hazard that has a major impact on bluff erosion. Additionally:
    a. The impact of drilling piers and putting multiple tons of weight on this bluff will produce major stress on the unstable bedrock below where there are also active springs. The city has had to do major road repair in 2019 to relieve the pressure of underground springs going down Kent street right in front of this APN. This will lead to major instability for the residence at the end of Danmann Ave/Shoreline Dr. that will cause this residence to fall into the ocean sooner rather than later. Further, there is no adequate data on hydrology in this area effected by the water flowing under this property and the city is aware of this so this project needs to be denied otherwise is the city willing to take on this liability?

b. The city was also made aware by The Coastal Commission that Western Salamanders were found on the property; so again, this project is not exempt from an Environmental Impact Report (EIR) that must be performed

3. **Coastal Act protection of visual resources:** According to the CALIFORNIA COASTAL ACT - CHAPTER 3. Coastal Resources Planning and Management Policies [30200 - 30265.5] ARTICLE 6. Development [30251]: "The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting." The proposed new development at 1200 Danmann is NOT compatible with this coastal act policy in any way. Therefore, this project should be denied.
4. **City requirements for design life based on California building code:** Approval of this project would contradict the City's approved Local Coastal Land Use Plan. Page C-16 indicates that development is required to be "determined by a geologist to remain usable throughout the design life of the project and determined to be adequate to withstand a 100-year hazard event. Furthermore, the design life of any application requires that a designer reasonably expects a development to safely exist for 100 years. This is in line with national and state building codes so why would the city approve a CDP for a project that will probably not stand for more than a few years? As stated above this design life would not even make it for half of the design life and by only walking out to the end of this bluff and using any standard of common sense one can see 10 feet of bluff ready to fall into the ocean so only willful ignorance of the facts would allow the city to approve this project.
5. **Arbitrary and Capricious City planning directives**: According to the planning departments own statements for prior approvals in Pedro Point substandard lots (meaning those under 5,000-sf), which are owned by a property owner with an adjacent lot, were merged in the 1980's. Therefore development on these two lots must be part of any development at APN 023-013-030. The zoning of the three lots is a moot argument; there has never been any historical commercial use or any use of these two lots other than storage of two pet lamas; the only other use is residential on APN-0230-013-030 with a storage shed on one of these two APNs. The standard to use here is the "existing conditions" so with "zero" historical development for any future development the city cannot make an exception and this permit application should be denied.
6. **Neighborhood Fit**: Pedro Point is overwhelmingly a residential neighborhood. There are a few apartments through-out the neighborhood which have proved to be problematic. This will be by far the largest building in Pedro Point and will eclipse all other buildings in the neighborhood. This would be a major apartment development which would be completely out of scope with the neighborhood; this project should be denied. Additionally:
   a. The applicant is requesting PE-185-19. The city has already approved multiple parking exemptions throughout Pedro Point. This neighborhood is at a breaking point for parking and there is literally no more room for more cars along Danmann Ave or Kent road or San Pedro Ave. Additionally, most of Shoreline Dr. has fallen into the ocean so there is no parking available there for the residents. A parking exemption should not be approved and this project should be denied.
   b. S-131-19: Applicant is requesting signage. No signage exists along Danmann Ave other than two modest commercial ventures with minimal signage. The application should be denied.
   c. The applicant is requesting no set-backs claiming that the historical Pedro Point Firehouse has no setbacks; this is also erroneous because this was a development from before the city was even incorporated and there were no city standards; this project is not exempt from city standard codes and should again be denied on this basis.
   d. The city has not established ownership of the paper street on the propriety known as "Beau Rivage" and until ownership is established this application should be denied.

Also, the city planning department should be aware of its own goals to develop more visitor serving commercial. All mixed use development should be 70% commercial and 30% residential in order to make any commercial development not only viable but to assure the developer is serious about the commercial portion of the development. The planning department is aware of multiple examples throughout the city where the majority of a mixed use development has a

commercial component only as a requirement to build and is an afterthought the apartments above the commercial space. On the city's own economic goals this project should be denied.
Please note that this request for denial is based on the city's approval of **new development** where new climate change models are being constantly introduced and updated with more dire projections; existing buildings along any bluff in Pacifica were previously build without the advanced data now being utilized due to the real threat of man-made climate change. The city's tax payers have now had to pay multiple millions to remove multiple buildings through emergency orders so why would the city want to set up future tax payers for more emergency removals of structures NOT paid for by the developers, but by the tax payers? The Coastal Commission will also not allow future shoreline reinforcements, again demonstrating major negative impacts from this project.
Also be advised that the residents of Pacifica realize the city's current approach is to approve any multiple unit development that meets SMCAR's real estate low-standard development goals while ignoring scientific analysis so it is prudent for the applicant to prepare for a Coastal Commission appeal if this project is approved by the city.
Thank you for your consideration.
Sincerely,

Sam Casillas

Murdock, Christian

From: Camille Keating <keatingohana@yahoo.com>
Sent: Monday, May 4, 2020 6:10 PM
To: Murdock, Christian
Subject: Proposed Danmann ave develppment

[CAUTION: External Email]

Dear council members and planning staff,

As lifelong residents of Pedro Point, we are writing to convey our concerns to the proposed development on the 1200 block of Danmann (CDP-409-19, UP-118-19, PE-185-19 and S-131-19) The scale of the design is out of character for our small mostly residential neighborhood, and its density is inconsistent with the coastal charm of the area.

Similarly to the newly erected commercial building on San Pedro ave. though the design may seem visually pleasing on paper, or in a downtown area, in person, it is gargantuan in its relative size and feel to the adjacent homes, and detracts from the quaint coastal feel of the neighborhood.

The Pedro Point area is known to be beyond max capacity for parking on any given day and apartments and commercial business of this size will generate overly burdensome traffic congestion in our narrow streets. Residents are already feeling diminished quality of life due to the influx of traffic and beachgoers, with lack of public parking, and nearby commercial spaces not providing adequate parking. This adds to a safety concern as there are minimal sidewalks on our streets and the additional buzzing of cars makes for unsafe pedestrian access.

With only one entrance and exit to Pedro Point, the continued approval for large commercial and mixed use projects, and additional traffic puts our residents at risk in the case of evacuation. How will we handle this amount additional traffic exiting the Pedro Point area should there be an emergency?

For these reasons we are not in favor of this addition to the neighborhood in its present proposal.

Thank you for your time and energy in deciding what will continue to help the residents of Pacifica, as well as keep our city quaint coastal character.

Sincerely
Camille Keating and Jason Grochowski
69 Shoreside

Murdock, Christian

From: Samuel Casillas <samuelcasillas@hotmail.com>
Sent: Monday, May 4, 2020 7:28 PM
To: Murdock, Christian
Subject: Re: Coastal Development Application CDP-409-19 proposed multiple building/unit mixed commercial proposal
Attachments: Barnard et al. 2019. SLR and coastal flooding.pdf

[CAUTION: External Email]

Sorry,
I forgot one attachment of a USGS research article

From: Murdock, Christian <murdockc@ci.pacifica.ca.us>
Sent: Monday, May 4, 2020 6:24 PM
To: Samuel Casillas <samuelcasillas@hotmail.com>; Coffey, Sarah <coffeys@ci.pacifica.ca.us>
Cc: KoppmanNorton, Julia@Coastal <julia.koppmannorton@coastal.ca.gov>; Stephanie.Rexing@coastal.ca.gov <Stephanie.Rexing@coastal.ca.gov>
Subject: RE: Coastal Development Application CDP-409-19 proposed multiple building/unit mixed commercial proposal

Hi Sam,

Thanks for your letter. I will forward it to the Planning Commission.

Regards,

Christian

CHRISTIAN MURDOCK, AICP | SENIOR PLANNER
CITY OF PACIFICA | PLANNING DEPARTMENT
1800 Francisco Boulevard, Pacifica, CA 94044
Phone: (650) 738 – 7444 | murdockc@ci.pacifica.ca.us

From: Samuel Casillas [mailto:samuelcasillas@hotmail.com]
Sent: Monday, May 4, 2020 12:28 PM
To: Coffey, Sarah <coffeys@ci.pacifica.ca.us>; Murdock, Christian <murdockc@ci.pacifica.ca.us>
Cc: KoppmanNorton, Julia@Coastal <julia.koppmannorton@coastal.ca.gov>; Stephanie.Rexing@coastal.ca.gov
Subject: Coastal Development Application CDP-409-19 proposed multiple building/unit mixed commercial proposal

[CAUTION: External Email]

Hi Christian and Sarah,
Please see my comments for the request to reject/deny CDP-409-19.

Please note that the neighborhood is overwhelmingly against this project.

Thank you,
Sam Casillas

CAUTION: This email originated from outside of the City of Pacifica. Unless you recognize the sender's email address and know the content is safe, do not click links, open attachments or reply.

SCIENTIFIC REPORTS

OPEN

Dynamic flood modeling essential to assess the coastal impacts of climate change

Received: 9 July 2018
Accepted: 22 February 2019
Published online: 13 March 2019

Patrick L. Barnard[1], Li H. Erikson[1], Amy C. Foxgrover[1], Juliette A. Finzi Hart[1], Patrick Limber[1,2], Andrea C. O'Neill[1], Maarten van Ormondt[3], Sean Vitousek[1,4], Nathan Wood[5], Maya K. Hayden[6] & Jeanne M. Jones[7]

Coastal inundation due to sea level rise (SLR) is projected to displace hundreds of millions of people worldwide over the next century, creating significant economic, humanitarian, and national-security challenges. However, the majority of previous efforts to characterize potential coastal impacts of climate change have focused primarily on long-term SLR with a static tide level, and have not comprehensively accounted for dynamic physical drivers such as tidal non-linearity, storms, short-term climate variability, erosion response and consequent flooding responses. Here we present a dynamic modeling approach that estimates climate-driven changes in flood-hazard exposure by integrating the effects of SLR, tides, waves, storms, and coastal change (i.e. beach erosion and cliff retreat). We show that for California, USA, the world's 5th largest economy, over $150 billion of property equating to more than 6% of the state's GDP and 600,000 people could be impacted by dynamic flooding by 2100; a three-fold increase in exposed population than if only SLR and a static coastline are considered. The potential for underestimating societal exposure to coastal flooding is greater for smaller SLR scenarios, up to a seven-fold increase in exposed population and economic interests when considering storm conditions in addition to SLR. These results highlight the importance of including climate-change driven dynamic coastal processes and impacts in both short-term hazard mitigation and long-term adaptation planning.

Over 600 million people worldwide live in the coastal zone (<10 m elevation) and migration trends forecast an increase to more than 1 billion by 2050 (ref.[1]). SLR acceleration in recent decades[2] and median global SLR projections ranging from 0.5 (ref.[3]) to 1.8 m by 2100 (ref.[4]) indicate that growing coastal populations will be increasingly at risk of displacement due to permanent flooding (i.e. inundation), as well as annual flood damages and adaptation costs that could top $1 trillion by the end of the 21st century[5]. Further elevating coastal societal risk is the recent instability of the Antarctic ice sheets[6,7], indicating plausible SLR up to 3 m by 2100 (refs[4,8,9]).

In addition to long-term SLR, the exposure of the coastal zone population and infrastructure to flooding is amplified during episodic storms, when coastal water levels can increase by several meters or more due to locally-varying combinations of tides[10], storm surge[11], waves[12], river discharge[13], and seasonal water level fluctuations, as exemplified during El Niño events along the west coast of North America[14] (Fig. 1). In combination with SLR, these dynamic water level components can disproportionately increase the flood frequency[15] and volume in the coming decades[16]. To date, most climate-driven, hazard assessments exclude the short- and long-term effects of storms on coastal flooding, beach erosion, and cliff retreat, and instead only account for SLR[17,18], single components of storm-driven variability[19,20], or shoreline change due to SLR[21].

Here we describe a primarily physics-based numerical modeling approach, the Coastal Storm Modeling System (CoSMoS), which was designed to thoroughly assess future coastal flooding exposure by integrating SLR, dynamic water levels, and coastal change. We apply CoSMoS to one of the world's largest economies and most developed coastal environments worldwide, the urbanized portion of the state of California, USA, which accounts for 95% of the 26 million residents of California coastal counties (2010 U.S. Census Bureau estimate).

[1]United States Geological Survey, Pacific Coastal and Marine Science Center, Santa Cruz, CA, 95060, USA. [2]Coastal Carolina University, Department of Marine Science, Conway, SC, 29528, USA. [3]Deltares, Delft, The Netherlands. [4]University of Illinois at Chicago, Department of Civil and Materials Engineering, Chicago, IL, 60607, USA. [5]United States Geological Survey, Western Geographic Science Center, Portland, OR, 97201, USA. [6]Point Blue Conservation Science, Petaluma, CA, 94954, USA. [7]United States Geological Survey, Western Geographic Science Center, Menlo Park, CA, 94025, USA. Correspondence and requests for materials should be addressed to P.L.B. (email: pbarnard@usgs.gov)

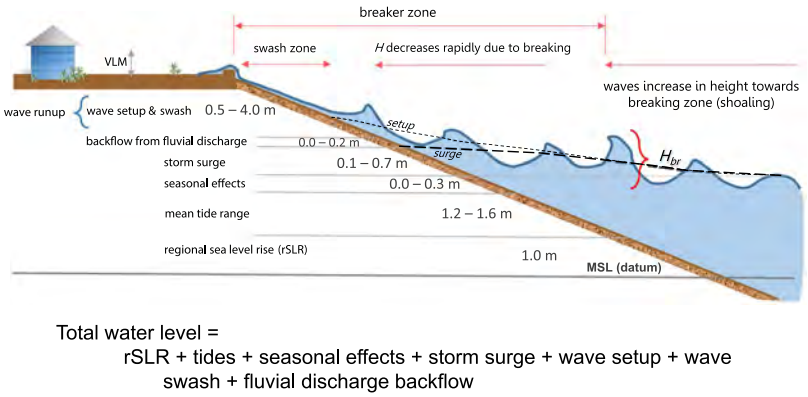


Figure 1. Dynamic water level concept. Example from California for 1 m of sea level rise of the significant water level components that comprise total water levels on a beach during a storm along the coast resulting in potential flooding. The range of values are based on observations and modeling conducted during the development and application of the Coastal Storm Modeling System (CoSMoS) across the region[50,61,89]. (VLM = vertical land motion, H = wave height, H_{br} = breaking wave height).

The model predictions are made available, via interactive web tools that include flood hazard maps and socioeconomic exposure, to support local climate adaptation planning and facilitate large-scale policy action. We show that inclusion of storm-driven dynamic water levels in future coastal flooding assessments (see Fig. 1) results in the additional projected exposure of approximately 200,000 residents and $50 billion in property over the next century compared to SLR alone, as well as significant storm impacts for the lower SLR scenarios. These results illustrate the importance of including dynamic water levels and coastal change in hazard assessments and reinforce the urgency to mitigate and adapt to the expected coastal impacts of climate change.

Modeling Approach

The overarching concept of CoSMoS is to use a suite of linked oceanographic and geomorphic models (Fig. 2) to assess flood impacts caused by future SLR and storms at management-relevant scales (2 m resolution). CoSMoS utilizes projections of global climate patterns over the 21st century from Global Climate Models (GCMs) developed for the 5th Assessment Report of the Intergovernmental Panel on Climate Change[22] to determine regional oceanographic conditions. Native resolution GCM projections are dynamically downscaled to the regional and local level and used as boundary conditions for a number of physics-based, numerical ocean models to predict coastal waves, water levels, flooding, and erosion for the range of possible SLR (10 scenarios: 0.00–2.00 m in 0.25 m increments, and 5.00 m, relative to the year 2000) and storm scenarios (4 scenarios: average daily conditions [i.e. including tides and typical wave conditions] and annual, 20-year and 100-year storms) over the 21st Century (Fig. 2, Supplementary Fig. 1, Methods).

The results are provided to the public via two web tools, one focused on physical exposure (Our Coast, Our Future [OCOF]: www.ourcoastourfuture.org)[23] and the other on socioeconomic impacts (Hazard Exposure Reporting and Analytics [HERA]: https://www.usgs.gov/apps/hera/)[24,25]. Translating the flooding extents into community exposure expresses the consequences of unmitigated coastal hazards in terms of population and property at risk. This is a critical exercise in developing effective return-on-investment strategies to improve coastal infrastructure via beach nourishments, construction of coastal protection structures, improving drainage, and/or managed retreat. Societal exposure to coastal-flood hazards due to the various storm and SLR scenarios were estimated based on several societal indicators, including developed land, resident and employee populations, parcel values, and roads. A detailed technical description of dynamic flood modeling and geospatial exposure analyses are available in Methods.

Results

Physical Exposure. Active tectonics have produced a high-relief coastline dominated by coastal bluffs in many locations across California, providing a buffer to SLR flooding not common on passive margin settings like the U.S. East Coast. However, millions of California residents live in or immediately adjacent to low-lying coastal areas and urbanized estuaries, within several meters of present-day sea level. Along the entire study area for the open coast of California, predicted 100-year storm-driven total water levels (see Fig. 1) under present-day conditions average 4.0 m ± 2.8 m (2 standard deviation range, 95%) above MSL (maximum value = 12.6 m). Within the largest estuary, San Francisco Bay, in which waves are much smaller than the open coast, the 100-year water levels average 1.8 m ± 0.8 m (maximum 3.4 m) above MSL. These vulnerable coastal settings often contain important infrastructure, such as airports and ports, which are shown here to be vulnerable to future SLR and extreme storm conditions (Fig. 3).

Many low-lying, exposed coastal areas are currently protected by levees or other defenses designed to withstand historical storm conditions. However, these defenses provide marginal protection against SLR and even less protection against the combined effects of storms and SLR, as most were designed without allowances for future conditions[26]. Our results demonstrate that many sensitive areas may be overwhelmed during storm conditions combined with small amounts of SLR expected within just a few decades (Fig. 4, Supplementary Fig. 2).

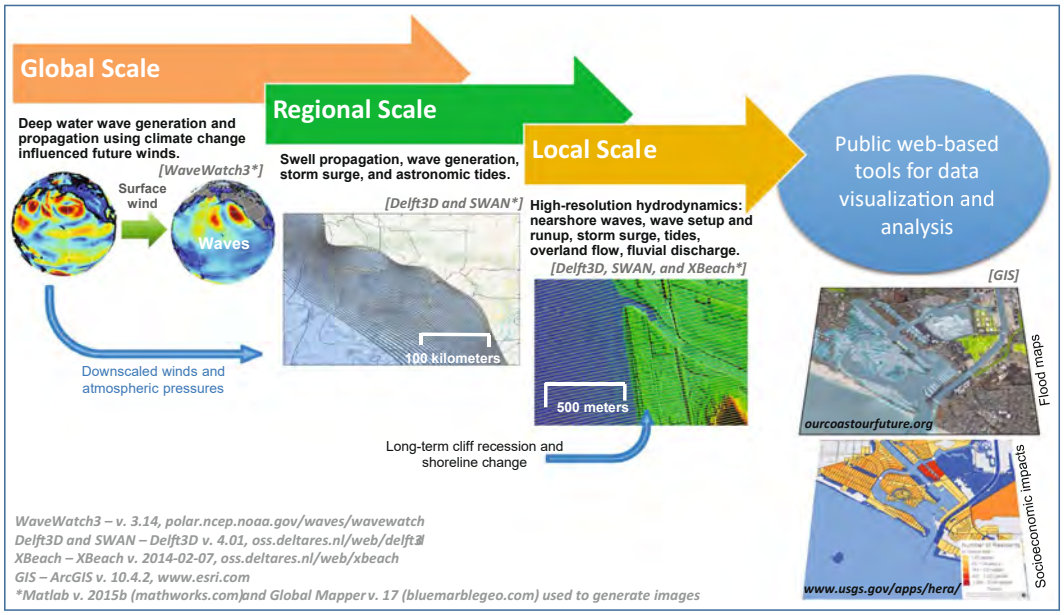


Figure 2. Coastal Storm Modeling System (CoSMoS) workflow. CoSMoS features a series of coupled numerical models that translates the physical forcing derived from Global Climate Models into local coastal flood projections, incorporating sea level rise, tides, seasonal effects, storm surge, fluvial discharge, and waves, as well as short- and long-term coastal change. The hybrid numerical-statistical model is used to develop continuous time-series of total water levels at the shore using a linear superposition of wave runup (maximum excursion that waves reach onshore), storm surge, and sea levels, in contrast to the numerically modeled flood maps which simulate non-linear interactions between changing water depths and waves. For more information on the CoSMoS framework see the Methods section and Supplementary Fig. 1. Figure modified from O'Neill *et al.*[61]. Software citations: WaveWatch3 – v. 3.14, polar.ncep.noaa.gov/waves/wavewatch; Delft3D and SWAN – Delft3D v. 4.01, oss.deltares.nl/web/delft3d with Matlab v. 2015b (mathworks.com) and Global Mapper v. 17 (bluemarblegeo.com) used to generate images.

