

Construction of Private Seawalls at Collaroy-Narrabeen Beach: a Failure of Coastal Management?

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Some facts on the wall

- not one wall
- totally landowner driven
- 100% landowner funded (20% refunded on application)
- entirely on private property as per survey and land titles
- replacing existing rock wall



2007



2007



2007



2016

2016





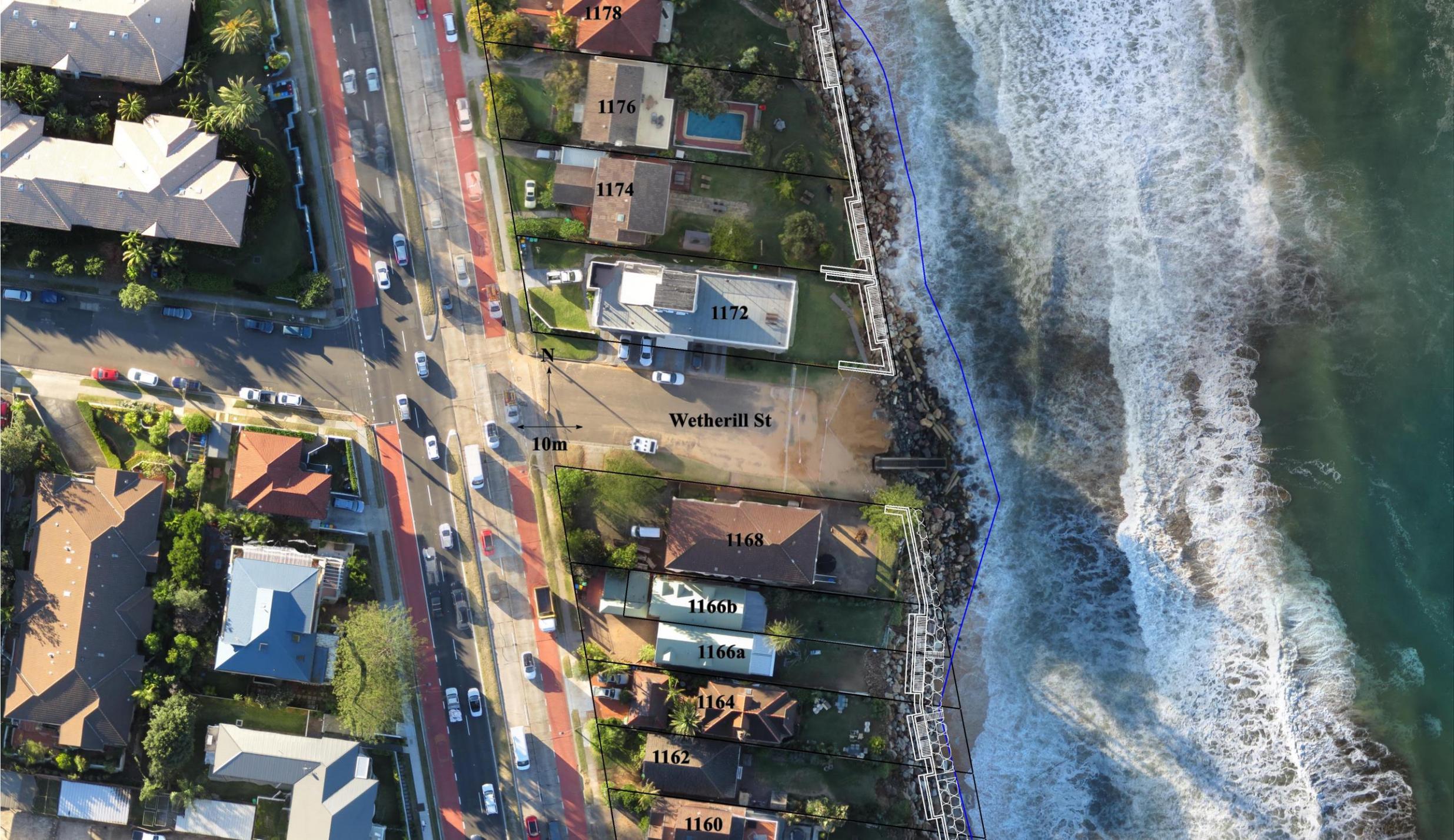
2016



2017

Some facts on the wall

- up to about 10m of former ad-hoc rock works have been removed off public beach



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Wetherill St

10m

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1166b

1166a

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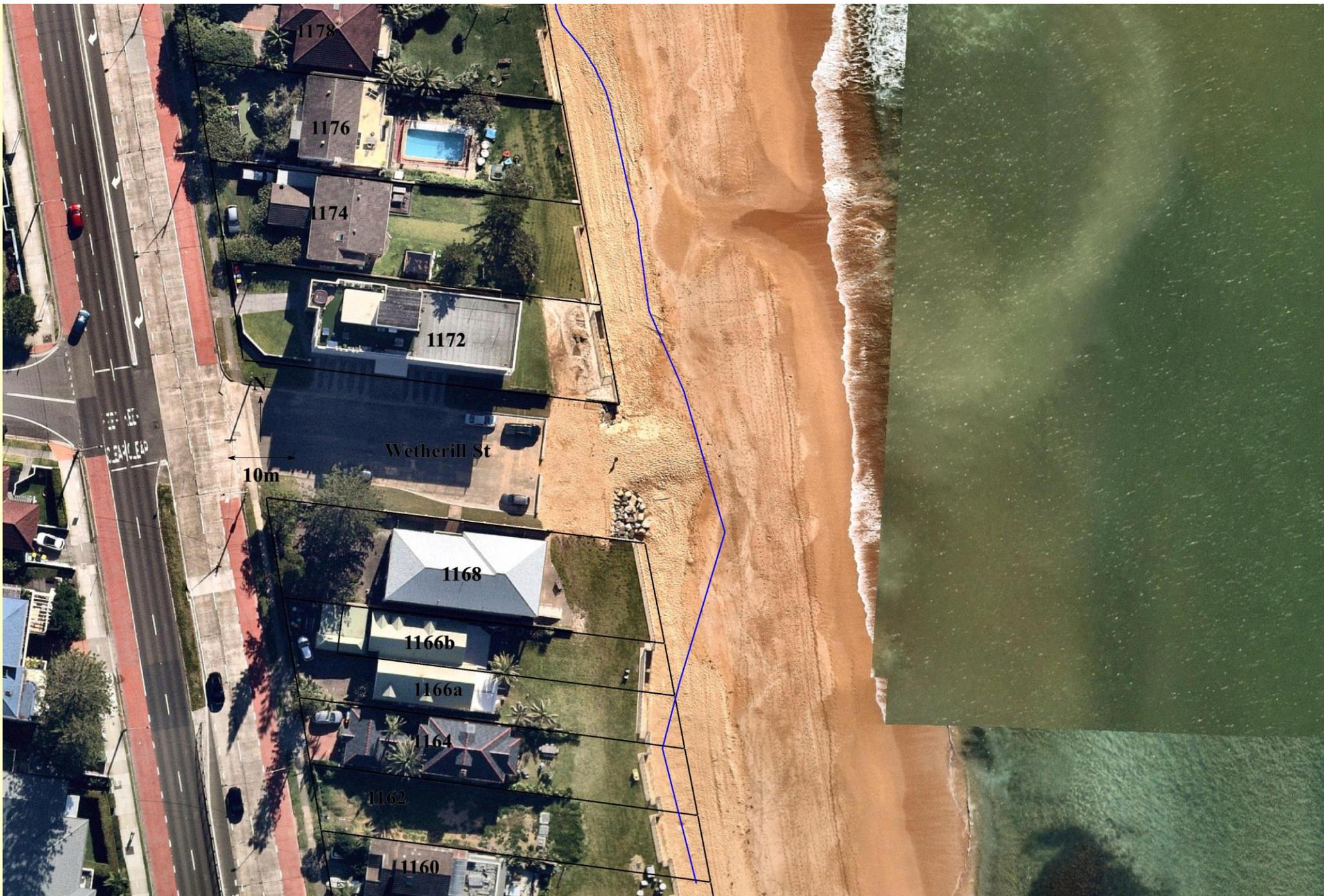
Some facts on the wall

- generally includes a rock toe



Some facts on the wall

- Crown Lands would not have given consent for works on public beach



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Wetherill St

10m

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1166a

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Thomas Mortlock • 1st

Senior Risk Scientist (Climate Risk, Coastal, Flood) at Risk Frontiers

4mo • Edited • 🌐

After major erosion in 2016, and again in 2020, the Narrabeen sea wall is finally underway and throws a fascinating spotlight on where we are with coastal management as a nation.

Most residents have faith, paying 80 % of construction costs coming out at over \$280,000 a head, knowing their properties need the wall to survive (and retain a market value).

But this appears another example - stretching back some 30 years - of kicking the can down the road. The underlying issues of inappropriate legacy development in the active beach zone continue.

As with many erosion hotspots in Australia, this is an exposure-side driver of coastal risk, with sea level rise not the root cause but a risk amplifier.

Unfortunately, the cost of dealing with these issues will only increase into the future.

[#climatechange](#) [#riskmanagement](#) [#coastal](#)



Construction begins on northern beaches sea wall despite 'vexed' funding issues

smh.com.au • 3 min read

👍 🗨️ 🌐 36 • 12 comments

Kicking the can down the road?