Across the study area, 1.00–2.00 m of SLR is projected to permanently inundate 670–990 km^2 of land (flood potential/uncertainty range = 430–1,220 km^2), and an additional 15–19% of land would be flooded during a 100-year storm (Fig. 5). However, for the 0.25 m and 0.50 m SLR scenarios, 48% and 32% more land, respectively, would be projected to flood during the 20-year storm compared to that inundated solely by SLR. During the 100-year storm, 77% and 41% more land would be flooded compared to SLR alone. Based on current SLR trajectories and the latest regional SLR projections for California, intermediate scenarios suggest 0.25 m and 0.50 m of SLR may be reached by the 2040 s and 2060 s, respectively[9].

Projections of long-term coastal change driven by a 21st century total water level time series including each of the SLR scenarios are integrated into the coastal flooding scenarios across the most populated part of the state, southern California (17 million coastal residents, 71% of total study area) (Supplementary Data, Supplementary Fig. 3). By 2100, 1.00–2.00 m of SLR would result in an average projected beach loss of 26–41 m across this portion of the study area (95% confidence range = −11 to 93 m), completely eroding up to 67% of the beaches[27]. Bluff retreat projections by 2100 are 19–30 m for SLR ranging from 1.00–2.00 m (95% confidence range = 13 to 38 m), with an increase in retreat rates of 180% for the 2.00 m SLR scenario as compared to the historical rates in southern California[28]. Lower SLR scenarios result in less but not insignificant erosion: for example, 0.50 m of SLR results in 14 m of beach loss and 11 m of cliff retreat. An additional 17–36 m of beach erosion is predicted during the storm simulations (Supplementary Fig. 3). These model projections assume existing shoreline infrastructure remains in place.

Socioeconomic Exposure. Translated to socioeconomic impacts, 0.25–2.00 m of SLR alone (no storm) equates to the flooding exposure of between 37,000–406,000 residents (uncertainty range = 23,000 to 729,000 residents) and 13,000–357,000 employees (uncertainty range = 7,000 to 593,000 employees) (Fig. 5, Supplementary Data). However, with the addition of a 100-year storm to 0.25–2.00 m of SLR, these values increase to 155,000–612,000 residents (uncertainty range = 95,000 to 1,017,000 residents) and 86,000–534,000 employees (uncertainty range = 43,000 to 798,000 employees). For 0.25 m of SLR, the 100 year-storm compared to the no-storm scenario increases the residents and employees at risk by 322% and 576%, respectively, and 51% and 50% for the 2.00 m SLR scenario. While the percentages are smaller at the higher rates of SLR, the absolute number of population affected and economic impacts is far greater than for the lower SLR rates (Fig. 6). The relative increases in population exposure when including dynamic water level components from the annual to 100-year storms are 16–67% for 0.50 m SLR, 16–54% for 1.00 m SLR, and 19–51% for 2.00 m SLR.

The value of property in flood hazard zones due solely to SLR ranges from $8 billion for 0.25 m of SLR to $103 billion for 2.00 m of SLR (uncertainty range = $4 billion to $166 billion), but increases from $32–154

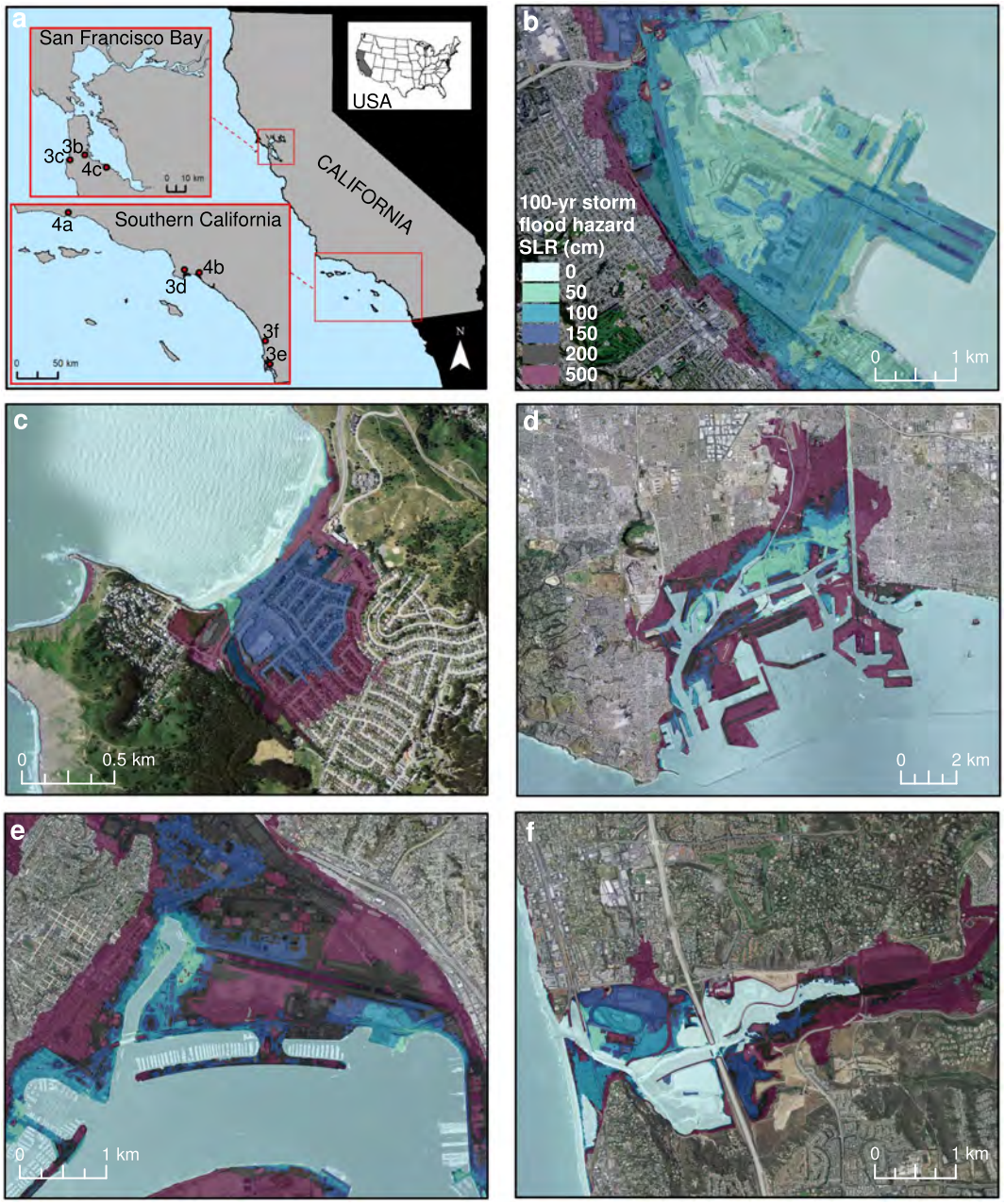


Figure 3. Study area and coastal flooding examples due to an extreme storm. (**a**) Study area for CoSMoS with insets. Examples of modeled flood extents for the 100-year coastal storm in combination with 0, 0.50, 1.00, 1.50, 2.00 and 5.00 m of SLR: (**b**) San Francisco International Airport, (**c**) City of Pacifica, (**d**) Port of Los Angeles and Port of Long Beach, (**e**) Port of San Diego and San Diego International Airport, and (**f**) City of Del Mar. (Figure generated using ArcGIS v. 10.4.2, www.esri.com. Local basemaps from http://services.arcgisonline.com/arcgis/services, World_Terrain_Base and ESRI_Imagery_World_2D, accessed 2 Oct 2018).

billion when considering the 100-year storm (uncertainty range = $18 billion to $210 billion). The consideration of storm conditions in the dynamic flood projections results in an approximately 4-fold increase (283%) in property exposure for the 0.25 m SLR and 100-year storm scenario. As was the case with other socioeconomic factors, these relative increases are substantially lower for higher SLR scenarios: property value exposure for 2.00 m of SLR and a 100-year storm is only 50% higher than a SLR-only scenario, though the net value of property is much higher with the higher rates of SLR (e.g. +$51 billion for 2.00 m SLR vs +$24 billion for 0.25 m SLR). Similar trends related to changes in hazard exposure due to the inclusion of storm scenarios were also observed for roads and developed land (Figs. 5,6). Here in the results we mainly present the impacts associated with median flood projections, and only the full uncertainty/flood potential range in select instances, but the range for each of the socioeconomic metrics is provided in the

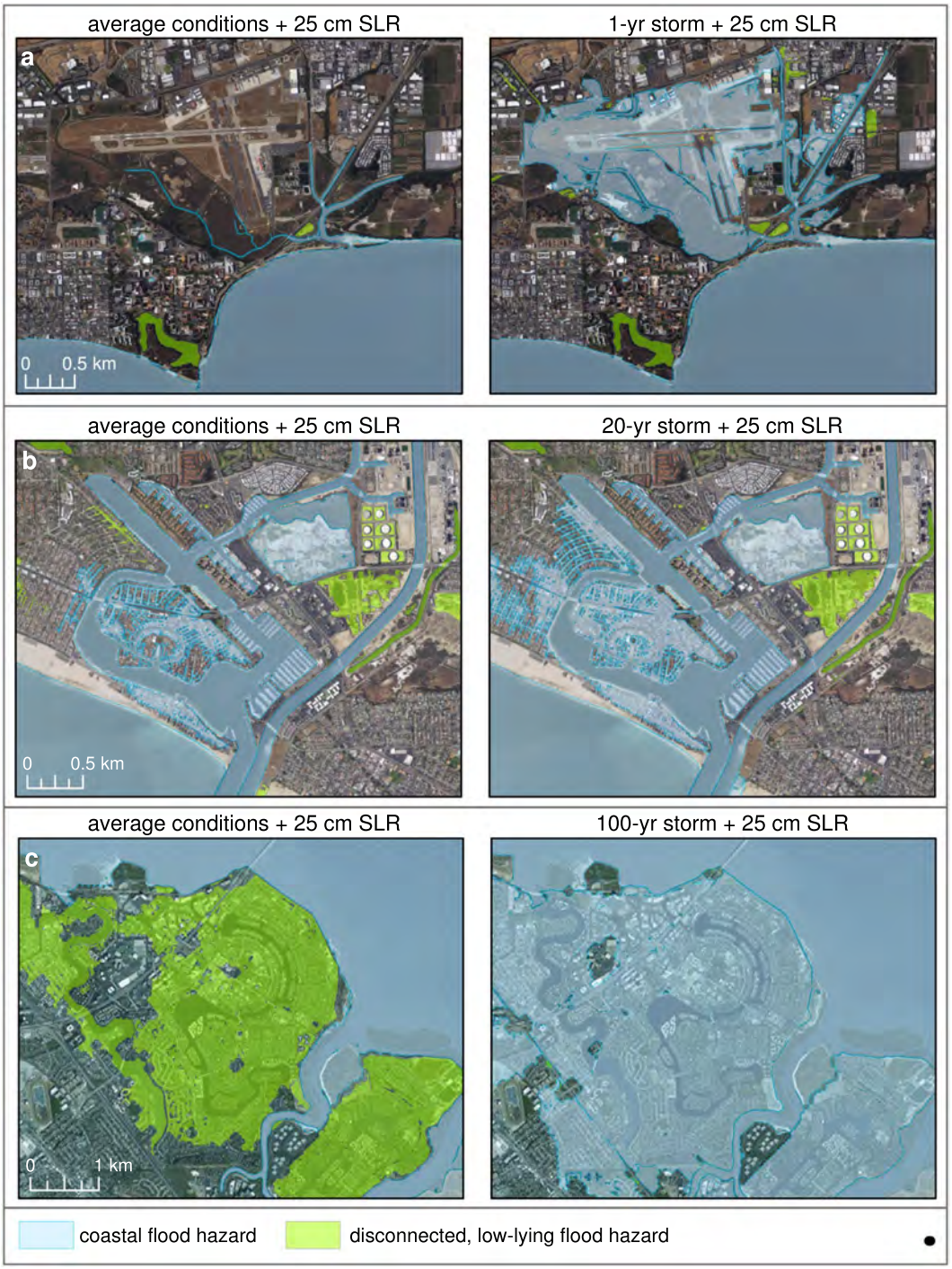


Figure 4. Examples of coastal flooding with 0.25 m of sea level rise and storms. These examples illustrate that there are locations with significant flood risks for small amounts of sea level rise when storms are considered. The left hand series of panels depicts projected coastal flood extent during average conditions (i.e. daily/background conditions with spring tide), and the right side select storm scenarios: (**a**) Santa Barbara Municipal Airport, (**b**) Alamitos Bay, Long Beach, and (**c**) Foster City. See Fig. 3 for locations. "Disconnected, low-lying flood hazard" designates areas that are below the flood elevation surface but are not hydraulically connected to the flooding due to a flow impediment (e.g. levee), and therefore subject to flooding should the flood barrier fail. See Supplementary Fig. 2 to see the uncertainty range for each of the scenarios. (Figure generated using ArcGIS v. 10.4.2, www.esri.com. Local basemaps from http://services.arcgisonline.com/arcgis/services, World_Terrain_Base and ESRI_Imagery_World_2D, accessed 2 Oct 2018).

Supplementary Data. This analysis takes into account the range in potential flood exposure related to the uncertainty of the underlying elevation data, model accuracy for prediction of total water levels, and vertical land motion (see Methods for more information).

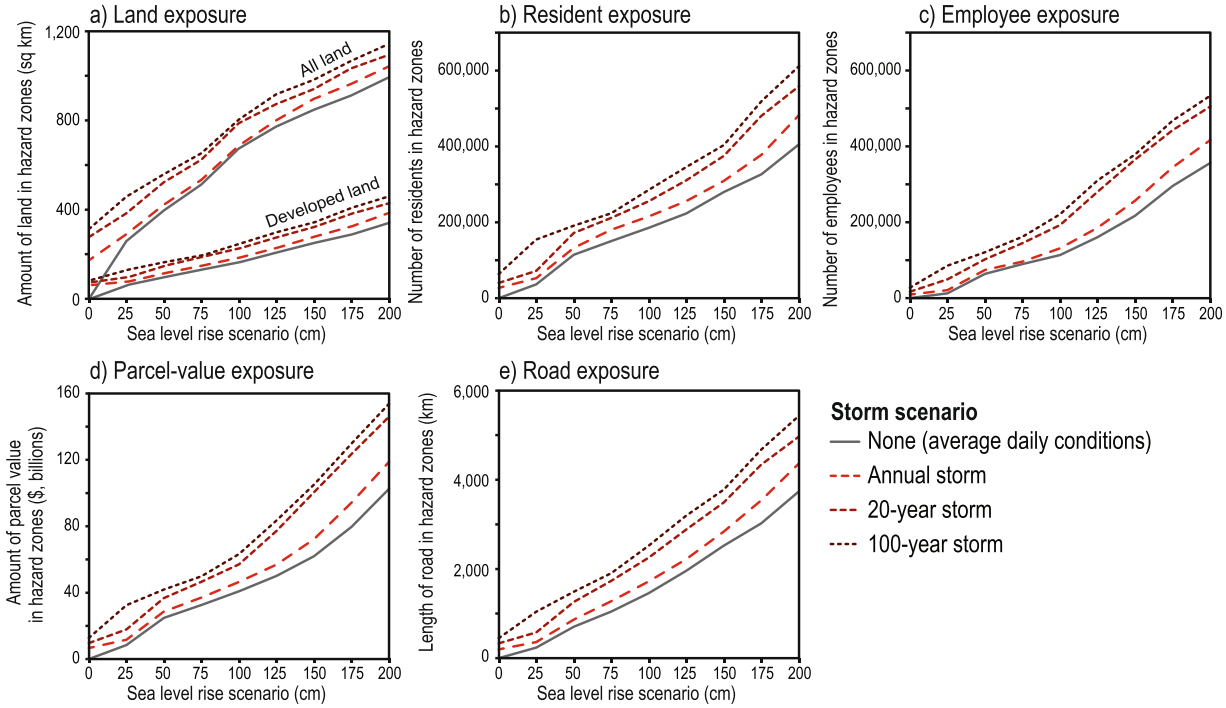


Figure 5. Absolute changes in exposure to coastal-flooding hazards. Absolute changes in flooding exposure based on variations in sea level rise and storm scenarios for: (**a**) land, (**b**) residents, (**c**) employees, (**d**) parcel value, and (**e**) roads for the California study area. All values are in 2010 U.S. dollars.

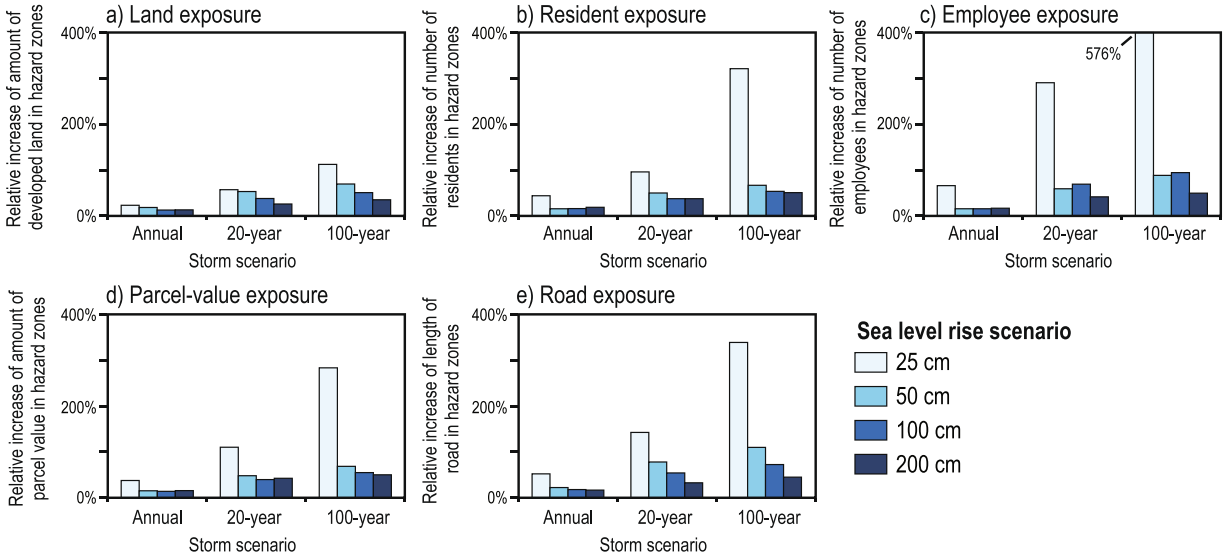


Figure 6. Relative changes in exposure to coastal-flooding hazards. Relative changes in flooding exposure based on variations in sea level rise and storm scenarios for: (**a**) land, (**b**) residents, (**c**) employees, (**d**) parcel value, and (**e**) roads for the California study area. Percentages note relative increases in exposure due to the inclusion of storm conditions compared to hazard exposure based solely on select sea level rise scenarios (i.e. 0.25 m, 0.50 m, 1.00 m, and 2.00 m). These estimates are based on present-day socioeconomic and land use conditions, and do not account for future economic growth, coastal development patterns, climate change mitigation measures, etc.

Discussion

For the vast majority of the urbanized coast of California, the inclusion of storms in coastal flooding projections – in combination with the range of SLR expected by 2100 (i.e. 0.50 to 2.00 m) – increases population and property exposure from 16% for the annual storm to 57% for the 100-year storm compared to the no-storm scenarios (i.e. average daily conditions, including tides, waves and long-term coastal change) (Fig. 6). More than 600,000 people

and $150 billion (2010 dollars) are at risk for the 2.00 m SLR + 100-year storm scenario. When factoring in coastal population trends[18] this extreme scenario could equate to over 3 million residents at risk across the state by 2100. Excluding speculation about future population trends, these projected flood impacts represent 1.6% of the current California population and 6.3% of the state's GDP, despite only directly affecting 0.3% of the state's land area. This reflects the disproportionate density of the coastal population (5 times higher) and concentration of coastal property value (20 times higher). However, this example only estimates exposure from a single extreme, 100-year storm: under the same SLR scenario of 2.00 m, the recurring annual storm, which is more relevant to emergency response planning, is estimated to expose 483,000 residents (based on 2010 census data) and $119 billion (2010 dollars) in property by 2100. The economic impacts of projected future coastal flooding in California are of the same order of magnitude as estimates (all in 2010 dollars) from two of the costliest recent natural disasters in the world, the Tōhoku Earthquake and Tsunami ($325 billion)[29] and Hurricane Katrina ($127 billion)[30], and an order of magnitude higher than the most costly natural disasters in California history, the 1989 Loma Prieta Earthquake ($10 billion)[31] and the 2017 Wildfire Season ($18 billion)[30]. A future hypothetical but scientifically-plausible megastorm, the ARkStorm, which was modeled to approximate the historic flooding in 1861-62, would cause catastrophic inland flooding across California and property damage of over $300 billion[32]. This comparison suggests to policy makers that future coastal flooding due to storms and sea level rise must be considered an economic threat on par with the state's and world's most costly historical natural disasters.

Furthermore, the alarming scale of these impacts does not account for the ripple effects such extreme events have across economic sectors such as those related to closures of ports, disruption of transport of goods and services, business closures, and impairment of utilities both today and into the future[33,34]. As demonstrated by the impact of severe storms throughout the Gulf Coast and Caribbean in 2017, these disruptions impact critical lifeline services (e.g. water, power, sewage, public health, transportation, fuel and communication) essential for public safety and community stability. Indeed, the US Department of Defense (DoD) identified climate change, and its ensuing impacts, as a potential "threat multiplier" that puts geopolitical stability at risk globally[35].

The cost of adaptation can be high, particularly for the ports, which are a critical part of the economy; for instance, the Ports of Los Angeles and Long Beach alone handle $478 billion in cargo annually (3% of national GDP) and support 2.8 million jobs across the United States (2 out of every 100 jobs, including 1 in 9 in the greater Los Angeles area)[36,37]. The cost to elevate and retrofit the major commercial ports of California (i.e. San Diego, Los Angeles/Long Beach, and San Francisco) to adapt to 2.00 m of SLR is $9–12 billion[38]. Equally, local impacts along the California coast can have cascading economic impacts both nationally and globally[33,34]. Beyond the potential physical impacts to the port terminals and harbors that could impact the U.S.'s ability to accept imports, coastal flooding and erosion will impact rail lines and roads exiting the ports, disrupting the movement of goods out of ports to other regions throughout the U.S.[39]. Hence, targeted adaptation efforts will be critical to ensuring economic continuity in a changing climate.

Along the vulnerable shoreline of San Francisco Bay, which accounts for two-thirds of the flooding impacts projected for California, building defenses to withstand 2.00 m of SLR and a 100-year storm could cost up to $450 billion, almost twice the cost of defending against SLR alone[40]. There is also a non-linear increase in costs to defend against the higher SLR projections, as costs are approximately 3-4 times higher for the 2.00 m SLR scenario as compared to the 1.00 m scenario. This highlights the need for the continual effort of scientists to improve estimates of 21st century SLR curves.

Previous efforts to characterize coastal impacts from climate change often focus on high SLR assumptions on the order of 1-2 m[18] that are most likely expected around the end of the century. In our study area, under the most extreme SLR projection, 1 m of SLR could arrive as soon as 2060 (ref.[9]). However, there is greater confidence that 0.25 m of SLR will be reached by ~2040. Our work here shows that an extreme storm (i.e. 100-year storm) in combination with even this relatively low amount of SLR would cause substantial flooding that would directly affect over 150,000 residents and $30 billion in property in California, a 4-fold increase over the impacts projected by only SLR.

Notably, for any of the socioeconomic factors, the relative increase in storm-related flooding exposure under the lower SLR scenarios is greater than at the higher SLR scenarios, as storm driven water levels represent a larger percentage of the total water level in the former case. For instance, there is a nearly 7-fold increase (576%) in the number of employees exposed to flooding with 0.25 m of SLR at the 100-year storm versus no storm; this is in comparison to only a 50% increase at 2.00 m of SLR. Similarly, with only 0.25 m of SLR projected to occur by ~2040, the number of residents exposed to flooding from an annual storm is expected to double compared to year 2000, and increase five-fold for 0.5 m of SLR. Although the net number of people impacted with 0.25 m of SLR is less than those impacted with 2.00 m of SLR, emergency managers do not currently plan for increases of this magnitude. Local hazard mitigation plans – the main planning documents that outline a municipality's strategies to reduce risk to natural and man-made hazards – generally only forecast out 25–30 years (with updates every 5 years) and until recently have generally been based on historical and current day exposure. Although there are examples of emergency managers in California that are incorporating projections of the 100-year storm in tandem with SLR[41,42], many still do not and they therefore underestimate their community's risk, particularly under low rates of SLR.

Compared to an earlier study for California that only accounted for SLR and tidal flooding on a static coastline[18], the addition of long-term coastal change (which for this summary was only completed for the southern California study area) modeled here produces twice the population at risk when comparing similar 2100 SLR scenarios with no storm (i.e. 0.90 in the prior publication vs 1.00 m in this study, and 1.80 vs 2.00 m). Including dynamic water levels and storm-driven beach erosion for the 100-year storm with long-term coastal change for both the 1.00 m and 2.00 m SLR scenarios tripled population risk compared to the prior study. This suggests that first-order studies of climate impacts that do not account for dynamic water levels and shifting coastlines may vastly underestimate hazard risks to coastal populations over the next century. Further, the application to

California described herein is for a relatively high-relief coast, but the additional exposure due to storms and coastal change could be far greater for low-lying coastal settings that are already highly susceptible to coastal flooding due to SLR, such as the majority of coastal megacities[43] and island nations[44]. Therefore, to better assess the true risk of climate change to global coastal communities, a dynamic approach should be applied that projects long-term beach and cliff evolution and integrates those changes with a plausible range of SLR and storm scenarios.

The importance of dynamic modeling is further illustrated when considering non-linear feedbacks and non-stationarity of the physical drivers of extreme water levels (e.g., tides, surge, and waves), particularly in shallow estuaries and open coastal settings. For example, in San Francisco Bay over the 20th Century, the Mean Higher High Water tidal datum rose 26 cm, outpacing mean sea level rise by ~16%[45]. In addition, recent hydrodynamic modeling in San Francisco Bay indicates that measureable tidal amplification occurs on the order of ~5 cm if present-day shorelines are maintained and up to ~30 cm if seawalls are built in the future for 1 m of SLR, whereas dampening of up to ~10 cm could occur by allowing flooding into intertidal regions that would serve as energy-absorbing sinks[46,47]. At broader scales, observations at over 150 tide gauges across the Pacific Basin show a significant correlation between SLR and tidal extremes[48], and therefore the non-stationarity of tides and non-linear feedbacks within tidal basins needs to be considered in the modeling of future extreme water levels.

Along the open coast, a common practice is the linear superposition of extreme water level components to assess coastal hazard risk and establish coastal protection design requirements. However, shallow coastal areas are extremely sensitive to non-linear feedbacks between SLR and waves in particular due to an increase in shelf and nearshore water depth and a correlative reduction in frictional dampening that can also affect tides and surge[49]. Therefore, a dynamic modeling approach that includes morphodynamic response, depth-limited breaking, and wave-current interaction, as described in this manuscript, is essential to capture those non-linear feedbacks and properly assess future coastal hazard risk.

Study limitations and future work. The CoSMoS modeling system is a comprehensive, physics-based approach for determining coastal flood exposure in dynamic, high-energy open coastal and estuarine environments. While the scientific approach has been heavily vetted[27,28,50–61], like any model it is imperfect, with key limitations, a few of which are discussed here. First, the wave climate and derivation of future storm conditions is based on a series of four GCMs from the CMIP5 suite of models[22] and 2 Representative Concentration Pathways (RCP) scenarios (4.5 and 8.5) that project atmospheric conditions to 2100. While we have tested and utilize GCMs that yield the best results compared to observations of wind, pressure and waves for the California coast during the hindcast period, past fidelity does not guarantee future performance. Each of over 40 commonly used GCMs provides but one possible realization of the future climate based on unique internal model physics and an assumed emissions trajectory. Therefore, the accuracy of the wave and storm climate derived from each realization is highly uncertain and difficult to quantify. Further, unlike tropical cyclones which are not resolved, the representation of the El Niño Southern Oscillation (ENSO) in CMIP5 GCMs has advanced but projections of the magnitude and frequency of future end member events, El Niño and La Niña, varies widely across GCMs[62–66]. The precise 21st century behavior of ENSO, which is the dominant control on short-term climate variability and coastal hazards across the Pacific Basin[67], will play a significant role in the timing and frequency of extreme flooding events when coupled with SLR. In addition to eustatic SLR, the uncertain future evolution of the time-varying spatial distribution of sea level across the Pacific Basin due to factors such as ENSO[68] and the Pacific Decadal Oscillation[69] will also contribute to local coastal hazard risk. Future work in leveraging the new CMIP6 suite of models may provide a more accurate representation of 21st century climate variability and storm conditions, and continued advances in computational efficiency and ensemble projections can utilize a larger volume of models and RCP scenarios in developing wave climates and uncertainty estimates. Similarly, atmospheric rivers (ARs)[70] are poorly resolved in the older generation of GCMs due to their narrow width (~100 km), and while not associated with extreme wave conditions they do account for 15–50% of annual storm surge maxima along the U.S. West Coast[71]. Therefore, the effect of ARs on flooding in estuaries (in particular San Francisco Bay) where storm surge is a larger component of extreme water levels, may be underrepresented. A current limitation of CoSMoS is also its coupling with fluvial discharge, which is currently done via a 1-D, one-way coupling, where discharge rates are determined based on an empirical relationship between atmospheric conditions and discharge data, where it exists[58,61]. A dynamic coupling with a watershed-based model that incorporates fluvial and coastal current interaction, wave and surge penetration, locally-downscaled future precipitation trends from GCMs and time-dependent factors that influence flow rates such as seasonal precipitation and soil conditions would surely improve flooding projections in these locations.

Communities along estuaries are highly vulnerable to present-day and future coastal flooding, with the low-lying San Francisco Bay Area accounting for two-thirds of socioeconomic impacts across California in this study. These communities are protected by hundreds of kilometers of levees, but while they are assumed in our modeling approach to be stable, the engineering integrity of most of these structures is poorly understood. The same follows for coastal protection infrastructure (e.g. revetments, sea walls, berms) across the state in smaller estuaries and on the open coast. There is no accommodation for the potential failure of these structures when stressed by future flooding events, yet some will undoubtedly fail and expose more residents and assets to flooding than estimated here. Future work would benefit from a thorough engineering analysis of the potential for flood protection structure failures. In addition, there are other flood protection structures and flow conduits important to local coastal flooding patterns that are typically beyond the resolution of this modeling approach, such as tide gates, culverts, sewage outflows, and narrow sea walls. Greater computational power and sub-grid resolution modeling in future work will enable hydrodynamic models to resolve more of the important, small-scale topographic features that control flooding.

Finally, a more robust assessment of uncertainty is a major challenge and need for future work to provide stakeholders with the most accurate coastal hazards risk assessments possible. Presently, the flood exposure uncertainty is based on just a few, easily quantifiable parameters: topographic data elevation accuracy, model skill in predicting water levels at tide gauges during hindcasts, and projections of vertical land motion based on models and recent observations (see Methods). However, there are many other sources of uncertainty that directly affect the modeling results, including the future wave climate, ENSO variability, model skill in deep-water wave transformation to the nearshore (especially wave height and direction), beach morphology (especially slope), wave set-up and run-up, long-term coastal change, timing of storm during the tidal cycle, etc. Whereas state-of-the-science tools have been used to simulate these processes in the research described herein, highly accurate representations of future conditions remain a challenge. Uncertainty in the coastal change projections has been determined (see Supplementary Data) but not carried through to the storm scenarios runs due to computation expense. Socioeconomic impacts are based only on the flood uncertainty, but those figures have their own inherent uncertainty based on present-day data limitations. Including estimates of future population trends, land use patterns, and economic conditions would be optimal, but further add to the complexity of the uncertainty analysis. In short, while CoSMoS accounts for the primary physical processes that contribute to future coastal flooding, there are a series of research paths that could be pursued to improve model performance and uncertainty analysis, enabling end-users to make more informed coastal management and climate adaptation decisions.

Methods

CoSMoS modeling framework. To address the non-stationarity of the future wave climate, global wind fields from four GCMs, driven by 21st century climate change scenarios derived from the Coupled Model Intercomparison Project Phase 5 (ref.[22]), are fed into the WAVEWATCH III (WWIII)[72] global wave model (Supplementary Fig. 1). A higher resolution Eastern North Pacific WWIII model is nested within the global WWIII model to produce 21st century wave conditions at the edge of the continental shelf driven by winds from a single GCM (i.e. GFDL-ESM2M) and the RCP 4.5 climate scenario[51]. Regional wave conditions for individual storm events identified *a priori* (see following sections on identifying storm events) are then fed into nested, higher resolution SWAN[73] wave models that dynamically downscale both swell waves from the WWIII model and wave growth due to winds across the shelf to shore. Coupled to these wave models are a series of nested DELFT3D-FLOW[74] hydrodynamic models that downscale the astronomic tides, seasonal water-level anomalies, storm surge and local river discharge from downscaled atmospheric pressure and wind fields[56,75] across the shelf and at the coast. Grids at a resolution of ~10–20 m simulate overland flows in complex coastal settings, such as along the margins of estuaries, harbors and river mouths. Along the exposed open coast, XBeach[76] profile models, with a cross-shore resolution of 5 m at the shore, are applied every 100–200 m in the alongshore direction to simulate event-driven shoreline change, wave set-up, and swash (i.e. run-up). In contrast to SWAN, the XBeach model computes wave set-up and swash from both incident and infragravity wave energy, the latter which is a dominant component of storm-driven water levels on dissipative beaches[12]. Open boundary conditions for the XBeach models consist of time-varying Jonswap wave spectra and variations in water level due to tides, storm surge, and sea level anomalies extracted from the SWAN and DELFT3D-FLOW models along the 10 to 15 m depth contour. To include appropriate river discharge that may occur during the coastal storm events, river discharge rates are estimated from the atmospheric pattern in a given storm event and are included as point source discharges in the DELFT3D-FLOW model[58,61]. Predicted flood levels are interpolated onto regularly-spaced grids and subtracted by a 2-m resolution digital elevation model (DEM) to isolate areas that are not hydraulically linked to the ocean but were incorrectly flooded in the coarser-resolution numerical model. The DEMs were developed using nearshore multibeam bathymetry soundings and topographic LiDAR (Light Detection and Ranging) data[77], providing a seamless elevation surface for the numerical hydrodynamic flood models. The DEMs also provide the initial geomorphic conditions for the long-term coastal change models (described below) that are integrated into the flood projections.

The computational expense of the full CoSMoS modeling system (coupled WWIII-SWAN-Delft3D-XBeach) prevents the generation of a continuous 21st century time-series for the entire region, and therefore a proxy approach was developed to identify storm scenarios that were subsequently simulated in full detail with the CoSMoS system[59]. A total water level time-series with three-hour resolution were first computed at thousands of individual points along the coast every ~100 meters by assuming a linear superposition (simple adding, not accounting for non-linear interactions) of the primary storm-driven water levels at the shore, i.e. storm surge, sea level anomalies, and wave-run-up. Empirical models were used to estimate storm surge, sea level, and wave runup levels[12,59]. Annual, 20-year, and 100-year return period storms were then identified from each of the 100-year long total water level time-series spanning the 21st century by identifying peak events at least 3 days apart and ranking these events. Space and time-varying swell waves (from the WWIII model) and downscaled atmospheric wind and pressure fields associated with each identified storm event were then used as boundary conditions to drive the full CoSMoS model system and simulate individual storms.

Two newly-developed, data-driven models were used to simulate long-term cliff retreat[28] and sandy beach evolution[27] at ~5000 cross-shore transects spaced every 100 m along the southern California coast. Coastal cliff retreat is projected using a multi-model ensemble that includes vertically-discretized cross-shore models[78–80], as well as empirical and statistical models that scale wave forcing and SLR to time-averaged cliff edge retreat rates[81–83]. At each transect, the ensemble gives preference to models that show less sensitivity to variations in model parameters based on the standard deviation during Monte Carlo simulations, and then weights projection uncertainty proportionally with the difference between individual model results (i.e. how well the ensemble reaches a consensus)[28]. The CoSMoS-COAST shoreline change model[27] combines three process-based models to compute sandy beach change: (1) wave-driven longshore transport[52], (2) cross-shore transport due to waves[84],

and (3) cross-shore transport due to SLR[85]. Both the cliff and sandy shoreline change models use historical shoreline positions, hindcast nearshore wave conditions (wave height, period, and direction), and an adaptive data assimilation scheme to calibrate a suite of equations and develop relationships between wave forcing parameters and geomorphic change at each model location. To drive both cliff retreat and shoreline model projections, continuous time-series of projected nearshore waves[53] and water levels[54] through the 21st century, combined with different sea-level rise rates, are used through the year 2100. This is the same total water level proxy that is used to identify storm events[59]. The two models provide time-varying sandy shoreline (mean high water [MHW] line) and cliff positions (cliff edge) that are subsequently used to evolve cross-shore profiles[55] extracted from the originating high-resolution DEM; evolved profiles are used in scenarios that incorporate future SLR and storms using full model physics of the CoSMoS flood model described above. A summary of the coastal change results is shown in Supplementary Data and Supplementary Fig. 3.

The suite of model projections includes flood extent, depth, duration, uncertainty, water elevation, wave run-up, maximum wave height, maximum current velocity, and long-term shoreline change and bluff retreat. Uncertainty in the system is represented by a vertical offset value calculated by combining the root-mean-square errors between modeled and measured total water levels (from tide gauges during historical storms), the accuracy of the elevation data used to develop the DEM ($\pm$18 cm), and vertical land motion as derived from Interferometric Synthetic Aperture Data[86], GPS data, and/or statistical and physical wetland[87] and tectonic models[88] (variable per scenario). While models compared favorably to regional observation stations (*rmsd* and *bias* $<$6 cm)[61] for tested conditions, model uncertainty is represented by a larger value ($\pm$50 cm) to address the limited number of tested observations compared to the size and complexity of the region. This total system uncertainty in the CoSMoS framework is used to produce spatially-varying flood potential for each scenario (maximum/minimum flood extent given total uncertainty), providing amplifying information on potential vulnerability. More detailed information on the CoSMoS methods can be found in these references[27,28,50–61].

Physical exposure web tool. The model results are freely available for download from a public server[89]; however, this static repository of 100 s of gigabytes of high-resolution data is ineffective for public engagement and community use. To better communicate impacts to the variety of community stakeholders reliant on this project, physical exposure results from the 40 scenarios are served up on a public-facing, interactive web tool, Our Coast, Our Future (OCOF)[23]. The OCOF web tool provides coastal managers and the general public a user-friendly means to visualize how future scenarios of coastal flooding will impact local roads, property, businesses and critical utilities. Users can also export informational tables and reports detailing changes in flood extent by scenario on a scale relevant to local planners. Because CoSMoS does not estimate when a scenario will occur, the OCOF tool provides users an interactive comparison of California state guidance and other best available estimates to consider when levels of SLR are expected to happen.