- putting off confronting a difficult issue or making an important decision
- really?
- CZMP was developed over many years and with extensive public consultation
- coastal protection works adopted management option for this beach
- upgraded existing works with more robust works further landward
- entirely on private property
- 10m of rock removed off public land
- fixed the problem of progressive failure and debris each storm



Allan Young • 1st

National Technical Leader, Urban and Regional Planning at EMM Consulting Pty ...

3mo •

Could the person responsible for putting the rocks and construction waste on our public beach now remove them please. [#coastal](#) [#beaches](#)



A Two-Metre Tide Exposes The Farce Of Narrabeen's Seawall

[surflife.com](#) • 3 min read

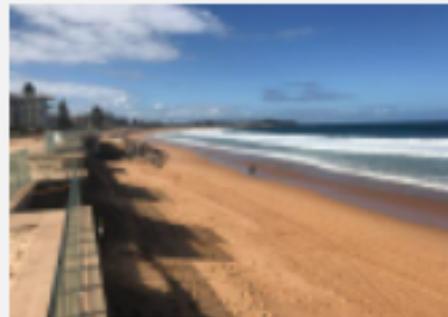


Peter Horton • You

3mo ***

Coastal engineer and water engineer offering specialist services throug...

Allan, the "waste" (mainly small rock to support a working platform) and rocks you refer to are only temporary protection to the works area while construction is ongoing. When the works are complete, this material will be removed and sieved out. What will remain is a sandy public beach with no coastal protection works on it, and the coastal protection works entirely on private property. Prior to the current works being undertaken, the ad-hoc rock boulder coastal protection works extended up to about 10m on to the public beach. So your request will be granted - no rocks and construction waste on the public beach. Here is a photo on the same day of the surfline article at low tide. All that rock in the background is to be removed.



Like ·  2 | Reply · 8 Replies





Thomas Mortlock • 1st

Senior Catastrophe Analyst at Aon | Climate Risk | Flood | Coastal

3mo • 🌐

Good call [Allan Young](#). My personal view is this is an example of over-engineering and short sightedness (coming from an engineer). Sea walls have their place, but if our best response is an 8 m block of concrete which eats into beach amenity, and fails to address the underlying issues, then can we now consider we've given up? Noting that this is one of the most studied beaches in the world. What are our chances at a beach we know nothing about?!



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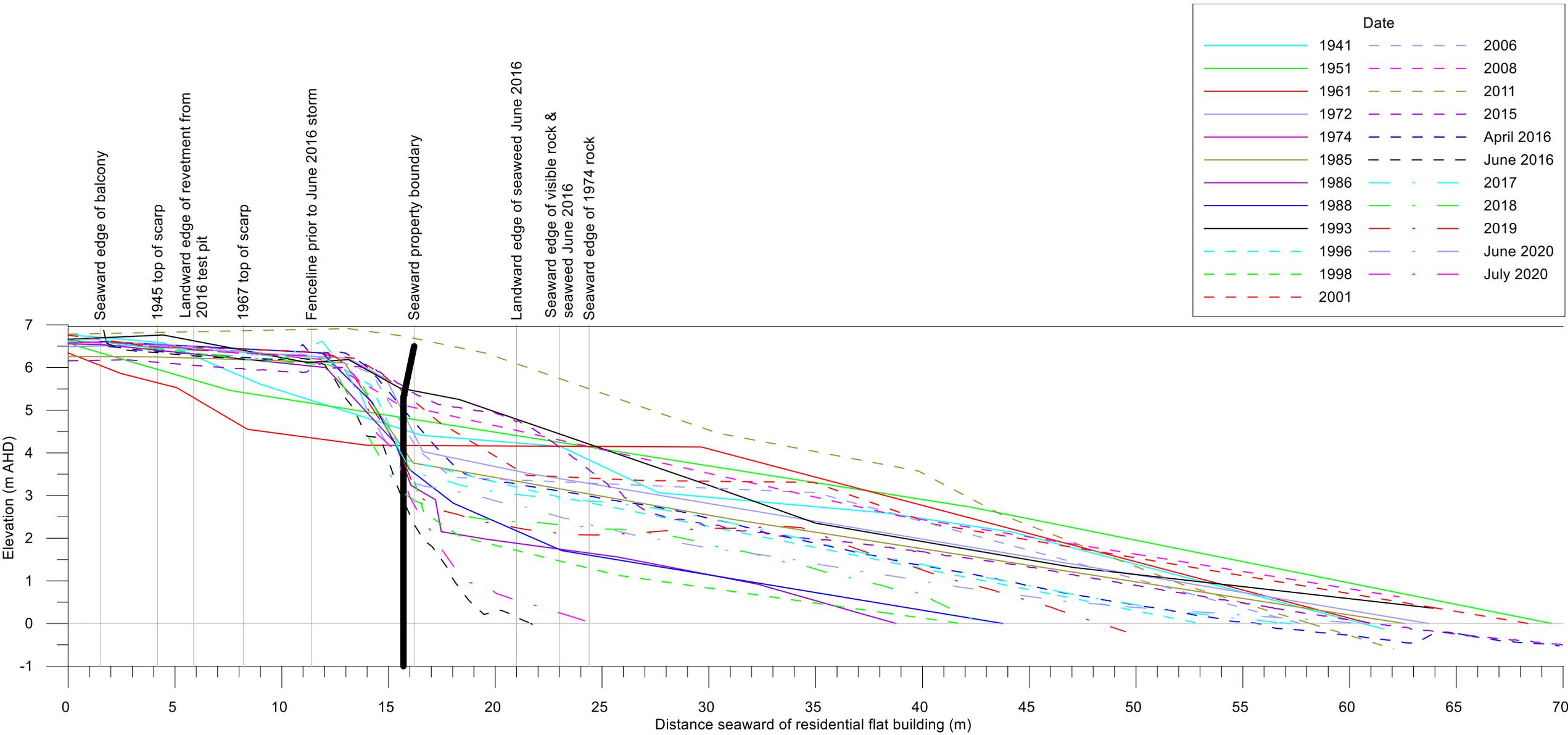


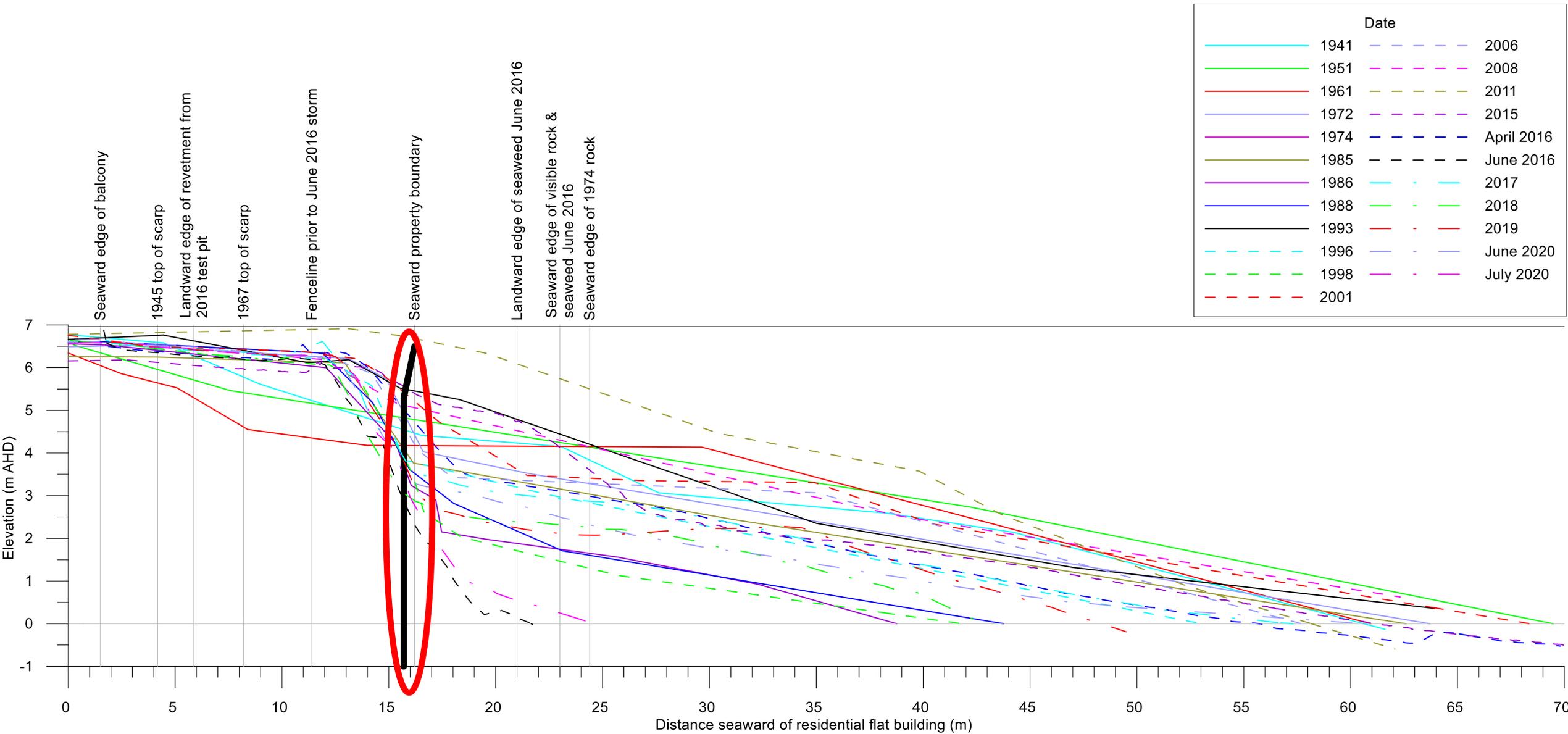
A Two-Metre Tide Exposes The Face Of Narrabeen's Seawall