Societal exposure to flood hazards. Societal flood exposure was estimated based on the geospatial analysis of CoSMoS hazard zones (Supplementary Fig. 4) and various socioeconomic indicators (Supplementary Data). All data sources and supporting references are fully summarized here[24,25]. In short, residential population is based on counts in 2010 Census block data and employee locations and counts are from the 2012 Infogroup Employer Database. Total assessed parcel values, including improvements and land, were obtained from individual county tax assessor offices. Land cover comes from 30-m resolution data of the 2011 National Land Cover Database. Road data were obtained from the Homeland Security Infrastructure Program. Polygons (e.g. census block, parcel values) that partially overlap hazard zones were taken into account during analysis and final values were adjusted proportionately. Ranges in socioeconomic indicators due to modeling uncertainty are displayed both spatially and graphically in the web application, and summarized in the Supplementary Data. Exposure estimates are based on current socioeconomic data and not future projections[18] due to the high amount of existing development already in hazard zones along the California coastline and the possibility that future growth patterns may vary from historical trends as water levels rise in coming decades. Realistic projections of future urban growth would require local understanding of risk tolerance and carrying capacity for additional growth in hazard zones, which were considered outside the scope of this analysis.

Code availability. The models and software tools used to generate the results for this project are available upon request from the corresponding author.

Data Availability

The model projections used in the production of this manuscript are available at the USGS *Science Base* website (https://doi.org/10.5066/F7T151Q4) and also served up and downloadable via the *Our Coast, Our Future* interactive web tool (https://www.ourcoastourfuture.org). The socioeconomic projections are available and downloadable via the interactive *Hazard Exposure Reporting and Analytics (HERA)* web tool (https://www.usgs.gov/apps/hera/). Any additional datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

References

1. Merkens, J.-L., Reimann, L., Hinkel, J. & Vafeidis, A. T. Gridded population projections for the coastal zone under the Shared Socioeconomic Pathways. *Global Planet. Change* **145**, 57–66 (2016).
2. Dangendorf, S. *et al*. Reassessment of 20th century global mean sea level rise. *P. Natl. Acad. Sci.* **114**, 5946–5951 (2017).
3. Kopp, R. E. *et al*. Probabilistic 21st and 22nd century sea-level projections at a global network of tide-gauge sites. *Earth's Future* **2**, 383–406 (2014).
4. Le Bars, D., Drijfhout, S. & de Vries, H. A. high-end sea level rise probabilistic projection including rapid Antarctic ice sheet mass loss. *Environ. Res. Lett.* **12**, 1–10 (2017).

5. Diaz, D. B. Estimating global damages from sea level rise with the Coastal Impact and Adaptation Model (CIAM). *Climatic Change* **137**, 143–156 (2016).
6. Banwell, A. F., MacAyeal, D. R. & Sergienko, O. V. Breakup of the Larsen B Ice Shelf triggered by chain reaction drainage of supraglacial lakes. *Geophys. Res. Lett.* **40**, 5872–5876 (2013).
7. Rignot, E., Mouginot, J., Morlighem, M., Seroussi, H. & Scheuchl, B. Widespread, rapid grounding line retreat of Pine Island, Thwaites, Smith, and Kohler glaciers, West Antarctica, from 1992 to 2011. *Geophys. Res. Lett.* **41**, 3502–3509 (2014).
8. DeConto, R. M. & Pollard, D. Contribution of Antarctica to past and future sea-level rise. *Nature* **531**, 591–597 (2016).
9. Sweet, W. V. *et al*. Global and regional sea level rise scenarios for the United States. NOAA Technical Report NOS CO-OPS 083, NOAA/NOS Center for Operational Oceanographic Products and Services (2017).
10. Caldwell, P. C., Vitousek, S. & Aucan, J. P. Frequency and duration of coinciding high surf and tides along the North Shore of Oahu, Hawaii, 1981–2007. *J. Coastal Res.* **25**, 734–743 (2009).
11. Cid, A., Camus, P., Castanedo, S., Méndez, F. J. & Medina, R. Global reconstructed daily surge levels from the 20th Century reanalysis (1871-2010). *Global Planet. Change* **148**, 9–21 (2017).
12. Stockdon, H. F., Holman, R. A., Howd, P. A. & Sallenger, A. H. Jr. Empirical parameterization of setup, swash, and runup. *Coast. Eng.* **53**, 573–588 (2006).
13. Ikeuchi, H. *et al*. Compound simulation of fluvial floods and storm surges in a global coupled river-coast flood model: model development and its application to 2007 Cyclone Sidr in Bangladesh. *J. Adv. Model. Earth Syst.* **9**, 1847–1862 (2017).
14. Barnard, P. L. *et al*. Extreme oceanographic forcing and coastal response due to the 2015-2016 El Niño. *Nat. Commun.* **8**, 1–8 (2017).
15. Vitousek, S. *et al*. Doubling of coastal flooding frequency within decades due to sea-level rise. *Sci. Rep.* **7**, 1–9 (2017).
16. Santamaria-Aguilar, S., Arns, A. & Vafeidis, A. T. Sea-level rise impacts on the temporal and spatial variability of extreme water levels: a case study for St. Peter-Ording, Germany. *J. Geophys. Res.-Oceans* **122**, 2742–2759 (2017).
17. Marcy, D. *et al*. New mapping tool and techniques for visualizing sea level rise and coastal flooding impacts. In: Wallendorf, L. A., Jones, C., Ewing, L. & Battalio, B. (Eds), *Proceedings of the 2011 Solutions to Coastal Disasters Conference*, American Society of Civil Engineers, 474–490 (2011).
18. Hauer, M. E., Evans, J. M. & Mishra, D. R. Millions projected to be at risk from seal-level rise in the continental United States. *Nat. Clim. Change* **6**, 691–695 (2016).
19. Vafeidis, A. T. *et al*. A new global coastal database for impact and vulnerability analysis to sea-level rise. *J. Coastal Res.* **24**, 917–924 (2008).
20. Neumann, B., Vafeidis, A. T., Zimmermann, J. & Nicholls, R. J. Future coastal population growth and exposure to sea-Level rise and coastal flooding – a global assessment. *Plos One* **10**, 1–34 (2015).
21. Lentz, E. E. *et al*. Evaluation of dynamic coastal response to sea-level rise modifies inundation likelihood. *Nat. Clim. Change* **6**, 696–700 (2016).
22. Taylor, K. E., Stouffer, R. J. & Meehl, G. An overview of CMIP5 and the experiment design. *Bull. Am. Meteorol. Soc.* **93**, 485–498 (2012).
23. Point Blue Conservation Science and U. S. Geological Survey. Our Coast Our Future (OCOF). Web application, Petaluma, California. www.ourcoastourfuture.org (accessed 2 Oct 2018).
24. Jones, J. M. *et al*. Community exposure in California to coastal flooding hazards enhanced by climate change, reference year 2010. U.S. Geological Survey Data Release, https://doi.org/10.5066/F7PZ56ZD (2016).
25. Jones, J. M., Henry, K., Wood, N., Ng, P. & Jamieson, M. HERA: a dynamic web application for visualizing community exposure to flood hazards based on storm and sea level rise scenarios. *Comput. Geosci.* **109**, 124–133 (2017).
26. Sergent, P. *et al*. Adaptation of coastal structures to mean sea level rise. *La Houille Blanche* **6**, 54–61 (2014).
27. Vitousek, S., Barnard, P. L., Limber, P., Erikson, L. H. & Cole, B. A model integrating longshore and cross-shore processes for predicting long-term shoreline response to climate change. *J. Geophys. Res.-Earth* **122**, 782–806 (2017).
28. Limber, P., Barnard, P. L., Vitousek, S. & Erikson, L. H. A model ensemble for projecting multi-decadal coastal cliff retreat during the 21st century. *J. Geophys. Res.-Earth* **123**, 1566–1589 (2018).
29. Kazama, M. & Noda, T. Damage statistics (summary of the 2011 off the Pacific Coast of Tohoku Earthquake damage). *Soils and Found.* **52**, 780–792 (2012).
30. NOAA National Centers for Environmental Information (NCEI). U.S. Billion-Dollar Weather and Climate Disasters, https://www.ncdc.noaa.gov/billions/ (accessed 2 Oct 2018).
31. Stover, C. W. & Coffman, J. L. Seismicity of the United States, 1568–1989 (Revised). *U.S. Geological Survey Professional Paper* **1527**, United States Government Printing Office, 1–418 (1993).
32. Porter, K. *et al*. Overview of the ARkStorm scenario. *U.S. Geological Survey Open-File Report* **2010-1312**, 183 (2011).
33. Moser, S. C. & Finzi Hart, J. A. The long arm of climate change: societal teleconnections and the future of climate change impacts studies. *Climatic Change* **129**, 13–26 (2015).
34. Climate-Safe Infrastructure Working Group (CSIWG). Paying it forward: the path toward climate-safe infrastructure in California. *California Natural Resources Agency* CNRA-CCA4-CSI-001, 234 (2018).
35. US Department of Defense (DoD). 2014 climate change adaptation roadmap. https://www.acq.osd.mil/eie/Downloads/CCARprint_wForward_e.pdf (accessed 15 December 2017).
36. Port of Long Beach. Facts at a Glance, http://www.polb.com/about/facts.asp (accessed 2 Oct 2018).
37. Port of Los Angeles. Facts and Figures [2017], https://www.portoflosangeles.org/business/statistics/facts-and-figures (accessed 2 Oct 2018).
38. Becker, A., Hippe, A. & Mclean, E. L. Cost and materials required to retrofit US seaports in response to sea level rise: a thought exercise for climate response. *J. Mar. Sci. Eng.* **5**, 1–21 (2017).
39. Grifman, P., Hart, J., Ladwig, J., Newton, A. & Schulhof, M. Sea level rise vulnerability study for the City of Los Angeles. *Technical Report USCSG-TR-05-2013*, University of Southern California Sea Grant Program (2013).
40. Hirschfeld, D. & Hill, K. E. Choosing a future shoreline for the San Francisco Bay: strategic coastal adaptation insights from cost estimation. *J. Mar. Sci. Eng.* **5**, 1–18 (2017).
41. Tetra, T. City of Los Angeles 2017 Local Hazard Mitigation Plan. *City of Los Angeles Emergency Management Department*, 198 (2017).
42. Aerts, J. C. J. H. *et al*. Pathways to resilience: adapting to sea level rise in Los Angeles. *Ann. NY Acad. Sci.* **1427**, 1–90 (2018).
43. Hallegatte, S., Green, C., Nicholls, R. J. & Corfee-Morlot, J. Future flood losses in major coastal cities. *Nat. Clim. Change* **3**, 802–806 (2013).
44. Storlazzi, C. D., Elias, E. P. L. & Berkowitz, P. Many atolls may be uninhabitable within decades due to climate change. *Sci. Rep.* **5**, 1–9 (2015).
45. Flick, R. E., Murray, J. F. & Ewing, L. C. Trends in United States tidal datum statistics and tide range. *J. Waterw. Port C-ASCE* **129**, 155–164 (2003).
46. Holleman, R. C. & Stacey, M. T. Coupling of sea level rise, tidal amplification, and inundation. *J. Phys. Oceanogr.* **44**, 1439–1455 (2014).
47. Wang, R.-Q., Stacey, M. T., Herdman, L. M. M., Barnard, P. L. & Erikson, L. H. The influence of sea level rise on the regional interdependence of coastal infrastructure. *Earth's Future* **6**, 677–688 (2018).
48. Devlin, A. T. *et al*. Tidal variability related to sea level variability in the Pacific Ocean. *Sci. Rep.* **7**, 1–12 (2017).

49. Arns, A. *et al*. Sea-level rise induced amplification of coastal protection design heights. *Sci. Rep.* **7**, 1–9 (2017).
50. Barnard, P. L. *et al*. Development of the Coastal Storm Modeling System (CoSMoS) for predicting the impact of storms on high-energy, active-margin coasts. *Nat. Hazards* **74**, 1095–1125 (2014).
51. Erikson, L. H., Hegermiller, C. A., Barnard, P. L., Ruggiero, P. & van Ormondt, M. Projected wave conditions in the Eastern North Pacific under the influence of two CMIP5 climate scenarios. *Ocean Model.* **96**, 171–185 (2015).
52. Vitousek, S. & Barnard P. L. A nonlinear, implicit one-line model to predict long-term shoreline change. In: P. Wang, J. D. Rosati & J. Cheng (Eds.), *Coastal Sediments 2015*, World Scientific, 1–14 (2015).
53. Hegermiller, C. A. *et al*. A multimodal wave spectrum-based approach for statistical downscaling of local wave climate. *J. Phys. Oceanogr.* **47**, 375–386 (2016).
54. Erikson, L. H. *et al*. CoSMoS 3.0 Phase 2 Southern California bight: summary of data and methods. *U.S. Geological Survey*. https://doi.org/10.5066/F7T151Q4 (2017).
55. Erikson, L. H., O'Neill, A., Barnard, P. L., Vitousek, S. & Limber, P. Climate change-driven cliff and beach evolution at decadal to centennial time scales. *Coastal Dynamics 2017* Paper No. 210, 125–136 (2017).
56. O'Neill, A., Erikson, L. H. & Barnard, P. L. Downscaling wind and wave fields for 21st century coastal flood hazard projections in a region of complex terrain. *Earth Space Sci.* **4**, 314–334 (2017).
57. Erikson, L. H. *et al*. Assessing and communicating the impacts of climate change on the Southern California Coast. *California's Fourth Climate Assessment*, Report #CCCA4-CNRA-2018-013, California Natural Resources Agency, 81 (2018).
58. Erikson, L. H., O'Neill, A. C. & Barnard, P. L. Estimating fluvial discharges coincident with 21st century coastal storms modeled with CoSMoS. *In:* Shim, J. -S., Chun, I. & Lim, H. S. (eds.), *Proceedings from the International Coastal Symposium (ICS) 2018* (Busan, Republic of Korea). *J. Coastal Res.* SI **85**, 791–795 (2018).
59. Erikson, L. H. *et al*. Identification of storm events and contiguous coastal sections for deterministic modeling of extreme coastal flood events in response to climate change. *Coast. Eng.* **140**, 316–330 (2018).
60. Erikson, L. H. *et al*. Projected 21st century coastal flooding in the Southern California Bight. Part 2: tools for assessing climate change driven coastal hazards and socio-economic impacts. *J. Mar. Sci. Eng.* **6**, 1–31 (2018).
61. O'Neill, A. C. *et al*. Projected 21st century coastal flooding in the Southern California Bight. Part 1: development of the third generation CoSMoS model. *J. Mar. Sci. Eng.* **6**, 1–31 (2018).
62. Collins, M. *et al*. The impact of global warming on the tropical Pacific Ocean and El Niño. *Nature Geosci.* **3**, 391–397 (2010).
63. Stevenson, S. L. Significant changes to ENSO strength and impacts in the twenty-first century: results from CMIP5. *Geophys. Res. Lett.* **39**, L17703 (2012).
64. Cai, W. *et al*. Increasing frequency of extreme El Niño events due to greenhouse warming. *Nature Clim. Change* **4**, 111–116 (2014).
65. Kohyama, T., Hartmann, D. L. & Battisti, D. S. Weakening of nonlinear ENSO under global warming. *Geophys. Res. Lett.* **45**, 8557–8567 (2018).
66. Williams, I. N. & Patricola, C. M. Diversity of ENSO events unified by convective threshold sea surface temperature: a nonlinear ENSO index. *Geophys. Res. Lett.* **45**, 9236–9244 (2018).
67. Barnard, P. L. *et al*. Coastal vulnerability across the Pacific dominated by El Niño/Southern Oscillation. *Nature Geosci.* **8**, 801–807 (2015).
68. Hamlington, B. *et al*. The effect of the El Niño-Southern Oscillation on US regional and coastal sea level. *J. Geophys. Res. Oceans* **120**, 3970–3986 (2016).
69. Bromirski, P. D., Miller, A. J., Flick, R. E. & Auad, G. Dynamical suppression of sea level rise along the Pacific coast of North America: indications for imminent acceleration. *J. Geophys. Res.* **116**, C07005 (2011).
70. Ralph, F. M. *et al*. Flooding on California's Russian River: role of atmospheric rivers. *Geophys. Res. Lett.* **33**, L13801 (2006).
71. Khouakhi, A. & Villarini, G. On the relationship between atmospheric rivers and high sea water levels along the U.S. West Coast. *Geophys. Res. Lett.* **43**, 8815–8822 (2016).
72. Tolman, H. L. *et al*. Development and implementation of wind-generated ocean surface wave models at NCEP. *Weather Forecast.* **17**, 311–333 (2002).
73. Booij, N., Ris, R. C. & Holthuijsen, L. H. A third-generation wave model for coastal regions, part I: model description and validation. *J. Geophys. Res.* **104**, 7649–7666 (1999).
74. Lesser, G. R., Roelvink, J. A., van Kester, J. A. T. M. & Stelling, G. S. Development and validation of a three-dimensional morphological model. *Coast. Eng.* **51**, 883–915 (2004).
75. Pierce, D. W. LOCA statistical downscaling (Localized Constructed Analogs) – Statistically downscaled CMIP5 climate projections for North America. *Scripps Institution of Oceanography*, http://loca.ucsd.edu/ (accessed 15 December 2017).
76. Roelvink, D. *et al*. Modelling storm impacts on beaches, dunes and barrier islands. *Coast. Eng.* **56**, 1133–1152 (2009).
77. Danielson, J. J. *et al*. Topobathymetric elevation model development using a new methodology—Coastal National Elevation Database. *J. Coastal Res. SI* **76**, 75–89 (2016).
78. Trenhaile, A. S. Modeling the development of wave-cut shore platforms. *Mar. Geol.* **166**, 163–178 (2000).
79. Walkden, M. J. A. & Hall, J. W. A predictive mesoscale model of the erosion and profile development of soft rock shores. *Coast. Eng.* **52**, 535–563 (2005).
80. Trenhaile, A. S. Modeling the erosion of cohesive clay coasts. *Coast. Eng.* **56**, 59–72 (2009).
81. Bray, M. J. & Hooke, J. M. Prediction of soft-cliff retreat with accelerating sea-level rise. *J. Coastal Res.* **13**, 453–467 (1997).
82. Ruggiero, P., Komar, P. D., McDougal, W. G., Marra, J. J. & Beach, R. A. Wave runup, extreme water levels and the erosion of properties backing beaches. *J. Coastal Res.* **17**, 407–419 (2001).
83. Hackney, C., Darby, S. E. & Leyland, J. Modelling the response of soft cliffs to climate change: a statistical, process-response model using accumulated excess energy. *Geomorphology* **187**, 108–121 (2013).
84. Yates, M. L., Guza, R. T. & O'Reilly, W. C. Equilibrium shoreline response: observations and modeling. *J. Geophys. Res.-Oceans* **114**, 1–16 (2009).
85. Anderson, T. R., Fletcher, C. H., Barbee, M. M., Frazer, L. N. & Romine, B. M. Doubling of coastal erosion under rising sea level by mid-century in Hawaii. *Nat. Hazards* **78**, 75–103 (2015).
86. Bürgmann, R., Hilley, G., Ferretti, A. & Novali, F. Resolving vertical tectonics in the San Francisco Bay Area from permanent scatter InSAR and GPS analysis. *Geology* **34**, 221–224 (2006).
87. Stralberg, D. *et al*. Evaluating tidal marsh sustainability in the face of sea-level rise: a hybrid modeling approach applied to San Francisco Bay. *Plos One* **6**, 1–18 (2011).
88. Howell, S., Smith-Konter, B., Frazer, N., Tong, X. & Sandwell, D. The vertical fingerprint of earthquake cycle loading in southern California. *Nat. Geosci.* **9**, 611–614 (2016).
89. Barnard, P. L., Erikson, L. H., Foxgrover, A. C., O'Neill, A. C. & Herdman, L. M. CoSMoS (Coastal Storm Modeling System) Southern California v3.0 Phase 2 storm-hazard projections. U.S. Geological Survey Data Release, https://doi.org/10.5066/F7T151Q4 (2016).

Acknowledgements

This research was funded by the California Coastal Conservancy, California Department of Fish and Wildlife, California Natural Resources Agency, California Ocean Protection Council, National Oceanographic and Atmospheric Administration, National Park Service, and United States Geological Survey. Support from the USGS-Deltares Cooperative Agreement was instrumental for the development of CoSMoS.

Author Contributions

P.B. developed the original concept for this study and wrote the original version of this paper. L.E. and M.O. led the development of CoSMoS. N.W. led the construction of the Hazard Exposure Reporting and Analytics (HERA) web tool. A.F., J.H., P.L., A.O., S.V., M.H. and J.J. contributed to interpreting results and improvement of this paper.