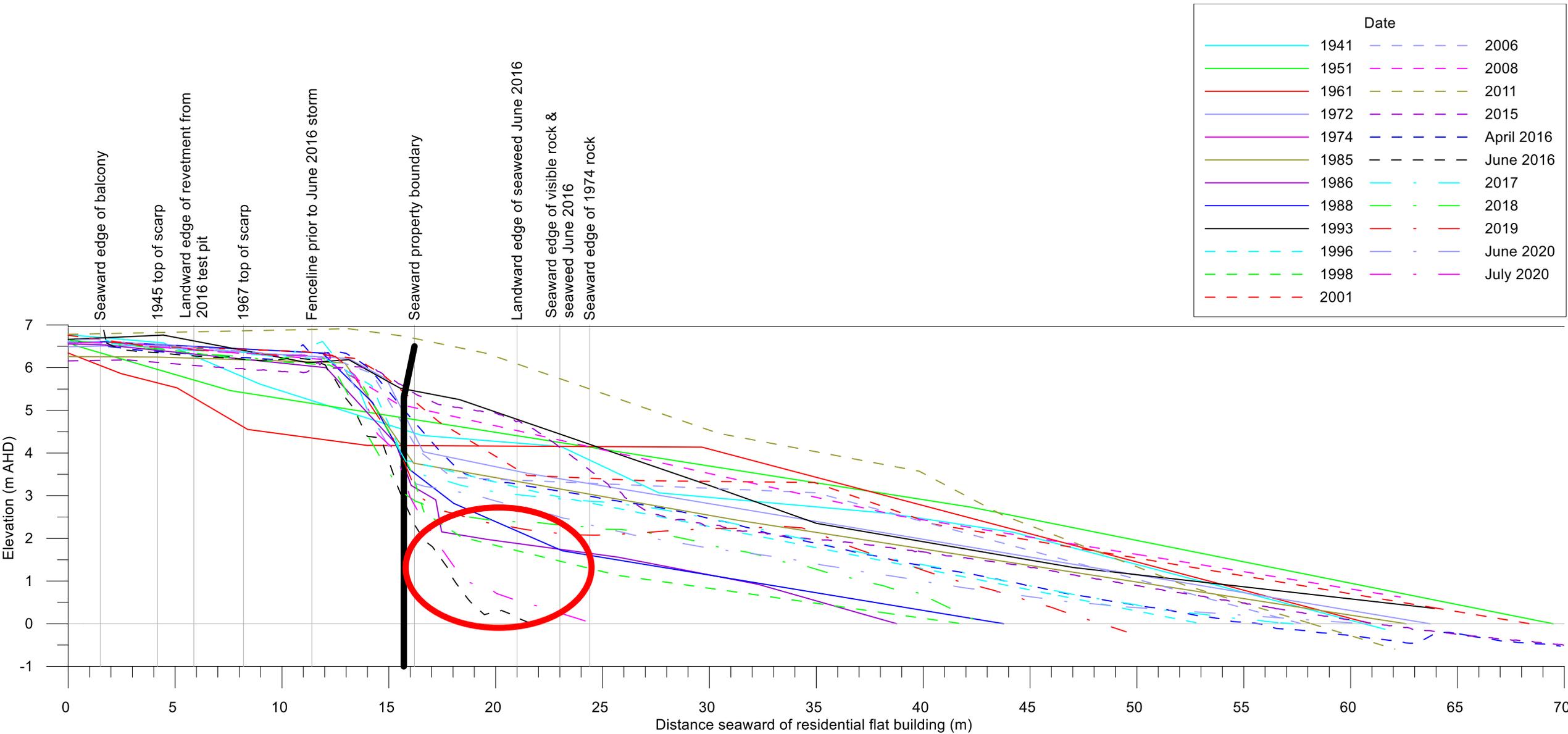
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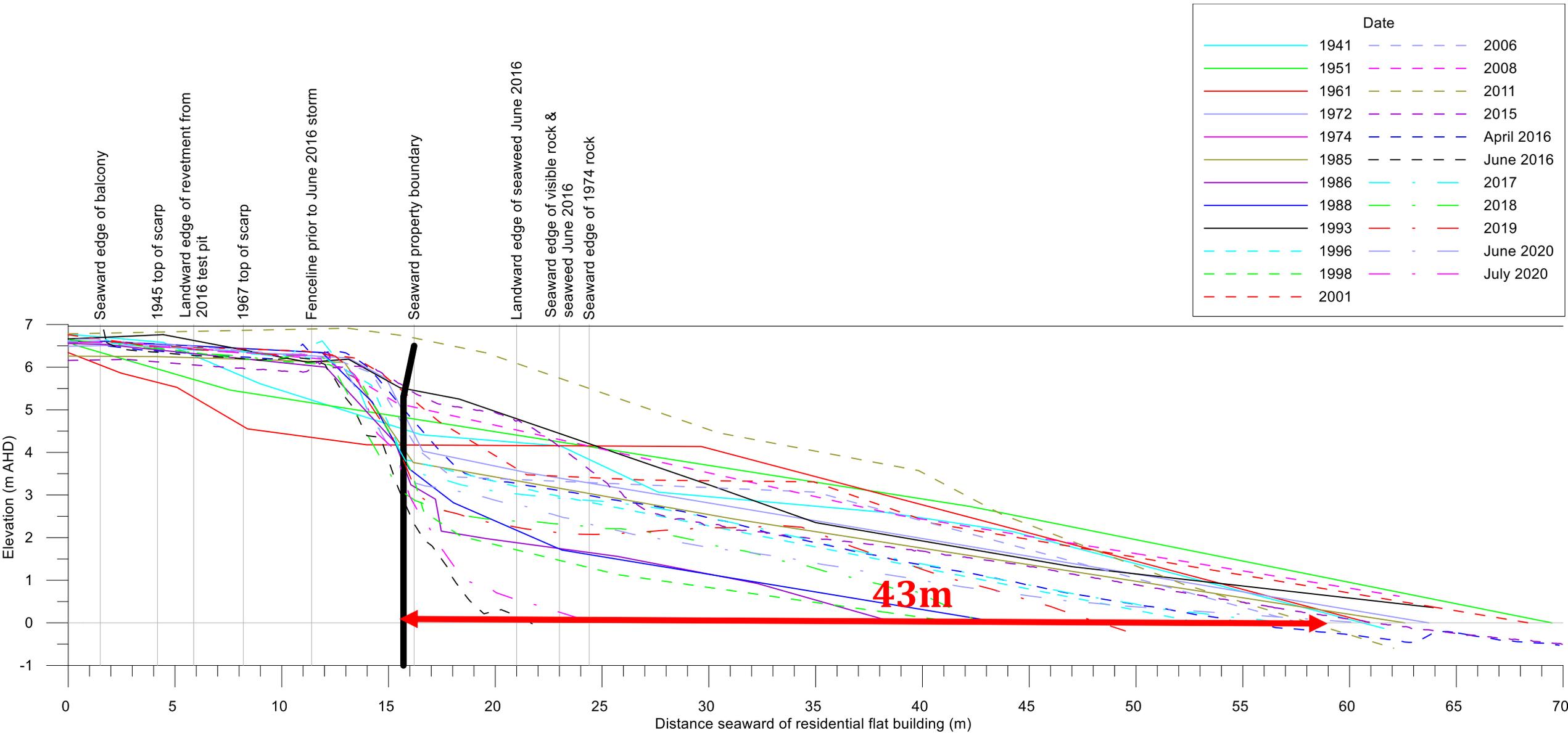
Eats into beach amenity?