Additional Information

Supplementary information accompanies this paper at https://doi.org/10.1038/s41598-019-40742-z.

Competing Interests: The authors declare no competing interests.

Publisher's note: Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Murdock, Christian

From: stephen clements <greetingsfromanotherplanet@gmail.com>
Sent: Sunday, May 3, 2020 12:48 PM
To: Murdock, Christian
Cc: Amanda Andriesz
Subject: Coastal Development Application CDP-409-19

[CAUTION: External Email]

To: Christian Murdock, Planning Director, City of Pacifica, Pacifica Planning Commission
From Stephen Clements, Resident of Pedro Point, Pacifica
Subject: Coastal Development Application CDP-409-19
April 29, 2020

Dear Mr. Murdock,

Please consider this my formal objection to the proposed development on Danmann Avenue and Kent Road as it's unacceptable and should be denied entirely. The following issues have not been adequately resolved and require the Planning Department's attention based on the needs of the community:

1. **It does does not fit the neighborhood:** The proposed development is situated in a highly visible and accessed location with lines of sight from nearly every property on Pedro Point. Quite simply it does not conform to the architecture of the area, and it does not serve the needs of the Community and should be rejected for the following reasons.
    a. The proposed development will be by far the biggest building on Pedro Point and is out of scale with the rest of the neighborhood. The size of the building presents a host of problems including traffic and parking congestion and obstruction of coastal corridors, changing the fabric of the neighborhood doing a tremendous disservice to its community.
    b. The mixed use proposal, which includes 6 apartments and commercial property, is not in keeping with the rest of the community which is nearly all single family homes. The few apartments that are on Pedro Point already cause traffic congestion and parked cars on the streets, and have introduced a more transient element to the community.
    c. The parking exemption should not be permitted because Danmann Avenue, Kent Road and the surrounding neighborhood are already prone to serious parking issues caused by regular events at the fire station and beach goers.
2. **It's at extreme risk of subsidence caused by coastal erosion:** Pedro Point is subject to coastal erosion and landslides. Recent USGA modeling and the city's own LCLUP map data shows that by the end of this century, erosion will have almost reached Kent Street (nearly consuming the entire proposed development). Additionally the data from the Pacific Institute

is from 2009 and all Sea Level rise maps are now being revised to show more dire outcomes. Therefore the proposal should be rejected for the following reasons.

a. The proposed project contradicts the City's approved Local Coastal Land Use Plan which indicates that a new development is required to be "determined by a geologist to be adequate to withstand a 100-year hazard event" — this development obviously will not last 100 years based on the data.

b. The new construction will be in a 'hazard zone' and in danger of subsidence. It will likely require future seawall reinforcement or the owners of the property will require compensation by the City passing the associated costs onto its residents like we see happening in Manor now.

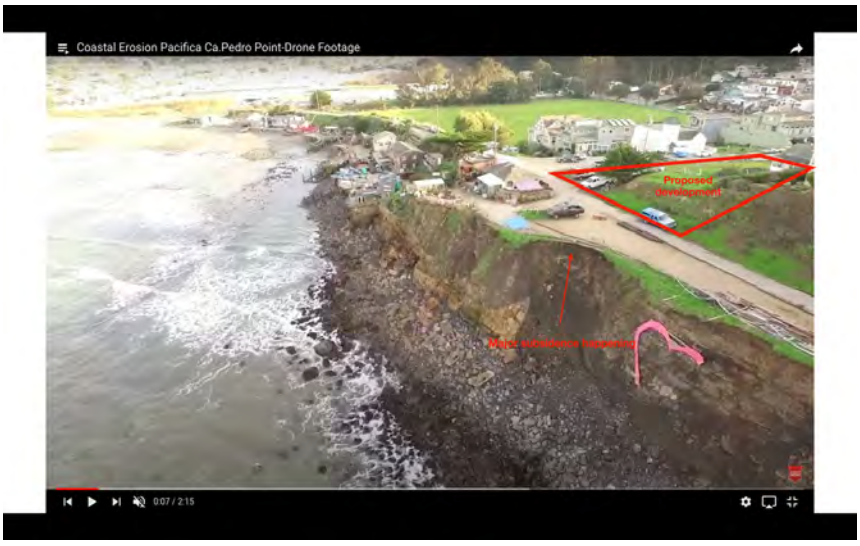
c. Additionally, any sea wall fortification will have immeasurable negative effect on the ecology and natural beauty of Linda Mar and its popular beach, affecting the local wildlife and beachgoers alike.

Please be advised that the a number of Pedro Point residents feel strongly enough that should this project be approved by the city it will face a California Coastal Commission appeal.

Thank you for your consideration. Sincerely,

Stephen Clements
215 Stanley Ave. Pacifica.

Evidence of the extreme nature of coastal erosion and the risk it poses: https://www.youtube.com/watch?v=ws85ECrni8Q&list=PLeyOP16MFrdyj-5VA3PKFCnsrydJHDzLe&index=4&t=0s



Concrete slab falling into ocean 20 feet from proposed development (beach view)

Concrete slab falling into ocean 20 feet from proposed development (bluff view)

New erosion with 10 feet of bluff falling in from latest rain activity

Murdock, Christian

From: David Rosenheim <daverosenheim@gmail.com>
Sent: Monday, May 4, 2020 9:52 AM
To: Murdock, Christian
Subject: Fwd: For the Rosenheims

[CAUTION: External Email]

Hi Christian- thank so much for your time and feedback last week.

Sorry for the form letter below, but I do want to voice my concern and objection over the proposed development at Pedro Point. Thanks for your consideration.

Best,

Dave Rosenheim

Dear Mr. Murdock,

Please consider this my formal objection to the proposal for development on Danmann Avenue and Kent Road. I have listed below the issues that stand in its way and require the Planning Department's attention.

The proposal does not serve the Pedro Point community.
The scale of the proposed development is not consistent with the other single-family homes in the area. It is a prominent and much loved location—the llama field—and it can be seen from the whole of Linda Mar beach and the surrounding neighborhood. Therefore its proposed size obstructs coastal corridors for everyone in Pacifica and its visitors and the proposal for commercial use and apartments is not in keeping with a coastal community that comprises almost entirely of single family homes. Additionally, it will add to traffic and parking congestion already being caused by the fire station, visitor beach parking, and other Pedro Point developments, and the parking exemption should be denied.

The proposal in the coastal erosion hazard zone.
Climate change is real and greatly affects Pacifica. Recent erosion models show by 2100 erosion will progress to Kent Road, consuming the entire site of the proposed development, and it cannot withstand a 100-year hazard event (a requirement of the Local Coastal Land Use Plan, approved by the City). Therefore it will likely require future coastal defenses or City buybacks, like we are seeing in Manor today, costing Pacifica taxpayers and affecting the natural beauty and ecosystem or Pedro Point and Linda Mar beach.

Please be advised that should the city approve this plan we will be lodging further appeal with the California Coastal Commission.

Thank you for considering these issues and we look forward to their resolution.

Sincerely,

Evidence of extreme erosion in close vicinity to the proposed development.

CAUTION: This email originated from outside of the City of Pacifica. Unless you recognize the sender's email address and know the content is safe, do not click links, open attachments or reply.

Murdock, Christian

From: jackie rosenheim <jackierosenheim@gmail.com>
Sent: Monday, May 4, 2020 9:42 AM
To: Murdock, Christian
Subject: OBJECTION to development proposal
Attachments: PastedGraphic-18.png

[CAUTION: External Email]

Dear Mr. Murdock,
Please consider this my formal objection to the proposal for development on Danmann Avenue and Kent Road. I have listed below the issues that stand in its way and require the Planning Department's attention.

The proposal does not serve the Pedro Point community.
The scale of the proposed development is not consistent with the other single-family homes in the area. It is a prominent and much loved location—the llama field—and it can be seen from the whole of Linda Mar beach and the surrounding neighborhood. Therefore its proposed size obstructs coastal corridors for everyone in Pacifica and its visitors and the proposal for commercial use and apartments is not in keeping with a coastal community that comprises almost entirely of single family homes. Additionally, it will add to traffic and parking congestion already being caused by the fire station, visitor beach parking, and other Pedro Point developments, and the parking exemption should be denied.

The proposal in the coastal erosion hazard zone.
Climate change is real and greatly affects Pacifica. Recent erosion models show by 2100 erosion will progress to Kent Road, consuming the entire site of the proposed development, and it cannot withstand a 100-year hazard event (a requirement of the Local Coastal Land Use Plan, approved by the City). Therefore it will likely require future coastal defenses or City buybacks, like we are seeing in Manor today, costing Pacifica taxpayers and affecting the natural beauty and ecosystem or Pedro Point and Linda Mar beach.

Please be advised that should the city approve this plan we will be lodging further appeal with the California Coastal Commission.

Thank you for considering these issues and we look forward to their resolution.

Sincerely,

Jackie Rosenheim
Pacifica Resident

Evidence of extreme erosion in close vicinity to the proposed development.


Proposed development
Major subsidence happening

Murdock, Christian

From: sunset1879@aol.com
Sent: Monday, May 4, 2020 10:15 AM
To: Murdock, Christian
Subject: Development on Danmann

[CAUTION: External Email]

Dear Planning Commissioners:

During these unprecedented times, I want to thank you for your service to the residents of Pacifica and the opportunity to give input in spite of not being able to do that in person. I have lived in Pacifica for over 40 years and in Pedro Point for over 30 of those years. Our beautiful city is one that definitely attracts many people and I appreciate you and all city staff that work to keep our residents safe during this global pandemic.

Given the closure of beach parking lots, in order to ensure our safety, local streets have been crowded with those coming to access the beach. Although I live in Pedro Point and normally love walking the path along the levy to the beach, I am now just walking around the neighborhood since those paths are busier than "normal." Streets are crowded and cars looking for street parking drive by quickly, so walking on San Pedro Ave, Kent, and Danmann must be done very cautiously.

Although COVID-19 is not a permanent condition, the development that is being proposed for the 1200 block of Danmann is. Pedro Point is a small community and the local streets would be severely impacted with a 3 story mixed use commercial building and 6 apartments. Traffic and parking would be intense and problematic for all residents of the area permanently since there is only one street that provides vehicular access to Highway 1. These streets were not designed for high volume commercial traffic and residential apartment complexes. The area was designed for single family homes. Our streets are already choked with parked cars to a point that if I have just one person visit me, they are frequently unable to find street parking due to the already high parking demands on neighborhood streets. For this reason, **this project should be rejected.**

This is an area that is in a tsunami zone, with one main street in and out of Pedro Point, to increase the residential and commercial traffic significantly is not in keeping with maintaining the safety of its residents. Again, I am requesting that **this project be rejected.**

There are **many other reasons which make this a project that should not be accepted** that others have articulated so well, such as coastal erosion, geologic instability, incompatibility with the character of the neighborhood. I am strongly requesting that you maintain the integrity and character and safety of the neighborhood by flatly **rejecting this proposal.**

Please continue to work to represent our collective interests and concerns as residents who have been a part of this community for a very long time.

Sincerely,

Marianne Hipona
292 San Pedro Avenue

Murdock, Christian

From: Amy Pritchard <amy@spaut.com>
Sent: Monday, May 4, 2020 10:12 AM
To: Murdock, Christian; Coffey, Sarah
Cc: Ron
Subject: Development of 1200 block of Danmann

[CAUTION: External Email]

Hello,

We are opposed to the proposed development as submitted to the planning commission for the 1200 block of Danmann. Specifically the mixed use commercial with 6 apartments.

Joanne and Ed Gold did a very good good of outlining the community's concerns in their letter of May 3.

Thank you,

Amy and Ron Pritchard
Kent Road

Erica Greulich
223 Stanley Avenue
Pacifica, CA 94044

April 30, 2020

City of Pacifica
Planning, Building and Code Enforcement
1800 Francisco Blvd.
Pacifica, CA 94044-2506

Ref.: May 4, 2020 Planning Commission Meeting Agenda #4
File No. 2019-025 For Site Development Permit PDS-843-19, Coastal Development Permit CDP-409-19, Use Permit UP-118-19, Parking Exception PE-185-19 and Sign Permit S-131-19

Dear Planning Department and Commission,

I am a resident and homeowner in Pedro Point, near the proposed development at 1300 Danmann Avenue. Although I support development of this parcel I am opposed to the specific proposal circulated in the April 23, 2020 notice.

- The proposed structure is out of scale with the surrounding neighborhood. Both the height and footprint are excessive relative to nearby homes, particularly those south of Kent Road and to the south along Danmann Avenue which are small one- or two-story single-family residences.
- The proposed mixed-use construction with apartments is similarly out of keeping with the neighborhood which is overwhelmingly single-family residential.
- The proposed structure would be the largest in Pedro Point and would detrimentally impact views throughout the neighborhood.
- The project plans reflect almost no setback from and absolutely minimal landscaping along Danmann Avenue, Kent Road and the adjacent property. The proposed building and uncovered parking lot will result in the entire property being overlaid by either construction or asphalt. This is not in keeping with the immediate surrounding neighborhood which is primarily residential. The surrounding single-family homes typically have greater setbacks and landscaping which make the neighborhood more attractive for residents and visitors alike.
- To the extent that the proposed parking fails to meet residents' and visitors' needs, parking in the immediate surrounding area is already highly impacted due to events at the Pedro Point firehouse and residents, beachgoers and other visitors parking along neighborhood streets.

Frankly, the excessive height and footprint, lack of setback and landscaping, and excessive pavement render this proposal an eyesore.

Thank you for your consideration.

Sincerely,
Erica Greulich

April 30, 2020

To the City of Pacifica Planning Commission,

Regarding Agenda Item 4 (of the May 4, 2020 Planning Commission Meeting): PSD-843-19 CDP-409-19 UP-118-19 PE-185-19 S-131-19. File No. 2019-025 For Site Development Permit PDS-843-19, Coastal Development Permit CDP-409-19, Use Permit UP-118-19, Parking Exception PE-185-19 and Sign Permit S-131-19, located at the north quadrant of Kent Road and Danmann Avenue (APN 023-013-010 and 023-013-020) in Pacifica.

My complaints regarding this proposal:

1) A 3-story tall structure would block the beach and surf views of many uphill residences (a rare and hence valuable view in California).
    a. This will make the occupants of impacted up-hill residences **very** unhappy.
    b. This will decrease the resale value of the homes affected.
2) A large structure with a large asphalt parking lot, and very little landscaping in a residential neighborhood with primarily single-family homes does not really fit with the neighborhood. There is another commercial structure with similar street setbacks and asphalt coverage in the neighborhood (1290 Danmann). It sticks out like a sore thumb in a residential neighborhood and is not even a particularly large structure.
3) Commercial Units? Regardless of the current zoning this is essentially a residential neighborhood (with residential neighborhood issues). The site is connected to a main thoroughfare by a convoluted path that can barely be considered paved near the site. Also, the whole neighborhood can only be accessed by a single road that is unusually narrow in places and often in need of repair. More traffic (especially commercial traffic) will make the road situation worse. Better to rezone build to reality and not be bringing in additional vehicle traffic on overtaxed roads.

A proposal I could live with would include:

1) Residential units only with the landscaping level similar to the rest of the neighborhood.
2) Limit the structure to two stories (with a flat or nearly flat roof) to preserve the views of up-hill neighbors.

Regards,

Clifford Knollenberg
223 Stanley Ave.
Pacifica, CA 94044

Murdock, Christian

From: Breck Hitz <breck@breckhitz.com>
Sent: Monday, May 4, 2020 12:38 PM
To: Murdock, Christian
Subject: Comments on Development of 1200 block of Danmann (CDP-409-19, UP-118-19, PE-185-19 and S-131-19)

Dear Pacifica Planning Commission:

I write to oppose the proposed development at the intersection of Danmann and Kent in Pacifica. I am not oblivious to the need for housing in the Bay Area, and I am often torn by the conflicts between that need, and the desire of communities to maintain their character and scale. I am NOT torn about the proposed development on Danmann Ave. That development is so grossly out of character and scale with the surrounding neighborhood that there can be no question about its inappropriateness.

One of my neighbors, Joanne Gold, has written a careful and complete letter to you summarizing numerous codes and standards that this development would violate, so I will not reiterate those here. But I will ask you, *What is the point of codes and standards if they are to be so clearly violated?*

Sincerely,
Breck Hitz
123 Kent Road, Pacifica

Murdock, Christian

From: Marcia Settel <gilset1158@gmail.com>
Sent: Monday, May 4, 2020 1:06 PM
To: Murdock, Christian
Cc: wehrmesitert@ci.pacifica.ca.us; Rubinstein, Oren; Leal, David; Berman, Lauren; Bigstyck, Tygarjas; Godwin, James; Nibbelin, John; Hauser, Samantha
Subject: Danmann Avenue project

[CAUTION: External Email]

Dear Director Murdock:
I want to join the voices of my Pedro Point neighbors in opposition to the proposed development of 1300 Danmann Avenue. In these days of uncertainty, it has become especially important to stop for at least a moment and re-evaluate what we have viewed as "normal" progress. It is a time to take stock of our values, and proceed cautiously. The proposed development represents a radical departure from the historical growth of Pedro Point. It is very hard to see how it represents an improvement to the neighborhood, as found by the commission staff.

As I return to my home on Olympian Way, I have to pass by the last mixed use development approved by the commission currently being built on San Pedro Avenue. On paper, the project looked reasonable, and there was limited opposition. But once built, the large bulkiness of the building became evident as it is so out-of-place with its surroundings. No matter the actual architectural elements, the building sticks out like a sore thumb, or worse.

The proposed development presents the identical scenario. No matter how attractive the building may look on paper, it is totally out of place in its surroundings. It will be an over-sized hulk, especially from Danmann Avenue due to the lack of any setback. The three almost solid stories will tower over the immediate neighborhood. It will not be "an attractive visitor destination" but instead, a monument to developer greed.

I gather from the department report that this building is a prototype for what the department seeks to have happen on Danmann Avenue, if not all of lower Pedro Point. There is mention that the building's lack of front setback would orient future commercial design on Danmann; thus future significant commercial development on that street is envisioned. Will all of those commercial buildings have two stories of apartments on top of them? If a building of the size of the current project is approved, the over-development of lower Pedro Point is pre-destined.

Please do not approve the current 1300 Danmann proposal, and instead, require a less intrusive development of the parcel.

It is critical for the city of promote the construction of more housing, especially "affordable" housing. But building units in an area with no infrastructure makes no sense. Ingress and egress is difficult with San Pedro Avenue as our only road. The pictures included with the project reflect the general condition of all of the roads in Pedro Point, which the city has refused to repair. If families are to move in, their children must cross a highway to attend school. There are no public green spaces in the community to allow for recreation. We have asked for before, and we will continue to ask for, a comprehensive plan for development of the Point so that the need for commercial development, residential development, and infrastructure can all be addressed.

Marcia Settel
189 Olympian

Murdock, Christian

From: Carol Pan <carolleepan@gmail.com>
Sent: Monday, May 4, 2020 1:45 PM
To: Murdock, Christian
Subject: Coastal Development Application CDP-409-19 1200 Block Danmann

[CAUTION: External Email]

May 4, 2020

To: Christian Murdock, Planning Director, City of Pacifica, Pacifica Planning Commission

From Carol Pan, Resident of Pedro Point, Pacifica

Subject: Coastal Development Application CDP-409-19 proposed multiple building/unit mixed commercial proposal

Dear Mr. Murdock,

Thank you for all the work you and the planning commission do to constantly build upon and improve our city. I especially appreciate your working for our city during these particularly trying times.

I am writing in regards to the proposed development on the 1200 block of Danmann Avenue on Pedro Point (CDP-409-19, UP-118-19, PE-185-19 and S-131-19). I am strongly opposed to the new development for several reasons.