- really?











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Senior Catastrophe Analyst at Aon | Climate Risk | Flood | Coastal

3mo •

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What wouldn't be short sighted?

- “sterilise” (no new development)
 - won't improve beach amenity, as existing uses and works remain
- property purchase?
 - too expensive: 20 × cost of protection, 100 × cost of public contribution to protection, 150 × typical annual NSW coastal management budget
- retreat (move owners out and make it a park)?
 - no legal mechanism, nowhere to move
 - requires seawall to protect Pittwater Road
- massive beach nourishment?
 - expensive, ongoing, impact on lagoon (flooding, WQ, ecology, recreation)



Rob Young • 2nd

4mo ...

Director, Program for the Study of Developed Shorelines at Western Carol...

Is this beach regularly renourished? If not, it will soon need to be.

Like · 4 | Reply · 2 Replies



Tom FitzGerald • 1st

4mo ...

Policy Specialist: Adaptation and Risk at GNS Science

Nourishment has been the subject of regular Gov 'working parties' for years...they have some policy issues to work through, never mind the ongoing cost...

Like · 1 | Reply



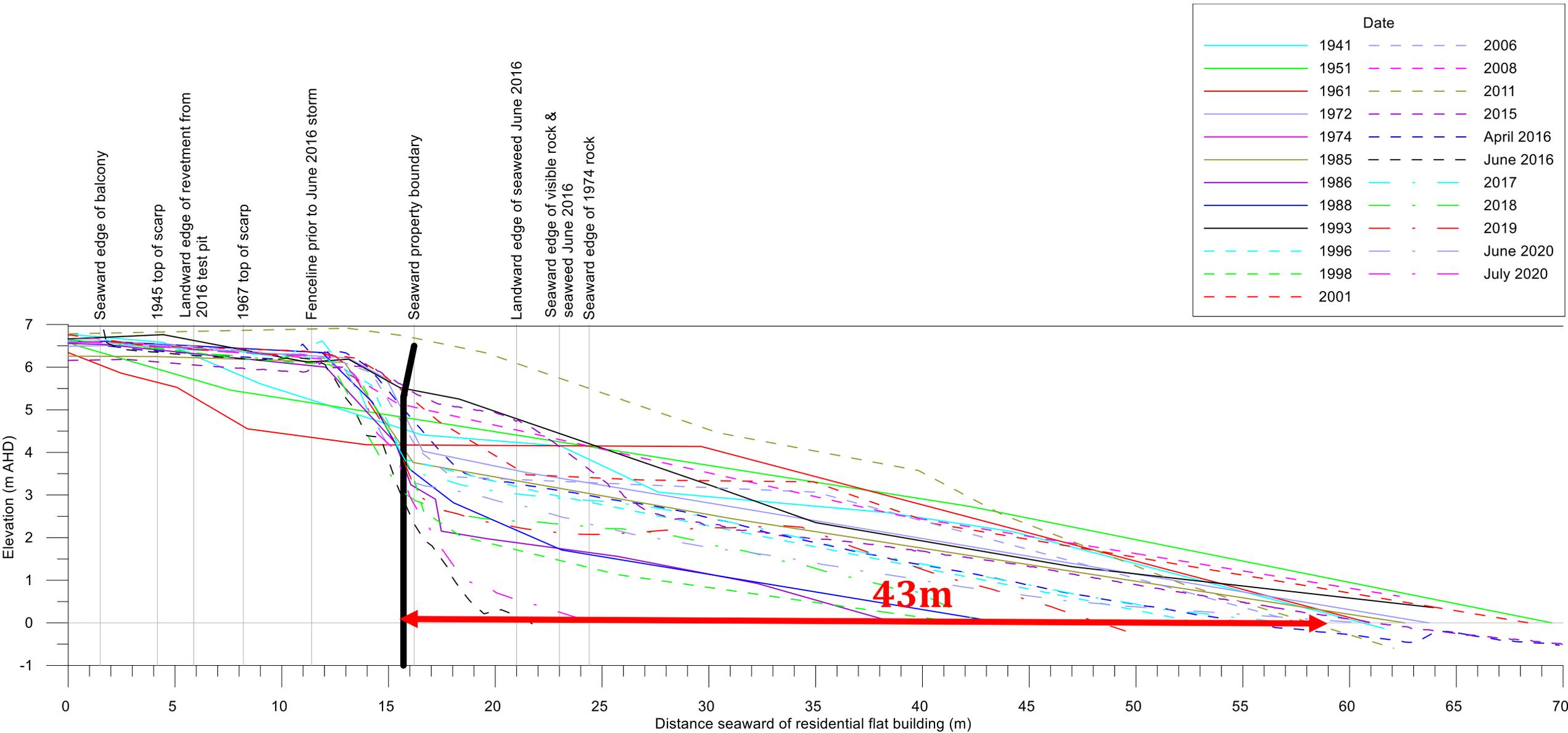
Steve Cole • 2nd

4mo ...

Marine, coastal and Defence environmental management

yes renourishment will be a separate budget administered by a separate agency and not part of the present works (inserts look to the heavens) People will be complaining within 6 months of its completion that there is no beach at high tide and its unsafe...

how ironic that more fossil fuels will be expended to perform the beach nourishment which is needed because of AGW effects on sea level....



Vertical wall

- greater sand loss?
- slower recovery from storms?

The Effects of Seawalls on the Beach: Part I, An Updated Literature Review

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ABSTRACT

KRAUS, N.C. and McDOUGAL, W.G., 1996. The Effects of Seawalls on the Beach: Part I, An Updated Literature Review. *Journal of Coastal Research*, 12(3), 691-701. Fort Lauderdale (Florida), ISSN 0749-0208.

A previous review by the first author of the literature on the effects of seawalls on the beach is extended to cover the period 1988 to the present. The review synthesizes knowledge on beach profile change, longshore sand transport, and scour in the vicinity of seawalls. Remarkable progress has been made since 1988, with new phenomena and observations reported, such as on longshore transport processes at walls. Some previous results and conclusions of the 1988 review have been cast into doubt, with example new results being that (1) wave reflection at walls may not be a significant contributor to profile change, and (2) scour at seawalls in the field may be more a product of longshore transport and return of overtopping water than a result of direct cross-shore wave action. The validity or usefulness of small-scale physical model tests is questioned. Conclusions and recommendations for future work are given. This paper is the first of a companion set of papers that investigate the effects of seawalls on the beach. The second paper presents a numerical model of cross-shore transport and beach profile change at seawalls that includes wave reflection, and it compares predictions to measurements made at the SUPERTANK project and to recent results found in the literature on scour at walls.