1. The proposed development is does not fit in with the current neighborhood. This oversized building would overshadow and completely overwhelm the smaller homes and does not fit in with the other single-family residential buildings that are predominant in the neighborhood.
2. Bringing in the additional cars that would come with such a development would put an enormous strain on the already limited parking in the neighborhood. On any given afternoon Danman is already packed with cars (see attached photos) sending the additional cars onto Kent putting an undue burden on this small residential street. Additionally, the configuration of the proposed parking shows the entrance on Kent, again putting the burden of the commercial traffic on a small residential street. The previous parking exemptions allowed in the Pedro Point area have already put a heavy burden on our neighborhood sending customers, surfers, fishermen and beachgoers onto our neighborhood streets making it impossible to have friends visit most weekends. Please do not grant another parking exemption.
3. With no setback, as requested, the cars parking on the street would be pushed even further into the street congesting an already overburdened lane. Currently the only other building without a setback is the Pedro Point Firehouse that was here even before Pacifica was incorporated. Please do not grant an exemption for no setback.
4. Another serious concern of mine is that is sits above an erosion zone. Walking along Shoreline Drive it is obvious that this area is continually falling into the ocean. A glance down the cliff is all you need to see that roadway and pilings that were once on Shoreline Drive have now fallen into the water. As a Pacifica taxpayer I am very concerned that we are already paying to remove buildings on the north side of Pacifica, why would we allow a project to be built that has the same fate in store, and asking the Pacifica taxpayers to once again pay for remediation? Please take a walk on Shoreline and take a look for yourselves and see the crumbling ground on which this proposed development is to be built.

Thank you for taking my concerns into consideration and I request that the proposal for new development on the 1200 block of Danmann be denied.

Cordially,

Carol Pan

315 Olympian Way

Pacifica, CA

Beachgoers' cars parked on Kent - no available parking on Danmann

No available parking on Danmann

carolleepan@gmail.com
+1 650-520-7740

Murdock, Christian

From: Kathy <qdelrina2002@yahoo.com>
Sent: Monday, May 4, 2020 1:52 PM
To: Murdock, Christian
Subject: (CDP-409-19, UP-118-19, PE-185-19 and S-131-19)

Dear Planning Commissioners,

Please be advised that the proposed development on the 1200 block of Danmann (CDP-409-19, UP-118-19, PE-185-19 and S-131-19) is not acceptable to me or the neighborhood and this project should be denied.

This project is completely too large for a residential neighborhood and our small, coastal community. Pedro Point is overwhelmingly residential neighborhood of single family homes. This proposed development would be the largest building on Pedro Point.
The size and scale of this proposed development will be larger than all the other buildings in the neighborhood.

My objections to the proposed new development are:

1.) This project is not consistent with the City of Pacifica General Plan Goals.
Page 12 of the General Plan states: “Fundamental to the City’s character are the traditional neighborhoods. It is the goal of the City to protect the social mix, variety and fundamental character which now exists in each of these neighborhoods by providing for necessary community services and facilities, and for the safety and welfare of all residents equally, but with a sensitivity for the individual neighborhood.” **This project should be rejected.**

2.) This site sits directly above Shoreline Drive which is prone to coastal erosion and landslides. It is in a documented slope failure-coastal erosion zone as indicated in the city's own LCLUP map. There is erosion activity in this area on a regular basis - five feet of earth and fencing fell from one of the adjacent backyards the past two months. An EIR is required. **This project should be rejected.**

3.) According to the city's own LCLUP policies to address coastal resilience, any new development shall: "neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices" (section 6.4, p. 6-12). **This project should be rejected.**

4.) Planning decisions must be evaluated based on existing conditions, regardless of zoning and zoning can be changed. There has never been any historical commercial use of these two lots other a field area for animals; The standard use of this property has only ever been an undeveloped field with scenic views and charm. **This project should be rejected.**

5.) Taken from the CALIFORNIA COASTAL ACT - CHAPTER 3. Coastal Resources Planning and Management Policies [30200 - 30265.5] ARTICLE 6. Development [30251]: "The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the

character of its setting." The proposed development is NOT compatible with this coastal act policy in any way.
This project should be rejected based on #5 alone, but if that is not enough,

the applicant is claiming that because the historic Pedro Point Firehouse has no set-backs, they are entitled to no set-backs, too, *REALLY?* The historic Firehouse was BUILT BY VOLUNTEERS for the purpose of protecting residents from hazards back in 1949 - before the city was even incorporated. So city building standards did not exist at that time. The applicant's project is NOT EXEMPT from city's standard codes. Their request should not be considered and **this project should be rejected.**

In addition, Pedro Point is at a breaking point for parking thanks to the many parking exemptions already granted by the planning commission. There is literally no more room for more cars along Danmann Ave, Kent Road, Stanley Ave or San Pedro Ave. The Shelter Cove residents park up and down Stanley Avenue leaving their boats parked there for weeks on end. Since most of Shoreline Drive has fallen into the ocean due to coastal erosion, there is no parking available there for the residents either. Therefore they park on Danmann. Nine days out of every ten, I cannot even park in front of my own house due to some beach visitor. A parking exemption should not be considered and **this project should be rejected.**

Also, I would like you to consider/recall the other new multi-unit housing and hotel/motel developments recently approved in the Pedro Point neighborhood. There have already been significant negative neighborhood impacts due to the volume and concentration of recent development including increased auto traffic.

We have one, single lane road in and out of Pedro Point that was not designed to support commercial traffic in volume yet commercial uses continue to be approved for our area.

Increased street parking coupled with narrow streets that are choked with parked cars (which basically leaves us with a one-way situation) from increased commercial, residential and beach tourism parking demands has become a nightmare for residents. Be damned the people who actually live here.

Most of the streets have no sidewalks, no crosswalks and increased street parking and auto traffic obstruct the only pedestrian routes, creating severe safety hazards.

I cannot urge you strongly enough to reject this proposed new development project cited above. It fundamentally fails to uphold our community's character and protect safety of our neighbors.
I am free to discuss this with you at any time.

Kathy Castor
650.445.5322

Murdock, Christian

From: Amanda Clements <amanda.andriesz@gmail.com>
Sent: Monday, May 4, 2020 2:49 PM
To: Murdock, Christian
Subject: Objection to Coastal Development Application (CDP-409-19), Parking exception (PE-185-19)

[CAUTION: External Email]

Ref: Coastal Development Application (CDP-409-19), Parking exception (PE-185-19)

Dear Christian Murdock,

I am writing after receiving the notice of planned development above. As a resident of Pedro Point, I want to raise my strong concerns of building on land that is prone to coastal erosion as well as the impact to the community through the introduction of commercial spaces and apartment blocks on Pedro Point.

1. Coastal erosion

The city's data and erosion modeling shows that subsidence will have reached almost to Kent Road by 2021, therefore the proposed development cannot survive a 100-year hazard event required by the Local Coastal Land Use Plan.

Subsequently, it will require construction of future coastal reinforcement or city buybacks, the cost of which will assumed by Pacifica taxpayers—like what is happening already in Manor today. And any coastal reinforcements will undoubtedly have a negative effect on the ecology, natural beauty and recreation on Linda Mar beach.

2. Impact to the community

Furthermore, the location of the proposed development is highly visible from everywhere on Linda Mar Beach. It's scale, as well as the proposed mixed use (including commercial), will disrupt coastal corridors for the residents of Pacifica and our visitors. And an already stressed parking situation will be further acerbated, therefore the parking exemption (PE-185-19) should be denied.

Please see below: This picture was taken on a day when there was NO event at the Fire Station and shows how crowded the road is already. The new development is requesting a Parking exemption that allows them to not provide adequate parking for the residents nor the business patrons.

Please be advised that should this plan be approved by the Pacifica Planning Commission, we will be lodging an appeal with the California Coastal Commission.

Thank you for your consideration and we look forward to its resolution.

Sincerely,

Amanda Clements
Concerned Resident of Pedro Point

Murdock, Christian

From: Sheila <sheilafromny@prodigy.net>
Sent: Monday, May 4, 2020 2:55 PM
To: Murdock, Christian; Coffey, Sarah
Subject: public comments on CDP-408-19, Up-118-19, PE-185-19 and S-231-19

Dear Planning Commissioners,

I have viewed the documents presented by the owner's of a corner lot in the Historic Danman Ave Area of Pedro Point. I believe that this type of project (1200 block of Danmann) is not suitable for that area for a few reasons and part of it has to do with mixed use residential and low density residential and commercial zoning, which is all very confusing to me.

26.

One major concern is that the project requests a parking exemption and there is no space on the streets in this area for parking. Already we have congestion and limited space for the commercial activities and recreational activities associated with public access to the beach and fishing that are in full swing. Today the Coastal Cat Clinic on the other end of Danmann Ave. had to create their own signs to deter beach goers from parking in front of their established business.

LCP Certification Draft (Coastal Commission Review Version) states that all new development will *include parking areas and shall be distributed so as to mitigate against any impacts related to overcrowding or overuse by the public of any single area.*

AND

Section 30252 of the Coastal Act states *PR-G-26 Private Parking. Ensure adequate off-street parking in all new development.*

Secondly, this area sees more and more pedestrian traffic and there is no sidewalk in the project design. The applicant's request show a plan with no setbacks. This creates a less friendly and dangerous situation for children and seniors in our community or anyone else using our community spaces like the Firehouse. There should be more space, not less, for the flow and beauty of the area.

Thirdly, I do not believe that the location of the project is thoughtful and the design of 3 stories neglects the concern stated in the LCLUP's own statements about sea level rise and coastal erosion hazards. This might put people at risk and the city responible when conditions change in this coastal zone.

After considering all of these concerns, and the existing concern of the Pedro Point area being overlooked in the LCLUP as a separate and unique zone, I do hope there will be some guidance in the future from the planning department as it is clear from the maps that Pedro Point has a large percentage of undeveloped land such as this one, which needs careful consideration if we hope to maintain the unique and historical charm and character of the space. We can not do this alone.

Warmly,

Sent from my Verizon, Samsung Galaxy smartphone

Murdock, Christian

From: Dave Stewart <davestewart999@gmail.com>
Sent: Monday, May 4, 2020 10:59 AM
To: Murdock, Christian
Subject: Dear Planning Commissioners,

[CAUTION: External Email]

Please be advised that the proposed development on the 1200 block of Danmann is not acceptable and should be rejected.
This project is dramatically out of scale.
This project is not consistent with the General Plan Goals.
The site sits on a coastal erosion zone.
The California Coastal Act-Chapter 3, Article 6-this project is not compatible.
It is not exempt from the setback codes.
A parking exemption should not be considered.
Please reject this proposal.

David R. Stewart
224 Stanley Ave., Pacifica
May 3, 2020

May 4, 2020
To: Christian Murdock, Planning Director, City of Pacifica, Pacifica Planning Commission
From Samuel Casillas, Resident of Pedro Point, Pacifica
Subject: Coastal Development Application CDP-409-19 proposed multiple building/unit mixed commercial proposal

Dear Mr. Murdock,
Please be advised that the proposed development on the 1200 block of Danmann (CDP-409-19, UP-118-19, PE-185-19 and S-131-19) is not acceptable and should be denied entirely. Note that any CDP application should also include the adjacent parcel (APNs 023-013-030) since the adjacent lot is a substandard lot and should be merged with these two APNs. There are multiple issues that have not been adequately addressed and require the Planning Department's attention especially considering new data and evidence:

1. **Coastal erosion associated with climate change:** The most serious concern is these two APNs sit directly above Shoreline Drive that is prone to coastal erosion and landslides. The latest USGS modeling and the city's own LCLUP map data in the proposed GPU shows the cliff eroding to Kent Street, additionally the city's data source from the Pacific Institute is from 2009 and all Sea Level rise map projections are now being revised to show more dire outcomes (see exhibits A1-2). This property should be utilized for coastal erosion mitigation in accordance to SB379. I have personally observed the cliffside along Shoreline Dr where there is erosion activity on a regular basis with five feet of earth and fencing falling from one of the home's backyard the past two months. The bluff directly in front of this property has a concrete platform that has recently given way and is falling into the ocean and is only a few feet away from this proposed development. Additionally, there is another 10 feet of the bluff that is ready to fall into the ocean at any time now (see attachment B).
2. **This project is not exempt from CEQA:** The planning department erroneously concludes that a this proposal is exempt from CEQA, but due to the site being in a documented coastal hazard zone the California Coastal Commission has submitted a letter requesting some very concerning conditions for approval and therefore an EIR is required (see exhibit C) . The potential destabilization of the adjacent bluff to this property is well documented. Shoreline Drive has fallen into the ocean where there was previously a two lane road, all platform and driveway structures leading down to the dock area have buckled and the stability of these APNs is questionable. It has also come to my attention that the Coastal Commission has warned the city that the engineering calculations paid for by the applicant (demonstrating implied bias) and utilized for the same applicants proposal of CDP-413-19 minimized and underestimated the level of erosion at a reported historic erosion rates in the range of 0.1 to 0.45 ft/yr while a more scientific and unbiased source (e.g. USGS) reports much higher rates. Based on an assumed design life used for purposes of hazard analysis assumed to be 100 years (bluff erosion hazards through 2100-2120) should utilize a much higher historic erosion rate for this analysis. The USGS average historical retreat rate that the Coastal Commission has recommended is 2.3 ft/yr meaning that 100 feet of this property would only last 43 years; so is the city setting a new California design life standard of 43 years? As the Coastal commission has stated for the adjacent CDP-413-19 and implied here is that "the setback of the proposed residence may not be adequate for the full design life of the project". A more recent publication from the USGS (Bernard, et. al.) also specifically points to Pedro Point because of the areas hazard zone volatility

(see attached article in email). This flooding model demonstrates the Sea Level Rise hazard that has a major impact on bluff erosion. Additionally:

   a. The impact of drilling piers and putting multiple tons of weight on this bluff will produce major stress on the unstable bedrock below where there are also active springs. The city has had to do major road repair in 2019 to relieve the pressure of underground springs going down Kent street right in front of this APN. This will lead to major instability for the residence at the end of Danmann Ave/Shoreline Dr. that will cause this residence to fall into the ocean sooner rather than later. Further, there is no adequate data on hydrology in this area effected by the water flowing under this property and the city is aware of this so this project needs to be denied otherwise is the city willing to take on this liability?
   b. The city was also made aware by The Coastal Commission that Western Salamanders were found on the property; so again, this project is not exempt from an Environmental Impact Report (EIR) that must be performed

3. **Coastal Act protection of visual resources:** According to the CALIFORNIA COASTAL ACT - CHAPTER 3. Coastal Resources Planning and Management Policies [30200 - 30265.5] ARTICLE 6. Development [30251]: "The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting." The proposed new development at 1200 Danmann is NOT compatible with this coastal act policy in any way. Therefore, this project should be denied.
4. **City requirements for design life based on California building code:** Approval of this project would contradict the City's approved Local Coastal Land Use Plan. Page C-16 indicates that development is required to be "determined by a geologist to remain usable throughout the design life of the project and determined to be adequate to withstand a 100-year hazard event. Furthermore, the design life of any application requires that a designer reasonably expects a development to safely exist for 100 years. This is in line with national and state building codes so why would the city approve a CDP for a project that will probably not stand for more than a few years? As stated above this design life would not even make it for half of the design life and by only walking out to the end of this bluff and using any standard of common sense one can see 10 feet of bluff ready to fall into the ocean so only willful ignorance of the facts would allow the city to approve this project.
5. **Arbitrary and Capricious City planning directives**: According to the planning departments own statements for prior approvals in Pedro Point substandard lots (meaning those under 5,000-sf), which are owned by a property owner with an adjacent lot, were merged in the 1980's. Therefore development on these two lots must be part of any development at APN 023-013-030. The zoning of the three lots is a moot argument; there has never been any historical commercial use or any use of these two lots other than storage of two pet lamas; the only other use is residential on APN-0230-013-030 with a storage shed on one of these two APNs. The standard to use here is the "existing conditions" so with "zero" historical development for any future development the city cannot make an exception and this permit application should be denied.

6. **Neighborhood Fit**: Pedro Point is overwhelmingly a residential neighborhood. There are a few apartments through-out the neighborhood which have proved to be problematic. This will be by far the largest building in Pedro Point and will eclipse all other buildings in the neighborhood. This would be a major apartment development which would be completely out of scope with the neighborhood; this project should be denied. Additionally:
    a. The applicant is requesting PE-185-19. The city has already approved multiple parking exemptions throughout Pedro Point. This neighborhood is at a breaking point for parking and there is literally no more room for more cars along Danmann Ave or Kent road or San Pedro Ave. Additionally, most of Shoreline Dr. has fallen into the ocean so there is no parking available there for the residents. A parking exemption should not be approved and this project should be denied.
    b. S-131-19: Applicant is requesting signage. No signage exists along Danmann Ave other than two modest commercial ventures with minimal signage. The application should be denied.
    c. The applicant is requesting no set-backs claiming that the historical Pedro Point Firehouse has no setbacks; this is also erroneous because this was a development from before the city was even incorporated and there were no city standards; this project is not exempt from city standard codes and should again be denied on this basis.
    d. The city has not established ownership of the paper street on the propriety known as "Beau Rivage" and until ownership is established this application should be denied.

Also, the city planning department should be aware of its own goals to develop more visitor serving commercial. All mixed use development should be 70% commercial and 30% residential in order to make any commercial development not only viable but to assure the developer is serious about the commercial portion of the development. The planning department is aware of multiple examples throughout the city where the majority of a mixed use development has a commercial component only as a requirement to build and is an afterthought the apartments above the commercial space. On the city's own economic goals this project should be denied.

Please note that this request for denial is based on the city's approval of **new development** where new climate change models are being constantly introduced and updated with more dire projections; existing buildings along any bluff in Pacifica were previously build without the advanced data now being utilized due to the real threat of man-made climate change. The city's tax payers have now had to pay multiple millions to remove multiple buildings through emergency orders so why would the city want to set up future tax payers for more emergency removals of structures NOT paid for by the developers, but by the tax payers? The Coastal Commission will also not allow future shoreline reinforcements, again demonstrating major negative impacts from this project.

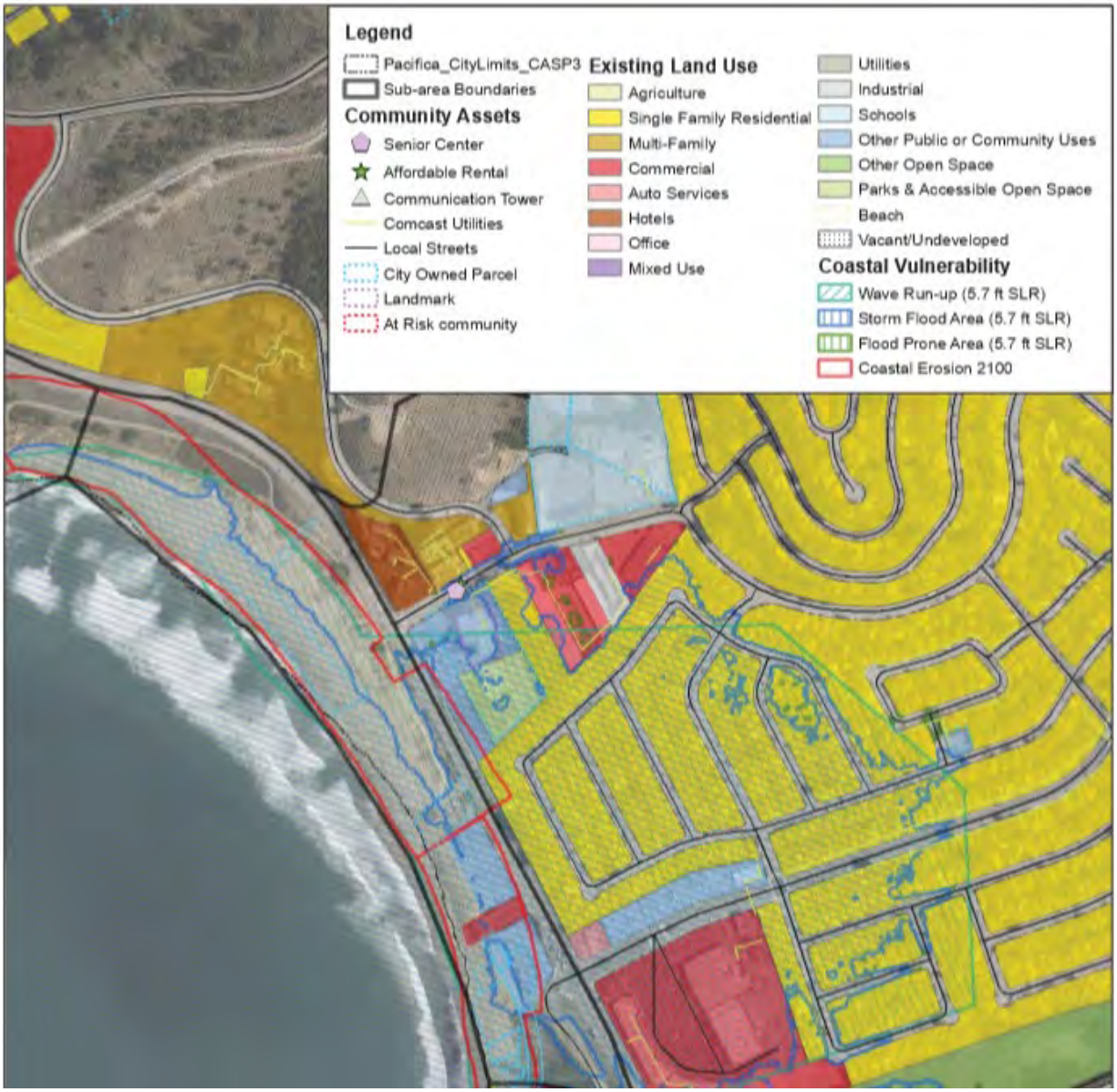
Also be advised that the residents of Pacifica realize the city's current approach is to approve any multiple unit development that meets SMCAR's real estate low-standard development goals while ignoring scientific analysis so it is prudent for the applicant to prepare for a Coastal Commission appeal if this project is approved by the city.

Thank you for your consideration.

Sincerely,

Sam Casillas

Attachment A-1;City hazard Zone maps from 2014 LCLUP:
https://cityofpacifica.egnyte.com/dl/BrAmbcNxGJ/



SOURCE: San Mateo County 2017 Imagery; City of Pacific and SMC Assets (2017); Pacific Institute Erosion (2009); OCOF Coastal Flooding (2014)

ESA

Disclaimer: The Coastal Vulnerability Zone (CVZ) maps utilized the best available data at the time of preparation. The erosion scenario does not account for existing shoreline protection structures. This information is continually evolving and the maps reflect a long planning horizon recognizing typical design life of structures. Updated models and site-specific analysis may identify that the respective CVZs may have shifted to include more or less area. CVZ maps are not detailed to the parcel-scale and should not be used for real estate, financing, or insurance transactions, or other uses such as navigation, permitting, or regulatory uses. To confirm vulnerability potential, further studies should be performed for CVZs. CVZ projections were sourced from publicly available data and existing models not created by the City of Pacifica.

Appendix B-5
Coastal Vulnerability Zone Map
Pacifica State Beach; West Linda Mar; Pedro Point and Shelter Cove

Attachment B: current existing conditions of bluff failure at proposed building site

Concrete slab falling into ocean 20 feet from proposed development (beach view)

Concrete slab falling into ocean 20 feet from proposed development (bluff view)

New erosion with 10 feet of bluff falling in from latest rain activity

Very concerning new buckling of cliffside from 2020 adjacent to proposed development

Attachment C: Hazard zone acknowledgement from Coastal Commission

KJ

KoppmanNorton, Julia@Coastal <julia.koppmannorton@coastal.ca.gov>

Usher, Christy; Murdock, Christian; Tina Wehrmeister

Hi Christy,

We would like to amend our prior comments on the proposal at 277 Kent, after having our technical staff review potential hazard concerns. Please send this to the Planning Commission and ensure it gets added to the record for tonight's hearing.

As stated in the staff report, the design life used for purposes of hazard analysis is assumed to be 100 years. While the applicant's consultant, GeoForensics, reported historic erosion rates in the range of 0.1 to 0.45 ft/yr, other sources (e.g. USGS) report much higher rates. Therefore, bluff erosion hazards through 2100 are largely dependent on which historic erosion rate is used. If higher historic erosion rates are used in the analysis, the setback of the proposed residence may not be adequate for the full design life of the project.

As this project site faces some future hazard from bluff retreat depending on the path of future sea-level rise, we would strongly recommend maximizing the setback from the northern end of the property closest to the bluff edge. In addition, we strongly recommend that the City require conditions of approval to include: 1. No future shoreline or bluff protection for this residence, and removal of the structure if and when it is threatened, 2. A requirement for hazards disclosure, and 3. Recorded Deed restriction for the property owner to acknowledge and agree that: the development is located in a hazardous area, or an area that may become hazardous in the future, assumption of risks of injury and damage from such hazards in connection with the permitted development, to unconditionally waive any claim of damage or liability from such hazards, to indemnify and hold harmless the City against any injury or damage due to such hazards, that they have no rights to future shoreline armoring, that sea level rise could render it difficult to provide services to the site, that the boundary between public and private land could shift, and that the structure may eventually be located on public trust lands, which the development approval does not extend to, that any future encroachment on public trust lands must be removed, and that the structure may be required to be removed and relocated it if becomes unsafe.

Thanks in advance.

Best,
Julia

Julia Koppman Norton
Coastal Planner

Murdock, Christian

From: Joanne Gold <joannegold@yahoo.com>
Sent: Monday, May 4, 2020 12:39 PM
To: Murdock, Christian; Coffey, Sarah
Cc: Ed Gold
Subject: Re: Comments on Development of 1200 block of Danmann (CDP-409-19, UP-118-19, PE-185-19 and S-131-19)

[CAUTION: External Email]

Hi Christian and Sarah,

Just wanted to confirm you received my comments last night for the Planning Commission agenda this evening? Thank you for all you do!

Joanne Gold

On Sunday, May 3, 2020, 06:31:53 PM PDT, Joanne Gold <joannegold@yahoo.com> wrote:

Dear Planning Commissioners:

Thank you for your continued service to the community residents during the ongoing Covid-19 crisis. We are concerned residents of Pedro Point writing to convey our opposition to the proposed development on the 1200 block of Danmann (CDP-409-19, UP-118-19, PE-185-19 and S-131-19).

This project should be entirely rejected and is unacceptable for a number of reasons:

Conflicts with Community Character, Scale: Pedro Point is overwhelmingly a residential neighborhood of single-family homes. This new development would be by far the largest building in Pedro Point. The size and scale of it will eclipse all other buildings in the neighborhood and is dramatically out of character for this small, historic coastal community. **Therefore, this project should be rejected.**

Conflicts with General Plan: This project is not consistent with the City of Pacifica General Plan Goals. Page 12 of the General Plan states: *"Fundamental to the City's character are the traditional neighborhoods. It is the goal of the City to protect the social mix, variety and fundamental character which now exists in each of these neighborhoods by providing for necessary community services and facilities, and for the safety and welfare of all residents equally, but with a sensitivity for the individual neighborhood.*" **Therefore, this project should be rejected.**

Conflicts with Coastal Act directives: According to the California Coastal Act - Chapter 3. Coastal Resources Planning and Management Policies - ARTICLE 6. Development [30251*]: "The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the*

Department of Parks and Recreation and by local government shall be subordinate to the character of its setting." - The proposed new development would obliterate protected scenic views and is NOT compatible with this coastal act policy in any way. **Therefore, this project should be rejected.**

Coastal Erosion Zone Hazards: A most serious concern is that this site sits directly above Shoreline Drive which is prone to coastal erosion and landslides. It is in a documented slope failure-coastal erosion zone as indicated in the city's own LCLUP map. There is erosion activity in this area on a regular basis - five feet of earth and fencing fell from one of the adjacent backyards the past two months. An EIR is required and any new development would be in immediate risk. **Therefore, this project should be rejected.**

Conflicts with LCLUP: According to the city's own LCLUP policies to address coastal resilience, any new development shall: "*neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices*" (section 6.4, p. 6-12). **Therefore, this project should be rejected.**

Arbitrary and Capricious City planning directives: Planning decisions must be evaluated based on existing conditions, regardless of zoning. There has never been any historical commercial use (or <u>any</u> development, period) of these two lots other than storage of two pet lamas; The standard use of this property has only ever been an <u>undeveloped field with scenic views and natural charm</u>. **Therefore, this project should be rejected.**
Arbitrary and Capricious Exemption Requests: Adding insult to injury, and <u>with complete disregard for community residents and the neighborhood character</u>, the applicant is requesting:

a) No setbacks: the applicant claims that because the historic Pedro Point Firehouse has no setbacks, they are entitled to no setbacks as well. Please note that the historic Firehouse was BUILT BY VOLUNTEERS for the purpose of protecting the community in 1949 - before the city was incorporated. City building standards did not exist at that time. The applicant's project is NOT EXEMPT from city's standard codes. Their request should not be considered, and **this project should be rejected.**

b) Parking exemptions: This neighborhood is at a breaking point for street parking resulting from the many parking exemptions already recently granted by the planning commission. There is literally no more room for more cars along Danmann Ave., Kent Road or San Pedro Ave. And since most of Shoreline Dr. has fallen into the ocean due to coastal erosion, there is no parking available there for residents, either. A parking exemption should not be considered, and **this project should be rejected.**

Cumulative Negative Impact: The impact of this proposed new commercial/residential development must be considered in context of many other multi-unit Housing and Hotel/Motels developments recently approved (and pending approval) in this small coastal neighborhood. We're already at a breaking point and there have been increasing significant negative impacts including:

a) Increased vehicular traffic; with one single-lane road in and out of The Point, our community was simply not intended nor designed to support commercial traffic volume.

b) Increased street parking congestion: our narrow streets are already choked with parked cars from increased commercial, residential and beach tourism parking demands.

c) Increased pedestrian safety hazards; most of the streets in Pedro Point have no sidewalks, and none have crosswalks. Increased street parking and vehicular traffic obstructs the only pedestrian routes, creating severe safety hazards and putting residents and their pets increasingly at risk.

We cannot urge you strongly enough to fundamentally reject this proposed new development project for the many reasons cited above. **Please don't let it be your legacy to have failed to protect this coastal treasure of a community**.

Sincerely,
Joanne and Ed Gold
251 Stanley Ave., Pacifica

Murdock, Christian

From: Francine Tran-Oeyo <francinetran@gmail.com>
Sent: Monday, May 4, 2020 3:04 PM
To: Murdock, Christian
Subject: Coastal Development Application CDP-409-19

[CAUTION: External Email]

Dear Mr. Murdock,

I am writing to oppose the Coastal Development Application (CDP-409-19) on Danmann Avenue and Kent Road. Listed below are the reasons for my opposition.

A. **Coastal erosion:**

i. Pedro Point is prone to coastal erosion and based on recent USGA modeling and the city's own LCLUP map data the proposed development is in the hazard zone clearly shown in this video https://www.youtube.com/watch?v=ws85ECrni8Q&list=PLeyOP16MFrdyj-5VA3PKFCnsrydJHDzLe&index=4&t=0s

ii.

iii. Therefore it will likely require seawall reinforcement or City buybacks at the local taxpayer's expense—AS IS HAPPENING IN MANOR TODAY—and extreme environmental impact.

iv. It does not match the requirements of the City's approved Local Coastal Land Use Plan, which states that a new development is required to be "determined by a geologist to be adequate to withstand a 100-year hazard event".

B. **Neighborhood fit:**

i. The proposal does not fit well with the area. Its scale is too big, not matching the size of other buildings in the area. Its highly prominent location will obstruct coastal corridors for the entire community and its visitors.

ii. Other buildings in the area are nearly all residential and single family homes, and the proposed apartments and mixed use is not consistent with the neighborhood.

iii. Danmann Avenue, Kent Road and the rest of the Pedro Point neighborhood already has traffic parking, congestion, and noise issues caused by events at the fire station, beach goers, and other proposed new developments. Therefore parking exemption should be denied as this will only make things worse.

Please anticipate that should the city approve this development, it will be appealed by the members of this community to the California Coastal Commission.

Thank you for your consideration.

Sincerely,
Francine Tran-Oeyo
235 San Pedro Avenue
Pacifica, CA94044

Murdock, Christian

From: Hanna Steinbach <hanna.steinbach@gmail.com>
Sent: Monday, May 4, 2020 3:28 PM
To: Murdock, Christian; Coffey, Sarah
Subject: Comments on Development of 1200 block of Danmann (CDP-409-19, UP-118-19, PE-185-19 and S-131-19)

[CAUTION: External Email]

Dear Planning Commissioners:

Thank you for your continued service to the community residents during the ongoing Covid-19 crisis. I am a very concerned resident of Pedro Point writing to strongly oppose the proposed development on the 1200 block of Danmann (CDP-409-19, UP-118-19, PE-185-19 and S-131-19). This project should be entirely rejected and is unacceptable for a number of reasons:

Conflicts with Community Character, Scale: Pedro Point is overwhelmingly a residential neighborhood of single-family homes. This new development would be by far the largest building in Pedro Point. The size and scale of it will eclipse all other buildings in the neighborhood and is dramatically out of character for this small, historic coastal community. Therefore, this project should be rejected.

Not Enough Parking: Pedro Point is already suffering dramatically from a lack of parking. In fact, very often out of town visitors park on my property to access the beach or use the commercial offerings. There has been new development in Pedro Point that has dramatically worsened the parking situation.

Conflicts with General Plan: This project is not consistent with the City of Pacifica General Plan Goals. Page 12 of the General Plan states: "Fundamental to the City's character are the traditional neighborhoods. It is the goal of the City to protect the social mix, variety and fundamental character which now exists in each of these neighborhoods by providing for necessary community services and facilities, and for the safety and welfare of all residents equally, but with a sensitivity for the individual neighborhood." Therefore, this project should be rejected.

Conflicts with Coastal Act directives: According to the California Coastal Act - Chapter 3. Coastal Resources Planning and Management Policies - ARTICLE 6. Development [30251]: "The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting."

Damage to Protected Scenery. The proposed new development would obliterate protected scenic views and is NOT compatible with this coastal act policy in any way. Therefore, this project should be rejected.

Coastal Erosion Zone Hazards: A most serious concern is that this site sits directly above Shoreline Drive

which is prone to coastal erosion and landslides. It is in a documented slope failure-coastal erosion zone as indicated in the city's own LCLUP map. There is erosion activity in this area on a regular basis - five feet of earth and fencing fell from one of the adjacent backyards the past two months. An EIR is required and any new development would be in immediate risk. Therefore, this project should be rejected.

Conflicts with LCLUP: According to the city's own LCLUP policies to address coastal resilience, any new development shall: "neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices" (section 6.4, p. 6-12). Therefore, this project should be rejected.

Arbitrary and Capricious City planning directives: Planning decisions must be evaluated based on existing conditions, regardless of zoning. There has never been any historical commercial use (or any development, period) of these two lots other than storage of two pet lamas; The standard use of this property has only ever been an undeveloped field with scenic views and natural charm. Therefore, this project should be rejected.

Arbitrary and Capricious Exemption Requests: Adding insult to injury, and with complete disregard for community residents and the neighborhood character, the applicant is requesting:

a) No setbacks: the applicant claims that because the historic Pedro Point Firehouse has no setbacks, they are entitled to no setbacks as well. Please note that the historic Firehouse was BUILT BY VOLUNTEERS for the purpose of protecting the community in 1949 - before the city was incorporated. City building standards did not exist at that time. The applicant's project is NOT EXEMPT from city's standard codes. Their request should not be considered, and this project should be rejected.
b) Parking exemptions: This neighborhood is at a breaking point for street parking resulting from the many parking exemptions already recently granted by the planning commission. There is literally no more room for more cars along Danmann Ave., Kent Road or San Pedro Ave. And since most of Shoreline Dr. has fallen into the ocean due to coastal erosion, there is no parking available there for residents, either. A parking exemption should not be considered, and this project should be rejected.

Cumulative Negative Impact: The impact of this proposed new commercial/residential development must be considered in context of many other multi-unit Housing and Hotel/Motels developments recently approved (and pending approval) in this small coastal neighborhood. We're already at a breaking point and there have been increasing significant negative impacts including:

a) Increased vehicular traffic; with one single-lane road in and out of The Point, our community was simply not intended nor designed to support commercial traffic volume.
b) Increased street parking congestion: our narrow streets are already choked with parked cars from increased commercial, residential and beach tourism parking demands.
c) Increased pedestrian safety hazards; most of the streets in Pedro Point have no sidewalks, and none have crosswalks. Increased street parking and vehicular traffic obstructs the only pedestrian routes, creating severe safety hazards and putting residents and their pets increasingly at risk.

I cannot urge you strongly enough to fundamentally reject this proposed new development project for the many reasons cited above. Please don't let it be your legacy to have failed to protect this coastal treasure of a community.

Sincerely,

Hanna Steinbach, Esq.

227 Stanley Ave., Pacifica

CAUTION: This email originated from outside of the City of Pacifica. Unless you recognize the sender's email address and know the content is safe, do not click links, open attachments or reply.

Murdock, Christian

From: louie mercer <lou.mercer@gmail.com>
Sent: Monday, May 4, 2020 3:29 PM
To: Murdock, Christian; Coffey, Sarah
Subject: Comments on Development of 1200 block of Danmann (CDP-409-19, UP-118-19, PE-185-19 and S-131-19)

[CAUTION: External Email]

Dear Planning Commissioners:

Thank you for your continued service to the community residents during the ongoing Covid-19 crisis. I am a very concerned resident of Pedro Point writing to strongly oppose the proposed development on the 1200 block of Danmann (CDP-409-19, UP-118-19, PE-185-19 and S-131-19). This project should be entirely rejected and is unacceptable for a number of reasons:

Conflicts with Community Character, Scale: Pedro Point is overwhelmingly a residential neighborhood of single-family homes. This new development would be by far the largest building in Pedro Point. The size and scale of it will eclipse all other buildings in the neighborhood and is dramatically out of character for this small, historic coastal community. Therefore, this project should be rejected.

Not Enough Parking: Pedro Point is already suffering dramatically from a lack of parking. In fact, very often out of town visitors park on my property to access the beach or use the commercial offerings. There has been new development in Pedro Point that has dramatically worsened the parking situation.

Conflicts with General Plan: This project is not consistent with the City of Pacifica General Plan Goals. Page 12 of the General Plan states: "Fundamental to the City's character are the traditional neighborhoods. It is the goal of the City to protect the social mix, variety and fundamental character which now exists in each of these neighborhoods by providing for necessary community services and facilities, and for the safety and welfare of all residents equally, but with a sensitivity for the individual neighborhood." Therefore, this project should be rejected.

Conflicts with Coastal Act directives: According to the California Coastal Act - Chapter 3. Coastal Resources Planning and Management Policies - ARTICLE 6. Development [30251]: "The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting."

Damage to Protected Scenery. The proposed new development would obliterate protected scenic views and is NOT compatible with this coastal act policy in any way. Therefore, this project should be rejected.

Coastal Erosion Zone Hazards: A most serious concern is that this site sits directly above Shoreline Drive

which is prone to coastal erosion and landslides. It is in a documented slope failure-coastal erosion zone as indicated in the city's own LCLUP map. There is erosion activity in this area on a regular basis - five feet of earth and fencing fell from one of the adjacent backyards the past two months. An EIR is required and any new development would be in immediate risk. Therefore, this project should be rejected.

Conflicts with LCLUP: According to the city's own LCLUP policies to address coastal resilience, any new development shall: "neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices" (section 6.4, p. 6-12). Therefore, this project should be rejected.

Arbitrary and Capricious City planning directives: Planning decisions must be evaluated based on existing conditions, regardless of zoning. There has never been any historical commercial use (or any development, period) of these two lots other than storage of two pet lamas; The standard use of this property has only ever been an undeveloped field with scenic views and natural charm. Therefore, this project should be rejected.

Arbitrary and Capricious Exemption Requests: Adding insult to injury, and with complete disregard for community residents and the neighborhood character, the applicant is requesting:

a) No setbacks: the applicant claims that because the historic Pedro Point Firehouse has no setbacks, they are entitled to no setbacks as well. Please note that the historic Firehouse was BUILT BY VOLUNTEERS for the purpose of protecting the community in 1949 - before the city was incorporated. City building standards did not exist at that time. The applicant's project is NOT EXEMPT from city's standard codes. Their request should not be considered, and this project should be rejected.
b) Parking exemptions: This neighborhood is at a breaking point for street parking resulting from the many parking exemptions already recently granted by the planning commission. There is literally no more room for more cars along Danmann Ave., Kent Road or San Pedro Ave. And since most of Shoreline Dr. has fallen into the ocean due to coastal erosion, there is no parking available there for residents, either. A parking exemption should not be considered, and this project should be rejected.