ADDITIONAL KEY WORDS: *Seawalls, beaches, scour, erosion, shore protection, physical models, literature review.*



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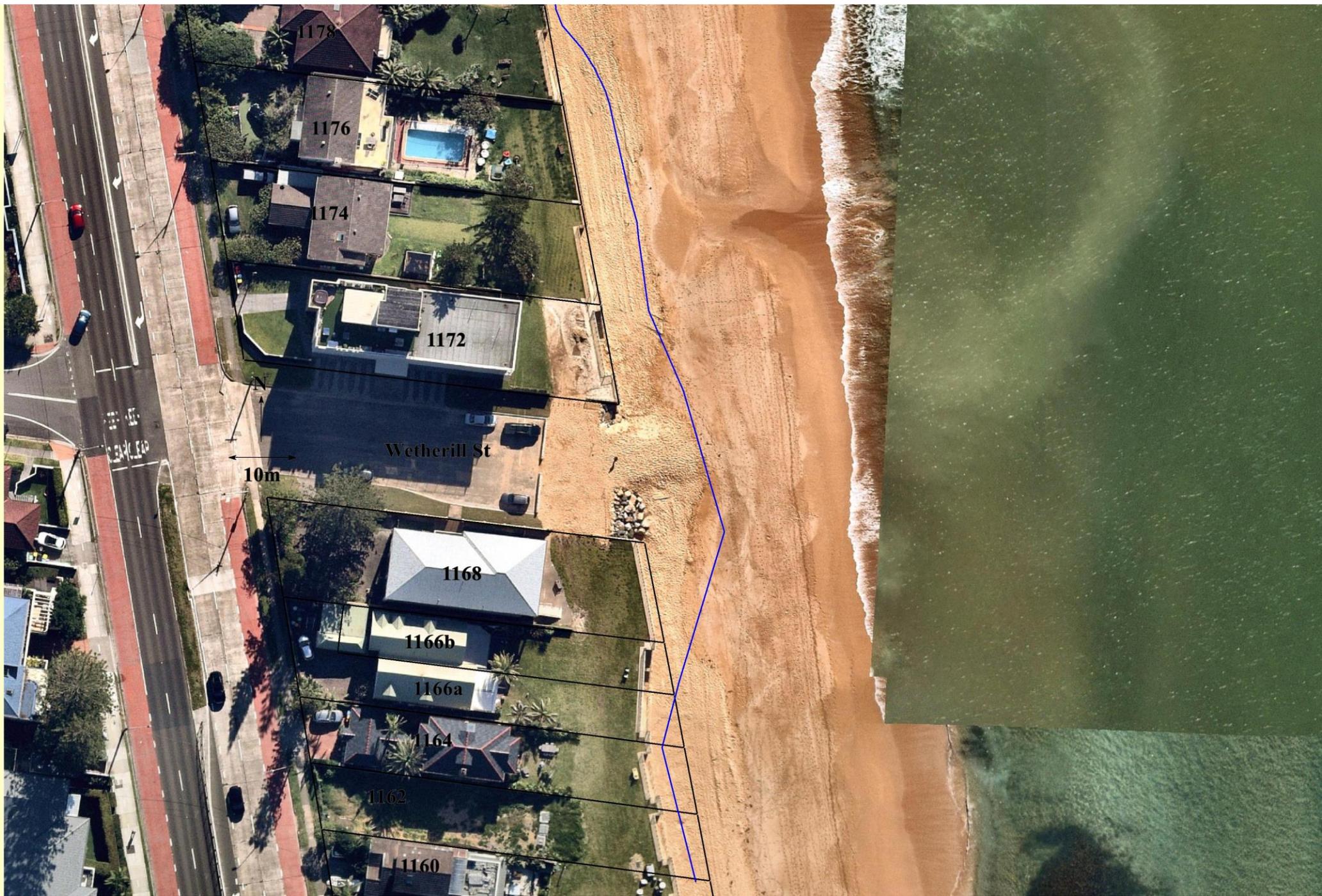
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Vertical wall

- “During storms, the beach profile in front of a wall retains about the same amount of sand (has about the same general shape) as a beach without a wall, because wave reflection does not appear to greatly influence overall profile shape”
- subject to peer review



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Wetherill St

10m

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Musings

- vastly improves existing situation
- win for public and landowners
- improved beach amenity
- a success story of coastal management
- thoroughly connected to an understanding of coastal processes
- government put a ridiculous burden on landowners
- they achieved what government had not in 55 years

Musings

- careful trusting an “expert” who does not know the details
- even “experts” have bias and agendas
- social media is a poor information source
- mainstream media is generally no better



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Sydney storm destroys hated Collaroy Beach sea wall

Locals have found a key flaw in a “farcical” feature at a popular Sydney beach, with the council scrambling to ensure it’s protected from wild weather.

Jessica Wang



@imjesswang_



2 min read March 3, 2022 - 6:21PM



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Questions?

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