Cumulative Negative Impact: The impact of this proposed new commercial/residential development must be considered in context of many other multi-unit Housing and Hotel/Motels developments recently approved (and pending approval) in this small coastal neighborhood. We're already at a breaking point and there have been increasing significant negative impacts including:

a) Increased vehicular traffic; with one single-lane road in and out of The Point, our community was simply not intended nor designed to support commercial traffic volume.
b) Increased street parking congestion: our narrow streets are already choked with parked cars from increased commercial, residential and beach tourism parking demands.
c) Increased pedestrian safety hazards; most of the streets in Pedro Point have no sidewalks, and none have crosswalks. Increased street parking and vehicular traffic obstructs the only pedestrian routes, creating severe safety hazards and putting residents and their pets increasingly at risk.

We cannot urge you strongly enough to fundamentally reject this proposed new development project for the many reasons cited above. Please don't let it be your legacy to have failed to protect this coastal treasure of a community.

Louis Mercer

Murdock, Christian

From: John Peterson <winsurfa@gmail.com>
Sent: Monday, May 4, 2020 3:51 PM
To: Wehrmeister, Tina
Cc: Murdock, Christian
Subject: Re: 1200 Block of Danmann Ave / 2019-025 permit PSD-843-19

[CAUTION: External Email]

Hello,

Please let me add that we live down the street near the corner of Danmann and San Pedro at 1275.

John Peterson
415-531-5616

On May 4, 2020, at 7:24 AM, John Peterson <winsurfa@gmail.com> wrote:

Hello,

It has come to my attention that the following monstrosity, out of character, intrusive, building project is actually being considered at this location. Please note my concerns:

- While this is a so called mixed use area, it is largely residential and this commercial mixed use project is totally out of character with a project considered for the end of the road (with only one way in & way out) that is mostly residential.
- The above condition along with the increased use of the area for beach parking should discount it it for its largeness.
- Let's say it looks like 5500 sq ft of commercial, which should require 1 parking space for every 300 sq ft. That is 18.33 parking spaces! And 6 residential units that you could imagine being 2 parking spaces for each unit. That's 12 spaces. Thats 30 cars! The proposed parking lot only will hold 20 -22? No more parking exemptions from what I heard! And, you know this means 30-40-50 cars on any busy or Holiday time! No, no, and NO. This is not acceptable.
- Traffic has really gotten bad before the pandemic and can you imagine all the cars turning around? What…crazy!
- And…have you heard about the hillside erosion happening north of this area? Just because the overly large project was approved above it doesn't mean you can pile of this misguided plan. This should only be mostly, if not all residential. Maybe one commercial. Please have some proper vision.
- While I understand this is a costly piece of land, it is largely overpriced and should, not determine that an entity, such as this LLC should be allowed to ruin the character of the neighborhood. Please please reject this design.

- I appreciate your efforts to build Pacifica, but please, please consider…..sustainability!

Thank you for the opportunity to comment on this project. However misguided…..please reject this plan and rework in accordance with proper planning vision and continued sustainable building that needs serious rethinking at this time.

Thank you,

John Peterson
415-531-5616
winsurfa@gmail.com

Gheeva Chung
650-888-8532
gheeva@yahoo.com

Murdock, Christian

From: Allison West <akwest365@gmail.com>
Sent: Monday, May 4, 2020 3:56 PM
To: Murdock, Christian; Coffey, Sarah
Subject: 1200 block of Danmann re CDP-409-19, UP-118-19, PE-185-19 and S-131-19)
Attachments: Danmann - Planning Commision 050420.docx

Christian and Sarah:

Attached please find my letter opposing the project and also a video that I would like the Commissions to be able to view of the cliffs north of the project. Not sure if you want me to send it to them via email. Please let me know.

Thanks,

Allison

https://www.youtube.com/watch?v=ws85ECrni8Q
Posted on YouTube by Dave Kent January 26, 2016

Dear Planning Commissioners:

I am one of many concerned residents of Pedro Point again writing to stress our collective and personal opposition to the proposed mixed-use development on Danmann Ave. I incorporate by reference each of the comments made by my neighbors Sam Casillas, Joanne Gold and every other neighbor who has submitted their opposition to this project.

The project should be rejected in its entirety for the following reasons:

1. **Neighborhood Character**

- The proposed development is massive for the location and for the neighborhood. From what I can see, every possible square inch of the lot will be comprised of the building. Views will be blocked, and the building is oppressive to the flavor and nature of the community.

- This property is not exempt from the set-back requirements. While the Firehouse has not setback, it was built long before the set-back requirement was enacted. Any request for an exemption should be rejected.

- I encourage each of you to walk our neighborhood like Commissioner Bigstyck and get a firsthand look at the neighborhood.

2. Parking Issues

- We all that people in Pacifica tend to not use their garages. With 6 residential units we can assume there will be approximately 12 cars use for the residents. Add that number to the commercials spots that will be taken up on street and this poses an untenable position for residents of the community. One of my neighbors is providing you a picture of Danmann on a regular day – there are fisherman, surfers and neighbors parking on the street, and it is completely crowded.

- Danmann is a dead end. At the far end of the street sits the cliffs that are falling into the ocean.

This project should be rejected.

3. Traffic from Hwy 1 to Danmann Avenue

Because of the location of the property, the commercial aspect must be visitor serving. While we understand that the property owners get to building something on their property, having a huge structure in far western part of Pedro Point will dramatically increase the traffic to an area that is detrimental to the safety of all residents. Getting into Pedro Point is a single-one lane road. It was not designed to support commercial traffic.

The project should be rejected.

4. Coastal Erosion Hazards

I'm attaching a video taken approximately 4 years that was posted by long time Pacifica resident Dave Kent. The video is chilling in is clear view of the deep erosion and cliff disintegration on the property's northern border. You cannot ignore what you see. Slope failure, continue erosion are continuing. It will not stop. An EIR must be conducted as any new development would be at risk.

According to the city's own LCLUP policies to address coastal resilience, any new development shall: "*neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices*" (section 6.4, p. 6-12). It would be naïve to think that this property is not included in this section of the City's plan.

We also know from the GPU that new buildings are to last 100 years, based on the City's own data, that land will be washed away well before the turn of the century.

You simply cannot wish away the erosion. It would reckless and create tremendous liability to the City to approve this project.

This project should be rejected.

5. Arbitrary and Capricious City planning directives: Planning decisions must be evaluated based on existing conditions, regardless of zoning. There has never been any historical commercial use (or <u>any</u> development, period) of these two lots other than storage of two pet lamas. The standard use of this property has only ever been an <u>undeveloped field with scenic views and natural charm</u>.

This project should be rejected.

6. Neighbor v. Neighbors

Once again we find ourselves in front of the Planning Commission in numbers large enough to get your attention. You continue to pit neighbor against neighbor with a careless disregard of the opinions, science and the City's own documentation. You put us in the position to fight developments that will impact where we live, the value of our homes and put us at risk with safety issues when the area becomes so congested it will be difficult for fire and other emergency personnel to reach the western part of Pedro Point. Can you imagine a Paradise situation here? One way in and one way out. Please be reasonable with what can be built on this lot including the density and the look of the development.

Again, the builder comes up with boxy project that adds nothing to the character of the neighborhood (one of the builders built my lovely home, clearly, he knows how to scale to a neighborhood).

Stop having us fight neighbor v neighbor.

This project must be rejected.

Thank you for taking the time to read my comments.

Allison West
280 San Pedro Ave
6509-22-4611

To the Pacifica Planning Commission,

As the homeowner of 276 Kent Road, I am writing to oppose the proposed development on the 1200 block of Danmann (CDP-409-19, UP-118-19, PE-185-19 and S-131-19) and ask that it be **denied entirely**. There are several issues that require attention and consideration by the Planning Department, and at this stage, the proposal should be denied entirely.

Below are the issues that I ask the Planning Department to address:

1. **Neighborhood Fit**: This will be by far, the largest building on Pedro Point and will dwarf all other buildings in the neighborhood. The neighborhood is a majority single-family residential neighborhood and the proposed development would be out of character for the neighborhood.
2. **Parking Exceptions**: The neighborhood is already stretched far too thin for parking. Observed on any given weekend (even before "Shelter In Place"), there is very little parking available along Danmann Ave., Kent Rd., or San Pedro Ave. The proposed development would place additional traffic and parking issues on the neighborhood, most of which would be felt by the residents. Additionally, most of Shoreline Dr has crumbled into the ocean so that street is not an option for additional parking. The city has already approved other parking exceptions in the Pedro Point shopping center that are having a negative impact on the parking situation on Pedro Point. The applicant is requesting PE-185-19, which should not be approved.
3. **Coastal erosion**: Both of these parcels are directly located above Shoreline Drive. Part of this street has already succumbed to landslides and coastal erosion. In fact, a bluff located only a few feet away from the proposed development site has recently given way and is crumbling into the ocean. I've been informed that the most recent USGS modeling and even the city's own LCLUP map data show this cliff eroding almost to Kent Road. Additionally the city's data source from the Pacific Institute is from 2009 and all Sea Level rise map projections are now being revised to show more dire outcomes. This property should be utilized for coastal erosion mitigation in accordance to SB379.
4. **California Environmental Quality Act**: The planning department's conclusion that this proposal is except from the California Environmental Quality Act is wrong. I've been informed that the California Coastal Commission has submitted a letter requesting conditions for approval that should be considered. In this request they note that the applicant's consultant, GeoForensics, reported historical erosion rates in the range of 0.1 to 0.45 ft/year, while other sources like USGS report much higher rates. Bluff erosion hazards over the next 100 years are dependent on which historical rate is used. Therefore, if higher erosion rates are used in the analysis like the ones from USGS, the setback of the proposed development may not be adequate for the full design life cycle of the project.
    a. In other words, if the USGS average historical retreat rates are used (Coastal Commission has recommended 2.3 ft/yr), that would mean that 100 feet of this property would only last 43 years. As a Pacifica tax payer, I am concerned that

the city would allow a project to be built, that parts of, could only last for 43 years while taxpayers are already paying to remove a building on the north end of Pacifica. Why would the city want to set up taxpayers for more structure removals costs?

   b. The proposed development would go against the current city's approved Local Coast Land Use Plan. Is the city setting a new California design life standard of 43 years?

5. **Setbacks**: The applicant has requested no set-backs with the claim that the Pedro Point Firehouse has no setback. The Firehouse existed before Pacfica was incorporated and should not be grounds for an exception.

This request for denial is based on data, new evidence, and concern for the neighborhood.

Thank you for your consideration.

Jacqueline Pan
276 Kent Road

Murdock, Christian

From: Coffey, Sarah
Sent: Monday, May 4, 2020 4:21 PM
To: Murdock, Christian
Subject: FW: CDP-409-19, UP-118-19, PE-185-19, S-131-19
Attachments: pastedGraphic_1.png; pastedGraphic_3.png; pastedGraphic_2.png

Hi Christian,

Forwarding the below in case you did not receive directly.

- Sarah

From: Essam Metwally <essam@metwally.org>
Sent: Sunday, May 3, 2020 11:29 PM
To: Murdock, Christian <murdockc@ci.pacifica.ca.us>; Coffey, Sarah <coffeys@ci.pacifica.ca.us>
Subject: Re: CDP-409-19, UP-118-19, PE-185-19, S-131-19

[CAUTION: External Email]

May 3, 2020

To: murdockc@ci.pacifica.ca.us

Cc: coffeys@ci.pacifica.ca.us

Re: Comments on Development of 1200 block of Danmann (CDP-409-19, UP-118-19, PE-185-19 and S-131-19)

Dear Mr. Murdock:

Thank you for your continued service to the community residents during the ongoing pandemic. We are extremely concerned residents of Pedro Point, writing in opposition to the proposed development on the 1200 block of Danmann (CDP-409-19, UP-118-19, PE-185-19 and S-131-19). This project should be rejected in its

entirety. Furthermore the plan itself has significant issues which render the proposed development undesirable and problematic in the future.

The most significant issues include: **Coastal Erosion, Geologic Instability, Emergency Preparedness, Traffic Congestion** and many other problems as listed below.

Emergency Preparedness: In examining the documentation for this project and any commercial development, I have seen no mention of the safety of the residents of Pedro

Point, There is a single road with a single lane of traffic allocated in each direction. This single lane access narrows to single vehicle width due to congestion resulting from on-street parking which is often less than 6 ft from the center of the road and frequently occurs on both sides of the street. This poses a serious safety hazard in the event of an emergency. This does not even address the feasibility of an evacuation of the Point. **Do you feel that the current number of residents could safely evacuate the area should the need arise? Are you comfortable increasing that number? Until proper safety and engineering assessments have been completed which address the capacity of the current roadway infrastructure, there should be a moratorium on any additional development that has the potential to increase vehicular access.**

Coastal Erosion Zone Hazards: Site sits directly above Shoreline Drive which is prone to coastal erosion and landslides. This is a documented slope failure-coastal erosion zone as indicated in the city's own LCLUP map. Erosion activity is observed on a regular basis - five feet of earth and fencing fell from one of the adjacent backyards the past two months. An EIR is required and any new development would be in immediate risk. **Therefore, this project should be rejected.**

Conflicts with LCLUP: According to the city's own LCLUP policies to address coastal resilience, any new development shall: "*neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices*" (section 6.4, p. 6-12). **Therefore, this project should be rejected.**

Conflicts with Coastal Act directives: According to the California Coastal Act - Chapter 3. Coastal Resources Planning and Management Policies - ARTICLE 6. Development [30251*]: "The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government shall be subordinate to the character of its setting."*

The proposed new development would obliterate protected scenic views and is NOT compatible with this coastal act policy in any way. **Therefore, this project should be rejected.**

Arbitrary and Capricious City planning directives: Planning decisions must be evaluated based on existing conditions, regardless of zoning. There has never been any historical commercial use (or any development, period) of these two lots other than storage of two pet lamas; The standard use of this property has only ever been an undeveloped field with scenic views and natural charm. **Therefore, this project should be rejected.**

Arbitrary and Capricious Exemption Requests: Adding insult to injury, and with complete

Conflicts with General Plan: This project is not consistent with the City of Pacifica General Plan Goals. Page 12 of the General Plan states: "*Fundamental to the City's character are the traditional neighborhoods. It is the goal of the City to protect the social mix, variety and fundamental character which now exists in each of these neighborhoods by providing for necessary community services and facilities, and for the safety and welfare of all residents equally, but with a sensitivity for the individual neighborhood.*" **Therefore, this project should be rejected.**

Conflicts with Community Character, Scale: Pedro Point is overwhelmingly a residential neighborhood of single-family homes. This new development would be by far the largest building in Pedro Point. The size and scale of it will eclipse all other buildings in the neighborhood and is dramatically out of character for this small, historic coastal community. **Therefore, this project should be rejected.**

disregard for community residents and the neighborhood character, the applicant is requesting:

a) No setbacks: the applicant claims that because the historic Pedro Point Firehouse has no setbacks, they are entitled to no setbacks as well. Please note that the historic Firehouse was BUILT BY VOLUNTEERS for the purpose of protecting the community in 1949 - before the city was incorporated. City building standards did not exist at that time. The applicant's project is NOT EXEMPT from city's standard codes. Their request should not be considered, and **this project should be rejected.**

b) Parking exemptions: This neighborhood is at a breaking point for street parking resulting from the many parking exemptions already recently granted by the planning commission. There is literally no more room for more cars along Danmann Ave., Kent Road or San Pedro Ave. And since most of Shoreline Dr. has fallen into the ocean due to coastal erosion, there is no parking available there for residents, either. A parking exemption should not be considered, and **this project should be rejected.**

Cumulative Negative Impact: The impact of this proposed new commercial/residential development must be considered in context of many other multi-unit Housing and Hotel/Motels developments recently approved (and pending approval) in this small coastal neighborhood. We're already at a breaking point and there have been increasing significant negative impacts including:

a) Increased vehicular traffic; with one single-lane road in and out of The Point, our community was simply not intended nor designed to support commercial traffic volume.

b) Increased street parking congestion: our narrow streets are already choked with parked cars from increased commercial, residential and beach tourism parking demands.

c) Increased pedestrian safety hazards; most of the streets in Pedro Point have no sidewalks, and none have crosswalks. Increased street parking and vehicular traffic obstructs the only pedestrian routes, creating severe safety hazards and putting residents and their pets increasingly at risk.

We cannot urge you strongly enough to fundamentally reject this proposed new development project for the many reasons cited above. **Please don't let it be your legacy to have failed to protect this coastal treasure of a community**.

Sincerely,

Heba Ismail and Essam Metwally

240 Stanley Ave, Pacifica

Concrete slab falling into ocean 20 feet from proposed development (Left: beach view, Right: Bluff View)

New erosion from latest rains

Murdock, Christian

From: Deb Lynch <dlynch2121@aol.com>
Sent: Monday, May 4, 2020 4:41 PM
To: Murdock, Christian
Subject: Danman/Kent Rd project

[CAUTION: External Email]

Dear Planning Commissioners:
Thank you for your continued service to the community residents during the ongoing Covid-19 crisis. We are concerned residents of Pedro Point writing to convey our opposition to the proposed development on the 1200 block of Danmann (CDP-409-19, UP-118-19, PE-185-19 and S-131-19).
Our neighborhood is unique in its design, layout, architecture and roadways. A building like this is better suited for a shopping center or an area where like properties already exist. If in an area where existing properties like this exist, that means the structure and traffic issues have already been addressed and accommodated.
I fully support growth, but in a considerate and thoughtful way. We bought my home on Pedro Point because of the natural coastal beauty, sense of community and the unique characteristics it holds. As a property owner, I want to maintain the characteristics that made me want to call it home.
Thank you,
Debbie Young Lynch
151 Kent Rd., Pacifica, Ca. 94044

Sent from Deb's iPad

Dear Planning Commissioners,

Thank you for taking the time to serve your community.

I am writing today to (virtually) stand with my neighbors in opposition to the proposed project at the 1200 block of Danmann Avenue (APN 023-013-010 and 023-013-020).

In addition to the many excellent points raised by my neighbors in opposition to this new development project, the **City's Staff report creates a dangerous false equivalence in its recommendation for approval**.

Section 9-4.3204 of the PMC states that a site development permit shall not be granted if the Commission makes any of the following findings:

*i. That the location, size, and intensity of the proposed operation will create **a hazardous or inconvenient vehicular or pedestrian traffic pattern**, taking into account the proposed use as compared with the general character and intensity of the neighborhood.*

In justifying this **new development**, the City Planning Department makes a dangerous claim: "The approximately 3,050 sf of commercial space [and additional six apartment units] proposed for the project site is **consistent with and smaller than nearby commercial development projects that are located in relatively close proximity to the site**. The Pedro Point Shopping Center (5400-5450 Coast Highway), located approximately 730 feet away, is approximately 30,000 sf in area. An Ace Hardware Store (560 San Pedro Avenue), located approximately 986 feet away, is approximately 9,000 sf in area.

The Pedro Point Shopping Center and The Linda Mar Ace Hardware are adjacent to Highway 1: sites adjacent to Highway 1 may be better-suited for visitor-serving uses, rather than a greenfield project deep inside an existing neighborhood. Furthermore, the existence of Ace Hardware, founded in 1953 does not justify the approval of this new development, in a known hazard-zone, in 2020.

The two blocks of Danmann between Linda Mar Beach and the Pedro Point neighborhood are becoming ground zero for unsustainable development: it is already choked with traffic, a lack of parking, and too many cars on the narrow road. As Mr. and Mrs. Gold have already noted, there are no contiguous sidewalks in Pedro Point. The addition of six households in addition to the commercial space without setbacks further exacerbates the dangerous level of street traffic which have increased at an alarming rate in the past ten years.

As it is, I am already afraid to ride my bike with my young children in front of my house. Business such as the Coastal Cat Clinic have posted "No Beach Parking Signs," and anonymous neighbors have taken it upon themselves to add their own homegrown *Locals Only* signs (taken just this past weekend) in a futile attempt to protect themselves and their families from the influx of beach-goers circling the lower streets of Pedro Point in search of beach parking due to the severe under-allocation of parking spaces in Pedro Point.

Please do not exacerbate these problems by authorizing more short-sighted, unsustainable new developments in our neighborhood.

Sincerely yours,
Cherie Chan Ferry
324 San Pedro Avenue